

Design Course

Systems Design Project

Interconnected and form a System within Defined Boundaries

by

Prof. Ravi Poovaiah, Prof. Vivek Kant,
Prof. Pramod Khambete and Dr. Ajanta Sen
IDC, IIT Bombay

Source:

<https://www.dsource.in/course/systems-design-project>



1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
5. Videos
6. Contact Details

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<https://www.dsource.in/course/systems-design-project/aims-systems-design-project>

Aims of Systems Design Project

Aim:

The aim of this project is to understand and design for problems from socio-economic-cultural-political-technology-sustainability perspective that are complex, uncertain, interconnected and form a system within defined boundaries

Content:

- . Design of system level solutions so that design can be thought of as interrelated, circular. Holistic and dynamic.
- . Understanding, strategizing, conceptualising and designing for complex systems.
- . Design solutions that are suitable for transportation, education, publishing, retailing, etc.

Team Work:

It involves the students having different skills and strengths working as a team solving a relatively complex design problem.

You can form teams with max 3 students collaborating together. Make sure the teams formed are based on having different skill-sets and not necessarily based on friendship.

The teams will collaborate with feedback from faculty mentors for inputs and suggestions.

We'll meet twice a week on Monday morning/afternoons (for presentation + report submission + Feedback) and Thursday morning/afternoons (for discussions) and if it's an 'emergency', on other days.

So basically, you need to take responsibility for your team, be professional and make sure you put in the efforts and commitment.

The students will solve a system level problem and will have to come out with an appropriate solution using product/s or service/s by the end of the project.

What will you learn?:

- . Adopt a design process and methodology for designing complex systems level problems
- . Conduct independent research, understand the problem space, synthesize, map the relationships, be able to think critically and find appropriate design solutions
- . Able to work in teams and collaborate to solve complex problems
- . Confidence in being creative and innovative and convert ideas into workable prototypes for large scale issues and problems spanning different fields.

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References:

- John Thackara; In the Bubble: Designing in a Complex World, The MIT Press, 2005
- Bruce Hanington, Bella Martin, Universal Methods of Design: 100 Ways to Research Complex Problems, Develop Innovative Ideas, and Design Effective Solutions, Rockport Publishers, 2012
- Donald A. Norman, Living with Complexity, MIT Press, 2010
- Jeffrey Whitten and Lonnie Bentley, Systems Analysis and Design Methods, McGraw-Hill/Irwin, 2005
- Gerald M. Weinberg, Daniela Weinberg, General Principles of Systems Design, Dorset House, 1988

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Source:

<https://www.dsource.in/course/systems-design-project/course-schedule-and-grading>

Course Schedule and Grading

Presentation/meeting schedule:

Every Monday morning/afternoons (for presentation + report submission + Feedback) and
Every Thursday morning/afternoons (for discussions) and
if it's an 'emergency', on other days.
Final Presentation on Week 5

Grading: Total Credits for DEP 302 - 6 credits

based on your presentation + report submissions every week and the Final Presentation and the final report submissions

Week 1: Presentation Slides + Report Submission (15%)

Week 2: Presentation Slides + Report Submission (15%)

Week 3: Presentation Slides + Report Submission (15%)

Week 4: Presentation Slides + Report Submission (15%)

Week 5: Final Presentation Slides + Final Presentation Video + Final Report Submission (40%)

Presentation Essentials:

- a. Present in an engaging and crisp manner
- b. Design the slides/visuals to reflect the relevance of your topic
- c. Use your communication design skills to make the presentation visual
- d. Design proper layout; use appropriate type, colour and background
- e. Its nicer if all the team members take turns in presenting
- f. It makes sense to have main titles, subtitles and then running text/images
- g. Have a summary/content slide at the beginning
- h. Make good use of appropriate media in the presentation
- i. Use appropriately theatre, drama, story, scenarios, video, etc. to convey your ideas
(Preparing a script is a good idea – reading text from the slide should be avoided)

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Source:

<https://www.dsource.in/course/systems-design-project/problem-statement>

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Problem Statement

Dates and submissions:

Final Submission date: Week 5

Task:

You need to choose a complex problem area to solve.

You could select from the below mentioned topics or choose your own topic

The aim of this Systems Design Project is to research, understand, visualize, synthesize and design for problems from socio-economic-cultural-political-technology-sustainability perspectives that are complex, uncertain, interconnected and form a system within defined boundaries.

Suggestions for Design Process:

- You could follow this as a process for design: a combination of 'Systems Thinking' and 'Design Thinking/Process' methods
- You could use 'Mapping' as a tool for understanding the relationships and the interconnectedness between the different elements, components, issues, behaviors, environments. Ex – Giga Maps, Cluster/Nodal Mapping, Circular Mapping, etc.
- Framing your problem Space:
 - a. Identify the system boundary (what you include inside the system and what you keep in the environment)
 - b. Identifying the various perspectives (individuals, user groups, stakeholders, behaviours, environment, culture, etc).
 - c. Identifying the various parts(entities) and subparts (elements/module/attributes).
 - d. Identifying how the parts connect to the whole
 - e. Identifying the relationships that exist and binds the parts together
 - f. How is the system revealed at the holistic level by interconnecting the parts

Suggested Problem Areas to Solve:

- Alternate Urban Transportation System
- Sharable Cycle System
- Household Waste management System
- Mobility System for People with Disability
- Rainwater harvesting systems
- Sustainable Home Systems
- Signage and Wayfinding Systems for India
- Green and Smart Home Systems

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Source:

<https://www.dsource.in/course/systems-design-project/problem-statement>

- Multi-lingual Typography system for India
- Sharable Cycle System
- Maternity Care System
- Mental Health Care System
- Cold-Chain Systems
- Medicine tracking and Distribution System
- Flexible Layout System for Bilingual Magazine
- Grid System for pattern Making

Grading:

based on your presentation + report submissions every week and the Final Presentation and the final report submissions

Week 1: Presentation Slides + Report Submission (15%)

Week 2: Presentation Slides + Report Submission (15%)

Week 3: Presentation Slides + Report Submission (15%)

Week 4: Presentation Slides + Report Submission (15%)

Week 5: Final Presentation Slides + Final Presentation Video + Final Report Submission (40%)

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Source:

<https://www.dsource.in/course/systems-design-project/projects>

Projects



Navaaz EV Charging Solution



The Indian Medicine System



The BudBud Foundation



Indian Education System



Sustainable Housing Systems



Cultural Identity of Kerala

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3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b. The Indian Medicine System
 - 4c. The BudBud Foundation
 - 4d. Indian Education System
 - 4e. Sustainable Housing Systems
 - 4f. Cultural Identity of Kerala
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Source:

<https://www.dsource.in/course/systems-design-project/projects/navaaz-ev-charging-solution>

Navaaz EV Charging Solution



Week One - Need Finding and understanding the Problem



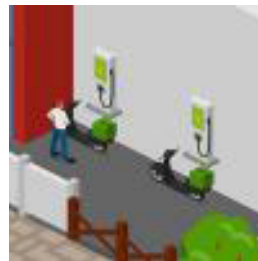
Week Two: Identify your Problem Area and Focus on it



Week Three: Ideation - Focus on Problem Area



Week Four: Focus on Soft Prototyping



Week Five: Presentation on Final Design Solution

1. Aims of Systems Design Project
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3. Problem Statement
4. Projects

4a. Navaaz EV Charging Solution

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- 4a.2. Week Two: Identify your Problem Area and Focus on it
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4a.4, 4a.5

4b, 4c, 4d, 4e, 4f

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3. Problem Statement

4. Projects

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4a.1.1. Presentation

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4a.4, 4a.5

4b, 4c, 4d, 4e, 4f

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Week One - Need Finding and understanding the Problem

Project Report

- [Mood Indigo \(Problem Identification\).....](#) (3760 kb)



Presentation

Week One: Need Finding and understanding the Problem

- Form Working Groups
- Selection/Identification of System Design Problem (Why, how, whom, where, when)
- Worldview Mappings (Brainstorming, Card Sorting, Affinities, Network Maps) - Broader Perspective
- Secondary Research - Understanding Problem – Design/Media/Technology Search - Existing Solutions – History
- Future Study Papers - etc.
- Identify User Groups - Understanding User Needs – Talking to Experts - Primary Research (Contextual Inquiry)
- Next Steps

End of Week One: 1st Stage – Understanding the Problem Presentation

Grading Points: 15%

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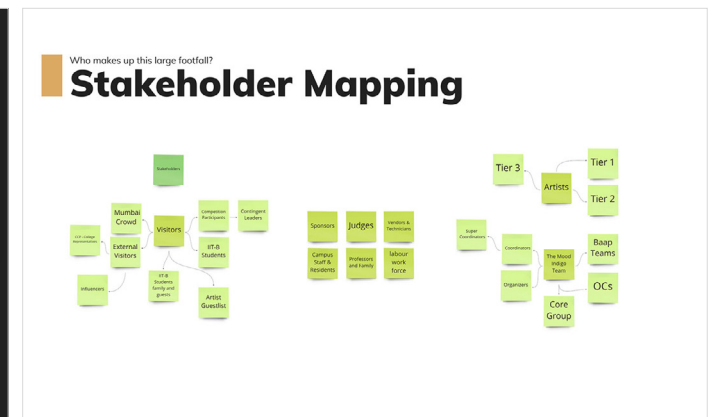
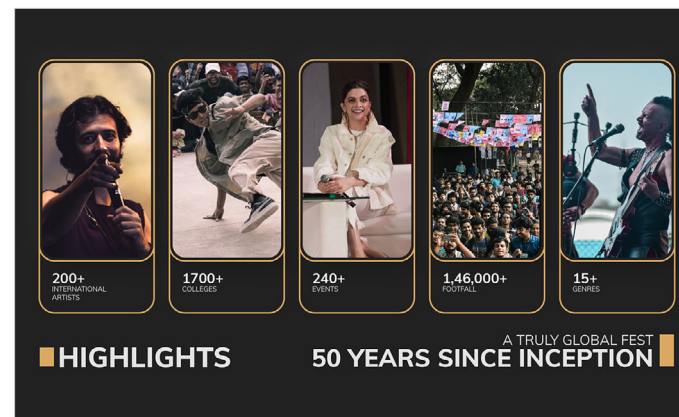
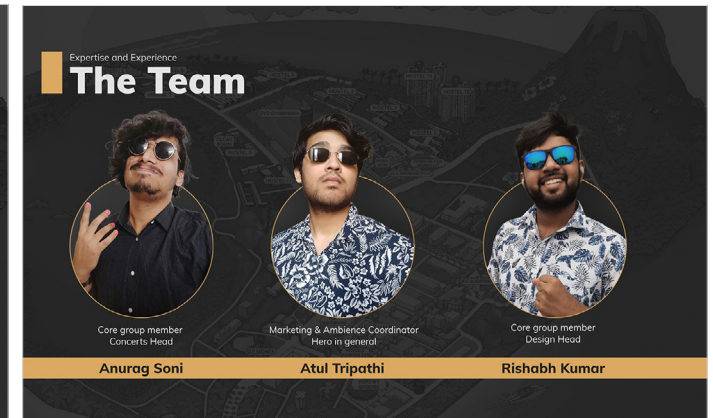
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Presentation

Presentation

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3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4a.1. Week One - Need Finding and understanding the Problem
 - 4a.1.1. Presentation
 - 4a.2. Week Two: Identify your Problem Area and Focus on it
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 - 4a.4, 4a.5
 - 4b, 4c, 4d, 4e, 4f
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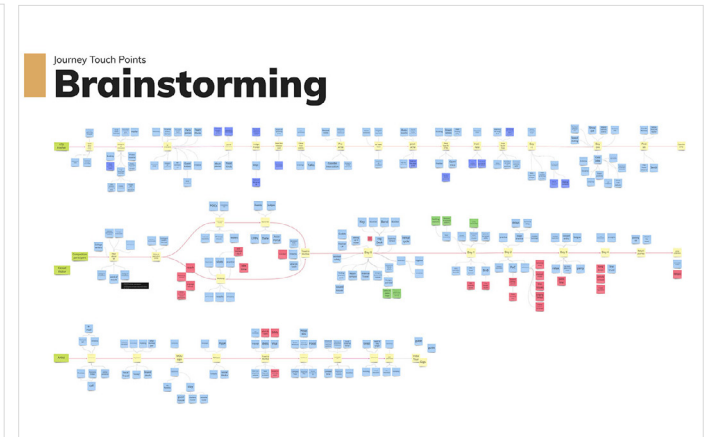
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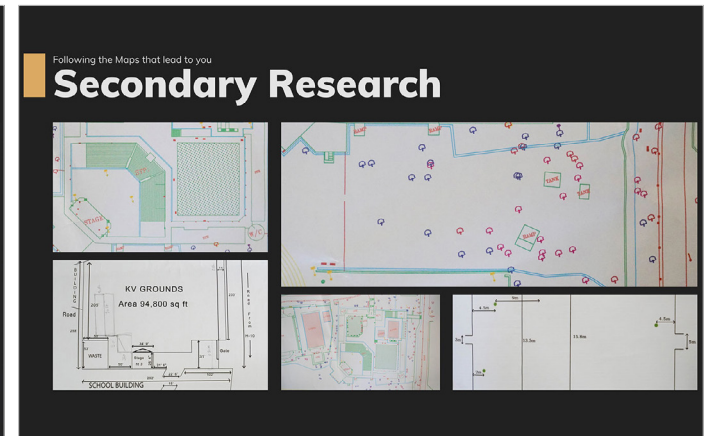
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Papers Please!
Secondary Research

This section displays several research papers and documents used for secondary research, including 'Researching Audiences at Outdoor Events and Festivals' and 'Lessons in Managing Values Experiences'.



The Brainstorming wasn't just for show
Key Findings

- Stakeholders and their viewpoint
- Helped in understanding their Priorities
- Setup Interview/survey questions
- Stakeholders as elements of the system
- Causes behind their Problem
- Areas to focus on
- Visitor flow experience
- The various ways they interact with other stakeholders and Mood Indigo as a body

Emerging Themes

Some System Design ideas came out of the exploration

- Themes (What is Changing)
- Systems involved (Elements)
- Any metrics we can use (Data)
- Possibility of an Intervention

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3. Problem Statement

4. Projects

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4a.4, 4a.5

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6. Contact Details

Communication and Redressal

Grievance System


- During fest and post fest
- Harassment Issues, Comfort in Communication
- Feedback Collection
- Redressal Status
- Who will address the problems? (Problem allocation)
- Online portal, data collection, Committees, penalties, Rules
- Metrics:** Satisfaction, time taken for addressal



Reduction and Optimization

Idle Time


- Registration Queue, Passes Queue, Pronights Queue - Bottlenecks
- Projections of venue (Assurance that progress is being made, assurance)
- Before competitions and before result announcements
- Judges deliberations (Opening-Closing acts)
- Coordi - Coordi Communication
- Sponsor - Visitor interaction possibility
- Finding Venues, Washroom, Shops, Food preparation
- Scheduling system, crowd management systems,
- Metrics:** Boredom, Time taken



We aim to please

Visitor Fest Experience

- Take Back Value
- Brand Image improvement
- Visitor psychology, Decision making
- Revisiting students
- Good faith with sponsors/ vendors
- Journey Pain points to be minimised
- Train the team for hospitality? (how to host and interact)
- Travel, Acco, hospitality, Food, Experiences
- Metrics:** Comfort, Satisfaction, Expectations met, Fun, Footfalls, Ratings



Something to build upon

Data Collection

- Metrics are needed as proof
- Useful tool in Management and planning
- Measure whether future upgrades have a positive or negative effect
- Would require additional resources. (don't know if worth it or not yet)
- Footfall, registrations, venue capacity etc already there
- Ethics of data collection permission of usage. Terms and conditions have to be set up for legality
- Qualitative data (Happiness, Satisfaction, Comfort)
- Quantitative (Footfall, Budget Distribution, Expenditure)
- Processing of Data, Visualisation, and Analytics
- Live crowd management, Predefined notifications, Personalised Ads etc for the future generations



For MI is nothing without its volunteer workforce

Inter-Dept Communication

- Setting up channels across multiple hierarchies
- Time Taken is reduced
- (On the spot decision making)
- Coordinator work portals
- Sensitive data?
- Filtering important and unimportant data (earlier done by CGs)
- Team Building Exercise
- Collective Vs One-on-One
- Physical as well as digital monitoring and collabs with miro, MStems, CISCO etc.



A free for all event also bears the onus of being safe for all

Personal Safety & Security

- Stampedes, Lathi Charge
- Women's safety
- Personal Space during Pronights
- Communication of grievance
- Fire Safety and medical emergency procedure
- Contraband + Drugs + Alcohol + Forging tickets
- Security Personnel + Security Coordinators + role of other organisers + IIT B Rules + CCTVs
- Road blocks and transportation of big artists
- Gate Pass system
- Grievance system + addressal system + drills and spot checks + accountability
- Metrics:** Feeling of safety + safety scale

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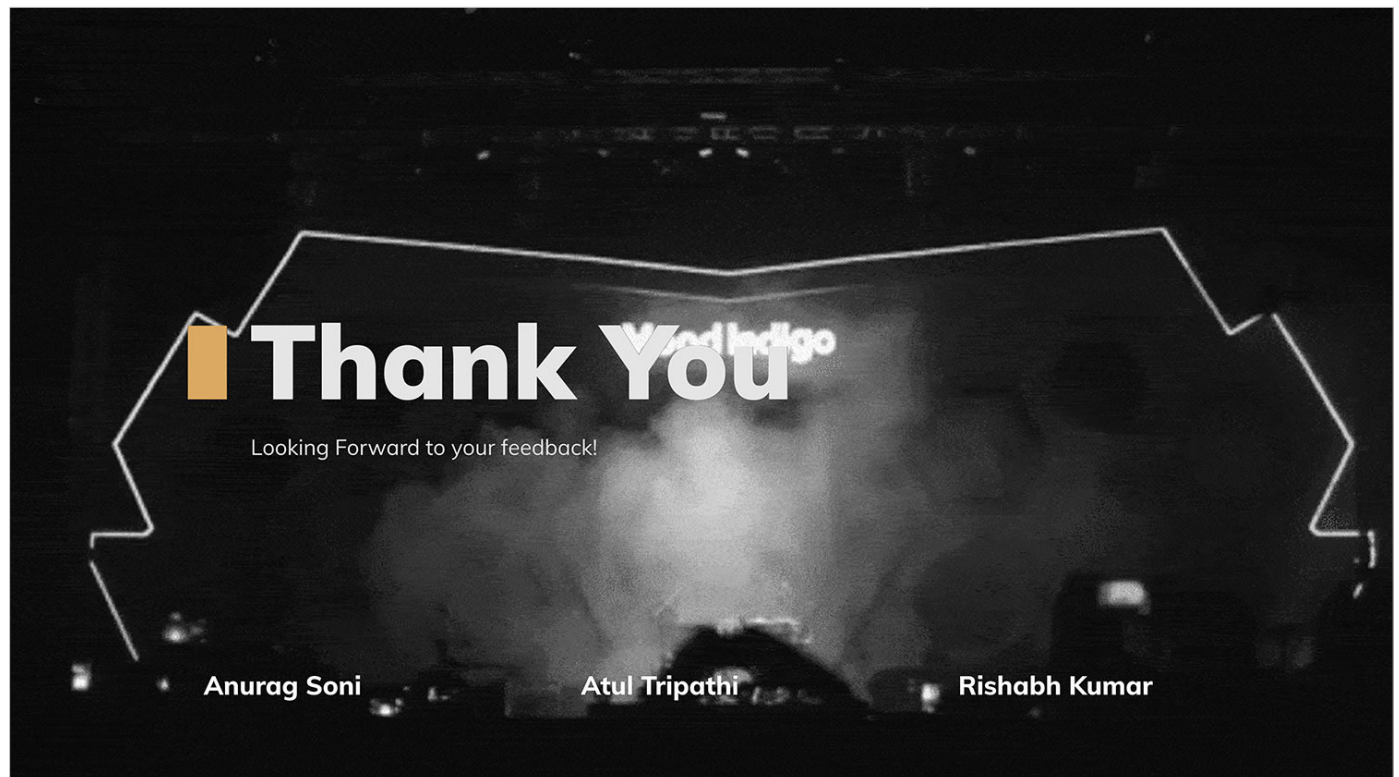
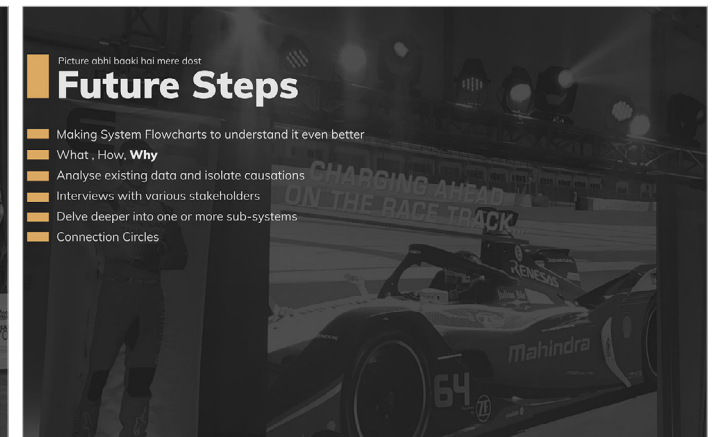
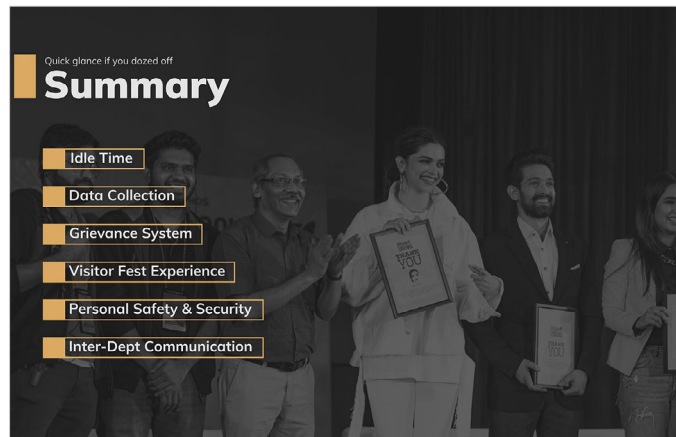
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2. Course Schedule and Grading
3. Problem Statement
4. Projects
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 - 4a.1.1. Presentation
 - 4a.2. Week Two: Identify your Problem Area and Focus on it
 - 4a.3. Week Three: Ideation - Focus on Problem Area
 - 4a.4, 4a.5
 - 4b, 4c, 4d, 4e, 4f
5. Videos
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3. Problem Statement

4. Projects

4a. Navaaz EV Charging Solution

4a.1. Week One - Need Finding and understanding the Problem

4a.2. Week Two: Identify your Problem Area and Focus on it

4a.2.1. Presentation

4a.3. Week Three: Ideation - Focus on Problem Area

4a.4, 4a.5

4b, 4c, 4d, 4e, 4f

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Week Two: Identify your Problem Area and Focus on it

Project Report

- [Mood Indigo \(Problem Identification\).....](#) (941.98 kb)



Presentation

Week Two: Identify your Problem Area and Focus on it + Report + Presentation

- Till now you have looked at a broader perspective of your problem area and you have looked at cross connections as well as inter-connectedness at a macro level
- Within this broader area now you need to find an area to work keeping the broader connections in mind
- Some of the tools that might be help in terms of understanding are Causal Diagrams, Network Mappings, Assigning Priority and Hierarchy, Looking at it from temporal and spatial perspective (activity flow diagrams)
- Do go ahead with both the secondary as well as primary research
- Start with Analysis of the Problem
- Identify the next steps

End of Week Two: 2nd Stage – Understanding the Problem Presentation

Dates:

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

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Submission:

Slide presentation + Report submission (must for grading)

- a) Presentation Slides – upload it on the google classroom Week 2
- b) Project Report – upload it on the google classroom Week 2

Grading Points: 15%

Source:

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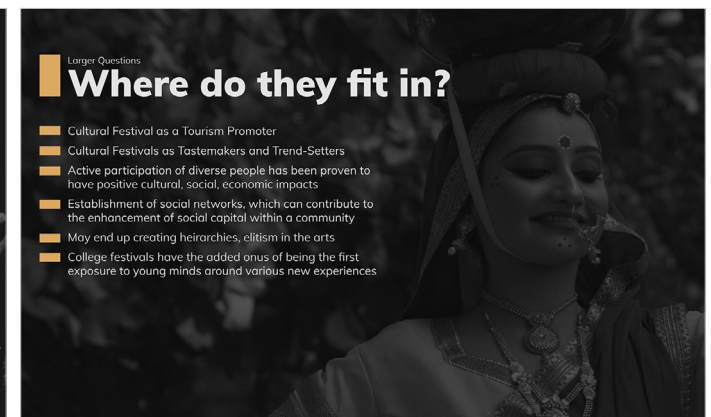
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Zooming out

A Broader View

Tier 1
Global

Tier 2
National

Tier 3
College Fests

A higher budget category with international following, massive budgets, and a dedicated year long staff. VIP attendees, liberal attitudes, alcohol, uncensored music.

A national level fest with attendees across the nation, more reserved but also cheaper. National stars alongside international B-listers, regional music, regional foods.

For college students by college students, conservative outlook, restrictions, non-profit. Sponsors are imperative but budget, time, labour, college image are all constraints.

Zooming out

A Broader View

Zooming out

A Broader View

Zooming out

A Broader View

Looking through the third eye

Major Insights

- Large scale Festivals have a tie up with local tourism boards and governments
- The locality becomes a stakeholder and festivals can be community driven and or crowdsourced
- The Influence draws higher quality of sponsors and the ambience of the Fests are not negatively effected.
- A large enough Festival doesn't have to buy press...
- Tier 2 size fests are either trying to replicate a tier 1 experience or are delivering on a very local taste.
- They enjoy the support of youth-oriented sponsors who may not have a more direct platforms to market on (eg. Alcohol, Condoms, Adult toys etc.)

Lol, thoda aur bacha tha

Major Insights

- A major disadvantage for college fests is that they are heavily censored by their respective college authorities.
- College fests are also not only limited to being a talent showcase as unique aspects such as competitions and other crowd engagements form a major part.
- Managers and the team cycle annually.
- Difficulty to find a singular source of sponsorships results in a very commercialized experience.

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4a. Navaaz EV Charging Solution

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4a.2. Week Two: Identify your Problem Area and Focus on it
4a.2.1. Presentation

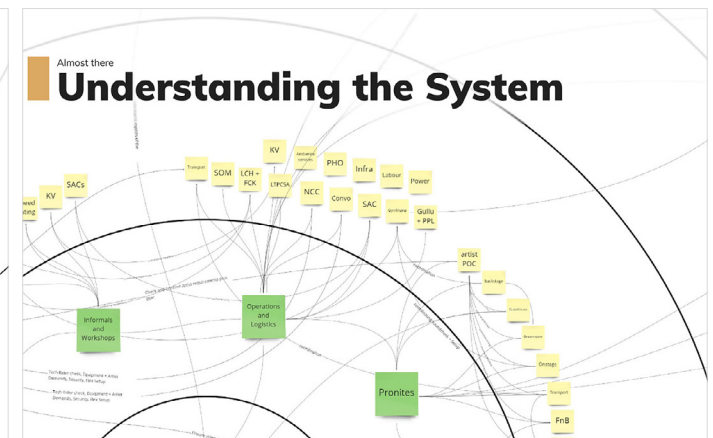
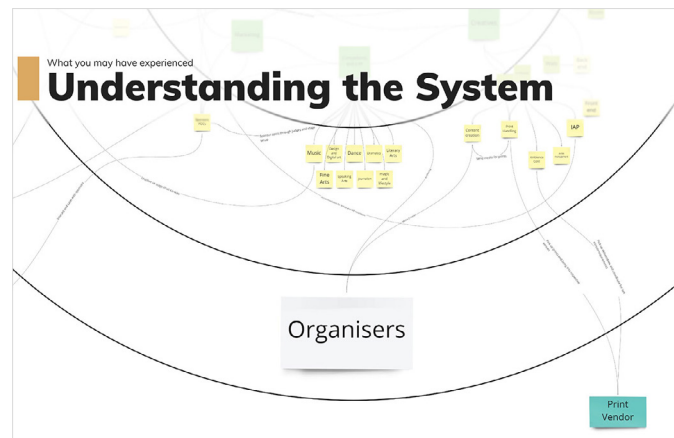
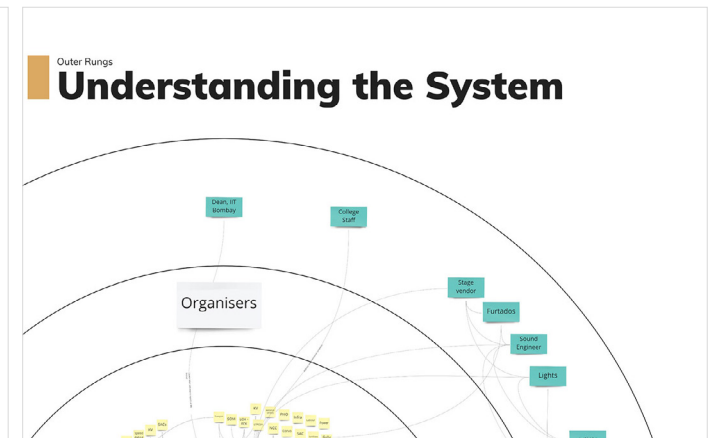
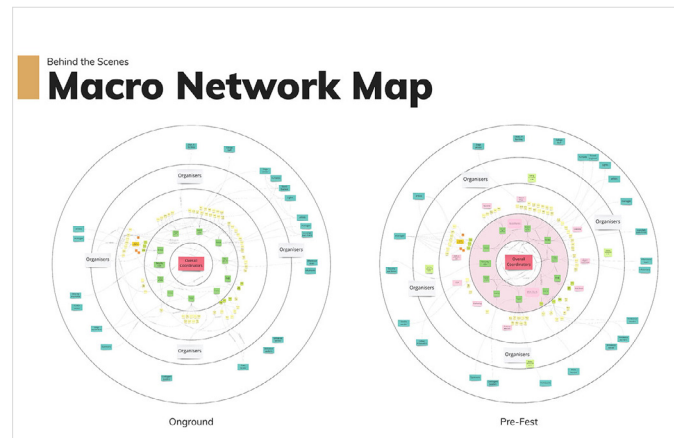
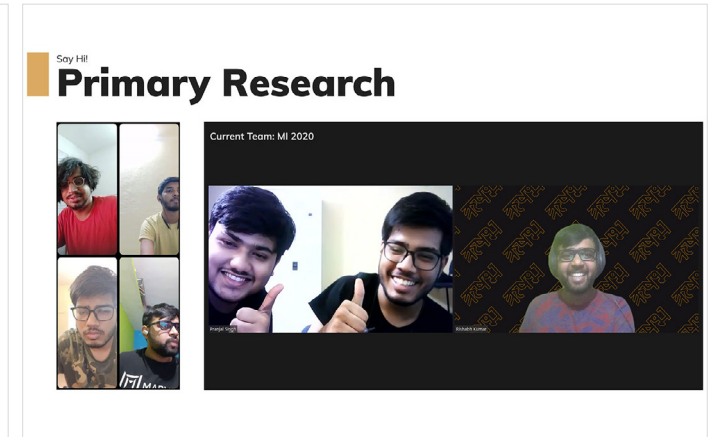
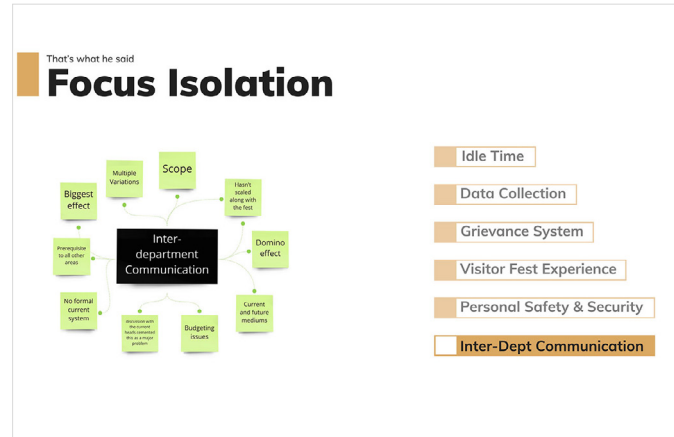
4a.3. Week Three: Ideation - Focus on Problem Area

4a.4, 4a.5

4b, 4c, 4d, 4e, 4f

5. Videos

6. Contact Details



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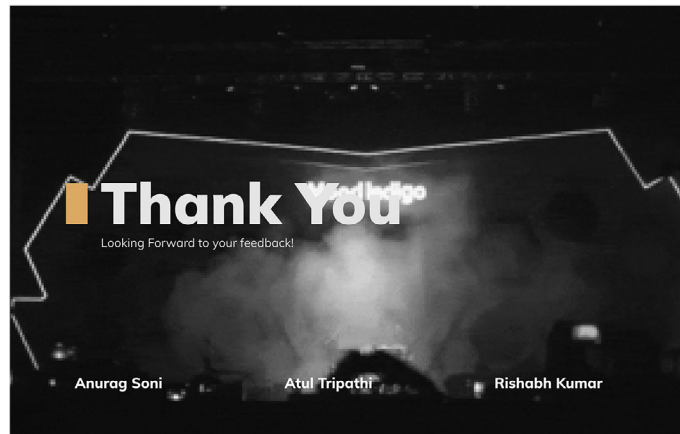
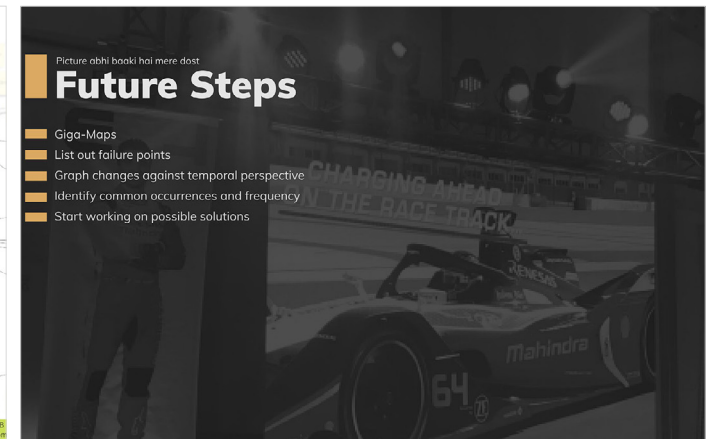
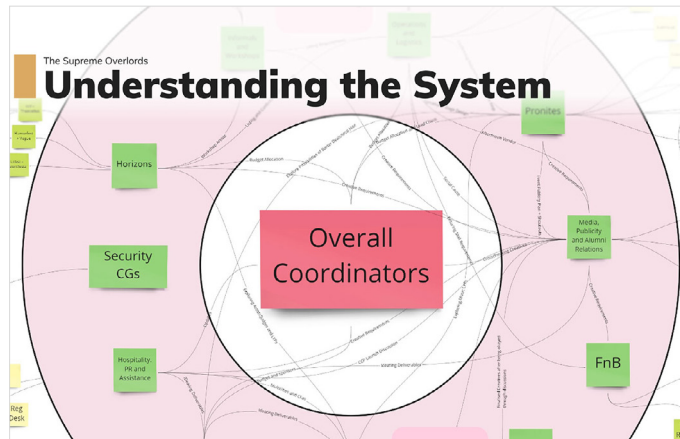
by

Prof. Ravi Poovaiah, Prof. Vivek Kant,
Prof. Pramod Khambete and Dr. Ajanta Sen
IDC, IIT Bombay

Source:

<https://www.dsource.in/course/systems-design-project/projects/navaaz-ev-charging-solution/week-two-identify-your-problem-0>

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3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4a.1. Week One - Need Finding and understanding the Problem
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<https://www.dsource.in/course/systems-design-project/projects/navaaz-ev-charging-solution/week-three-ideation-focus-problem>

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3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
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 - 4a.3.1. Presentation
 - 4a.4, 4a.5
 - 4b, 4c, 4d, 4e, 4f
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6. Contact Details

Week Three: Ideation - Focus on Problem Area

Project Report

- [Mood Indigo \(Problem Identification\).....](#)  (1290 kb)



Presentation

Week Three: Focus on Problem Area & Sub-Areas + Insights + Opportunities + Ideation + Report + Presentation

Suggested next steps: (you could follow your own method)

1. Within the focused problem area now you need to identify sub-areas to work keeping the broader connections in mind
2. I'm sure you have by now done the causal diagrams of your problem Area and its sub- Areas (or sub-systems) with its interconnections both in the forward (progressive) and backward (negative) directions. identify if there are any delays in these connections. Do not miss the big picture and do see if you can gain insights from this mapping analysis.
3. Also by now your primary and secondary research in the chosen focused area should give you insights/observations and point towards design opportunities
4. If you would like, this is a good time to redefine your problem statement
5. And start with ideation to solve problems concerning your sub-areas (for this you'll need to Brainstorm + Group Ideation + Fast Visualisations/sketching)
5. You could start with Concept maps or Network diagrams of your ideas by connecting parts of your proposed system to people, activities, objects, spaces and time

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6. The ideation could also be through scenarios

End of Week Three: 3rd Stage – Ideation Presentation

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

Submission: Slide presentation + Report submission (must for grading)

a) Presentation Slides – upload it on the google classroom Week 3

b) Project Report – upload it on the google classroom Week 3

Grading Points: 15%

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3. Problem Statement

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4a.3. Week Three: Ideation - Focus
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4a.3.1. Presentation

4a.4, 4a.5

4b, 4c, 4d, 4e, 4f

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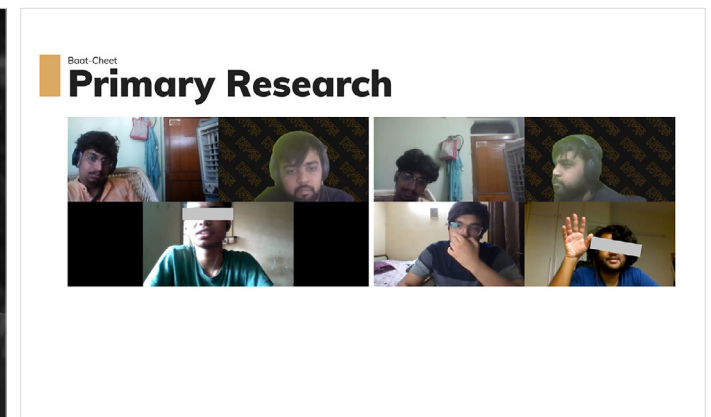
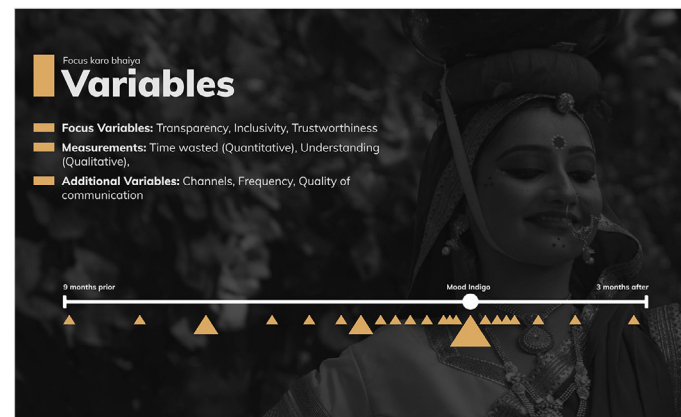
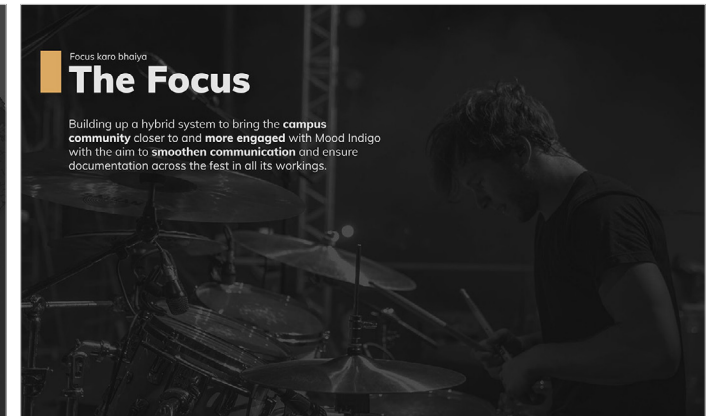
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Presentation

Presentation

- **Mood Indigo (Problem Identification).....**  (84550 kb)



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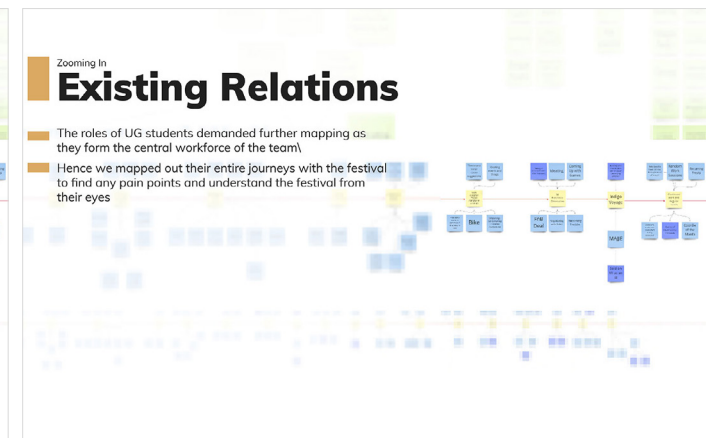
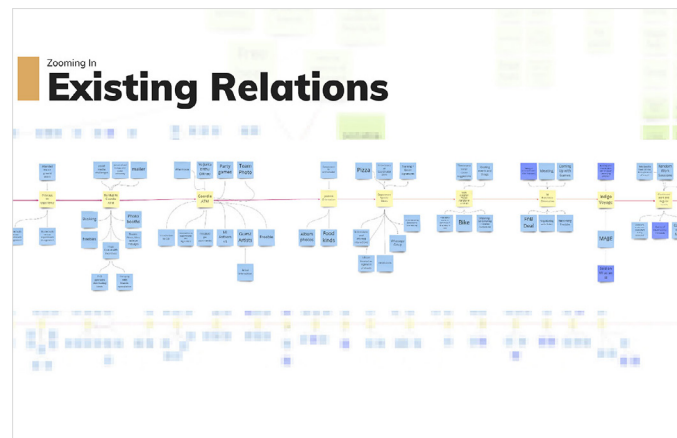
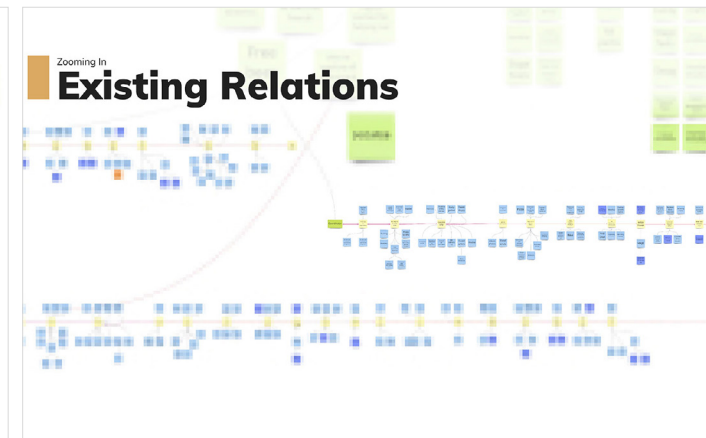
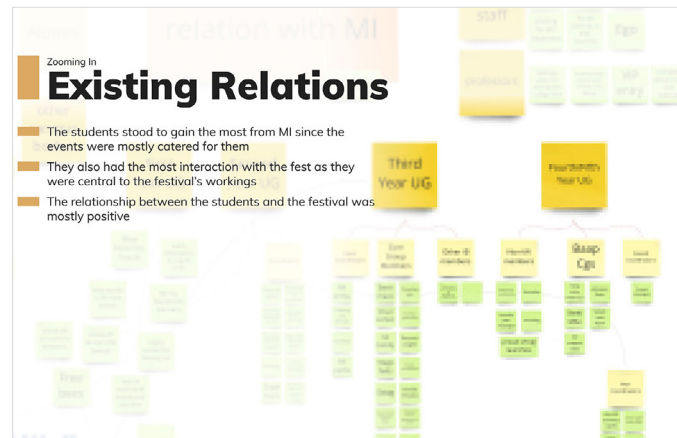
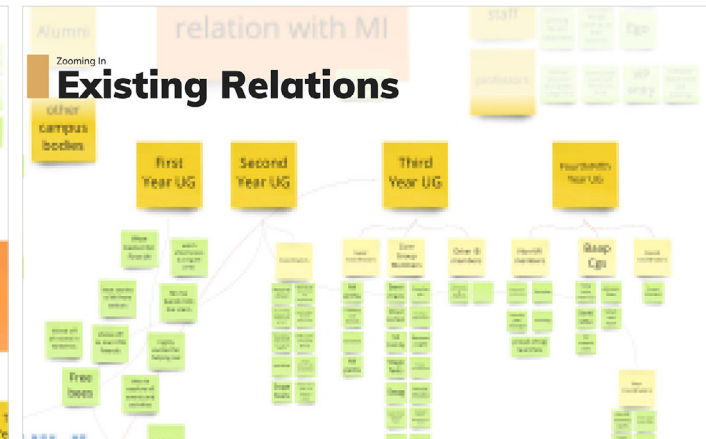
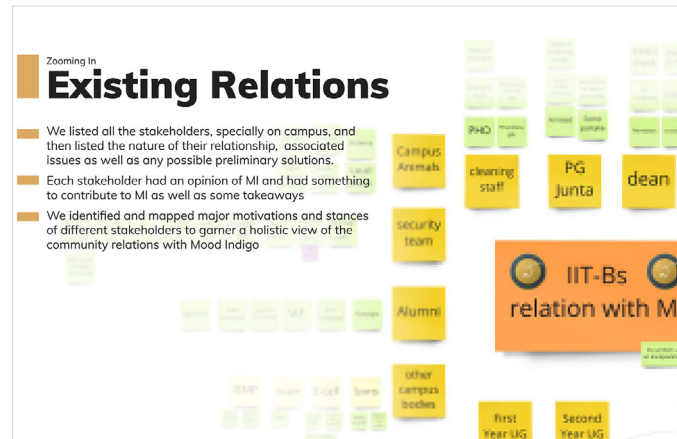
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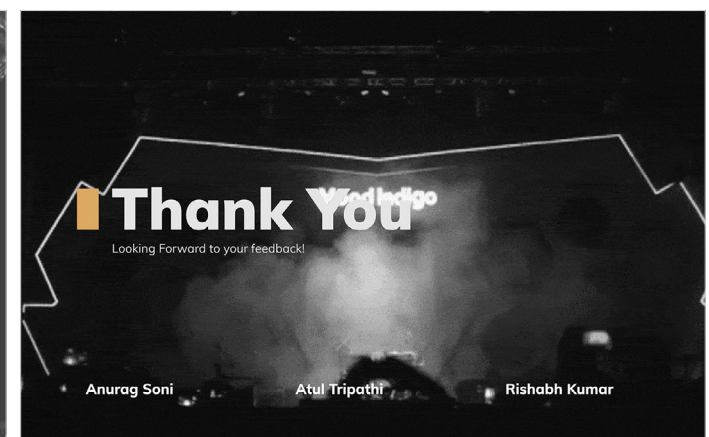
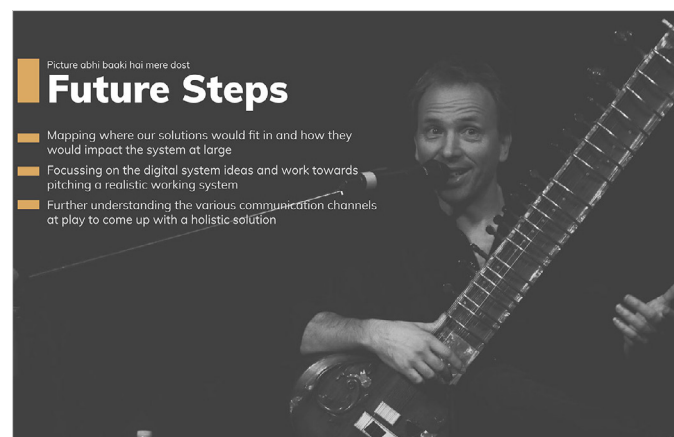
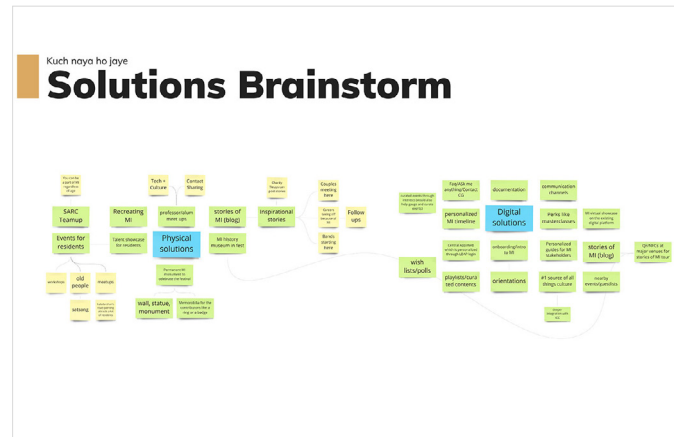
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4a.1, 4a.2

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4a.4.1. Presentation

4a.5. Week Five: Presentation on Final Design Solution

4b, 4c, 4d, 4e, 4f

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Week Four: Focus on Soft Prototyping



Presentation

Week Four: Focus on Soft Prototyping to Final Prototyping + Report + Presentation

Suggested next steps: (you could follow your own method)

1. Choose your final concept from ideations for the solution to your system design problem area
2. You could use any of the methods that you are familiar with for prototyping: to name a few: Walk-through Scenarios, Concept Videos, Personas, Mock-ups, Proof of Concept, etc.
3. The final concept could involve any of the following:
 - 2D/3D design Sketches + Physical Prototyping + Visualisation + Virtual 3D Models
 - Interface/Communication/Media Design Detailing + Interface/Communication Simulation + Experience Design + Service Blueprints and design
4. Do give thoughts on the Final Prototyping
5. How would you get feedback on your solution? Will you try to evaluate?

End of Week Four: 4th Stage – Prototype Presentation

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

Submission: Slide presentation + Report submission (must for grading)

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Final Design Solution

4b, 4c, 4d, 4e, 4f

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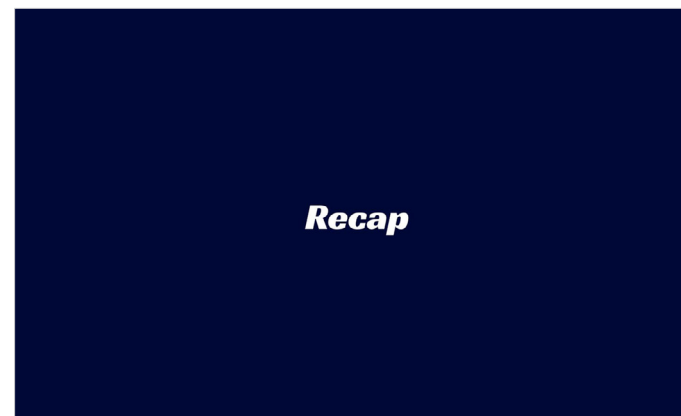
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Presentation

Presentation

- Mood Indigo (Problem Identification).....📄 (3390 kb)



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4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4a.1, 4a.2
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6. Contact Details

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Systems Design Project

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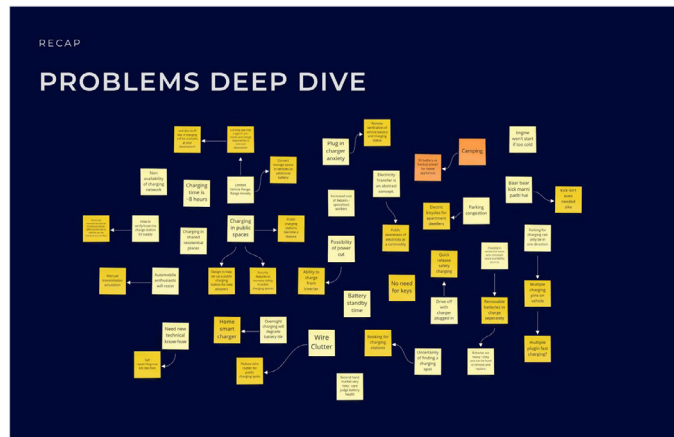
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RECAP

BROAD LEVEL IDEA GENERATION

Home Charging	Business Operations	Public Charging Systems	Charge Management
Quick release plug-in battery charging	Battery health monitoring in service stations	Public charging system including business features	System that plans the optimal parking location, arrival time, EV after 20%
Standard and safe overnight charging system	Public EV battery swapping facility	Private individuals can operate small scale EV charging stations and increase capacity through shared fleets	Charge management tool for fleets
EV rental and battery swapping program	Battery swapping for home charging	Shared vehicles can operate small scale EV charging stations and increase capacity through shared fleets	Dynamic management of service stations and charging rates
Modular charging gun connectors	Battery charging stations with shared batteries	Shared vehicles using the EV charging fleet as user is prepared before hand for EV battery swap and delivery of EV	Intuitive features
Decentralized charging network	Renewable electricity supply	Thinking for charging system between users	EV fleet management through optimal routes and tracking
Cost management for parking fee	Shared vehicles for last mile connectivity. Reduces vehicle inventory cost	Intuitive features	Public administration learning system
Home charging for battery swapping	Charge stations with mobile connectivity and EV battery swap facility	Shared vehicles with shared EV fleet	EV fleet management
Home charging for battery swapping	Home charging for EV battery swap	Shared vehicles with shared EV fleet	Intuitive administration to last mile. Add business features of all users
Home charging for battery swapping	Home charging for EV battery swap	Shared vehicles with shared EV fleet	Regulation training in EVs
Home charging for battery swapping	Home charging for EV battery swap	Shared vehicles with shared EV fleet	EV fleet that support the user to plan where they can swap the EV charge stations, both individually and

Areas of Interest

AREAS OF INTEREST

LISTING THE POSSIBILITIES

Haptics and sound simulation of MT for enthusiasts	System for battery buyback, exchange and recycling
Battery renting and swapping	Battery Charging mechanism for minimum obstruction
System to increase adoption of public chargers by third party businesses and private individuals	Removable battery ergonomics for battery swapping
Booking and pre-booking system for public chargers	Rental Service for last mile connectivity. Reinforces public transport use
Battery health and charge monitoring system	Incentives to increase EV transition
Making Home Charging convenient and easy to use	Remote EV monitoring and control
Installation and repair of Home chargers	Regulations in public spaces for EV transition
Public chargers business workflow (space design)	Redesigning infrastructure for an EV era

Evaluation

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4b, 4c, 4d, 4e, 4f

5. Videos

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EVALUATION

REAL - WIN - WORTH

IDEA	REAL	WIN	WORTH	TOTAL
Haptics and sound simulation of MT for enthusiasts	1	9	1	11
Making Home Charging convenient and easy to use	9	3	9	21
Installation and repair of Home chargers	9	3	9	21
Removable battery ergonomics for battery swapping	9	3	3	15
System for battery buyback, exchange and recycling	3	1	3	7
Incentives to increase EV transition	9	1	3	13
Public chargers business workflow (Space design)	9	9	3	21
Redesigning infrastructure for an EV era	3	3	3	9
EV mechanism for minimum obstruction	3	9	3	15
System to increase adoption of public chargers by third party businesses and private individuals	9	1	9	19
Battery renting and swapping	9	3	3	15

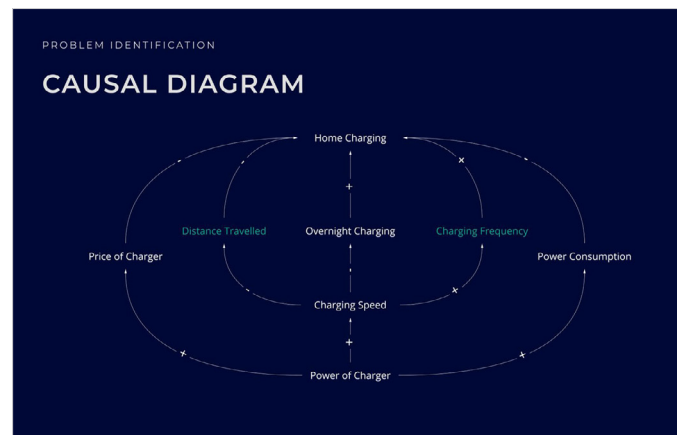
EVALUATION

CHARGING INFRASTRUCTURE

IDEA	REAL	WIN	WORTH	TOTAL
Haptics and sound simulation of MT for enthusiasts	1	9	1	11
<u>Making Home Charging convenient and easy to use</u>	9	3	9	(21)
<u>Installation and repair of Home chargers</u>	9	3	9	(21)
Removable battery ergonomics for battery swapping	9	3	3	15
System for battery buyback, exchange and recycling	3	1	3	7
Incentives to increase EV transition	9	1	3	13
<u>Public chargers business workflow (Space design)</u>	9	9	3	(21)
Redesigning infrastructure for an EV era	3	3	3	9
EV mechanism for minimum obstruction	3	9	3	15
System to increase adoption of public chargers by third party businesses and private individuals	9	1	9	19
Battery renting and swapping	9	3	3	15

Problem Identification

- PROBLEM IDENTIFICATION
- ### SCENARIOS
- Overcrowded parking lot with cable clutter
 - Slums with multi storey houses
 - Teenager that does chores for the family and attends classes
 - Delivery-persons of supermarkets and restaurants
 - Using of E2W for reaching the last mile from public transport hubs
 - Middle class commuter who does spontaneous short trips
 - People who carry heavy items on a two wheeler
 - Online delivery services like Zomato that use E2W through the day



PROBLEM IDENTIFICATION

ANTICIPATING PROBLEMS

Making Home Charging convenient and easy to use	Installation and repair of Home chargers	Public chargers business workflow (space design)
<ul style="list-style-type: none"> • Availability of other chargers too • Power source both for using, shows how fast it will charge • Common issues (problems) of installation or ground items with other chargers • Charging lock • Reduction in the cycle due to charging interruption • Sharing to chargers with neighbours, who pays for the electricity bill • No real-time cost of battery contact that physical • Repeating parking in the EV • Automated plug to connect when EV is detected • Wireless charging at parking locations • Modular portable chargers for remote area • Cable management • Cabled cables • Requirement of extra plug connection to charge EV • Charging through mobile device/ or even cable itself 	<ul style="list-style-type: none"> • Improves user/ customer experience to install EV charger • Self installation user kit • Charging cable connected either EV that shows clearly how to make the easy charging installation/ removal of battery • Interconnectivity with community having a standard • Take up space on top and store • Heavy charger that can be stored within the home when not in use • More charging overnight will occur based on the EV's electricity usage • Storage capacity for parking space to increase demand for electricity 	<ul style="list-style-type: none"> • It takes a month for a business when EV are charged • revenue generation and charge based on user charging will be reduced/ high maintenance • Car parking is already there connecting to bike • Public spaces and to connect for location of charge difficult to find the city centres • 20 parking spaces have an automated EV charger • EV charger that is small, structure, has easy to use for all types of EV parking area • Location public charging spots will be used • District signage for parking spots with EV charging availability • with EV based public charging network • Partners with public, Customer can charge and reuse without making payment • (Physical) charge amount generated by charging will be shared to user. If battery is low, the user can use other charging stations to recharge • Location about source of electricity • Solar panels will be on above parking surface as an additional source of power for charging.
PROBLEMS		
POSSIBLE SOLUTIONS		

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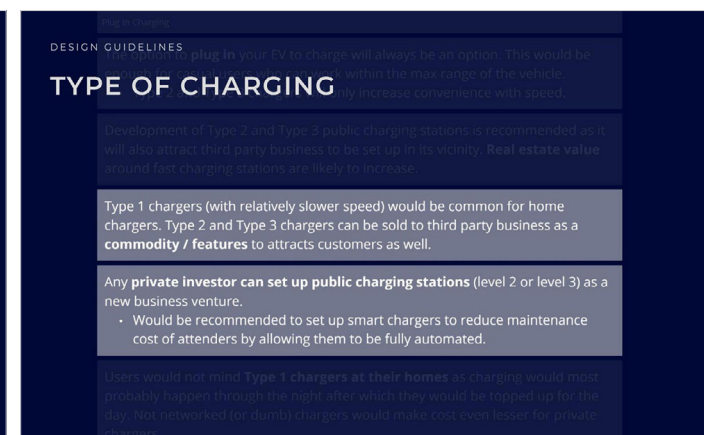
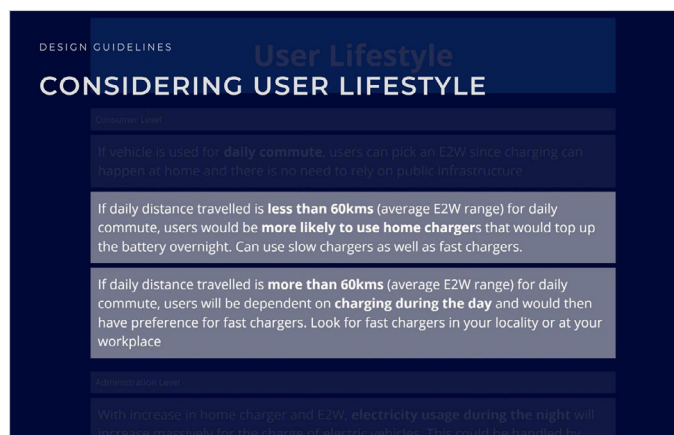
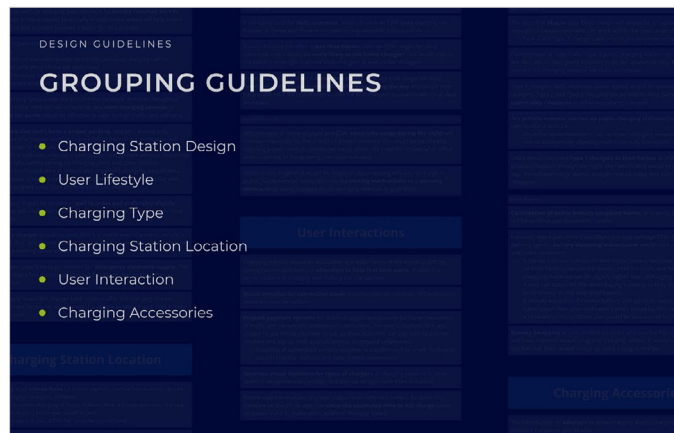
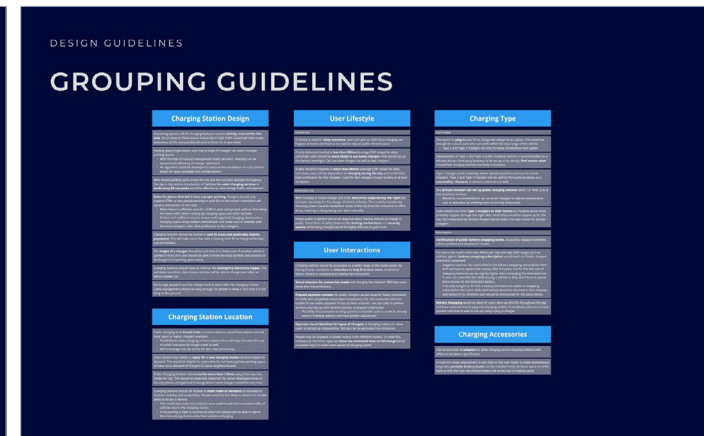
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Design Course

Systems Design Project

Interconnected and form a System within Defined Boundaries

by

Prof. Ravi Poovaiah, Prof. Vivek Kant,

Prof. Pramod Khambete and Dr. Ajanta Sen

IDC, IIT Bombay

Source:

<https://www.dsource.in/course/systems-design-project/projects/navaaz-ev-charging-solution/week-four-focus-soft-0>

1. Aims of Systems Design Project

2. Course Schedule and Grading

3. Problem Statement

4. Projects

4a. Navaaz EV Charging Solution

4a.1, 4a.2

4a.3. Week Three: Ideation - Focus on Problem Area

4a.4. Week Four: Focus on Soft Prototyping

4a.4.1. Presentation

4a.5. Week Five: Presentation on Final Design Solution

4b, 4c, 4d, 4e, 4f

5. Videos

6. Contact Details

Charging Station Location

DESIGN GUIDELINES

LOCATION OF PUBLIC CHARGERS

Public charging stations should have types of higher chargers available.

- Possibility to make charging at these stations free will help stimulate the use of public transport for longer travel as well.
- Will encourage the use of EVs for last mile connectivity.

Users should have ability to **apply for a new charging station** location based on demand. This would be helpful for users who do not have a private parking space or have more demand of chargers in some neighbourhoods.

Public Charging Stations should not be more than 1.5kms away from any area inside the city. This would be especially important for lesser developed areas of the city (slums, unorganised housing) where home chargers would be very rare.

Charging Stations should be located at **main roads or hotspots** (crossroads) to increase visibility and accessibility. People would be less likely to drive in to smaller lanes to access a service.

- This would also make sure that the area could handle the increased traffic of vehicles due to the charging station.

USER INTERACTION

DESIGN GUIDELINES

Payment systems would be accessible to a wider range of the Indian public by providing options to help first time users, disabled or elderly users complete and finish the transaction.

Visual stimulus for connection made and charging has initiated. Will help users avoid any misconnections.

Prepaid payment systems for public chargers would allow for faster movement of traffic and completely automated transactions. For rare customers who are unable to use online payment to top up their accounts, can pay cash to partner vendors and top up their account (similar to prepaid cellphones).

- Possibility of automated vending systems to transfer cash to credit (is already used in ticketing stations and have greater awareness)

Separate visual identities for types of chargers at charging stations to allow users to recognise compatibility. Will also be recognisable from distances.

People may be unaware of power output from different outlets. To solve this, software on the EV (or app) can **show the estimated time to full charge** based on power input to make users aware of charging speed.

EV CHARGING ACCESSORIES

Charging Accessories

DESIGN GUIDELINES

The introduction of **adapters** to allow charging across charging stations with different hardware specification

In case the range requirement is very high or the user needs to make spontaneous long trips, **portable battery banks** can be installed inside the boot space or at the back so that the user can extend battery life at the cost of seating space.

Systems Design

CHARGING CONNECTORS

SYSTEMS DESIGN

Should be usable by E2W with any and all connector types

- Provide cable attach to station so users do not need to carry cable of their own, remove to charge, and fold when done
- Have adaptors built in to the station so users can customise the connector to fit the outlet in their EV

PARKING LAYOUT AND QUEUING

SYSTEMS DESIGN

Optimising parking spaces for minimizing wait times and ensuring better usability and convenience

- E2W and E4W should have separate charging spaces for better space efficiency and better organization
- All chargers will have indicators on availability status
- System for queuing based on ETA
- One charger will be present between two parking spaces so the person next in queue can park their vehicle

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SYSTEMS DESIGN

PAYMENT SYSTEM

Creating futureproof, yet inclusive automation payment systems

- Automated payment systems that work on prepaid credit like Fastag to streamline payment and allow for smart features such as algorithmic queuing and management
- Contingency payment options such as loans and availability of an attendant to act as a transactor

SYSTEMS DESIGN

SECURITY AND MALFUNCTIONS

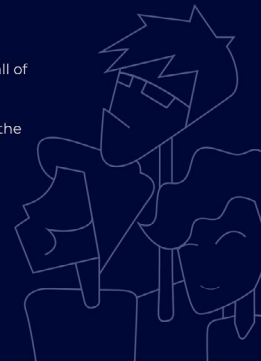
Making the charger secure and contingency solutions in cases of charger malfunctions

- Clearly communicated and implemented standardized security measures to deliver peace of mind to the user
- Adapters and accessories will have additional security standards
- Backup guidelines in account for malfunction of chargers to ensure fair treatment of pending queue jobs

FUTURE PLANS

WHAT NEXT?

- Make a model charging station that incorporates all of the subsystems into one whole cohesive system
- Ensuring the system is foolproof by addressing all the 'what ifs' and future proofing
- Showing that the current set of guidelines are deployable and to make them accessible by all



feedback pls
MicDrop.

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4a.1, 4a.2, 4a.3, 4a.4

4a.5. Week Five: Presentation on Final Design Solution

4a.5.1. Project Synopsis

4a.5.1. Navaaz EV Charging Solution

4a.5.1. Video

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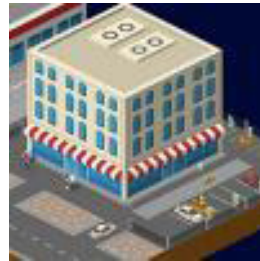
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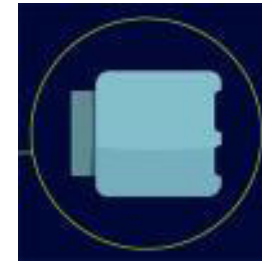
Week Five: Presentation on Final Design Solution

Project Report

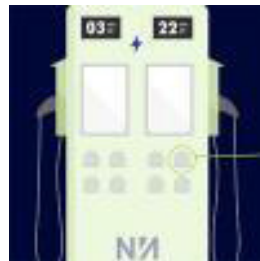
- [Mood Indigo \(Problem Identification\).....](#) (6180 kb)



Project Synopsis



Navaaz EV Charging Solution



Video

Presentation on Final Design Solution of your System Design Project

Presentation Date and Time:

Timings: The Feedback is scheduled on Week 5 between 2.30pm to 5.30pm

The venue: Online

Sequence: Group by group starting with group 1

Timings: Presentation time: 12 minutes (we will play the video or you can make the presentation) + 10 minutes for Feedback

Feedback: Faculty mentors will give final feedback on your project

Grades: This is a graded presentation (40%)

Presentation:

- . Each group has to make a video of their presentations a of the 5 weeks work – in about 12 mins. duration and

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4a.1, 4a.2, 4a.3, 4a.4

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upload this in google classroom

- . The presentation needs to be professionally done.
- . The presentation needs to include your Final Concept along with the explanation of the design process that you followed.

Presentation (overall) should include:

- . WHO – team composition
- . WHAT – what was designed and for whom (users and environment)?
- . WHY – why was this an important systems level problem to address?
- . Issues - what were the problems encountered?
- . HOW – what was the process used in solving this system design project?
- . ANALYSIS – what were the insights gained from mappings (both main and subsystems) and opportunities for design
- . DESIGN – what was designed? Mention your objectives or redefined objectives
- . CONCEPTS/IDEATION – what are the iterations of the design evolution
- . PROTOTYPE – Can you demonstrate your final design (maybe use scenario) (could be guidelines/scenarios/prototypes etc.)?
- . Show highlights of the prototyping story
- . EVALUATE – What is the feedback from the users?
- . FUTURE - Next steps?

Presentation Details of points mentioned above:

Task 1: Prepare a presentation (of 12minutes duration) to include all the stages of your project:

- a. Title of the System Design Project or Problem Statement
- b. Team members
- c. Summary/content listing of your presentation
- d. World views
- e. Insights from Primary and Secondary Research (Mappings for overview as well as sub-systems)
- f. Major design opportunities
- g. Restatement of the problem / Design Objectives / Design Goals
- h. Overview of your ideas
- i. Alternate Concepts (sketches + quick scenarios + concept models)
- j. User Feedback on ideation
- k. Final Concept and its unique features
- l. Final Scenario
- m. Form and Interface Development or detailing

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4a.5.1. Video

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5. Videos

6. Contact Details

n. Prototype

o. User feedback on your final solution

p. Future steps

q. Full References

r. Acknowledgments – to all who have helped

Presentation Essentials:

a. Present in an engaging and crisp manner

b. Design the slides/visuals to reflect the relevance of your topic

c. Use your communication design skills to make the presentation visual

d. Design proper layout; use appropriate type, colour and background

e. Its nicer if all the team members take turns in presenting

f. It makes sense to have main titles, sub titles and then running text/images

g. Have a summary/content slide in the beginning

h. Make good use of appropriate medias in the presentation

i. Use appropriately theatre, drama, story, scenarios, video, etc. to convey your ideas

j. Preparing a script is a good idea – reading text from the slide should be avoided

Presentation Tips:

k. Never underestimate the need to rehearse. This can be usefully done alone, with team members, and with novice audiences. Video tape your self (to get confidence).

l. Never underestimate how long it takes to describe things clearly to a novice audience.

m. Never underestimate how little the audience knows about what is so interesting about your project.

n. Do not be dull when you speak, audiences want to engage in your enthusiasm.

o. Make slides visible from the back of a room (try them out!)

p. Do not talk over any audio in your presentation.

Submission Details:

a) Updated project Report

b) Video Presentation of 12 minutes – both slides + Final Video/Demo of Prototype

c) A 250 word synopsis of the project along with the title, keywords and name of team members

d) 2-3 high resolution images of your final design (1200 x800 x 300 dpi)

e)It would be great if you can submit a copy of your MIRO board

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<https://www.dsource.in/course/systems-design-project/projects/mood-indigo/week-five-presentation-final-design-solution-0>

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2. Course Schedule and Grading
3. Problem Statement
4. Projects
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 - 4a.1, 4a.2, 4a.3, 4a.4
 - 4a.5. Week Five: Presentation on Final Design Solution
 - 4a.5.1. Project Synopsis
 - 4a.5.1. Navaaz EV Charging Solution
 - 4a.5.1. Video
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Project Synopsis

This is an academic project by Atish Waghvase, Vanshaj Kumar, and Zaid Khuram, students of IDC School of Design at IIT Bombay. The project began with an aim to study the electric vehicle ecosystem in India while also taking reference and understanding systems that have been implemented across the world.

With the help of primary research and extensive secondary research, the project focus was brought down to electric two wheelers in India. With two wheelers taking up 80% of the current automobile markets, along with the government expecting 80% of two wheeler sales to be electric by 2030, we felt it was a more realistic and grounded goal to achieve.

Continuing with further ideation and problem identification for this futuristic scenario, we came up with multiple subsystems that could be tackled within it. After evaluating our option, the project focus was further narrowed to the public charging ecosystem in India for electric vehicles, with extensive focus on electric two wheelers.

Through research and detailed review of the stakeholders in the system, the project had an outcome in the form of a business idea. 'Navaaz EV Charging Solutions' would be a business to business company that would help clients of all sizes set up charging stations at their locations. We also came up with an extensive set of guidelines for the work the company would do and execute.

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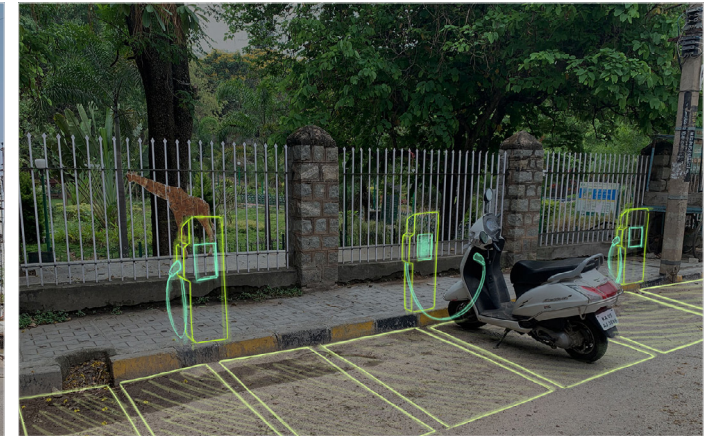
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Navaaz EV Charging Solution



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Systems Design Project

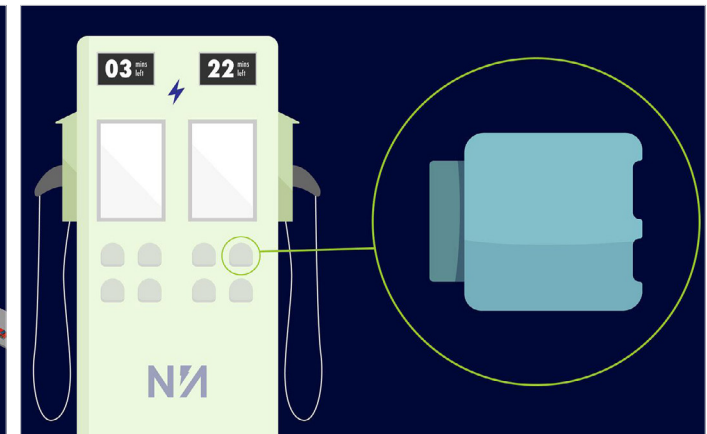
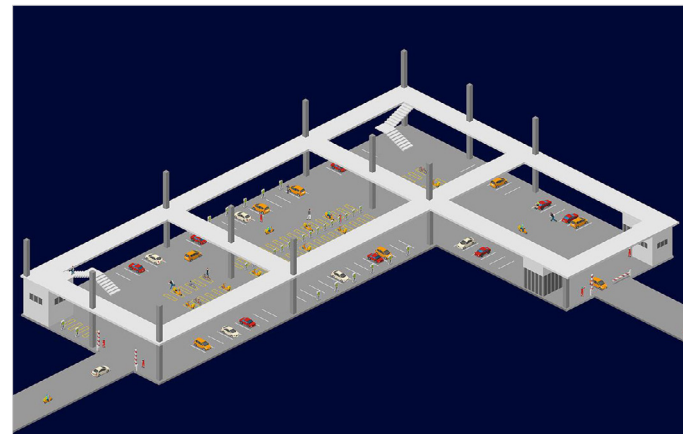
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2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4a.1, 4a.2, 4a.3, 4a.4
 - 4a.5. Week Five: Presentation on Final Design Solution
 - 4a.5.1. Project Synopsis
 - 4a.5.1. Navaaz EV Charging Solution
 - 4a.5.1. Video
 - 4b, 4c, 4d, 4e, 4f
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Video



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3. Problem Statement
4. Projects
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 - 4a.1, 4a.2, 4a.3, 4a.4
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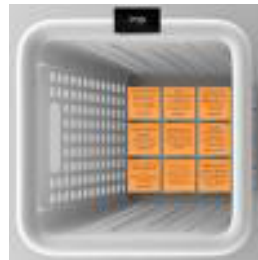
The Indian Medicine System



Week One - Need Finding and understanding the Problem



Week Two: Identify your Problem Area and Focus on it



Week Three: Ideation - Focus on Problem Area



Week Four: Focus on Soft Prototyping



Week Five: Presentation on Final Design Solution

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3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b. The Indian Medicine System
 - 4b.1. Week One - Need Finding and understanding the Problem
 - 4b.2. Week Two: Identify your Problem Area and Focus on it
 - 4b.3. Week Three: Ideation - Focus on Problem Area
 - 4b.4, 4b.5
 - 4c, 4d, 4e, 4f
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6. Contact Details

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2. Course Schedule and Grading
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4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b. The Indian Medicine System
 - 4b.1. Week One - Need Finding and understanding the Problem
 - 4b.1.1. Presentation
 - 4b.2. Week Two: Identify your Problem Area and Focus on it
 - 4b.3, 4b.4, 4b.5
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Week One - Need Finding and understanding the Problem

Project Report

- [The Indian Medicine System.....](#)  (1610 kb)



Presentation

Week One: Need Finding and understanding the Problem

- Form Working Groups
- Selection/Identification of System Design Problem (Why, how, whom, where, when)
- Worldview Mappings (Brainstorming, Card Sorting, Affinities, Network Maps) - Broader Perspective
- Secondary Research - Understanding Problem – Design/Media/Technology Search - Existing Solutions – History
- Future Study Papers - etc.
- Identify User Groups - Understanding User Needs – Talking to Experts - Primary Research (Contextual Inquiry)
- Next Steps

End of Week One: 1st Stage – Understanding the Problem Presentation

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

Submission: Slide presentation + Report submission (must for grading)

Grading Points: 15%

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Presentation

Presentation

- The Indian Medicine System.....📄 (9290 kb)



Contents

- 01 Problem Area Exploration
- 02 Brainstorming
- 03 Brainstorm Consolidation
- 04 Identifying System Boundaries
- 05 Setting Project Scope
- 06 Future Steps

Problem Area Exploration

- Multilingual
Typography for
Messaging
- Indian Medicine
Prescription,
Procurement & Usage
- Signage &
Wayfinding for
Public Institutions
- Multilingual
Publication
Design
- IITB Student
Portals

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3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b. The Indian Medicine System
 - 4b.1. Week One - Need Finding and understanding the Problem
 - 4b.1.1. Presentation
 - 4b.2. Week Two: Identify your Problem Area and Focus on it
 - 4b.3, 4b.4, 4b.5
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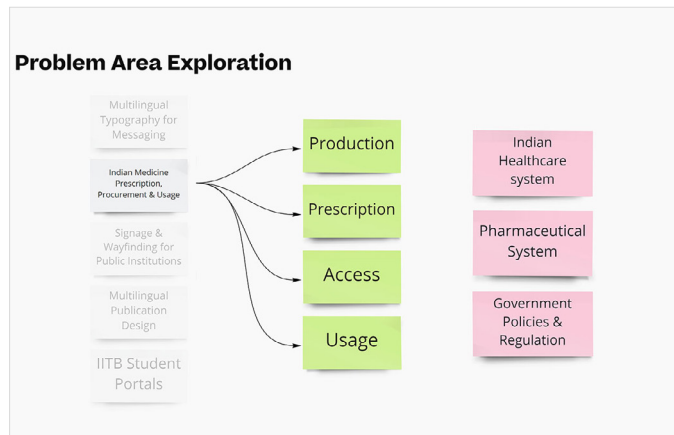
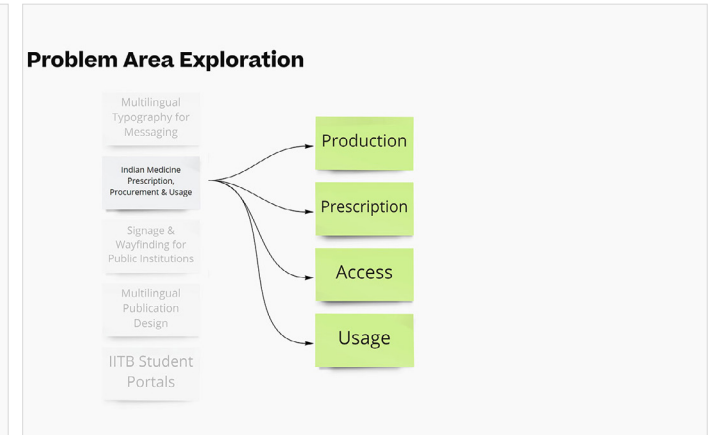
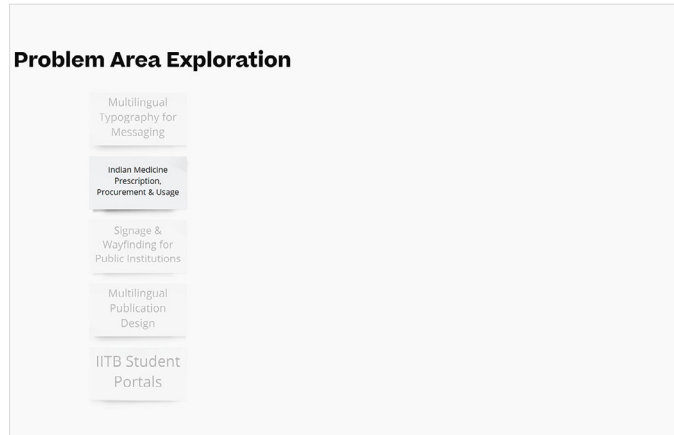
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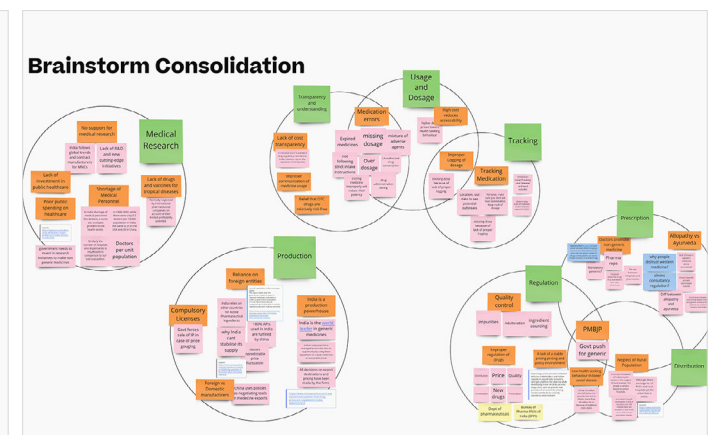
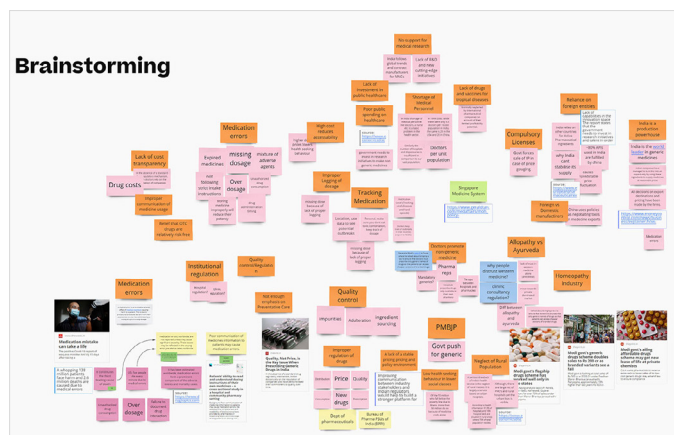
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2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b. The Indian Medicine System
 - 4b.1. Week One - Need Finding and understanding the Problem
 - 4b.1.1. Presentation
 - 4b.2. Week Two: Identify your Problem Area and Focus on it
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Brainstorming & Consolidation



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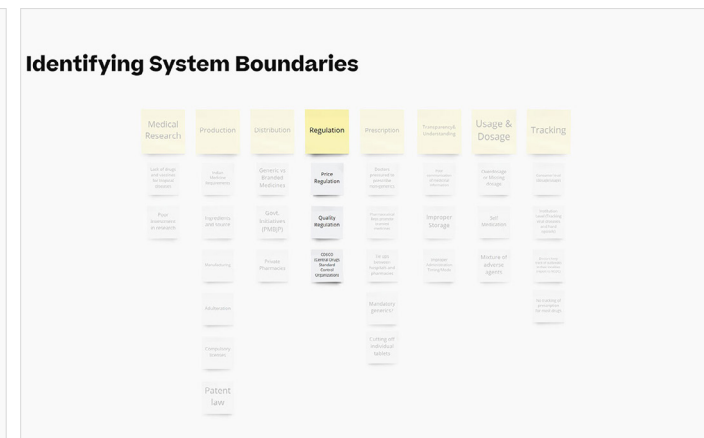
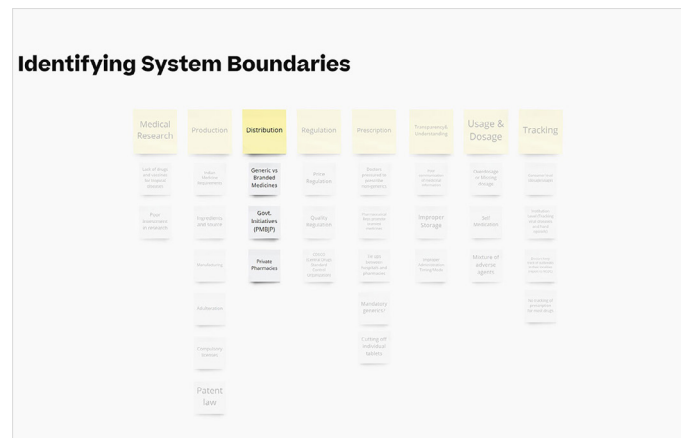
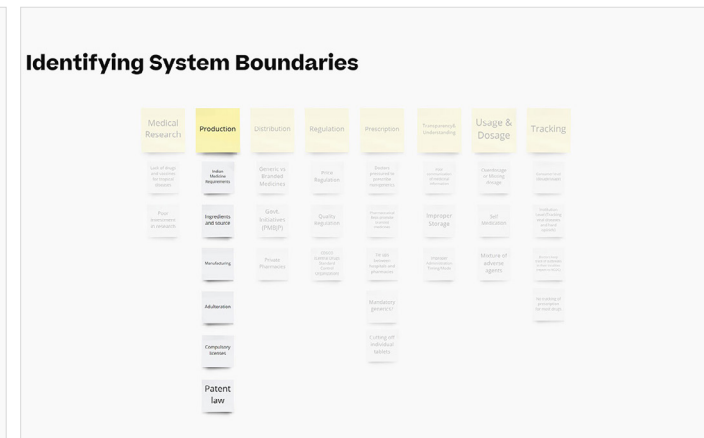
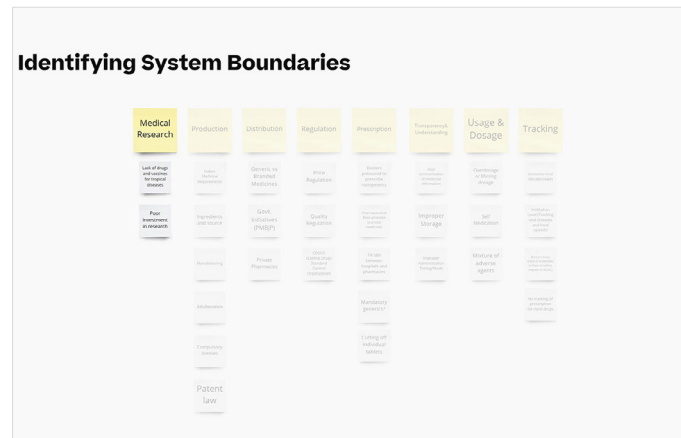
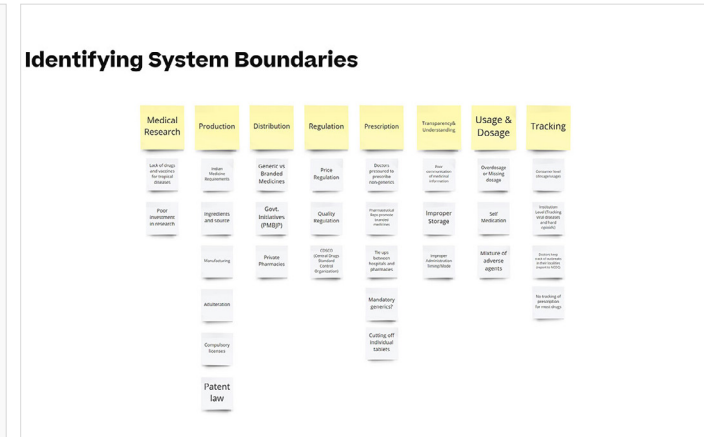
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 - 4a. Navaaz EV Charging Solution
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 - 4b.1. Week One - Need Finding and understanding the Problem
 - 4b.1.1. Presentation
 - 4b.2. Week Two: Identify your Problem Area and Focus on it
 - 4b.3, 4b.4, 4b.5
 - 4c, 4d, 4e, 4f
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Identifying System Boundaries



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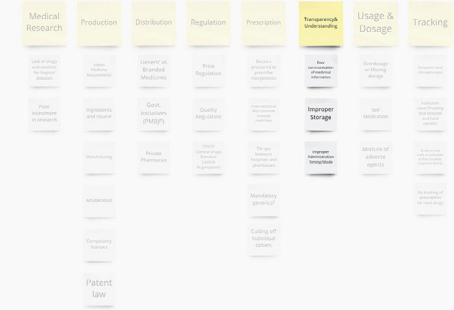
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1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
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 - 4b.1. Week One - Need Finding and understanding the Problem
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 - 4b.2. Week Two: Identify your Problem Area and Focus on it
 - 4b.3, 4b.4, 4b.5
 - 4c, 4d, 4e, 4f
5. Videos
6. Contact Details

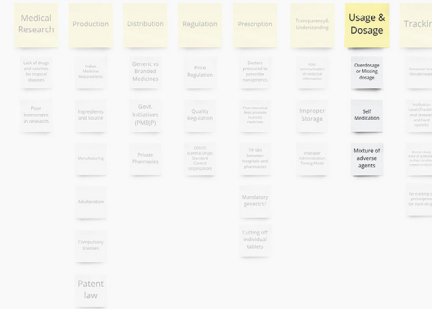
Identifying System Boundaries



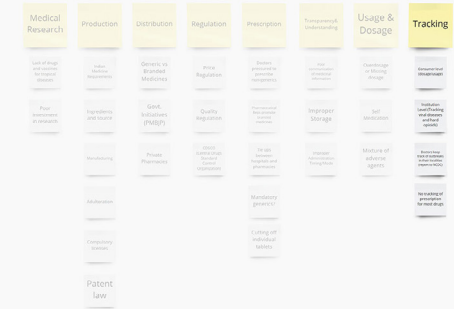
Identifying System Boundaries



Identifying System Boundaries



Identifying System Boundaries



Setting Project Scope

Setting Project Scope



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Systems Design Project

Interconnected and form a System within Defined Boundaries

by

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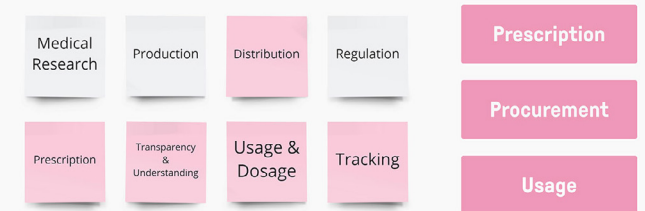
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 - 4b.3, 4b.4, 4b.5
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5. Videos
6. Contact Details

Setting Project Scope



Setting Project Scope



Future Steps

Future Steps

WEEK 2

- 01 Identify Various Perspectives
- 02 Identify System Entities
- 03 Identifying how parts connect to a whole
- 04 Identify the relationships between entities

Future Steps

WEEK 2

- 01 Identify Various Perspectives
- 02 Identify System Entities
- 03 Identifying how parts connect to a whole
- 04 Identify the relationships between entities

WEEK 3

- 01 Map holistic system of interconnected entities
- 02 Leverage Points

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4a. Navaaz EV Charging Solution

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4b.2.1. Presentation

4b.3, 4b.4, 4b.5

4c, 4d, 4e, 4f

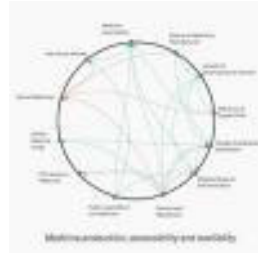
5. Videos

6. Contact Details

Week Two: Identify your Problem Area and Focus on it

Project Report

- [The Indian Medicine System.....](#) (3120 kb)



Presentation

Week Two: Identify your Problem Area and Focus on it + Report + Presentation

- Till now you have looked at a broader perspective of your problem area and you have looked at cross connections as well as inter-connectedness at a macro level
- Within this broader area now you need to find an area to work keeping the broader connections in mind
- Some of the tools that might help in terms of understanding are Causal Diagrams, Network Mappings, Assigning Priority and Hierarchy, Looking at it from temporal and spatial perspective (activity flow diagrams)
- Do go ahead with both the secondary as well as primary research
- Start with Analysis of the Problem
- Identify the next steps

End of Week Two: 2nd Stage – Understanding the Problem Presentation

Dates:

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

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Submission:

Slide presentation + Report submission (must for grading)

- a) Presentation Slides – upload it on the google classroom Week 2
- b) Project Report – upload it on the google classroom Week 2

Grading Points: 15%

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Presentation

Presentation

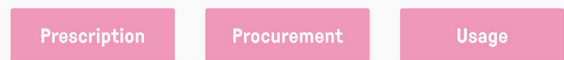
- The Indian Medicine System.....  (32640 kb)



Contents

- | | |
|----------------------------------|---------------------------|
| 01 Project Scope | 07 Possible Opportunities |
| 02 Identifying System Components | 08 Future Steps |
| 03 Identifying Sub-Systems | |
| 04 Affinity | |
| 05 Mapping the Holsitic System | |
| 06 System Insights | |

Project Scope



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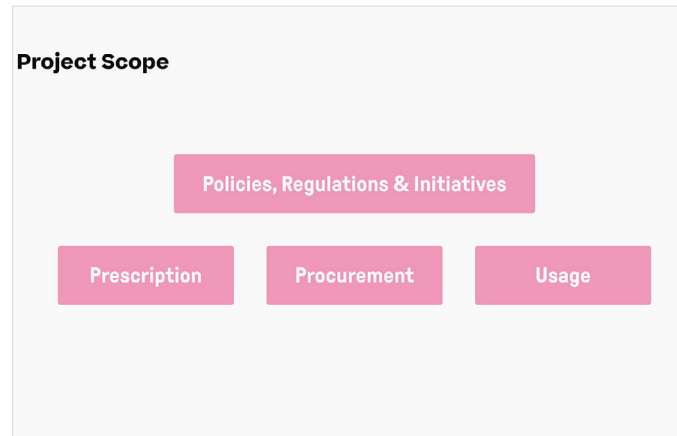
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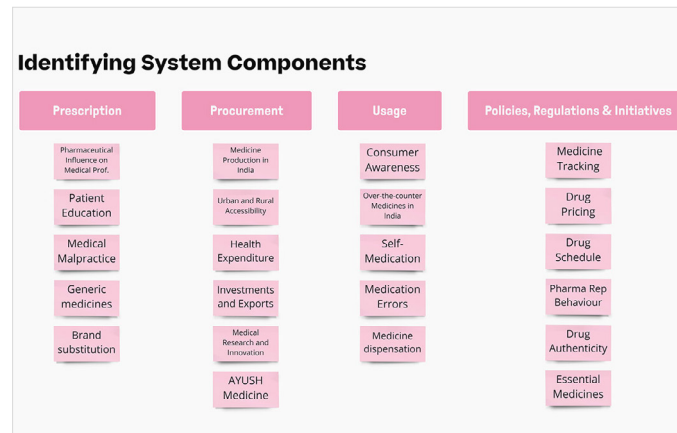
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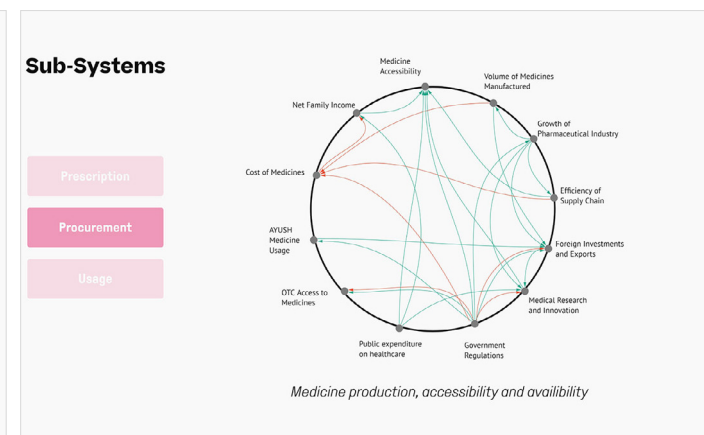
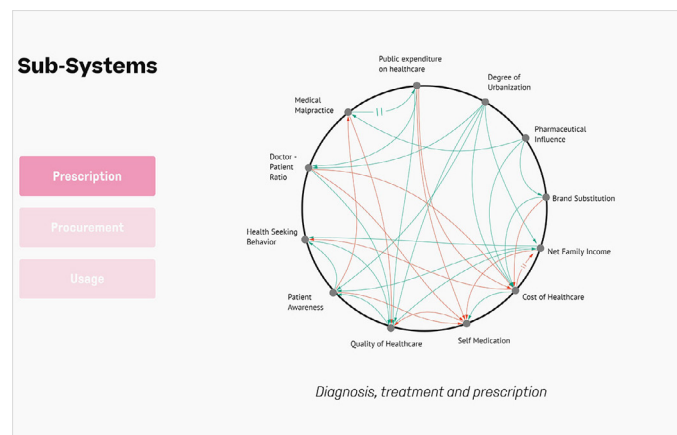
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Identifying System Components



Identifying Sub - Systems



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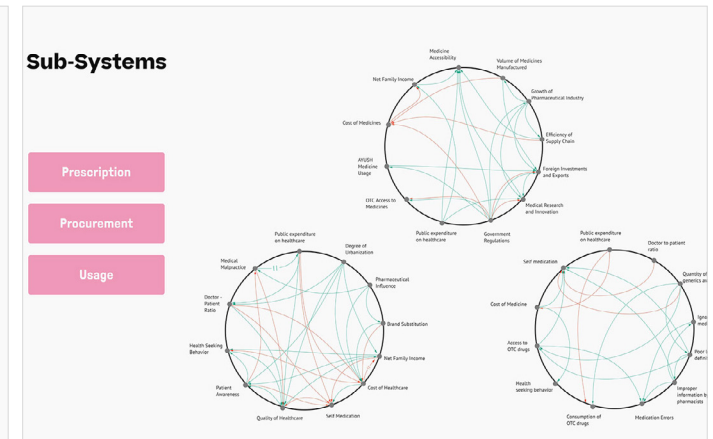
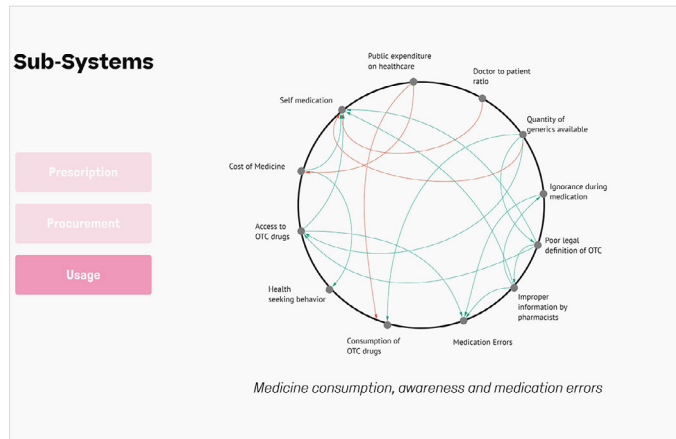
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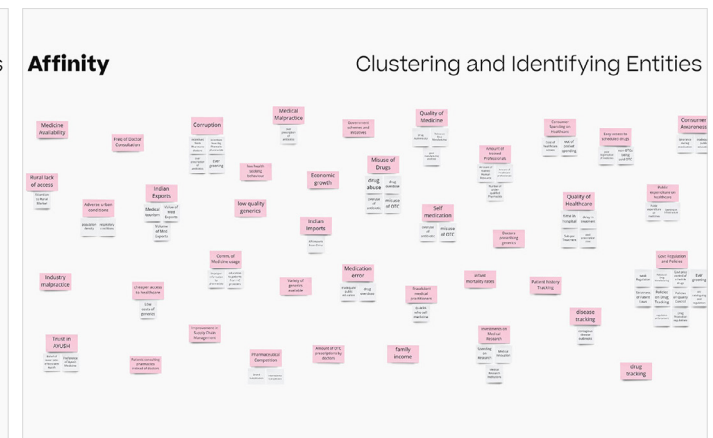
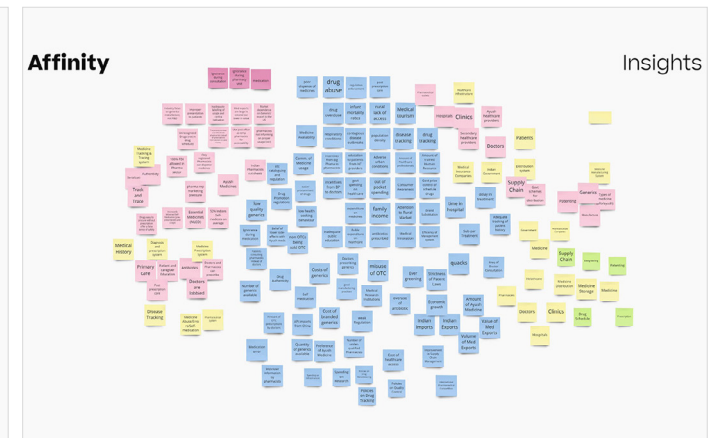
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 - 4a. Navaaz EV Charging Solution
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 - 4b.2. Week Two: Identify your Problem Area and Focus on it
 - 4b.2.1. Presentation
 - 4b.3, 4b.4, 4b.5
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5. Videos
6. Contact Details



Affinity



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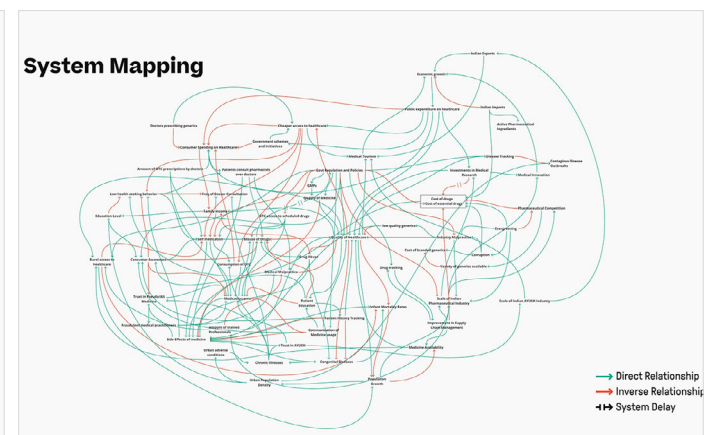
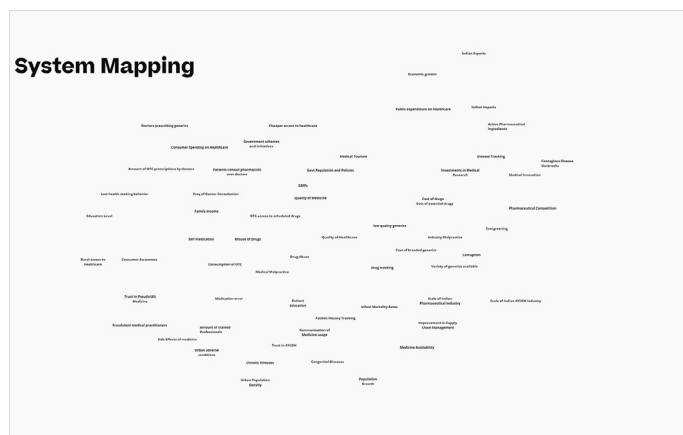
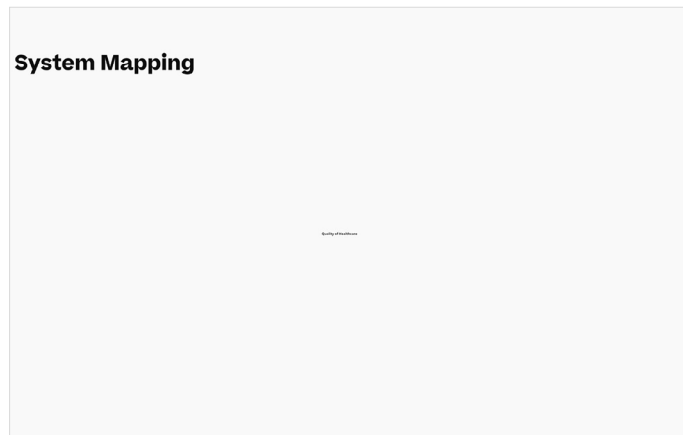
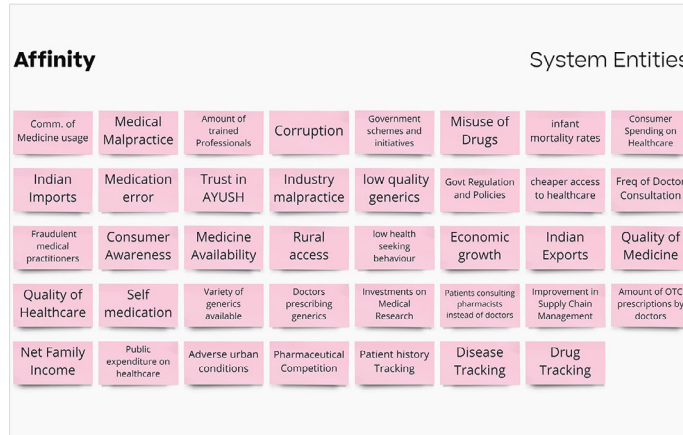
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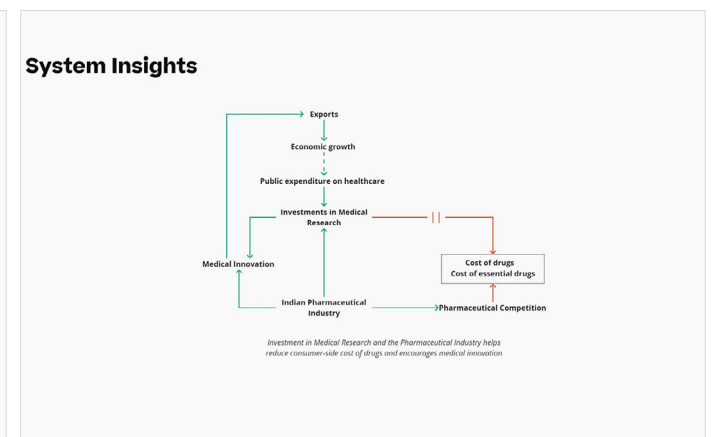
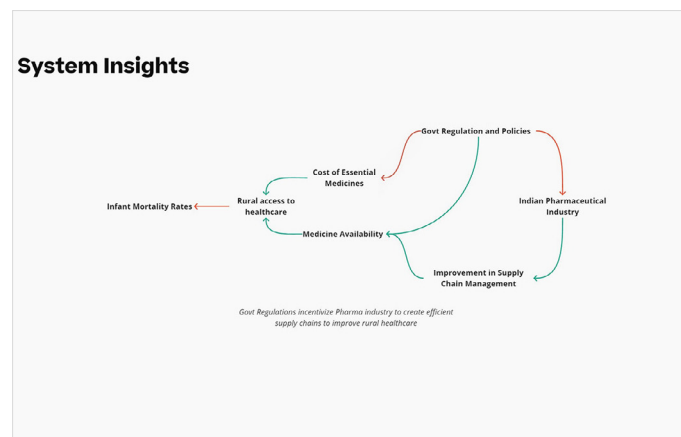
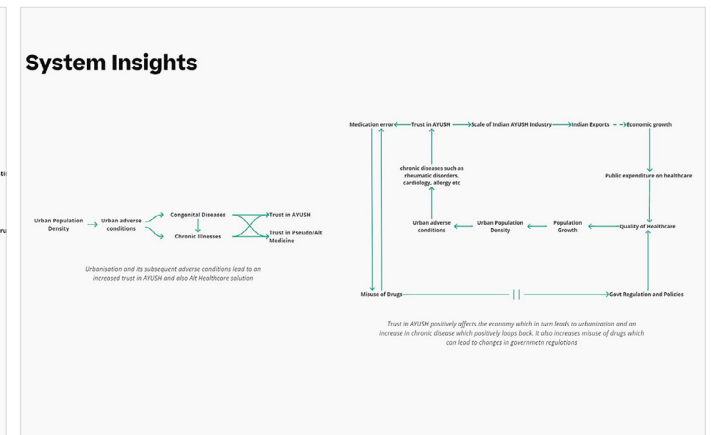
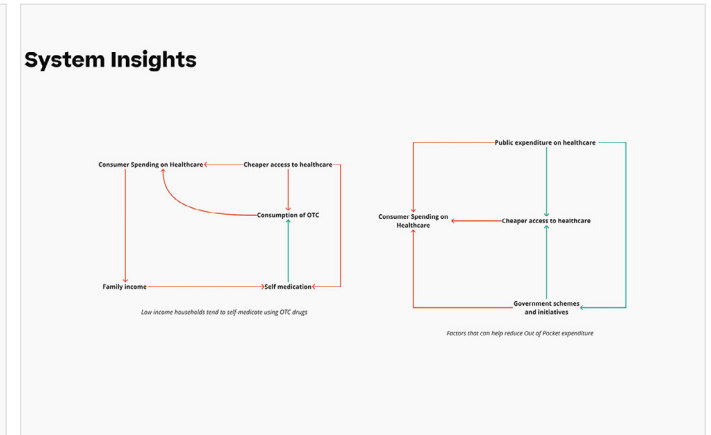
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4b.3, 4b.4, 4b.5

4c, 4d, 4e, 4f

5. Videos

6. Contact Details



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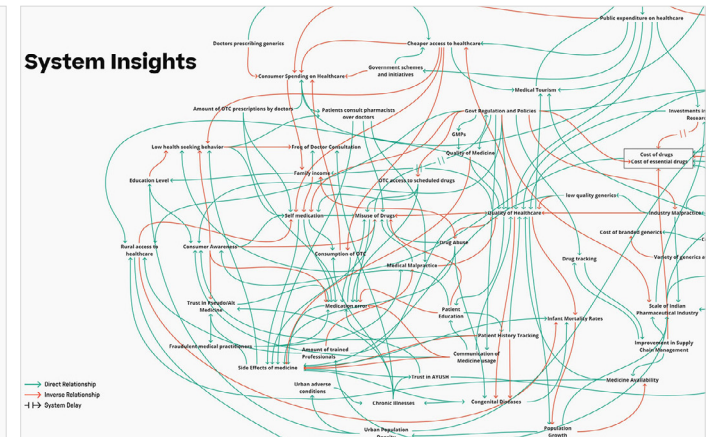
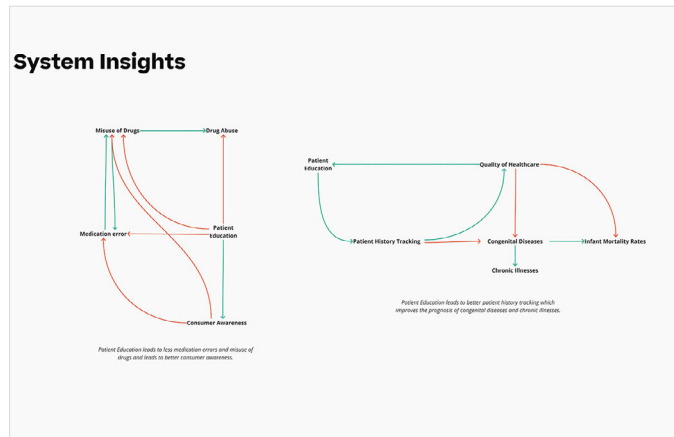
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 - 4b.2.1. Presentation
 - 4b.3, 4b.4, 4b.5
 - 4c, 4d, 4e, 4f
5. Videos
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Potential Oppurtunities

Opportunities

Over-the-Counter Access to Medicines	Patient Medical Info Tracking	Consumer Medication Errors	Patient education	Rural Accessibility
Definition and Regulation	Patient Medical History Database	Awareness of correct usage	Post prescription care	Supply Chain Management
Consumer Awareness of risks and usage	Standardized method of storage of medical history	Unified Prescription Interface	Treatment education	Access to trained healthcare professionals
Enforcing Prescriptions	Tracking patient medication	Making medicine risks clearer	Lifestyle choices	Access to essential medicines
Transparency	Tracking Diseases using patient info	Human errors	Potential Complications	Affordable healthcare

Future Steps

THIS WEEK	NEXT WEEK
01 Finalize and Map Problem Area Further	01 Propose Final Solution
02 Contextual Inquiry	
03 Finalize a Problem Statement	
04 Identify Possible Solutions	

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TEAM Malayaliano

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4b.1, 4b.2

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4b.3.1. Presentation

4b.4. Week Four: Focus on Soft Prototyping

4b.5

4c, 4d, 4e, 4f

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Week Three: Ideation - Focus on Problem Area

Project Report

- [The Indian Medicine System.....](#) (2960 kb)



Presentation

Week Three: Focus on Problem Area & Sub-Areas + Insights + Opportunities + Ideation + Report + Presentation

Suggested next steps: (you could follow your own method)

1. Within the focused problem area now you need to identify sub-areas to work keeping the broader connections in mind
2. I'm sure you have by now done the causal diagrams of your problem Area and its sub- Areas (or sub-systems) with its interconnections both in the forward (progressive) and backward (negative) directions. identify if there are any delays in these connections. Do not miss the big picture and do see if you can gain insights from this mapping analysis.
3. Also by now your primary and secondary research in the chosen focused area should give you insights/observations and point towards design opportunities
4. If you would like, this is a good time to redefine your problem statement
5. And start with ideation to solve problems concerning your sub-areas (for this you'll need to Brainstorm + Group Ideation + Fast Visualisations/sketching)
5. You could start with Concept maps or Network diagrams of your ideas by connecting parts of your proposed system to people, activities, objects, spaces and time

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6. The ideation could also be through scenarios

End of Week Three: 3rd Stage – Ideation Presentation

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

Submission: Slide presentation + Report submission (must for grading)

a) Presentation Slides – upload it on the google classroom Week 3

b) Project Report – upload it on the google classroom Week 3

Grading Points: 15%

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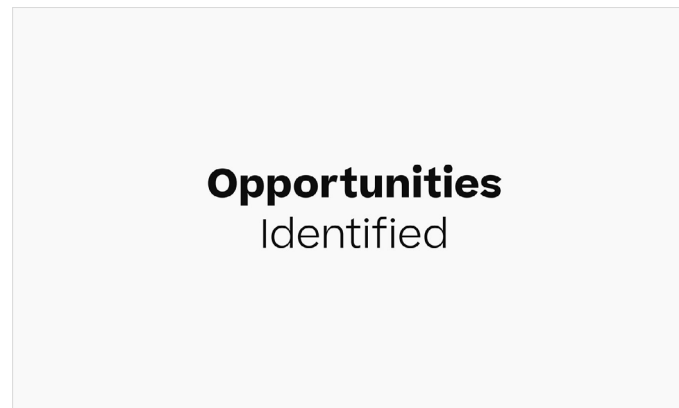
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 - 4b.5
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6. Contact Details

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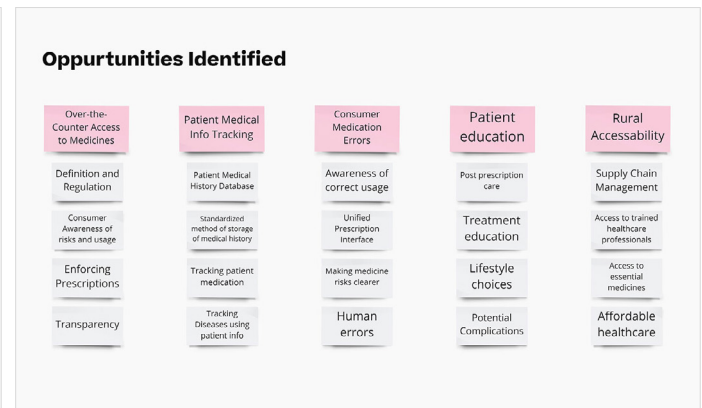
Presentation

- The Indian Medicine System.....📄 (22700 kb)



Contents

01 Opportunitites Identified	07 Preliminary Ideation
02 Final Problem Space	08 Future Steps
03 Problem Statement	
04 Stakeholders	
05 Primary Research	
06 Insight Summary	



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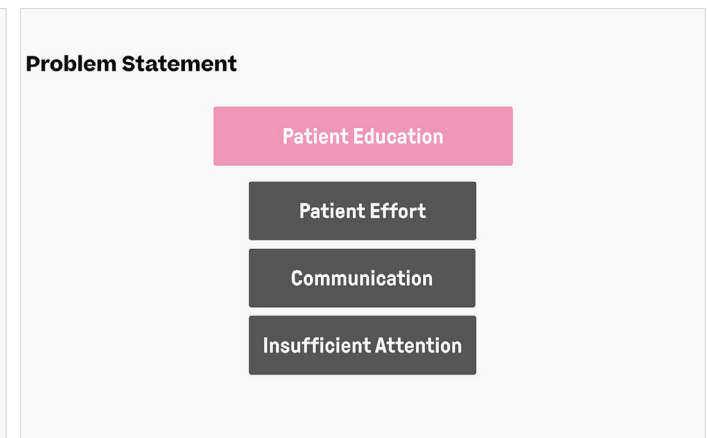
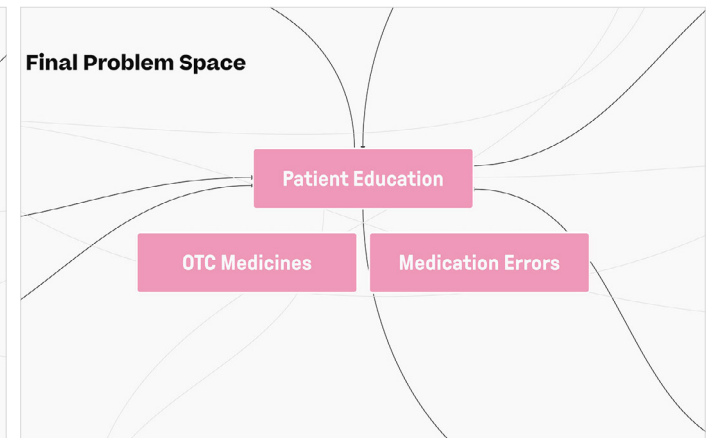
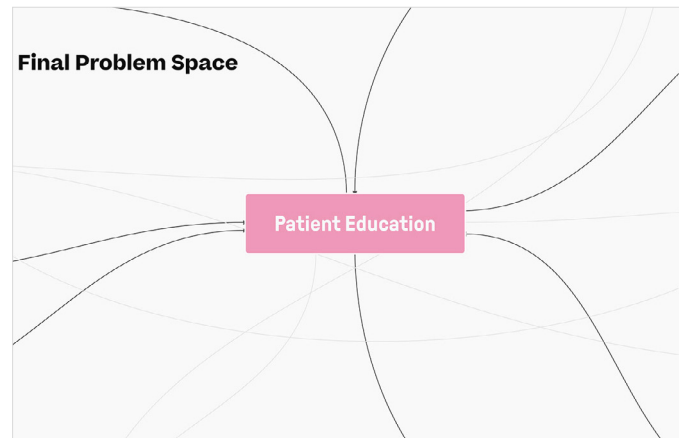
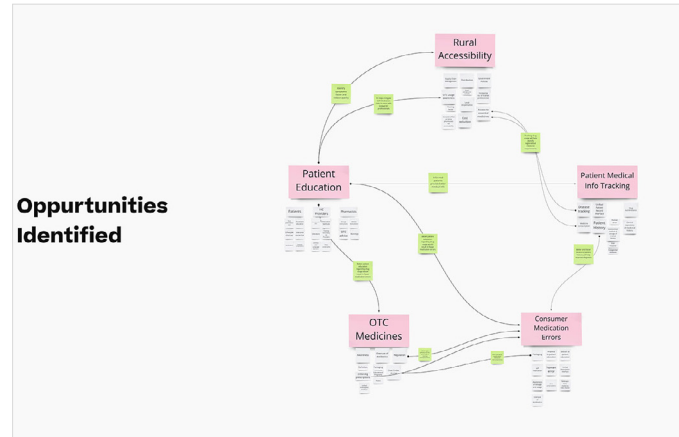
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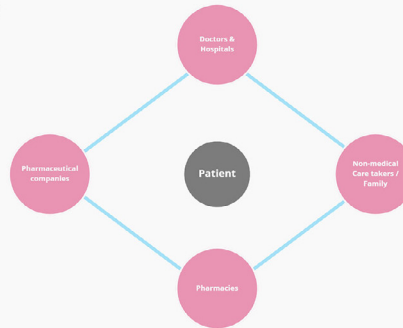
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6. Contact Details

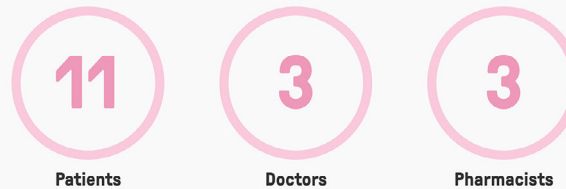
Problem Statement

Ineffective communication between doctors and patients leaves patients with insufficient understanding of their condition, treatment and leaves them unable to perform subsequent self-care. Doctors have to diagnose on incomplete or inaccurate information.

Stakeholders



Primary Research



Identifying Stakeholders

Primary Research

Primary Research



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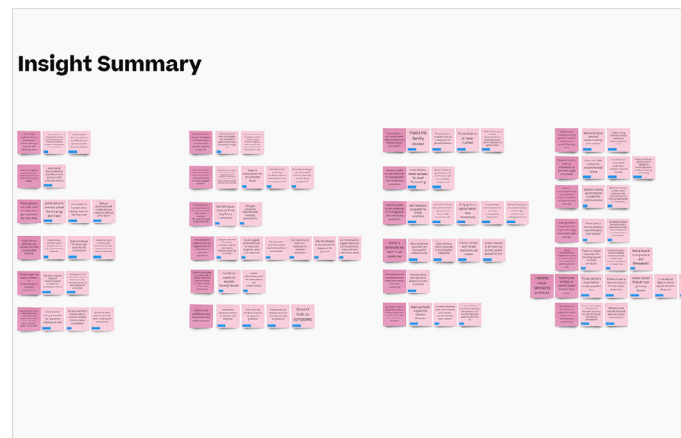
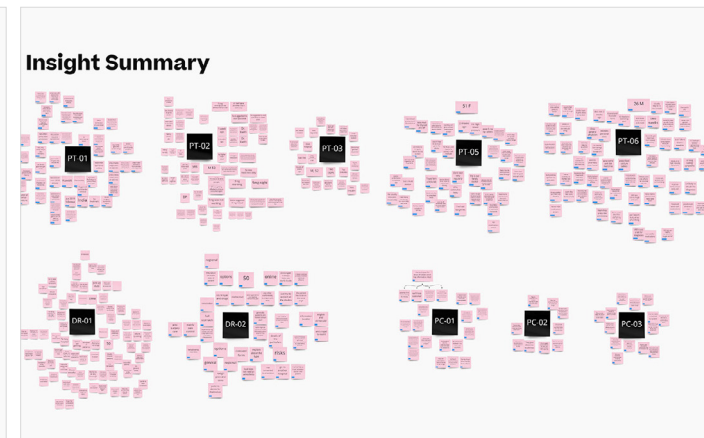
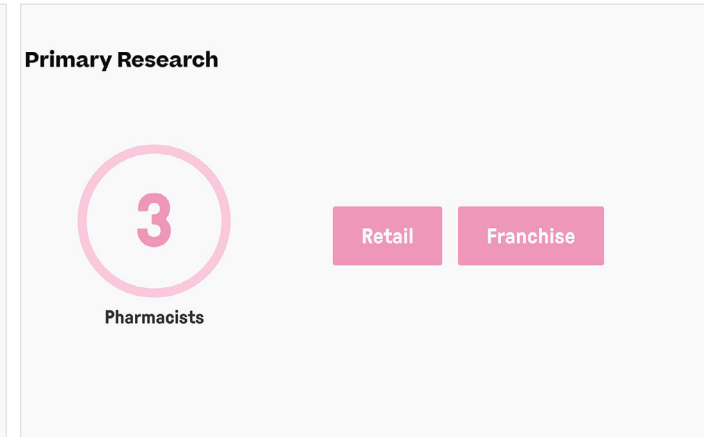
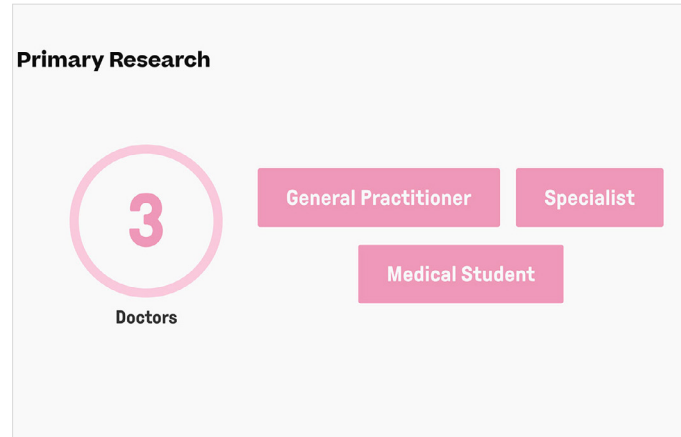
by

Prof. Ravi Poovaiah, Prof. Vivek Kant,
Prof. Pramod Khambete and Dr. Ajanta Sen
IDC, IIT Bombay

Source:

<https://www.dsource.in/course/systems-design-project/projects/indian-medicine-system/week-three-ideation-focus-problem-0>

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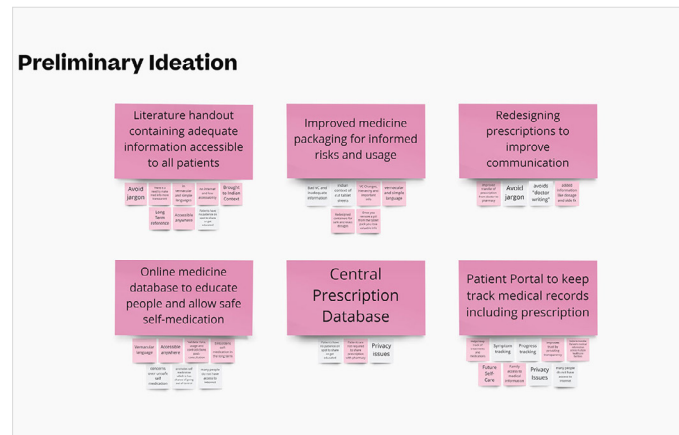
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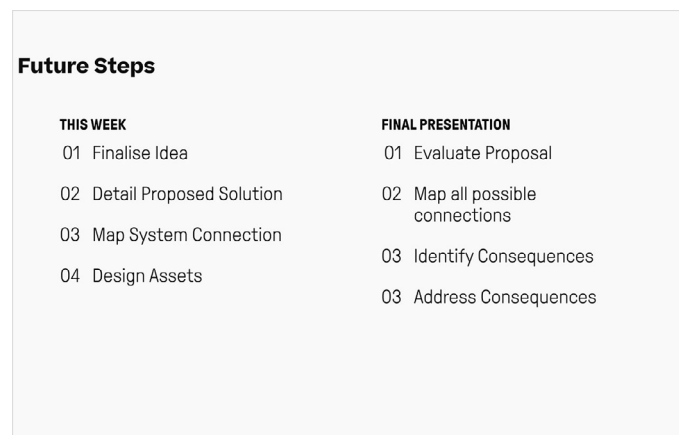
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Preliminary Ideation



Future Steps



abhiprayam Comments and Feedback

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4a. Navaaz EV Charging Solution

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4b.1, 4b.2, 4b.3

4b.4. Week Four: Focus on Soft Prototyping

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4b.5. Week Five: Presentation on Final Design Solution

4c, 4d, 4e, 4f

5. Videos

6. Contact Details

Week Four: Focus on Soft Prototyping



Presentation

Week Four: Focus on Soft Prototyping to Final Prototyping + Report + Presentation

Suggested next steps: (you could follow your own method)

1. Choose your final concept from ideations for the solution to your system design problem area
2. You could use any of the methods that you are familiar with for prototyping: to name a few: Walk-through Scenarios, Concept Videos, Personas, Mock-ups, Proof of Concept, etc.
3. The final concept could involve any of the following:
 - 2D/3D design Sketches + Physical Prototyping + Visualisation + Virtual 3D Models
 - Interface/Communication/Media Design Detailing + Interface/Communication Simulation + Experience Design + Service Blueprints and design
4. Do give thoughts on the Final Prototyping
5. How would you get feedback on your solution? Will you try to evaluate?

End of Week Four: 4th Stage – Prototype Presentation

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

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Timings for each presentation: 10 mins + 8 minutes for

Discussions and Feedback

Submission: Slide presentation + Report submission (must for grading)

a) Presentation Slides – upload it on the google classroom Week 4

b) Project Report – upload it on the google classroom Week 4

Grading Points: 15%

Source:

<https://www.dsource.in/course/systems-design-project/projects/indian-medicine-system/week-four-focus-soft-prototyping>

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Presentation

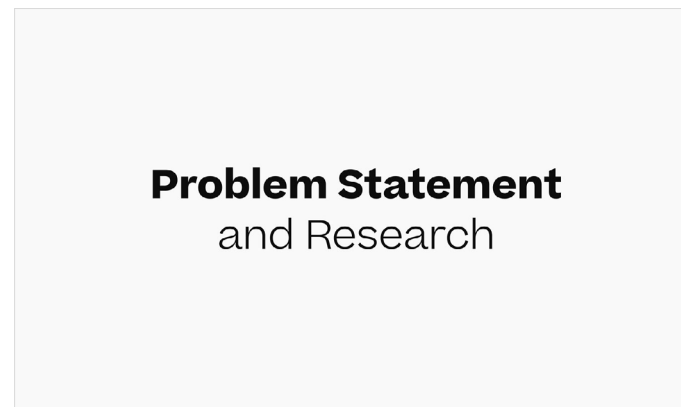
Presentation

- The Indian Medicine System..... (17310 kb)



Contents

- 01 Problem Statement and Research
- 02 Target Demographic
- 03 Personas
- 04 Ideation
- 05 Preliminary Evaluation
- 06 Design Solution
- 07 Evaluation Plan



Problem Statement

Ineffective communication between doctors and patients leaves patients with insufficient understanding of their condition, treatment and leaves them unable to perform subsequent self-care. Doctors have to diagnose on incomplete or inaccurate information.

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 - 4c, 4d, 4e, 4f
5. Videos
6. Contact Details

Problem Statement

Ineffective communication between doctors and patients leaves patients with insufficient understanding of their condition, treatment and leaves them unable to perform subsequent self-care. Doctors have to diagnose on incomplete or inaccurate information.

Ineffective Communication and Documentation

Problem Statement

Ineffective communication between doctors and patients leaves patients with insufficient understanding of their condition, treatment and leaves them unable to perform subsequent self-care. Doctors have to diagnose on incomplete or inaccurate information.

Ineffective Communication and Documentation

Patient Condition and Treatment

Problem Statement

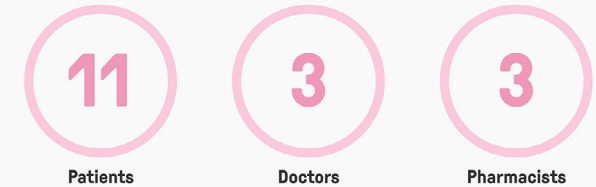
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Ineffective Communication and Documentation

Patient Condition and Treatment

Compliance and Self-Care

Research



Target Demographics

Target Demographics



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Target Demographics







- 01 Semi-Urban
- 02 Tier 2, Tier 3 Cities
- 03 Medium to Low Income Households
- 04 Limited Healthcare Infrastructure
- 05 Crowded Healthcare Facilities
- 06 Limited Education and Literacy

Personas


Personas

01	02	03	04
			
Mammootty	Mohanlal	Manju	Mamta
<ul style="list-style-type: none"> - 24, Male, Educated - Unlikely to Self-Medicate - Avid Smartphone User - Trusts Doctors - No Chronic Illnesses 	<ul style="list-style-type: none"> - 78, Male, Literate - Self-Medicates Often - Uses a Feature Phone - Does Not Trust Doctors - Chronic Diabetic 	<ul style="list-style-type: none"> - 47, Female, Uneducated - Unlikely to Self-Medicate - Smartphone User - Trusts Doctors - Diabetes and Hypertension 	<ul style="list-style-type: none"> - 35, Female, Educated - Self-Medicates - Smartphone User - Somewhat Trusts Doc - Has chronically ill family members








Personas

01	02	PRIMARY	04
			
Mammootty	Mohanlal	Manju	Mamta
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Primary Persona



Manju K S
47, Female

-  Paddy Farmer
-  Hirebidanur
-  Literate in Kannada
-  Diabetes and Hypertension
-  Cannot Self Medicate due to English Instructions
-  Emergent Smartphone User
-  Trusts her Doctor implicitly

Ideation

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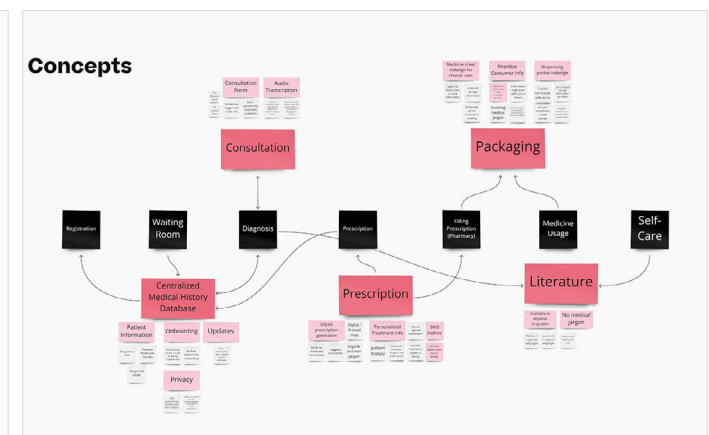
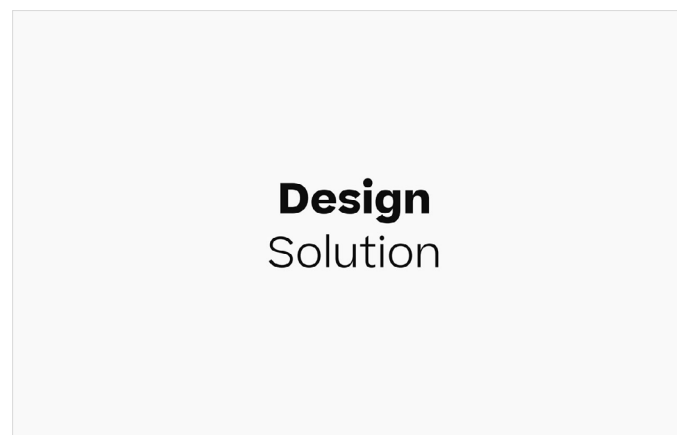
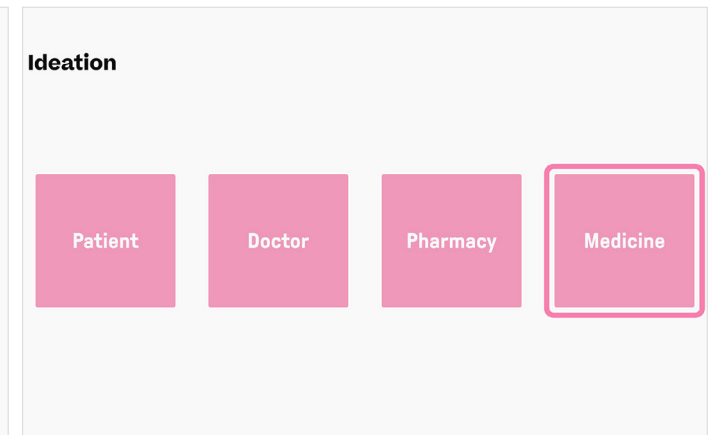
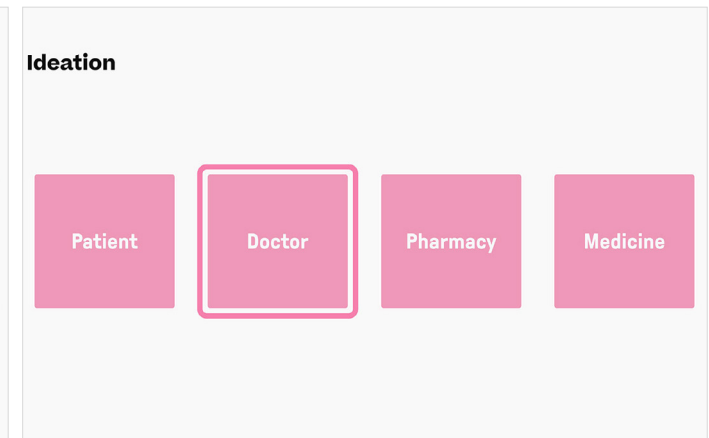
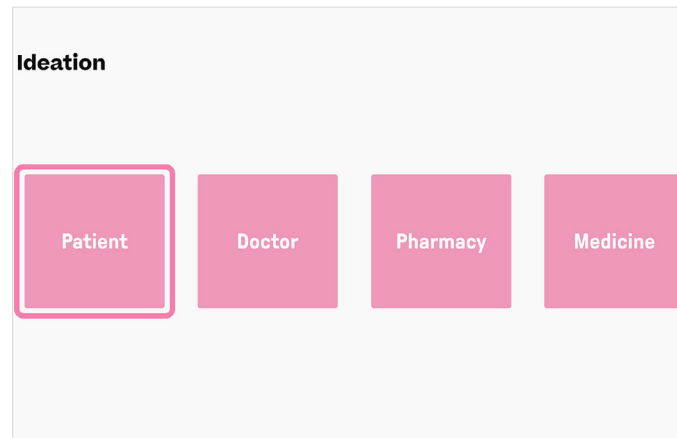
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 - 4b.4.1. Presentation
 - 4b.5. Week Five: Presentation on Final Design Solution
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6. Contact Details



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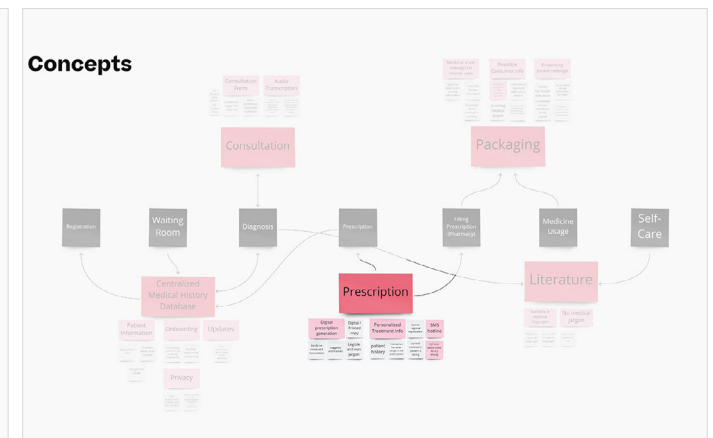
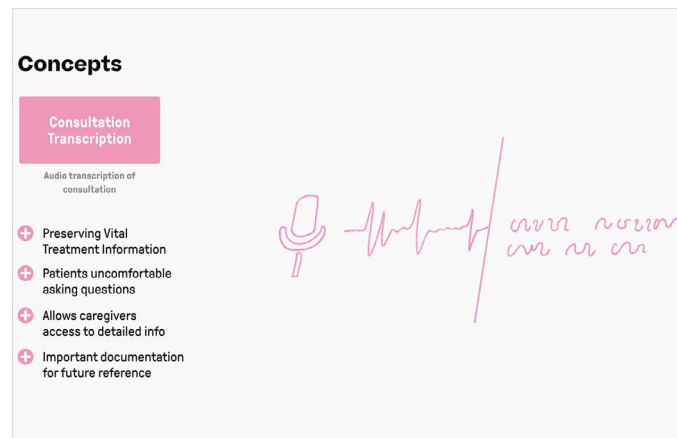
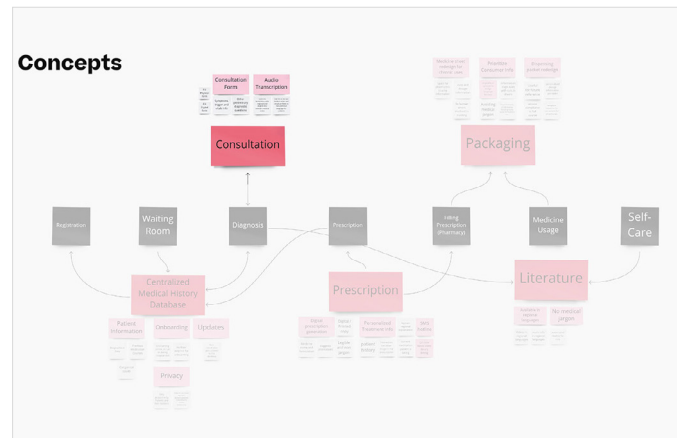
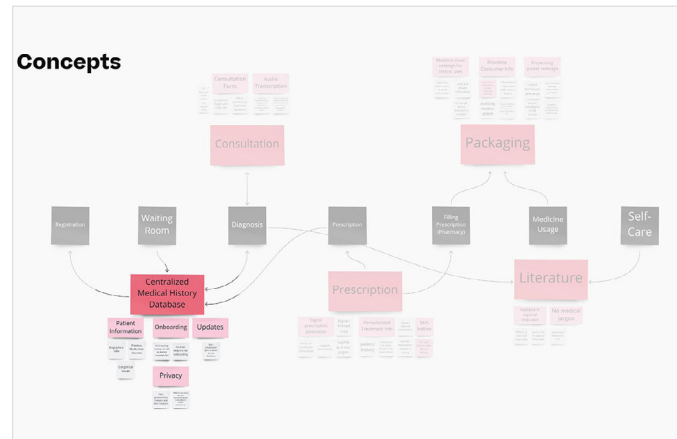
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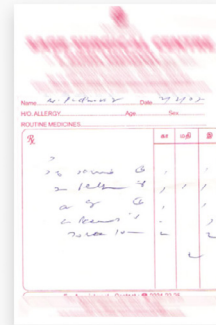
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Concepts

Prescription and Personalized Literature

Digitizing Prescriptions

- + Current prescriptions not legible
- + Only used as a medicine purchase token
- + Lacks vital usage information



Concepts

Prescription and Personalized Literature

Digitizing Prescriptions

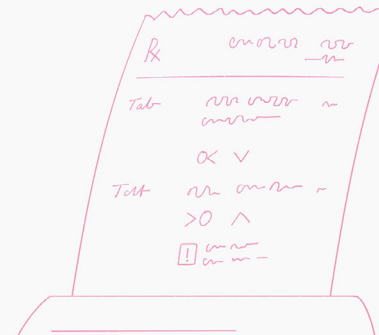
- ✗ Current prescriptions not legible
- ✗ Only used as a medicine purchase token
- ✗ Lacks vital usage information
- ✗ Jargon and generalized information

System organ class	Common	Prevalence	Rate	Very rare	Not known (based on available data)
Infectious and infestations	Unlabeled	Unlabeled	Unlabeled	Unlabeled	Unlabeled
Psychiatric disorders	Unlabeled	Unlabeled	Unlabeled	Unlabeled	Unlabeled
Nervous system disorders	Unlabeled	Unlabeled	Unlabeled	Unlabeled	Unlabeled
Eye disorders	Unlabeled	Unlabeled	Unlabeled	Unlabeled	Unlabeled
Cardiac disorders	Unlabeled	Unlabeled	Unlabeled	Unlabeled	Unlabeled
Respiratory disorders	Unlabeled	Unlabeled	Unlabeled	Unlabeled	Unlabeled
Renal and urinary disorders	Unlabeled	Unlabeled	Unlabeled	Unlabeled	Unlabeled
Reproductive system and breast disorders	Unlabeled	Unlabeled	Unlabeled	Unlabeled	Unlabeled
Investigations	Unlabeled	Unlabeled	Unlabeled	Unlabeled	Unlabeled

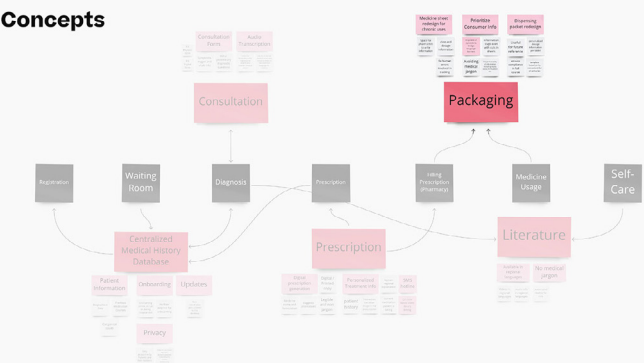
Concepts

Prescription and Personalized Literature

- + Digital Prescription
- + Fixes Legibility Issues
- + Personalized by linking to Medical History
- + Factors in:
 - Medicine Formulation
 - Dosage Instructions
 - Warnings
 - Dietary Restrictions
 - Bioequivalent Alternatives
 - Drug Interactions



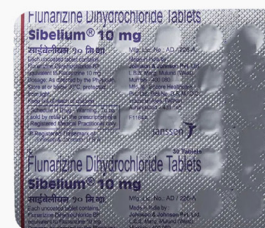
Concepts



Concepts

Packaging

- ✗ Useless information for patients
- ✗ Poor visual accessibility and chunking
- ✗ Popping pills tears out information
- ✗ Cutting pills also losses information



Concepts

Packaging

- + Segregating User and Pharma Info
- + System of symbols for language independence
- + Information printed on each cell to accommodate pill cutting



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4a. Navaaz EV Charging Solution

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4b.1, 4b.2, 4b.3

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Concepts

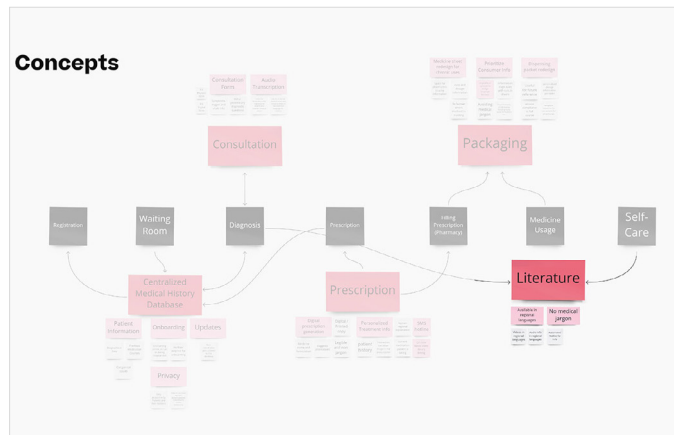
Packaging
Redesign for Chronic Meds

- + Chronic Medicines
- + Medicine Tracking for long term illnesses
- + Date and Dosage information encoded onto strips

Concepts

Packaging
Printed Medical Envelopes

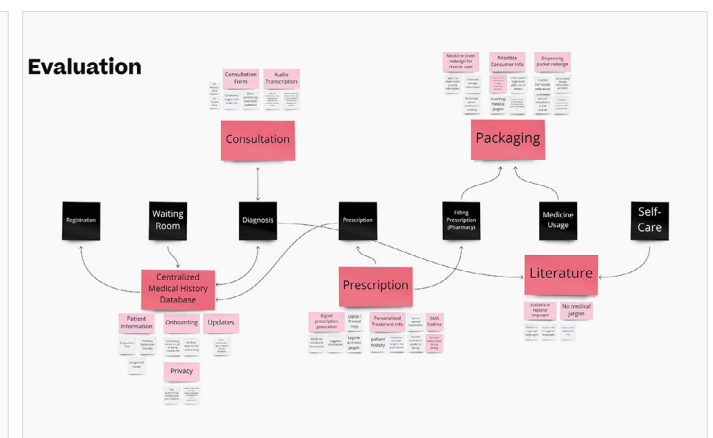
- + Accomodating Strip Cutting
- + Independent of Literacy constraints
- + Personalized dosage and usage instructions



Concepts

Literature
Available but Inaccessible

- + Relevant Medical Information on Usage, Side-effects and Contraindications.
- + Avoiding Medical Jargon
- + Available in Vernacular and Regional Language
- + Informational Videos and Audios
- + Accessible through SMS or Info Hotline Service



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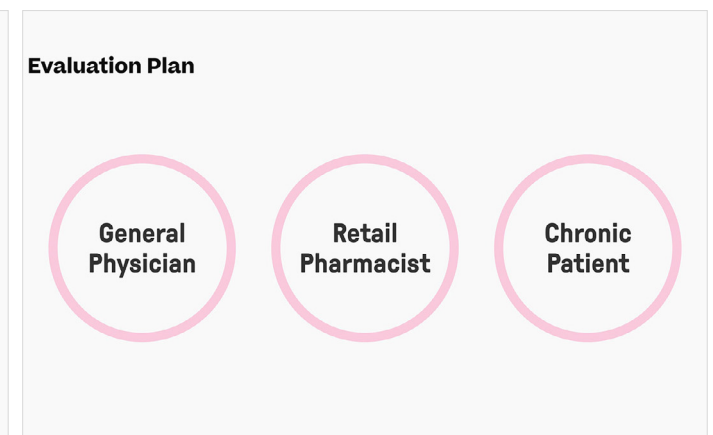
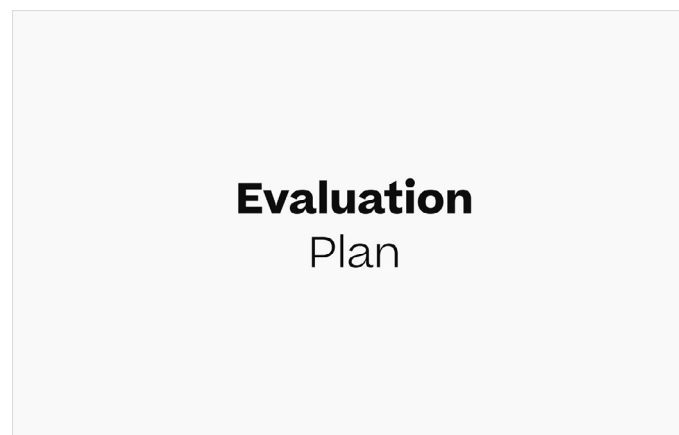
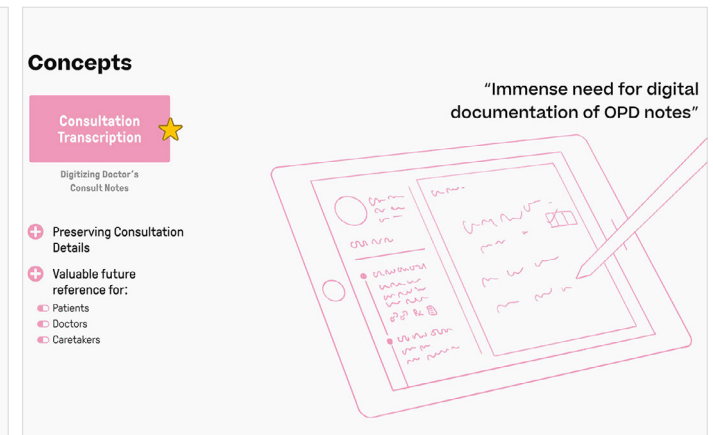
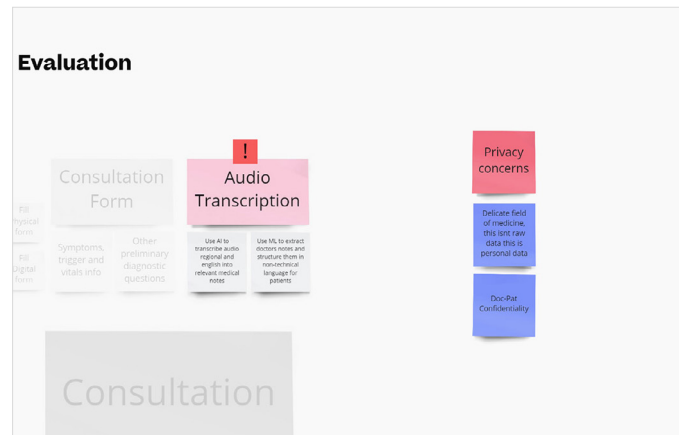
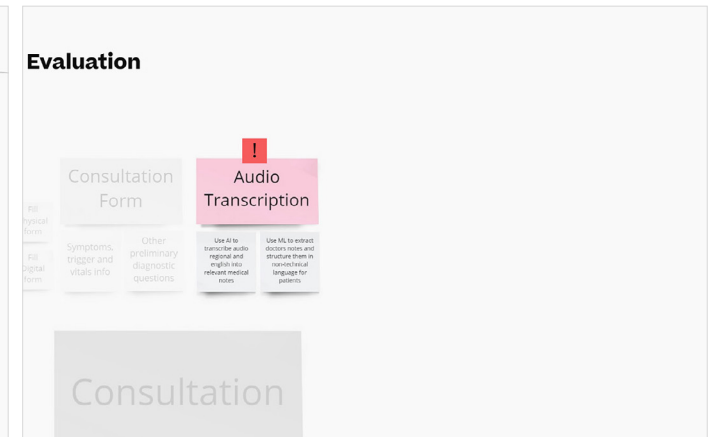
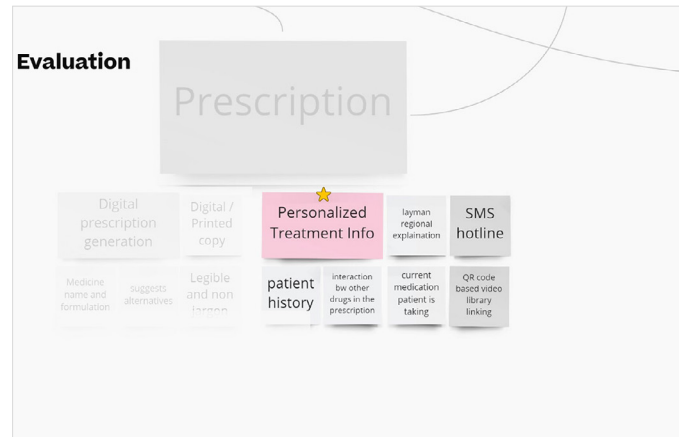
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3. Problem Statement
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abhiprāyam Comments and Feedback

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 - 4a. Navaaz EV Charging Solution
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 - 4b.5. Week Five: Presentation on Final Design Solution
 - 4b.5.1. Presentation
 - 4b.5.2. Project Synopsis
 - 4b.5.3. Prototypes
 - 4b.5.4, 4b.5.5
 - 4c, 4d, 4e, 4f
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Week Five: Presentation on Final Design Solution

Presentation

- [The Indian Medicine System.....](#) (13260 kb)



Presentation



Project Synopsis



Prototypes



Video



More Link

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4b.1, 4b.2, 4b.3, 4b.4

4b.5. Week Five: Presentation on Final Design Solution

4b.5.1. Presentation

4b.5.2. Project Synopsis

4b.5.3. Prototypes

4b.5.4, 4b.5.5

4c, 4d, 4e, 4f

5. Videos

6. Contact Details

Presentation on Final Design Solution of your System Design Project

Presentation Date and Time:

Timings: The Feedback is scheduled on Week 5 between 2.30pm to 5.30pm

The venue: Online

Sequence: Group by group starting with group 1

Timings: Presentation time: 12 minutes (we will play the video or you can make the presentation) + 10 minutes for Feedback

Feedback: Faculty mentors will give final feedback on your project

Grades: This is a graded presentation (40%)

Presentation:

- . Each group has to make a video of their presentations a of the 5 weeks work – in about 12 mins. duration and upload this in google classroom
- . The presentation needs to be professionally done.
- . The presentation needs to include your Final Concept along with the explanation of the design process that you followed.

Presentation (overall) should include:

- . WHO – team composition
- . WHAT – what was designed and for whom (users and environment)?
- . WHY – why was this an important systems level problem to address?
- . Issues - what were the problems encountered?
- . HOW – what was the process used in solving this system design project?
- . ANALYSIS – what were the insights gained from mappings (both main and subsystems) and opportunities for design
- . DESIGN – what was designed? Mention your objectives or redefined objectives
- . CONCEPTS/IDEATION – what are the iterations of the design evolution
- . PROTOTYPE – Can you demonstrate your final design (maybe use scenario) (could be guidelines/scenarios/prototypes etc.)?
- . Show highlights of the prototyping story
- . EVALUATE – What is the feedback from the users?
- . FUTURE - Next steps?

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Systems Design Project

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by

Prof. Ravi Poovaiah, Prof. Vivek Kant,
Prof. Pramod Khambete and Dr. Ajanta Sen
IDC, IIT Bombay

Source:

<https://www.dsource.in/course/systems-design-project/projects/indian-medicine-system/week-five-presentation-final-design>

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Presentation Details of points mentioned above:

Task 1: Prepare a presentation (of 12minutes duration) to include all the stages of your project:

- a. Title of the System Design Project or Problem Statement
- b. Team members
- c. Summary/content listing of your presentation
- d. World views
- e. Insights from Primary and Secondary Research (Mappings for overview as well as sub-systems)
- f. Major design opportunities
- g. Restatement of the problem / Design Objectives / Design Goals
- h. Overview of your ideas
- i. Alternate Concepts (sketches + quick scenarios + concept models)
- j. User Feedback on ideation
- k. Final Concept and its unique features
- l. Final Scenario
- m. Form and Interface Development or detailing
- n. Prototype
- o. User feedback on your final solution
- p. Future steps
- q. Full References
- r. Acknowledgments – to all who have helped

Presentation Essentials:

- a. Present in an engaging and crisp manner
- b. Design the slides/visuals to reflect the relevance of your topic
- c. Use your communication design skills to make the presentation visual
- d. Design proper layout; use appropriate type, colour and background
- e. Its nicer if all the team members take turns in presenting
- f. It makes sense to have main titles, sub titles and then running text/images
- g. Have a summary/content slide in the beginning
- h. Make good use of appropriate medias in the presentation
- i. Use appropriately theatre, drama, story, scenarios, video, etc. to convey your ideas
- j. Preparing a script is a good idea – reading text from the slide should be avoided

Presentation Tips:

- k. Never underestimate the need to rehearse. This can be usefully done alone, with team members, and with novice audiences. Video tape your self (to get confidence).

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- l. Never underestimate how long it takes to describe things clearly to a novice audience.
- m. Never underestimate how little the audience knows about what is so interesting about your project.
- n. Do not be dull when you speak, audiences want to engage in your enthusiasm.
- o. Make slides visible from the back of a room (try them out!)
- p. Do not talk over any audio in your presentation.

Submission Details:

- a) Updated project Report
- b) Video Presentation of 12 minutes – both slides + Final Video/Demo of Prototype
- c) A 250 word synopsis of the project along with the title, keywords and name of team members
- d) 2-3 high resolution images of your final design (1200 x800 x 300 dpi)
- e) It would be great if you can submit a copy of your MIRO board

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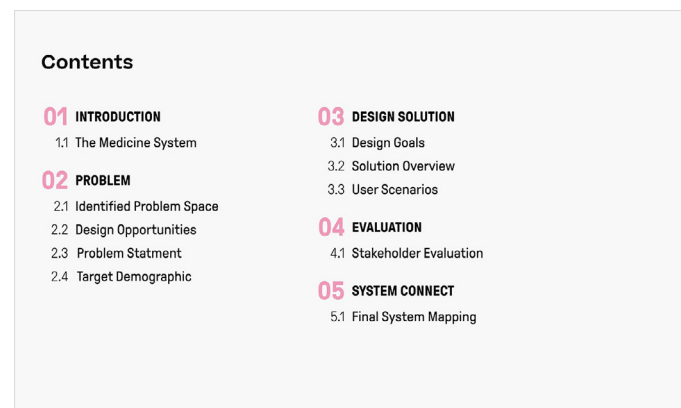
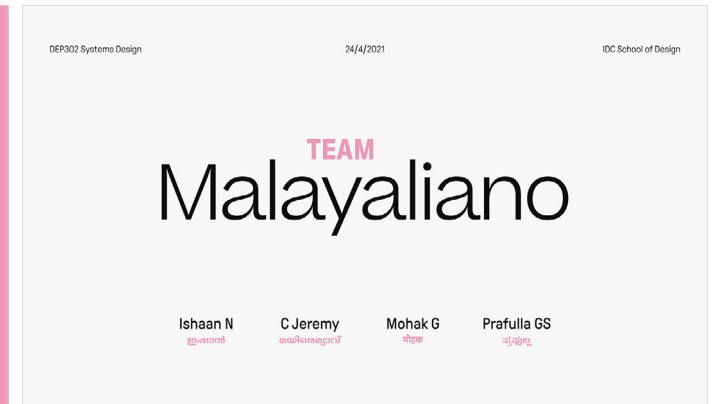
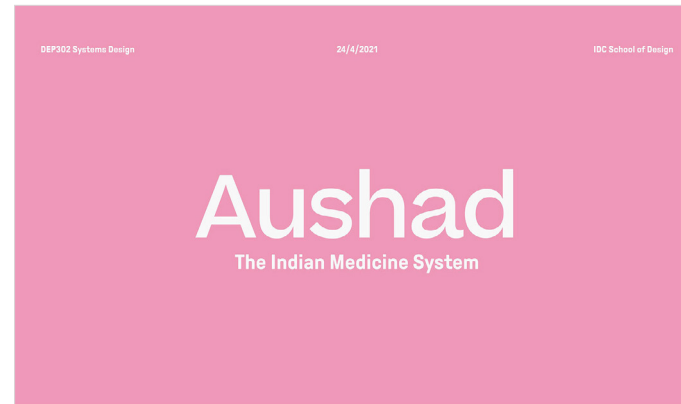
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 - 4a. Navaaz EV Charging Solution
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Presentation

Presentation

- The Indian Medicine System.....📄 (77760 kb)



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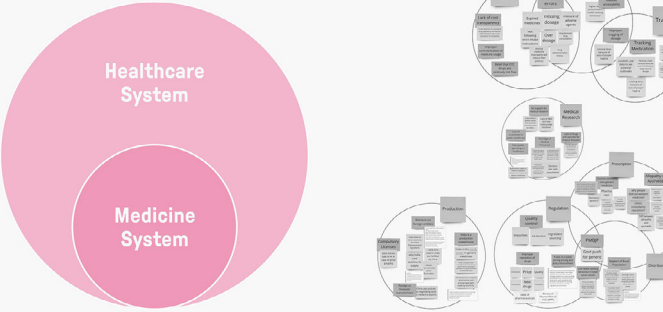
Introduction

The Medicine System

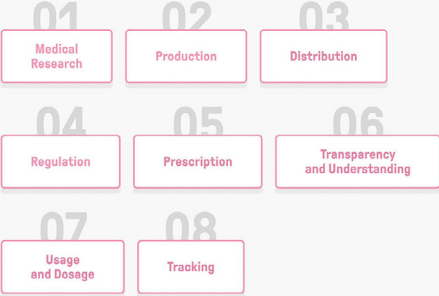
Research



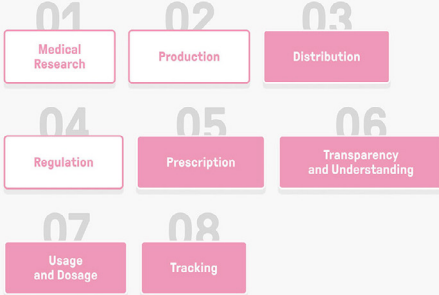
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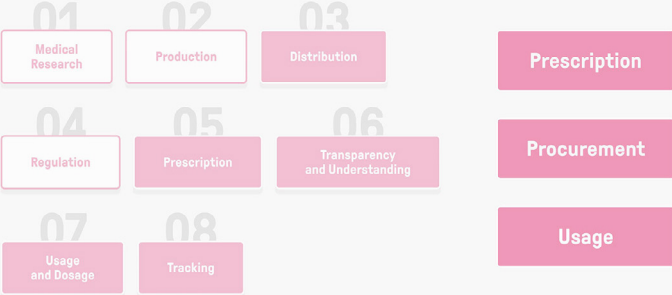
Entities & Variables



Entities & Variables



Entities & Variables



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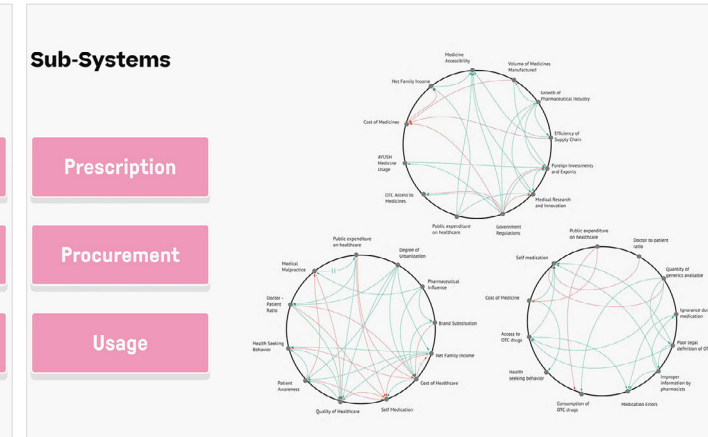
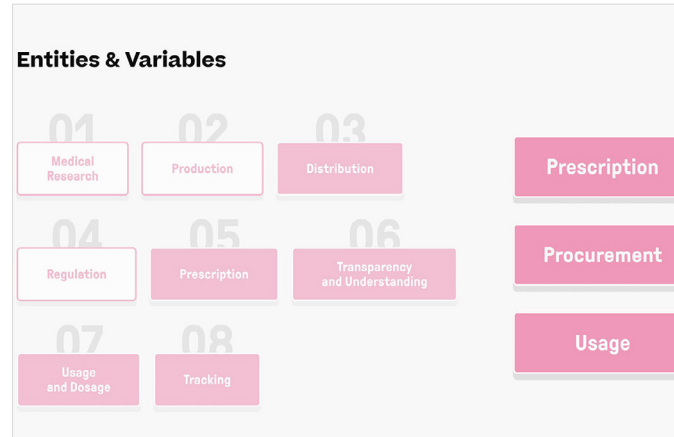
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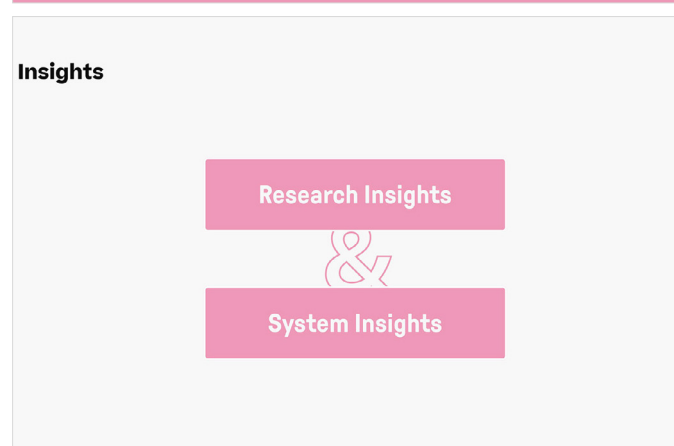
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 - 4b.5.4, 4b.5.5
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Problem

Problem System Insights



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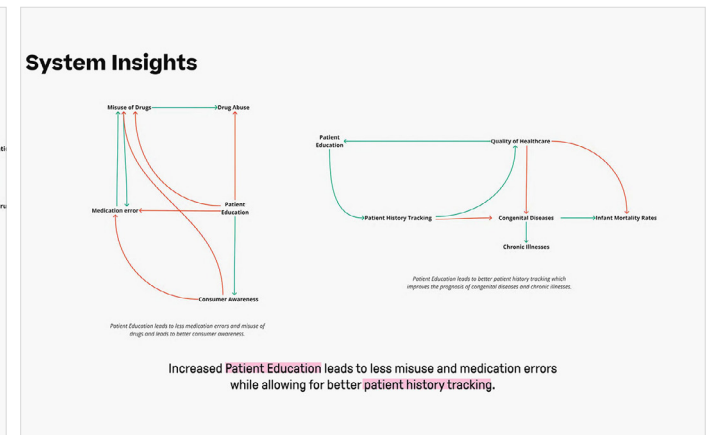
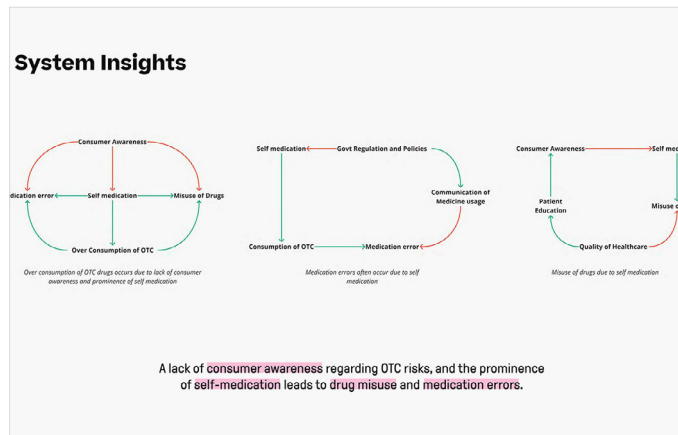
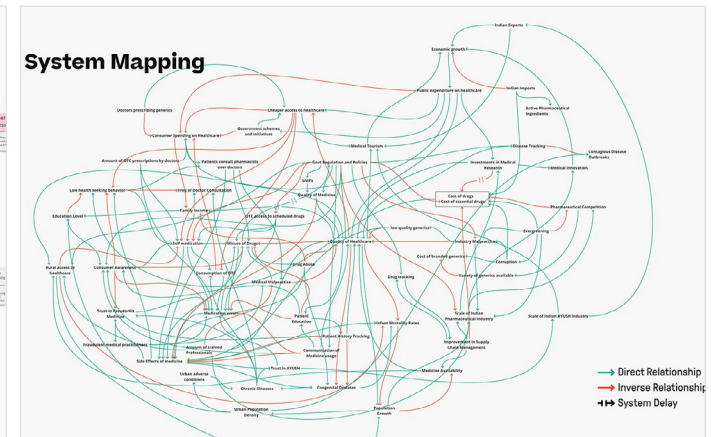
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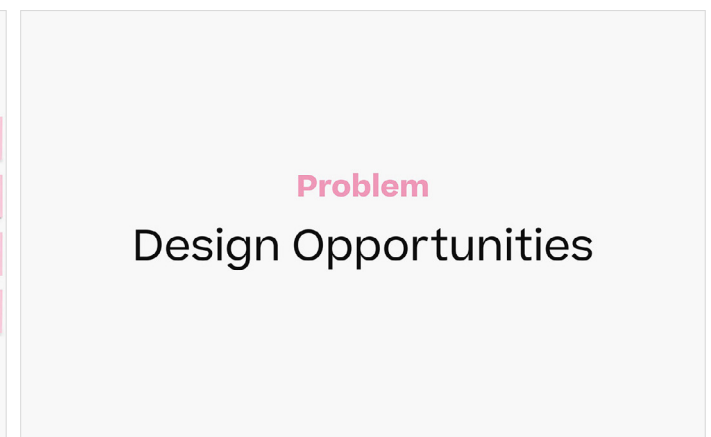
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Identified Problems

Comm. of Medicine usage	Medical Malpractice	Amount of trained Professionals	Corruption	Government schemes and initiatives	Misuse of Drugs	Infant mortality rates	Consumer Spending on Healthcare
Indian Imports	Medication error	Trust in AYUSH	Industry malpractice	low quality generics	Govt Regulation and Policies	cheaper access to healthcare	Freq of Doctor Consultation
Fraudulent medical practitioners	Consumer Awareness	Medicine Availability	Rural access	low health seeking behaviour	Economic growth	Indian Exports	Quality of Medicine
Quality of Healthcare	Self medication	Variety of generics available	Doctors prescribing generics	Investments on Medical Research	Patients consulting pharmacists instead of doctors	Improvement in Supply Chain Management	Amount of OTC prescriptions by doctors
Net Family Income	Public expenditure on healthcare	Adverse urban conditions	Pharmaceutical Competition	Patient history Tracking	Disease Tracking	Drug Tracking	



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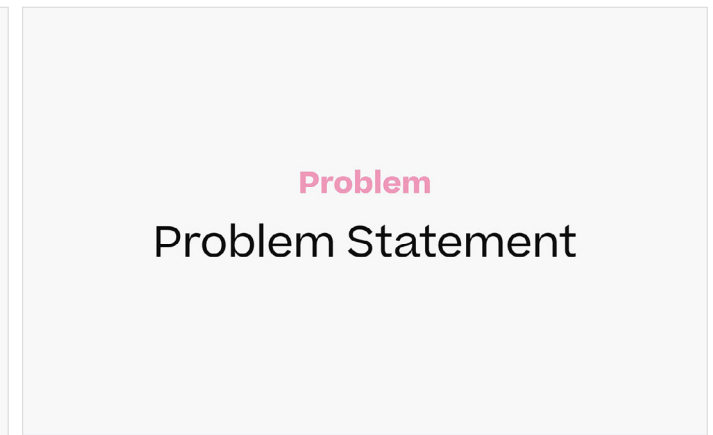
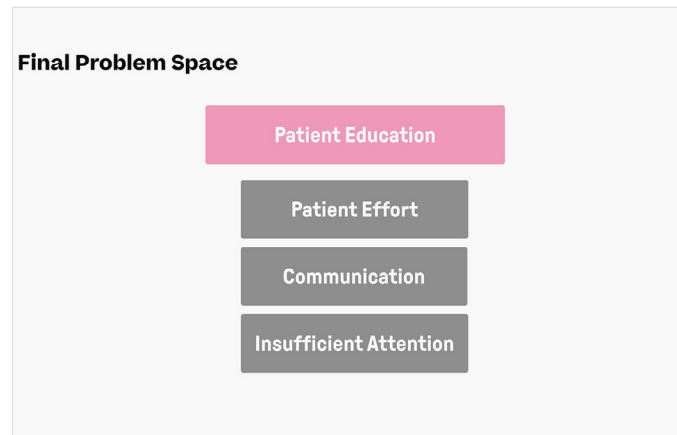
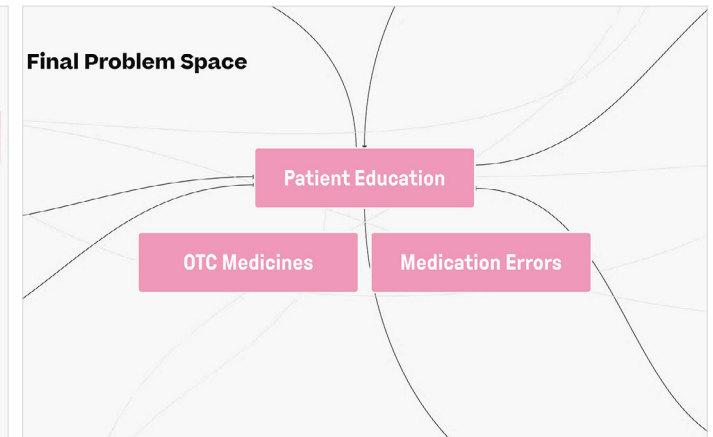
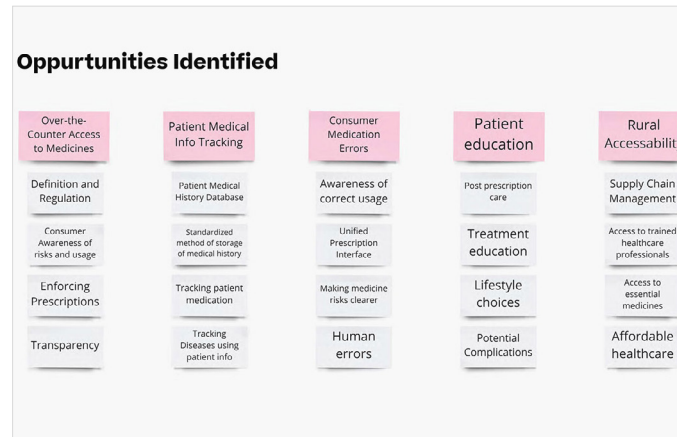
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6. Contact Details



Problem Statement

Ineffective communication between doctors and patients leaves patients with insufficient understanding of their condition, treatment and leaves them unable to perform subsequent self-care. Doctors have to diagnose on incomplete or inaccurate information.

Problem Statement

Ineffective communication between doctors and patients leaves patients with insufficient understanding of their condition, treatment and leaves them unable to perform subsequent self-care. Doctors have to diagnose on incomplete or inaccurate information.

Ineffective Communication and Documentation

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Problem Statement

Ineffective communication between doctors and patients leaves patients with insufficient understanding of their condition, treatment and leaves them unable to perform subsequent self-care. Doctors have to diagnose on incomplete or inaccurate information.

Ineffective Communication and Documentation

Patient Condition and Treatment

Problem Statement

Ineffective communication between doctors and patients leaves patients with insufficient understanding of their condition, treatment and leaves them unable to perform subsequent self-care. Doctors have to diagnose on incomplete or inaccurate information.

Ineffective Communication and Documentation

Patient Condition and Treatment

Compliance and Self-Care

Problem

Target Demographic

Target Demographics



- 01 Semi-Urban
- 02 Tier 2, Tier 3 Cities
- 03 Medium to Low Income Households
- 04 Limited Healthcare Infrastructure
- 05 Crowded Healthcare Facilities
- 06 Limited Education and Literacy

Primary Research

11

Patients

3

Doctors

3

Pharmacists

Design Solution

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Systems Design Project

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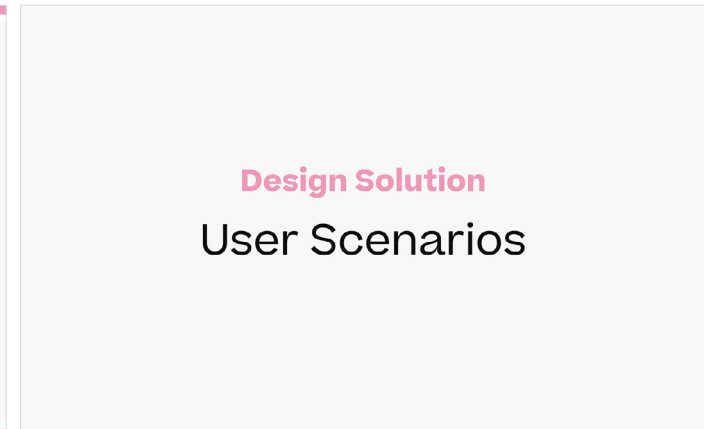
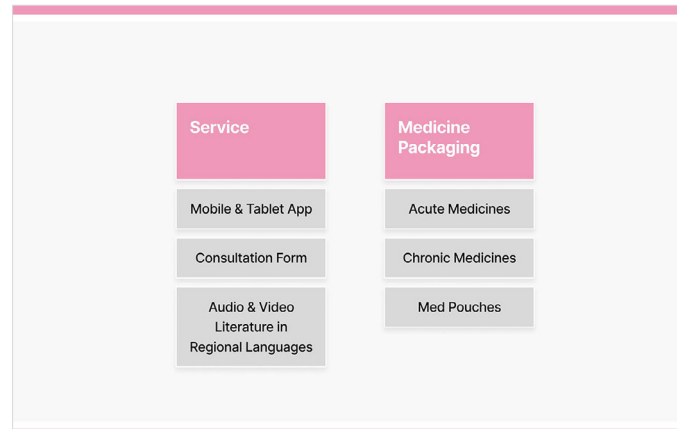
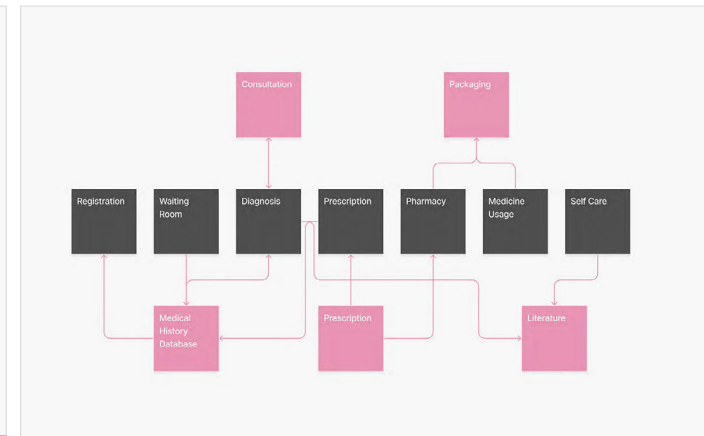
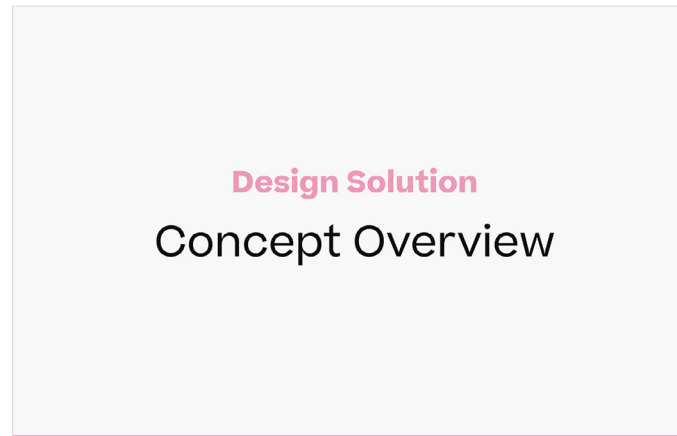
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Primary Persona



Manju K S
47, Female

-  Hirebidanur
-  Literate in Kannada
-  Hypertension and Diabetes
-  Cannot Self Medicate due to English Instructions
-  Emergent Smartphone User
-  Trusts her Doctor implicitly

Scenario

Fever and cold visit

Dr. Badrinath



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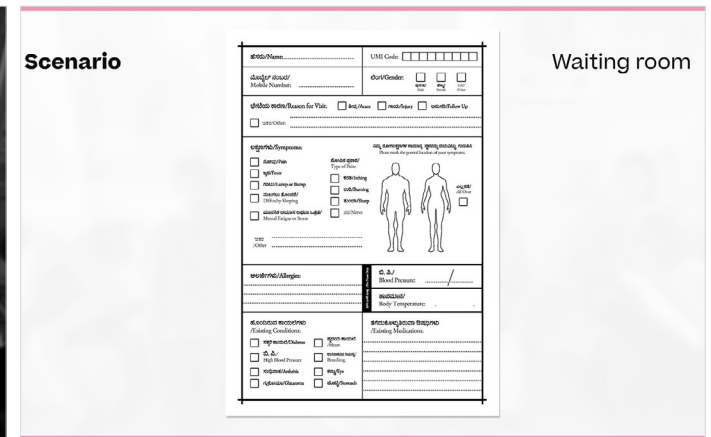


Scenario

Waiting room

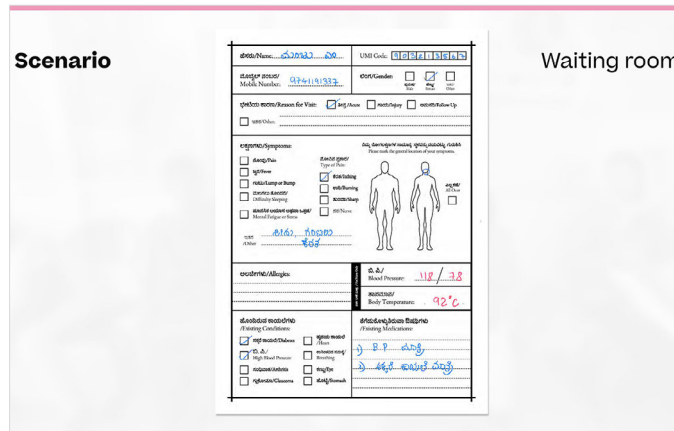
Better use of time to get patients started on thinking about their symptoms clearly.

To help open up the conversation during consultation



Scenario

Waiting room



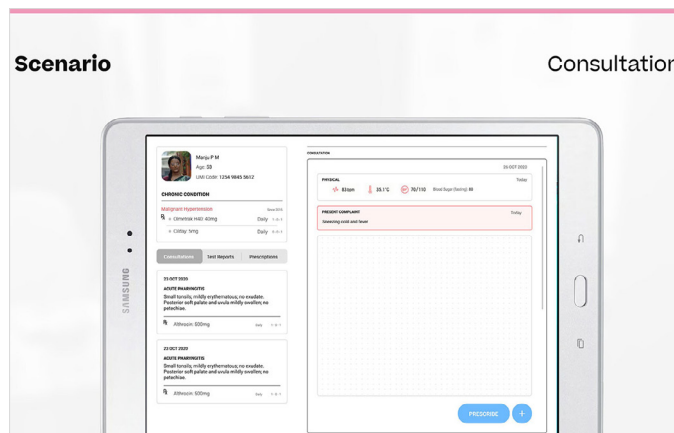
Scenario

Waiting room



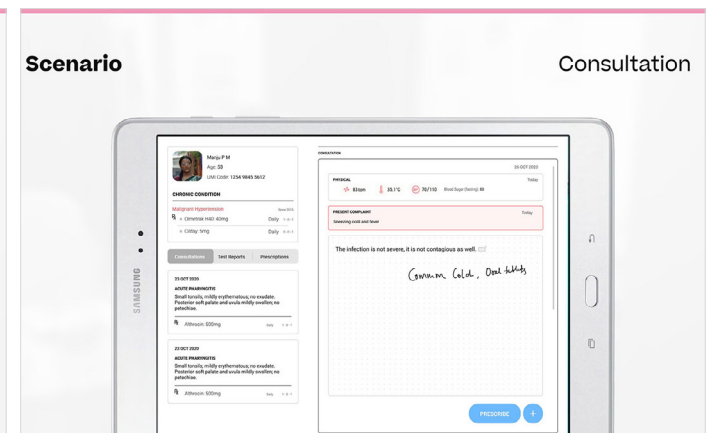
Scenario

Consultation



Scenario

Consultation



Scenario

Consultation

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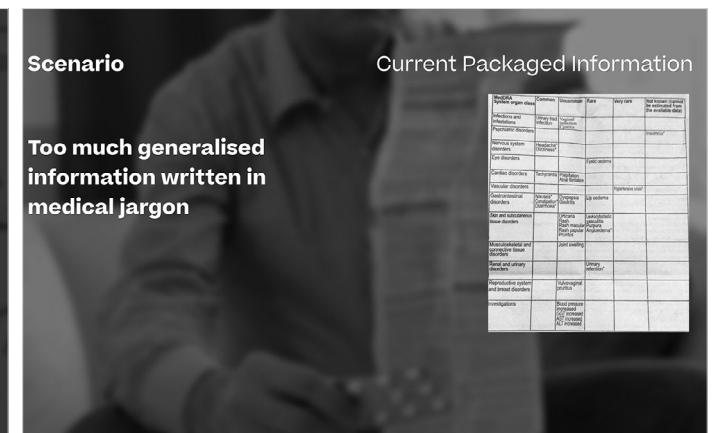
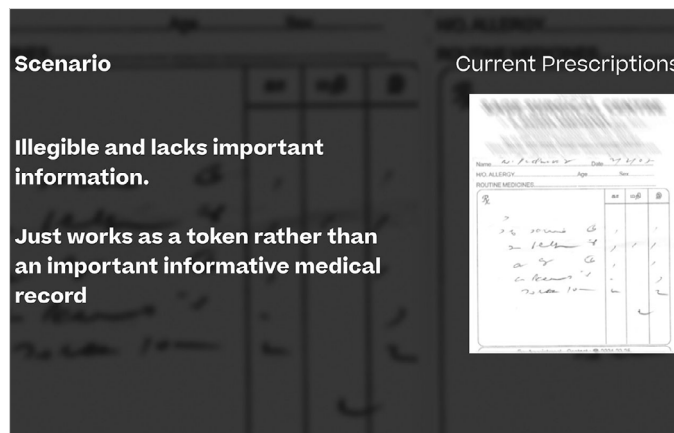
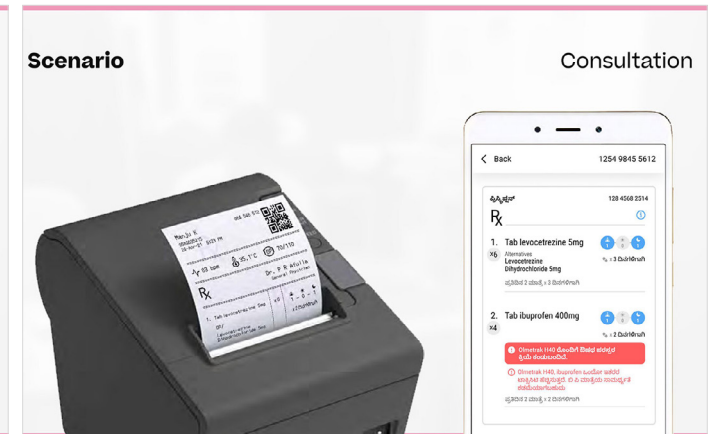
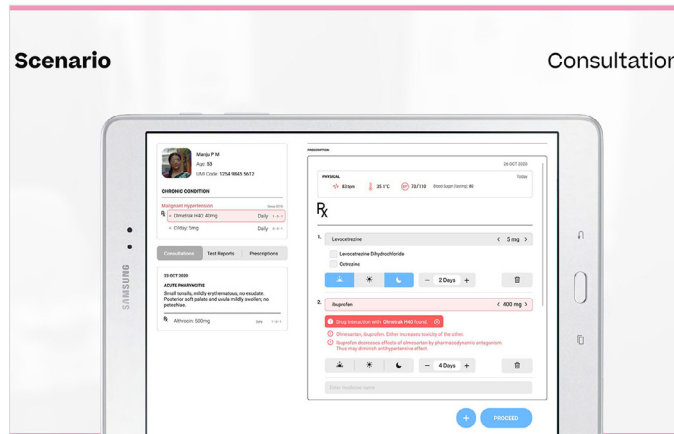
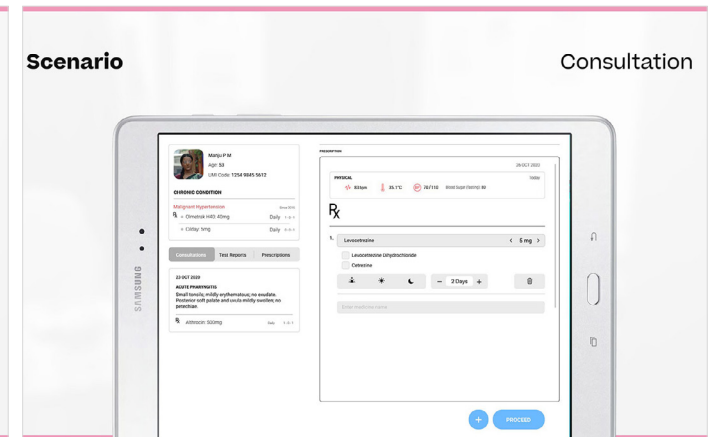
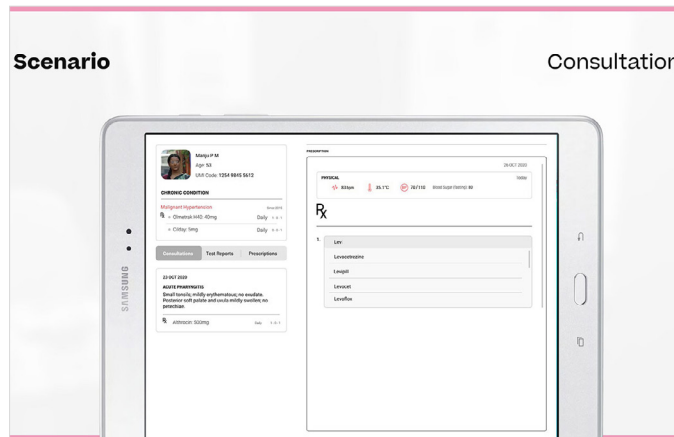
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Scenario **Consultation**

Scenario **Consultation**

Scenario **Consultation**

Scenario **Consultation**

Scenario **Pharmacy**

Scenario **Pharmacy**

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Systems Design Project

Interconnected and form a System within Defined Boundaries

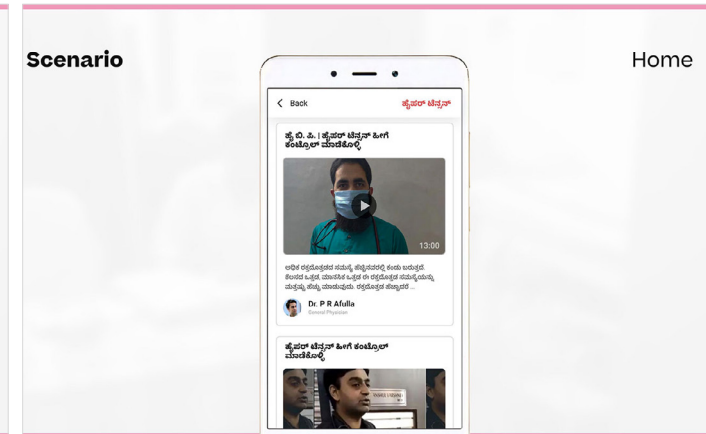
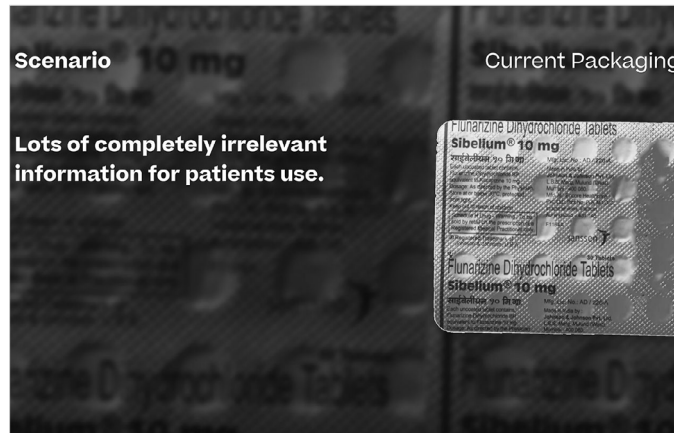
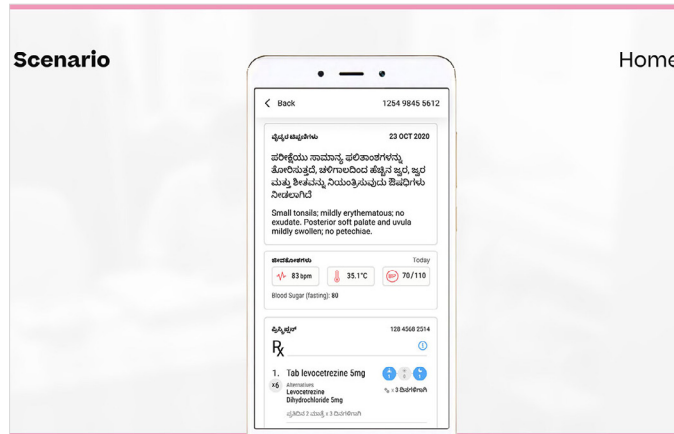
by

Prof. Ravi Poovaiah, Prof. Vivek Kant,
Prof. Pramod Khambete and Dr. Ajanta Sen
IDC, IIT Bombay

Source:

<https://www.dsource.in/course/systems-design-project/projects/indian-medicine-system/week-five-presentation-final-design-0>

1. Aims of Systems Design Project
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4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b. The Indian Medicine System
 - 4b.1, 4b.2, 4b.3, 4b.4
 - 4b.5. Week Five: Presentation on Final Design Solution
 - 4b.5.1. Presentation
 - 4b.5.2. Project Synopsis
 - 4b.5.3. Prototypes
 - 4b.5.4, 4b.5.5
 - 4c, 4d, 4e, 4f
5. Videos
6. Contact Details



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1. Aims of Systems Design Project

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4. Projects

4a. Navaaz EV Charging Solution

4b. The Indian Medicine System

4b.1, 4b.2, 4b.3, 4b.4

4b.5. Week Five: Presentation on

Final Design Solution

4b.5.1. Presentation

4b.5.2. Project Synopsis

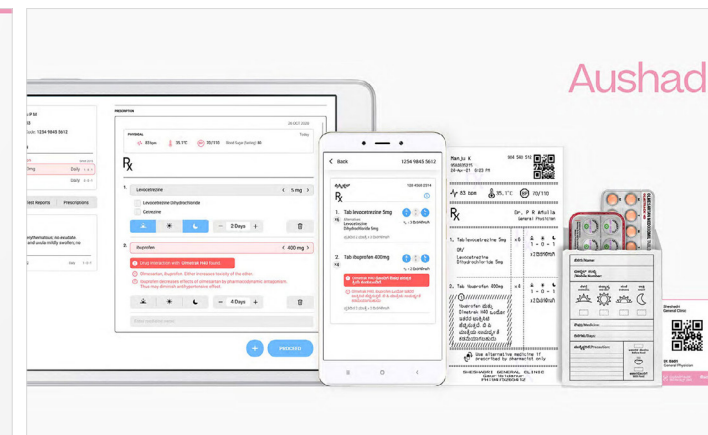
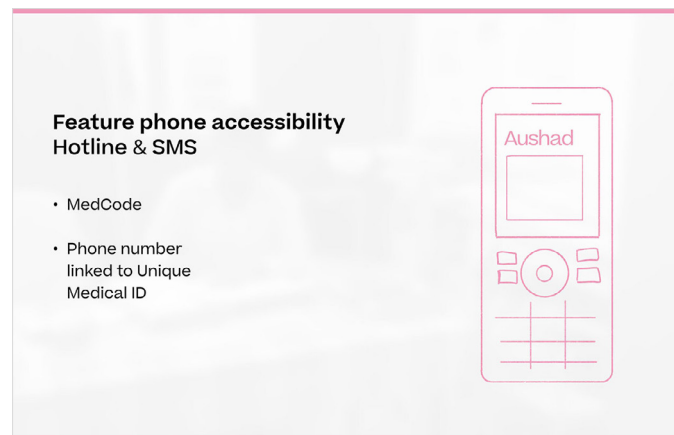
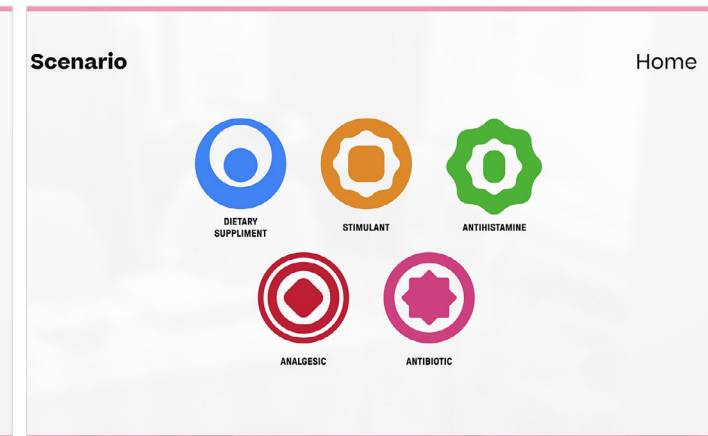
4b.5.3. Prototypes

4b.5.4, 4b.5.5

4c, 4d, 4e, 4f

5. Videos

6. Contact Details



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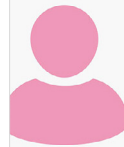
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1. Aims of Systems Design Project
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 - 4a. Navaaz EV Charging Solution
 - 4b. The Indian Medicine System
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 - 4b.5.3. Prototypes
 - 4b.5.4, 4b.5.5
 - 4c, 4d, 4e, 4f
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6. Contact Details

Evaluation

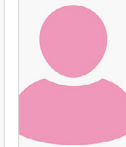
Evaluation Stakeholder Evaluation



Chronic Adult
Male



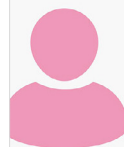
Very appreciative of the **Central Medical Database** as they had faced a lot of issues when moving hospitals.



Chronic Adult
Male



Vocalized **privacy concerns** about malicious doctors selling patient information to third parties



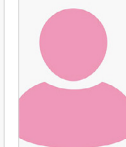
Chronic Adult
Male



Vocalized **privacy concerns** about malicious doctors selling patient information to third parties

Secure means of data transfer and storage.

No doctor access without patient consent



Chronic Adult
Male



Mentioned concerns about information in **English on medicine packaging.**

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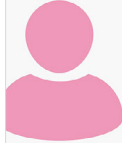
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 - 4b.5.2. Project Synopsis
 - 4b.5.3. Prototypes
 - 4b.5.4, 4b.5.5
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Chronic Adult Male

Aa Mentioned concerns about information in **English on medicine packaging.**

Using medcodes to get info in preferred language.




Dr. Chaitanya
(General Phy)




Dr. Chaitanya
(General Phy)

:) Particularly appreciated the **Central Medical Database, Drug Interaction warnings** and **redesigned packaging.**




Dr. Chaitanya
(General Phy)

📎 Suggested more **doctor control** over sharing **sensitive information** like the OPD notes.



Dr. Chaitanya
(General Phy)

👤 Many patients have doubts regarding medication or symptoms but don't have many **channels to contact the doctor** until the next consultation.



Dr. Chaitanya
(General Phy)

"Pharmacists rarely tend to educate patients, so the prescription and drug packaging redesign will really help out."

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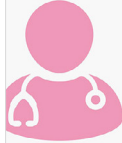
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 - 4b.5.3. Prototypes
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Dr. Chaitanya
(General Phy)

“You hit a really big nail in the head. This is a fabulous undertaking, and very much needed currently.”



ANALGESIC

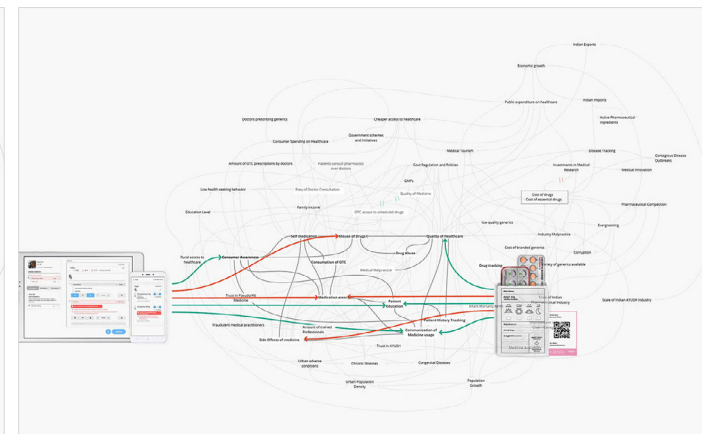
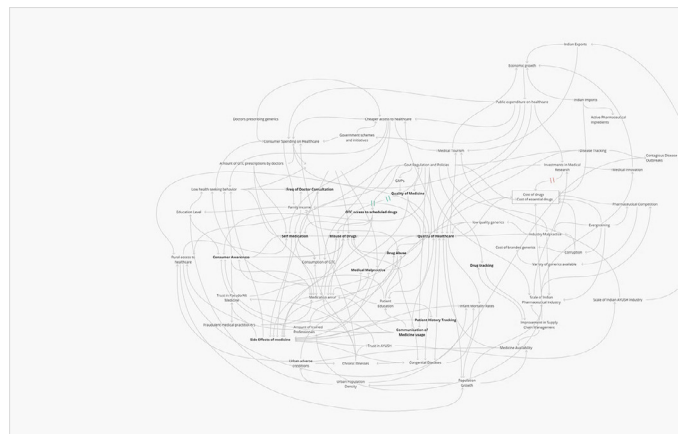


ANTIHISTAMINE

Medicine class based symbols might evoke unsafe self medication especially in elderly

System Connect

Evaluation Final System Mapping



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Systems Design Project

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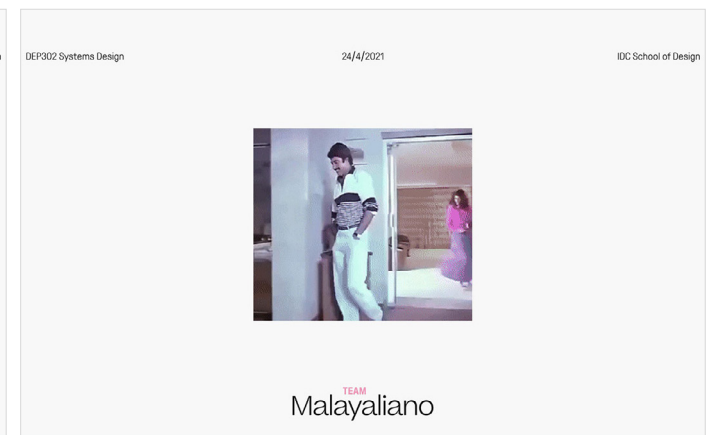
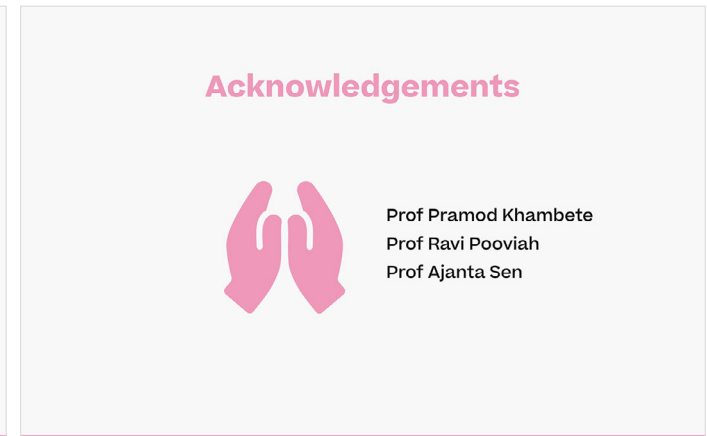
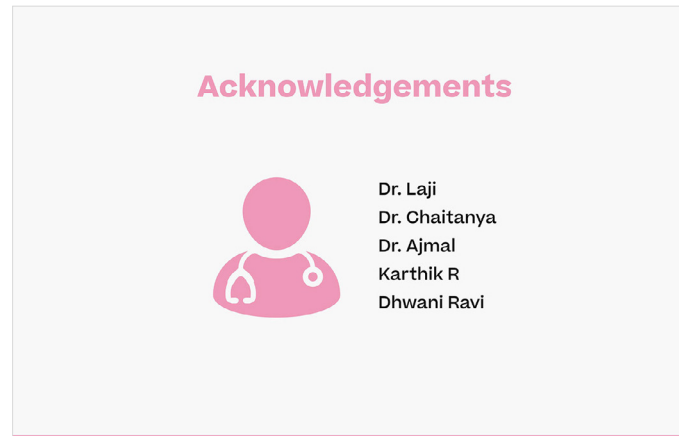
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1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b. The Indian Medicine System
 - 4b.1, 4b.2, 4b.3, 4b.4
 - 4b.5. Week Five: Presentation on Final Design Solution
 - 4b.5.1. Presentation
 - 4b.5.2. Project Synopsis
 - 4b.5.3. Prototypes
 - 4b.5.4, 4b.5.5
 - 4c, 4d, 4e, 4f
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Source:

<https://www.dsource.in/course/systems-design-project/projects/indian-medicine-system/week-five-presentation-final-design-1>

Project Synopsis

This project is a deep dive into the Indian Healthcare system, specifically the Indian Medicine System, in an attempt to understand and map all the various perspectives in play and the clogs that interact to bring about these perspectives. Our team of 4, with specializations ranging from User Research to Interaction Techniques and Visual Design, was able to come together to identify the inner workings of this system and through secondary research and stakeholder interviews we were allowed to witness what works, what needs improvement and how innovatively people adapt to accommodate the system's lapses.

Having understood the unique challenges Indians face in this space, we identified Patient Education as one of the key aspects to empower through a series of interventions spread across the system. Disseminating the interventions allows for a more holistic approach to the problem rather than trying to push through from one angle. We mapped out how each of these interventions positively impacts the larger system and this system design proposal was then presented forth to valuable stakeholder insights. Their response was a healthy of approval and some improvement suggestions, further grounding our work into reality. We are proud to have had the opportunity to work on a solution for the semi-urban middle-class population, a demographic that is often underrepresented when it comes to design solutions. We hope that the progress we have made here inspires and creates a real positive impact in the near future.

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2. Course Schedule and Grading
3. Problem Statement
4. Projects
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 - 4b. The Indian Medicine System
 - 4b.1, 4b.2, 4b.3, 4b.4
 - 4b.5. Week Five: Presentation on Final Design Solution
 - 4b.5.1. Presentation
 - 4b.5.2. Project Synopsis
 - 4b.5.3. Prototypes
 - 4b.5.4, 4b.5.5
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5. Videos
6. Contact Details

Design Course

Systems Design Project

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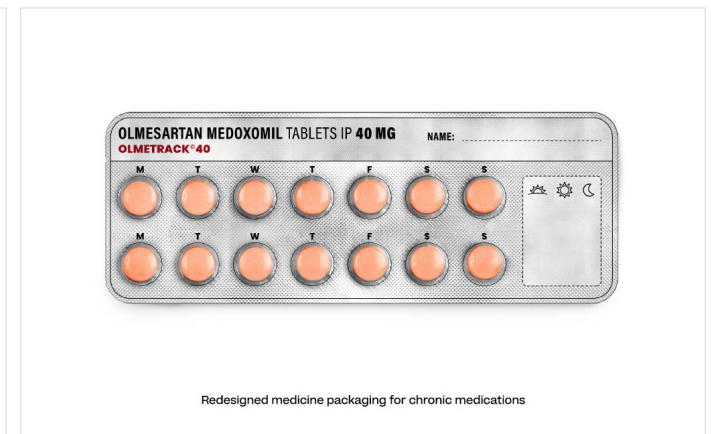
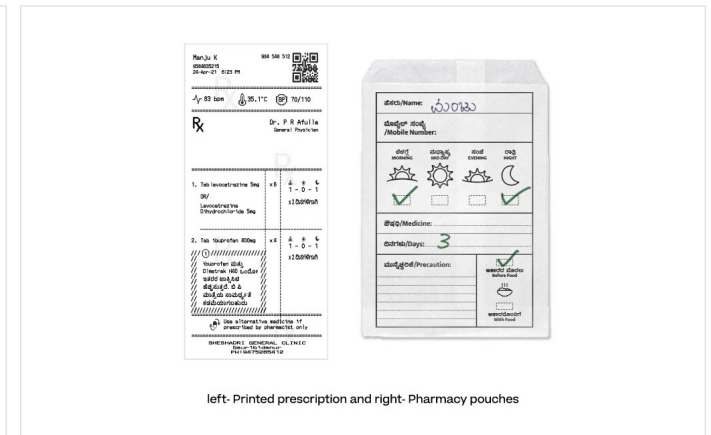
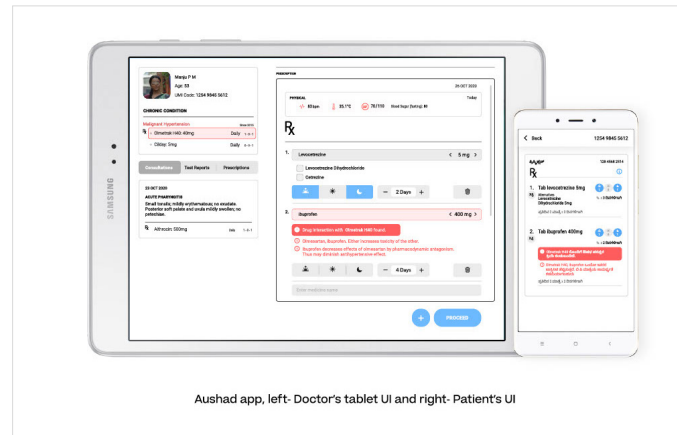
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Prototypes



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2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b. The Indian Medicine System
 - 4b.1, 4b.2, 4b.3, 4b.4
 - 4b.5. Week Five: Presentation on Final Design Solution
 - 4b.5.1. Presentation
 - 4b.5.2. Project Synopsis
 - 4b.5.3. Prototypes
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<https://www.dsource.in/course/systems-design-project/projects/indian-medicine-system/week-five-presentation-final-design-3>

Video



1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b. The Indian Medicine System
 - 4b.1, 4b.2, 4b.3, 4b.4
 - 4b.5. Week Five: Presentation on Final Design Solution
 - 4b.5.1, 4b.5.2
 - 4b.5.3. Prototypes
 - 4b.5.4. Video
 - 4b.5.5. More Link
 - 4c, 4d, 4e, 4f
5. Videos
6. Contact Details

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More Link

More Link

- [The Indian Medicine System.....](#)  (325 kb)

1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b. The Indian Medicine System
 - 4b.1, 4b.2, 4b.3, 4b.4
 - 4b.5. Week Five: Presentation on Final Design Solution
 - 4b.5.1, 4b.5.2
 - 4b.5.3. Prototypes
 - 4b.5.4. Video
 - 4b.5.5. More Link
 - 4c, 4d, 4e, 4f
5. Videos
6. Contact Details

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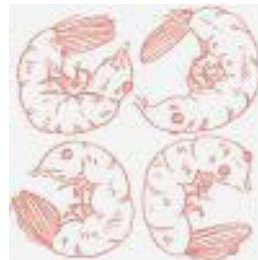
The BudBud Foundation



Week One - Need Finding and understanding the Problem



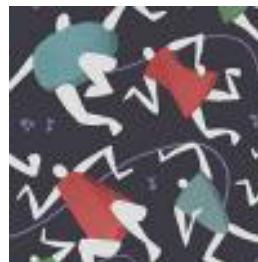
Week Two: Identify your Problem Area and Focus on it



Week Three: Ideation - Focus on Problem Area



Week Four: Focus on Soft Prototyping



Week Five: Presentation on Final Design Solution

1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b. The Indian Medicine System
 - 4c. The BudBud Foundation
 - 4c.1. Week One - Need Finding and understanding the Problem
 - 4c.2. Week Two: Identify your Problem Area and Focus on it
 - 4c.3, 4c.4, 4c.5
 - 4d, 4e, 4f
5. Videos
6. Contact Details

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1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b. The Indian Medicine System
 - 4c. The BudBud Foundation
 - 4c.1. Week One - Need Finding and understanding the Problem
 - 4c.1.1. Presentation
 - 4c.2. Week Two: Identify your Problem Area and Focus on it
 - 4c.3, 4c.4, 4c.5
 - 4d, 4e, 4f
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6. Contact Details

Week One - Need Finding and understanding the Problem

Project Report

- [The BudBud Foundation.....](#)  (270.48 kb)



Presentation

Week One: Need Finding and understanding the Problem

- Form Working Groups
- Selection/Identification of System Design Problem (Why, how, whom, where, when)
- Worldview Mappings (Brainstorming, Card Sorting, Affinities, Network Maps) - Broader Perspective
- Secondary Research - Understanding Problem – Design/Media/Technology Search - Existing Solutions – History
- Future Study Papers - etc.
- Identify User Groups - Understanding User Needs – Talking to Experts - Primary Research (Contextual Inquiry)
- Next Steps

End of Week One: 1st Stage – Understanding the Problem Presentation

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

Submission: Slide presentation + Report submission (must for grading)

Grading Points: 15%

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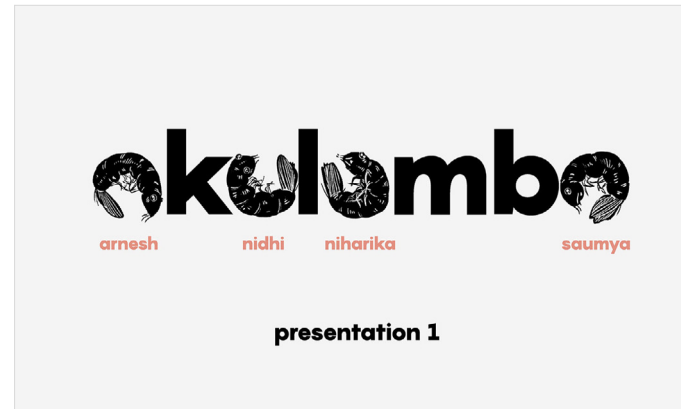
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1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b. The Indian Medicine System
 - 4c. The BudBud Foundation
 - 4c.1. Week One - Need Finding and understanding the Problem
 - 4c.1.1. Presentation
 - 4c.2. Week Two: Identify your Problem Area and Focus on it
 - 4c.3, 4c.4, 4c.5
 - 4d, 4e, 4f
5. Videos
6. Contact Details

Presentation

Presentation

- The BudBud Foundation.....📄 (8790 kb)



contents

Inclination mapping
Interviews
Secondary Research
Focus Identification
Problem statement
Future steps

contents

Inclination mapping	—	Brainstorming
Interviews		Narrowing down
Secondary Research		Spectrum of interest
Focus Identification		Mental Health
Problem statement		First Decisions
Future steps		

contents

Inclination mapping
Interviews
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2. Course Schedule and Grading

3. Problem Statement

4. Projects

4a. Navaaz EV Charging Solution

4b. The Indian Medicine System

4c. The BudBud Foundation

4c.1. Week One - Need Finding and understanding the Problem

4c.1.1. Presentation

4c.2. Week Two: Identify your Problem Area and Focus on it

4c.3, 4c.4, 4c.5

4d, 4e, 4f

5. Videos

6. Contact Details

Contents

- Inclination mapping
- Interviews
- Secondary Research ——— literature
- Focus Identification ——— identifying systems
- Problem statement
- Future steps

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- Interviews
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Contents

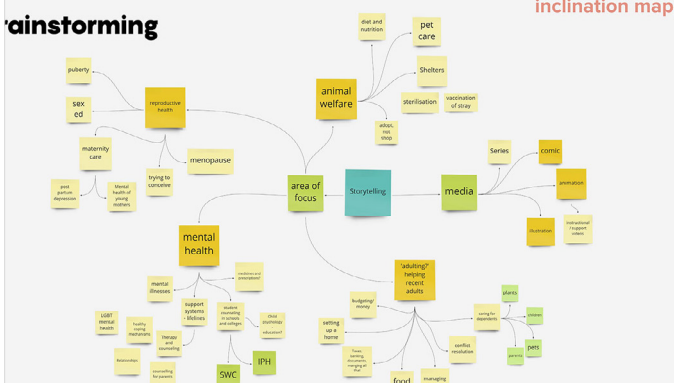
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inclination mapping



brainstorming

inclination mappi



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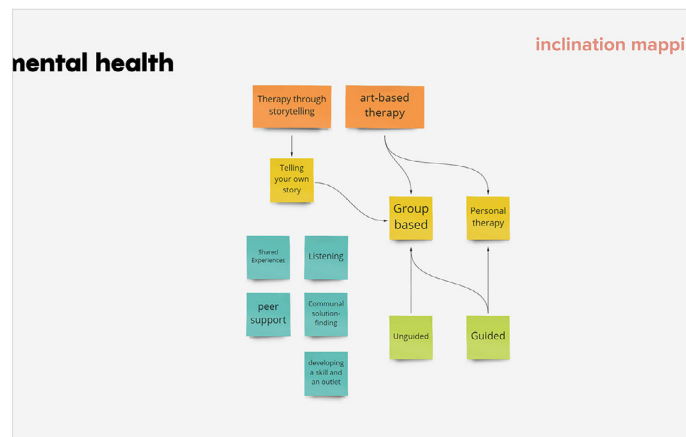
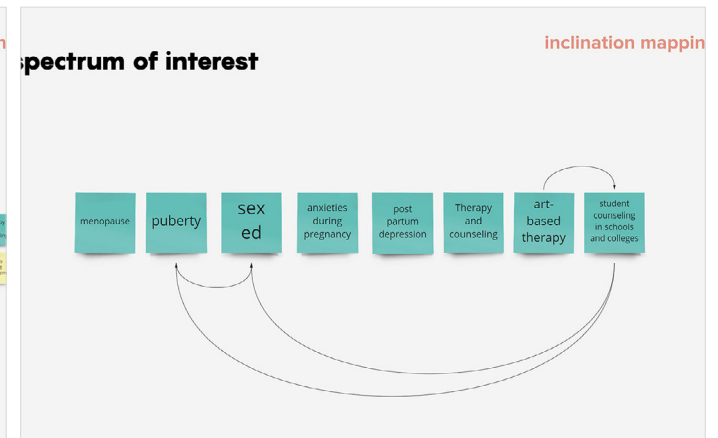
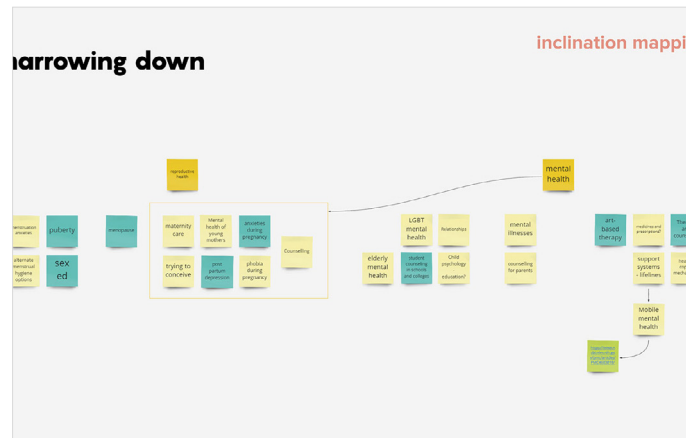
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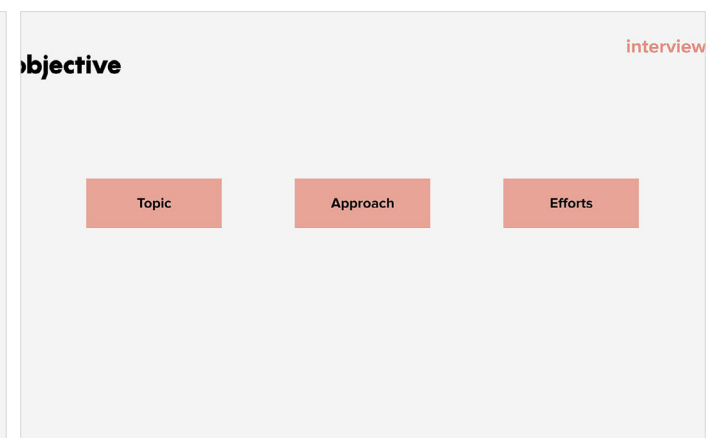
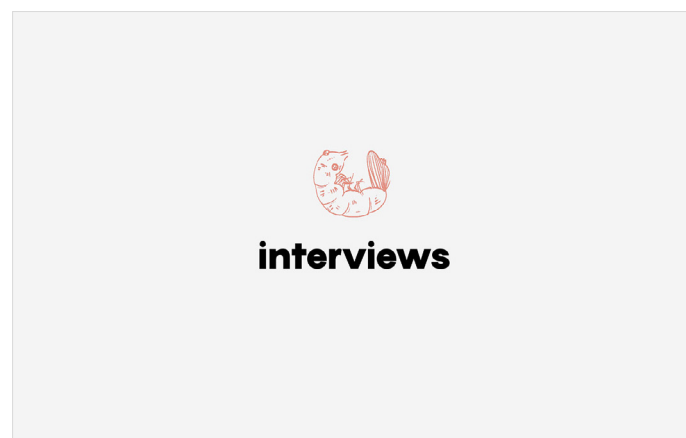
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2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b. The Indian Medicine System
 - 4c. The BudBud Foundation
 - 4c.1. Week One - Need Finding and understanding the Problem
 - 4c.1.1. Presentation
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 - 4d, 4e, 4f
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first decisions inclination mapping

topic/focus group	approach
students	group therapy
young children	art therapy
domestic violence	support groups
middle-aged women	awareness systems



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3. Problem Statement
4. Projects

- 4a. Navaaz EV Charging Solution
- 4b. The Indian Medicine System
- 4c. The BudBud Foundation

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4c.1.1. Presentation

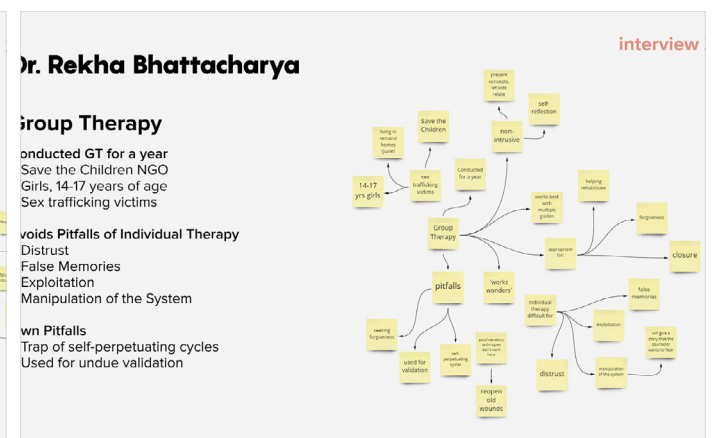
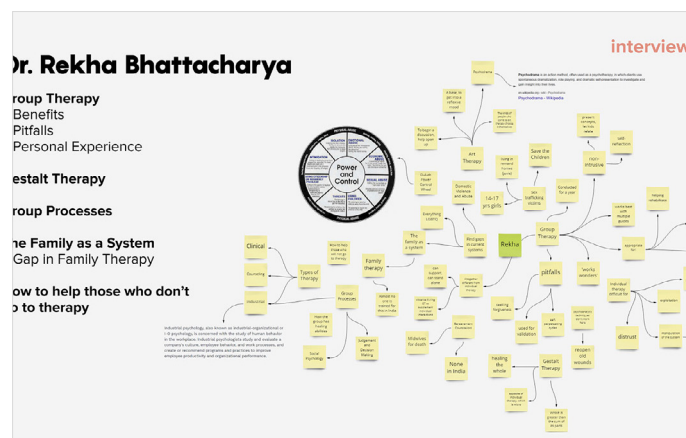
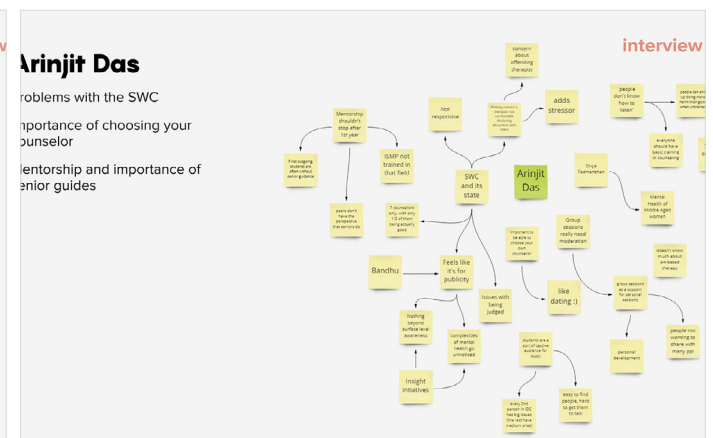
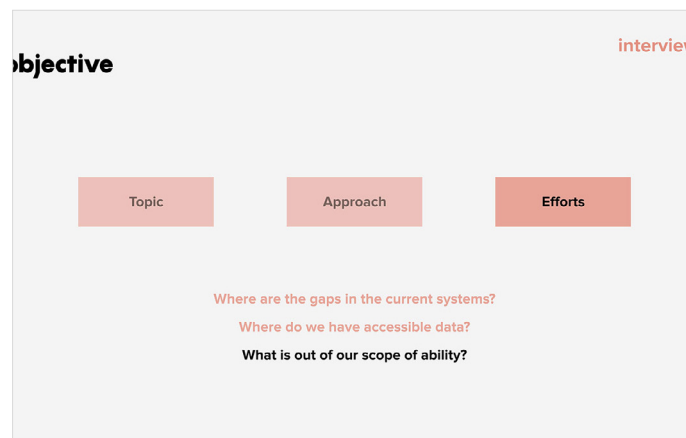
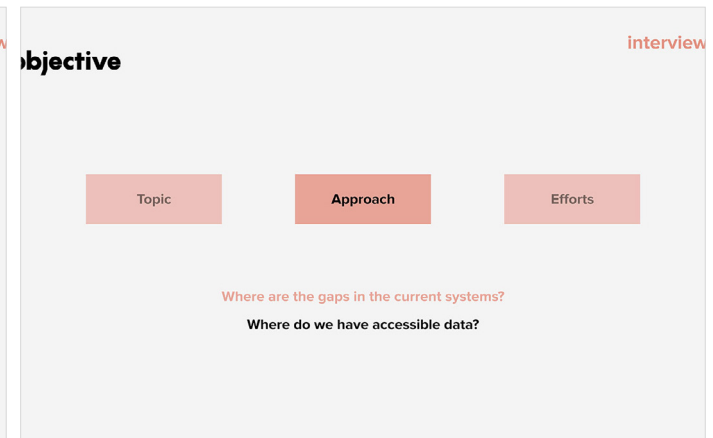
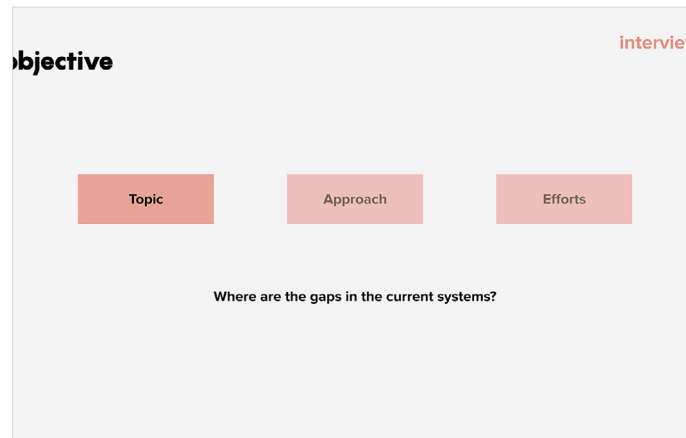
4c.2. Week Two: Identify your Problem Area and Focus on it

4c.3, 4c.4, 4c.5

4d, 4e, 4f

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6. Contact Details



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Systems Design Project

Interconnected and form a System within Defined Boundaries

by

Prof. Ravi Poovaiah, Prof. Vivek Kant,
Prof. Pramod Khambete and Dr. Ajanta Sen
IDC, IIT Bombay

Source:

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Dr. Rekha Bhattacharya

Gestalt Therapy

Not to be confused with Gestalt theory!

the whole is greater than the sum of its parts'

Unlike individual therapy
Focuses on the macro
Heals the 'whole'
Avoids opening old wounds

Equivalent in psychological theory

Dr. Rekha Bhattacharya

Group Processes

What you're thinking of, is Group Processes'

explores the healing power of the community

forms the basis of Industrial psychology

the power of Telling stories
Social problem solving
Shared experiences

secondary research

literature

Art-Based Group Therapy
Bruce L. Moon

Family Therapy, 100 Key Points and Techniques
Mark Rivett & Eddy Street

Group Process Made Visible - The Use of Art in Group Therapy
Shirley Riley

Handbook of Innovative Psychotherapies
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literature secondary research

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identifying systems secondary research

stitute Initiatives
SWC, IIT Bombay

GOs
Save The Children

upport Groups
Alcoholics Anonymous

erapy Centers
IPH (Institute for Psychological Health)

focus identification

first decisions revisited focus identification

topic/focus group	approach
students	group therapy
young children	art therapy
domestic violence	support groups
middle-aged women	awareness systems
	group processes

problem statement focus identification

to understand applications of **group processes** and **art therapy** to create a system that serves as an **introduction to mental healthcare** for **college-level students**, including those who **do not seek therapy**

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Problem statement focus identification

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Future steps

Primary Research

Secondary Research

Goal

Future steps

Primary Research

Secondary Research

Goal

Divya Padmanabhan
Dr. Sharmila Londhe (IPH)
Art Therapy Study with
Dr. Kavita Joshi (IPH)

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uture steps

Primary Research

Divya Padmanabhan
Dr. Sharmila Londhe (IPH)
Art Therapy Study with
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Secondary Research

Literature
Deep-dive into therapeutic
processes

Goal

uture steps

Primary Research

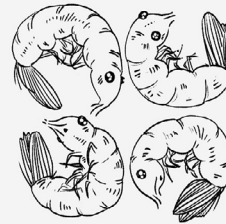
Divya Padmanabhan
Dr. Sharmila Londhe (IPH)
Art Therapy Study with
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Secondary Research

Literature
Deep-dive into therapeutic
processes

Goal

Identify and define the
system and its boundaries
Begin work on Ideation

**Q&A**

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Week Two: Identify your Problem Area and Focus on it

Project Report

- [The BudBud Foundation.....](#)  (2640 kb)

**Presentation****Week Two: Identify your Problem Area and Focus on it + Report + Presentation**

- Till now you have looked at a broader perspective of your problem area and you have looked at cross connections as well as inter-connectedness at a macro level
- Within this broader area now you need to find an area to work keeping the broader connections in mind
- Some of the tools that might help in terms of understanding are Causal Diagrams, Network Mappings, Assigning Priority and Hierarchy, Looking at it from temporal and spatial perspective (activity flow diagrams)
- Do go ahead with both the secondary as well as primary research
- Start with Analysis of the Problem
- Identify the next steps

End of Week Two: 2nd Stage – Understanding the Problem Presentation**Dates:**

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

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Submission:

Slide presentation + Report submission (must for grading)

- a) Presentation Slides – upload it on the google classroom Week 2
- b) Project Report – upload it on the google classroom Week 2

Grading Points: 15%

Source:

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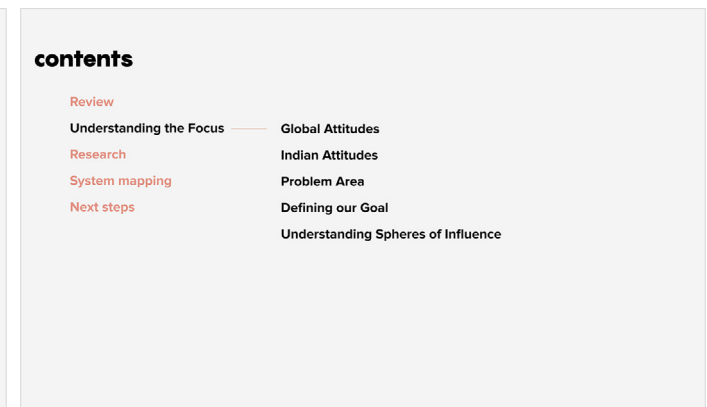
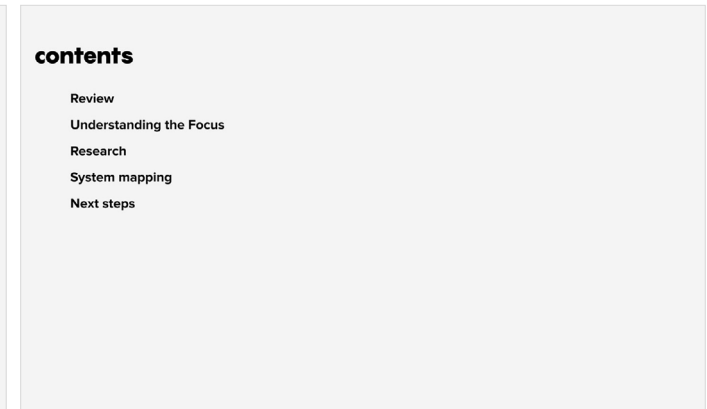
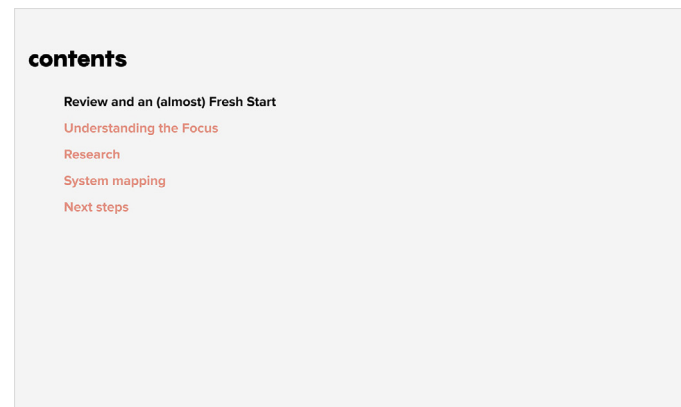
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Presentation

Presentation

- The BudBud Foundation.....📄 (8790 kb)



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ontents

- Review
- Understanding the Focus
- Research Secondary
- System mapping Primary
- Next steps

ontents

- Review
- Understanding the Focus
- Research
- System mapping
- Next steps



review

feedback

Don't worry about output yet!

broaden scope of thought

look at sources of problems, not just solution searching

Understand the systems-level potential of the problem

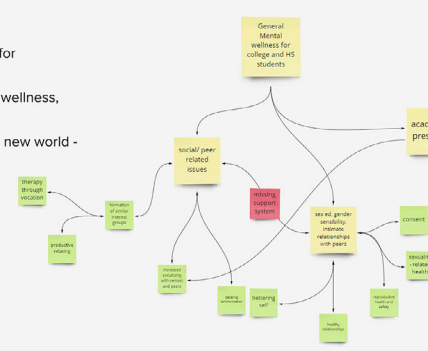
ue focus


three main spheres of mental wellness for adolescents

Missing support system to bridge social wellness, ex education and gender sensibility

academic pressure an additional, whole new world - not our focus this time

however, benefitting social wellness helps with academic pressure as well





understanding the focus

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Global attitudes understanding the focus

East and South-East Asian Countries

Conservative societies hamper sex-education efforts

China: sex ed books were removed

Alarming rising rate of STIs

Often integrated into moral and religious studies (eg. Malaysia)

Recent movement for change in Indonesia

West European Nations


Very casual and comfortable attitudes towards sex education in some nations

Some backlash over being too liberal

Belgium: pamphlets were recommended to 7 y/o children

Sweden: systemic gender equality, such as 450 days of paid parental leave for either parent, only if both take at least 90

Global attitudes understanding the focus



Netherlands

Compulsory, age appropriate curriculum taught in detail about sexual and emotional maturity early on

low teen pregnancy rates

Global attitudes understanding the focus

Netherlands

Compulsory, age appropriate curriculum taught in detail about sexual and emotional maturity early on

low teen pregnancy rates

Uganda

Soccer Without Borders

Tackle Africa

NGO cooperation and collaboration

Resistance from the government

Global attitudes understanding the focus

Netherlands

Compulsory, age appropriate curriculum taught in detail about sexual and emotional maturity early on

low teen pregnancy rates

Uganda

Soccer Without Borders

Tackle Africa

NGO cooperation and collaboration

Resistance from the government

Indonesia

Independent bodies attempting to make a difference

Strong government resistance to efforts

Contraception is difficult to obtain, abortions near-impossible

Indian attitudes understanding the focus

Marriage System

arranged marriage

strong family support after marriage (often)

marital rape not recognized

brides not treated equally

child marriage

Sex Education

strong resistance from conservative society

sex education mostly from independent efforts

limited to biological information

Gender Roles

firm ideas of gender roles in conservative society

strong belief in separating boys and girls till adulthood

lots of change seen in recent years towards breaking norms

Indian attitudes understanding the focus

Gender Roles

wives to be younger than husbands

till date, displeasure at the birth of a girl in many families

Law

sex work legal, strictly regulated

section 377 verdict

liberal abortion code

penal code for rape and molestation does not consider assault on men

Regressive Traits

rape culture

toxic relationships

strict moral policing

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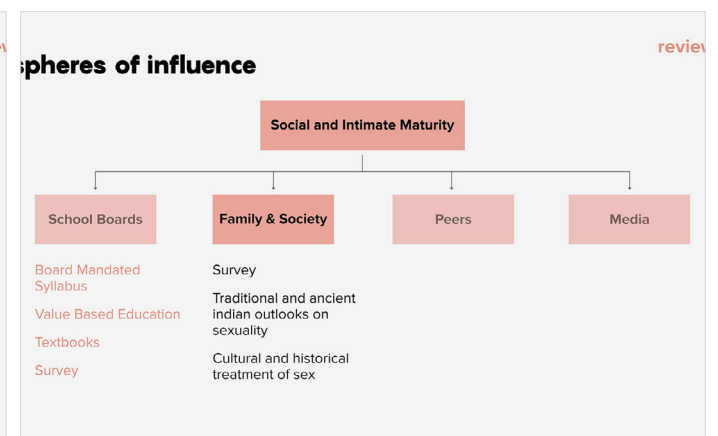
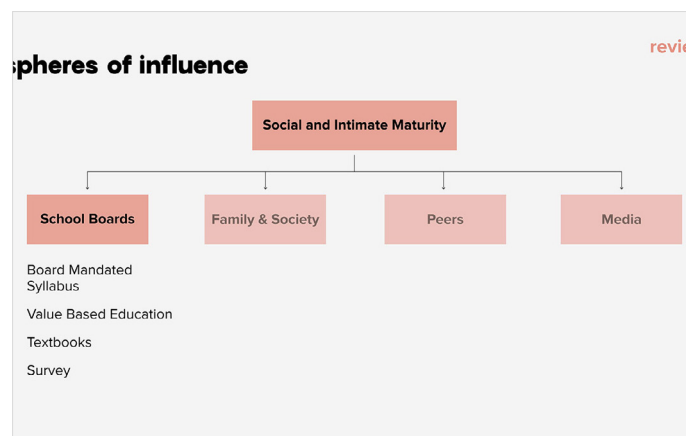
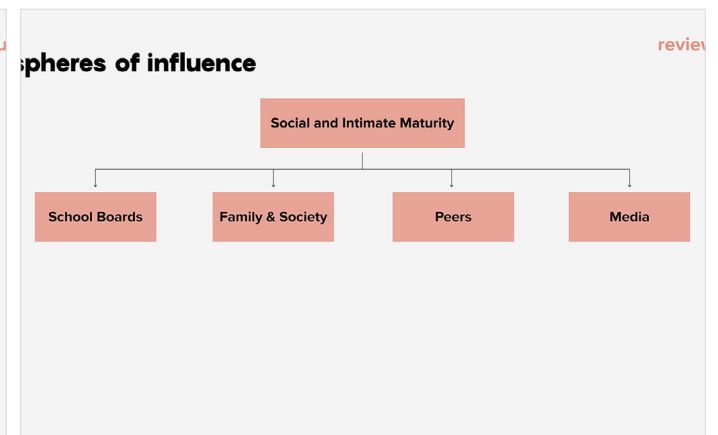
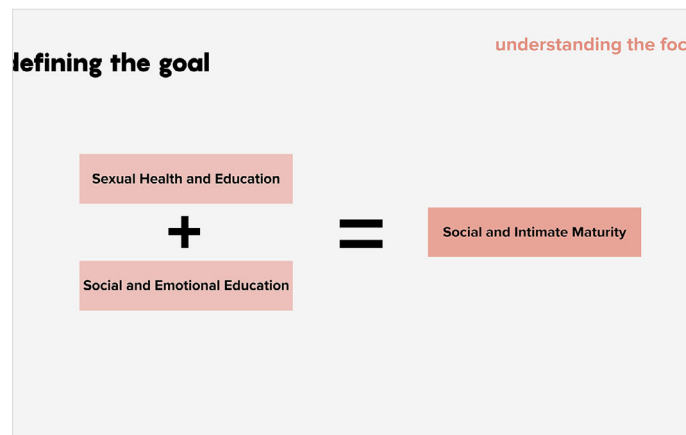
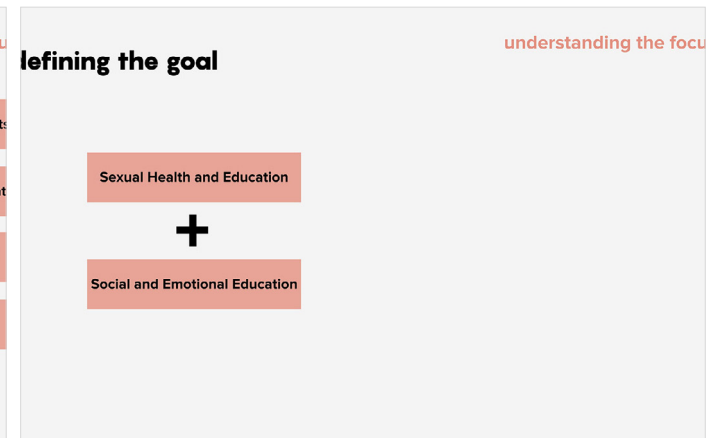
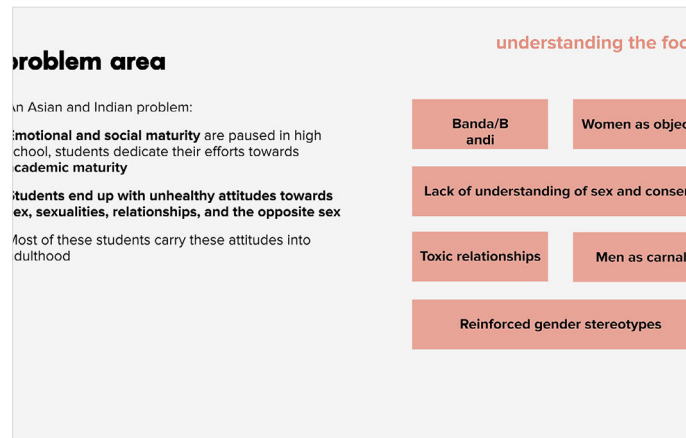
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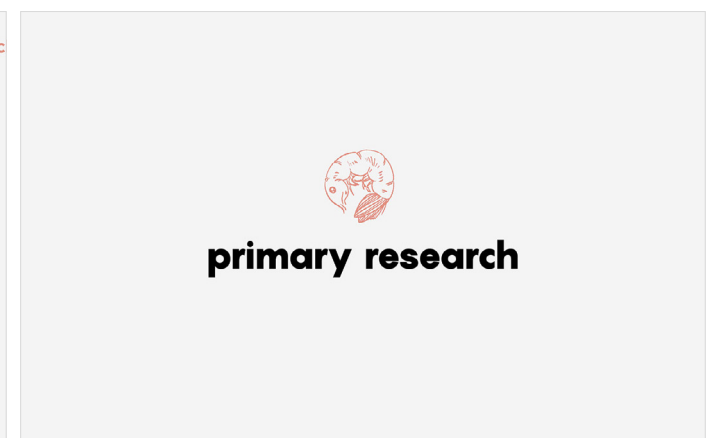
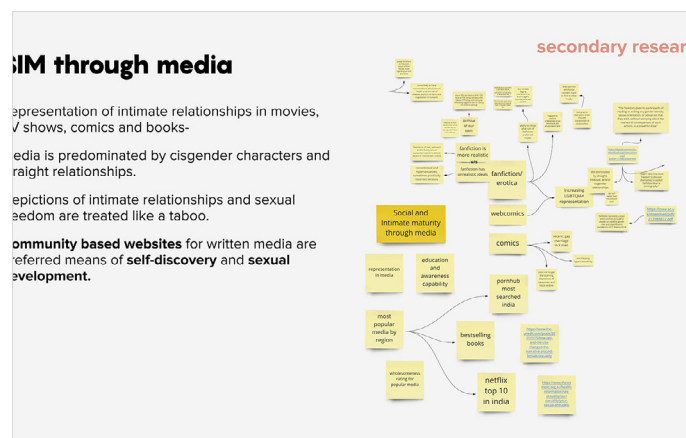
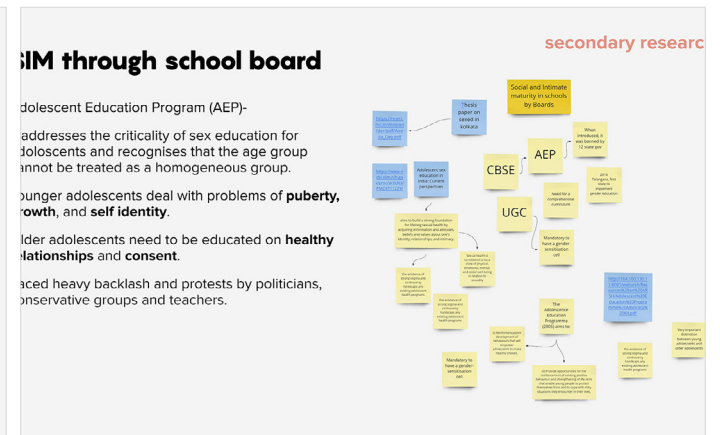
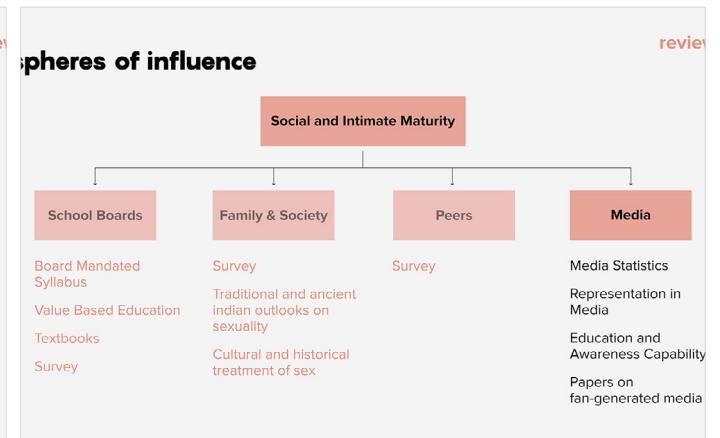
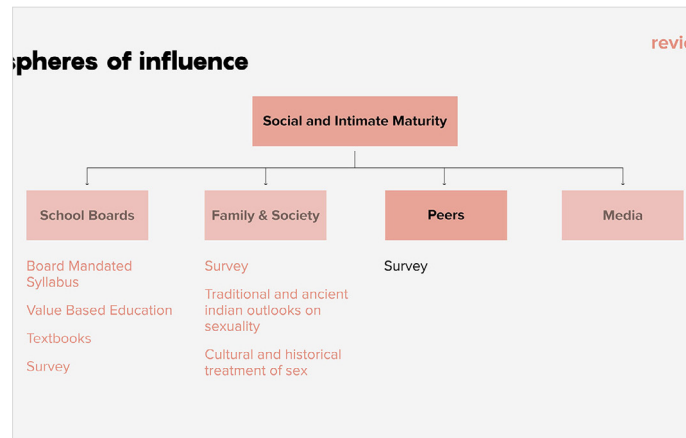
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Survey objectives

primary research

Understand the varieties in quality of sex education received in India and globally

Gain insight on the efficacy and perceived importance of high-quality sex education

Understand the sources of social and intimate education

Identify problem areas and gaps in existing systems

Survey traits

primary research

Divided into sections on:

- Demographics and general information
- Formal Sex Education
- Sex Education through Family
- Sex Education through Peers

Option to fill anonymously

Mostly multiple choice, a few subjective questions

10 responses

Demographics

primary research

Age

110 responses

Where was your schooling done?

110 responses

Sex

109 responses

When was your first introduction to the concept of sex?

110 responses

Sources of sex ed

primary research

The Internet is the prime source of social and sexual education for most

Mostly followed by friends and peers

Only 19% of responders learned about consent, relationships and social health from school.

What have been the prime sources of sexual health education in your life? (consent, relationships, safety)

110 responses

What have been the prime sources of sex education in your life? (birds and bees)

110 responses

Sources of sex ed

primary research

On following topics, which have you been taught, and by whom?

Formal sex ed

primary research

Only 7.3% of responders felt they had comprehensive sex education

Only 14% were introduced to sexual concepts outside of sex education

Perceived that quality of sex ed varies based on attitudes of school authorities

Did you have formal sex education in school?

110 responses

Was your first introduction to sex before formal sex education or was that the beginning?

110 responses

Did your school only teach what was mandated by your boards and textbooks, or did it make independent efforts towards sex ed as well?

110 responses

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Systems Design Project

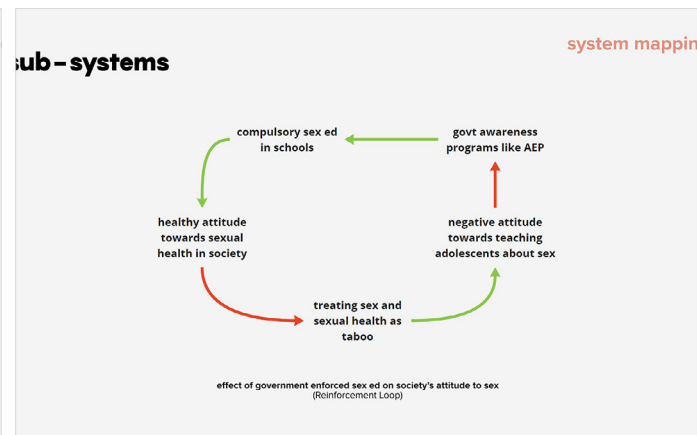
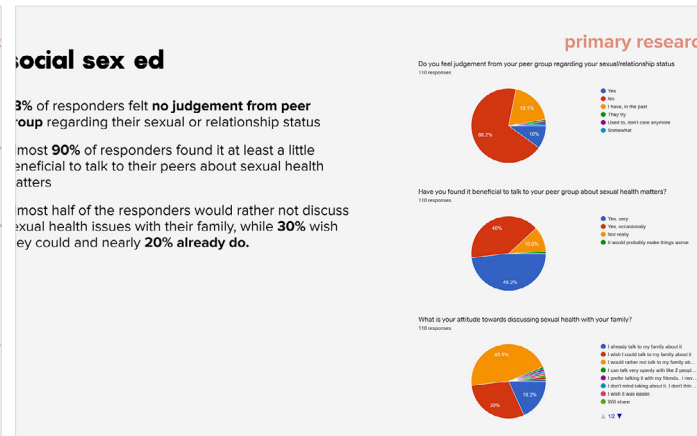
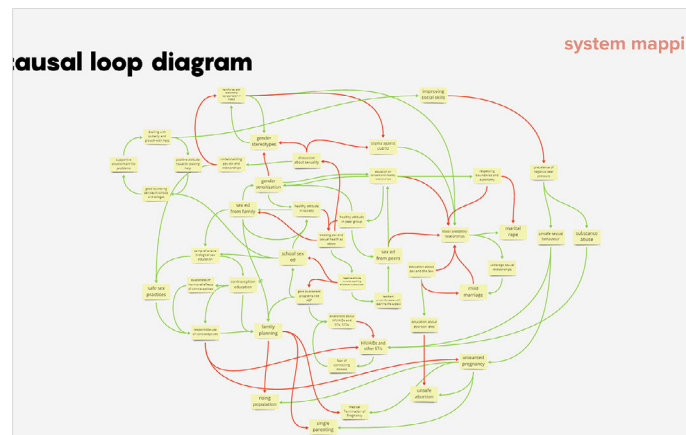
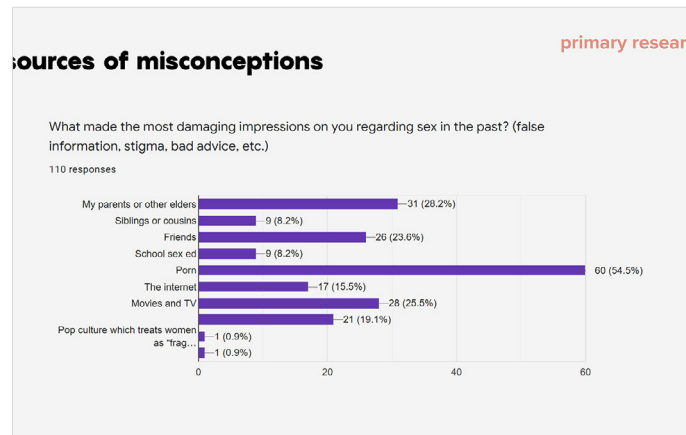
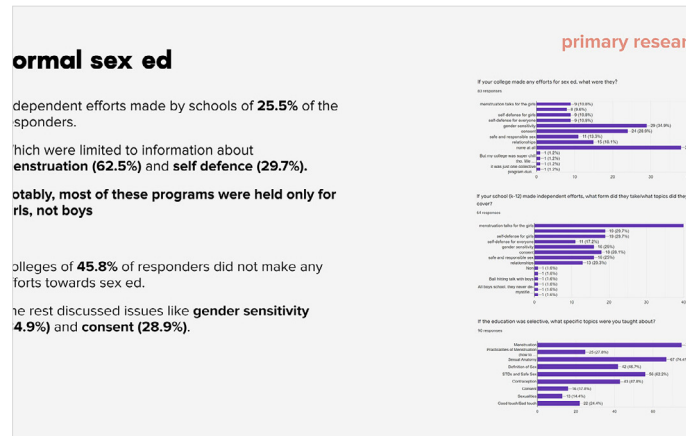
Interconnected and form a System within Defined Boundaries

by Prof. Ravi Poovaiah, Prof. Vivek Kant, Prof. Pramod Khambete and Dr. Ajanta Sen IDC, IIT Bombay

Source:

<https://www.dsource.in/course/systems-design-project/projects/budbud-foundation/week-two-identify-your-problem-area-and-0>

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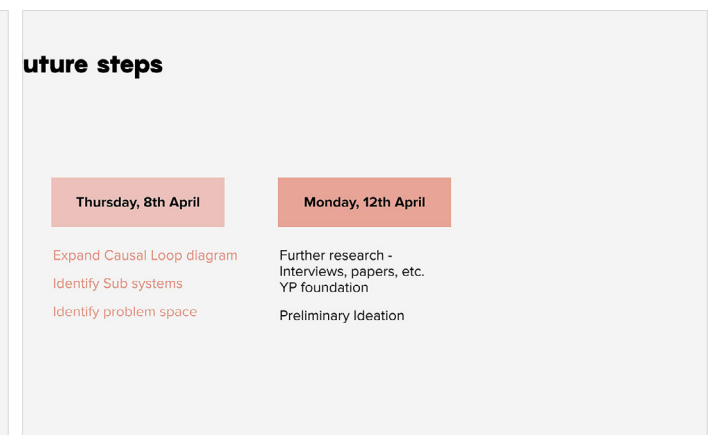
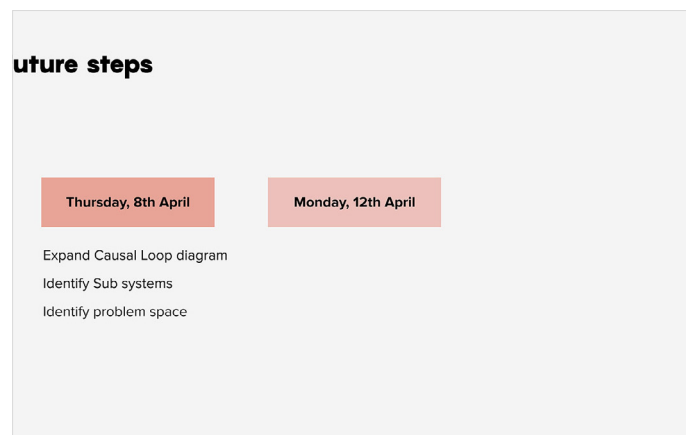
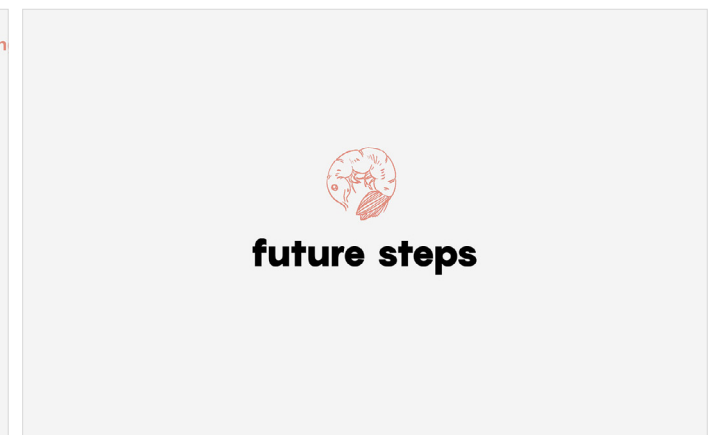
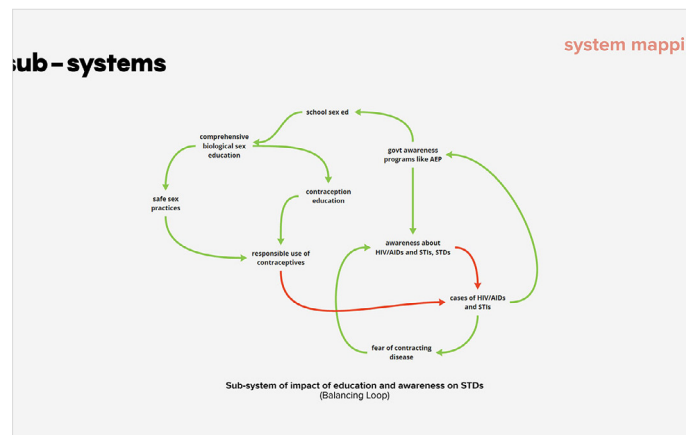
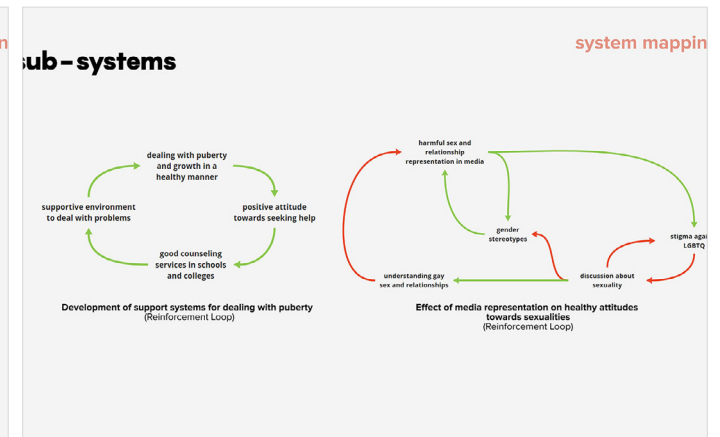
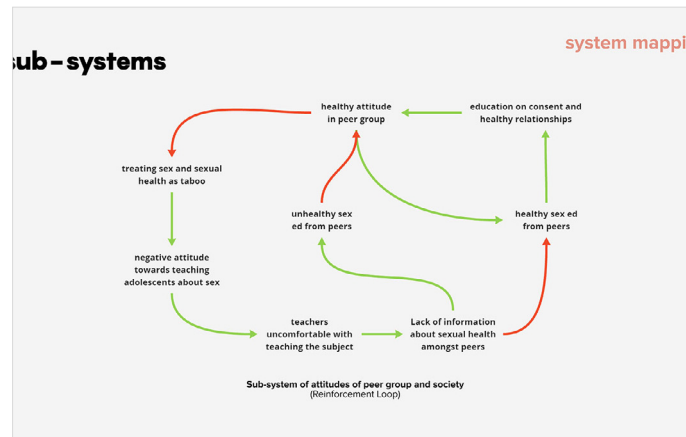
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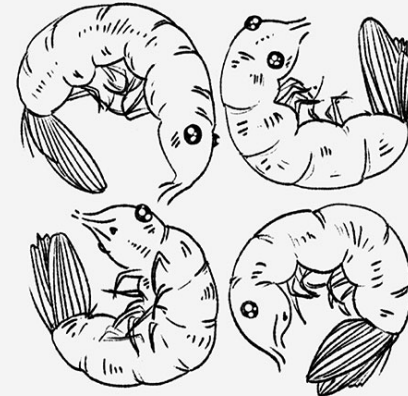
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Q&A

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Week Three: Ideation - Focus on Problem Area

Project Report

- The BudBud Foundation.....📄 (1220 kb)



Presentation

Week Three: Focus on Problem Area & Sub-Areas + Insights + Opportunities + Ideation + Report + Presentation

Suggested next steps: (you could follow your own method)

1. Within the focused problem area now you need to identify sub-areas to work keeping the broader connections in mind
2. I'm sure you have by now done the causal diagrams of your problem Area and its sub- Areas (or sub-systems) with its interconnections both in the forward (progressive) and backward (negative) directions. identify if there are any delays in these connections. Do not miss the big picture and do see if you can gain insights from this mapping analysis.
3. Also by now your primary and secondary research in the chosen focused area should give you insights/observations and point towards design opportunities
4. If you would like, this is a good time to redefine your problem statement
5. And start with ideation to solve problems concerning your sub-areas (for this you'll need to Brainstorm + Group Ideation + Fast Visualisations/sketching)
5. You could start with Concept maps or Network diagrams of your ideas by connecting parts of your proposed system to people, activities, objects, spaces and time

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6. The ideation could also be through scenarios

End of Week Three: 3rd Stage – Ideation Presentation

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

Submission: Slide presentation + Report submission (must for grading)

a) Presentation Slides – upload it on the google classroom Week 3

b) Project Report – upload it on the google classroom Week 3

Grading Points: 15%

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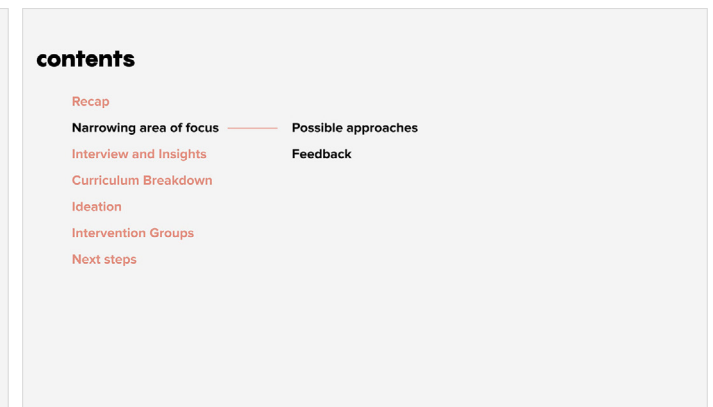
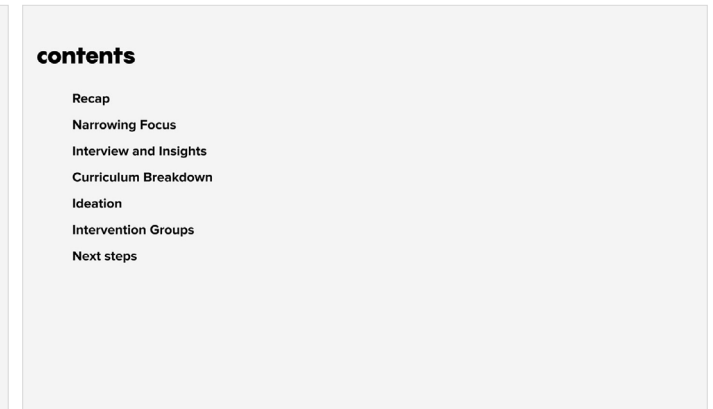
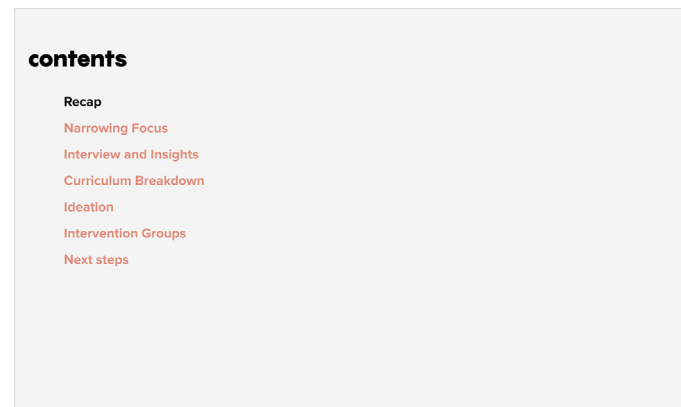
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Presentation

Presentation

- The BudBud Foundation.....📄 (19920 kb)



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ontents

Recap
Narrowing area of focus
Interview and Insights — Mayura
Curriculum Breakdown — Primary Insights
Ideation
Intervention Groups
Next steps

ontents

Recap
Narrowing area of focus
Interview and Insights
Curriculum Breakdown — Identifying Scope
Ideation — Topic Mapping
Intervention Groups — Chosen Topic
Next steps

ontents

Recap
Narrowing area of focus
Interview and Insights
Curriculum Breakdown
Ideation — Ingredient List
Intervention Groups — Idea Generation
Next steps

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recap

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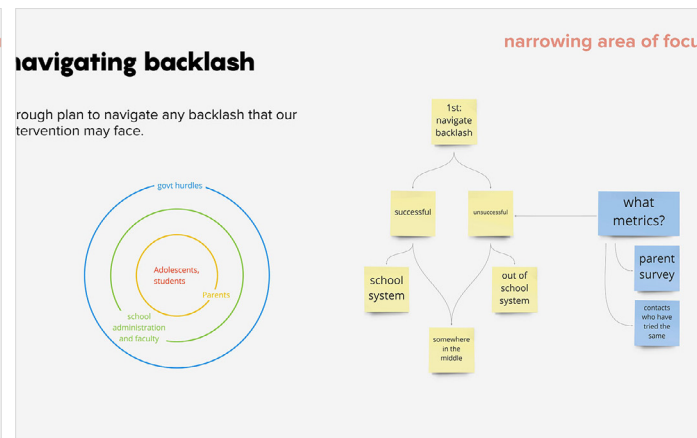
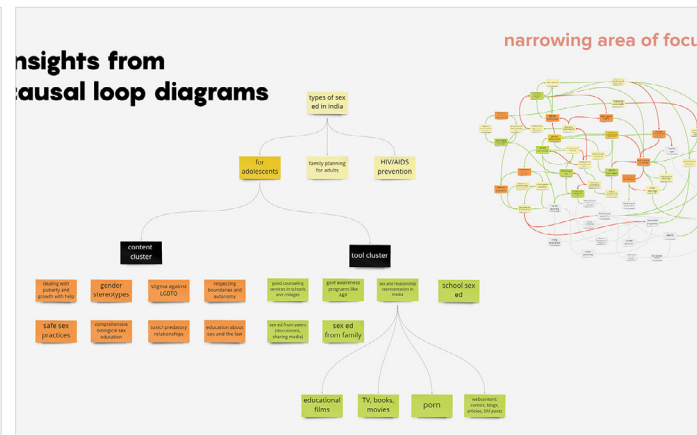
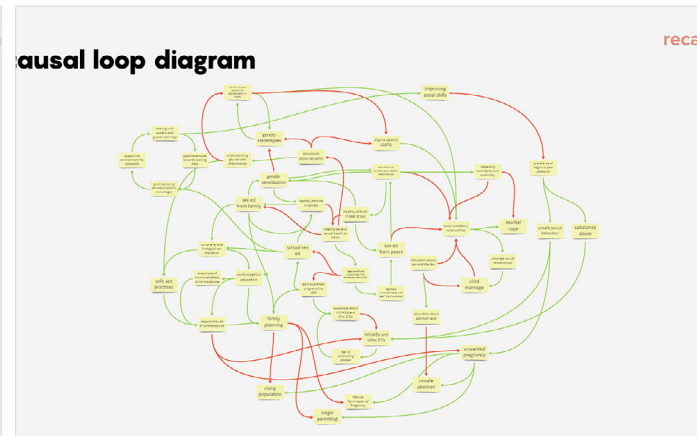
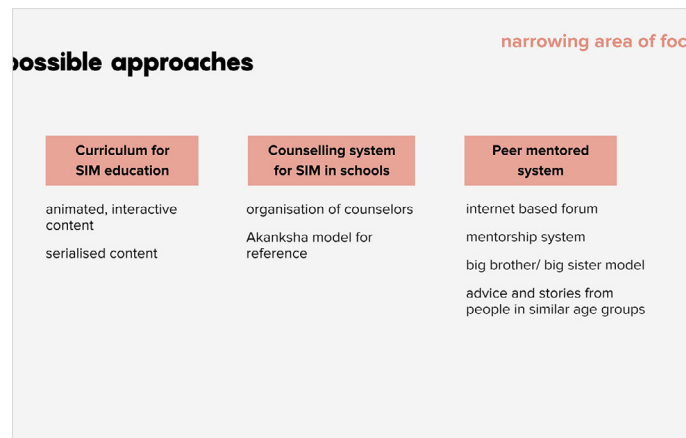
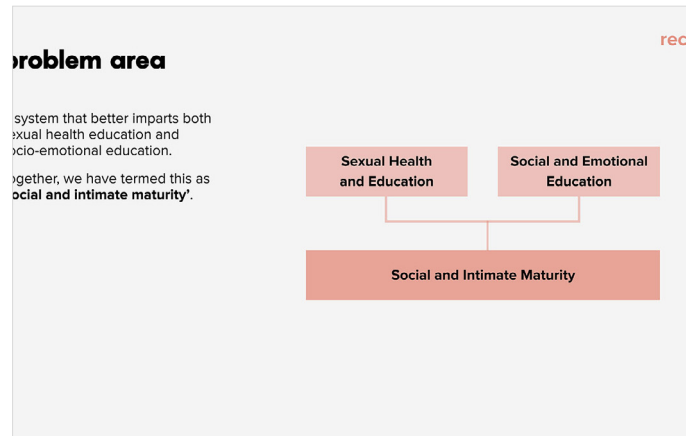
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Feedback narrowing area of focus

Designing the entire curriculum may not be within the scope of this module.

Drill it down to a particular topic or age group

Focus more on the delivery systems and design a way to get across the information to the adolescents



interview and insights

Navaaz Datar interview and insights

Relevant projects:

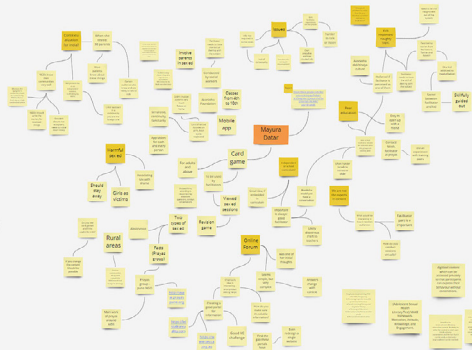
- P2, Card Game (Adults)
- P3, App (All ages)

Collaboration with NGOs:

- Prayas Group
- Akanksha Foundation

Focus:

- Safe sex practices
- Adolescence and Puberty



Insights interview and insights

- Facilitator Model
- Curriculum
- Peer Education
- Online Media
- Attitudes

Insights interview and insights

Facilitator Model	Almost always important to have a facilitator conducting sessions
Curriculum	Facilitators are trained and integrated into the community
Peer Education	NGOs know their communities very well: Backlash is limited when using an NGO's scaffolding
Online Media	Fully mechanized systems cannot achieve what facilitators with materials can
Attitudes	However, with a facilitator, experiences are not private

Insights interview and insights

Facilitator Model	We are not the experts in content
Curriculum	Often, our best efforts are in the delivery mechanism: How does the curriculum reach audiences?
Peer Education	Harmful yet common sex ed: <ul style="list-style-type: none"> Portrays girls as victims Ignores boys and their development Makes sex shameful
Online Media	
Attitudes	

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interview and insight

Insights

Facilitator Model	It's always easier to open up with a friend Facilitators should be someone who the group can identify with
Curriculum	Akanksha model was to just have a conversation with students
Peer Education	
Online Media	
Attitudes	

interview and insight


Insights

Facilitator Model	Seems simple, but is very complex Answers to simple questions change with context
Curriculum	Anonymous interactions help people open up and seek help - but how do you make sure it's reliable information?
Peer Education	Creating a good portal for information would be a good VC challenge
Online Media	Find the gaps in existing online solutions
Attitudes	

interview and insight

Insights

Facilitator Model	Facilitators need to be skilled, socially and emotionally Need to let the naughtiness out of the system
Curriculum	Problem of interest: how do you develop positive attitudes in facilitators?
Peer Education	All organizations face issues of own prejudices and biases clouding info
Online Media	
Attitudes	



curriculum breakdown


curriculum breakdown

Identifying scope

VEP structure and curriculum joints

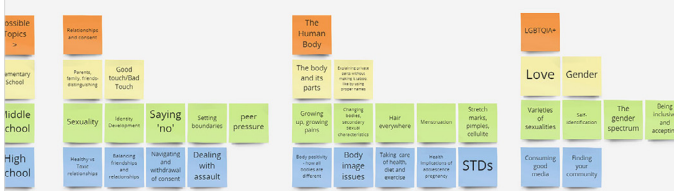
main areas:

- Physical Development
- Social/Cultural Development
- Gender Roles
- HIV/AIDS education
- Drug Abuse



curriculum breakdown

Topic mapping



Topics mapped by age and grouped into broad categories, to aid choosing of a focus area for this project

Decided to choose focus from a **single category and age group**, to allow for focus on specific delivery

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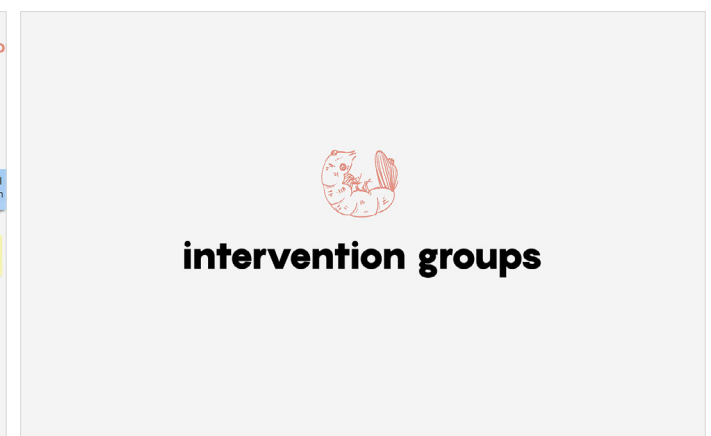
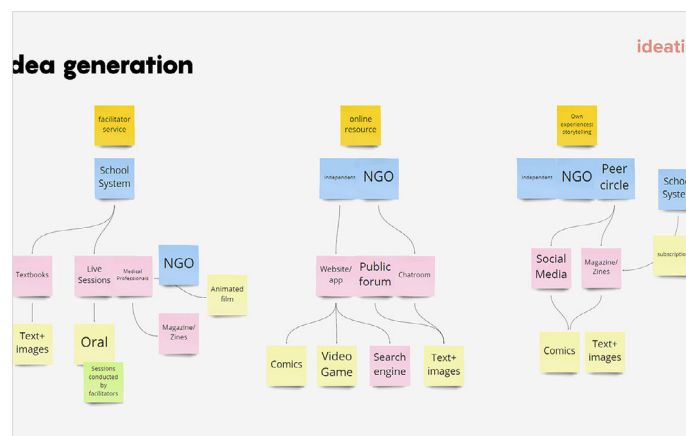
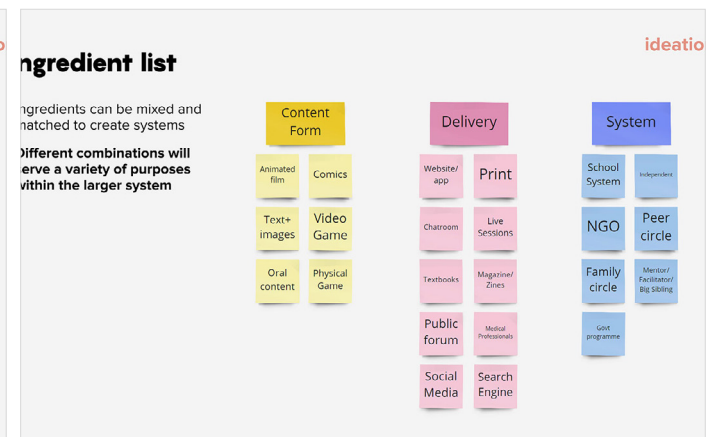
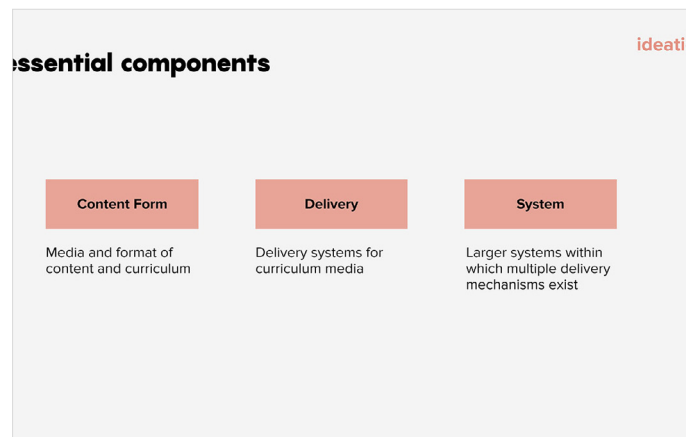
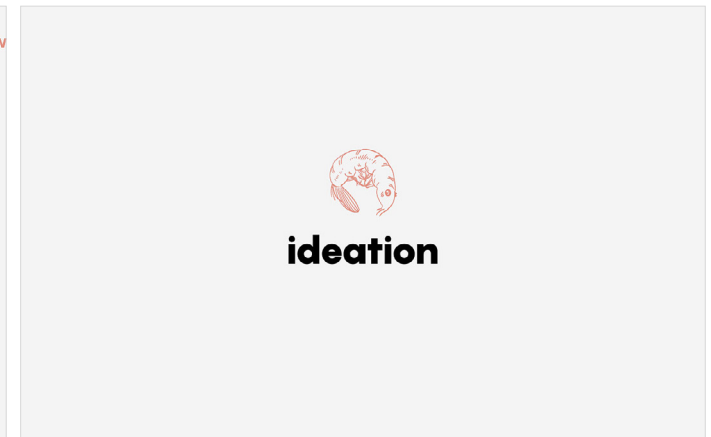
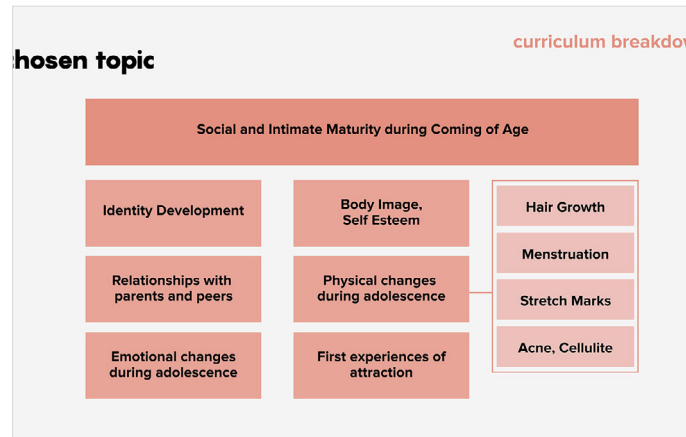
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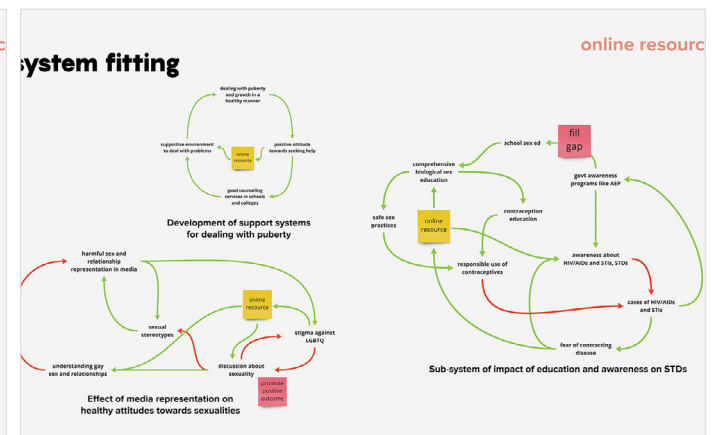
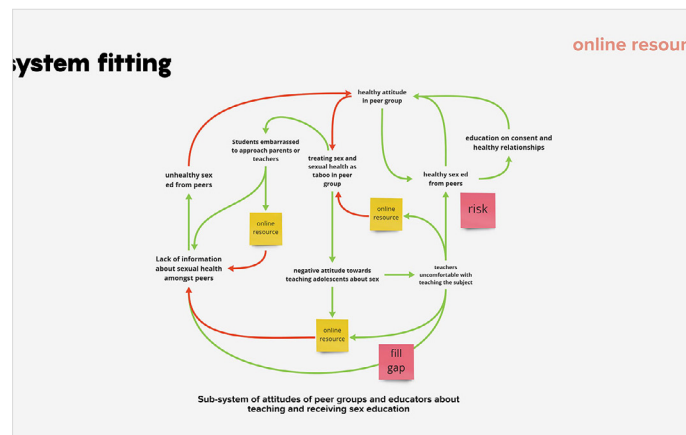
Three models intervention group

- Online Resource
- Facilitator Service
- Shared Experiences

Online resource intervention group

Independent of the school system

- Online Resource
 - NGO run
 - Private, anonymous access to digitized content avoids fear of humiliation
- Facilitator Service
 - Articles and illustrations, comics, in-site games, quizzes
 - Bodily functions
 - Emotional experiences
 - Social changes
- Shared Experiences
 - Chatroom
 - Conversations with trained facilitators
 - Help find resources and answers



System role online resource

- Online Resource
 - Bypass
 - Risk of unhealthy peer education
 - Provide Framework
 - Fill gaps in formal systems
 - Promote positive outcomes in causal loops
- Facilitator Service
- Shared Experiences

Facilitator service intervention group

- Online Resource
 - Providing trained personnel to schools to adopt the role of guidance counselor
 - Use curated material to spark discussions and talk to students about prescribed topics
- Facilitator Service
 - Film/Animated Film
 - Games
 - Books
- Shared Experiences
 - Class discussions + private conversations when needed
 - Serialized, coherent curriculum
 - Regular interaction builds trust with students
 - As part of the school system, would have the largest reach

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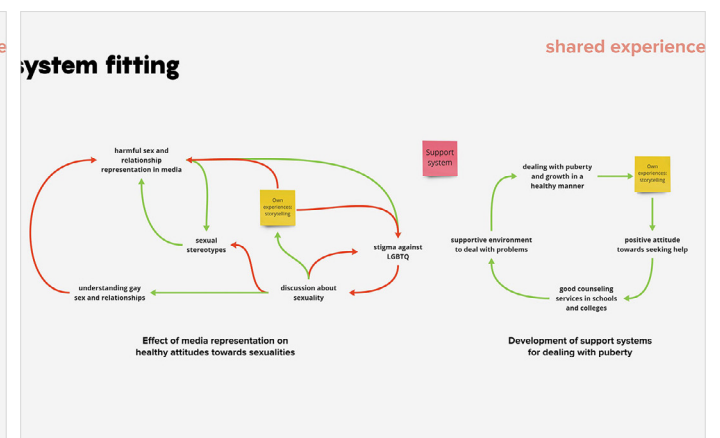
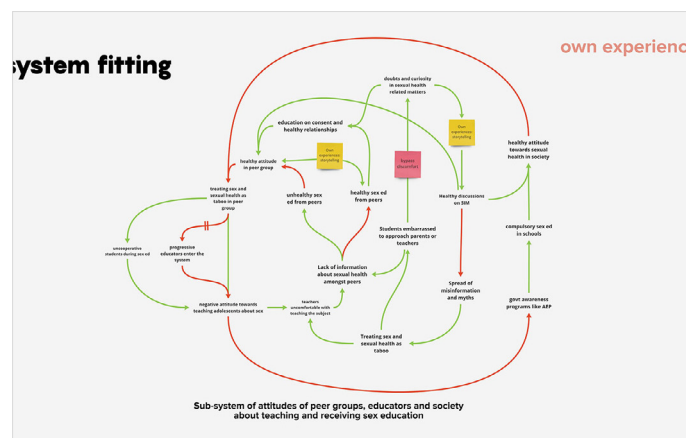
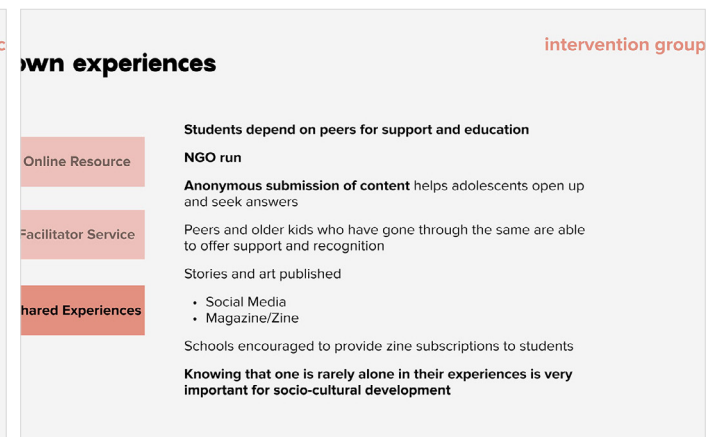
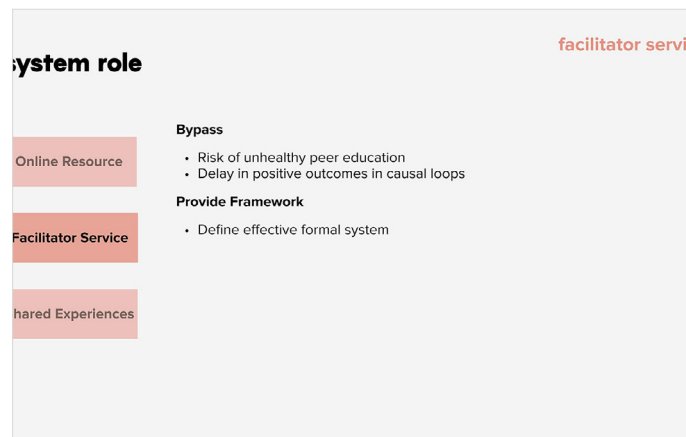
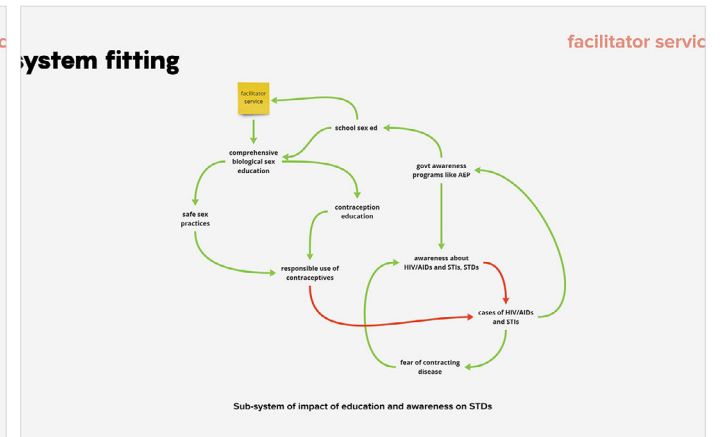
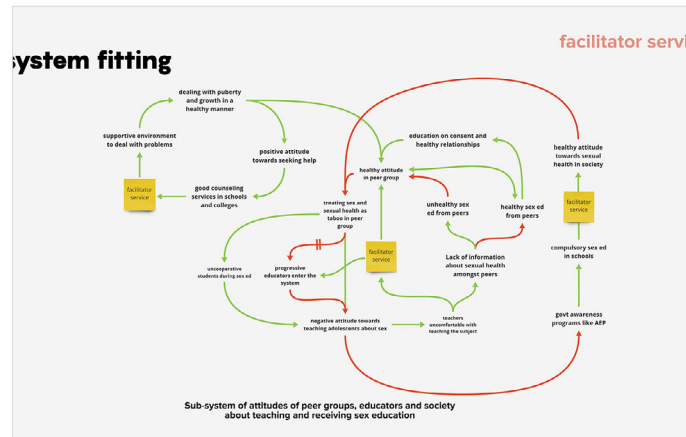
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4c.3. Week Three: Ideation -

Focus on Problem Area

4c.3.1. Presentation

4c.4, 4c.5

4d, 4e, 4f

5. Videos


6. Contact Details

system role	shared experience
Online Resource	<p>Bypass</p> <ul style="list-style-type: none"> Discomfort and hesitation
Facilitator Service	<p>Provide Framework</p> <ul style="list-style-type: none"> Support systems Promote positive outcomes in causal loops
Shared Experiences	

pros and cons	intervention group
	Pros Cons Constraints
Online Resource	<p>anytime, anywhere access independently accessed</p> <p>based on individual initiative: low reach</p> <p>content driven website prototype</p>
Facilitator Service	<p>privacy, anonymity</p> <p>embarrassment of asking questions bypassed</p> <p>limited to internet access</p> <p>time intensive</p>
Shared Experiences	<p>replaces risky googling</p> <p>because private, doesn't help address feeling of taboo</p>

pros and cons	intervention group
	Pros Cons Constraints
Online Resource	<p>part of school system: greatest reach</p> <p>bound to school's conservative attitude</p> <p>no tangible proof of concept save for sample curriculum</p>
Facilitator Service	<p>wholesome, structured curriculum</p> <p>curriculum needs to be contextualized for a given community</p> <p>student access to trained mentor who can help with personal problems</p> <p>very dependent on facilitator</p>
Shared Experiences	<p>speeding up the process of systemic change in the school system</p> <p>most expensive</p> <p>hard to form bonds with students in a formal setting</p>

pros and cons	intervention group
	Pros Cons Constraints
Online Resource	<p>catharsis of expression</p> <p>gateway to increasing comfort of sharing</p> <p>less of a structured curriculum</p> <p>tight project timeline</p>
Facilitator Service	<p>promotes discussion</p> <p>high reach potential if adopted by schools</p> <p>to be school-acceptable, content would have to be trimmed/cater to schools</p>
Shared Experiences	<p>greater sense of community and belonging</p> <p>hinges on community participation</p>



future steps

future steps

This week	End of module
<p>Flesh out the finalised system</p> <ul style="list-style-type: none"> Create and organise details of content Describe through diagrams the delivery system <p>Contact educators who have worked in this field</p>	

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by

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IDC, IIT Bombay

Source:

<https://www.dsource.in/course/systems-design-project/projects/budbud-foundation/week-three-ideation-focus-problem-area-0>

uture steps

This week

Flesh out the finalised system

- Create and organise details of content
- Describe through diagrams the delivery system

Contact educators who have worked in this field

End of module

Provide proofs of concept for content and delivery systems

Adjust content and delivery system into larger systems

Get user feedback



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4a. Navaaz EV Charging Solution

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4c.1, 4c.2, 4c.3

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4c.4.1. Presentation

4c.5. Week Five: Presentation on Final Design Solution

4d, 4e, 4f

5. Videos

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Week Four: Focus on Soft Prototyping



Presentation

Week Four: Focus on Soft Prototyping to Final Prototyping + Report + Presentation

Suggested next steps: (you could follow your own method)

1. Choose your final concept from ideations for the solution to your system design problem area
2. You could use any of the methods that you are familiar with for prototyping: to name a few: Walk-through Scenarios, Concept Videos, Personas, Mock-ups, Proof of Concept, etc.
3. The final concept could involve any of the following:
 - 2D/3D design Sketches + Physical Prototyping + Visualisation + Virtual 3D Models
 - Interface/Communication/Media Design Detailing + Interface/Communication Simulation + Experience Design + Service Blueprints and design
4. Do give thoughts on the Final Prototyping
5. How would you get feedback on your solution? Will you try to evaluate?

End of Week Four: 4th Stage – Prototype Presentation

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

Submission: Slide presentation + Report submission (must for grading)

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a) Presentation Slides – upload it on the google classroom Week 4

b) Project Report – upload it on the google classroom Week 4

Grading Points: 15%

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4c.4. Week Four: Focus on Soft
Prototyping

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4c.5. Week Five: Presentation on
Final Design Solution

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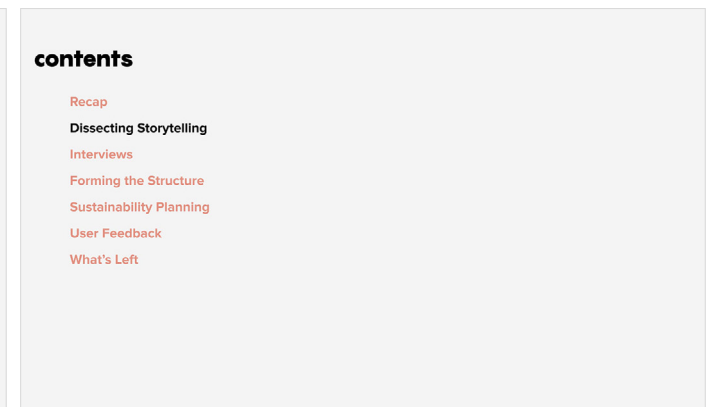
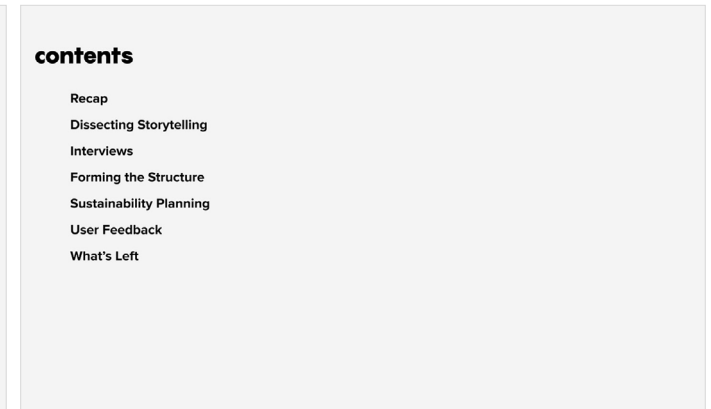
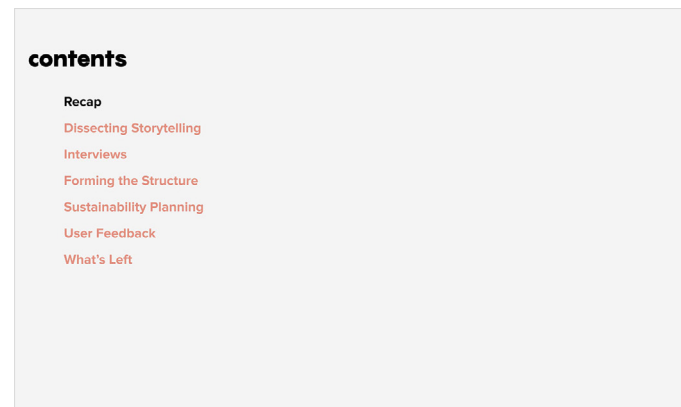
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Presentation

Presentation

- The BudBud Foundation.....📄 (30510 kb)



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- Recap
- Dissecting Storytelling
- Interviews**
- Forming the Structure
- Sustainability Planning
- User Feedback
- What's Left

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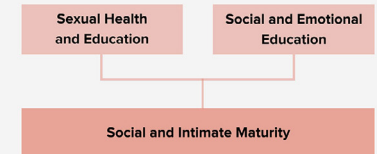


recap

problem area

system that better imparts both sexual health education and socio-emotional education.

together, we have termed this as 'social and intimate maturity'.



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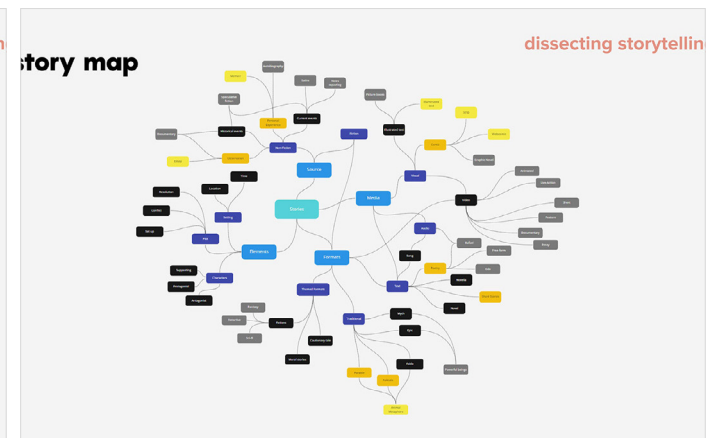
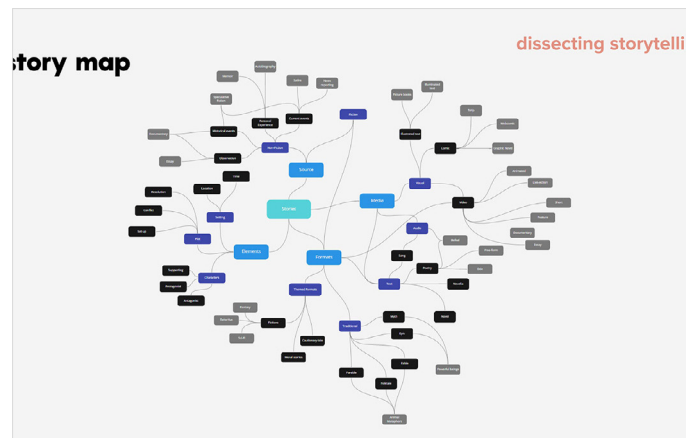
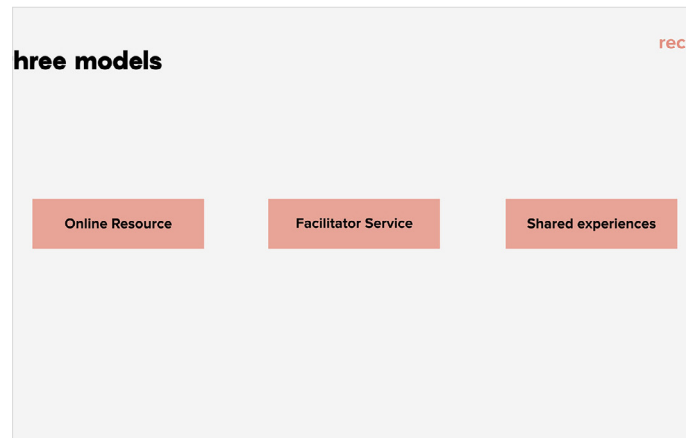
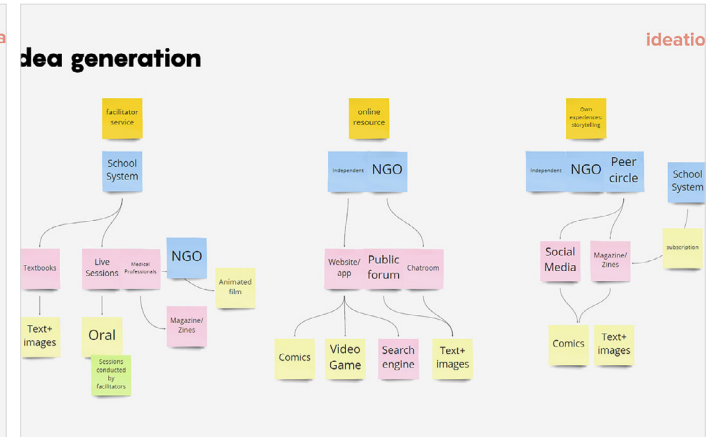
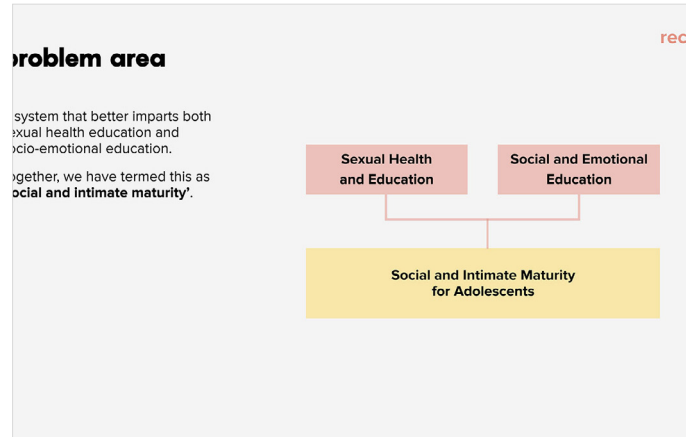
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4c.5. Week Five: Presentation on Final Design Solution

4d, 4e, 4f

5. Videos

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Systems Design Project

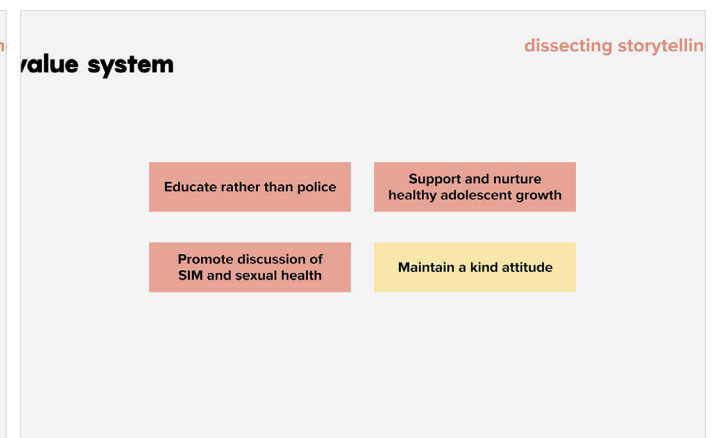
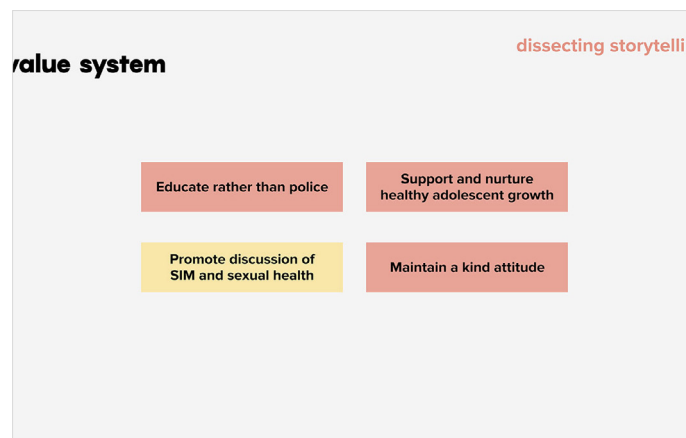
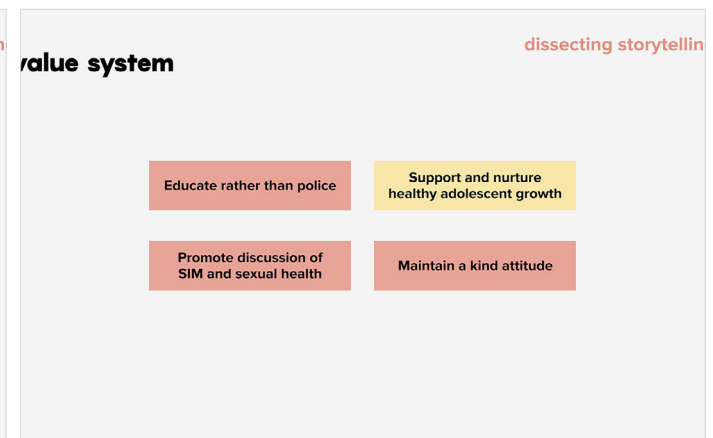
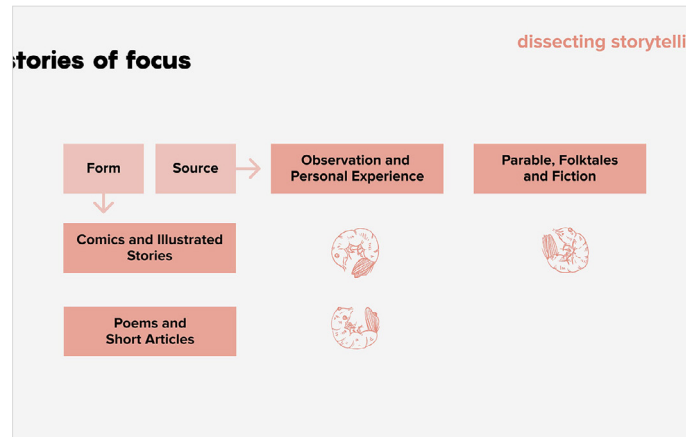
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 - 4a. Navaaz EV Charging Solution
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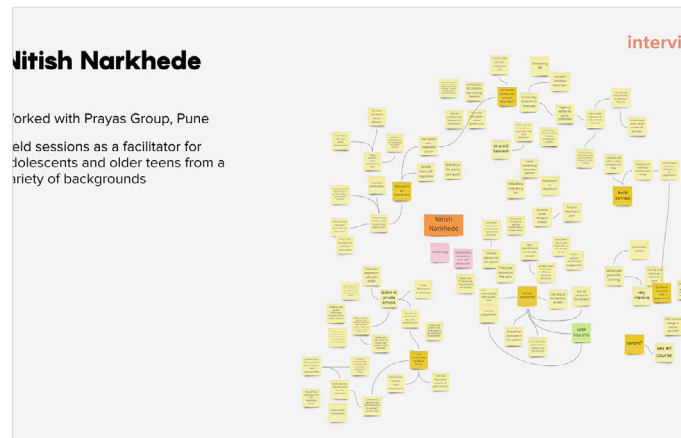
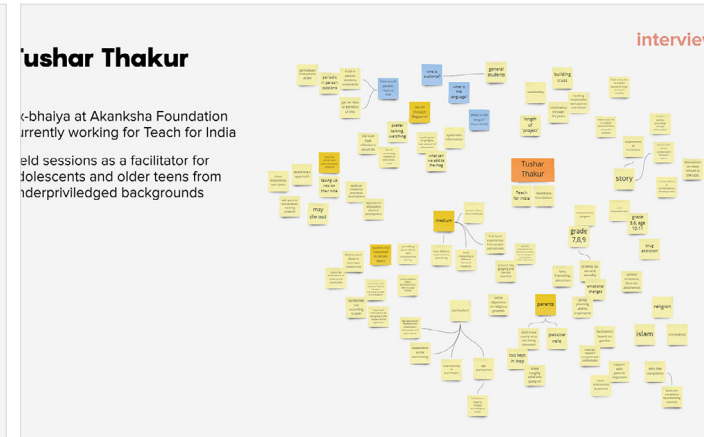
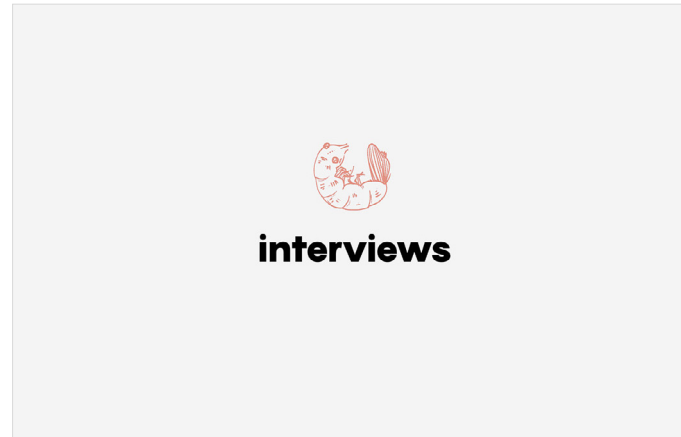
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Final Design Solution

4d, 4e, 4f

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summary interview

students preferred talking and watching videos over writing tests	prefer stories and contextual morals rather than preachy sermons	sometimes facilitators need to change topic of discussion based on what the students want/require.	are nervous but generally supportive, prefer to not have to discuss these things on their own.
mostly open to some form of sex ed, but very limited content allowed	some teacher are uncomfortable, but those that are not generally lack resources	taking sex ed in a social risk in our school may require an attractive pitch and sometimes the flip packaging into an acceptable format	we must decide ways to negotiate with schools
contextualising based on everyday language is a major part of forming a connection with students	govt schools/colleges parents have more practical concerns and priorities over kids to be taught to be teacher's assistant or engineering/medical	private schools parents are generally willing to trust the school, younger parents are open to schools holding sessions	facilitators told stories inspired by other events as their own experiences, as well as stories and events from current affairs.
though rare, good counsellors can be pivotal in making this system last and helping students	repeated sessions/inputs vital to generate discussion	tons of content available, what do we do differently and how do we build trust in our content	non-judgemental facilitators are able to connect and contextualize content

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4a. Navaaz EV Charging Solution

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4c.1, 4c.2, 4c.3

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4d, 4e, 4f

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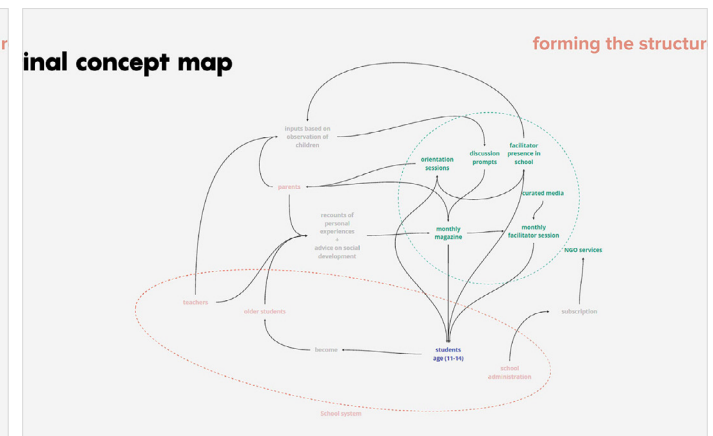
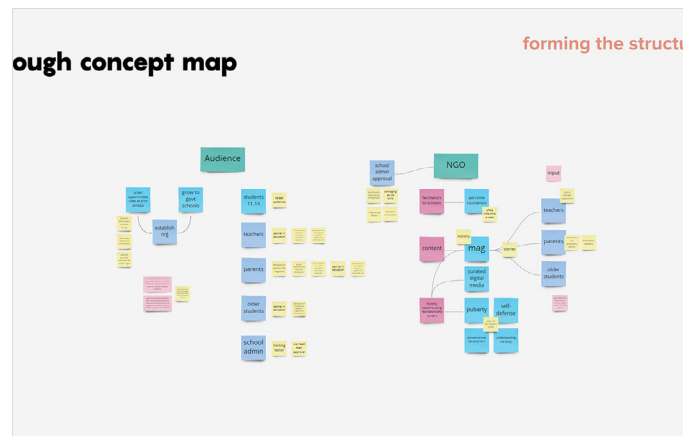
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forming the structure



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1. Aims of Systems Design Project

2. Course Schedule and Grading

3. Problem Statement

4. Projects

4a. Navaaz EV Charging Solution

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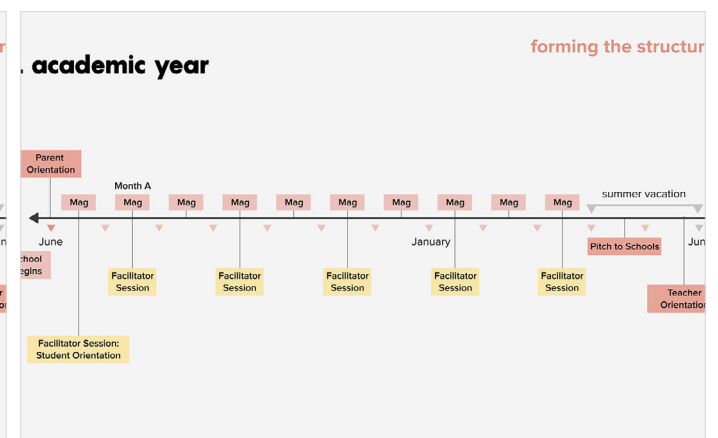
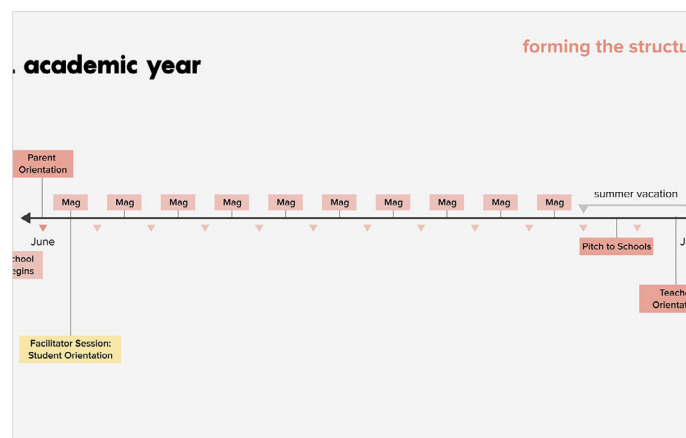
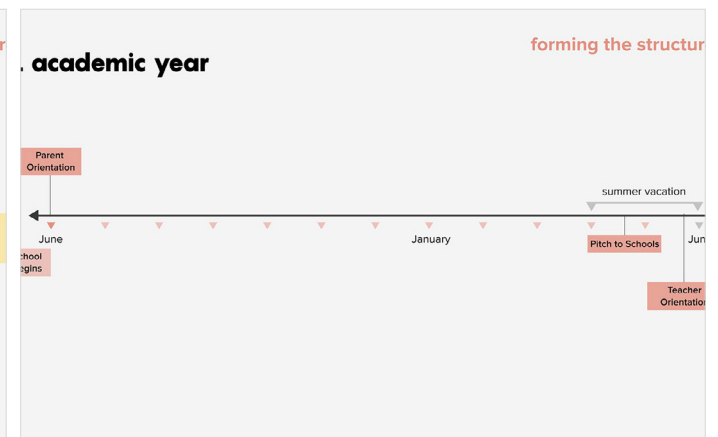
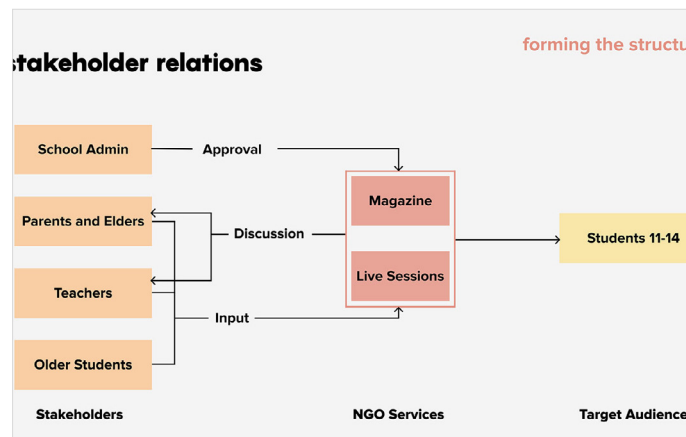
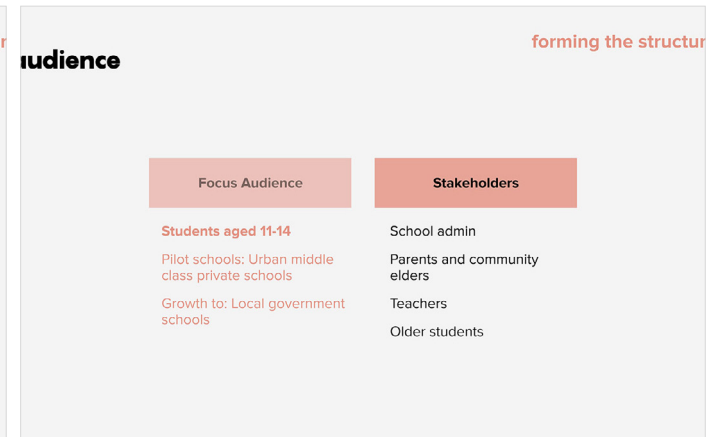
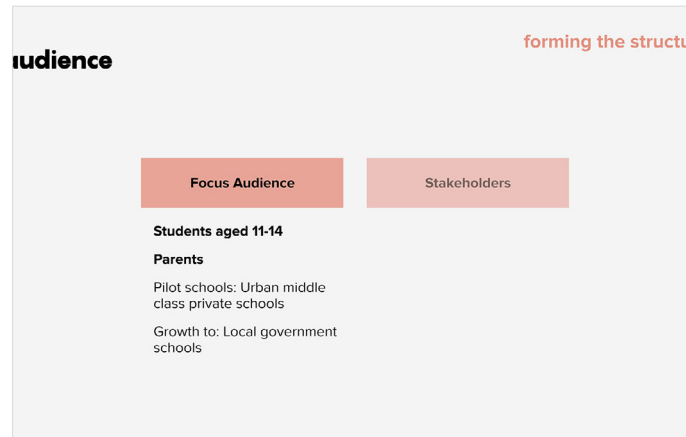
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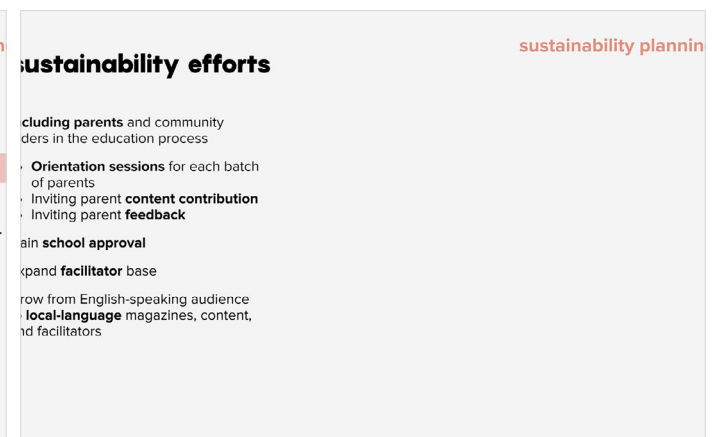
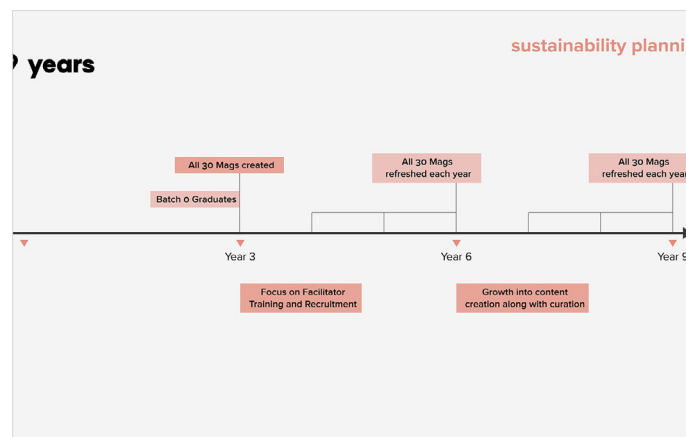
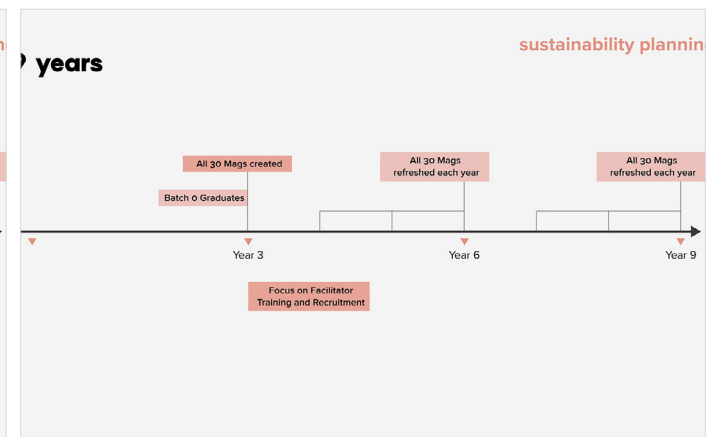
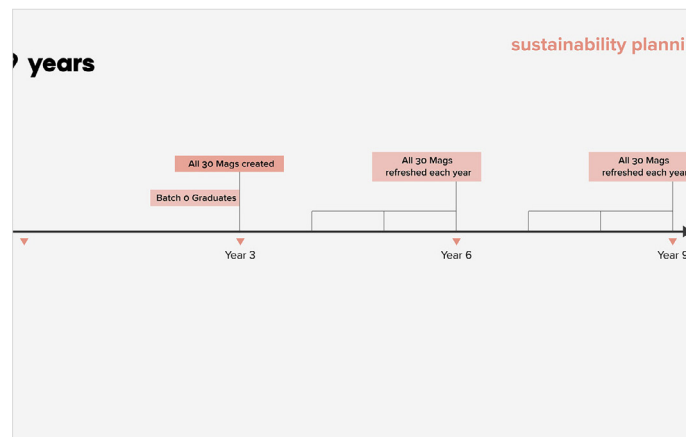
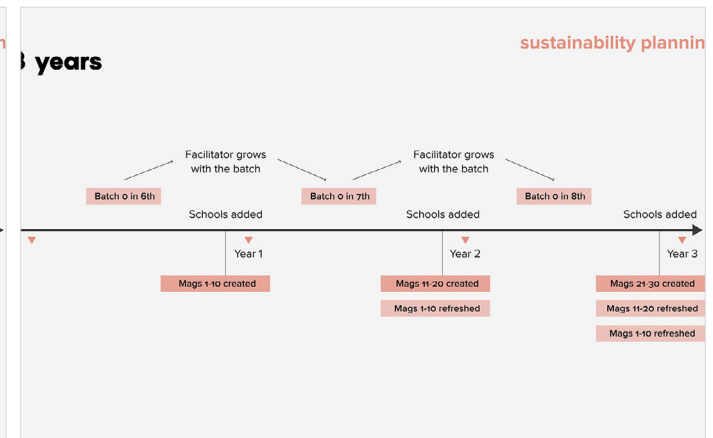
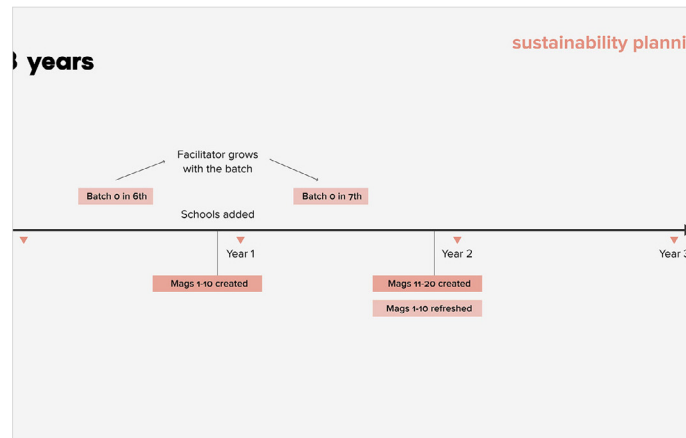
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Systems Design Project

Interconnected and form a System within Defined Boundaries

by

Prof. Ravi Poovaiah, Prof. Vivek Kant,
Prof. Pramod Khambete and Dr. Ajanta Sen
IDC, IIT Bombay

Source:

<https://www.dsource.in/course/systems-design-project/projects/budbud-foundation/week-four-focus-soft-prototyping-0>

1. Aims of Systems Design Project

2. Course Schedule and Grading

3. Problem Statement

4. Projects

4a. Navaaz EV Charging Solution

4b. The Indian Medicine System

4c. The BudBud Foundation

4c.1, 4c.2, 4c.3

4c.4. Week Four: Focus on Soft Prototyping


4c.4.1. Presentation

4c.5. Week Five: Presentation on Final Design Solution

4d, 4e, 4f

5. Videos

6. Contact Details



user feedback

Survey II

user feedback

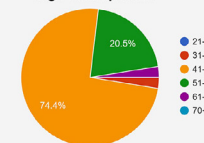
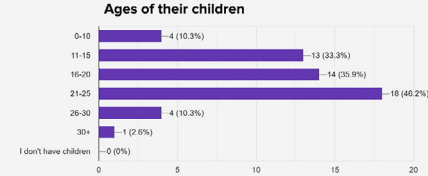
aimed at parents

to gain a sense for attitudes in parent communities towards the proposal and social and intimate maturity education

39 responses (so far)

actions:

- Demographics
- Puberty Education at Home
- Sample Content
- Participation Potential

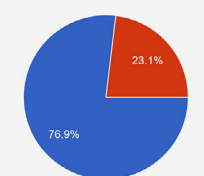



interesting findings

user feedback

Do you believe girls and boys should learn about the changes in the opposite sex during puberty as well as their own?

39 responses



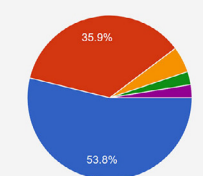
- Yes, I think they should (76.9%)
- Yes, I think they should to a basic extent (23.1%)
- No, I think they should only learn about their own (0%)
- No, I don't think they should be taught about either (0%)

interesting findings

user feedback

Would you be comfortable anonymously submitting stories from your personal experience about socio-emotional changes or body changes during puberty?

39 responses



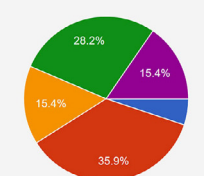
- Yes, I would be comfortable (53.8%)
- No, I don't think I could think of any (35.9%)
- No, I would not want to share (7.7%)
- Depends on if I have any reasonable idea (2.6%)
- Will check with my girls first (0%)

interesting findings

user feedback

Would you like to attempt making some simple drawings/art to go with your story? You don't have to be an artist, even stick figures are welcome :)

39 responses



- Yes, I enjoy drawing! (15.4%)
- Yes, I don't usually draw but I don't mind trying (35.9%)
- I'd like to have drawings with my story but I would need help (28.2%)
- No, I wouldn't know what/how to draw (15.4%)
- No, I don't like to draw (4.5%)

sample content

user feedback

three sample comics created

- Socio-emotional changes
- Physical changes
- LGBTQ+

All based on real experiences as the magazines would have

presented in different styles, with different levels of brazen-ness

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sample content

user feedback

sample content

user feedback

sample content

user feedback

sample content

user feedback

participant comments

This magazine is good idea .I think they should be available in school libraries and teachers & parents should encourage the children to go through it . All the best .

es, surely. Specific teen related issues, sexual awareness, puberty - physical and mental changes etc /ould be really helpful in today's age.

/agazine should have a Q&A in which there need to be questions which usually comes in to the minds if hildren about this and the answers to them from an expert consultant.

think education by counselors at school may also be helpful

reat initiative, it's time people started talking about things openly and not like it's something to be shamed of!

uch education should definitely be subtly introduced to adolescents to allow better rounded personality evelopment and a more objective outlook about the subject

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Final presentation

End of module

Provide proofs of concept for
content and delivery systems

- Magazine
- Curriculum outline
- Service Blueprint

Demonstrate through user
personas

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Week Five: Presentation on Final Design Solution

Project Report

- [The BudBud Foundation.....](#)  (22280 kb)



Presentation



Project Synopsis



BudBud Magazine



Okolombo



Project Links



Video

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Presentation on Final Design Solution of your System Design Project

Presentation Date and Time:

Timings: The Feedback is scheduled on Week 2 between 2.30pm to 5.30pm

The venue: Online

Sequence: Group by group starting with group 1

Timings: Presentation time: 12 minutes (we will play the video or you can make the presentation) + 10 minutes for Feedback

Feedback: Faculty mentors will give final feedback on your project

Grades: This is a graded presentation (40%)

Presentation:

- . Each group has to make a video of their presentations a of the 5 weeks work – in about 12 mins. duration and upload this in google classroom
- . The presentation needs to be professionally done.
- . The presentation needs to include your Final Concept along with the explanation of the design process that you followed.

Presentation (overall) should include:

- . WHO – team composition
- . WHAT – what was designed and for whom (users and environment)?
- . WHY – why was this an important systems level problem to address?
- . Issues - what were the problems encountered?
- . HOW – what was the process used in solving this system design project?
- . ANALYSIS – what were the insights gained from mappings (both main and subsystems) and opportunities for design
- . DESIGN – what was designed? Mention your objectives or redefined objectives
- . CONCEPTS/IDEATION – what are the iterations of the design evolution
- . PROTOTYPE – Can you demonstrate your final design (maybe use scenario) (could be guidelines/scenarios/prototypes etc.)?
- . Show highlights of the prototyping story
- . EVALUATE – What is the feedback from the users?
- . FUTURE - Next steps?

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Presentation Details of points mentioned above:

Task 1: Prepare a presentation (of 12minutes duration) to include all the stages of your project:

- a. Title of the System Design Project or Problem Statement
- b. Team members
- c. Summary/content listing of your presentation
- d. World views
- e. Insights from Primary and Secondary Research (Mappings for overview as well as sub-systems)
- f. Major design opportunities
- g. Restatement of the problem / Design Objectives / Design Goals
- h. Overview of your ideas
- i. Alternate Concepts (sketches + quick scenarios + concept models)
- j. User Feedback on ideation
- k. Final Concept and its unique features
- l. Final Scenario
- m. Form and Interface Development or detailing
- n. Prototype
- o. User feedback on your final solution
- p. Future steps
- q. Full References
- r. Acknowledgments – to all who have helped

Presentation Essentials:

- a. Present in an engaging and crisp manner
- b. Design the slides/visuals to reflect the relevance of your topic
- c. Use your communication design skills to make the presentation visual
- d. Design proper layout; use appropriate type, colour and background
- e. Its nicer if all the team members take turns in presenting
- f. It makes sense to have main titles, sub titles and then running text/images
- g. Have a summary/content slide in the beginning
- h. Make good use of appropriate medias in the presentation
- i. Use appropriately theatre, drama, story, scenarios, video, etc. to convey your ideas
- j. Preparing a script is a good idea – reading text from the slide should be avoided

Presentation Tips:

- k. Never underestimate the need to rehearse. This can be usefully done alone, with team members, and with novice audiences. Video tape your self (to get confidence).

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- l. Never underestimate how long it takes to describe things clearly to a novice audience.
- m. Never underestimate how little the audience knows about what is so interesting about your project.
- n. Do not be dull when you speak, audiences want to engage in your enthusiasm.
- o. Make slides visible from the back of a room (try them out!)
- p. Do not talk over any audio in your presentation.

Submission Details:

- a) Updated project Report
- b) Video Presentation of 12 minutes – both slides + Final Video/Demo of Prototype
- c) A 250 word synopsis of the project along with the title, keywords and name of team members
- d) 2-3 high resolution images of your final design (1200 x800 x 300 dpi)
- e) It would be great if you can submit a copy of your MIRO board

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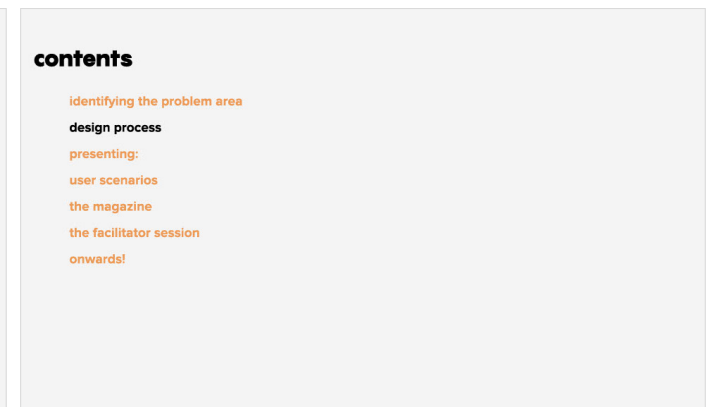
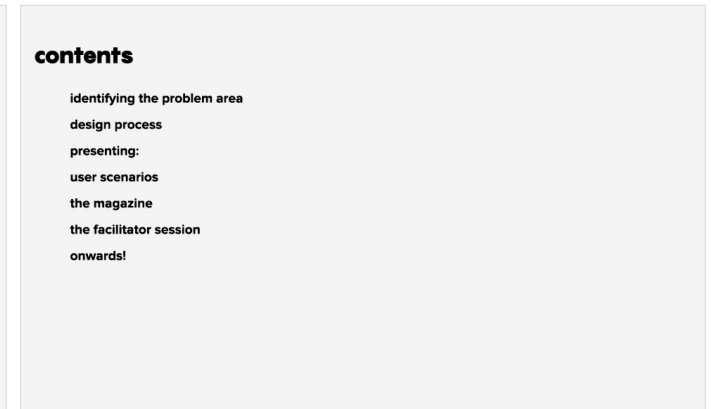
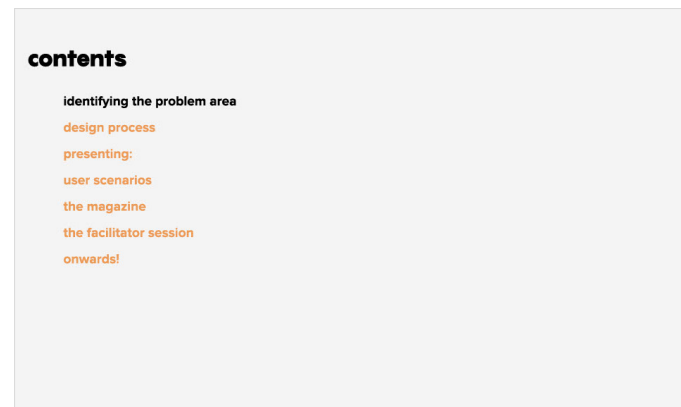
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Presentation

Presentation

- The BudBud Foundation.....📄 (62120 kb)



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identifying the problem area
design process
presenting:
user scenarios
the magazine
the facilitator session
onwards!

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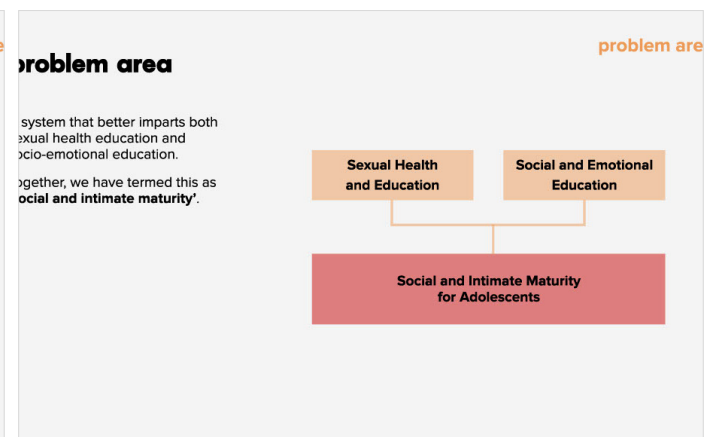
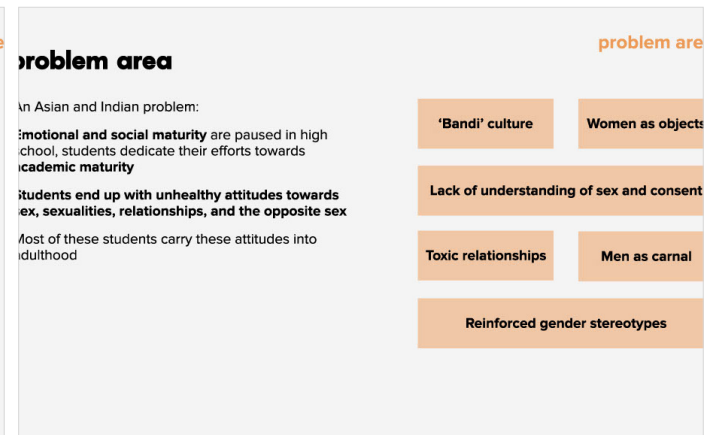
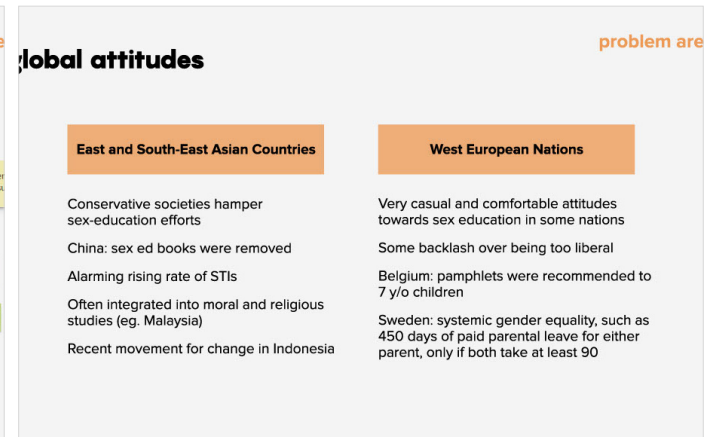
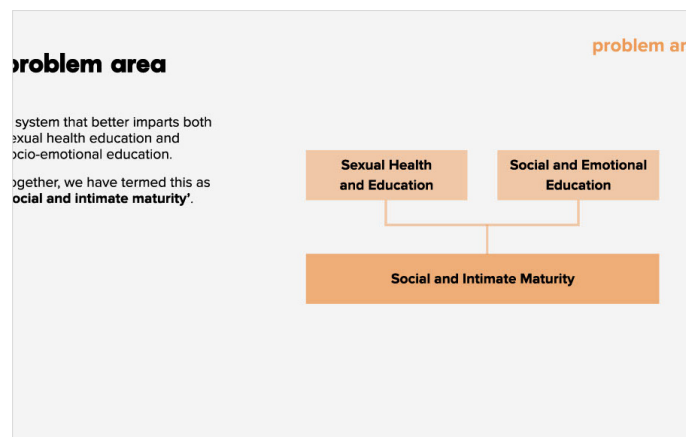
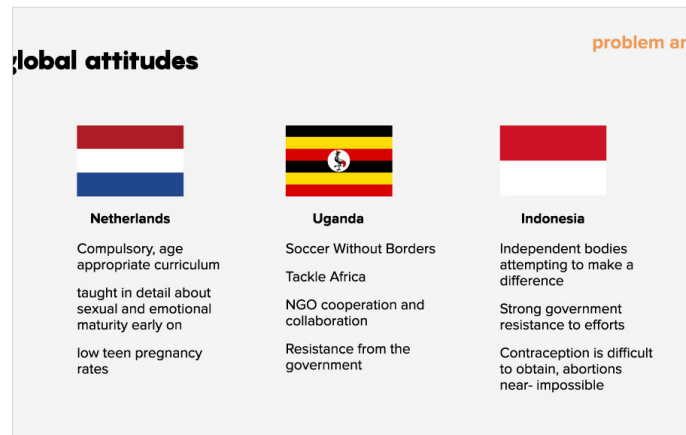
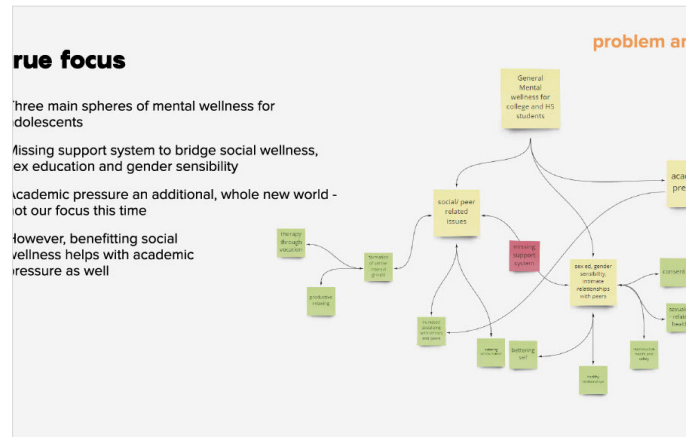
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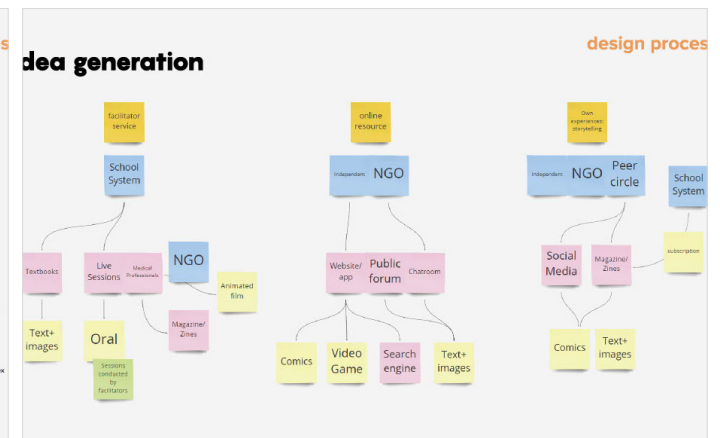
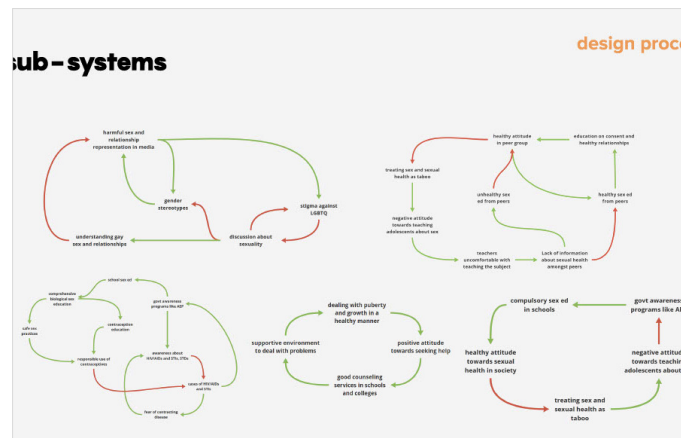
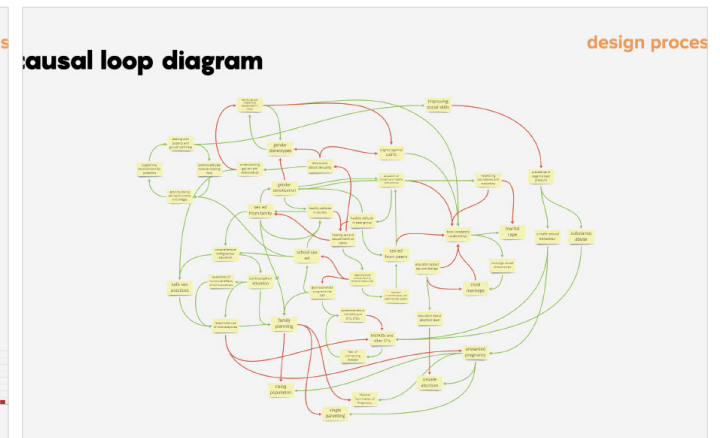
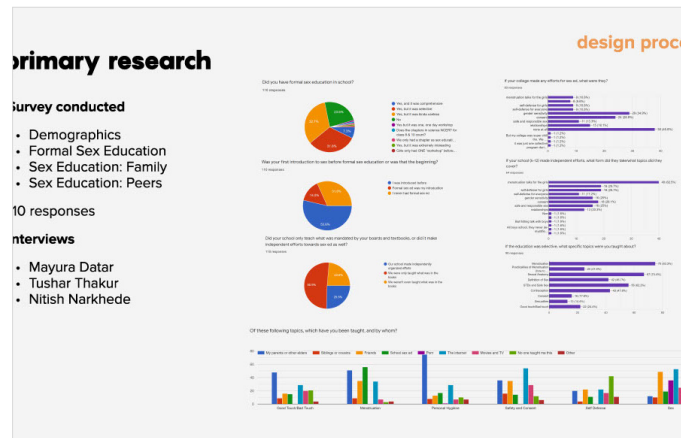
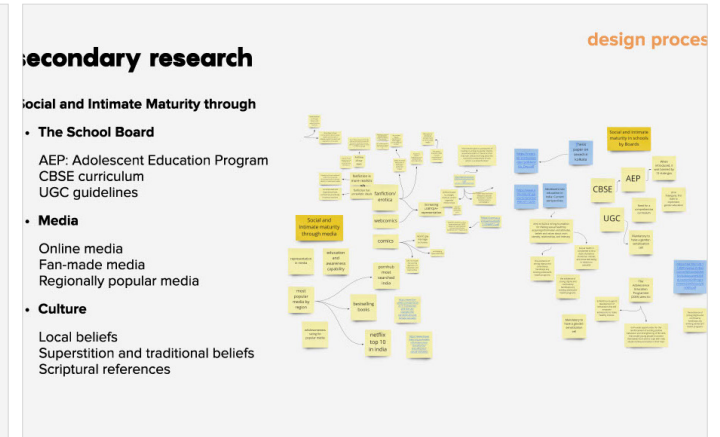
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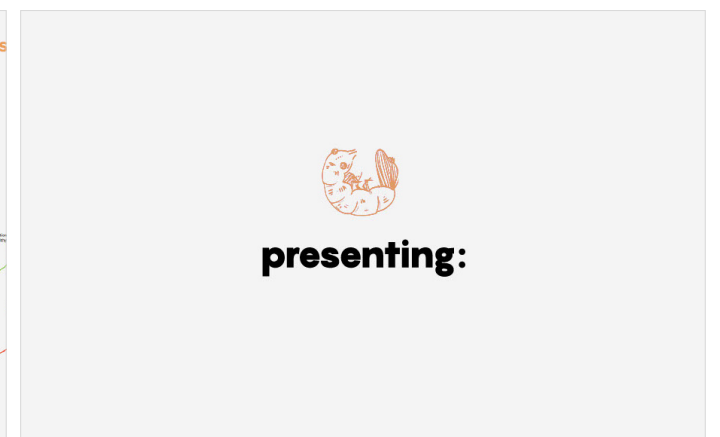
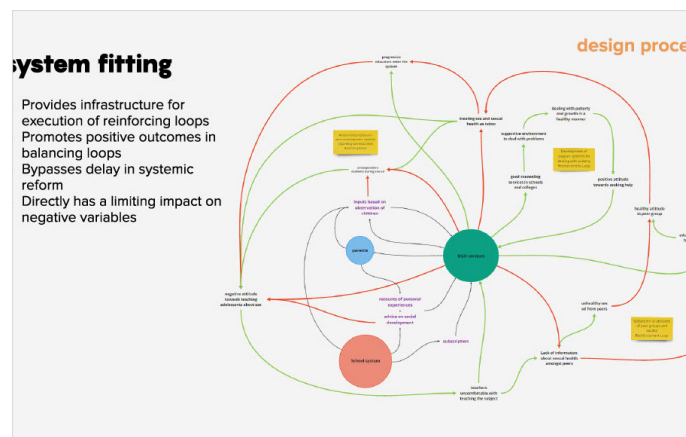
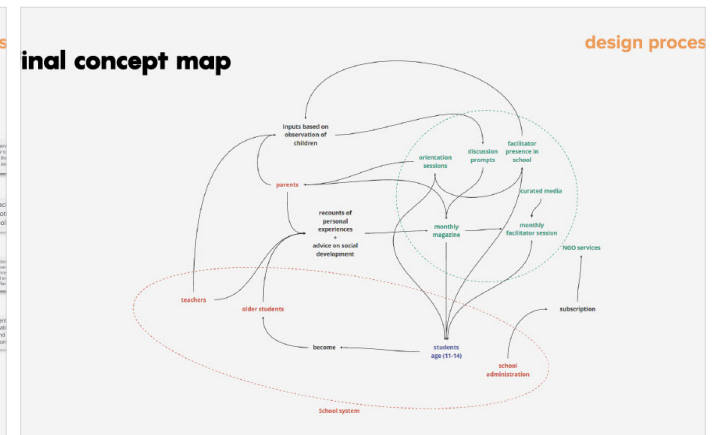
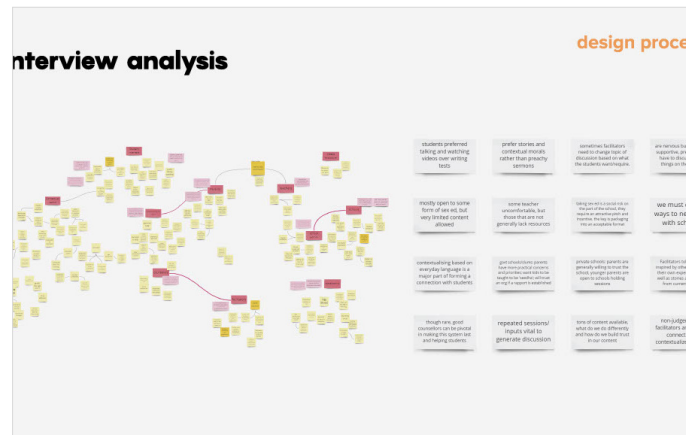
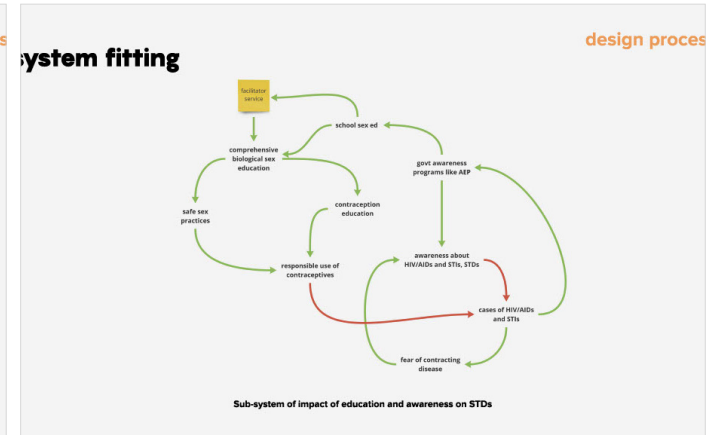
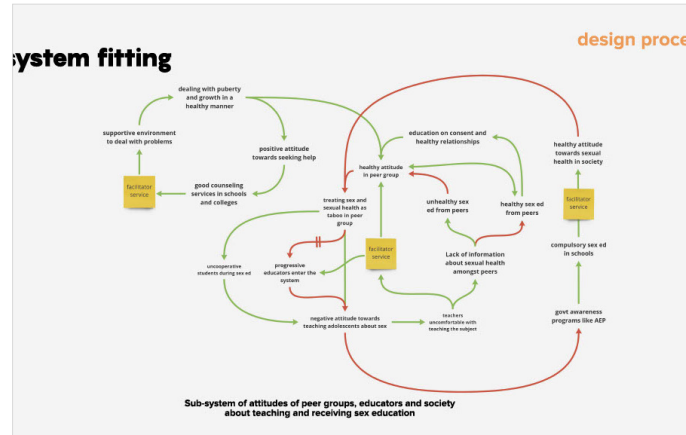
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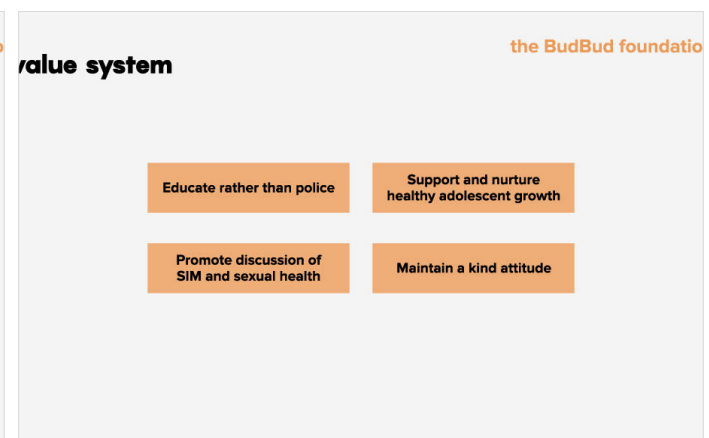
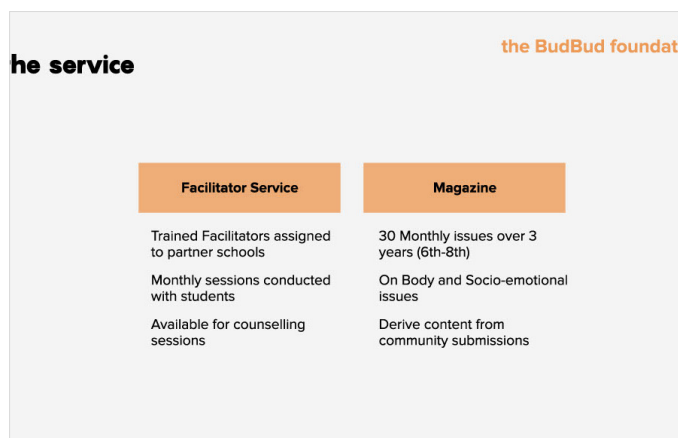
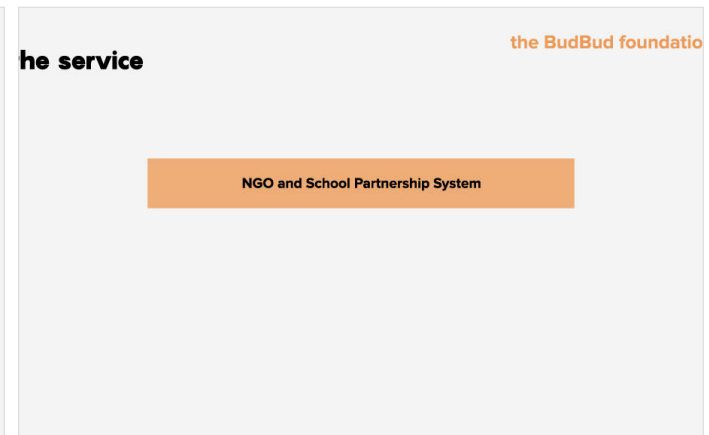
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 - 4c.5. Week Five: Presentation on Final Design Solution
 - 4c.5.1. Presentation
 - 4c.5.2. Project Synopsis
 - 4c.5.3, 4c.5.4, 4c.5.5, 4c.5.6
 - 4d, 4e, 4f
5. Videos
6. Contact Details



Design Course

Systems Design Project

Interconnected and form a System within Defined Boundaries

by

Prof. Ravi Poovaiah, Prof. Vivek Kant,
Prof. Pramod Khambete and Dr. Ajanta Sen
IDC, IIT Bombay

Source:

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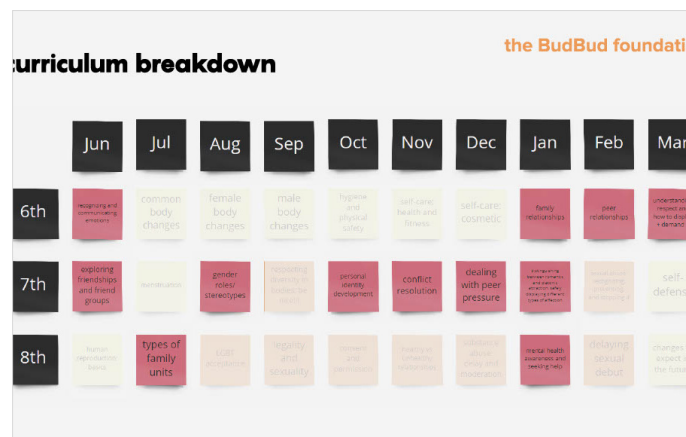
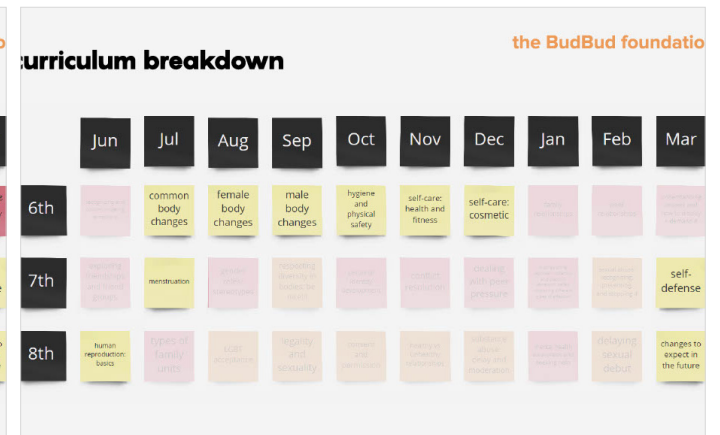
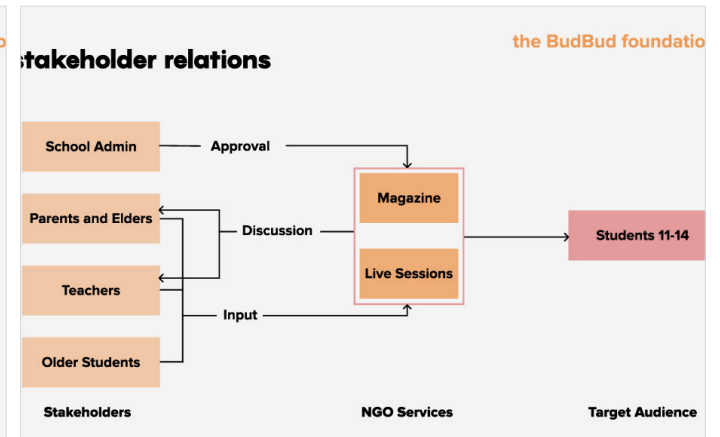
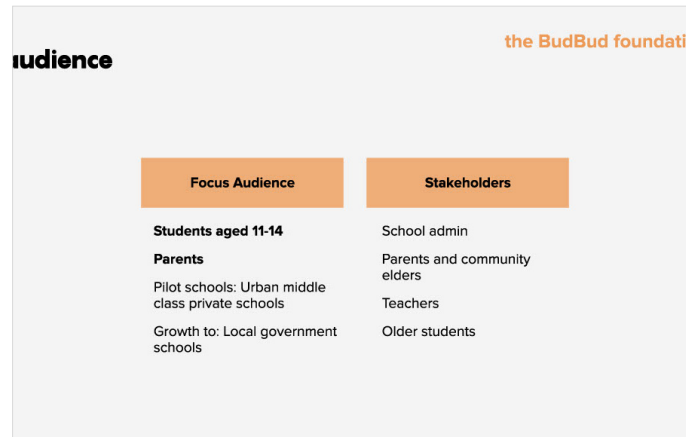
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4c.5.3, 4c.5.4, 4c.5.5, 4c.5.6

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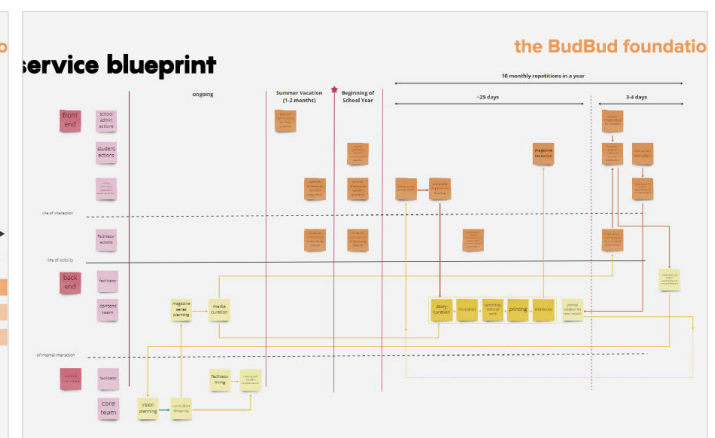
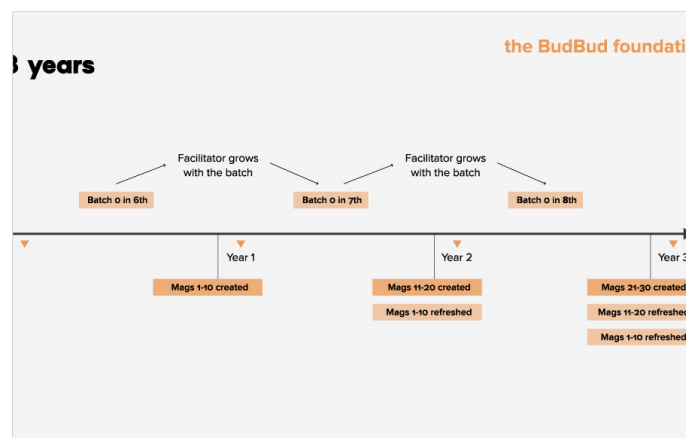
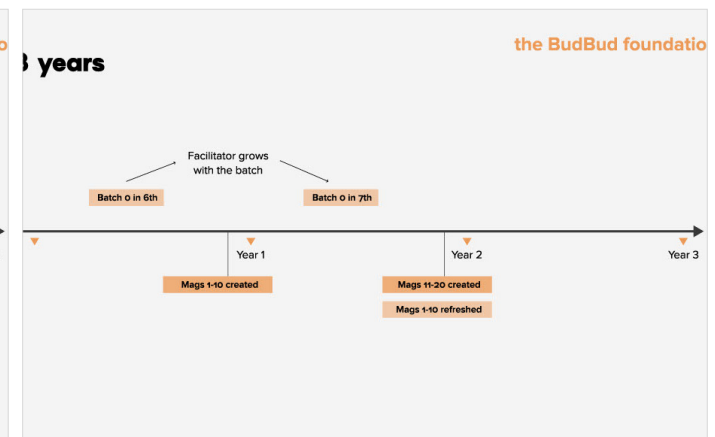
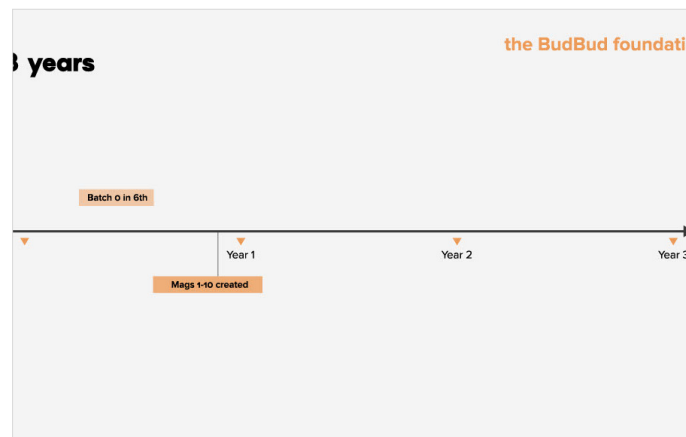
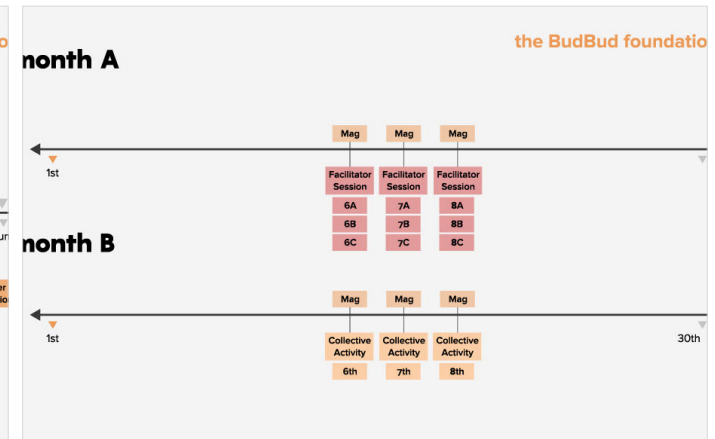
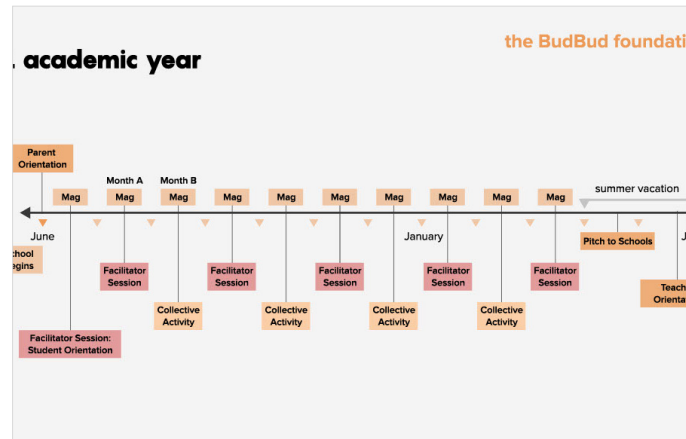
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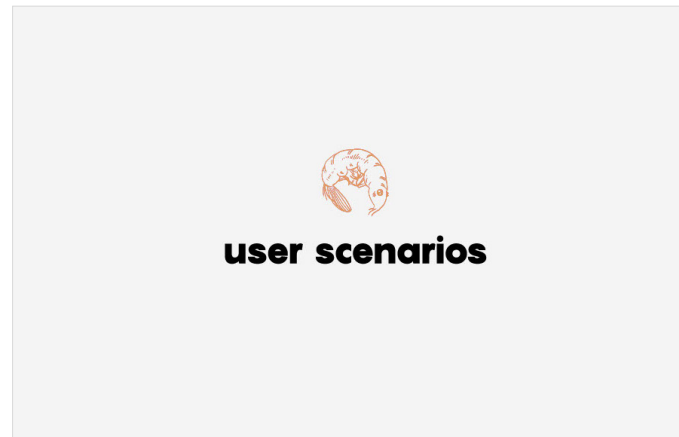
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Arhan user scenario

Age: 13 years
8th grade student

Class topper, great at cricket.
Aspires to get into AIIMS
Always searching for the biological basis of things.
Very concerned about his feelings
Anxious and terrified

Arhan user scenario

Arhan user scenario

Arhan user scenario

Nikita user scenario

Age: 11 years
8th grade student

Happy-go-lucky, outgoing student
Member of her school dance team
Wants to be an author when she grows up
Comes from a loving, supportive family
Suffers from hirsutism, or male-pattern hair growth on females

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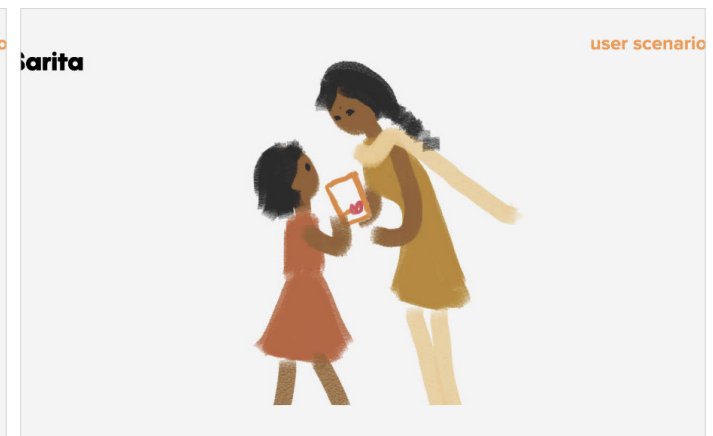
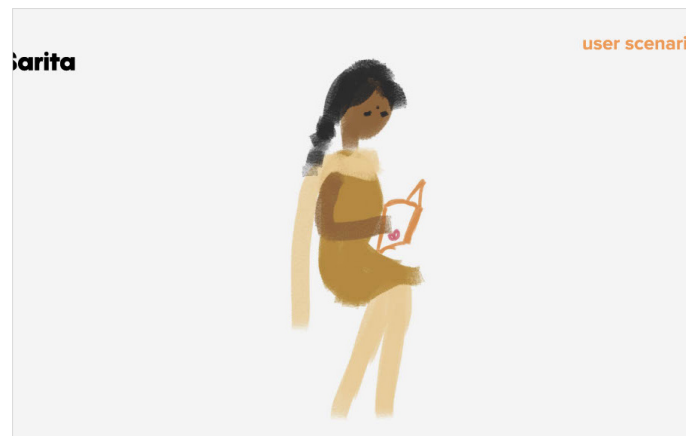
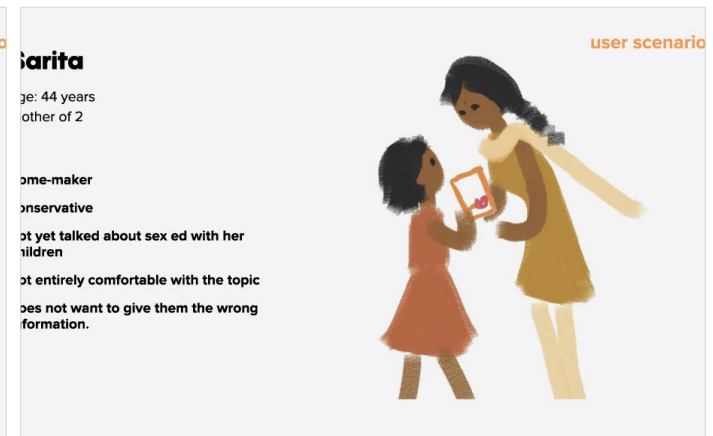
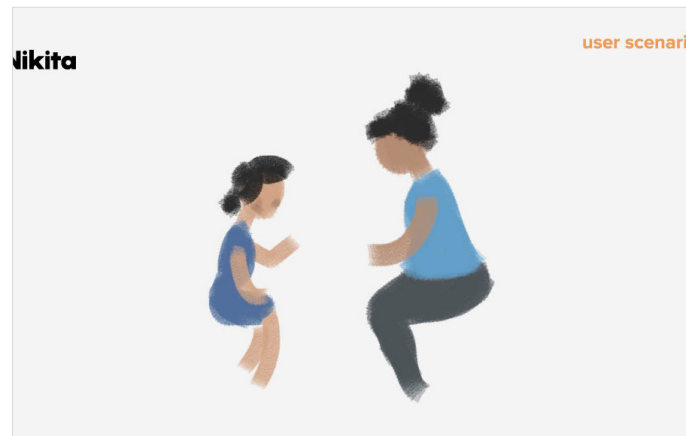
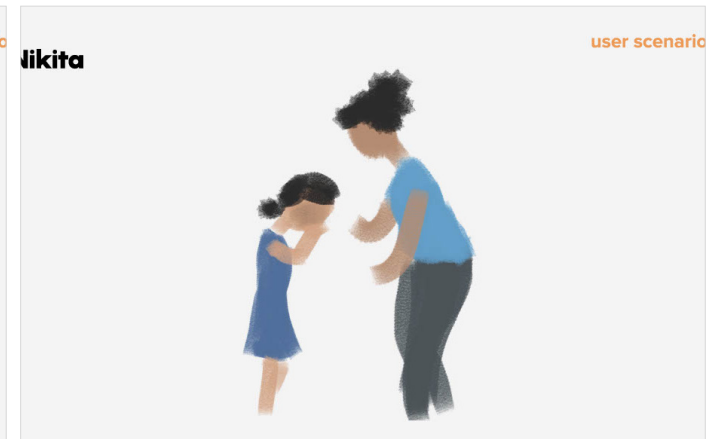
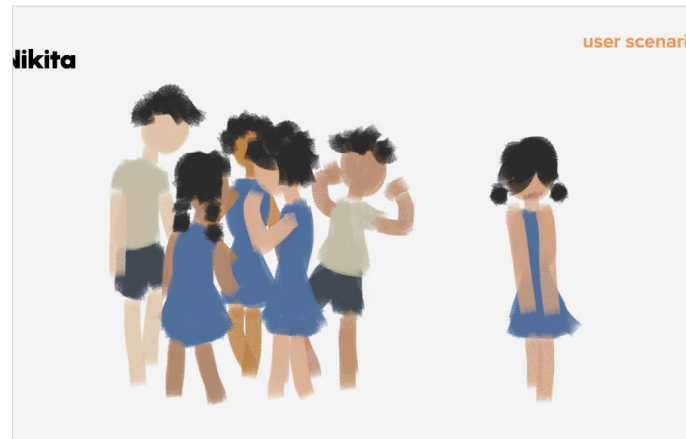
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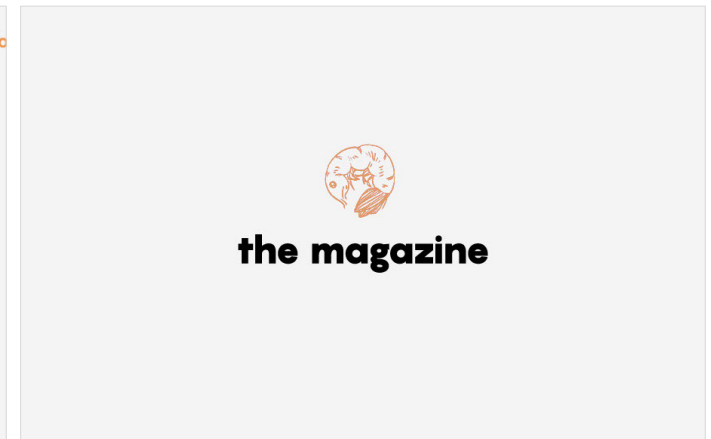
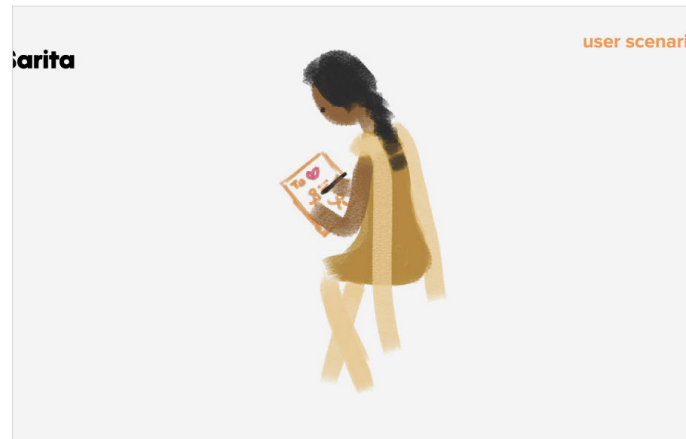
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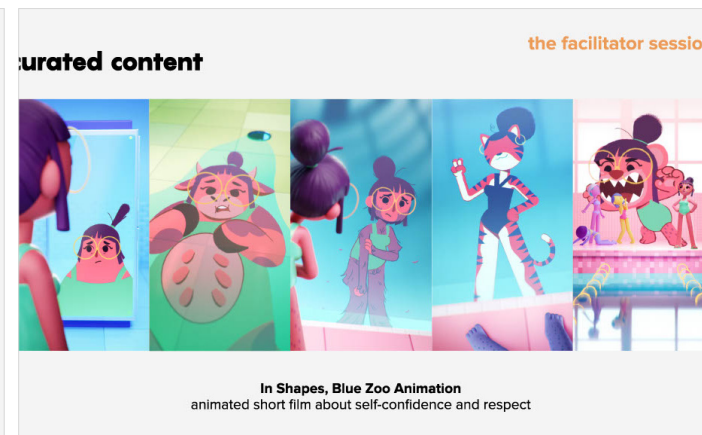
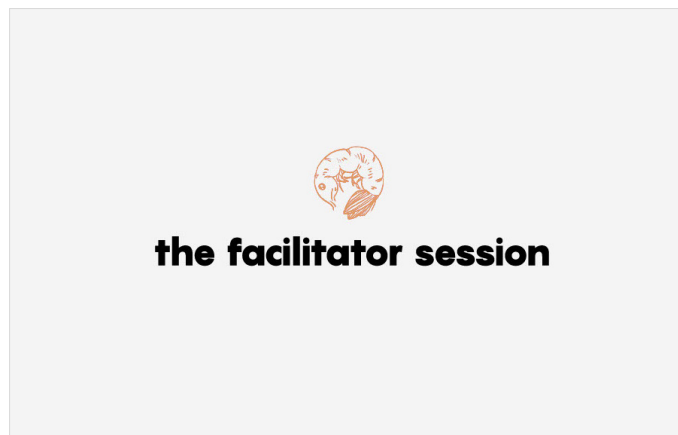
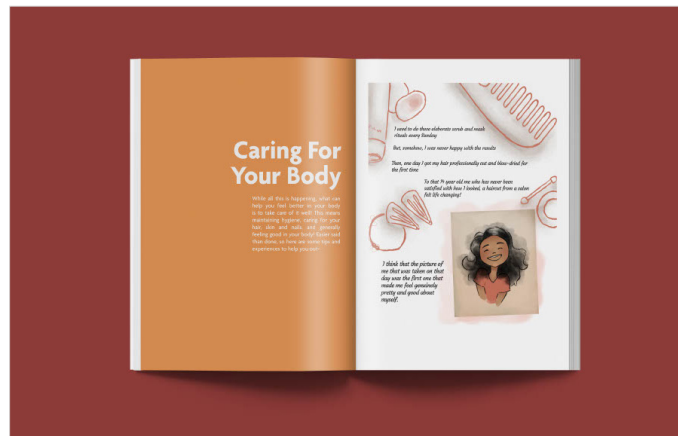
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the facilitator session


discussion points

What are the various changes happening in your bodies? How do you care for your body in this time?

Are there things about your body that embarrass you? Would it be possible to think about them in different ways?

How do you feel when you receive unwanted attention due to how your body looks? What are ways to confront or avoid this?

How do you react when you see someone who looks very different from yourself? Are there polite ways to ask people about these differences?



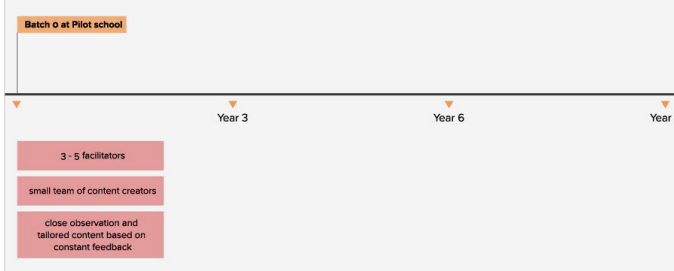
onwards!

expert inputs

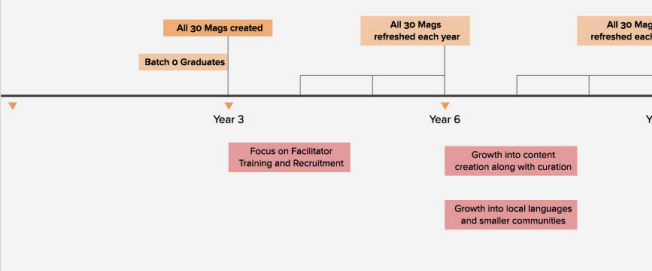
Mr. Suhail Abbasi	Dr. Priyanka Bhatia
Keep approaches subtle Ease into difficult subjects Begin with the basics	Testing is an essential Inputs from target audience (11-14 years) to determine success

growth model

Batch 0 at Pilot school



growth model



costs and revenue

Assets	Liabilities
School Subscription Fees	Facilitator Salaries
CSR Funds	Content & Core Team Salaries
Donations	Printing and Distribution Costs
	Content Licensing/Materials

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We hope to create a culture of **discussion** and **nurturing** within the school system and at the homes of students, in order to help them blossom into **responsible, kind, and empathetic** young adults.

At the base of it all, we feel that all the system needs...



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Project Synopsis

Key-words: Sex Education, Puberty, Socio-Emotional Education, Adolescence, School System

In this project, we have explored a narrow region in the wide domain of sexual health and social reform in India through the lens of education at the school level. Coining our goal 'Social and Intimate Maturity', we worked towards building an intervening structure in the current system of reproductive and social health education.

We conducted both primary and secondary research on the topic. We found and studied government guidelines, and collected people's experiences through a survey, and used this data along with our chosen design process and interviews with professionals in the field (sex education facilitators at the Akanksha Foundation and Prayas Group) to come up with our proposed solution.

Our intervention is a monthly magazine + facilitator service, delivered via a partnership between the school system and our proposed NGO. We would work with students from grade 6-8 in monthly sessions, each dealing with any one particular topic, like consent, bodily changes, relationships, etc. One of the things we identified was that hearing someone's experiences, realising that other people have gone through the same thing and that it is normal, helps both adults and children a lot. So, our magazine would mostly be comics and illustrated stories of people's experiences, collected from parents and older students. It would also have Q&A sections, conversation starters for parents, and some inputs from teachers.

With this, we hope to create a culture of discussion and nurturing within the school system and at the homes of students, in order to help them blossom into responsible, kind, empathetic adults.

Miro Board Link: [Okolombo Miro Board](#)

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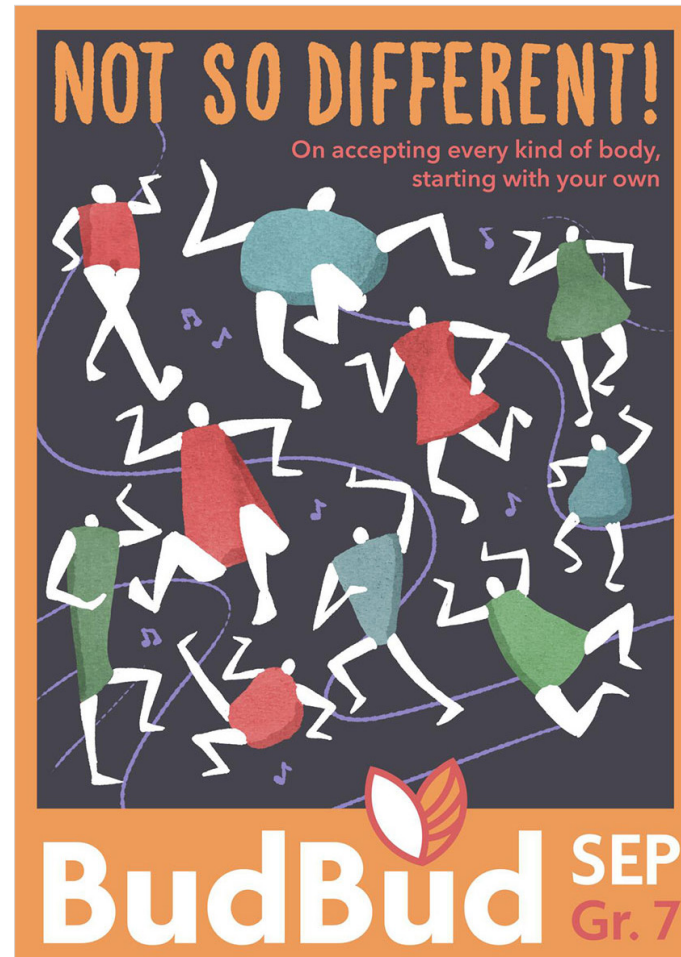
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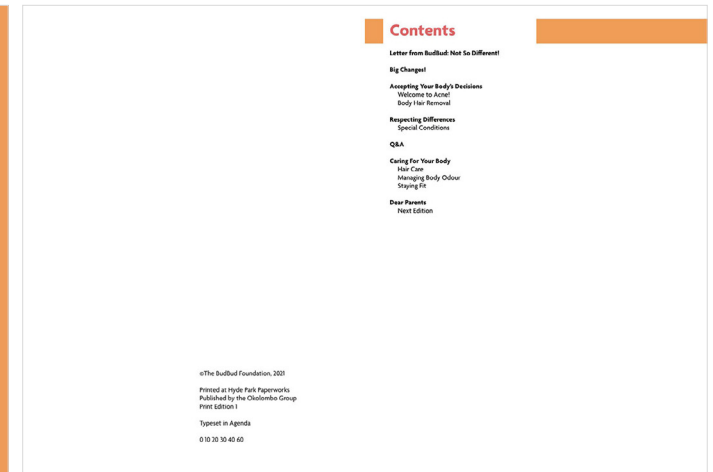
BudBud Magazine

BudBud Magazine

- The BudBud Foundation..... (13110 kb)



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 - 4c.5. Week Five: Presentation on Final Design Solution
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4c.5.1, 4c.5.2

4c.5.3. BudBud Magazine

4c.5.4, 4c.5.5, 4c.5.6

4d, 4e, 4f

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Special Conditions

There is a large variety in the people around us.

na is a condition wherein patches of skin become inflamed, itchy, cracked, and rough. One can also cause blisters. Some people outgrow condition, whereas others will continue to have throughout adulthood. Over 10% of the population will have eczema at some point in their life-making it a very common condition.

ps is a condition in which the skin loses colour patches. What gives skin and hair their colour are pigment-producing cells called melanocytes. For people with vitiligo, melanocytes die off from areas. This leads to patches of light skin, like hair. Vitiligo can be hereditary, or due to an immune disease. It's usually harmless, except it makes you more at risk for sunburn.

roca is an autoimmune disease, which causes skin to fall out in small patches. Alopecia occurs when your body's immune system attacks your hair cells, causing the hair to fall out from the roots. It can be scarring, and currently has no cure. It is brought about by stress, like a lot of other diseases. Often, people with alopecia will keep full of hairstyles — and look fantastic with them!

sim is a rare genetic condition, in which people little to no colour in their skin, hair and Albansium further causes many issues — it puts a higher risk of skin cancer. It gives you sensitive, and also causes vision problems. Albansium is a genetic disorder, and it is present from birth. It often causes dry skin, and prescribes eye-glasses are usually needed by albino individuals.

When I was in school, I had a classmate who was wheelchair-bound. I remember when we were in class, he used to use crutches, but switched in 4th grade. Our principal explained to us very early on that he had a condition known as muscular dystrophy, which made his muscles get weaker as he grew older. I was really glad she explained it to us — we never knew how to react properly until then.

I remember seeing my classmates change a little after that talk — they spent more time with him, discovering in the process that he loved video games and that he laughed a lot.

Looking back, I feel warm thinking about how most of my classmates tried to include me. I really respect them.

Q&A

Email us your questions and concerns at ask@budbud.in, we'll do our best to answer as many as possible. If we aren't able to address yours, don't hesitate to ask your mentor in the next session you have with them!

Q1: Hello! I just turned 13, and I still haven't gotten my period. All of my friends have got theirs, and I feel like I'm the only one who hasn't. Is this normal? I'm worried.

A1: Hello! Not to worry. Menarche, or the onset of your period, happens in different ages on different people. It is perfectly normal to get yours later than your friends. In fact, in older times, it was normal to get yours later than your friends. It was normal to get yours later than your friends after 16 or even 18 years of age!

Q2: Hello! I started growing really thick hair on my legs, and everyone in my class makes fun of me for it. I'm really self-conscious. I want to know if there's anything I can do to make it go away.

A2: Hello! First of all, body hair is perfectly normal and healthy. If you use what it does, why it exists, you'll be surprised and pleased with what you discover. It's not at all unusual for both boys and girls to grow hair on their legs, arms, face, and even tummy and back. It's nothing to be ashamed of!

Q3: Hello! I'm a 7th grade girl and I haven't developed my breasts yet. I'm worried because all my friends have theirs. Is this normal?

A3: Hello! You know all kinds of breasts exist in this world, and each kind is beautiful in its own way. While there's unfortunately no scientific proven way to increase them other than surgery, you can do things to make them look better. At the moment, at your age, you still develop. They might grow later, like a 12th grader, or maybe not. This is normal, but remember that they diminish your beauty in any way.

Caring For Your Body

There are so many different kinds of hair, that it's no one fit for all, when it comes to hair care. Hair may be straight, wavy, curly, or only it may be soft, smooth, oily or dry, or anything in between. In this short article, we'll cover the basics.

Washing Hair: Needs to be kept clean. Your scalp sheds skin and releases oils, your hair traps dust, dirt, pollen, and everything else it comes into contact with. It's essential to wash your hair frequently, but frequency depends on the oiliness of your hair, the climate, and the products you use. Generally, hair should be washed 2-3 times a week, with mild cleansing shampoo. This is for most people, but for some, it may be more frequent as once every two days, for curly hair, or split once a week, for longer, dry hair. Choosing the right shampoo and conditioner for your hair type is also very important. Explore, experiment and see what best suits you.

Conditioning: You don't have to use the shampoo and conditioner from the same brand and product line, just use different brands just make sure the ingredients don't contradict and harm your hair.

Brushing: Straight or wavy hair, combing regularly is very important. It'll not only keep your hair healthy, long and free of tangles, but it'll also make your hair look neat and tidy. For curly or wavy hair, however, combing causes frizz. To avoid that, use a wide-tooth comb, or comb before washing your hair and use your fingers to disentangle rather than a comb.

Styling: To stimulate your scalp, have head massages.

Homemade Hair Masks: honey + coconut oil for dry hair

Diet: Eating healthy can make a huge difference when it comes to reducing body odour. Avoiding foods like garlic, onions, and other strong-smelling things can help greatly, along with avoiding fast and junk food.

Using Scents: Using scents consistently helps you mask body odour when in public. The most affordable scents are deodorants, which are pressurized gases with scents suspended in them, while more expensive scents are perfumes.

Patchy Beard

IT STAYS PATCHY FOR THE FIRST COUPLE OF YEARS.

...AND KEPT IT CLEAN... UNTIL I GOT A FULL BEARD

Varieties of Trimmers and Shavers

Of feeling good in your body is keeping it healthy. At this age, staying physically active can boost growth, ward off all kinds of conditions in the future, and help you feel gorgeous, too!

Most important part of any exercise regimen is consistency with it — the following are some fun ways to make sure you're keeping healthy:

- Participating in any kind of active sport can help you fit, form friendships, and at the same time good and in control of your body. However, it's always for everyone, so there are plenty of options too!
- Being an athlete is a great way to explore and push limits on your body. Apart from keeping you physically fit, they help with personal goal setting and give you something to focus on (keep your stats up!)
- Swimming can be a fantastic way to keep in shape, both very fun and physically demanding — make sure that you're swimming in safe waters with adult supervision.
- Yoga is a great way to explore and push limits on your body. Apart from keeping you physically fit, they help with personal goal setting and give you something to focus on (keep your stats up!)
- Swimming can be a fantastic way to keep in shape, both very fun and physically demanding — make sure that you're swimming in safe waters with adult supervision.
- Yoga is a great way to explore and push limits on your body. Apart from keeping you physically fit, they help with personal goal setting and give you something to focus on (keep your stats up!)

The good thing is that after all that experimentation, I finally know a very low maintenance routine for keeping my hair looking healthy!

Managing Body Odour

Many of you will notice that you've started to sweat more than you used to as a younger kid. As a natural part of growing up, while your hormones are developing, your body might produce more sweat and oils than usual. This is normal, and it's not something you have to be worried about. You have more body odour than before. Not to worry! Body odour is something everyone has, and can be managed with a few simple steps.

Showering Regularly: Keeping yourself clean and washing yourself every day (or even twice a day in the summer) with antibacterial soap can help keep body odour under control.

Wear Clean, Breathable Clothes: Wearing light materials like cotton that help sweat evaporate and washing clothes regularly helps keep your body clean. For clothes that you want to wear for an extra step, certain fabric softeners help wash clothes smell even nicer!

Deodorant: Making sure to brush twice a day and use mouthwash helps prevent halitosis or stinky breath. If you feel the need, carry mints freshen up your breath in the middle of the day.

Staying Fit

After puberty, I started to put on weight. So much that even my mom told me to eat less. I was upset. But not with being fat. I was upset at the way society hated my fat. Today, I am as fat as I was then. But I'm way fit. Being healthy.

So I started working out intensely. Today, I am as fat as I was then. But I'm way fit. Being healthy.

Design Course

Systems Design Project

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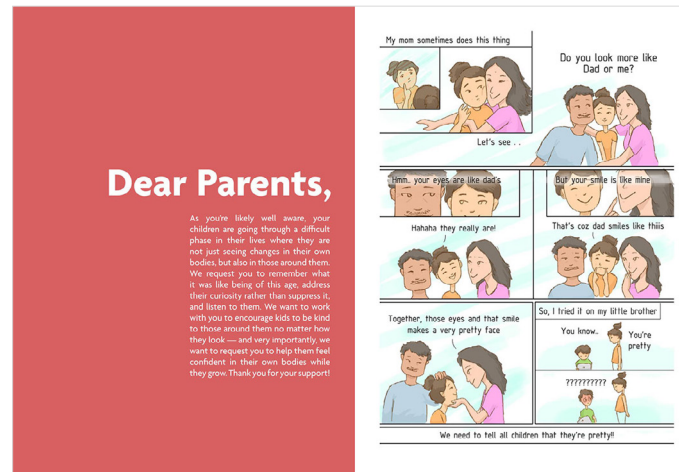
by

Prof. Ravi Poovaiah, Prof. Vivek Kant,
Prof. Pramod Khambete and Dr. Ajanta Sen
IDC, IIT Bombay

Source:

<https://www.dsource.in/course/systems-design-project/projects/budbud-foundation/week-five-presentation-final-design/budbud>

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4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b. The Indian Medicine System
 - 4c. The BudBud Foundation
 - 4c.1, 4c.2, 4c.3, 4c.4
 - 4c.5. Week Five: Presentation on Final Design Solution
 - 4c.5.1, 4c.5.2
 - 4c.5.3. BudBud Magazine
 - 4c.5.4, 4c.5.5, 4c.5.6
 - 4d, 4e, 4f
5. Videos
6. Contact Details



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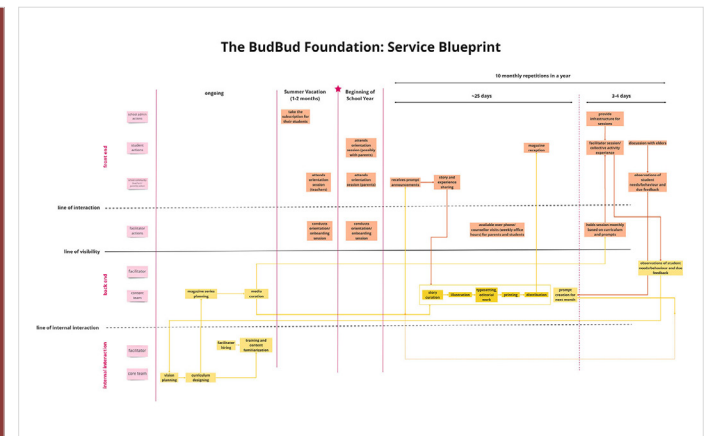
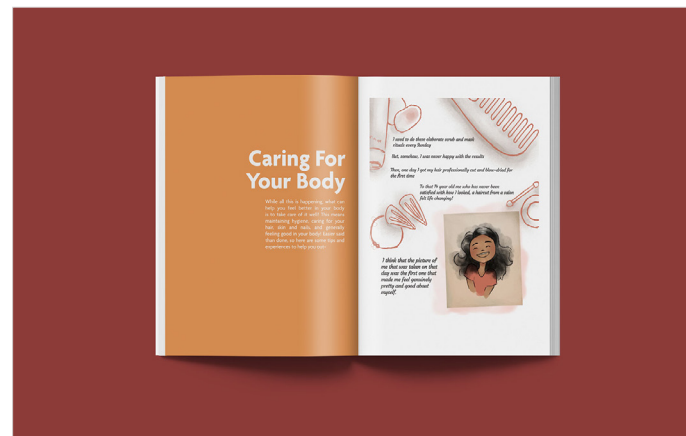
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Source:

<https://www.dsource.in/course/systems-design-project/projects/budbud-foundation/week-five-presentation-final-design-1>

Okolombo



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 - 4a. Navaaz EV Charging Solution
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 - 4c.5.1, 4c.5.2, 4c.5.3
 - 4c.5.4. Okolombo
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Source:

<https://www.dsource.in/course/systems-design-project/projects/budbud-foundation/week-five-presentation-final-design-2>

Project Links

More Links

- [The BudBud Foundation.....](#)  (235.93 kb)

Final Presentation Video Link: [The BudBud Foundation](#)

Miro Board Link: [Okolombo Miro Board](#)

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3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b. The Indian Medicine System
 - 4c. The BudBud Foundation
 - 4c.1, 4c.2, 4c.3, 4c.4
 - 4c.5. Week Five: Presentation on Final Design Solution
 - 4c.5.1, 4c.5.2, 4c.5.3, 4c.5.4
 - 4c.5.5. Project Links
 - 4c.5.6. Video
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3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
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5. Videos
6. Contact Details

Video

Farhan

age: 13 years
8th grade student

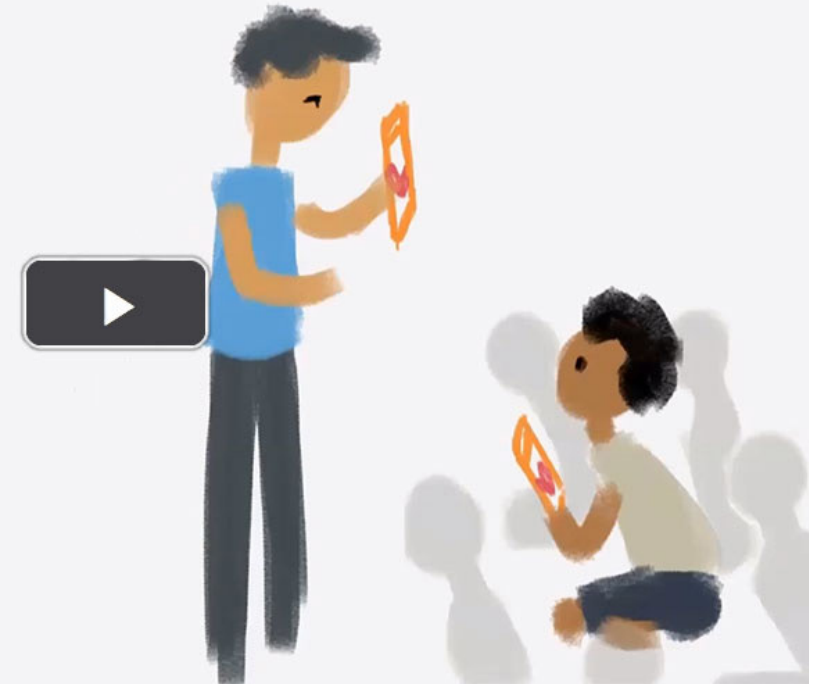
class topper, great at cricket.

aspires to get into AIIMS

**always searching for the biological
basis of things.**

very concerned about his feelings

anxious and terrified



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 - 4d.1. Week One - Need Finding and understanding the Problem
 - 4d.2. Week Two: Identify your Problem Area and Focus on it
 - 4d.3, 4d.4, 4d.5
 - 4e, 4f
5. Videos
6. Contact Details

Indian Education System



Week One - Need Finding and understanding the Problem



Week Two: Identify your Problem Area and Focus on it



Week Three: Ideation - Focus on Problem Area



Week Four: Focus on Soft Prototyping



Week Five: Presentation on Final Design Solution

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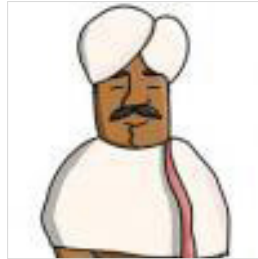
<https://www.dsource.in/course/systems-design-project/projects/indian-education-system/week-one-need-finding-and>

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2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
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 - 4d.1. Week One - Need Finding and understanding the Problem
 - 4d.1.1. Presentation
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Week One - Need Finding and understanding the Problem

Project Report

- [Indian Education System.....](#) (679.98 kb)



Presentation

Week One: Need Finding and understanding the Problem

- Form Working Groups
- Selection/Identification of System Design Problem (Why, how, whom, where, when)
- Worldview Mappings (Brainstorming, Card Sorting, Affinities, Network Maps) - Broader Perspective
- Secondary Research - Understanding Problem – Design/Media/Technology Search - Existing Solutions – History
- Future Study Papers - etc.
- Identify User Groups - Understanding User Needs – Talking to Experts - Primary Research (Contextual Inquiry)
- Next Steps

End of Week One: 1st Stage – Understanding the Problem Presentation

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

Submission: Slide presentation + Report submission (must for grading)

Grading Points: 15%

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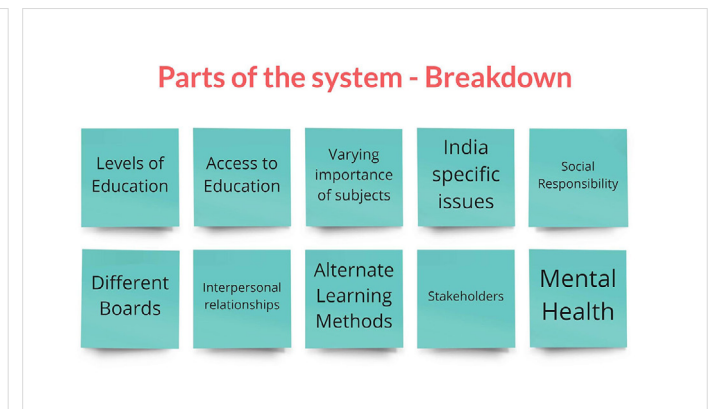
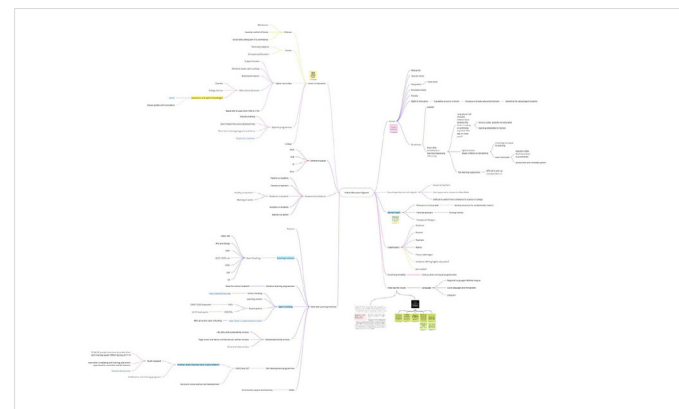
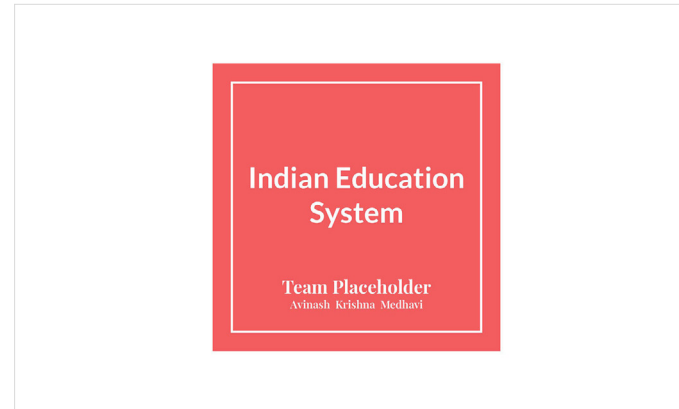
Source:

<https://www.dsource.in/course/systems-design-project/projects/indian-education-system/week-one-need-finding-and-0>

Presentation

Presentation

- Indian Education System..... (1900 kb)



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4. Projects
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 - 4b, 4c
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4b, 4c

4d. Indian Education System

4d.1. Week One - Need Finding and understanding the Problem

4d.1.1. Presentation

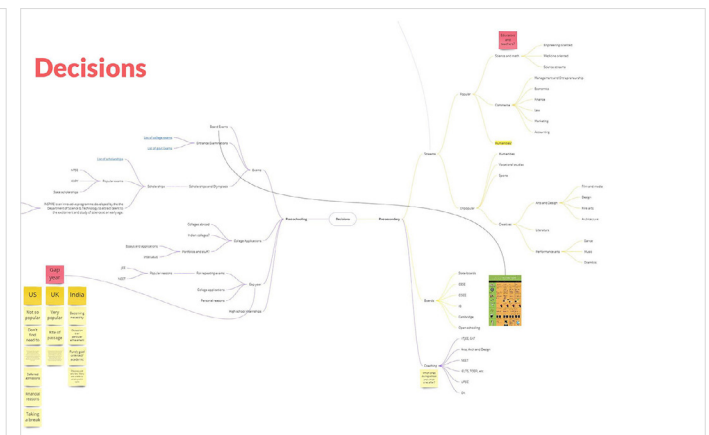
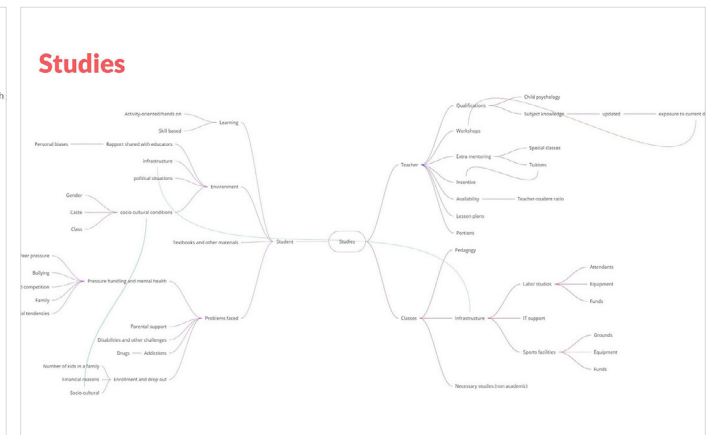
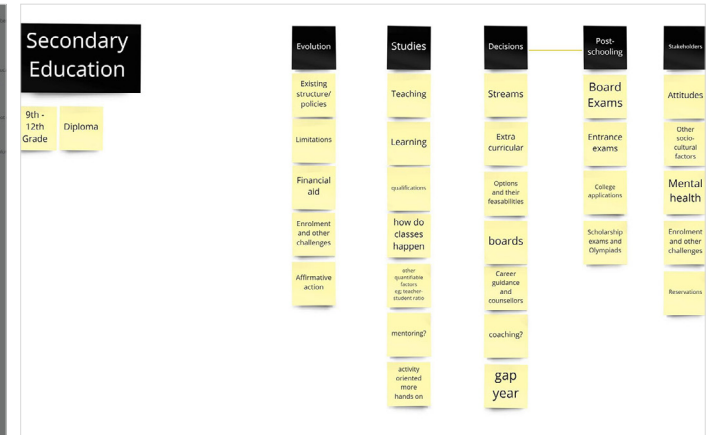
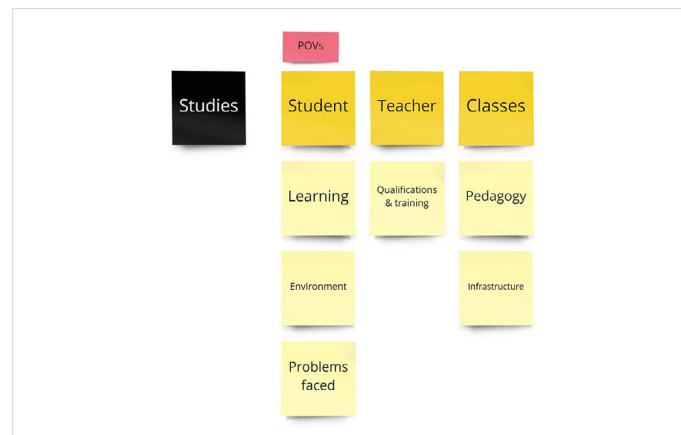
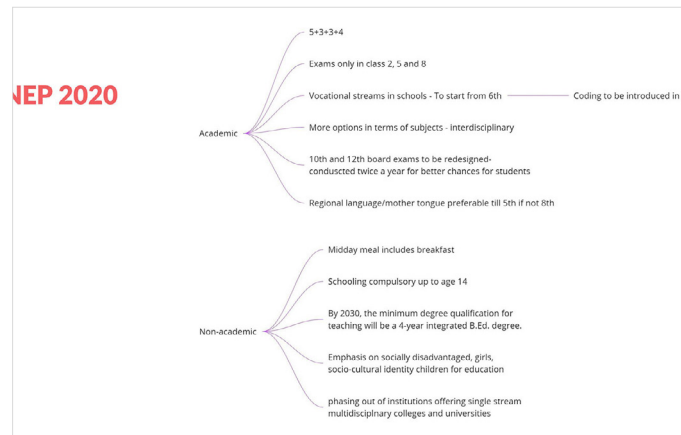
4d.2. Week Two: Identify your Problem Area and Focus on it

4d.3, 4d.4, 4d.5

4e, 4f

5. Videos

6. Contact Details



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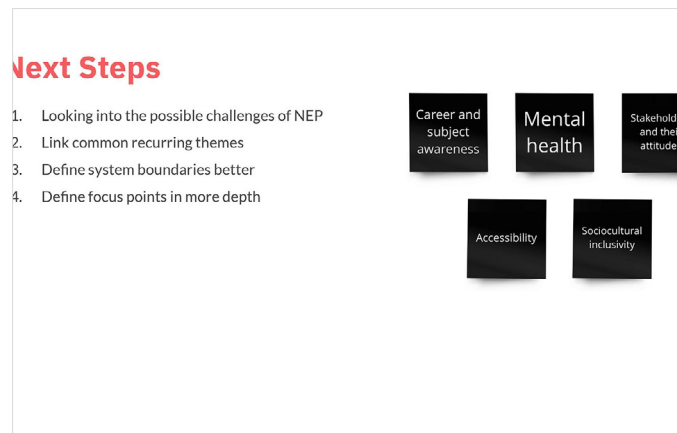
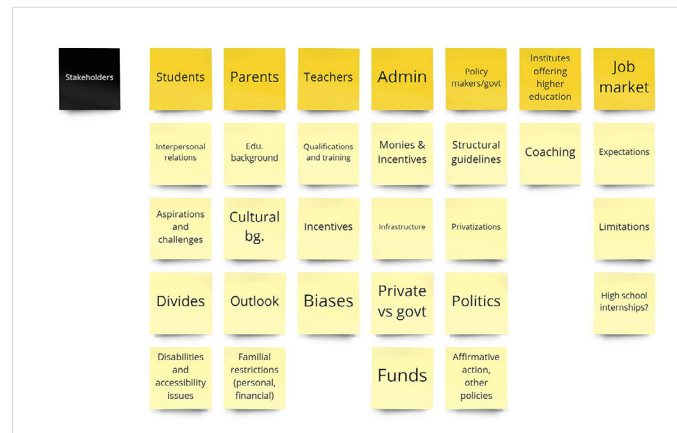
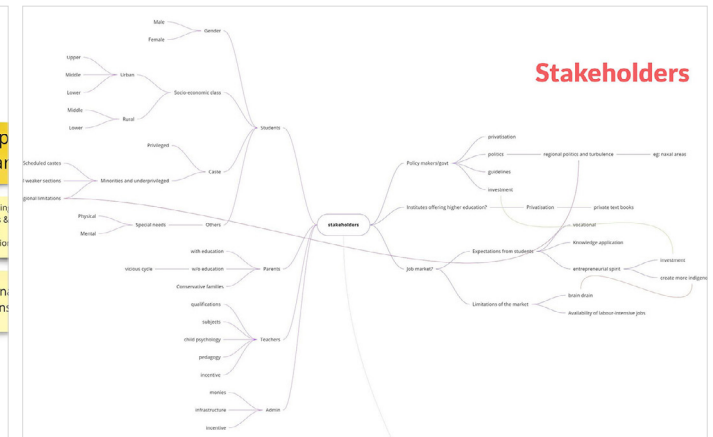
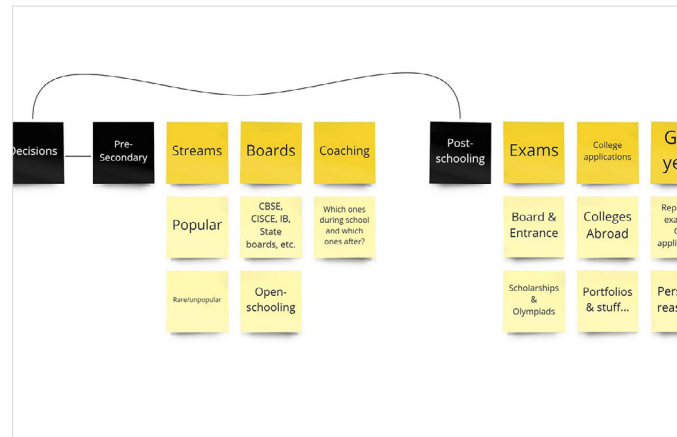
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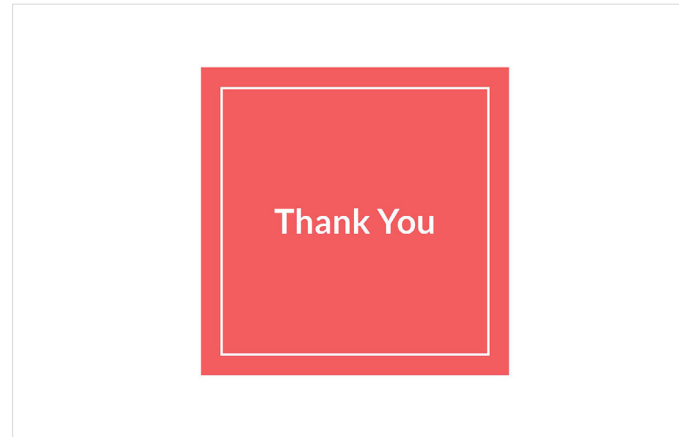
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 - 4d.3, 4d.4, 4d.5
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Week Two: Identify your Problem Area and Focus on it

Project Report

- [Indian Education System.....](#) (1320 kb)



Presentation

Week Two: Identify your Problem Area and Focus on it + Report + Presentation

- Till now you have looked at a broader perspective of your problem area and you have looked at cross connections as well as inter-connectedness at a macro level
- Within this broader area now you need to find an area to work keeping the broader connections in mind
- Some of the tools that might help in terms of understanding are Causal Diagrams, Network Mappings, Assigning Priority and Hierarchy, Looking at it from temporal and spatial perspective (activity flow diagrams)
- Do go ahead with both the secondary as well as primary research
- Start with Analysis of the Problem
- Identify the next steps

End of Week Two: 2nd Stage – Understanding the Problem Presentation

Dates:

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

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Submission:

Slide presentation + Report submission (must for grading)

- a) Presentation Slides – upload it on the google classroom Week 2
- b) Project Report – upload it on the google classroom Week 2

Grading Points: 15%

Source:

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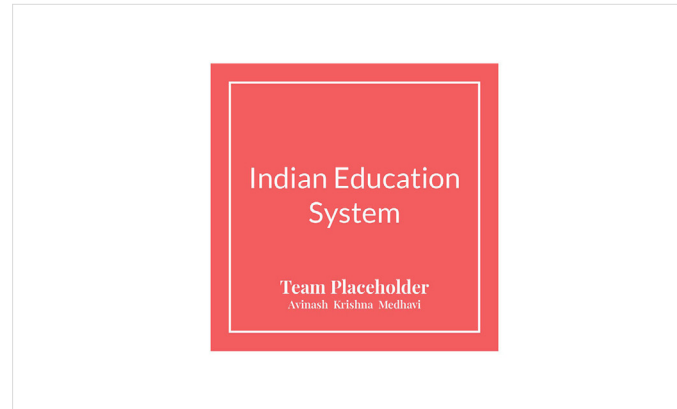
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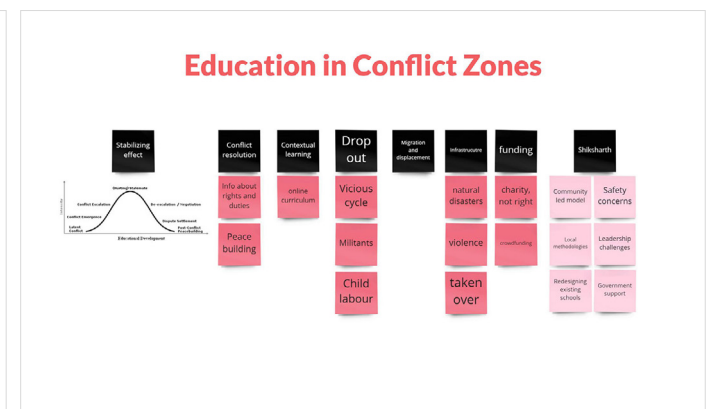
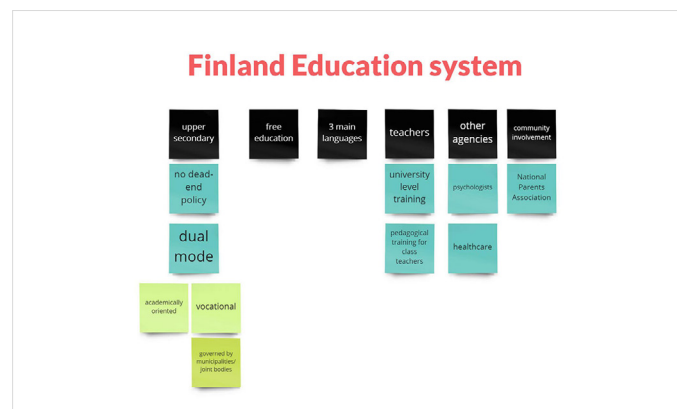
Presentation

Presentation

- Indian Education System..... (1700 kb)



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 - 4a. Navaaz EV Charging Solution
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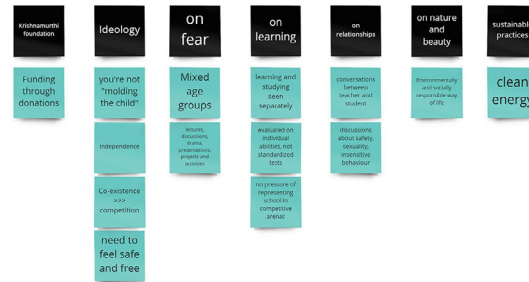
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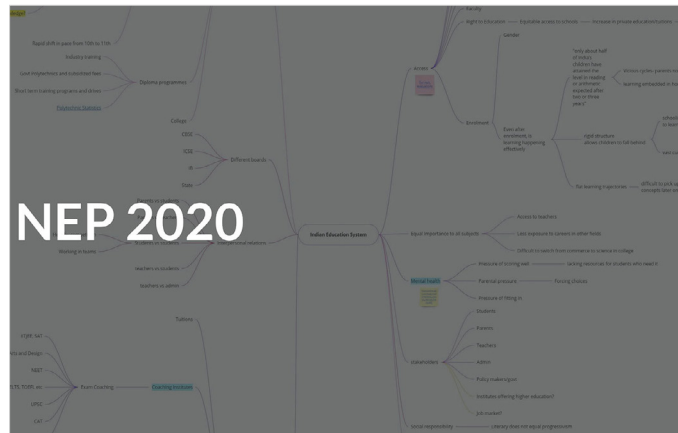
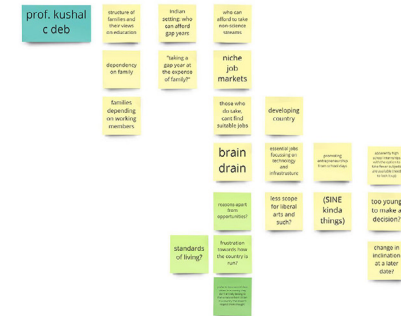
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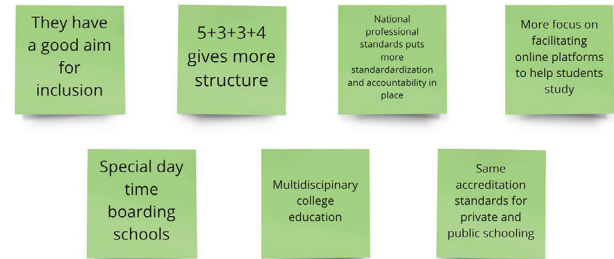
The School (Krishnamurthi Foundation India)



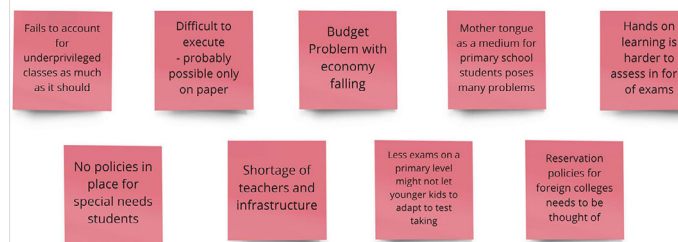
Education in a developing country



Pros



Cons



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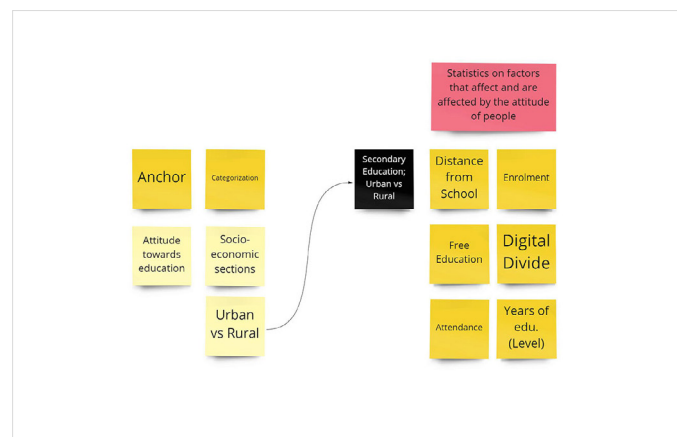
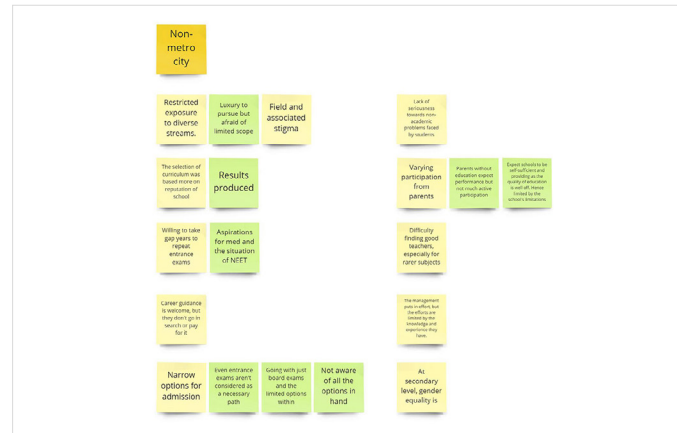
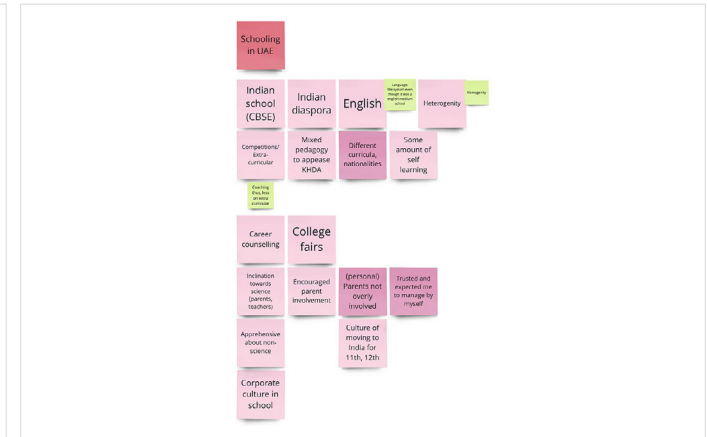
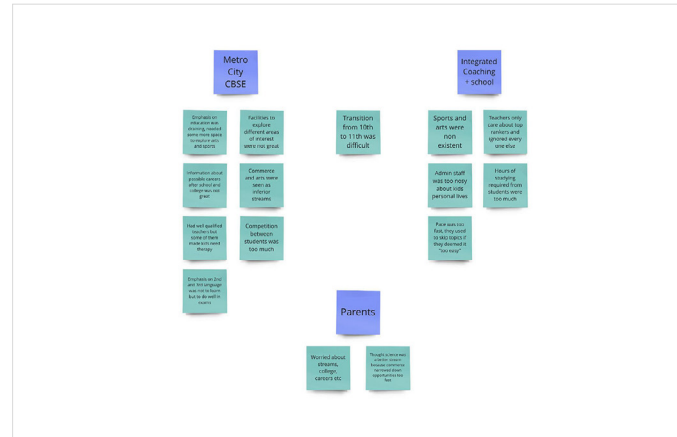
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Next Steps

- Focussing on the urban sector
- Mapping out and detailing problems areas
- Identifying and prioritising problems

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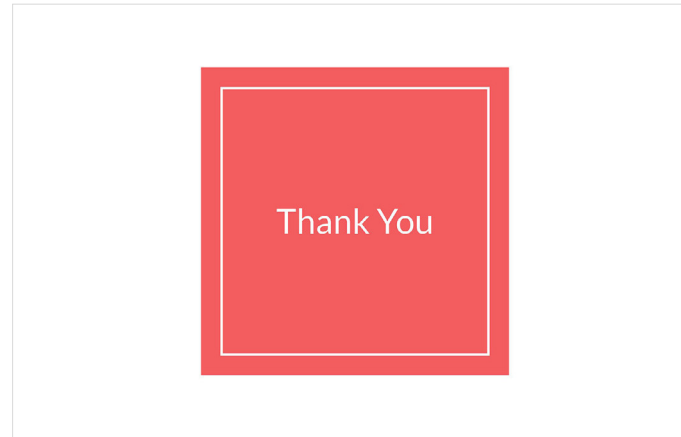
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Source:

<https://www.dsource.in/course/systems-design-project/projects/indian-education-system/week-three-ideation-focus-problem>

1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b, 4c
 - 4d. Indian Education System
 - 4d.1, 4d.2
 - 4d.3. Week Three: Ideation - Focus on Problem Area
 - 4d.3.1. Presentation
 - 4d.4, 4d.5
 - 4e, 4f
5. Videos
6. Contact Details

Week Three: Ideation - Focus on Problem Area

Project Report

- [Indian Education System.....](#)  (3300 kb)



Presentation

Week Three: Focus on Problem Area & Sub-Areas + Insights + Opportunities + Ideation + Report + Presentation

Suggested next steps: (you could follow your own method)

1. Within the focused problem area now you need to identify sub-areas to work keeping the broader connections in mind
2. I'm sure you have by now done the causal diagrams of your problem Area and its sub- Areas (or sub-systems) with its interconnections both in the forward (progressive) and backward (negative) directions. identify if there are any delays in these connections. Do not miss the big picture and do see if you can gain insights from this mapping analysis.
3. Also by now your primary and secondary research in the chosen focused area should give you insights/observations and point towards design opportunities
4. If you would like, this is a good time to redefine your problem statement
5. And start with ideation to solve problems concerning your sub-areas (for this you'll need to Brainstorm + Group Ideation + Fast Visualisations/sketching)
5. You could start with Concept maps or Network diagrams of your ideas by connecting parts of your proposed system to people, activities, objects, spaces and time

Design Course

Systems Design Project

Interconnected and form a System within Defined Boundaries

by

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Source:

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6. The ideation could also be through scenarios

End of Week Three: 3rd Stage – Ideation Presentation

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

Submission: Slide presentation + Report submission (must for grading)

a) Presentation Slides – upload it on the google classroom Week 3

b) Project Report – upload it on the google classroom Week 3

Grading Points: 15%

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2. Course Schedule and Grading

3. Problem Statement

4. Projects

4a. Navaaz EV Charging Solution

4b, 4c

4d. Indian Education System

4d.1, 4d.2

4d.3. Week Three: Ideation -
Focus on Problem Area

4d.3.1. Presentation

4d.4, 4d.5

4e, 4f

5. Videos

6. Contact Details

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1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b, 4c
 - 4d. Indian Education System
 - 4d.1, 4d.2
 - 4d.3. Week Three: Ideation - Focus on Problem Area
 - 4d.3.1. Presentation
 - 4d.4, 4d.5
 - 4e, 4f
5. Videos
6. Contact Details

Presentation

Presentation

- **Indian Education System.....**  (1730 kb)



DEP 302 April 12, 2021

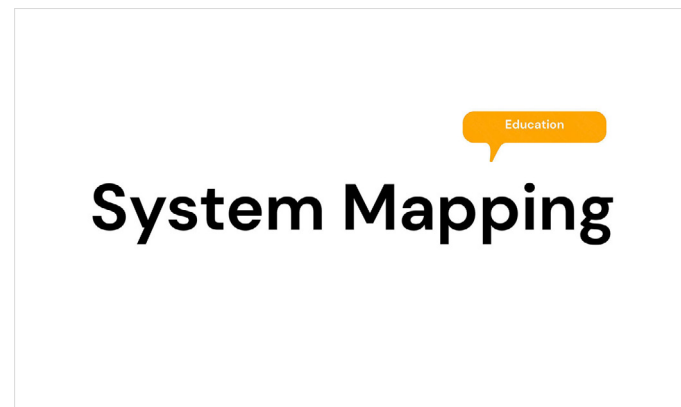
Team Placeholder
Avinash, Krishna, Medhavi

Language and the Indian education system



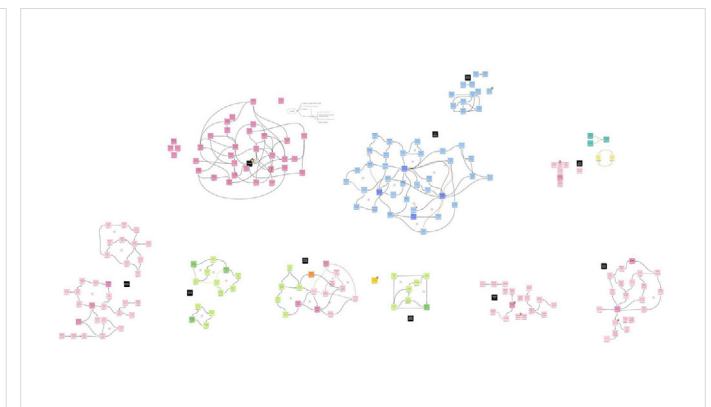
Index

- 1 System mapping
- 2 Problem area and sub-areas mapping
- 3 Research & Insights
- 4 Identified problems & Ideation
- 5 Next



Education

System Mapping



Design Course

Systems Design Project

Interconnected and form a System within Defined Boundaries

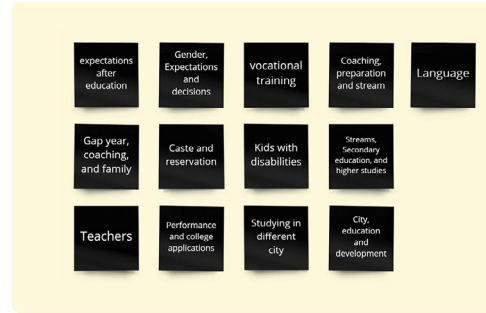
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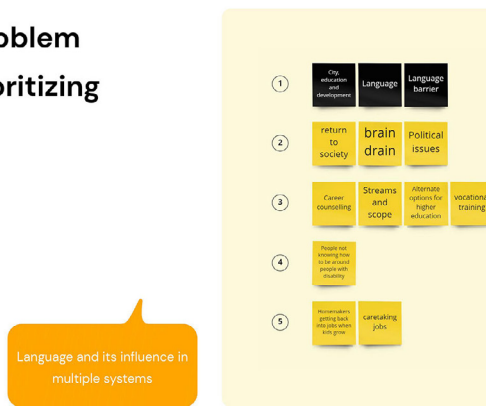
<https://www.dsource.in/course/systems-design-project/projects/indian-education-system/week-three-ideation-focus-problem-0>

1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b, 4c
 - 4d. Indian Education System
 - 4d.1, 4d.2
 - 4d.3. Week Three: Ideation - Focus on Problem Area
 - 4d.3.1. Presentation
 - 4d.4, 4d.5
 - 4e, 4f
5. Videos
6. Contact Details

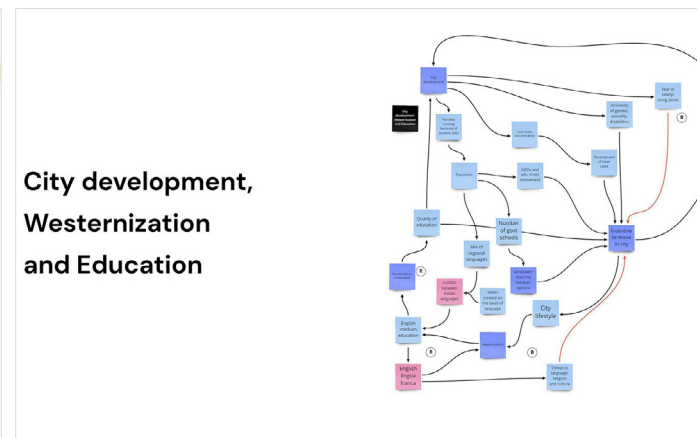
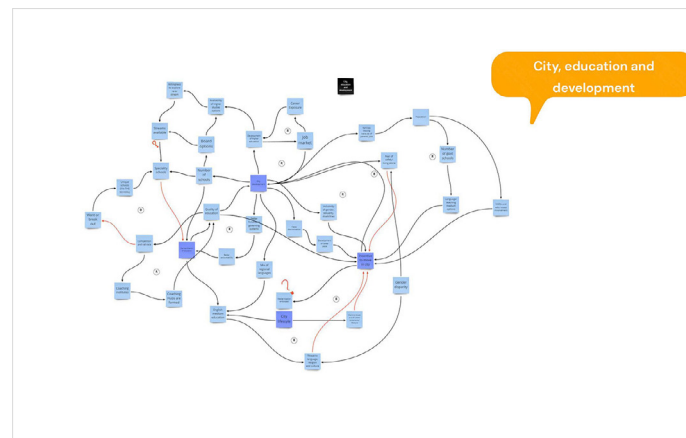
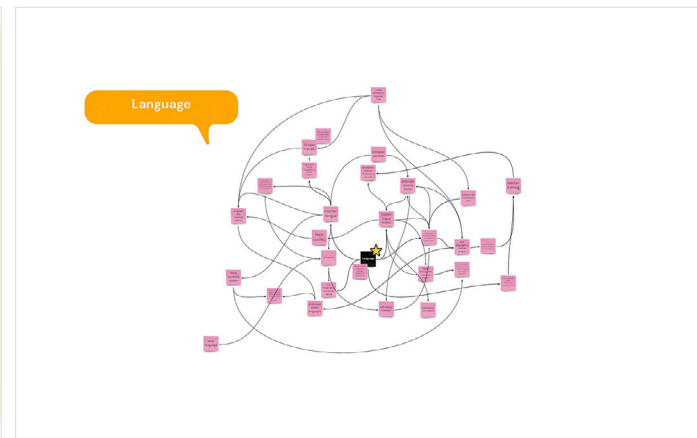
Parts of the System



Identifying Problem areas and prioritizing



Problem area and Sub-areas Mapping



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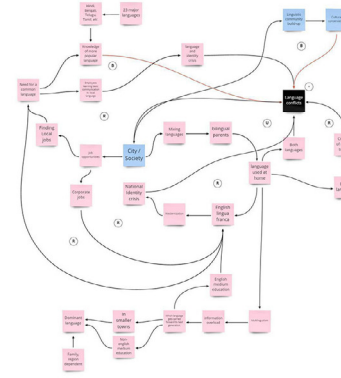
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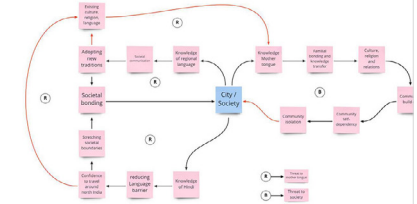
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1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b, 4c
 - 4d. Indian Education System
 - 4d.1, 4d.2
 - 4d.3. Week Three: Ideation - Focus on Problem Area
 - 4d.3.1. Presentation
 - 4d.4, 4d.5
 - 4e, 4f
5. Videos
6. Contact Details

Society & Language conflicts



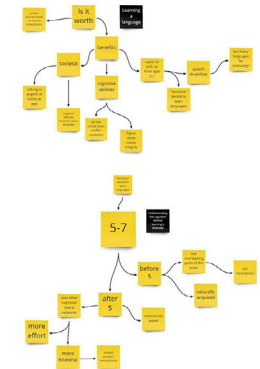
Threats & Benefits



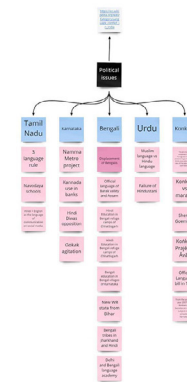
Research & Insights

Language

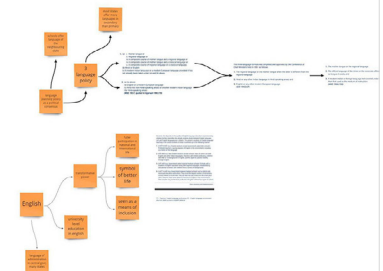
Learning a Language



Geo-political Conflicts



3 Language policy & English



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1. Aims of Systems Design Project

2. Course Schedule and Grading

3. Problem Statement

4. Projects

4a. Navaaz EV Charging Solution

4b, 4c

4d. Indian Education System

4d.1, 4d.2

4d.3. Week Three: Ideation -

Focus on Problem Area

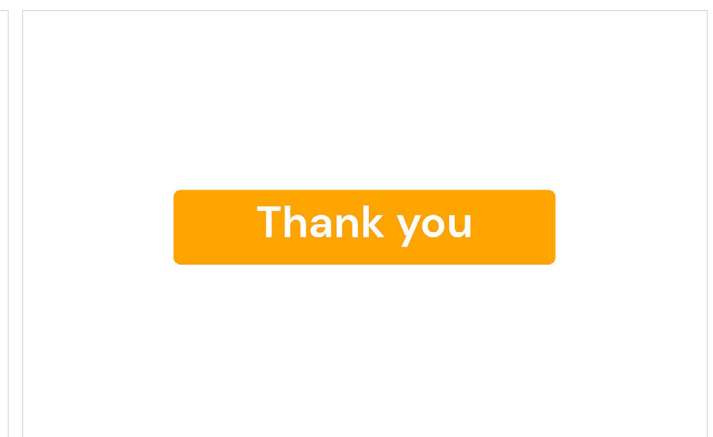
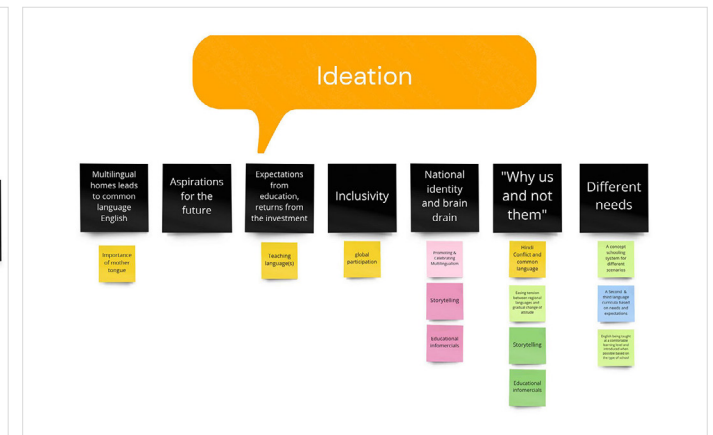
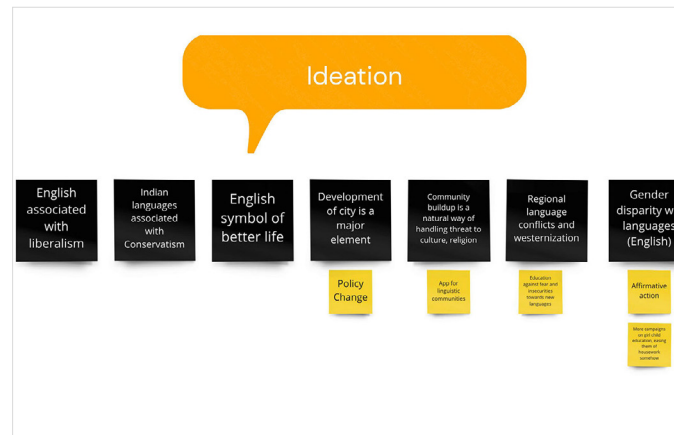
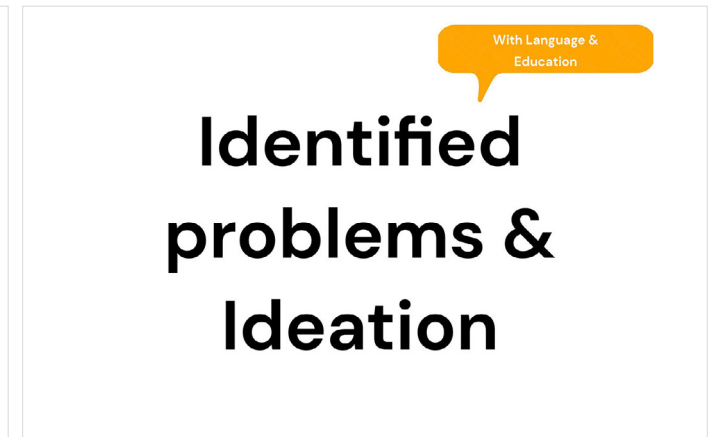
4d.3.1. Presentation

4d.4, 4d.5

4e, 4f

5. Videos

6. Contact Details



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Source:

<https://www.dsource.in/course/systems-design-project/projects/indian-education-system/week-four-focus-soft-prototyping>

1. Aims of Systems Design Project

2. Course Schedule and Grading

3. Problem Statement

4. Projects

4a. Navaaz EV Charging Solution

4b, 4c

4d. Indian Education System

4d.1, 4d.2, 4d.3

4d.4. Week Four: Focus on Soft Prototyping

4d.4.1. Presentation

4d.5. Week Five: Presentation on Final Design Solution

4e, 4f

5. Videos

6. Contact Details

Week Four: Focus on Soft Prototyping



Presentation

Week Four: Focus on Soft Prototyping to Final Prototyping + Report + Presentation

Suggested next steps: (you could follow your own method)

1. Choose your final concept from ideations for the solution to your system design problem area
2. You could use any of the methods that you are familiar with for prototyping: to name a few: Walk-through Scenarios, Concept Videos, Personas, Mock-ups, Proof of Concept, etc.
3. The final concept could involve any of the following:
 - 2D/3D design Sketches + Physical Prototyping + Visualisation + Virtual 3D Models
 - Interface/Communication/Media Design Detailing + Interface/Communication Simulation + Experience Design + Service Blueprints and design
4. Do give thoughts on the Final Prototyping
5. How would you get feedback on your solution? Will you try to evaluate?

End of Week Four: 4th Stage – Prototype Presentation

Due Date:

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

Submission: Slide presentation + Report submission (must for grading)

a) Presentation Slides – upload it on the google classroom Week 4

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b) Project Report – upload it on the google classroom Week 4

Grading Points: 15%

Source:

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1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b, 4c
 - 4d. Indian Education System
 - 4d.1, 4d.2, 4d.3
 - 4d.4. Week Four: Focus on Soft Prototyping
 - 4d.4.1. Presentation
 - 4d.5. Week Five: Presentation on Final Design Solution
 - 4e, 4f
5. Videos
6. Contact Details

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Source:

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Presentation

Presentation

- Indian Education System.....📄 (2200 kb)

DEP 302

Team Placeholder
Avinash, Krishna, Medhavi

Language and The Indian Education System

April 22, 2021

Index

- 1 Previously
- 2 The Problem
- 3 Identifying User Groups
- 4 The Idea
- 5 System intervention
- 6 Progress

Insights

English associated with liberalism	Indian languages associated with Conservatism	English symbol of better life	Development of city is a major element	Community backdrop is a natural way of handling threat to culture, religion	Regional language conflicts and westernization	Gender disparity wrt languages (English)
Equal Multilingualism leads to common language English	Aspirations for the future	Expectations from education, returns from the investment	Inclusivity	National identity and brain drain	"Why us and not them"	

Lessons from Devy

The diagram illustrates the flow from NEP (National Education Policy) to various educational and social outcomes. Key elements include:

- NEP** leading to **3 language policy**.
- 3 language policy** leading to **drop out** (due to inadequate education) and **ted talk** (due to lack of knowledge of mother tongue).
- drop out** leading to **STORYTELLING potential**.
- ted talk** leading to **STORYTELLING potential**.
- Other nodes include: **English symbol of better life**, **Development of city is a major element**, **Community backdrop is a natural way of handling threat to culture, religion**, **Regional language conflicts and westernization**, **Gender disparity wrt languages (English)**, **Equal Multilingualism leads to common language English**, **Aspirations for the future**, **Expectations from education, returns from the investment**, **Inclusivity**, **National identity and brain drain**, and **"Why us and not them"**.

1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b, 4c
 - 4d. Indian Education System
 - 4d.1, 4d.2, 4d.3
 - 4d.4. Week Four: Focus on Soft Prototyping
 - 4d.4.1. Presentation
 - 4d.5. Week Five: Presentation on Final Design Solution
 - 4e, 4f
5. Videos
6. Contact Details

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1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects

- 4a. Navaaz EV Charging Solution
- 4b, 4c

4d. Indian Education System

4d.1, 4d.2, 4d.3

4d.4. Week Four: Focus on Soft Prototyping

4d.4.1. Presentation

4d.5. Week Five: Presentation on Final Design Solution

4e, 4f

5. Videos

6. Contact Details

The Problem

Promoting multilingualism through storytelling in the Indian context

Pratham Books launches Adi Kahani series

Multilingual books?

digital media to provide exposure to literature/content for all age groups

Both Indian languages possibly have illustrated books or the character in the sides of a text book

Not vernacular + English

literary/film festivals? (like horrible to music festivals?)

Short films that have subtitles/bilingual would be with mascot labelling

Official mascots

Like the Mahatma of Air India

used in the Department of Official Languages

Should be Department of Indian Languages

Or DIL in short :)

Official government usage

Modern applications

History

Liberalism

New age folklores

Avoiding boofling

Racial and linguistic profiling

Becoming symbols of hatred

Official mascots

Educational curriculum

Promotional

Language movements

storytelling through folklores

History

Liberalism

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Official mascots

Educational curriculum

Promotional

Language movements

storytelling through folklores

History

Liberalism

New age folklores

Avoiding boofling

Racial and linguistic profiling

Becoming symbols of hatred

User/Target groups?

Different purposes and usage scenario

Urban communities

Tribals/ linguistic minorities

Regional linguistic minorities

Regional linguistic majority

Languages without a script

Dialect of a language

English as m. tongue

Tamil Nadu

Using another script

Script-less

Bhojpuri/ Awadhi

Tamilans in Mumbai

Konkani

Maithili

Something from Hindi, east or west or south or north

Bhojpuri

Malayalis in Gulf

Malayalam

Pehadi/Doori

Konkani

The Idea

Language mascots

Giving an identity to language?

Don't want to reinforce stereotypes

state icons

eg: ramayana

associating languages with characters

Western Ramayan for Rajya, Pehadi, etc.

How did birds become the corporate mascots of language learning?

Birds, Ganesha, LanguageB, Speeching...

Many companies that offer language learning products use an owl, parrot, or some other bird as their logo and corporate mascot.

For some of us, birds are a cultural combination of wisdom, but not every culture characterizes them this way among all birds. Parrots are sometimes associated with repetition and imitator in the vital learning language of a child. Available every species of birds are extremely intelligent, many other animals are as well (dolphins, elephants, octopus, etc.).

How do you feel about associating birds with language learning? Does something else come to mind when you think about learning another language?

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Systems Design Project

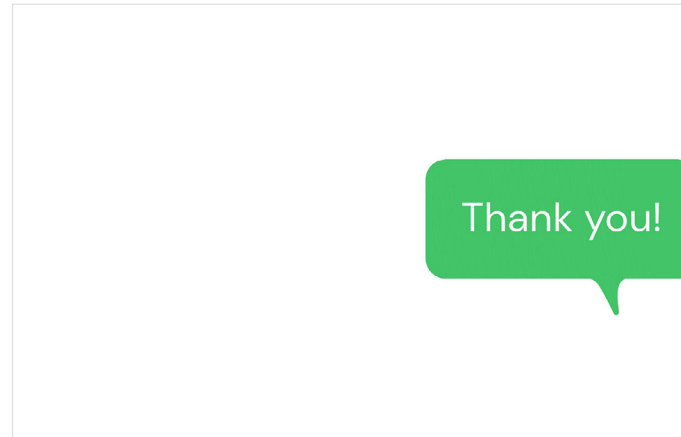
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1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b, 4c
 - 4d. Indian Education System
 - 4d.1, 4d.2, 4d.3
 - 4d.4. Week Four: Focus on Soft Prototyping
 - 4d.4.1. Presentation
 - 4d.5. Week Five: Presentation on Final Design Solution
 - 4e, 4f
5. Videos
6. Contact Details

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1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a. Navaaz EV Charging Solution
 - 4b, 4c
 - 4d. Indian Education System
 - 4d.1, 4d.2, 4d.3, 4d.4
 - 4d.5. Week Five: Presentation on Final Design Solution
 - 4d.5.1. Presentation
 - 4d.5.2. Project Synopsis
 - 4d.5.3. Team Placeholder

4e, 4f

5. Videos

6. Contact Details

Week Five: Presentation on Final Design Solution

Project Report

- [Indian Education System.....](#) (4590 kb)



Presentation



Project Synopsis



Team Placeholder

Presentation on Final Design Solution of your System Design Project

Presentation Date and Time:

Timings: The Feedback is scheduled on Week 5 between 2.30pm to 5.30pm

The venue: Online

Sequence: Group by group starting with group 1

Timings: Presentation time: 12 minutes (we will play the video or you can make the presentation) + 10 minutes for Feedback

Feedback: Faculty mentors will give final feedback on your project

Grades: This is a graded presentation (40%)

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1. Aims of Systems Design Project

2. Course Schedule and Grading

3. Problem Statement

4. Projects

4a. Navaaz EV Charging Solution

4b, 4c

4d. Indian Education System

4d.1, 4d.2, 4d.3, 4d.4

4d.5. Week Five: Presentation on
Final Design Solution

4d.5.1. Presentation

4d.5.2. Project Synopsis

4d.5.3. Team Placeholder

4e, 4f

5. Videos

6. Contact Details

Presentation:

- . Each group has to make a video of their presentations a of the 5 weeks work – in about 12 mins. duration and upload this in google classroom
- . The presentation needs to be professionally done.
- . The presentation needs to include your Final Concept along with the explanation of the design process that you followed.

Presentation (overall) should include:

- . WHO – team composition
- . WHAT – what was designed and for whom (users and environment)?
- . WHY – why was this an important systems level problem to address?
- . Issues - what were the problems encountered?
- . HOW – what was the process used in solving this system design project?
- . ANALYSIS – what were the insights gained from mappings (both main and subsystems) and opportunities for design
- . DESIGN – what was designed? Mention your objectives or redefined objectives
- . CONCEPTS/IDEATION – what are the iterations of the design evolution
- . PROTOTYPE – Can you demonstrate your final design (maybe use scenario) (could be guidelines/scenarios/prototypes etc.)?
- . Show highlights of the prototyping story
- . EVALUATE – What is the feedback from the users?
- . FUTURE - Next steps?

Presentation Details of points mentioned above:

Task 1: Prepare a presentation (of 12minutes duration) to include all the stages of your project:

- a. Title of the System Design Project or Problem Statement
- b. Team members
- c. Summary/content listing of your presentation
- d. World views
- e. Insights from Primary and Secondary Research (Mappings for overview as well as sub-systems)
- f. Major design opportunities
- g. Restatement of the problem / Design Objectives / Design Goals
- h. Overview of your ideas
- i. Alternate Concepts (sketches + quick scenarios + concept models)
- j. User Feedback on ideation
- k. Final Concept and its unique features

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2. Course Schedule and Grading

3. Problem Statement

4. Projects

4a. Navaaz EV Charging Solution

4b, 4c

4d. Indian Education System

4d.1, 4d.2, 4d.3, 4d.4

4d.5. Week Five: Presentation on
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4d.5.1. Presentation

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4e, 4f

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l. Final Scenario

m. Form and Interface Development or detailing

n. Prototype

o. User feedback on your final solution

p. Future steps

q. Full References

r. Acknowledgments – to all who have helped

Presentation Essentials:

a. Present in an engaging and crisp manner

b. Design the slides/visuals to reflect the relevance of your topic

c. Use your communication design skills to make the presentation visual

d. Design proper layout; use appropriate type, colour and background

e. Its nicer if all the team members take turns in presenting

f. It makes sense to have main titles, sub titles and then running text/images

g. Have a summary/content slide in the beginning

h. Make good use of appropriate medias in the presentation

i. Use appropriately theatre, drama, story, scenarios, video, etc. to convey your ideas

j. Preparing a script is a good idea – reading text from the slide should be avoided

Presentation Tips:

k. Never underestimate the need to rehearse. This can be usefully done alone, with team members, and with novice audiences. Video tape your self (to get confidence).

l. Never underestimate how long it takes to describe things clearly to a novice audience.

m. Never underestimate how little the audience knows about what is so interesting about your project.

n. Do not be dull when you speak, audiences want to engage in your enthusiasm.

o. Make slides visible from the back of a room (try them out!)

p. Do not talk over any audio in your presentation.

Submission Details:

a) Updated project Report

b) Video Presentation of 12 minutes – both slides + Final Video/Demo of Prototype

c) A 250 word synopsis of the project along with the title, keywords and name of team members

d) 2-3 high resolution images of your final design (1200 x800 x 300 dpi)

e)It would be great if you can submit a copy of your MIRO board

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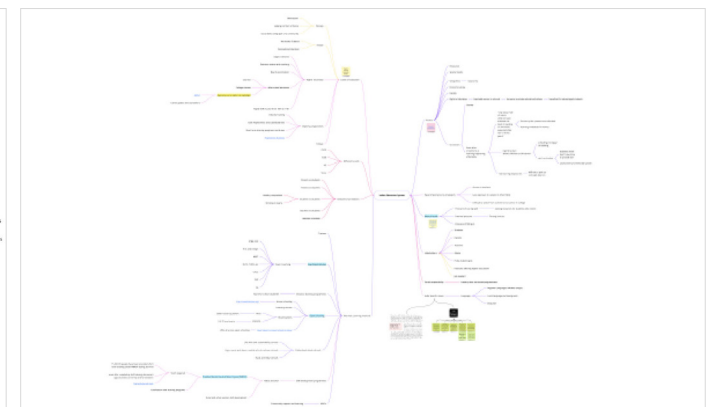
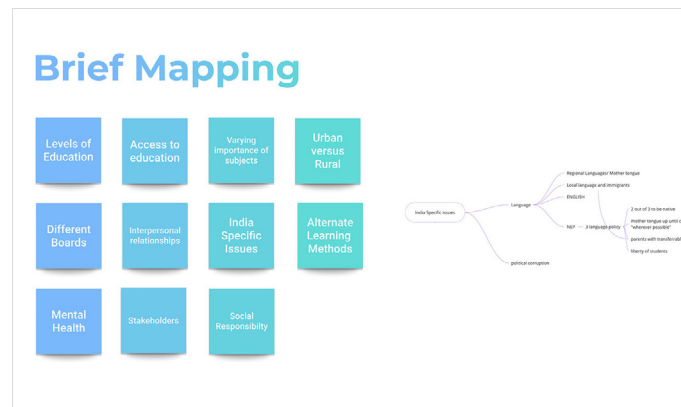
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Presentation

Presentation

- Indian Education System.....📄 (26810 kb)



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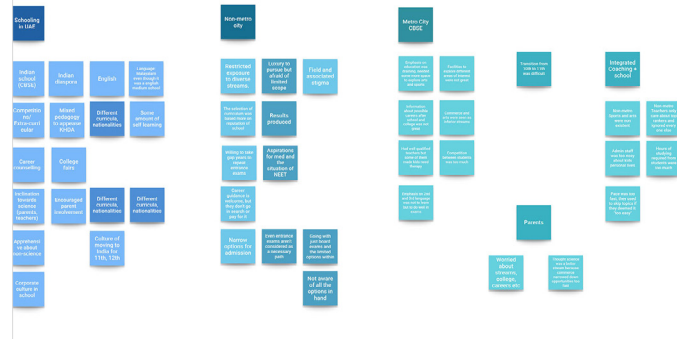
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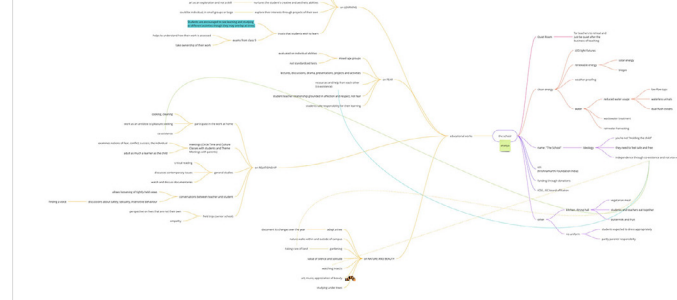
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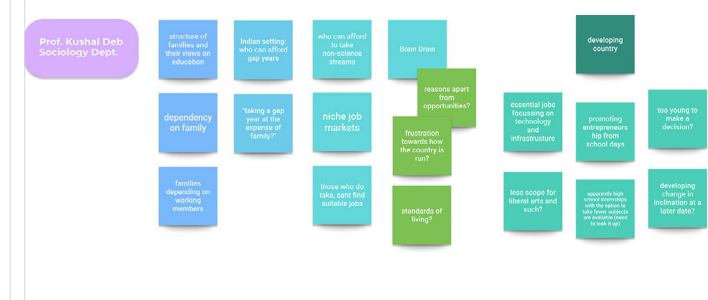
Case Studies: Abroad



Case Studies: Unconventional Schools

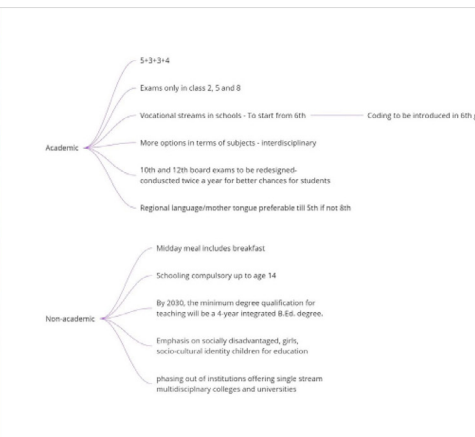


Education in a developing country



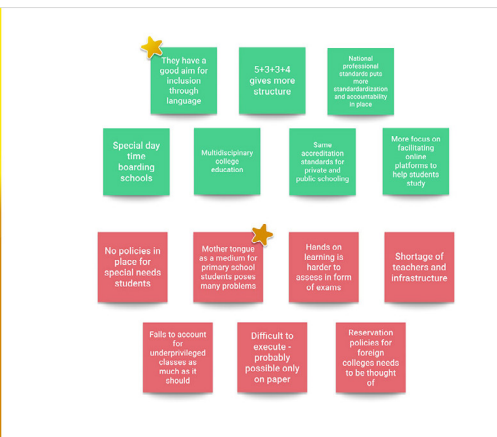
NEP 2020

Academic & Non-academic changes in Policy



NEP 2020

Pros & Cons



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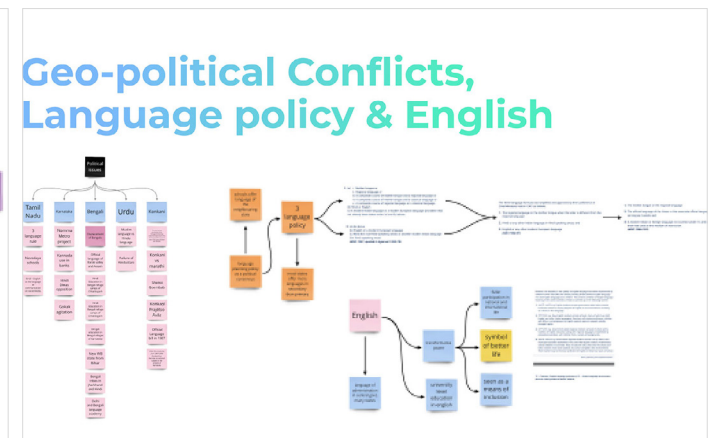
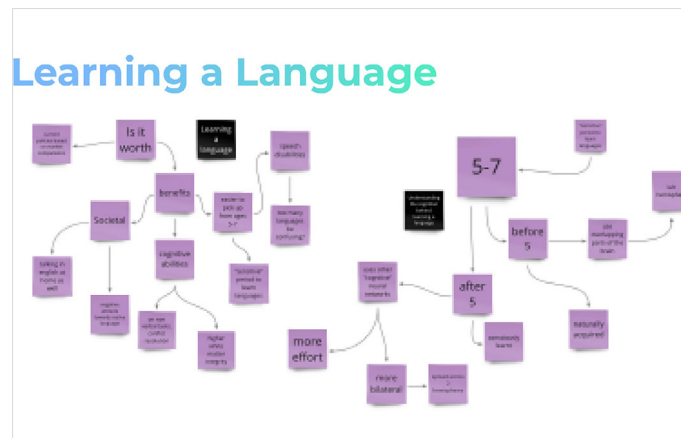
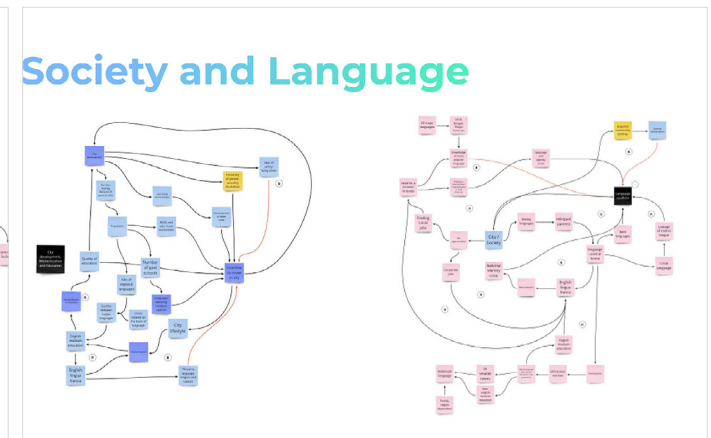
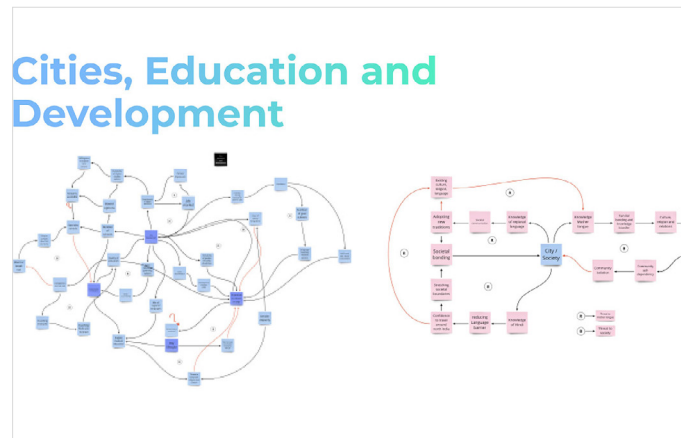
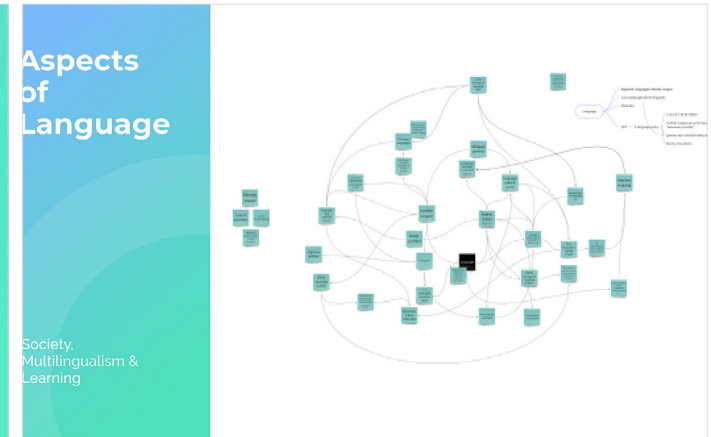
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Systems Design Project

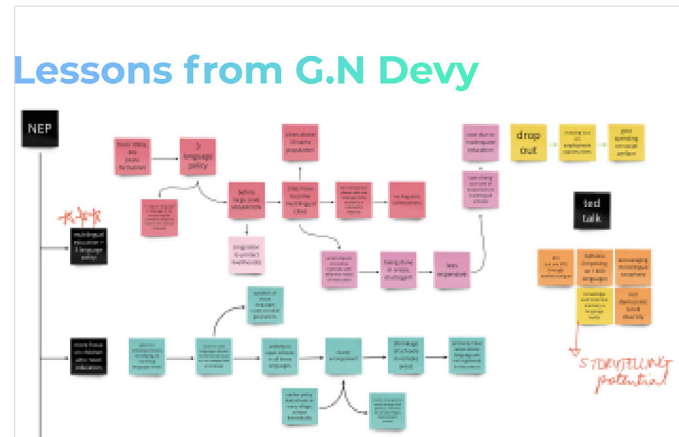
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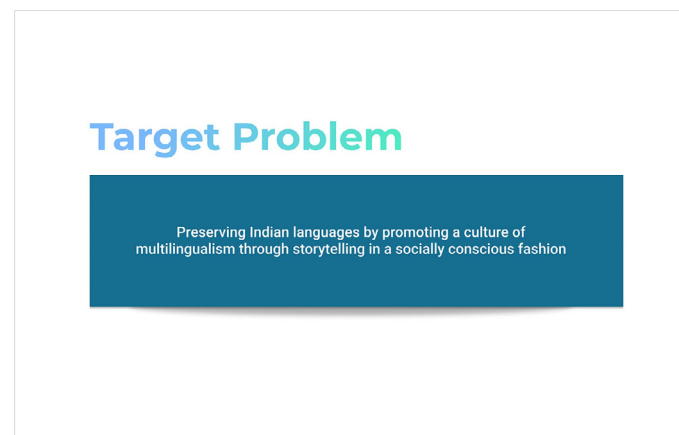
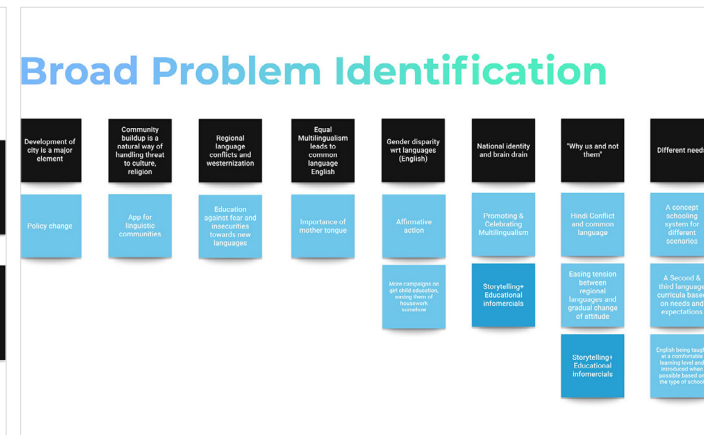
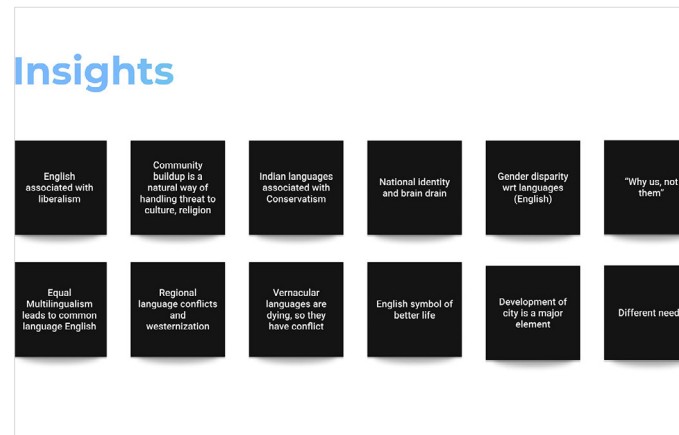
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Problems and Ideations



Final Idea

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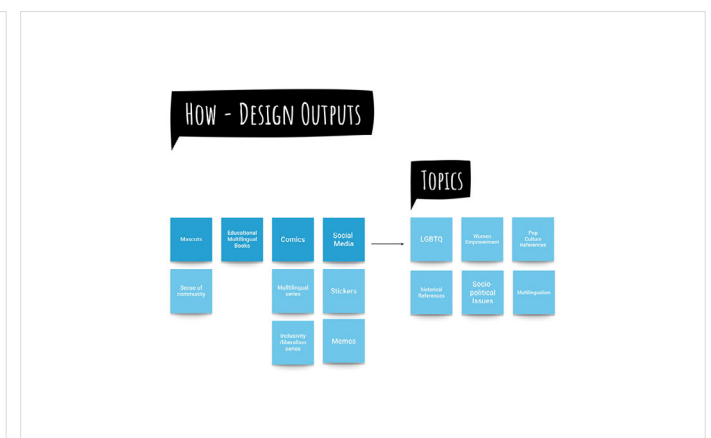
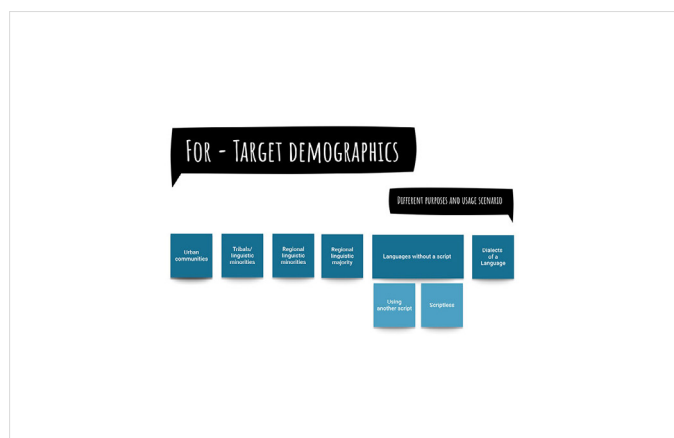
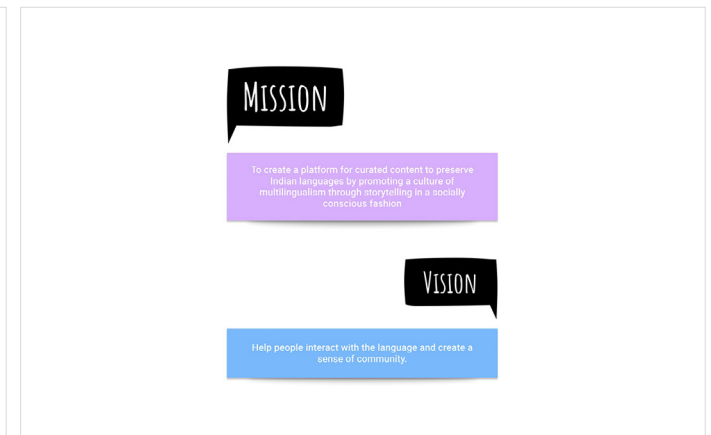
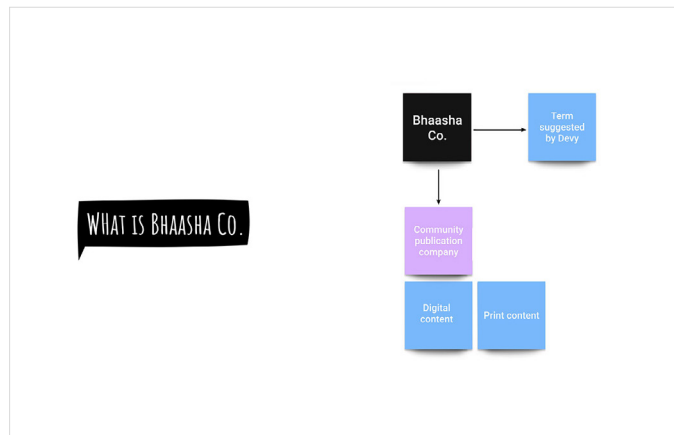
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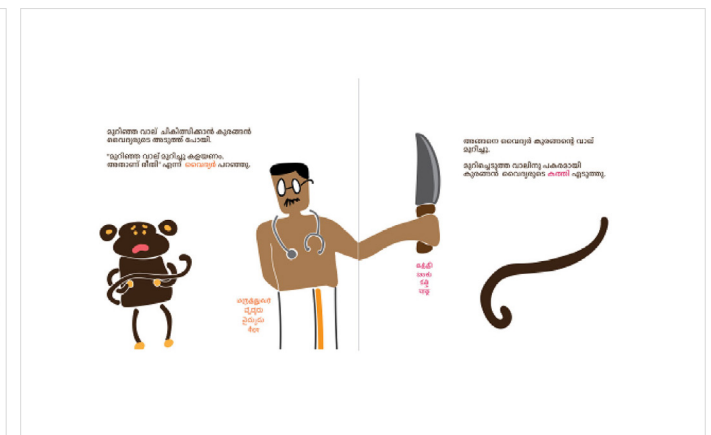
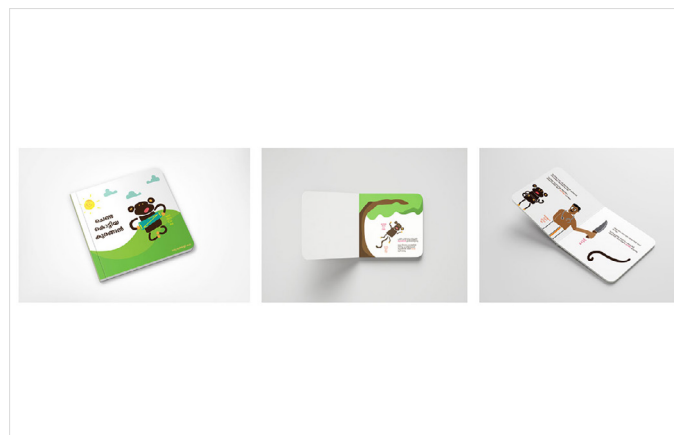
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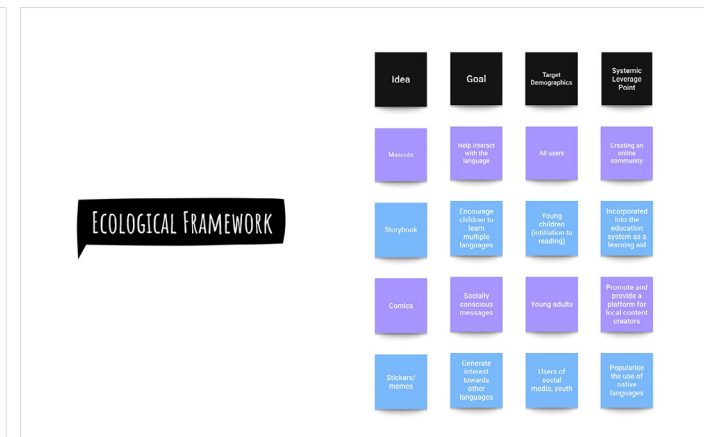
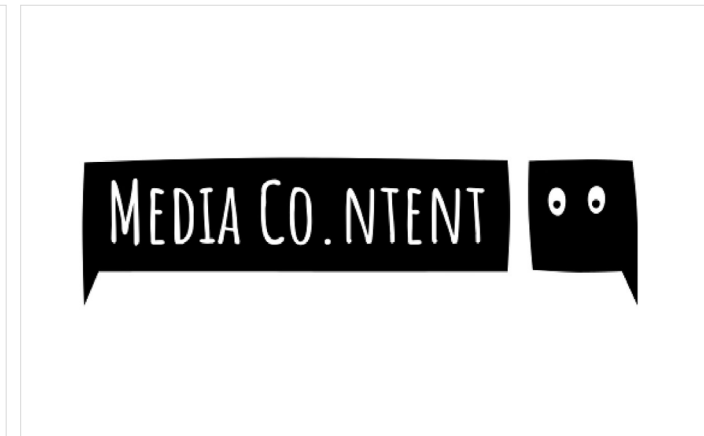
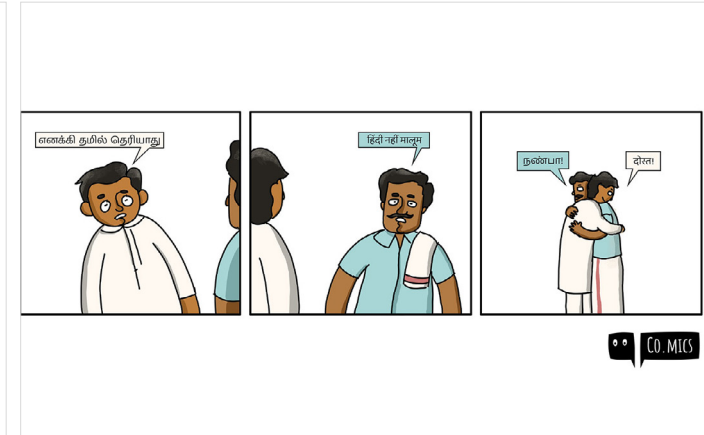
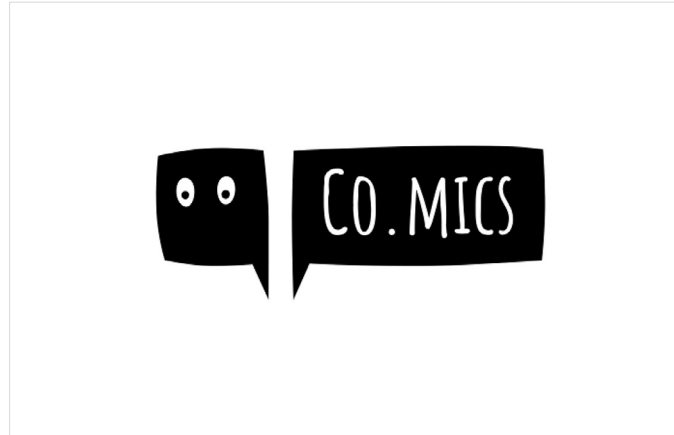
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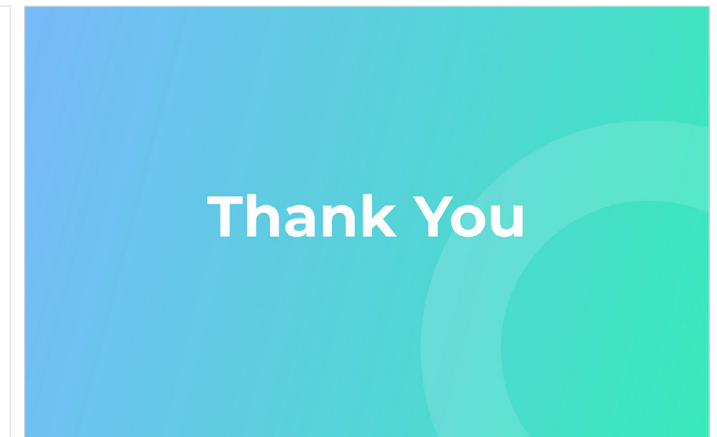
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Project Synopsis

Language and the Indian Education System

Our project began with us researching the Indian education system and interpersonal relationships. We did primary and secondary research, while also taking a look at our very different experiences in the system. We found many intervention points while mapping out the system and decided to settle on the language issue as our main topic.

With this topic in mind, we explored how language is viewed in society, its place in the education system, the conflict between linguistic communities and the art of language learning. We gained a lot of insights from this and decided to narrow down on a few target areas (promoting vernacular languages, multilingual education, keeping in touch with one's heritage and acceptance of different linguistic communities).

Keeping this in mind, we came up with Bhaasha Co., a community publication company for digital and print media. The company makes educational multilingual books to encourage young children to learn multiple vernacular languages (the books are incorporated into the education system as a learning aid), comics for young adults to promote socially conscious messages and provide a platform for young content creators from all linguistic backgrounds, and stickers and memes to generate interest towards other languages amongst social media users and popularise the use of native languages. Another intended idea of use is mascots. Their goal in our mind is to help people interact with the language and create a sense of community.

In the future, we'd aim to collaborate with the education system in full capacity, invite contributions from local content creators, document and publish folklores, and preserve the tradition of oral storytelling in scriptless communities through any intervention possible.

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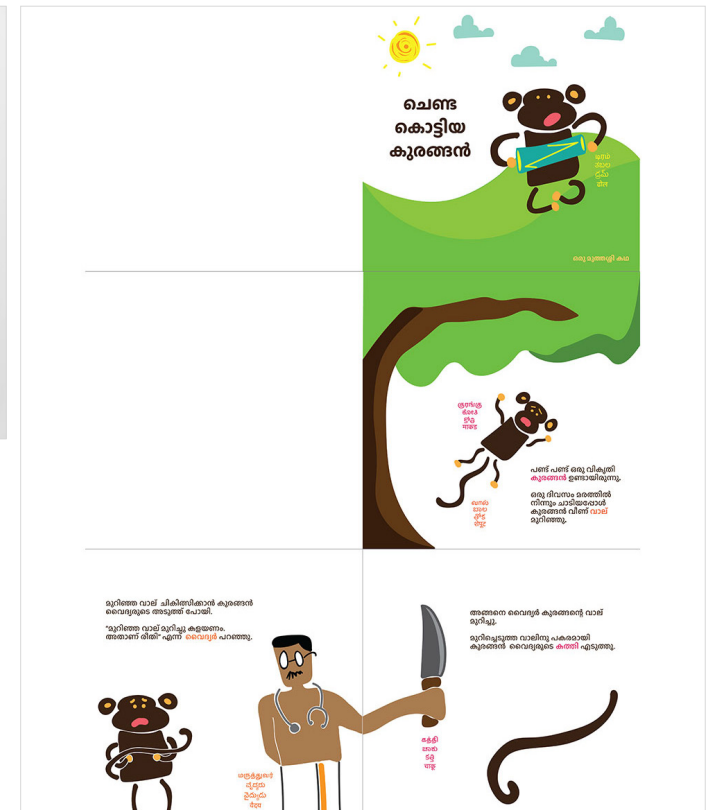
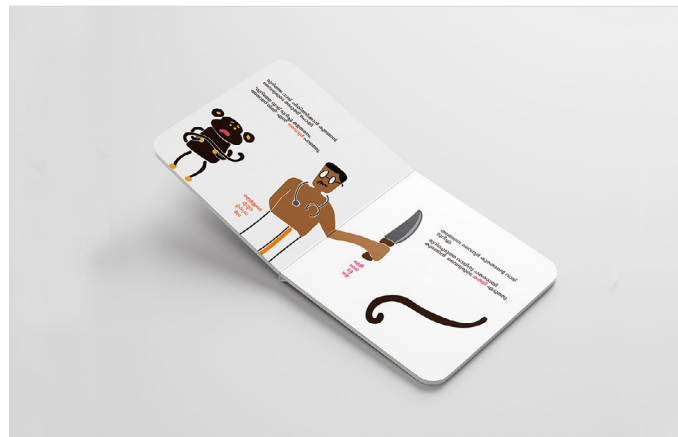
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Team Placeholder



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4e, 4f

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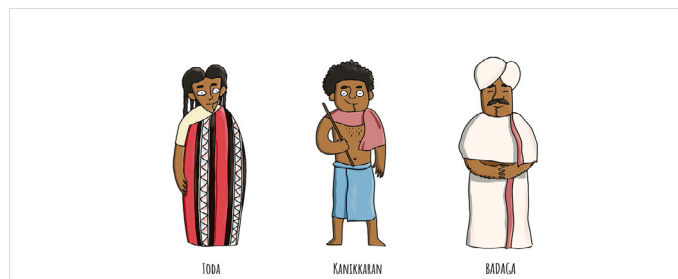
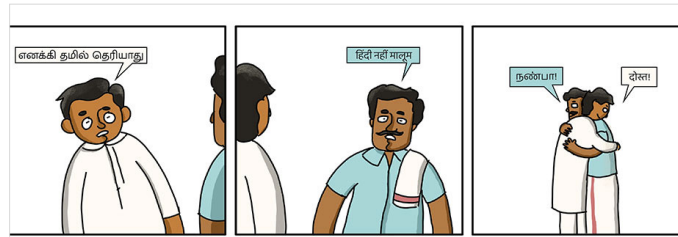
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4. Projects
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 - 4e. Sustainable Housing Systems
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 - 4e.2. Week Two: Identify your Problem Area and Focus on it
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Sustainable Housing Systems



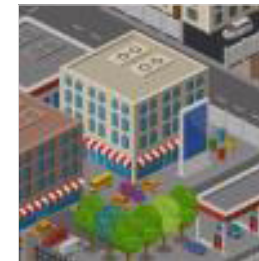
Week One - Need Finding and understanding the Problem



Week Two: Identify your Problem Area and Focus on it



Week Three: Ideation - Focus on Problem Area



Week Four: Focus on Soft Prototyping



Week Five: Presentation on Final Design Solution

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4a, 4b, 4c, 4d

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Week One - Need Finding and understanding the Problem

Project Report

- [Sustainable Housing.....](#) (1680 kb)



Presentation

Week One: Need Finding and understanding the Problem

- Form Working Groups
- Selection/Identification of System Design Problem (Why, how, whom, where, when)
- Worldview Mappings (Brainstorming, Card Sorting, Affinities, Network Maps) - Broader Perspective
- Secondary Research - Understanding Problem – Design/Media/Technology Search - Existing Solutions – History
- Future Study Papers - etc.
- Identify User Groups - Understanding User Needs – Talking to Experts - Primary Research (Contextual Inquiry)
- Next Steps

End of Week One: 1st Stage – Understanding the Problem Presentation

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

Submission: Slide presentation + Report submission (must for grading)

Grading Points: 15%

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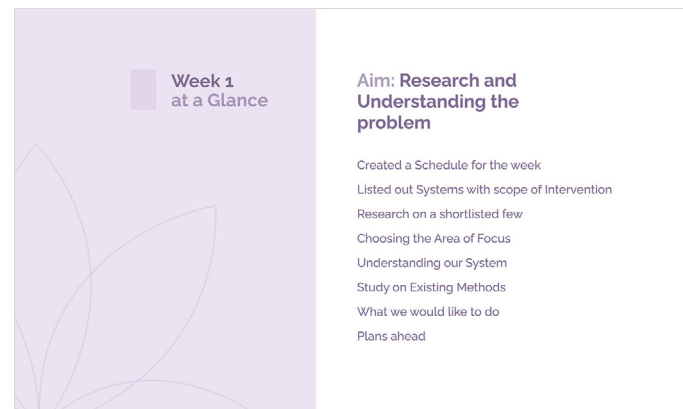
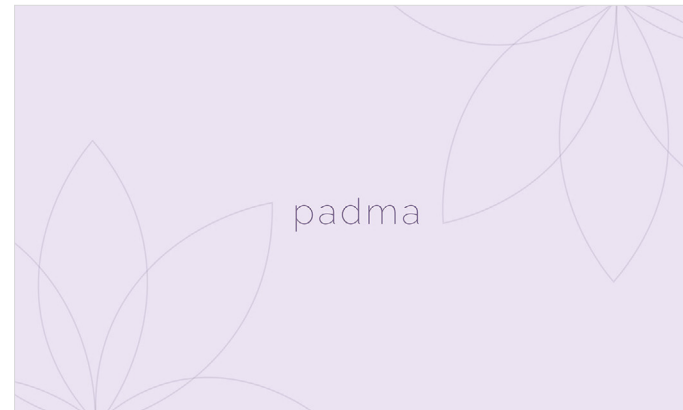
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Presentation

Presentation

- Sustainable Housing..... (23810 kb)



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2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a, 4b, 4c, 4d
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Shortlisted Topics

Out of the 39, we picked 15 of our favorite topics for further research.

Research on topics

Surface-level research to get some understanding of how each system works and any problems

Further Shortlisting of Topics

Each one of us voted for five topics based on the research

Final Shortlisted Topics

The final Seven Topics which were further categorised into four.

Topic 1 Emergency Services

Topic 1 Emergency Services

Researched on how they work in our country and the problems faced while trying to access them.

Lack of staff
Aided to call a different number instead of redirecting
People overwhelmed with the size of numbers at the time of emergency

Sub-optimal response time and call not being attended.
One reason to the poor government could be inefficient support services by state governments

One reason to the poor government could be inefficient support services by state governments
The number of people who call 102,108 is very high. It is not possible for the government to attend to all the calls. This is a major problem in India.

People in rural areas use this facility less compared to others.
Lack of awareness on how to contact and emergency service (even like how to)

People in rural areas use this facility less compared to others.
Huge population in India, non-stop emergency calls

Response time of the caller and that of the service provider are long.
Each Category has sub-categories

Helpline number increases in different states
One call alone won't be helpful at times

Reluctance in handling medical emergencies
Some are basically value wars with emergency

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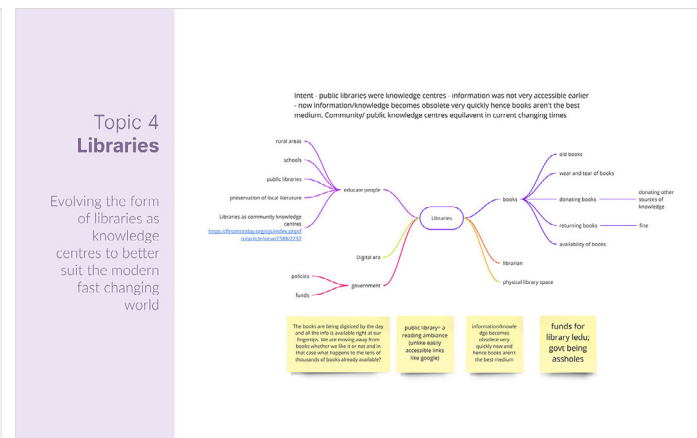
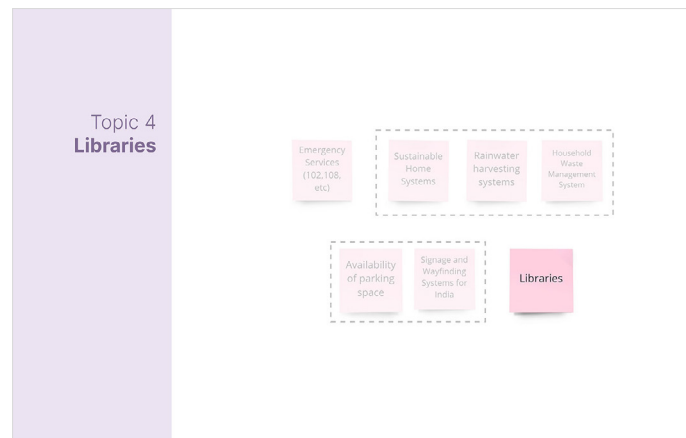
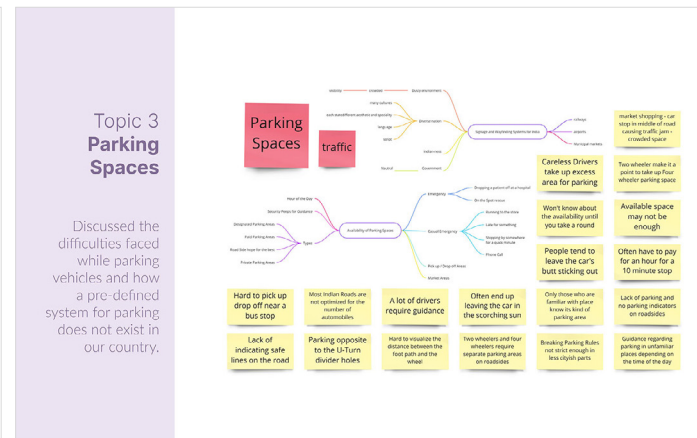
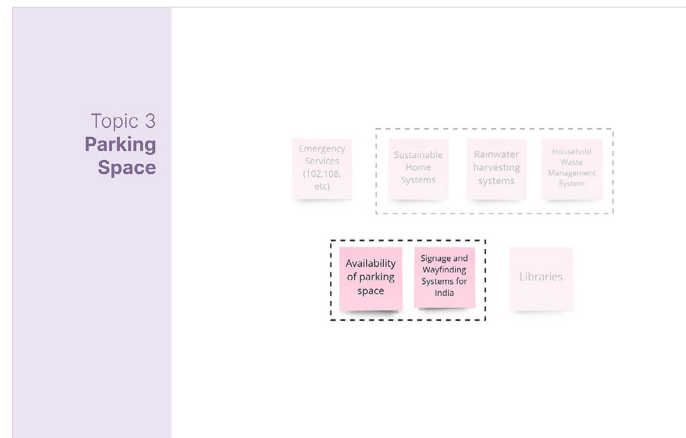
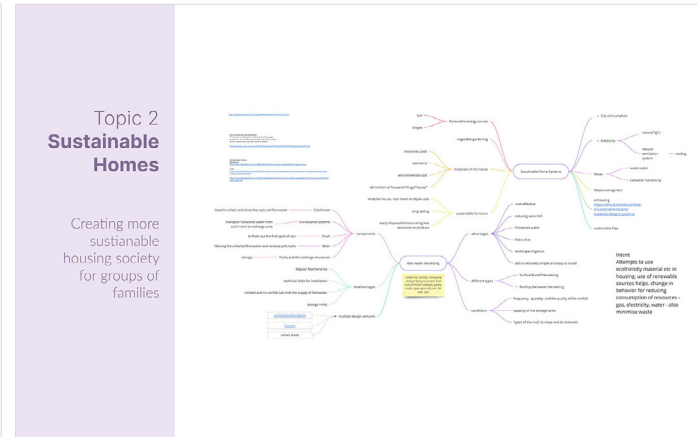
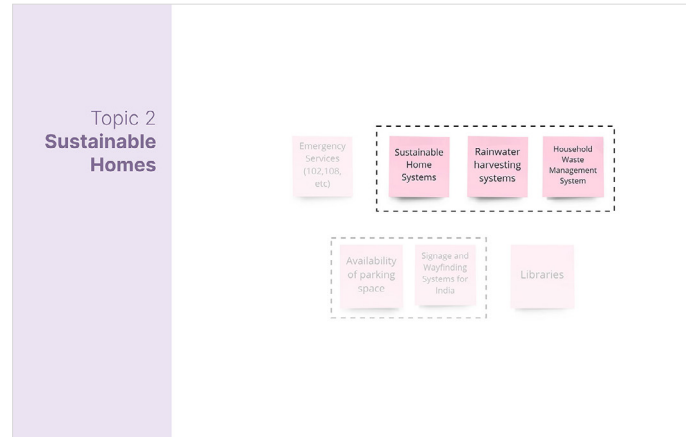
Interconnected and form a System within Defined Boundaries

by Prof. Ravi Poovaiah, Prof. Vivek Kant, Prof. Pramod Khambete and Dr. Ajanta Sen IDC, IIT Bombay

Source:

<https://www.dsource.in/course/systems-design-project/projects/sustainable-housing-systems/week-one-need-finding-and-0>

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Final Topic

Sustainable Societies and Housing 🏡

Reimagining societies and housing complexes to implement sustainable lifestyle.

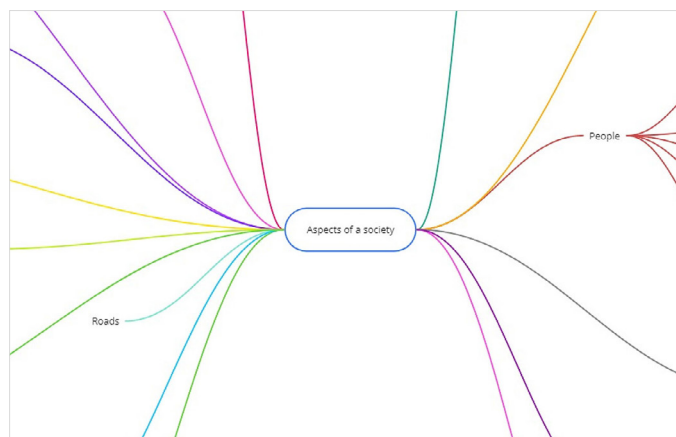
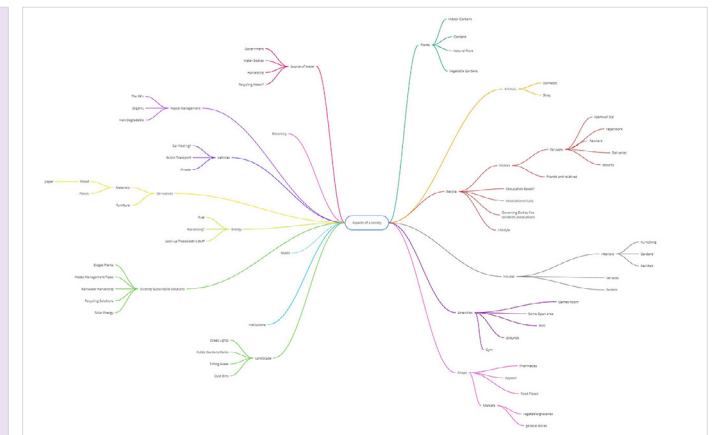
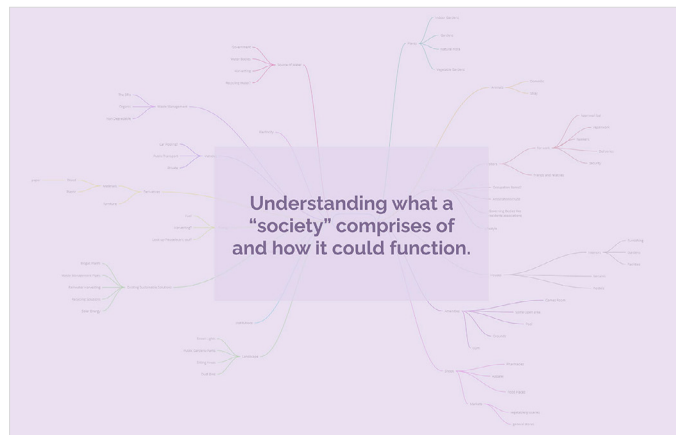
Sustainability means meeting our own needs without compromising with the ability of future generations to meet their own needs.

Sustainability can be of four types: human, social, economic, environmental

Final Topic

What could it *involve*?

- Reorganizing living conditions.
- Reappraising economic sectors or work practices.
- Using science to develop **new technologies** like green technologies, renewable energy.
- Designing systems in a **flexible and reversible** manner.
- **Adjusting individual lifestyles** to conserve natural resources.



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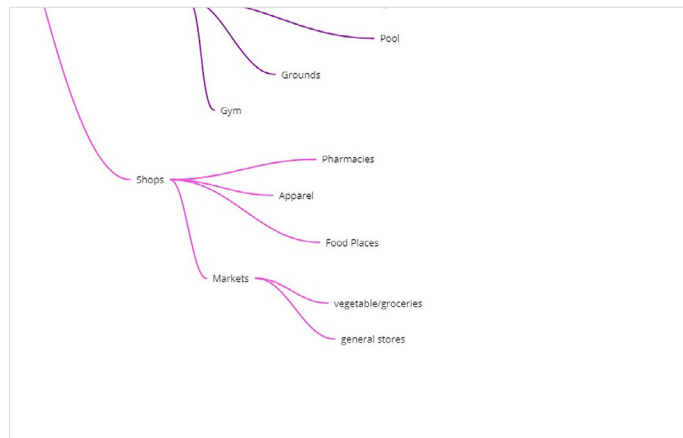
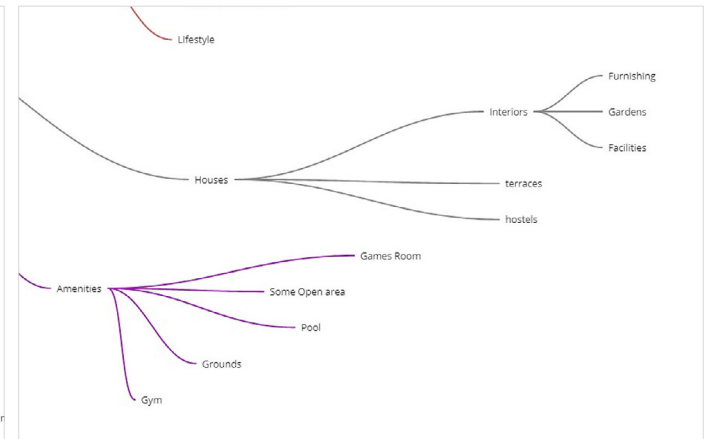
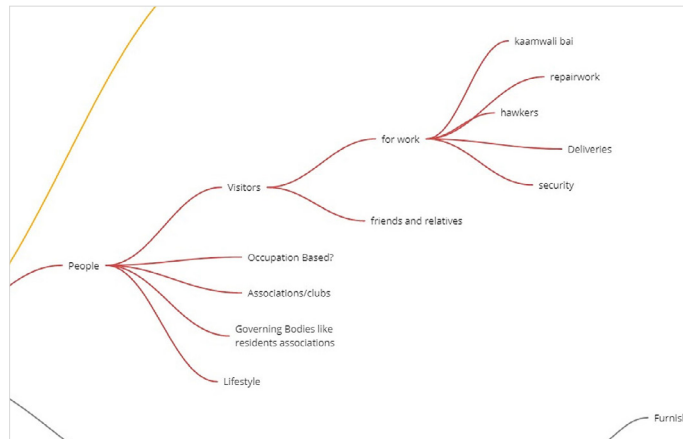
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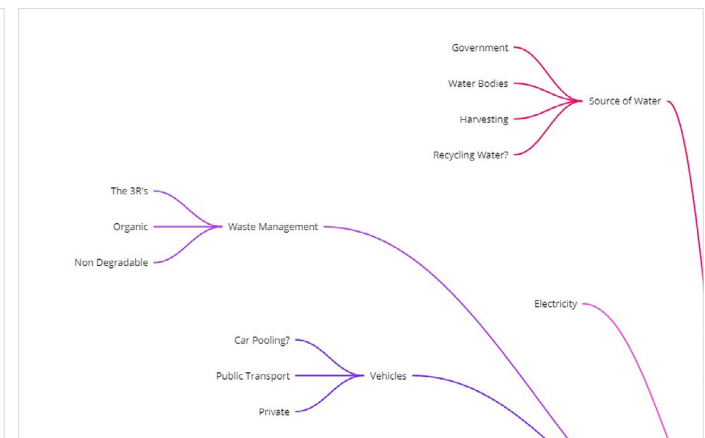
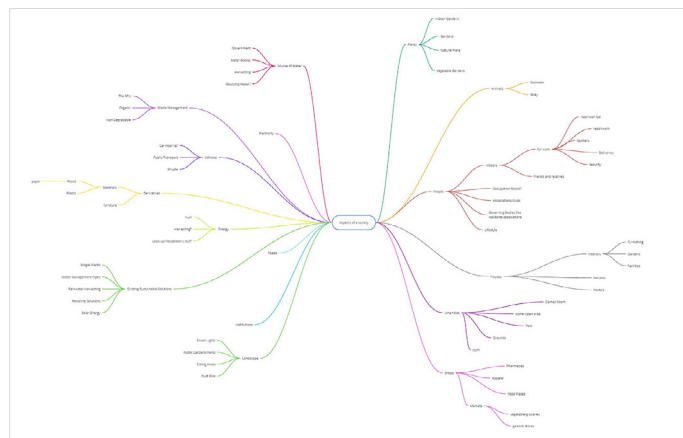
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Understanding how the term "sustainability" is perceived in real life.



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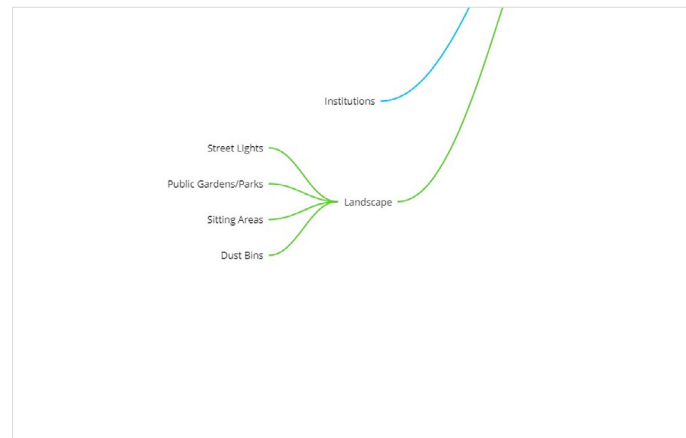
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Insights

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Insights

There is no motivation/incentive for people to adopt sustainable practices.
eg - Competitions like the water cup challenge

Availability of space is a concern in urban cities which can be a hindrance for setting up sustainable like biogas plants or solar panels

The pandemic has changed the way people live. How will this affect future housing?

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Do we design an **ideal society** for a better future?

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How is our project going to be **different** from all these existing alternatives?

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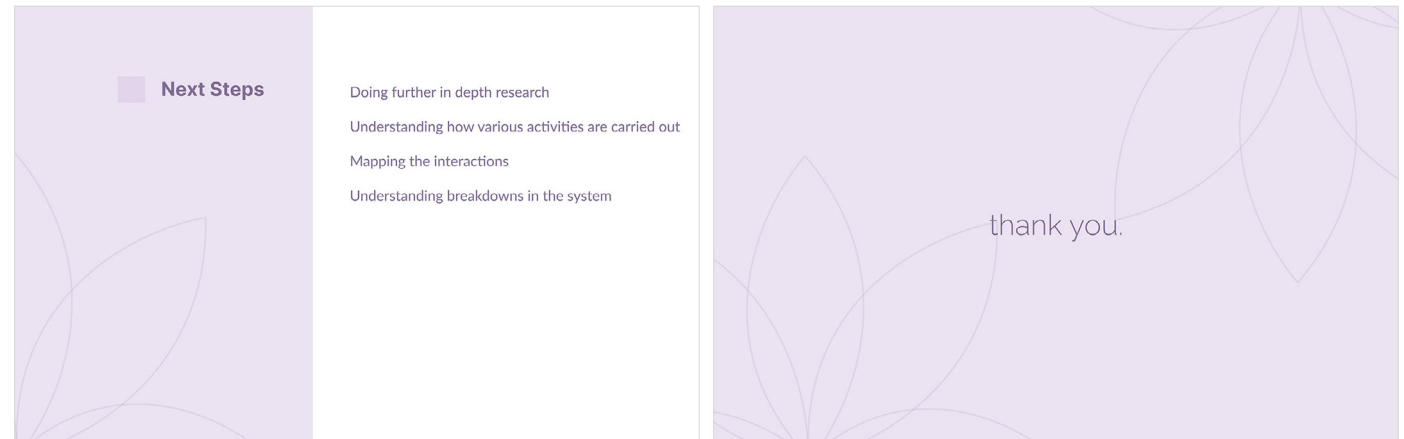
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Week Two: Identify your Problem Area and Focus on it

Project Report

- Sustainable Housing.....📄 (3440 kb)



Presentation

Week Two: Identify your Problem Area and Focus on it + Report + Presentation

- Till now you have looked at a broader perspective of your problem area and you have looked at cross connections as well as inter-connectedness at a macro level
- Within this broader area now you need to find an area to work keeping the broader connections in mind
- Some of the tools that might be help in terms of understanding are Causal Diagrams, Network Mappings, Assigning Priority and Hierarchy, Looking at it from temporal and spatial perspective (activity flow diagrams)
- Do go ahead with both the secondary as well as primary research
- Start with Analysis of the Problem
- Identify the next steps

End of Week Two: 2nd Stage – Understanding the Problem Presentation

Dates:

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

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Submission:

Slide presentation + Report submission (must for grading)

- a) Presentation Slides – upload it on the google classroom Week 2
- b) Project Report – upload it on the google classroom Week 2

Grading Points: 15%

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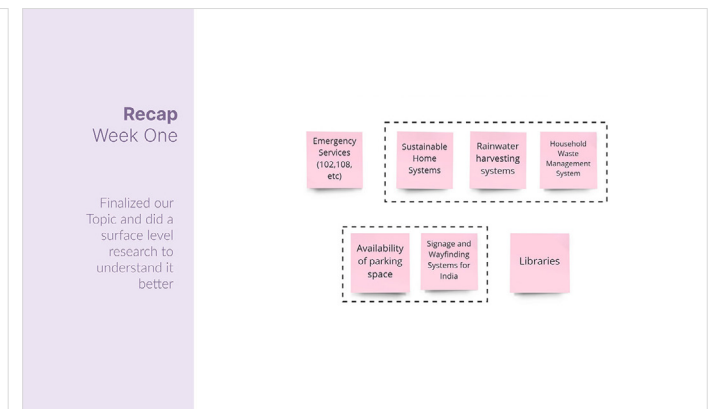
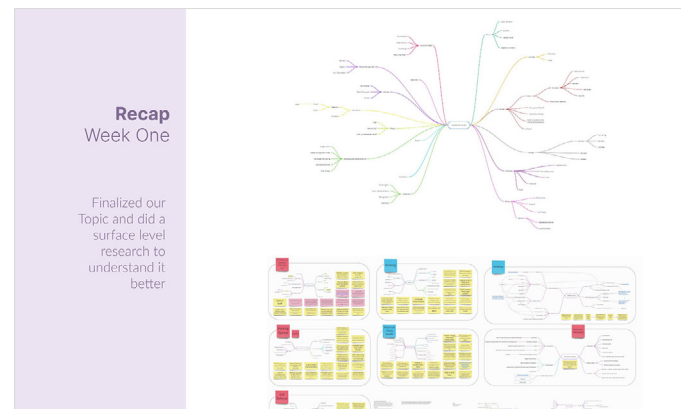
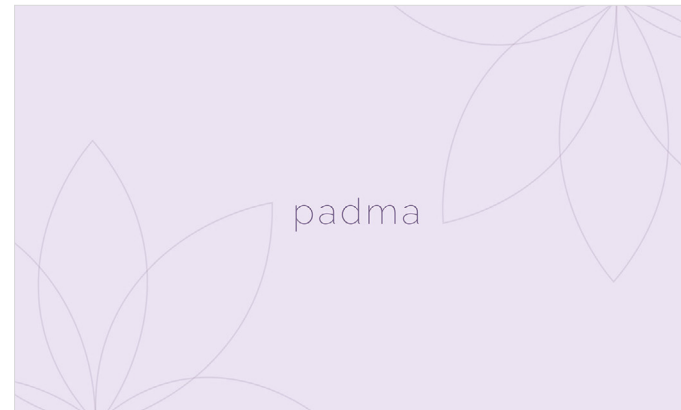
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Presentation

Presentation

- Sustainable Housing.....📄 (42100 kb)



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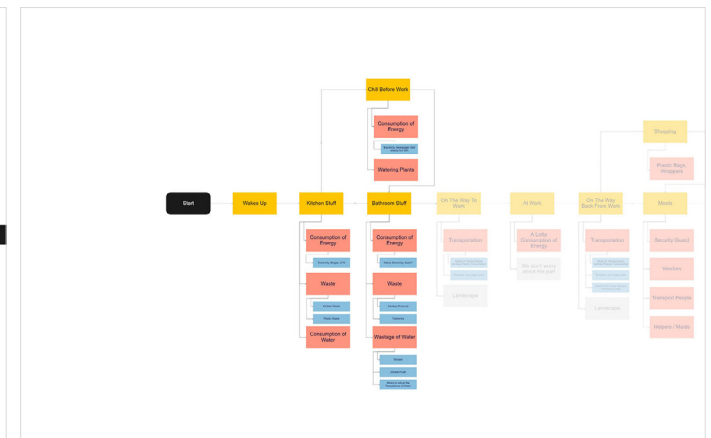
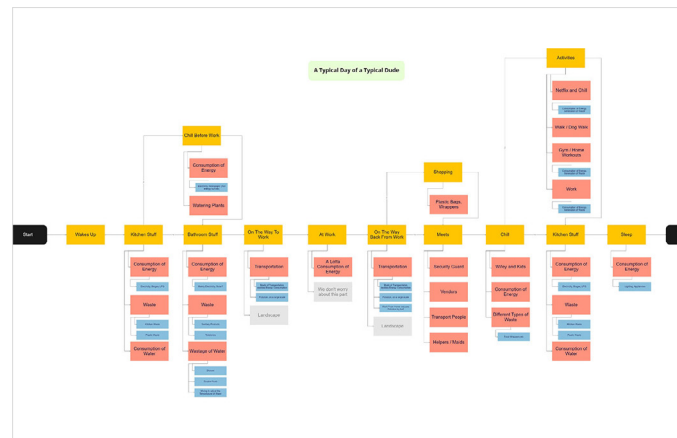
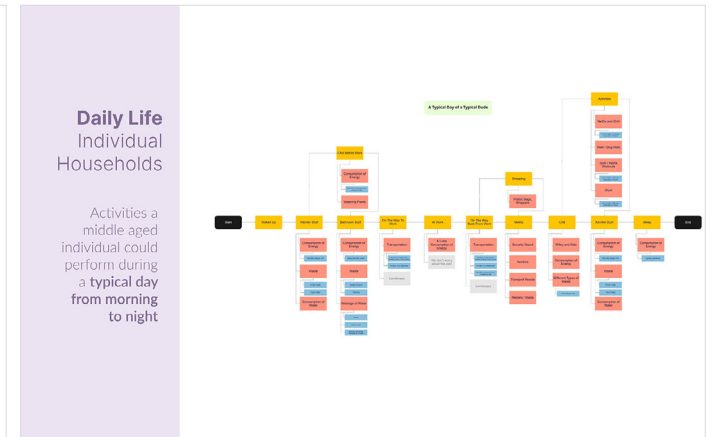
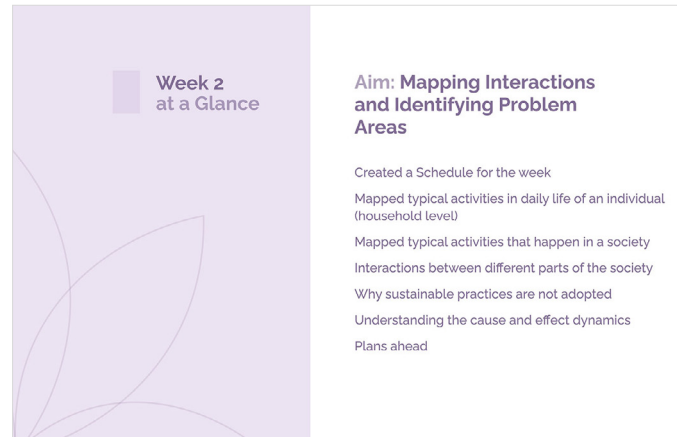
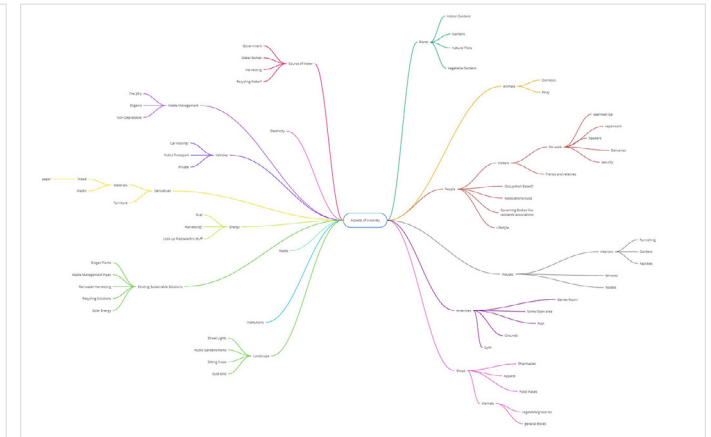
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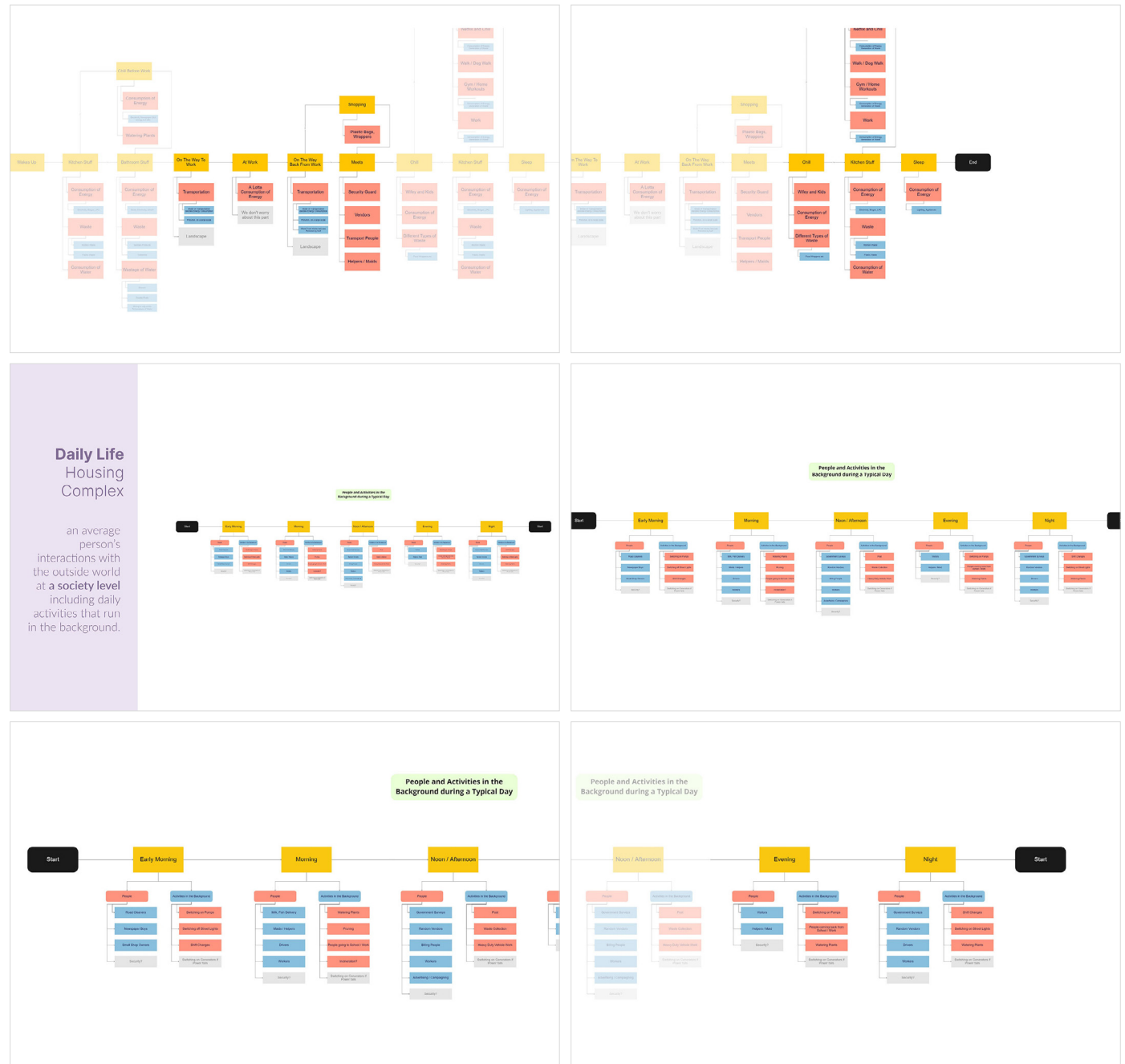
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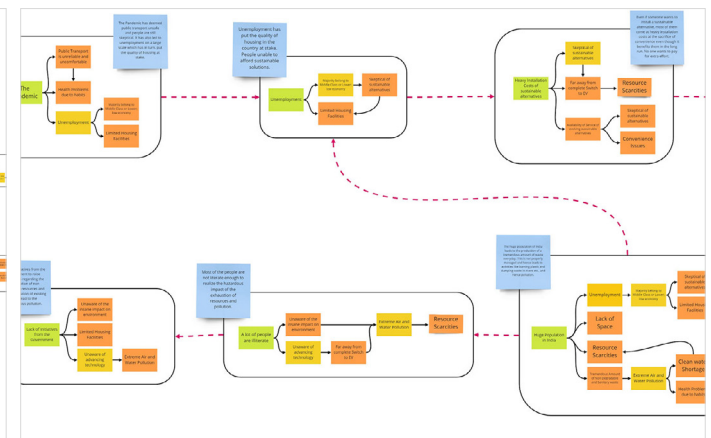
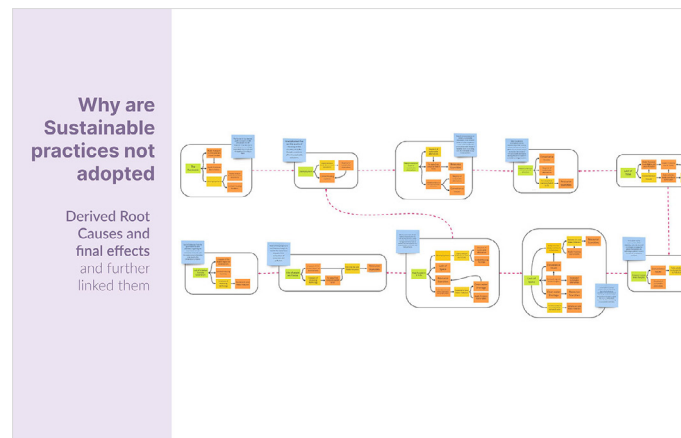
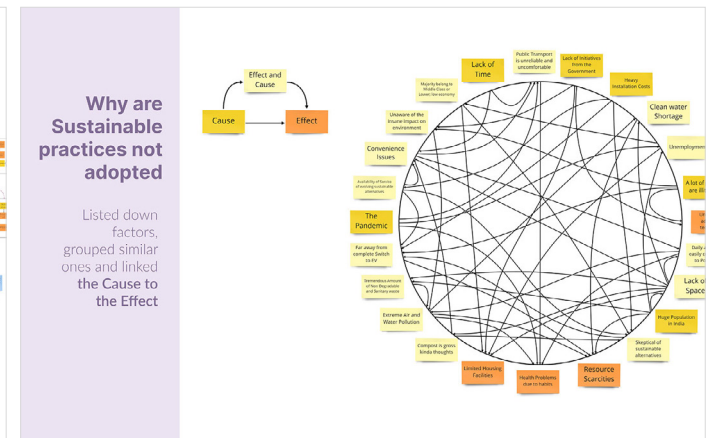
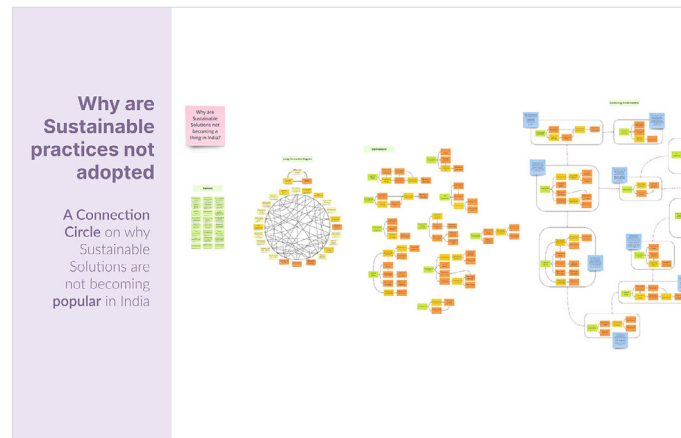
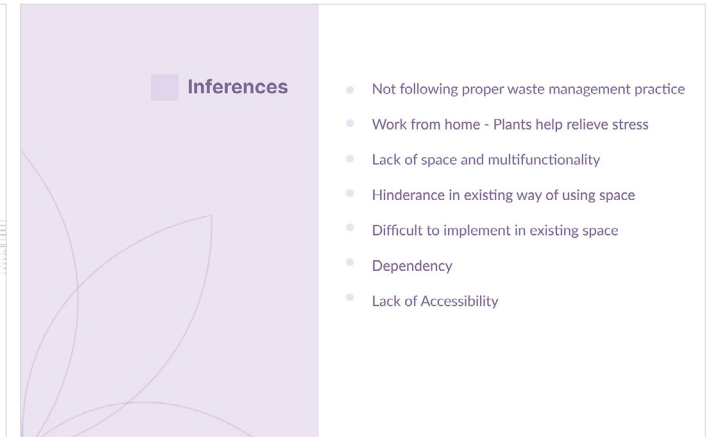
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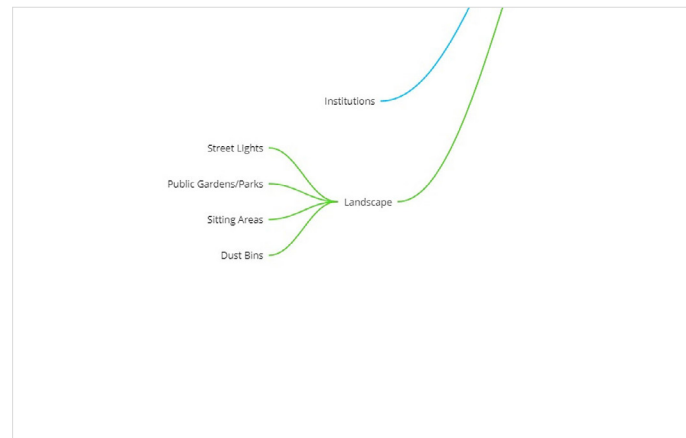
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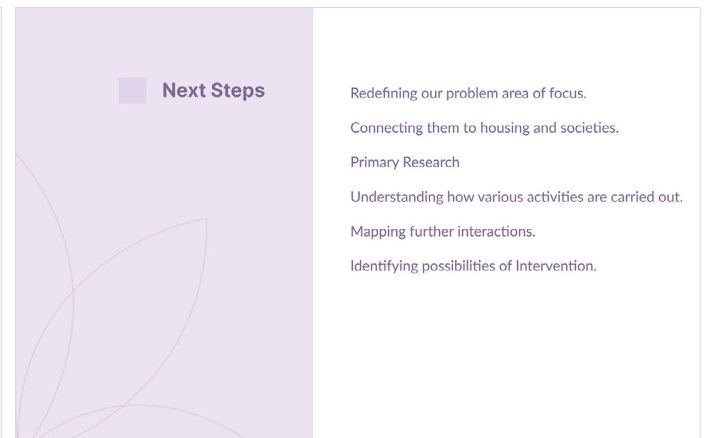
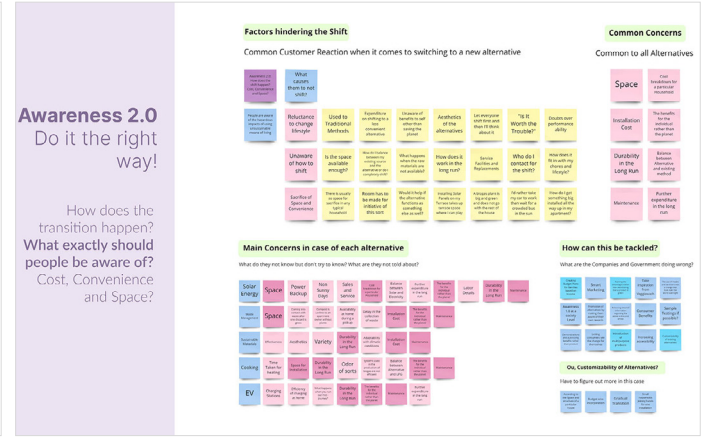
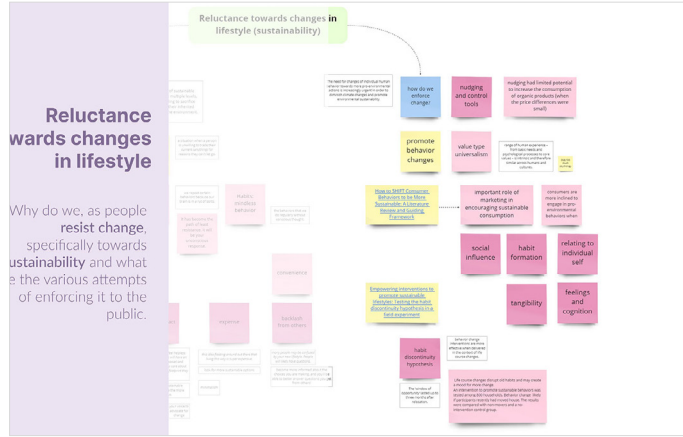
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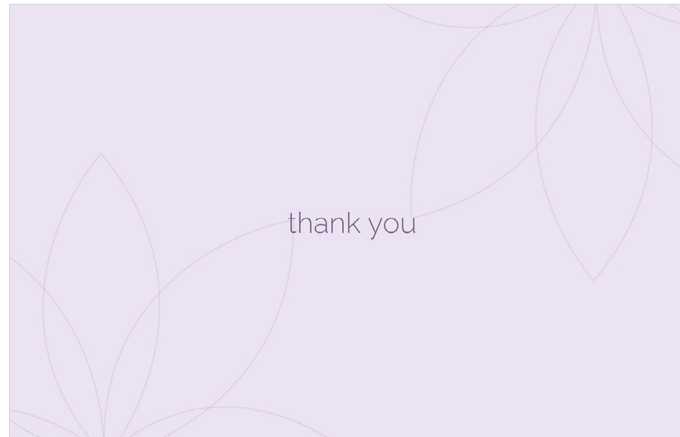
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Week Three: Ideation - Focus on Problem Area

Project Report

- Sustainable Housing..... (4540 kb)



Presentation

Week Three: Focus on Problem Area & Sub-Areas + Insights + Opportunities + Ideation + Report + Presentation

Suggested next steps: (you could follow your own method)

1. Within the focused problem area now you need to identify sub-areas to work keeping the broader connections in mind
2. I'm sure you have by now done the causal diagrams of your problem Area and its sub- Areas (or sub-systems) with its interconnections both in the forward (progressive) and backward (negative) directions. identify if there are any delays in these connections. Do not miss the big picture and do see if you can gain insights from this mapping analysis.
3. Also by now your primary and secondary research in the chosen focused area should give you insights/observations and point towards design opportunities
4. If you would like, this is a good time to redefine your problem statement
5. And start with ideation to solve problems concerning your sub-areas (for this you'll need to Brainstorm + Group Ideation + Fast Visualisations/sketching)
5. You could start with Concept maps or Network diagrams of your ideas by connecting parts of your proposed system to people, activities, objects, spaces and time

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6. The ideation could also be through scenarios

End of Week Three: 3rd Stage – Ideation Presentation

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

Submission: Slide presentation + Report submission (must for grading)

a) Presentation Slides – upload it on the google classroom Week 3

b) Project Report – upload it on the google classroom Week 3

Grading Points: 15%

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Design Course

Systems Design Project

Interconnected and form a System within Defined Boundaries

by

Prof. Ravi Poovaiah, Prof. Vivek Kant,
Prof. Pramod Khambete and Dr. Ajanta Sen
IDC, IIT Bombay

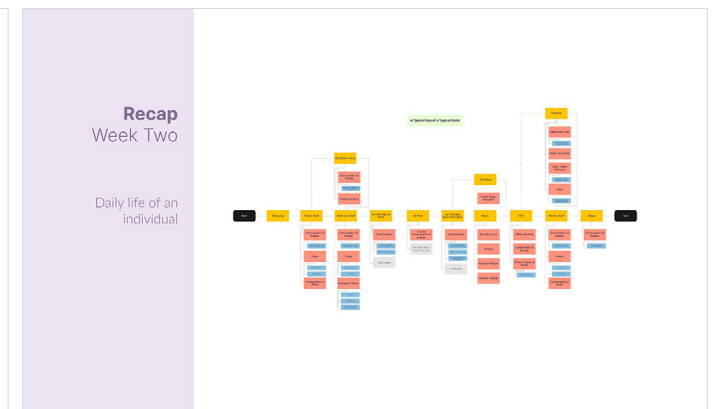
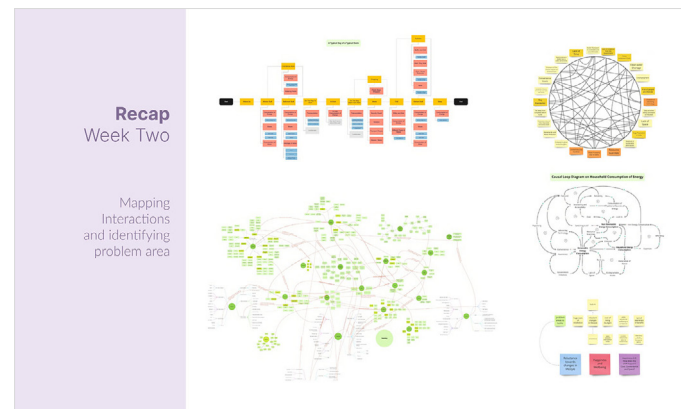
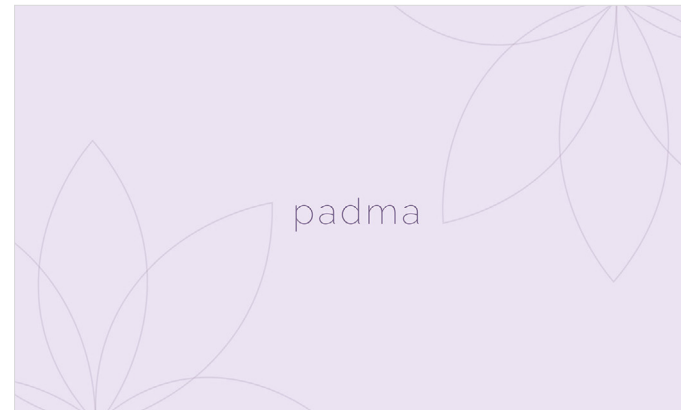
Source:

<https://www.dsource.in/course/systems-design-project/projects/sustainable-housing-systems/week-three-ideation-focus-0>

Presentation

Presentation

- Sustainable Housing..... (23810 kb)



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4a, 4b, 4c, 4d

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Recap Week Two

Interactions within a society

Recap Week Two

Connection Circle

Recap Week Two

Causal Loop Diagrams

Recap Week Two

Finalized our Topic and did a surface level research to understand it better

Week 3 at a Glance

Aim: Focusing on Problem and its Sub-Parts

- Housing Types and Research
- Causal Loop Diagram of Problem Area
- Do Goals and Be Goals
- Brief
- Possibilities of Intervention
- Primary Research and Insights
- Personas
- Next Steps

Gross National Happiness

We looked into the GNH of Bhutan as suggested and discovered their four pillars

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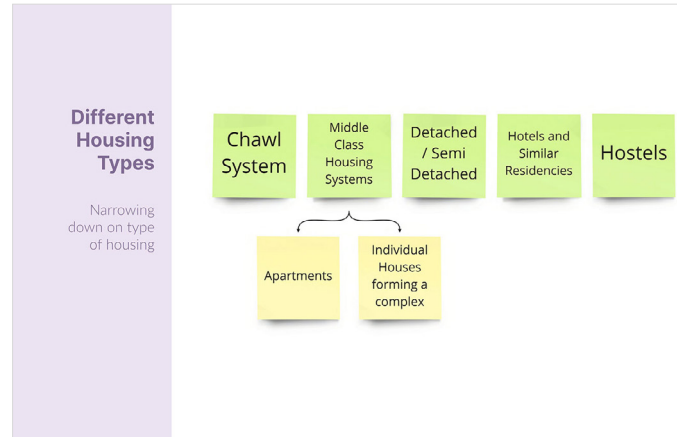
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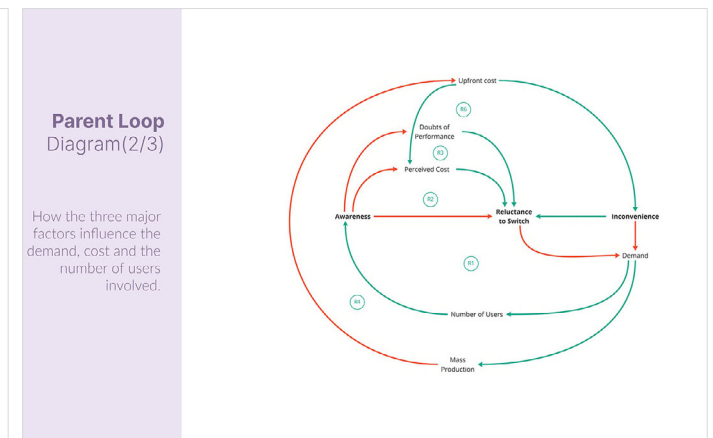
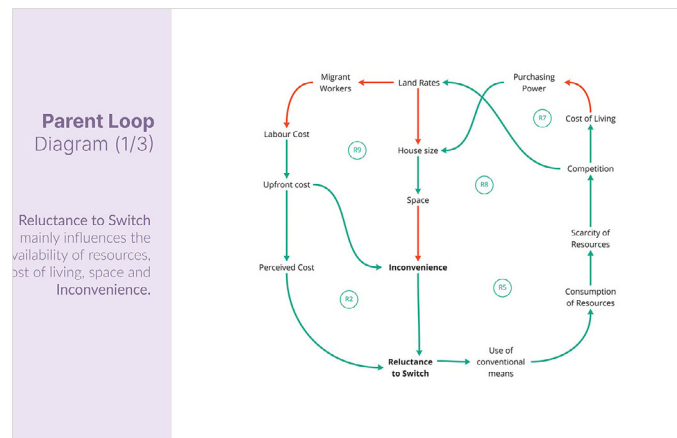
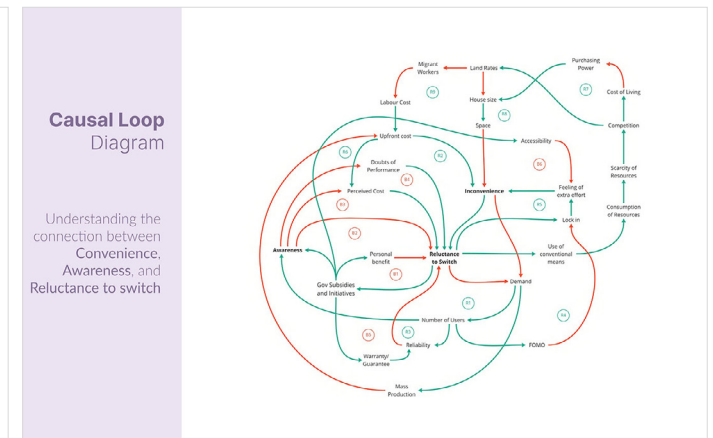


Chawl System

- High density of people
- Limited use of resources
- Living in harmony with animals
- Internal courtyards are a good balance of inside and outside
- Common corridor is a very interactive space
- They have no other choice
- Sharing between families
- Close to the concept of co-living

Apartment System

- Profit Maximising
- Little consideration for natural light and ventilation
- No inside-outside balance
- Maximising indoor living space
- Less shared spaces
- Financially in a better condition
- Have more choice



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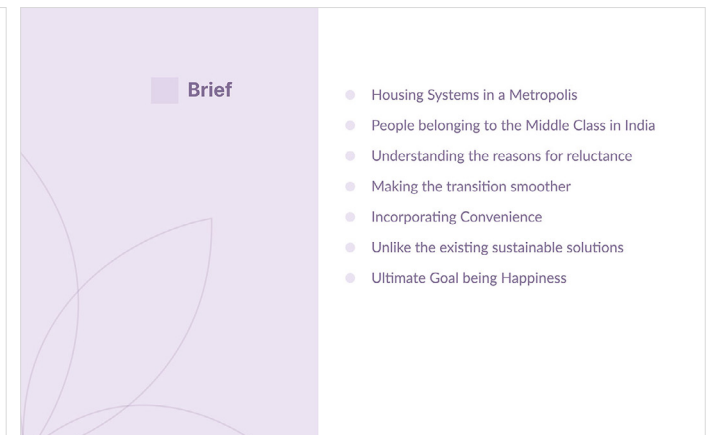
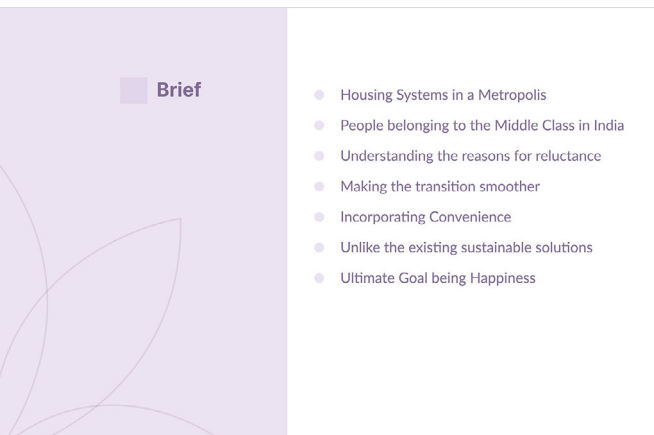
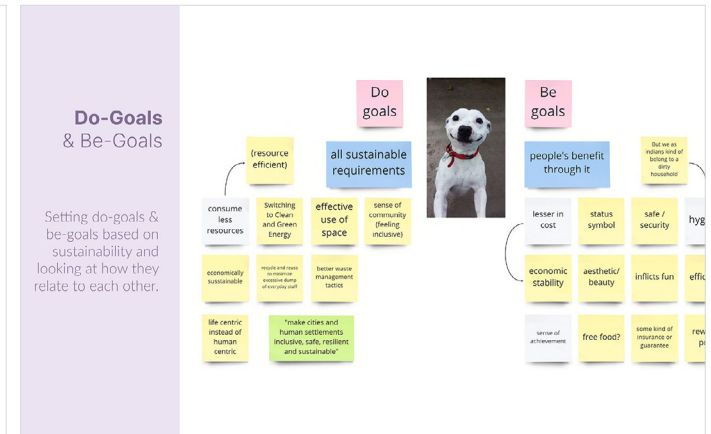
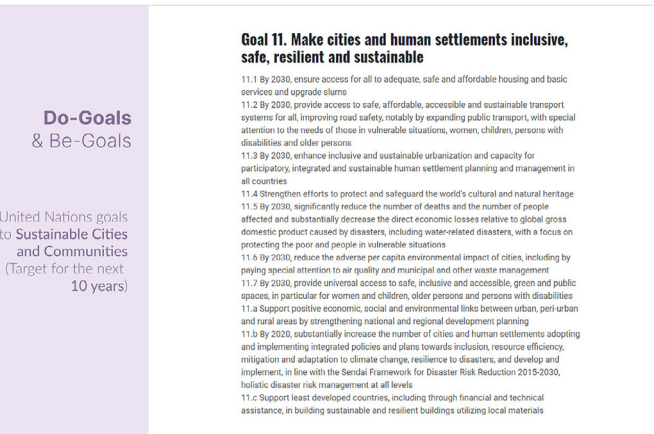
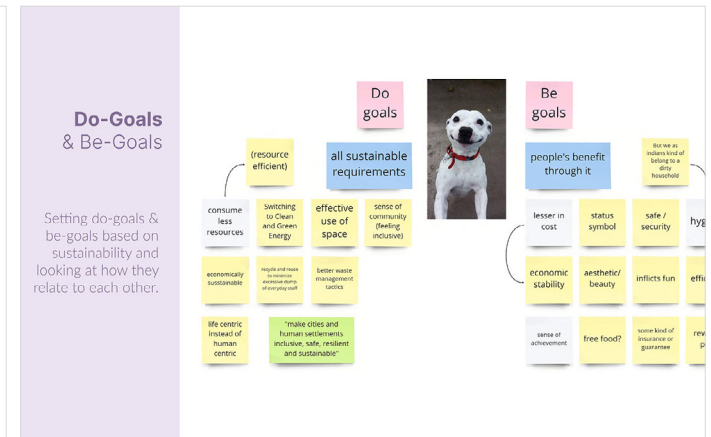
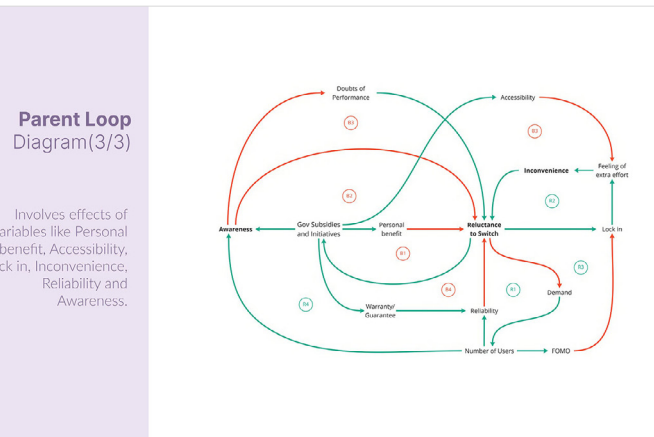
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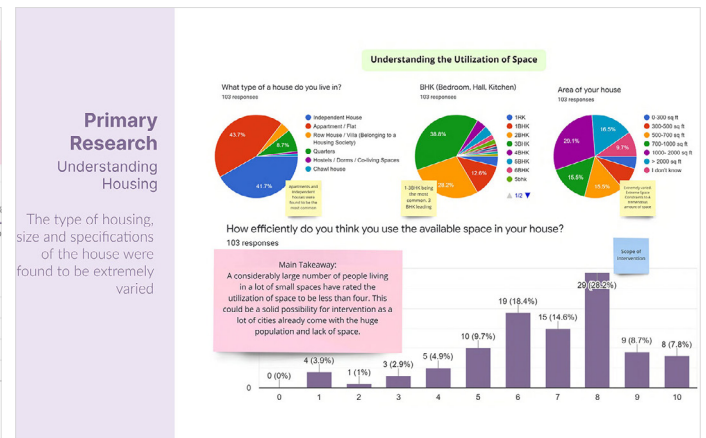
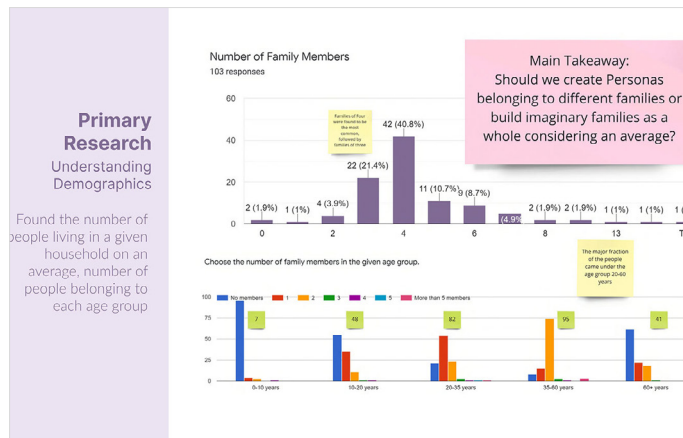
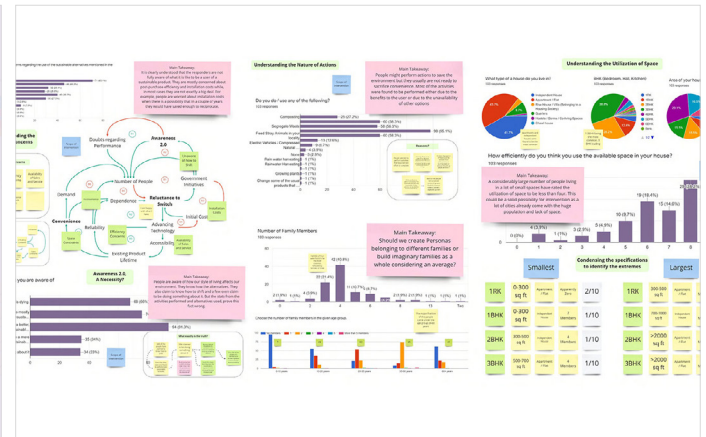
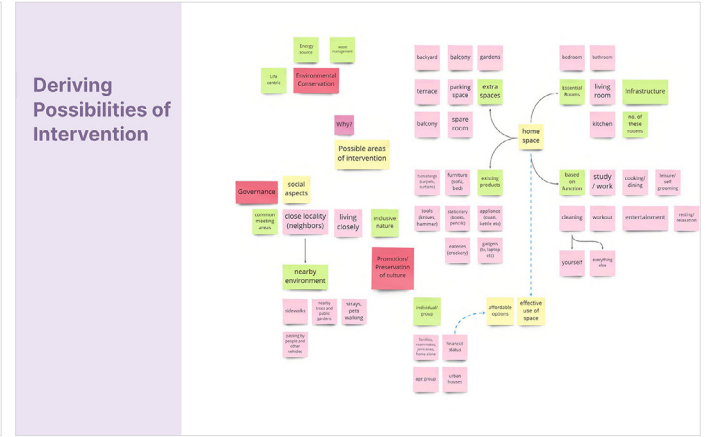
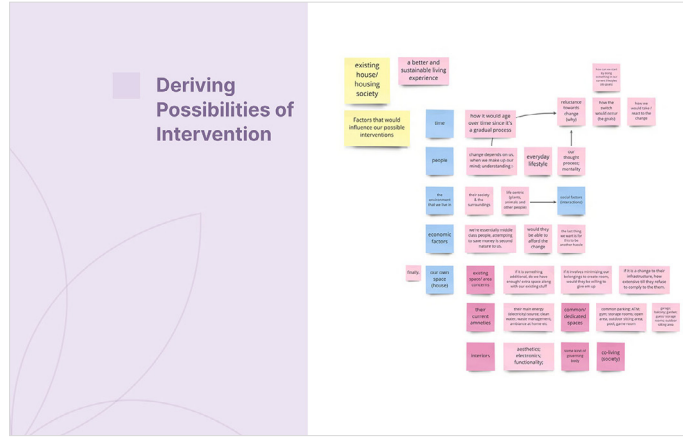
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Primary Research

Understanding Housing

Picked out the extreme cases to help develop our personas

	Smallest	Condensing the specifications to identify the extremes	Largest
1RK	0-300 sq ft Apartment / Flat	2/10	1RK 300-500 sq ft Apartment / Flat 5 Members 8/10
1BHK	0-300 sq ft Independent House	7 Members 1/10	1BHK 700-1000 sq ft Independent House 6 Members 10/10
2BHK	300-500 sq ft Independent House	4 Members 1/10	2BHK >2000 sq ft Apartment / Flat 8 Members 9/10
3BHK	500-700 sq ft Apartment / Flat	4 Members 1/10	3BHK >2000 sq ft Apartment / Flat 10 Members 9/10

Primary Research

Are they aware?

is was intended to understand the nature of people's awareness regarding a sustainable lifestyle.

Awareness 2.0, A Necessity?

Main Takeaway: People are aware of how our style of living affects environment. They know how the alternatives. It also claim to know how to shift and a few even claim to be doing something about it. But the stats from activities performed and alternatives used prove fact wrong.

What needs to be done? A flowchart showing 'Awareness' leading to 'Reluctance to Switch' and 'Initial Cost', which then leads to 'Government Initiatives' and 'Insulation Costs', and finally 'Reluctance to Switch' leading to 'Number of People' and 'Demand'.

Primary Research

Sustainability in daily life?

Do they actually do the things they claim to do? Well, No.

Understanding the Nature of Actions

Do you do / use any of the following? 103 responses

Main Takeaway: People might perform actions to save the environment but they usually are not ready to sacrifice convenience. Most of the activities were found to be performed either due to the benefits to the user or due to the unavailability of other options

Reasons?

Major Concerns: Insulation Costs, Efficiency Concerns, Availability of Sale and Service, Spare Components, Reliability, Dependence on Existing Product Lifetime.

Reluctance to Switch: Government Initiatives, Initial Cost, Insulation Costs, Availability of Sale and Service, Advancing Technology, Accessability.

Primary Research

Understanding Concerns

Were there the concerns that they had reasonable? What was the main reason for the concerns?

Main Takeaway: It is clearly understood that the responders are not fully aware of what it is like to be a user of a sustainable product. They are mostly concerned about post-purchase efficiency and installation costs while in most cases they are not exactly a bag deal. For example, people are worried about insulation costs when there is a possibility that in a couple of years they would have saved enough to recoupate.

Major Concerns: Insulation Costs, Efficiency Concerns, Availability of Sale and Service, Spare Components, Reliability, Dependence on Existing Product Lifetime.

Reluctance to Switch: Government Initiatives, Initial Cost, Insulation Costs, Availability of Sale and Service, Advancing Technology, Accessability.

Personas

Household One

Upper-Middle-Class family of four living in a 3BHK apartment

Creating Personas: Household One

The Family

- Family of 4
- Have enough and a little more
- 3BHK, 800sq.ft apartment on the sixth floor
- Based in Nashik, but lives in Mumbai
- Has one Car for the whole family, parked in the common parking space
- Three Bedrooms, one for Grandmom, one for the couple (bath-attached), and one for the daughter
- Daughter's room doubles as a guest room
- There are two bathrooms in total
- Have a balcony which is also used as a mini garden and laundry space
- Three smartphones, one cell phone, a TV, a PC, a WM, a refrigerator and a microwave for the whole house

G. Grandmom, 73

- Owns a Small Business
- Starts a small business through profit made from her own business
- Has a car for her own use
- Has a car for her own use
- Has a car for her own use

S. Son, 52

- Works in a Small Business
- Starts a small business through profit made from her own business
- Has a car for her own use
- Has a car for her own use
- Has a car for her own use

W. Wife, 47

- Works in a Small Business
- Starts a small business through profit made from her own business
- Has a car for her own use
- Has a car for her own use
- Has a car for her own use

D. Daughter, 16

- Works in a Small Business
- Starts a small business through profit made from her own business
- Has a car for her own use
- Has a car for her own use
- Has a car for her own use

Personas

Household Two

Three Employees living in a 2BHK independent house along with a pet.

Creating Personas: Household Two

The Tenants

- Group of three colleagues
- Have just enough money
- 2BHK, 400sq.ft. part of an independent house
- Lives on Rent, paid monthly
- From Delhi, Mumbai and Bangalore. Lives in Pune at the moment
- Three 23 - 25YO graduates, doing a one year programme with a company
- Has three two-wheelers parked on the side of the house
- There is only one bathroom
- Have a maid to clean up the place and cook food
- Three smartphones, one cell phone, an old TV, a PC, a single door refrigerator, LPG and a microwave for the whole house

A. 23, Delhi

- Just out of college
- First job. Has just started earning
- Architect. Requires a lot of areas to work
- Does a lot of Driving Equipment
- Extremely Organized
- Clears their space and everything to be in its place
- Has a habit of smoking
- Has a pet named Tech-niques
- Doesn't care much about plants and animals
- Does a two-wheeler setup and is very proud of it
- Early averse cooking
- Interests: Car, Art, Sunsets

B. 24, Mumbai

- Architect Major, but interested in Design
- Has a small amount of money to use for travel
- Does most of the cooking
- Architect's program. Keeps bringing projects
- Has a pet named Tech-niques
- Doesn't care much about plants and animals
- Complains about the fact that the ball is in his court
- Interests: Dance, Shopping

C. 25, Bangalore

- Architect, has been working for 2 years
- Slightly Specially able
- Has a pet named Tech-niques
- The dog lives with him in the house
- Does a lot of Driving Equipment
- Comes from a moderately wealthy family. Has an extensive family
- Architect, does mostly in a regular basis
- Has a pet named Tech-niques
- Has a pet named Tech-niques
- Interests: Spending time with girlfriend, Cycling, Badminton

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Personas

Household Three

family of five which is financially stable. They are not well educated and live in a small 1BHK apartment.

Creating Personas : Household Three



The Family

- 1BHK, 300sq.ft Apartment on the third floor in Saki Naka
- Two single beds in the bedroom, a sofa and a gaddi
- Two couples
- Unaware of the consequences on the environment
- Have to work hard to make the end meet
- Most of the work is done in the hall
- Small Kitchen with just enough space to manage all the meals
- Have all the means in the hall
 - Laundry is hung on the small grided balcony
- Have a makeshift Paja Room in Hall
- Two Smartphones, Two cell phones, one single door refrigerator, a CRT TV, LPG

L. Big Brother, 32

- With a good education
- Good looking
- Employed at IIT Bombay
- Has a good salary
- Doesn't have much spare money
- Has a car
- Doesn't have a partner
- Good Education
- Consistent late night
- Doesn't have a partner in the family
- Has a car and a dog (dog is not hearing the family members)

M. Big Brother's Wife, 30

- Health work as a nurse
- Good looking
- Employed at IIT Bombay
- Has a good salary
- Doesn't have much spare money
- Has a car
- Doesn't have a partner
- Good Education
- Consistent late night
- Doesn't have a partner in the family
- Has a car and a dog (dog is not hearing the family members)

N. Younger Brother, 30

- Designer
- With a good education
- Good looking
- Employed at IIT Bombay
- Has a good salary
- Doesn't have much spare money
- Has a car
- Doesn't have a partner
- Good Education
- Consistent late night
- Doesn't have a partner in the family
- Has a car and a dog (dog is not hearing the family members)

O. Younger Brother's Wife, 29

- Works as a teacher
- Good looking
- Employed at IIT Bombay
- Has a good salary
- Doesn't have much spare money
- Has a car
- Doesn't have a partner
- Good Education
- Consistent late night
- Doesn't have a partner in the family
- Has a car and a dog (dog is not hearing the family members)

P. Big Brother's Sister, 1

- Doesn't have a partner
- Good looking
- Employed at IIT Bombay
- Has a good salary
- Doesn't have much spare money
- Has a car
- Doesn't have a partner
- Good Education
- Consistent late night
- Doesn't have a partner in the family
- Has a car and a dog (dog is not hearing the family members)

Next Steps

- Scenarios
- Ideation
- Final Solution
- Evaluation
- Revised Final Solution

thank you

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Week Four: Focus on Soft Prototyping



Presentation

Week Four: Focus on Soft Prototyping to Final Prototyping + Report + Presentation

Suggested next steps: (you could follow your own method)

1. Choose your final concept from ideations for the solution to your system design problem area
2. You could use any of the methods that you are familiar with for prototyping: to name a few: Walk-through Scenarios, Concept Videos, Personas, Mock-ups, Proof of Concept, etc.
3. The final concept could involve any of the following:
 - 2D/3D design Sketches + Physical Prototyping + Visualisation + Virtual 3D Models
 - Interface/Communication/Media Design Detailing + Interface/Communication Simulation + Experience Design + Service Blueprints and design
4. Do give thoughts on the Final Prototyping
5. How would you get feedback on your solution? Will you try to evaluate?

End of Week Four: 4th Stage – Prototype Presentation

Due Date:

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

Submission: Slide presentation + Report submission (must for grading)

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a) Presentation Slides – upload it on the google classroom Week 4

b) Project Report – upload it on the google classroom Week 4

Grading Points: 15%

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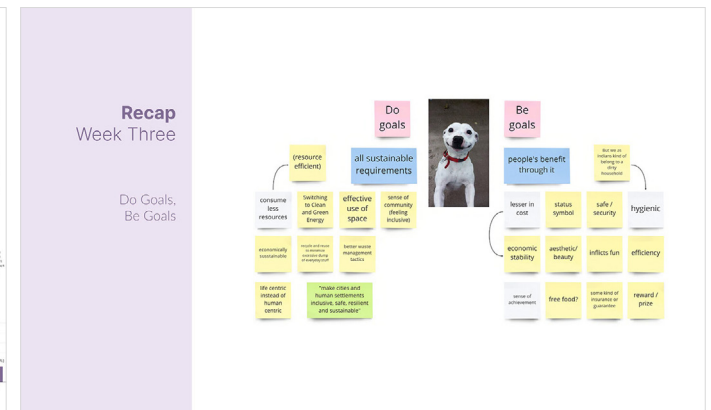
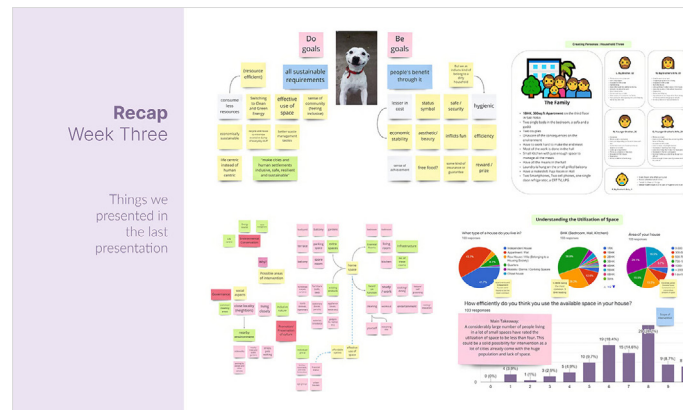
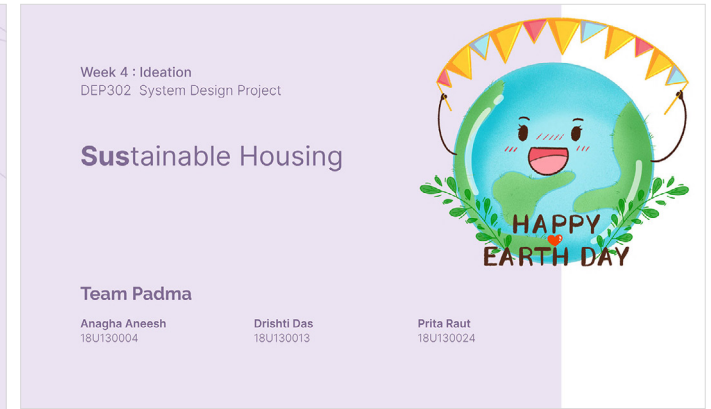
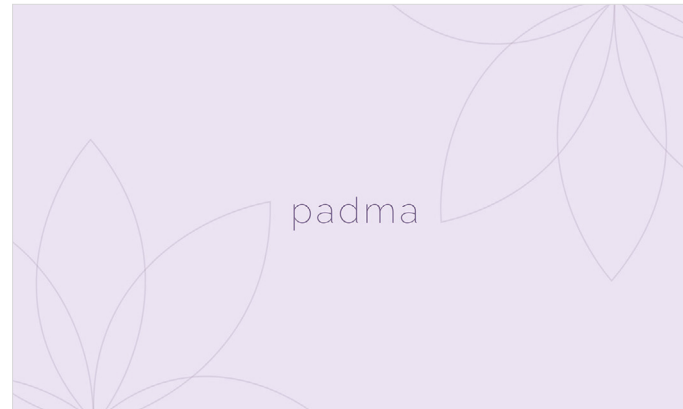
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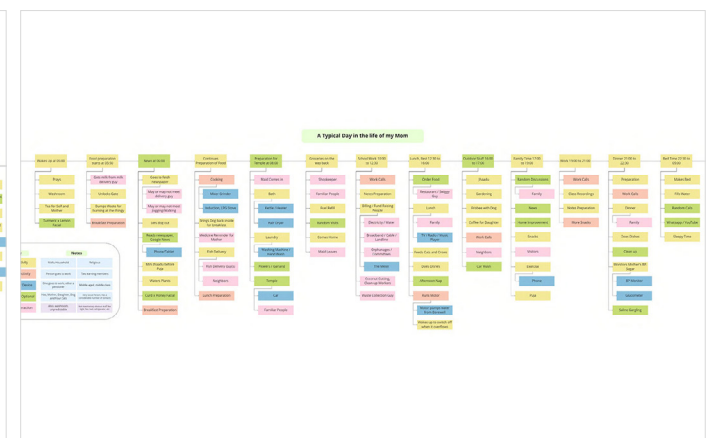
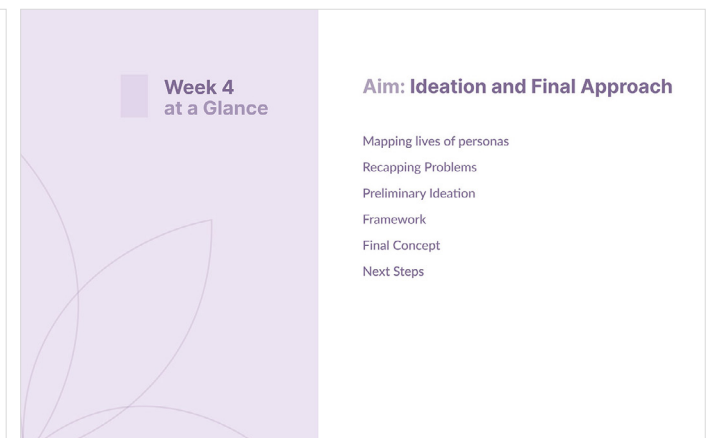
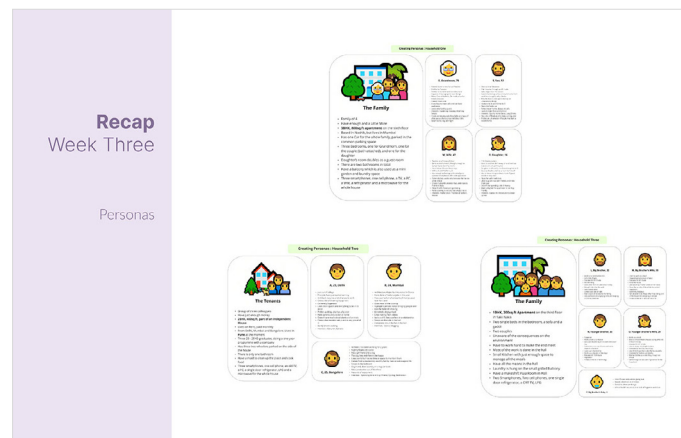
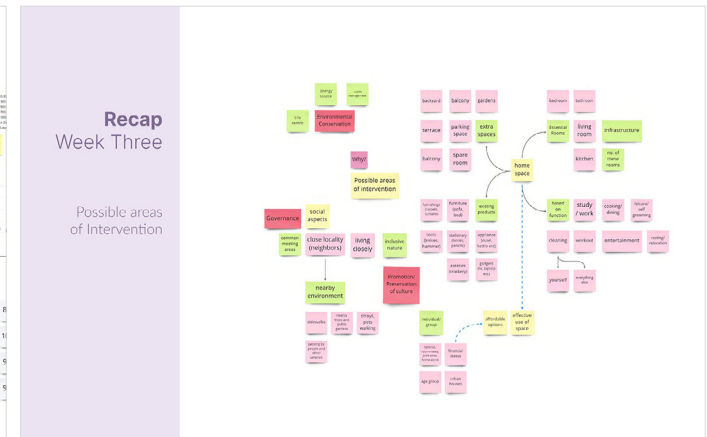
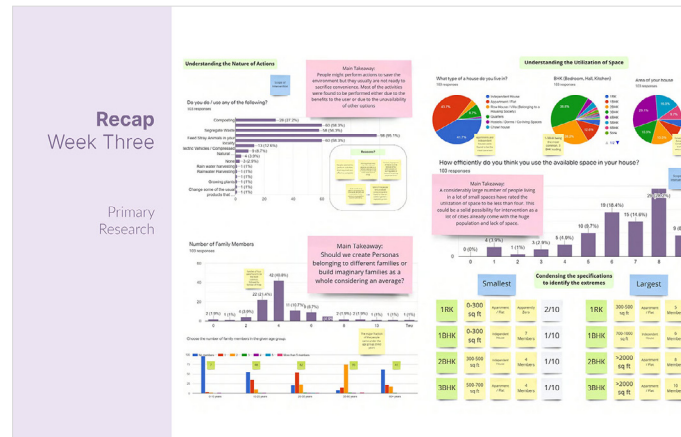
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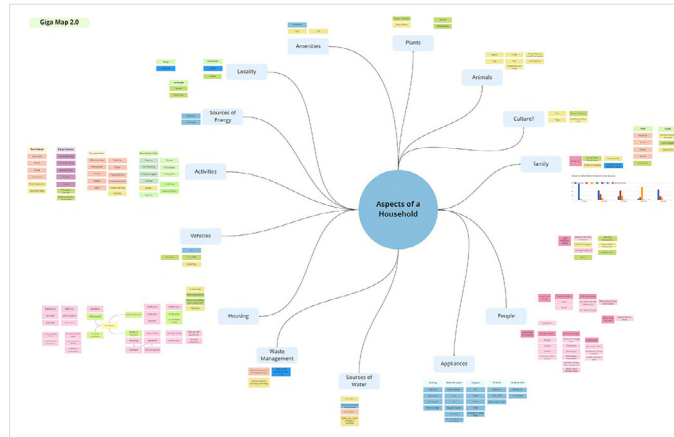
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<https://www.dsource.in/course/systems-design-project/projects/sustainable-housing-systems/week-four-focus-soft-0>

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Recapping Problem

Promoting the Adoption of Sustainable Alternatives

Promoting the **Adoption** of Sustainable Alternatives by tackling problems of **inconvenience, awareness and reluctance**

Preliminary Ideation

Ideation based on factors related to **convenience, how-to awareness and reluctance**

Convenience

Ideas related to making alternatives and practices convenient

Awareness 2.0

We identified misconceptions and what people don't know from the primary research

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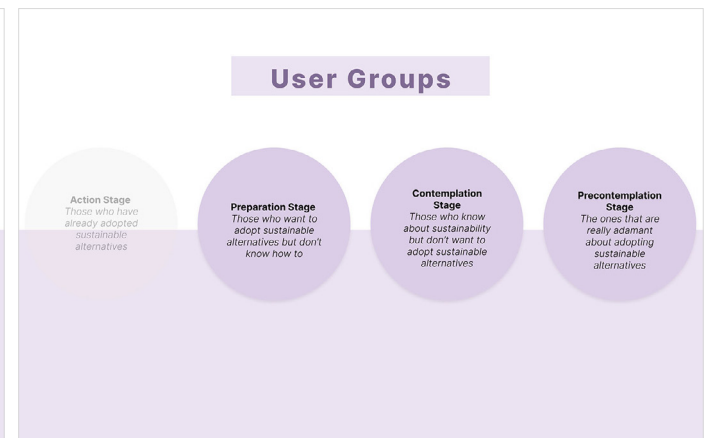
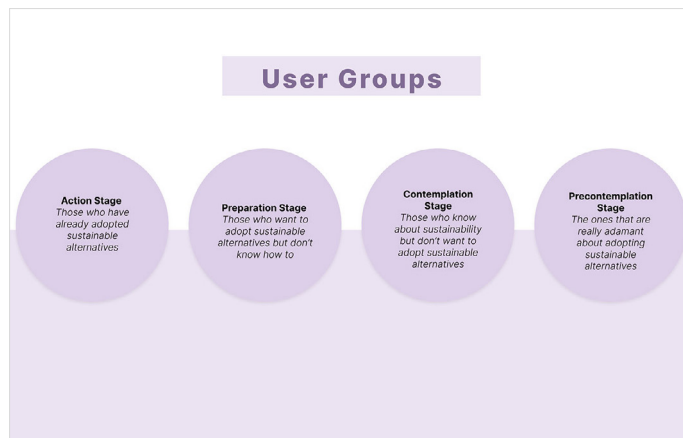
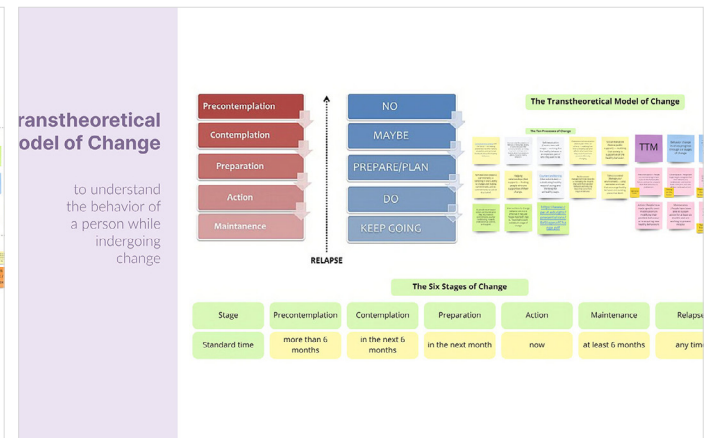
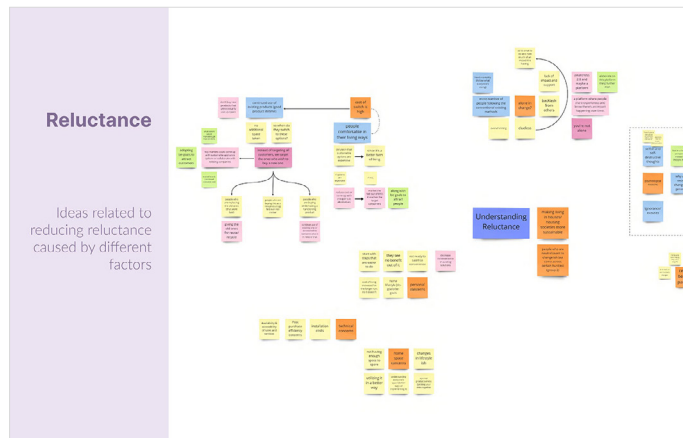
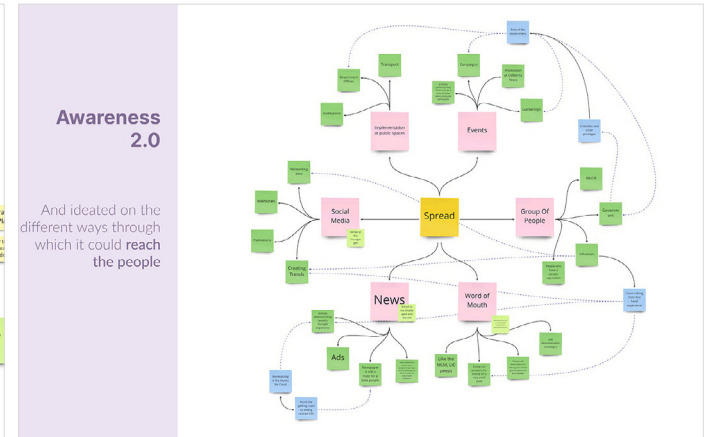
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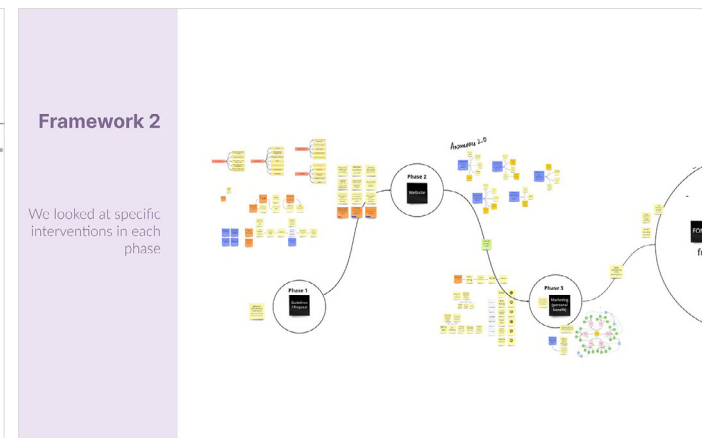
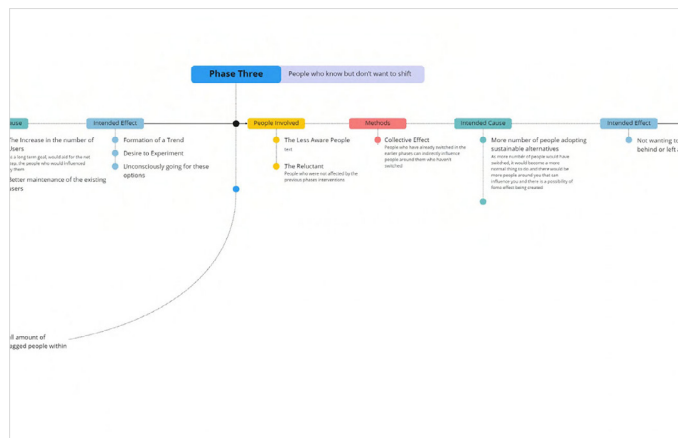
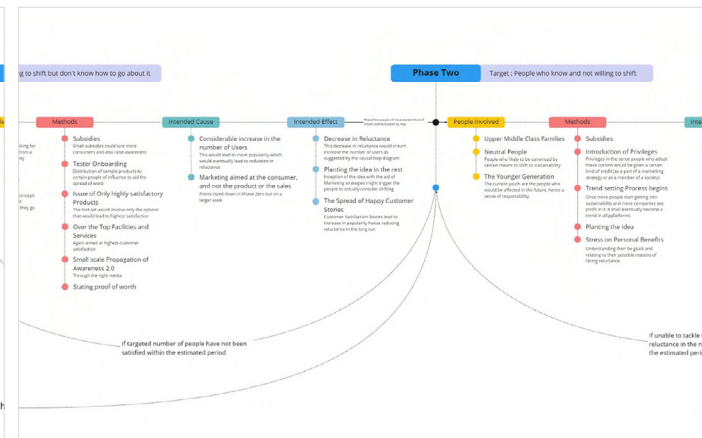
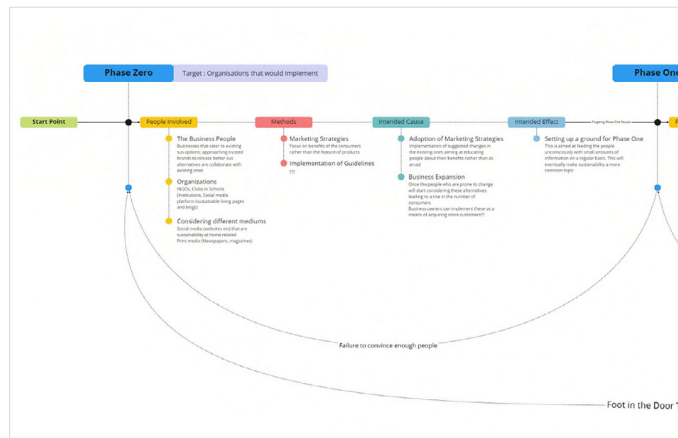
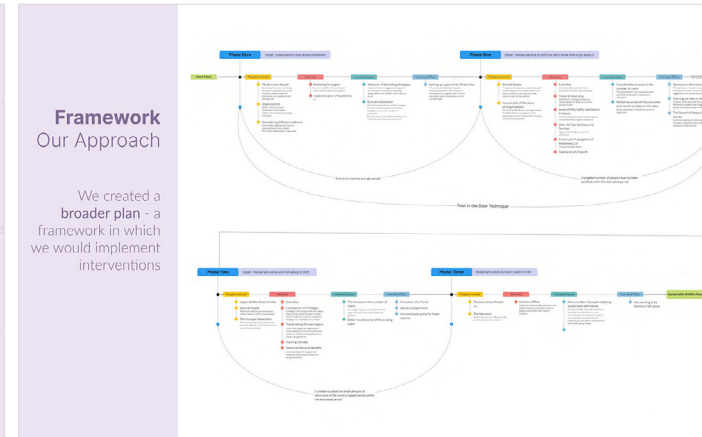
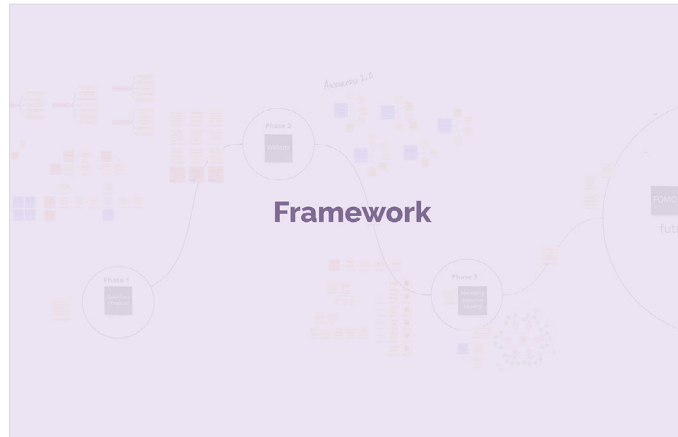
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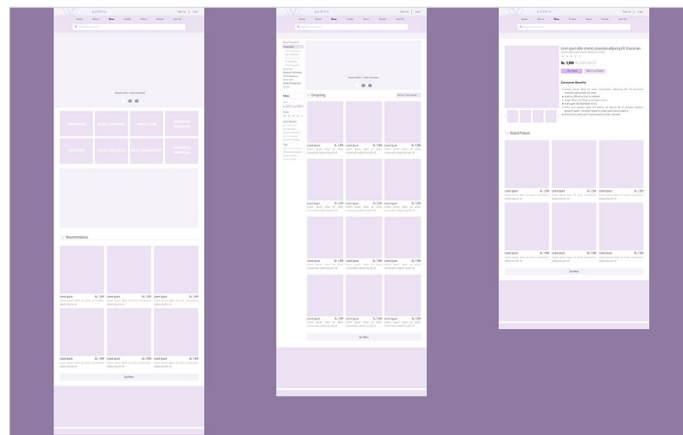
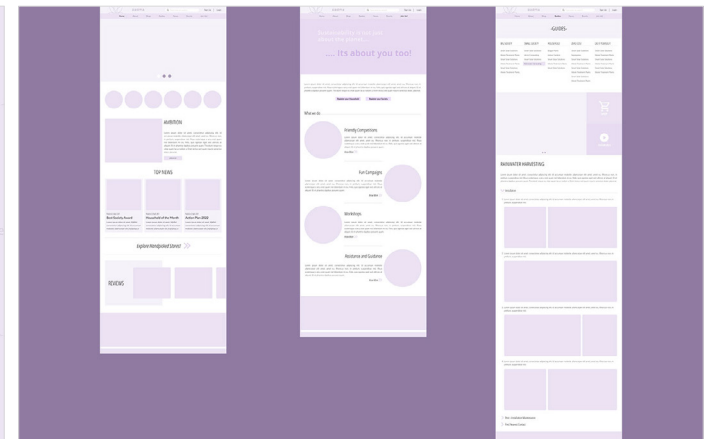
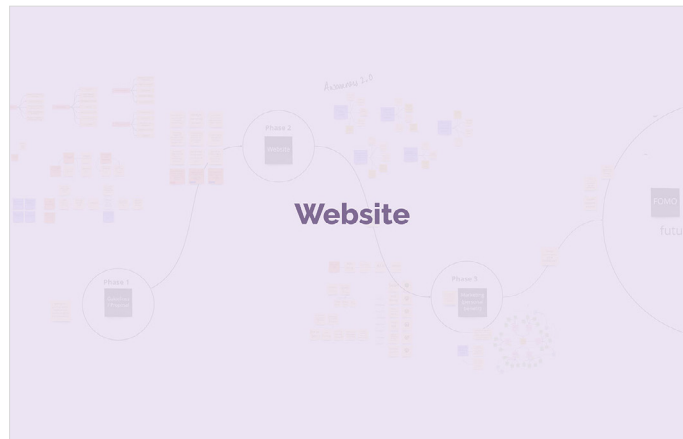
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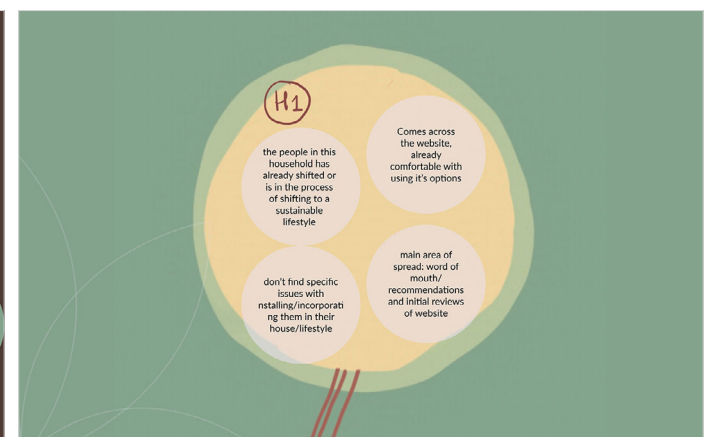
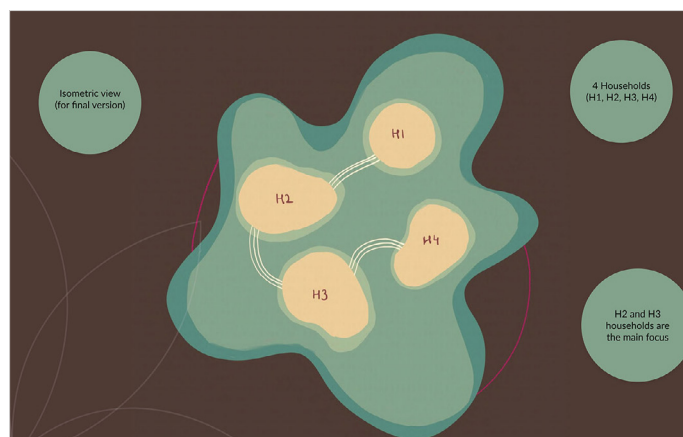
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Final Output

- Applying our derivations to a Miniature Society
- Personas based on our divisions of user groups (four focus households)
- Scenario of how our interventions would play out in a household and society level
- How the effect of one will affect the other in the long run



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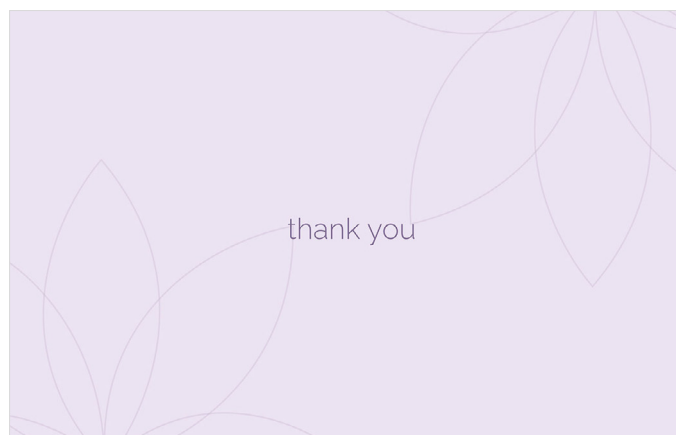
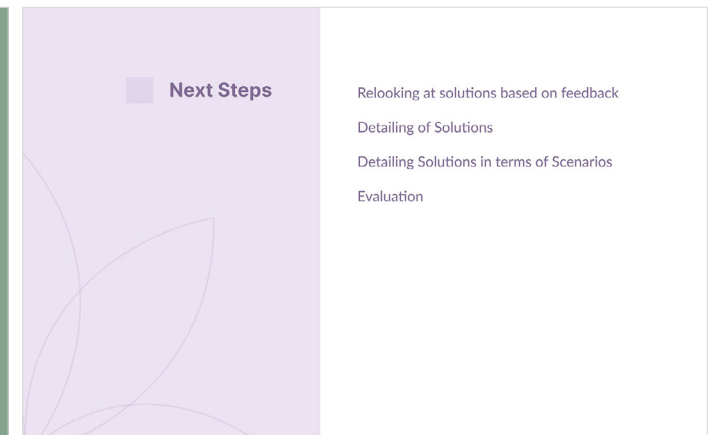
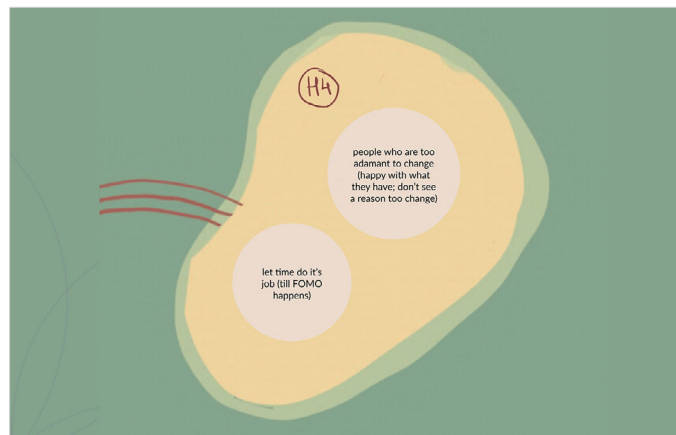
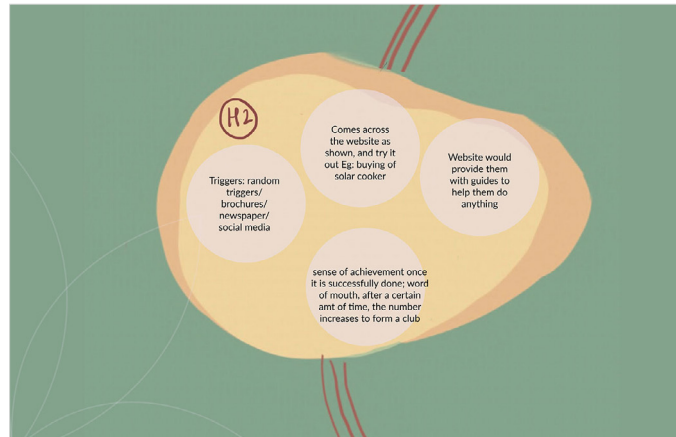
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Week Five: Presentation on Final Design Solution

Project Report

- Sustainable Housing..... (23540 kb)

Guidelines and Form

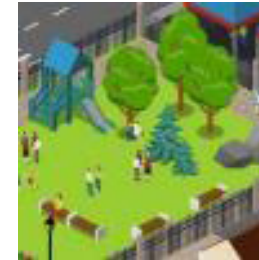
- Sustainable Housing..... (3550 kb)

Miro Board

Link:- https://miro.com/app/board/o9J_IHEJRI0=/



Presentation



Project Synopsis



Infographic



Video

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Presentation on Final Design Solution of your System Design Project

Presentation Date and Time:

Timings: The Feedback is scheduled on Week 5 between 2.30pm to 5.30pm

The venue: Online

Sequence: Group by group starting with group 1

Timings: Presentation time: 12 minutes (we will play the video or you can make the presentation) + 10 minutes for Feedback

Feedback: Faculty mentors will give final feedback on your project

Grades: This is a graded presentation (40%)

Presentation:

- . Each group has to make a video of their presentations a of the 5 weeks work – in about 12 mins. duration and upload this in google classroom
- . The presentation needs to be professionally done.
- . The presentation needs to include your Final Concept along with the explanation of the design process that you followed.

Presentation (overall) should include:

- . WHO – team composition
- . WHAT – what was designed and for whom (users and environment)?
- . WHY – why was this an important systems level problem to address?
- . Issues - what were the problems encountered?
- . HOW – what was the process used in solving this system design project?
- . ANALYSIS – what were the insights gained from mappings (both main and subsystems) and opportunities for design
- . DESIGN – what was designed? Mention your objectives or redefined objectives
- . CONCEPTS/IDEATION – what are the iterations of the design evolution
- . PROTOTYPE – Can you demonstrate your final design (maybe use scenario) (could be guidelines/scenarios/prototypes etc.)?
- . Show highlights of the prototyping story
- . EVALUATE – What is the feedback from the users?
- . FUTURE - Next steps?

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Presentation Details of points mentioned above:

Task 1: Prepare a presentation (of 12minutes duration) to include all the stages of your project:

- a. Title of the System Design Project or Problem Statement
- b. Team members
- c. Summary/content listing of your presentation
- d. World views
- e. Insights from Primary and Secondary Research (Mappings for overview as well as sub-systems)
- f. Major design opportunities
- g. Restatement of the problem / Design Objectives / Design Goals
- h. Overview of your ideas
- i. Alternate Concepts (sketches + quick scenarios + concept models)
- j. User Feedback on ideation
- k. Final Concept and its unique features
- l. Final Scenario
- m. Form and Interface Development or detailing
- n. Prototype
- o. User feedback on your final solution
- p. Future steps
- q. Full References
- r. Acknowledgments – to all who have helped

Presentation Essentials:

- a. Present in an engaging and crisp manner
- b. Design the slides/visuals to reflect the relevance of your topic
- c. Use your communication design skills to make the presentation visual
- d. Design proper layout; use appropriate type, colour and background
- e. Its nicer if all the team members take turns in presenting
- f. It makes sense to have main titles, sub titles and then running text/images
- g. Have a summary/content slide in the beginning
- h. Make good use of appropriate medias in the presentation
- i. Use appropriately theatre, drama, story, scenarios, video, etc. to convey your ideas
- j. Preparing a script is a good idea – reading text from the slide should be avoided

Presentation Tips:

- k. Never underestimate the need to rehearse. This can be usefully done alone, with team members, and with novice audiences. Video tape your self (to get confidence).

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- l. Never underestimate how long it takes to describe things clearly to a novice audience.
- m. Never underestimate how little the audience knows about what is so interesting about your project.
- n. Do not be dull when you speak, audiences want to engage in your enthusiasm.
- o. Make slides visible from the back of a room (try them out!)
- p. Do not talk over any audio in your presentation.

Submission Details:

- a) Updated project Report
- b) Video Presentation of 12 minutes – both slides + Final Video/Demo of Prototype
- c) A 250 word synopsis of the project along with the title, keywords and name of team members
- d) 2-3 high resolution images of your final design (1200 x800 x 300 dpi)
- e) It would be great if you can submit a copy of your MIRO board

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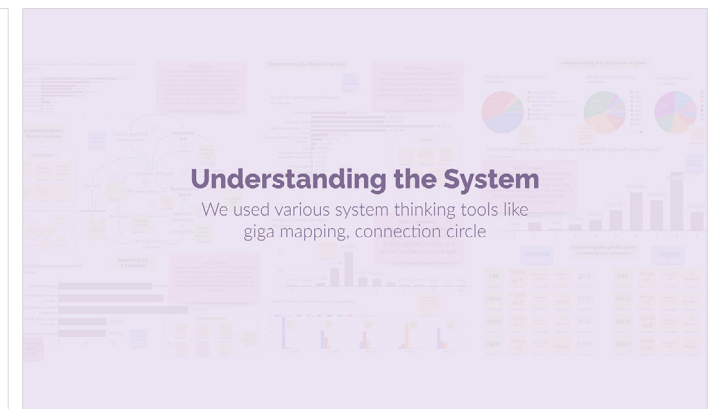
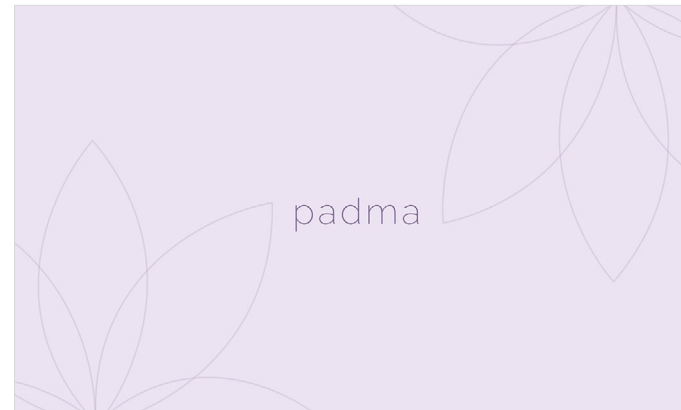
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Presentation

Presentation

- Sustainable Housing..... (64130 kb)



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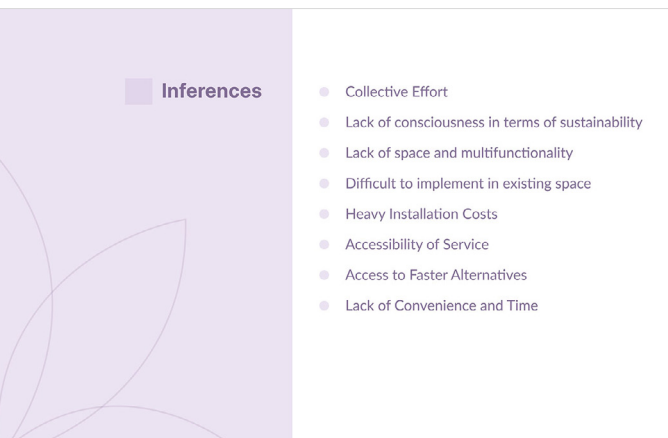
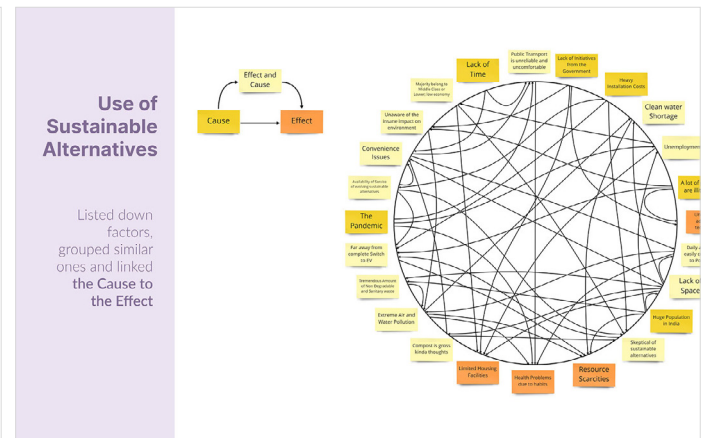
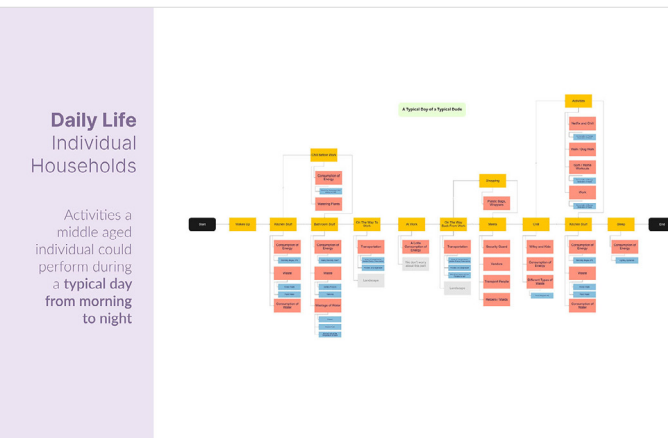
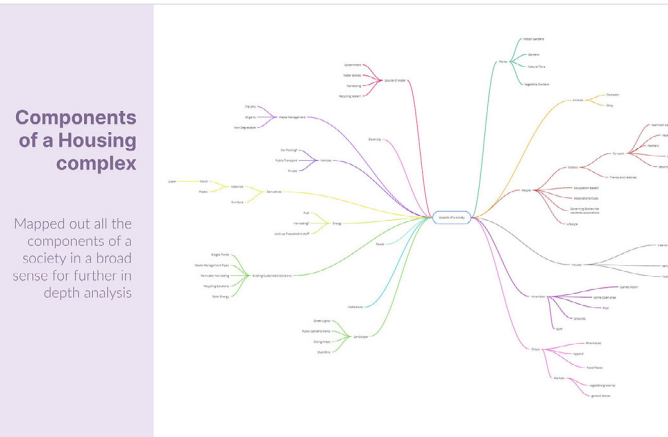
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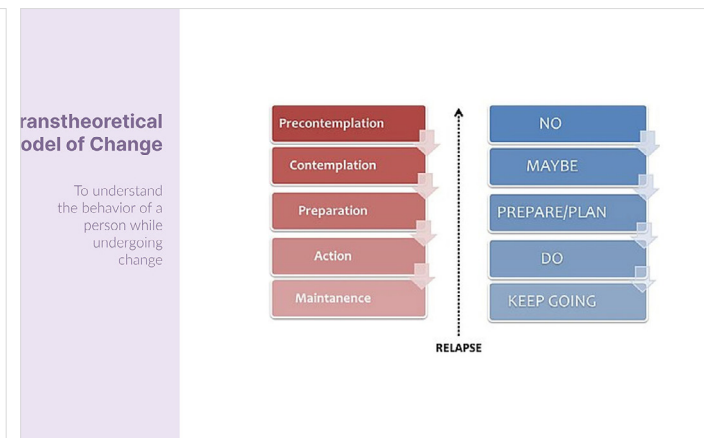
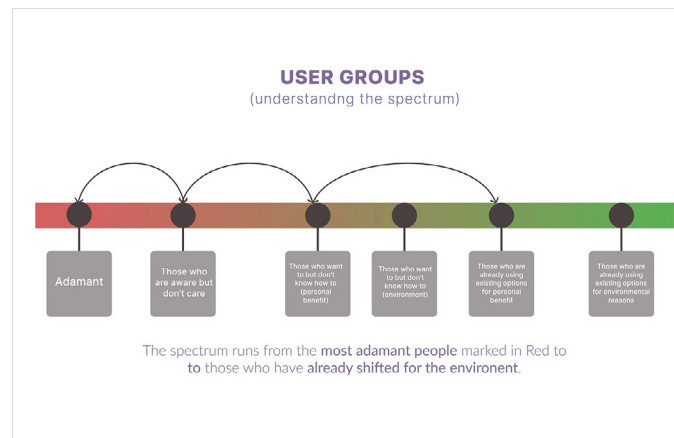
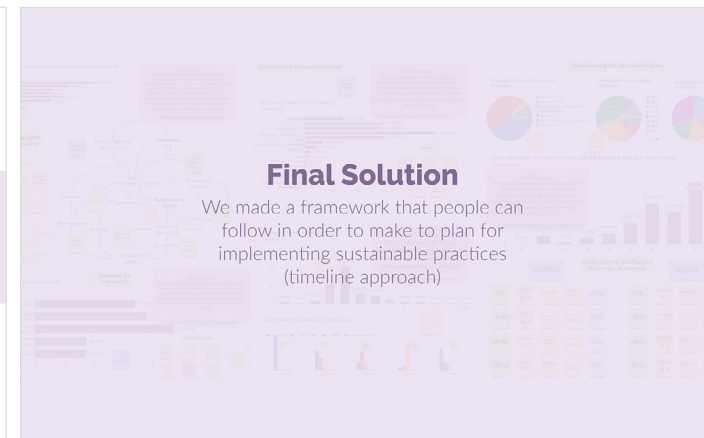
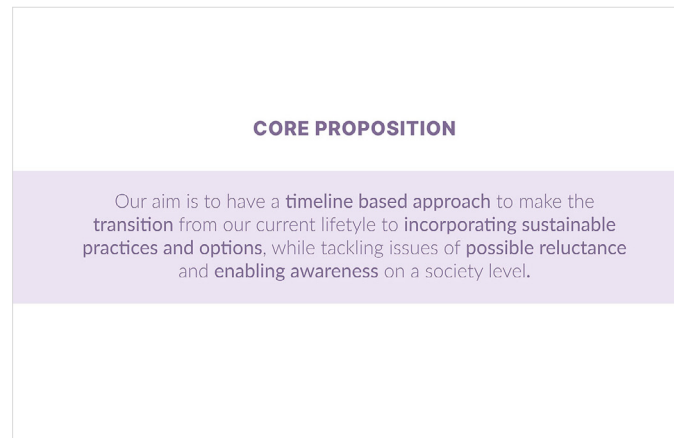
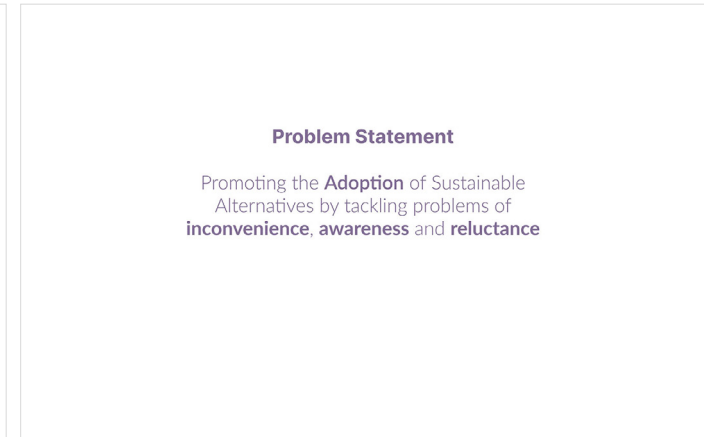
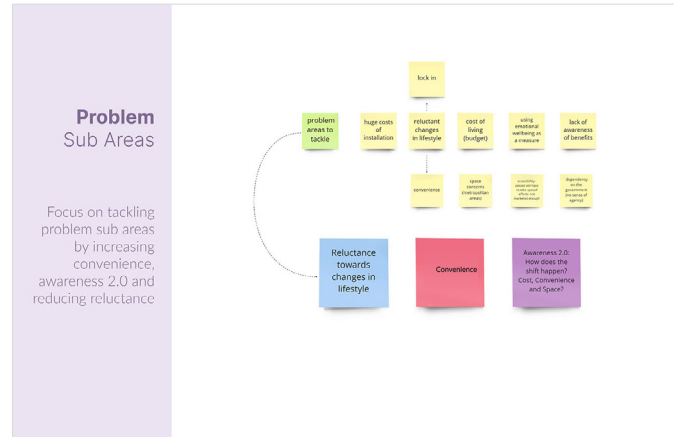
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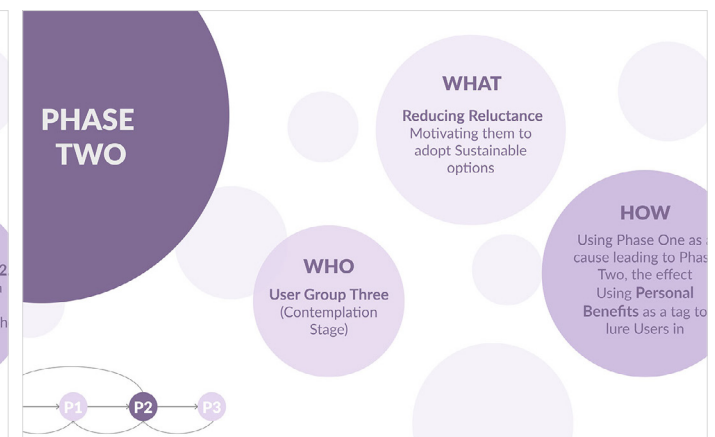
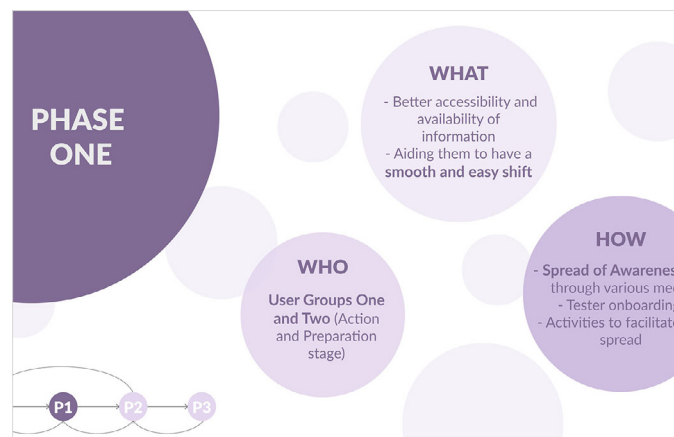
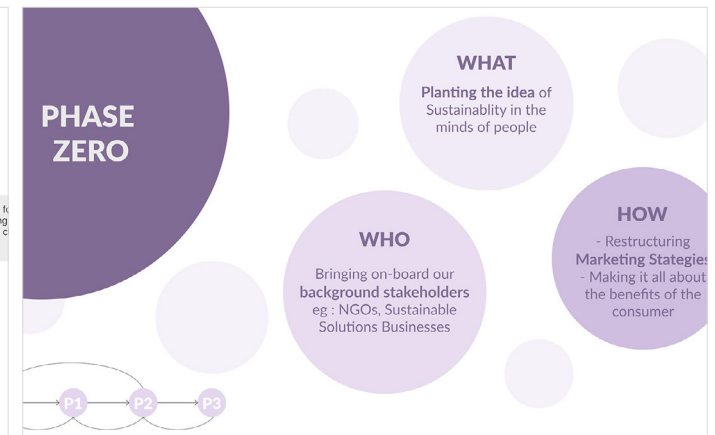
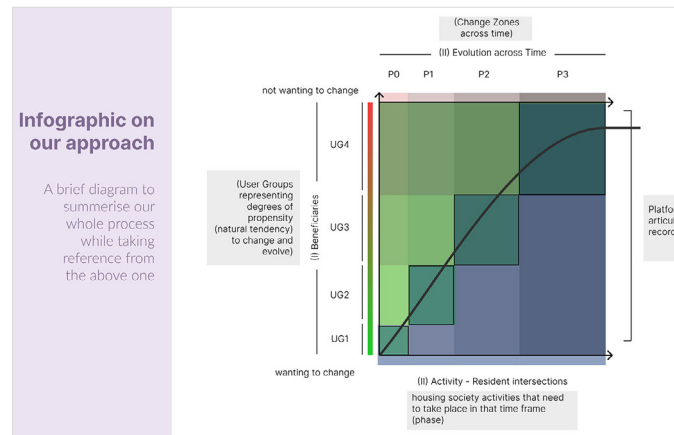
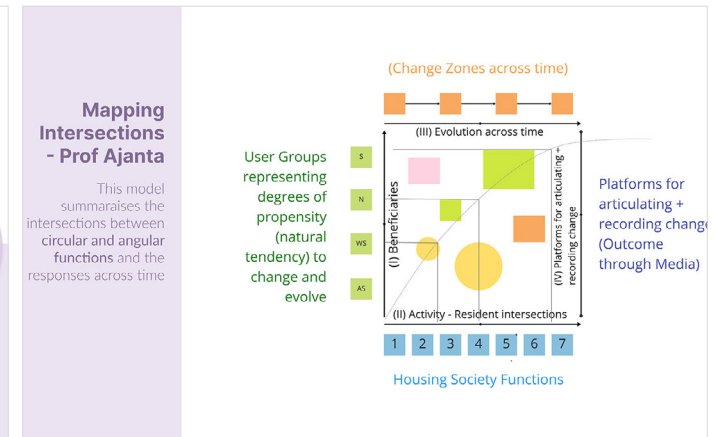
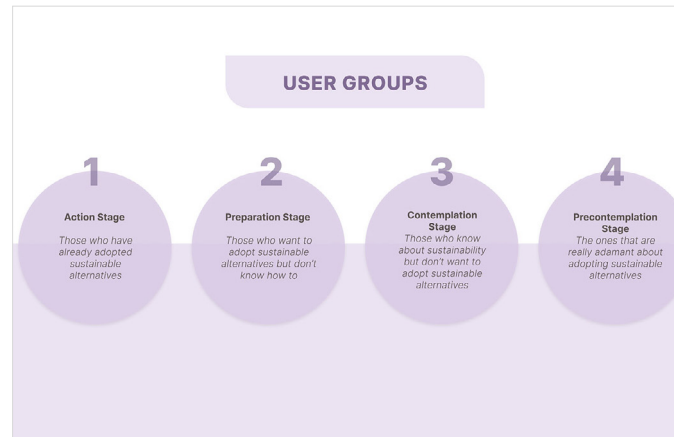
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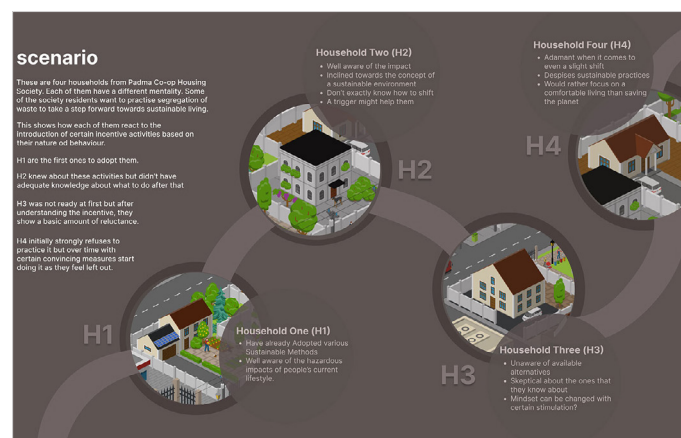
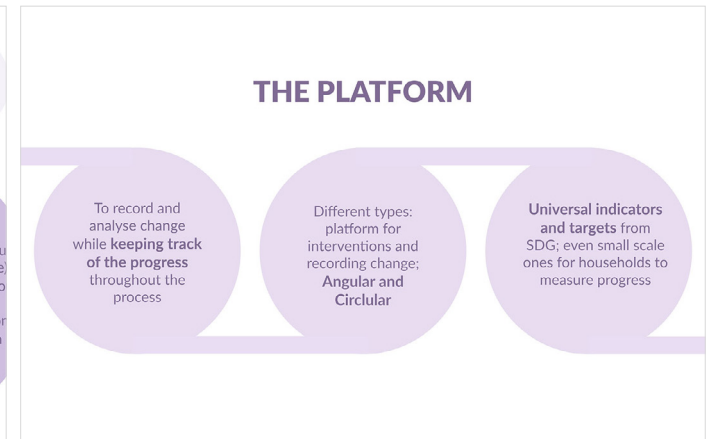
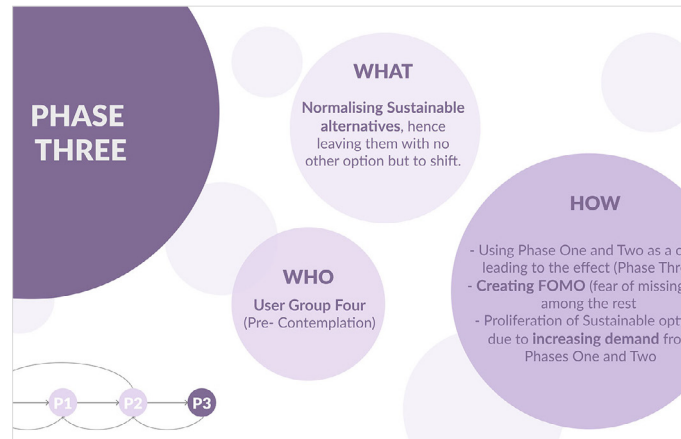
Interconnected and form a System within Defined Boundaries

by

Prof. Ravi Poovaiah, Prof. Vivek Kant,
Prof. Pramod Khambete and Dr. Ajanta Sen
IDC, IIT Bombay

Source:

<https://www.dsource.in/course/systems-design-project/projects/sustainable-housing-systems/week-five-presentation-final-0>



1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a, 4b, 4c, 4d
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 - 4e.1, 4e.2, 4e.3, 4e.4
 - 4e.5. Week Five: Presentation on Final Design Solution
 - 4e.5.1. Presentation
 - 4e.5.2. Project Synopsis
 - 4e.5.3. Infographic
 - 4e.5.4. Video
 - 4f. Cultural Identity of Kerala
5. Videos
6. Contact Details

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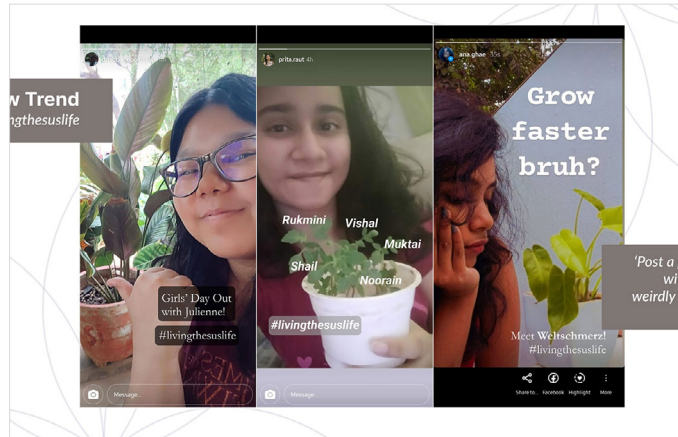
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 - 4e.5.4. Video
 - 4f. Cultural Identity of Kerala
5. Videos
6. Contact Details



Sample 2 : Green Energy

Selected Sustainability Pillar : Economic

Possible approaches/ solutions

- Focus on saving money in the long run
- Since a full transition at a household level is difficult, exposing people to the Alternatives which could ease them into transitioning (Energy efficient appliances, Solar Cooker etc.)

Indication of process

- Bills showing the difference in the amounts due, comparing it with the bill of the previous month (Saving brings about a sense of achievement)
- Electric Meters displaying the Amount at any point of time rather than the units consumed

Sample 3 : Waste Management

Selected Sustainability Pillar : Environmental

Possible approaches/ solutions

- Making them realise and confront them doing the action (Visual cues, reminder or praising them for doing successfully)
- Using their Social Status/Image. (People tend to be aware of their actions in a public space)
- Beautification of the environment (cleaner space, less likely to make them dirty)

Indication of process

- We could have the cleaners give monthly feedback on how people maintaining these disposal areas while throwing in waste.

Immediate Steps

Guidelines and Template that can be used by institutions like NGOs or even societies

Sustainable Alternatives Adoption Guidelines

How to create an awareness to increase the number of sustainable products and practices in a community. Focus on the adoption of sustainable products and practices. Focus on the adoption of sustainable products and practices. Focus on the adoption of sustainable products and practices.

Phase 1 - Preparation by institutions

These are the steps to be taken by the institutions to prepare for the adoption of sustainable products and practices.

Phase 2 - Accessibility of alternatives

These are the steps to be taken by the institutions to ensure that the alternatives are accessible to the community.

Sustainable Alternatives Adoption Template

Activity Name: _____

No. of Members: _____ Location: _____

Organizational Resources: _____ Capital: _____

Adopted Sustainability: _____ Budget: _____

FUNCTION	EXAMPLE	PLAN
What is the motivation?
Initiation/Implementation
How will it change?
Follow-up/Implementation
Maintain, monitor, evaluate, and report

Evaluation

For evaluation we presented our Approach to the Council Members of the three different housing societies that we belong to and received valuable insights.

- The approach is quite unique and seems viable
- How do you sustain it in the long run? What if people lose interest?
- The Maintenance aspect of the sustainable practices in daily lifestyle needs more work.
- The maintenance sounds like the maintenance of an appliance and not behavioral maintenance for some reason
- One of the council members liked the idea of planting two trees a year and has considered taking it up as part of the society.

Future Steps

We would be working on the feedback that we received from the Residents' Association Members and the feedback that we receive on Thursday (29/05/2021).

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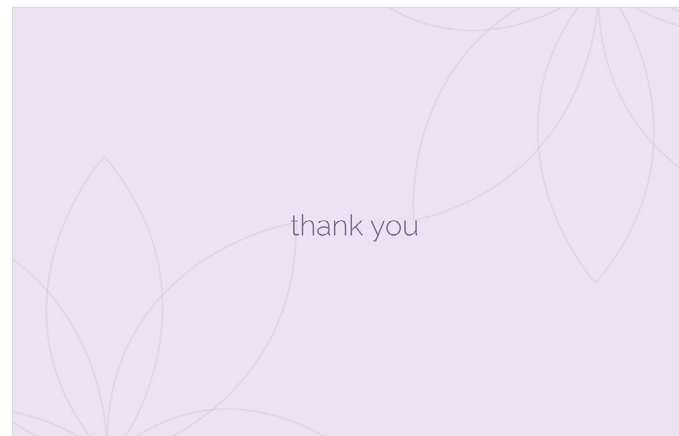
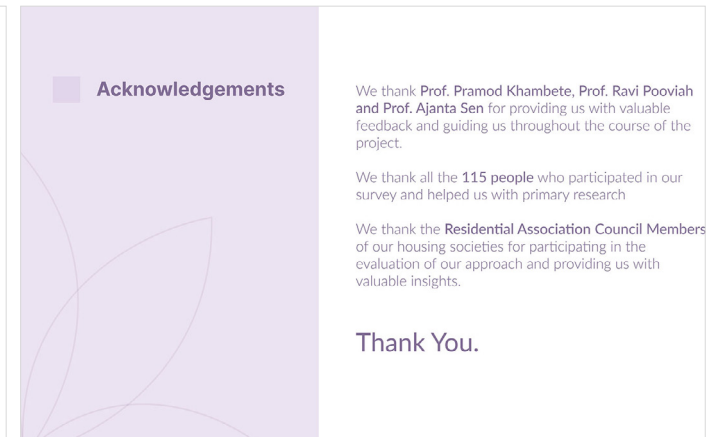
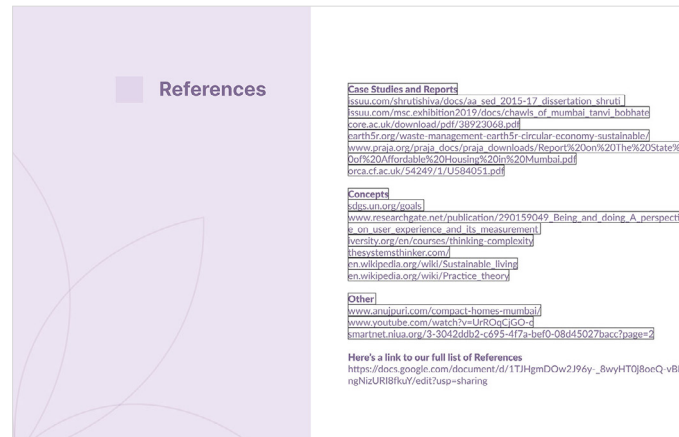
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 - 4a, 4b, 4c, 4d
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 - 4e.5.3. Infographic
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 - 4f. Cultural Identity of Kerala
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6. Contact Details



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1. Aims of Systems Design Project

2. Course Schedule and Grading

3. Problem Statement

4. Projects

4a, 4b, 4c, 4d

4e. Sustainable Housing Systems

4e.1, 4e.2, 4e.3, 4e.4

4e.5. Week Five: Presentation on

Final Design Solution

4e.5.1. Presentation

4e.5.2. Project Synopsis

4e.5.3. Infographic

4e.5.4. Video

4f. Cultural Identity of Kerala

5. Videos

6. Contact Details

Project Synopsis

We looked at our project area from a macro perspective and identified all the components, systems and subsystems involved in a housing complex. Secondary research was done on each of them as well as existing approaches and alternatives. Primary research was done to understand the people's perspective and get realistic insights about a middle class Indian's way of living in a metropolitan city.

Preliminary analysis inferred that there are enough sustainable alternatives available but the real issue is people not implementing them into their lifestyle. From deeper analysis of research and causal loop diagrams pertaining to adoption of sustainable alternatives emerged our problem sub-areas: reluctance among people due to various reasons and lack of awareness on a society level.

Our solution is a timeline based framework that NGOs or housing societies can use to increase the number of users of sustainable products and practices in a systematic manner. It focuses on people willingly accepting the change rather than forcing something upon them. Society consists of a spectrum of different kinds of people with different mindsets and they all have varying degrees of reluctance which can be correlated to the transtheoretical model that tells about the six stages a person goes through when undergoing change. We categorised our users based on that.

The framework consists of four phases, each targeting a different user group such that people can ease in with the passage of time. To facilitate this process, we have come up with certain sets of guidelines for each phase, a template that people can use to plan, and have visualised the transition over a period of time through a miniature society that we had created for ease of understanding. We have stated examples, possible approaches in each case and the indicators that could be used to prove that the change is happening.

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Infographic

Core proposition
Our aim is to have a timeline based approach to make the transition from our normal lifestyle to incorporating sustainable practices and options, while tackling the issues of possible reluctance that ensue awareness on a society level.

User groups (spectrum)

Adoption of Sustainable Practices
This framework is an approach to increase the number of users of sustainable practices and products. It is a process, achieved by engaging people of different residents at different stages of the timeline and use of appropriate activities and products.

the timeline (phases)

Example 1: The Planting of Trees
Tackled Sustainability Pillar: Social

Possible approaches/ solutions

- Creating a Sense of Togetherness among the people (Using Friends, neighbour sites)
- Leaving the Choice of plants to the Person (Eg. Easy Maintenance, Aesthetics, Exotic, Modern, etc.)
- Engagement factor: Connecting to the plant (Eg. By addressing them as a person you can take care of your plant for a friend on social media like Facebook)

Indication of progress

- Setting a milestone every 2 months and the team will be examining a certain public space to start.
- A Reward System, maybe!

Here's a representative Miniature Society that illustrates how our approach would be set in action

PADMA CO-OP HOUSING SOCIETY

scenario

These are our households from Padma Co-op Housing Society. Each of them have a different identity. Some of the identity residents want to promote adoption of ways to have a better lifestyle in sustainable living.

H1: I have a low depth of interest to try the adoption of certain sustainable activities based on their nature of behaviour.

H2: I am not sure about these activities but don't have adequate knowledge about what to do after that.

H3: I do not need to go far for other understanding the activities, they show them around of the location.

H4: I'm really strongly reluctant to practice it but over time with certain convincing reasons start doing it as they feel left out.

Household One (H1)

- I don't have any idea about it.
- I don't have any idea about it.
- I don't have any idea about it.
- I don't have any idea about it.

Household Two (H2)

- I don't have any idea about it.
- I don't have any idea about it.
- I don't have any idea about it.
- I don't have any idea about it.

Household Three (H3)

- I don't have any idea about it.
- I don't have any idea about it.
- I don't have any idea about it.
- I don't have any idea about it.

Household Four (H4)

- I don't have any idea about it.
- I don't have any idea about it.
- I don't have any idea about it.
- I don't have any idea about it.

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3. Problem Statement
4. Projects
 - 4a, 4b, 4c, 4d
 - 4e. Sustainable Housing Systems
 - 4e.1, 4e.2, 4e.3, 4e.4
 - 4e.5. Week Five: Presentation on Final Design Solution
 - 4e.5.1. Presentation
 - 4e.5.2. Project Synopsis
 - 4e.5.3. Infographic
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Example 2 : Green Energy
Tackled Sustainability Pillar : Economic

Possible approaches/ solutions

- Focus on saving money in the longer run
- Since a full transition at a household level is difficult, exposing people to the Alternatives which could ease them into Transitioning (Energy efficient appliances, Solar Cookers, etc.)

Indication of progress

- Bill shows the difference in the amount due, comparing it with the bill of the previous month (Starting with about a sense of achievement)
- Electric Meters displaying the Amount due at with look of 'aha robot' when the bills connected

Example 3 : Waste Management
Tackled Sustainability Pillar : Environmental

Possible approaches/ solutions

- Making them realize and confronting them doing the action (Visual cue as a reminder or playing music for doing a successfully)
- Using the Social Stigmachange (People tend to be aware of their actions in a public space)
- Reconfiguration of the environment (cleaner space less likely to make them dirty)

Indication of progress

- We could have the cleaners give monthly feedback on how people are managing these disposal areas when throwing in waste.

New Trend #livingthesuslife

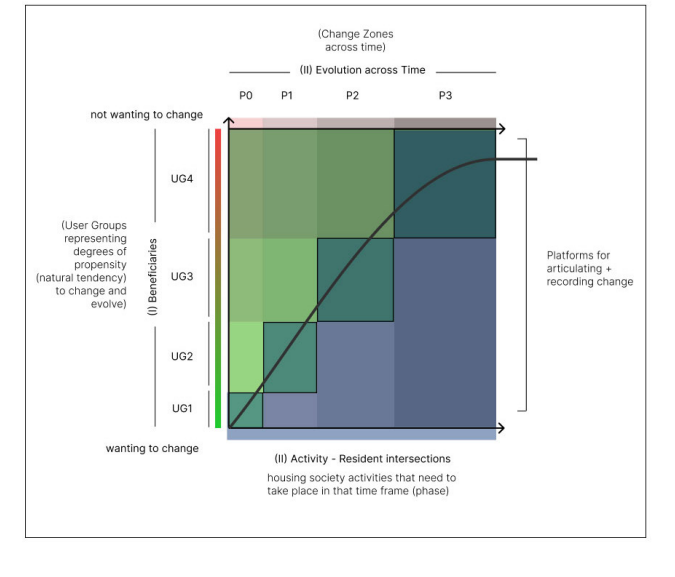
Grow faster bruh?

Team Padma
Anagha Aneesh
Prita Raut
Drishti Das

#livingthesuslife

Adoption of Sustainable Practices Framework

This framework is an approach to increase the number of users of sustainable products and practices in a systematic manner by targeting people of different mindsets at different stages of the timeline and use of appropriate activities and products.



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3. Problem Statement
4. Projects
 - 4a, 4b, 4c, 4d
 - 4e. Sustainable Housing Systems
 - 4e.1, 4e.2, 4e.3, 4e.4
 - 4e.5. Week Five: Presentation on Final Design Solution
 - 4e.5.1. Presentation
 - 4e.5.2. Project Synopsis
 - 4e.5.3. Infographic
 - 4e.5.4. Video
 - 4f. Cultural Identity of Kerala
5. Videos
6. Contact Details

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3. Problem Statement

4. Projects

4a, 4b, 4c, 4d

4e. Sustainable Housing Systems

4e.1, 4e.2, 4e.3, 4e.4

4e.5. Week Five: Presentation on

Final Design Solution

4e.5.1. Presentation

4e.5.2. Project Synopsis

4e.5.3. Infographic

4e.5.4. Video

4f. Cultural Identity of Kerala

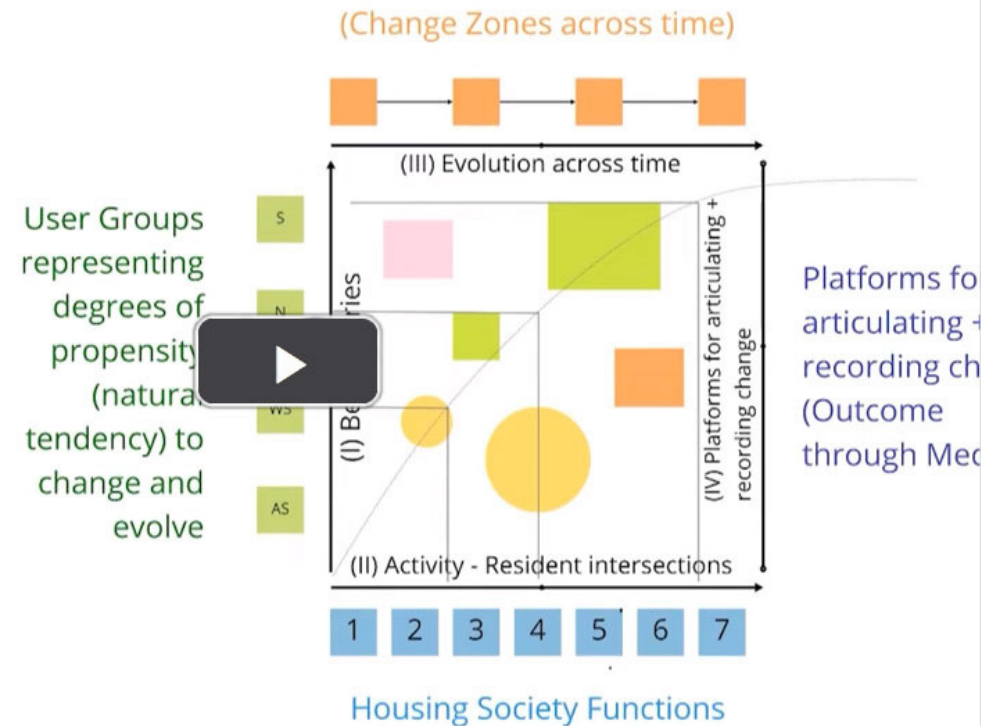
5. Videos

6. Contact Details

Video

Mapping Intersections - Prof Ajanta

This model summarises the intersections between circular and angular functions and the responses across time



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Source:

<https://www.dsource.in/course/systems-design-project/projects/cultural-identity-kerala>

Cultural Identity of Kerala



Week One - Need Finding and understanding the Problem



Week Two: Identify your Problem Area and Focus on it



Week Three: Ideation - Focus on Problem Area



Week Four: Focus on Soft Prototyping



Week Five: Presentation on Final Design Solution

1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects

4a, 4b, 4c, 4d, 4e

4f. Cultural Identity of Kerala

- 4f.1. Week One - Need Finding and understanding the Problem
- 4f.2. Week Two: Identify your Problem Area and Focus on it
- 4f.3. Week Three: Ideation - Focus on Problem Area
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1. Aims of Systems Design Project

2. Course Schedule and Grading

3. Problem Statement

4. Projects

4a, 4b, 4c, 4d, 4e

4f. Cultural Identity of Kerala

4f.1. Week One - Need Finding and understanding the Problem

4f.1.1. Presentation

4f.2. Week Two: Identify your Problem Area and Focus on it

4f.3. Week Three: Ideation - Focus on Problem Area

4f.4, 4f.5

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Week One - Need Finding and understanding the Problem

Project Report

- [Cultural Identity of Kerala.....](#) (9120 kb)



Presentation

Week One: Need Finding and understanding the Problem

- Form Working Groups
- Selection/Identification of System Design Problem (Why, how, whom, where, when)
- Worldview Mappings (Brainstorming, Card Sorting, Affinities, Network Maps) - Broader Perspective
- Secondary Research - Understanding Problem – Design/Media/Technology Search - Existing Solutions – History
- Future Study Papers - etc.
- Identify User Groups - Understanding User Needs – Talking to Experts - Primary Research (Contextual Inquiry)
- Next Steps

End of Week One: 1st Stage – Understanding the Problem Presentation

Due Date:

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

Submission: Slide presentation + Report submission (must for grading)

Grading Points: 15%

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1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a, 4b, 4c, 4d, 4e
 - 4f. Cultural Identity of Kerala
 - 4f.1. Week One - Need Finding and understanding the Problem
 - 4f.1.1. Presentation
 - 4f.2. Week Two: Identify your Problem Area and Focus on it
 - 4f.3. Week Three: Ideation - Focus on Problem Area
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6. Contact Details

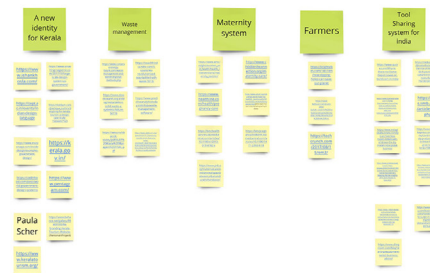
Presentation

Presentation

- Cultural Identity of Kerala.....📄 (42030 kb)



Idea Generation



Aim

Research, understand, visualize, synthesize and design for problems from socio-economic-cultural-political-technology-sustainability perspective that are complex, uncertain, interconnected and form a system within defined boundaries.

Problem Space

Kerala is a land of cultural diversity, a complete whole made up of a blending of various religions, communities, regional cultures and dialects united through its common love for Sadya and biriyani, Onam eid and christmas, Mammooty and Mohanlal.

Our objective is to create a system of coherent visual identity encompassing all of Kerala's diversity.

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2. Course Schedule and Grading
3. Problem Statement
4. Projects

4a, 4b, 4c, 4d, 4e

4f. Cultural Identity of Kerala

4f.1. Week One - Need Finding and understanding the Problem

4f.1.1. Presentation

4f.2. Week Two: Identify your

Problem Area and Focus on it

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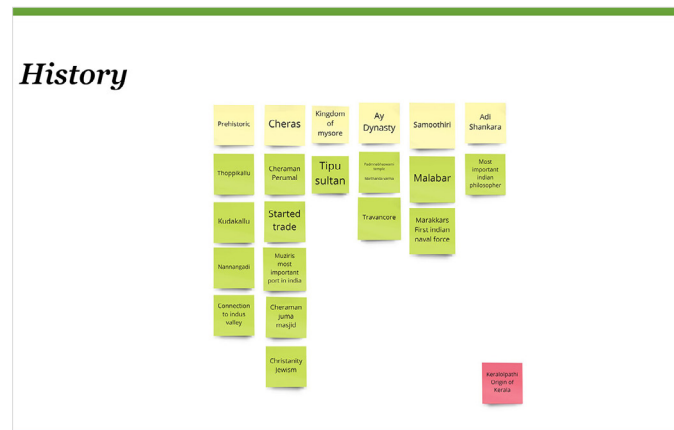
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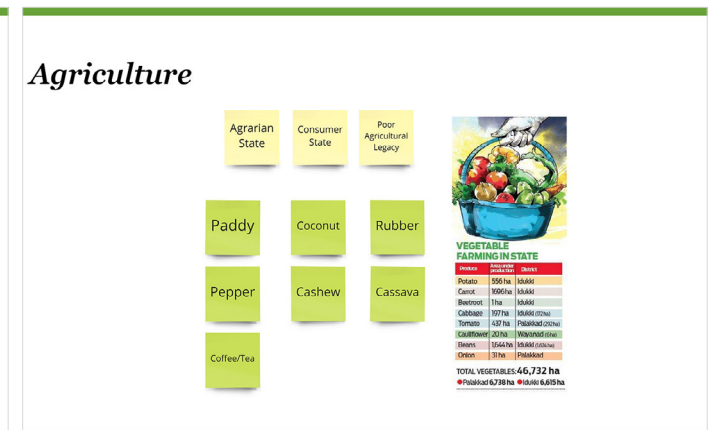
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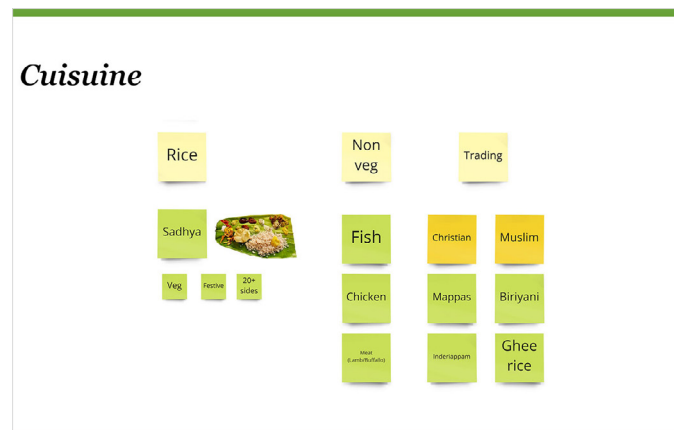
Research



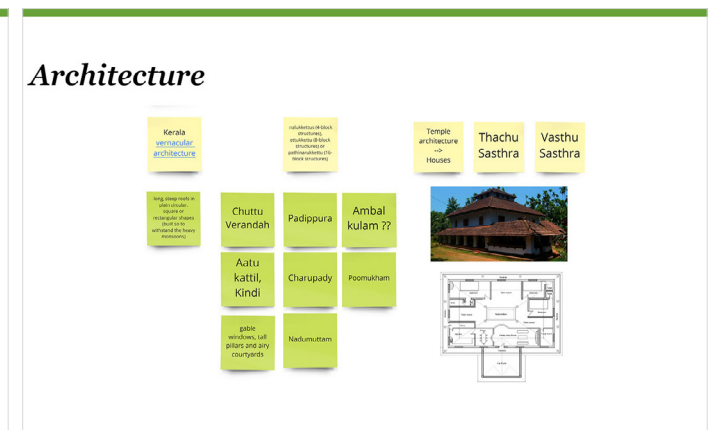
History



Agriculture



Cuisine



Architecture

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1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects

4a, 4b, 4c, 4d, 4e

4f. Cultural Identity of Kerala

4f.1. Week One - Need Finding and understanding the Problem

4f.1.1. Presentation

4f.2. Week Two: Identify your

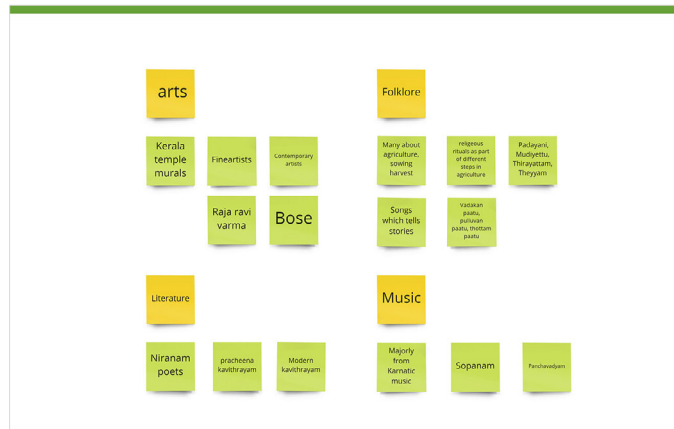
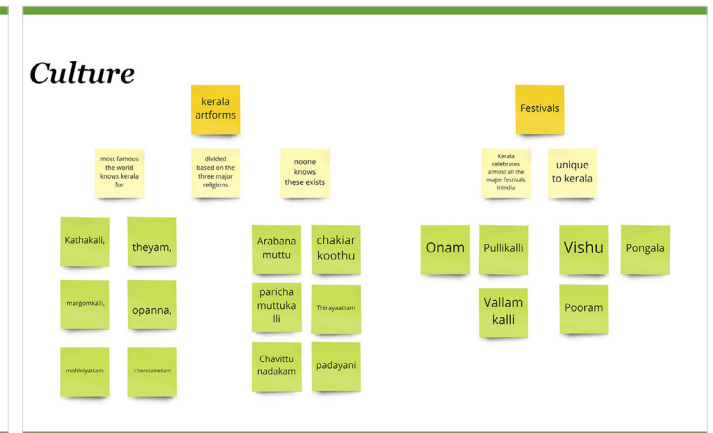
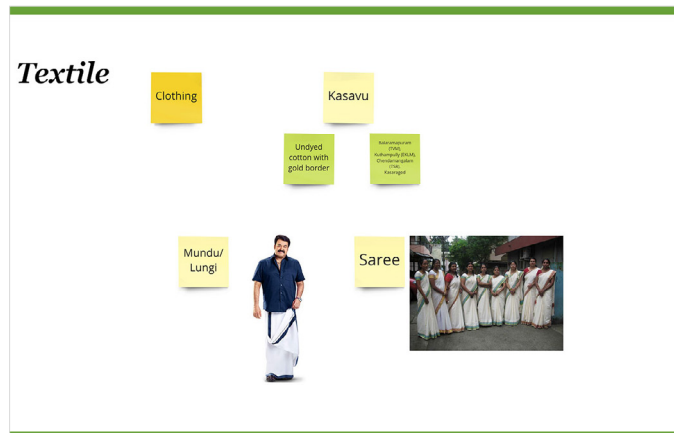
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4f.4, 4f.5

5. Videos

6. Contact Details



Whats next?

Further Research

Identifying and Listing Elements to Map Kerala

Understading Individual and Collective Perspectives

Finding Areas of Intervention

Thank you



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2. Course Schedule and Grading

3. Problem Statement

4. Projects

4a, 4b, 4c, 4d, 4e

4f. Cultural Identity of Kerala

4f.1. Week One - Need Finding and understanding the Problem

4f.2. Week Two: Identify your Problem Area and Focus on it

4f.2.1. Presentation

4f.3, 4f.4, 4f.5

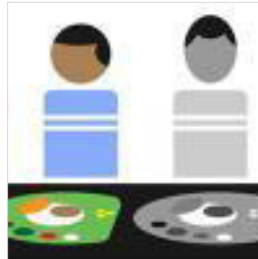
5. Videos

6. Contact Details

Week Two: Identify your Problem Area and Focus on it

Project Report

- [Cultural Identity of Kerala.....](#) (20340 kb)



Presentation

Week Two: Identify your Problem Area and Focus on it + Report + Presentation

- Till now you have looked at a broader perspective of your problem area and you have looked at cross connections as well as inter-connectedness at a macro level
- Within this broader area now you need to find an area to work keeping the broader connections in mind
- Some of the tools that might be help in terms of understanding are Causal Diagrams, Network Mappings, Assigning Priority and Hierarchy, Looking at it from temporal and spatial perspective (activity flow diagrams)
- Do go ahead with both the secondary as well as primary research
- Start with Analysis of the Problem
- Identify the next steps

End of Week Two: 2nd Stage – Understanding the Problem Presentation

Dates:

Due Date:

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

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Submission:

Slide presentation + Report submission (must for grading)

- a) Presentation Slides – upload it on the google classroom Week 2
- b) Project Report – upload it on the google classroom Week 2

Grading Points: 15%

Source:

<https://www.dsource.in/course/systems-design-project/projects/cultural-identity-kerala/week-two-identify-your-problem-area>

1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a, 4b, 4c, 4d, 4e
 - 4f. Cultural Identity of Kerala
 - 4f.1. Week One - Need Finding and understanding the Problem
 - 4f.2. Week Two: Identify your Problem Area and Focus on it
 - 4f.2.1. Presentation
 - 4f.3, 4f.4, 4f.5
5. Videos
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Source:

<https://www.dsource.in/course/systems-design-project/projects/cultural-identity-kerala/week-two-identify-your-problem-0>

1. Aims of Systems Design Project
2. Course Schedule and Grading
3. Problem Statement
4. Projects
 - 4a, 4b, 4c, 4d, 4e
 - 4f. Cultural Identity of Kerala
 - 4f.1. Week One - Need Finding and understanding the Problem
 - 4f.2. Week Two: Identify your Problem Area and Focus on it
 - 4f.2.1. Presentation
 - 4f.3, 4f.4, 4f.5
5. Videos
6. Contact Details

Presentation

Presentation

- Cultural Identity of Kerala.....📄 (2950 kb)



Problem Statement

To create a system of coherent visual identity encompassing all of Kerala's diversity.

Contents

- ◇ Problem Statement
- ◇ System Map and Connections
- ◇ Stakeholding Elements
- ◇ Cause and Effect Mapping
- ◇ User Perspective
- ◇ Existing Visual Identities
- ◇ Focus Areas
- ◇ What's Next?
- ◇ References

System Map and Connections

- ◇ Further Exploration into each topic
- ◇ Finding the connection between various different sectors
- ◇ Identifying the major areas based on the connections

Design Course

Systems Design Project

Interconnected and form a System within Defined Boundaries

by

Prof. Ravi Poovaiah, Prof. Vivek Kant,
Prof. Pramod Khambete and Dr. Ajanta Sen
IDC, IIT Bombay

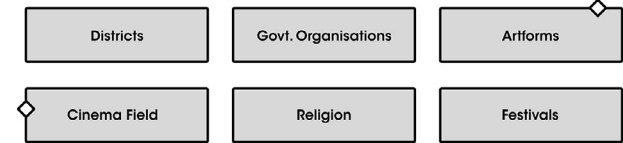
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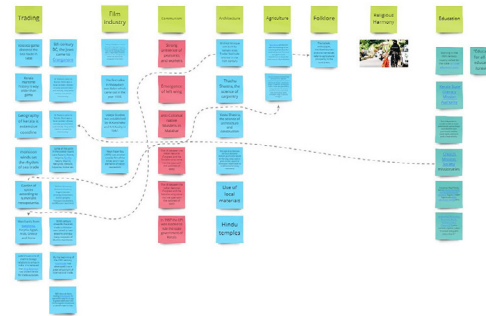
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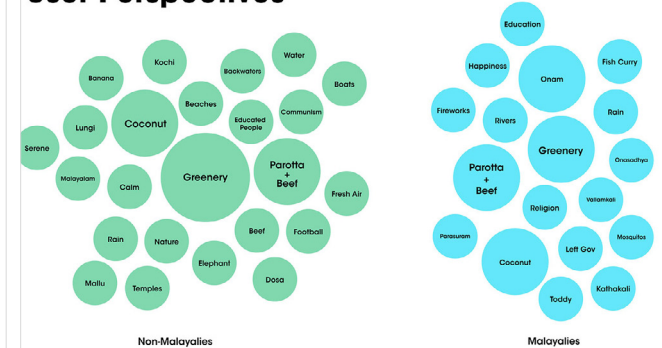
Major Stakeholding Elements



Cause and Effect Mapping



User Perspectives



Existing Visual Identities

Government



Existing Visual Identities

Other



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Source:

<https://www.dsource.in/course/systems-design-project/projects/cultural-identity-kerala/week-three-ideation-focus-problem>

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3. Problem Statement

4. Projects

4a, 4b, 4c, 4d, 4e

4f. Cultural Identity of Kerala

4f.1, 4f.2

4f.3. Week Three: Ideation - Focus on Problem Area

4f.3.1. Presentation

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4f.5. Week Five: Presentation on Final Design Solution

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Week Three: Ideation - Focus on Problem Area

Project Report

- [Cultural Identity of Kerala.....](#) (23230 kb)



Presentation

Week Three: Focus on Problem Area & Sub-Areas + Insights + Opportunities + Ideation + Report + Presentation

Suggested next steps: (you could follow your own method)

1. Within the focused problem area now you need to identify sub-areas to work keeping the broader connections in mind
2. I'm sure you have by now done the causal diagrams of your problem Area and its sub- Areas (or sub-systems) with its interconnections both in the forward (progressive) and backward (negative) directions. identify if there are any delays in these connections. Do not miss the big picture and do see if you can gain insights from this mapping analysis.
3. Also by now your primary and secondary research in the chosen focused area should give you insights/observations and point towards design opportunities
4. If you would like, this is a good time to redefine your problem statement
5. And start with ideation to solve problems concerning your sub-areas (for this you'll need to Brainstorm + Group Ideation + Fast Visualisations/sketching)
5. You could start with Concept maps or Network diagrams of your ideas by connecting parts of your proposed system to people, activities, objects, spaces and time

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6. The ideation could also be through scenarios

End of Week Three: 3rd Stage – Ideation Presentation

Due Date:

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

Submission: Slide presentation + Report submission (must for grading)

a) Presentation Slides – upload it on the google classroom Week 3

b) Project Report – upload it on the google classroom Week 3

Grading Points: 15%

1. Aims of Systems Design Project

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3. Problem Statement

4. Projects

4a, 4b, 4c, 4d, 4e

4f. Cultural Identity of Kerala

4f.1, 4f.2

4f.3. Week Three: Ideation - Focus
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4f.3.1. Presentation

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Prototyping

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3. Problem Statement

4. Projects

4a, 4b, 4c, 4d, 4e

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4f.4. Week Four: Focus on Soft
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Presentation

Presentation

- Cultural Identity of Kerala..... (13280 kb)

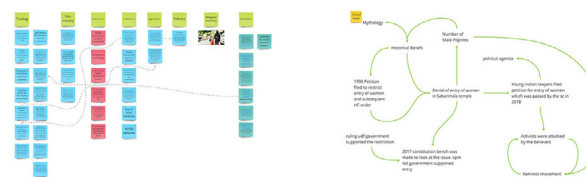


Content

- ◊ Shaky Start
- ◊ New Avenues
- ◊ Research and brainstorm
- ◊ Redefining focus
- ◊ Causal Loops Diagrams
- ◊ Cultural Exchange
- ◊ Insights from Causal Diagrams
- ◊ Primary Research
- ◊ Design Opportunities
- ◊ Preliminary Ideas

Shaky Start

- ◊ Stuck with Visual Identity
- ◊ Unable to create proper Causal diagrams
- ◊ Shifted focus to Known issues and controversies



New Avenues

- ◊ Kerala as an entity in the south west of India.
- ◊ Disecting kerala based on time and space
- ◊ Understanding the exchange of culture In kerala
 - trade (spice route)
 - migrating for job
- ◊ Understand the impact of globalisation to the culture of kerala.
- ◊ The impact of cultural loss.

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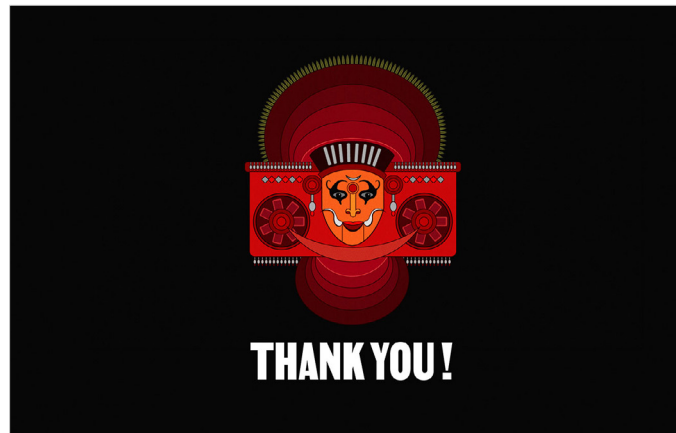
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Design Opportunities

- ◊ Low Interest in Regional History
- ◊ Stale and overdone Stories
- ◊ Tourism
- ◊ Invasive Foreign Culture and inferiority complex
- ◊ Malayali Pride

Preliminary Ideation

- ◊ Tourism Package story line
- ◊ Revamping mythological stories
- ◊ Artforms in Mixed Media
- ◊ Creating New Artform for the 21st century?



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Week Four: Focus on Soft Prototyping



Presentation

Week Four: Focus on Soft Prototyping to Final Prototyping + Report + Presentation

Suggested next steps: (you could follow your own method)

1. Choose your final concept from ideations for the solution to your system design problem area
2. You could use any of the methods that you are familiar with for prototyping: to name a few: Walk-through Scenarios, Concept Videos, Personas, Mock-ups, Proof of Concept, etc.
3. The final concept could involve any of the following:
 - 2D/3D design Sketches + Physical Prototyping + Visualisation + Virtual 3D Models
 - Interface/Communication/Media Design Detailing + Interface/Communication Simulation + Experience Design + Service Blueprints and design
4. Do give thoughts on the Final Prototyping
5. How would you get feedback on your solution? Will you try to evaluate?

End of Week Four: 4th Stage – Prototype Presentation

Due Date:

Presentation Schedule: 2.30pm to 5.30pm Monday afternoon

Timings for each presentation: 10 mins + 8 minutes for Discussions and Feedback

Submission: Slide presentation + Report submission (must for grading)

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Grading Points: 15%

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Presentation

Presentation

- Cultural Identity of Kerala.....📄 (24080 kb)



Problem Statement

Creating a system to preserve the Cultural Identity of Kerala

Content

- Problem Statement
- Insights from previous feedback
- Focus Areas
- What is getting lost?
- What is worth preserving?
- Why is it worth preserving?
- Initial Ideation
- Idea Mapping
- Narrowing down
- Target user groups
- Selected ideas
- Agriculture in schools
- Combined ideas
- Prototypes
- Personas
- Whats Next?



Insights from previous feedback

- Brainstorming on Cultural loss and preservation
- What is worth preserving and why?
- Focus on one user group
- What do Malayalees cherish as their identities?
- How to bring an interactive solution to this?

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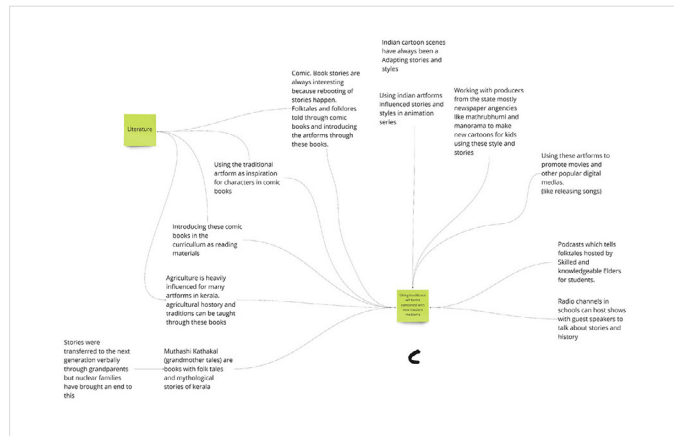
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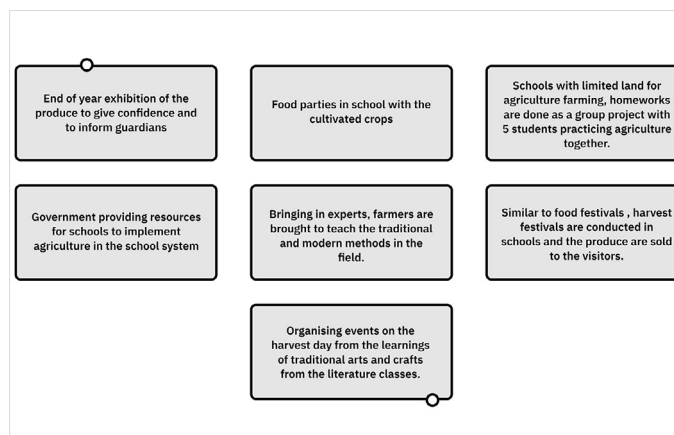
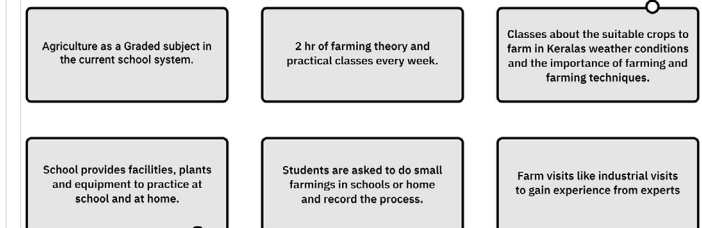
Narrowing Down

	A	B	C
Impact	1	3	2
Reach	2	1	3
Cultural Value	1	3	2
Execution Ability	2	1	3
Ease of Adoption	2	1	3
Ease of Adoption	2	1	C
Final Score	11	10	15

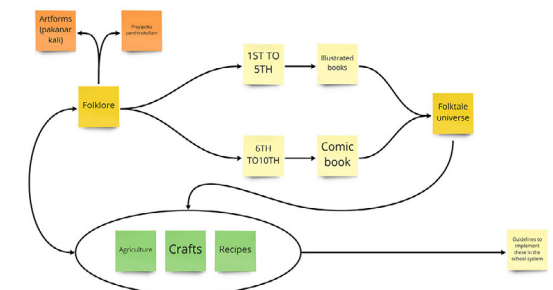
Selected Ideas

- Using traditional Art combined with new modern mediums
 - Graphic novel
 - Podcast
 - Animated series
- Implementing these mediums in schools
- Connection with Agriculture and traditional recipes

Agriculture in Schools



Combined ideas



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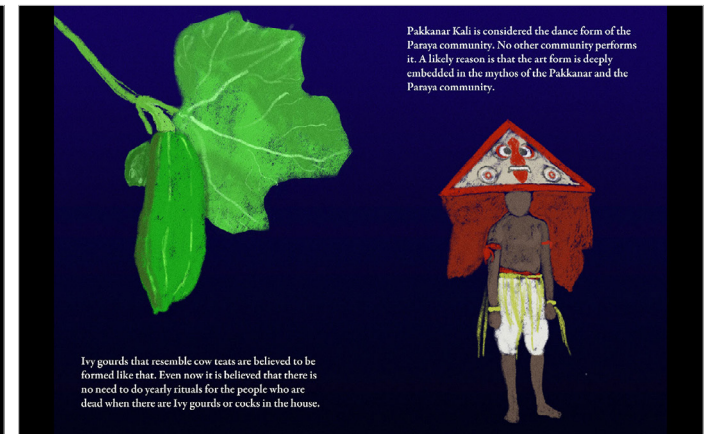
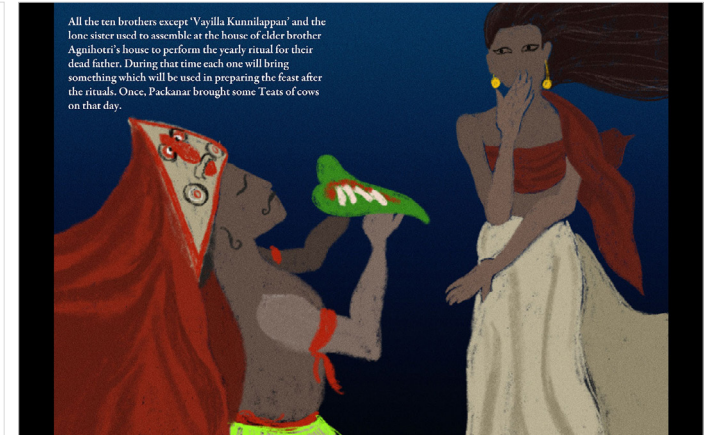
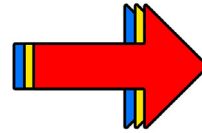
4f.4.1. Presentation

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Prototype



Persona 1

- Krishnan Kutty
- Age 11
- Studies in class 6 A
- Government Model Boys, Thrissur
- From Thrissur, Kerala
- Lives in a Nuclear Family with his parents and grandmother
- Father is a Daily wage laborer in farms
- Mother also works in the same farm.
- Krishnan Kutty aspires to be a footballer
- His father wants his son to have a high earning job.
- Other include are football, helping his dad with work and listening and telling stories.
- Krishnankutty loves to spend night time with his grandmother listening to folktales and mythological stories.



Krishnan Kutty

Persona 2

- Hanna Haris
- Age 15
- Studies in Class 10
- Girideepam Bethany Central School, Kottayam
- From Kottayam, Kerala
- Lives in nuclear family with her parents
- Her father works in the municipal corporation
- Her mother teaches biology in the same school
- Hanna aspires to be a doctor
- Her other interest include drawing, classical dancing and social media
- Hanna really wants to do her degree abroad and settle there.



Hanna Haris

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What's next?

- Creating prototype for the age group 6 to 10th
- Refining guidelines connecting agriculture with other cultural aspects of the state
- Creating Scenarios with the defined Personas depicting the concept in action
- Final Concept map of the whole solution



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Week Five: Presentation on Final Design Solution

Project Report

- Cultural Identity of Kerala.....📄 (37780 kb)

Miro Board

- Cultural Identity of Kerala.....📄 (90480 kb)



Presentation



Project Synopsis



Stories



Video

1. Aims of Systems Design Project

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4a, 4b, 4c, 4d, 4e

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4f.1, 4f.2, 4f.3, 4f.4

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4f.5.2. Project Synopsis

4f.5.3. Stories

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Presentation on Final Design Solution of your System Design Project

Presentation Date and Time:

Timings: The Feedback is scheduled on Week 5 between 2.30pm to 5.30pm

The venue: Online

Sequence: Group by group starting with group 1

Timings: Presentation time: 12 minutes (we will play the video or you can make the presentation) + 10 minutes for Feedback

Feedback: Faculty mentors will give final feedback on your project

Grades: This is a graded presentation (40%)

Presentation:

- . Each group has to make a video of their presentations a of the 5 weeks work – in about 12 mins. duration and upload this in google classroom
- . The presentation needs to be professionally done.
- . The presentation needs to include your Final Concept along with the explanation of the design process that you followed.

Presentation (overall) should include:

- . WHO – team composition
- . WHAT – what was designed and for whom (users and environment)?
- . WHY – why was this an important systems level problem to address?
- . Issues - what were the problems encountered?
- . HOW – what was the process used in solving this system design project?
- . ANALYSIS – what were the insights gained from mappings (both main and subsystems) and opportunities for design
- . DESIGN – what was designed? Mention your objectives or redefined objectives
- . CONCEPTS/IDEATION – what are the iterations of the design evolution
- . PROTOTYPE – Can you demonstrate your final design (maybe use scenario) (could be guidelines/scenarios/prototypes etc.)?
- . Show highlights of the prototyping story
- . EVALUATE – What is the feedback from the users?
- . FUTURE - Next steps?

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Presentation Details of points mentioned above:

Task 1: Prepare a presentation (of 12minutes duration) to include all the stages of your project:

- a. Title of the System Design Project or Problem Statement
- b. Team members
- c. Summary/content listing of your presentation
- d. World views
- e. Insights from Primary and Secondary Research (Mappings for overview as well as sub-systems)
- f. Major design opportunities
- g. Restatement of the problem / Design Objectives / Design Goals
- h. Overview of your ideas
- i. Alternate Concepts (sketches + quick scenarios + concept models)
- j. User Feedback on ideation
- k. Final Concept and its unique features
- l. Final Scenario
- m. Form and Interface Development or detailing
- n. Prototype
- o. User feedback on your final solution
- p. Future steps
- q. Full References
- r. Acknowledgments – to all who have helped

Presentation Essentials:

- a. Present in an engaging and crisp manner
- b. Design the slides/visuals to reflect the relevance of your topic
- c. Use your communication design skills to make the presentation visual
- d. Design proper layout; use appropriate type, colour and background
- e. Its nicer if all the team members take turns in presenting
- f. It makes sense to have main titles, sub titles and then running text/images
- g. Have a summary/content slide in the beginning
- h. Make good use of appropriate medias in the presentation
- i. Use appropriately theatre, drama, story, scenarios, video, etc. to convey your ideas
- j. Preparing a script is a good idea – reading text from the slide should be avoided

Presentation Tips:

- k. Never underestimate the need to rehearse. This can be usefully done alone, with team members, and with novice audiences. Video tape your self (to get confidence).

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- l. Never underestimate how long it takes to describe things clearly to a novice audience.
- m. Never underestimate how little the audience knows about what is so interesting about your project.
- n. Do not be dull when you speak, audiences want to engage in your enthusiasm.
- o. Make slides visible from the back of a room (try them out!)
- p. Do not talk over any audio in your presentation.

Submission Details:

- a) Updated project Report
- b) Video Presentation of 12 minutes – both slides + Final Video/Demo of Prototype
- c) A 250 word synopsis of the project along with the title, keywords and name of team members
- d) 2-3 high resolution images of your final design (1200 x800 x 300 dpi)
- e) It would be great if you can submit a copy of your MIRO board

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2. Course Schedule and Grading

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4f.5.1. Presentation

4f.5.2. Project Synopsis

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6. Contact Details

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Systems Design Project

Interconnected and form a System within Defined Boundaries

by

Prof. Ravi Poovaiah, Prof. Vivek Kant,
Prof. Pramod Khambete and Dr. Ajanta Sen
IDC, IIT Bombay

Source:

<https://www.dsource.in/course/systems-design-project/projects/cultural-identity-kerala/week-five-presentation-final-0>

1. Aims of Systems Design Project

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3. Problem Statement

4. Projects

4a, 4b, 4c, 4d, 4e

4f. Cultural Identity of Kerala

4f.1, 4f.2, 4f.3, 4f.4

4f.5. Week Five: Presentation on

Final Design Solution

4f.5.1. Presentation

4f.5.2. Project Synopsis

4f.5.3. Stories

4f.5.4. Video

5. Videos

6. Contact Details

Presentation

Presentation

- Cultural Identity of Kerala.....📄 (41420 kb)



Content

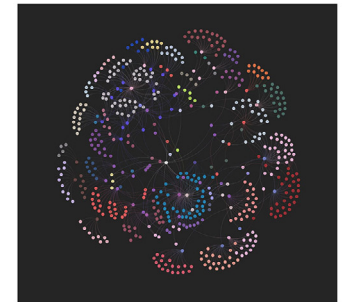
- Problem Statement
- World View Mapping
- Research
- Primary Research
- Back to Drawing Board
- Causal Loop Diagrams
- Insights
- What is getting lost?
- What is worth preserving?
- Why is it worth preserving?
- Ideation
- Narrowing Down
- Final Idea
- How it works
- Guidelines
- Personas
- Scenario
- Prototypes
- Feedback
- What's next
- References
- Acknowledgment

Problem Statement

Creating a system to preserve the Cultural Identity of Kerala

World view mapping

<https://kumu.io/AamirNihal/kerala#untitled-map>



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6. Contact Details

Research

- Conducted a survey to understand different perspective on kerala
- Identified existing identities of the state.
- Further researched on the the factors that make up kerala
- Conducted a detailed survey to understand the sub sectors of culture.

Primary research

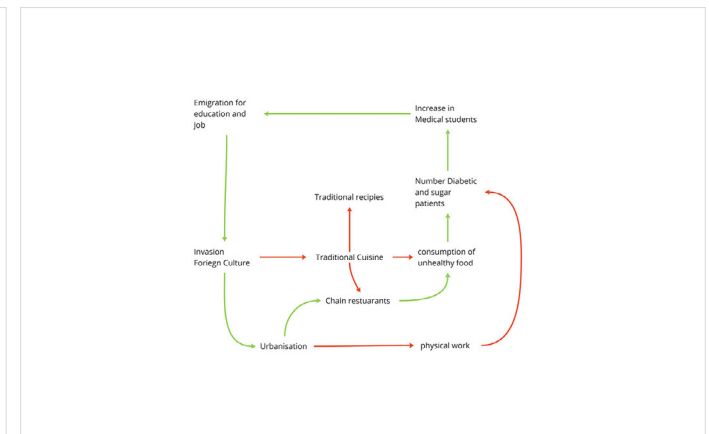
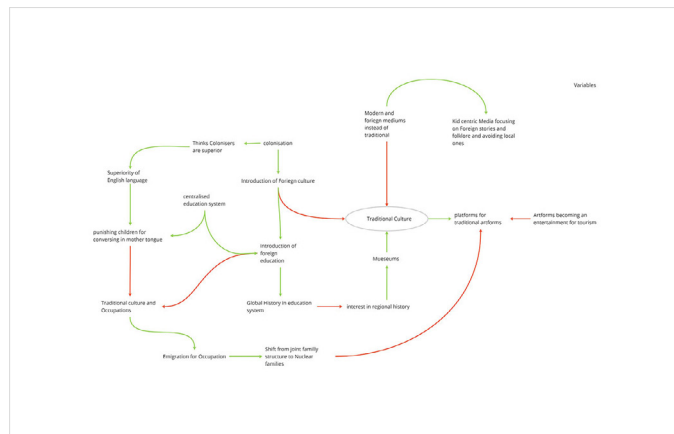


Back to the drawing board

- Kerala as an entity in the south west of India.
- Disecting kerala based on time and space
- Understanding the exchange of culture In kerala
 - trade (spice route)
 - migrating for job
- Understand the impact of globalisation to the culture of kerala.
- The impact of cultural loss.

Causal loop Diagrams

- Used the factors that defines culture
- Looked at the cause and effects to create loops
- Found out the leverage points
- Understood the major factors affecting each sector



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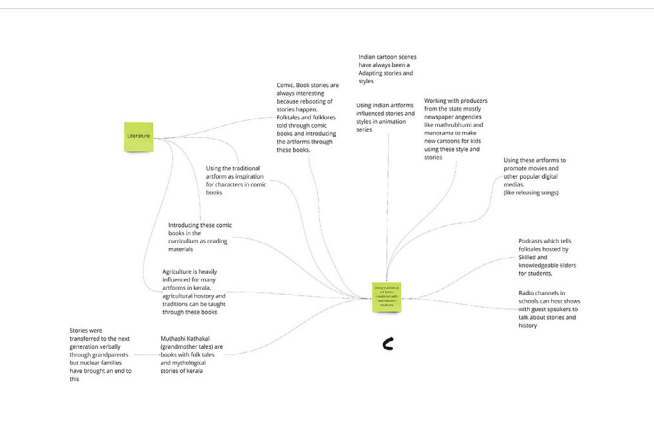
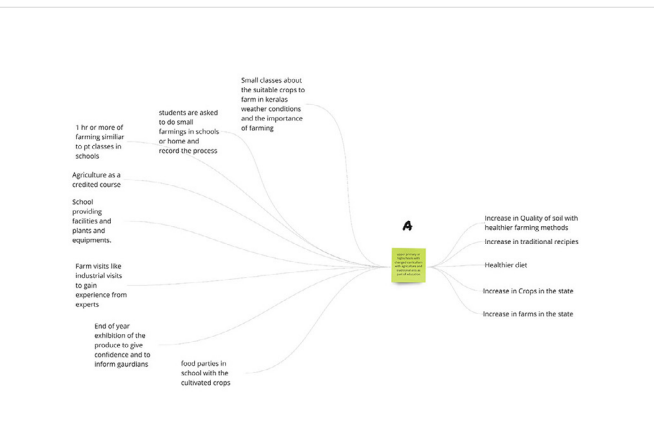
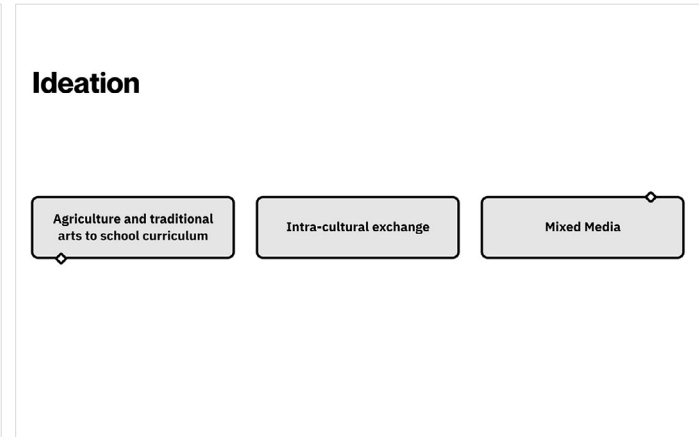
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Narrowing Down

	A	B	C
Impact	1	3	2
Reach	2	1	3
Cultural Value	1	3	2
Execution Ability	2	1	3
Ease of Adoption	2	1	3
Ease of Adoption	2	1	C
Final Score	11	10	15

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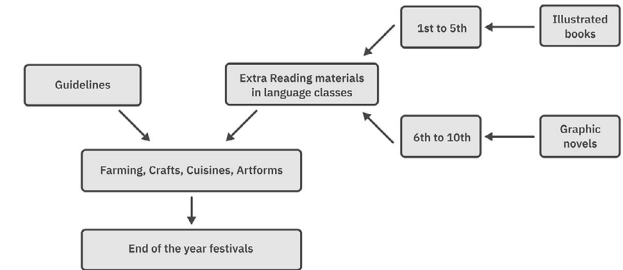
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Final Idea

- ◊ Combination of A and C
- ◊ Making use of the interconnection to reach as wide as we can
- ◊ Creating respect towards the culture from a younger age.

How it works



Guidelines

◊ Farming, Crafts, Cuisine as elective choices introduced schools.	2 hr of theory and practical classes every week.	Classes about the suitable crops to farm in Kerala weather conditions and the importance of farming and farming techniques.
School provides facilities and equipment to practice at school and at home.	Students are asked to do activities in schools or home and record the process.	Visits to farms and craftsmen to gain experience from experts

◊ End of year exhibition of the products to give confidence and to inform guardians	Food fests in school with the cultivated crops prepared as part of the cuisine course	Schools with limited land for farming, homeworks are done as a group project with 5 students practicing together.
Government providing resources for schools to implement	Experts are brought to teach the traditional and modern methods in the field.	Similar to food festivals, harvest festivals and craft exhibitions are conducted in schools and the products are sold to the visitors.
Different farming styles to be included like plant based, fish farms, poultry and dairy farms etc.	Schools can choose to implement the various types of farms and crafts based on available resources.	◊ Organising events on the harvest day from the learnings of traditional arts and crafts.

Persona 1

- ◊ Krishnan Kutty
- ◊ Age 11
- ◊ Studies in class 6 A
- ◊ Government Model Boys, Thrissur
- ◊ From Thrissur, Kerala
- ◊ Lives in a Nuclear Family with his parents and grandmother
- ◊ Father is a Daily wage laborer in farms
- ◊ Mother also works in the same farm.
- ◊ Krishnan Kutty aspires to be a footballer
- ◊ His father wants his son to have a high earning job.
- ◊ Other include are football, helping his dad with work and listening and telling stories.
- ◊ Krishnankutty loves to spend night time with his grandmother
- ◊ listening to folktales and mythological stories.



Krishnan Kutty

Persona 2

- ◊ Hanna Haris
- ◊ Age 15
- ◊ Studies in Class 10
- ◊ Girideepam Bethany Central School, Kottayam
- ◊ From Kottayam, Kerala
- ◊ Lives in nuclear family with her parents
- ◊ Her father works in the municipal corporation
- ◊ Her mother teaches biology in the same school
- ◊ Hanna aspires to be a doctor
- ◊ Her other interest include drawing, classical dancing and social media
- ◊ Hanna really wants to do her degree abroad and settle there.



Hanna Haris

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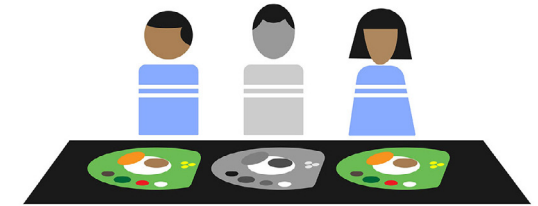
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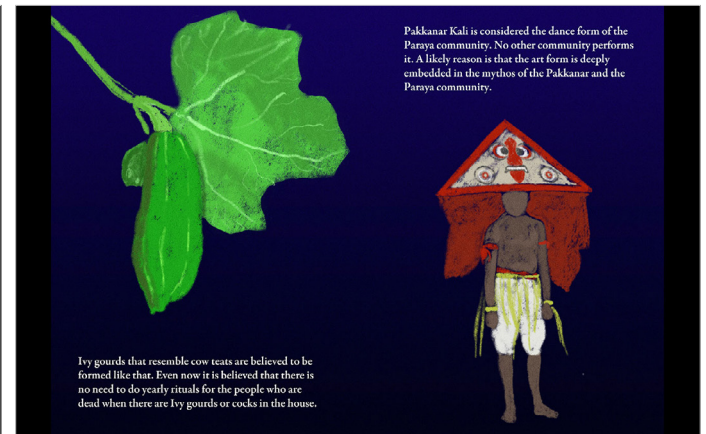
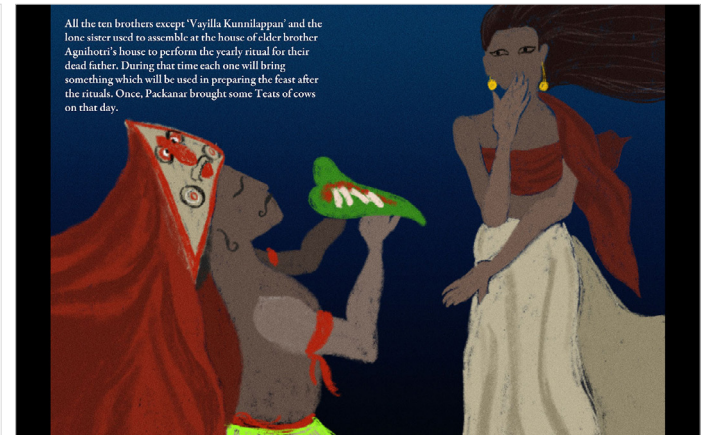
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5. Videos

6. Contact Details

Prototypes

- For Students from 1st to 5th illustrated books introducing folktales and artforms, agriculture, cuisine and crafts related to it through it
- From 6th to 10th Graphic novels which will do the same mentioned above in more details.



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4f.5. Week Five: Presentation on
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4f.5.1. Presentation

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Feedback on Prototypes

- ◊ Visualise the connection with the artforms in more detail
- ◊ Explain the connections that are told in the stories through visuals in detail
- ◊ Understand existing Indian narrative styles
- ◊ Find unique Indian comic style (Temple Mural and Sculpture Narratives)

User Feedbacks

- ◊ Felt that the reading the prototype is better than reading the existing materials
- ◊ Was able to understand the story easily because of simple writing and illustration
- ◊ Was unable to understand the connection with the artform and with agriculture.
- ◊ Will read for sure
- ◊ The style is relatable
- ◊ If a new style of narrative is introduced, it will be more interesting as they have not seen something like that
- ◊ Can understand the story and wanna read more

Whats Next?

- ◊ Work out a unique style appropriate to the culture
- ◊ Find more impactful Stories
- ◊ Revamp existing stories to better suit modern readers
- ◊ Reach out to schools to understand the possibilities of implementing this system.

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- ★ Dr. Ajanta Sen
- ★ Prof. Pramod Khambate
- ★ Prof. Shilpa Ranade
- ★ Jinan
- ★ Colleagues (Chunkzzz)



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2. Course Schedule and Grading

3. Problem Statement

4. Projects

4a, 4b, 4c, 4d, 4e

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4f.1, 4f.2, 4f.3, 4f.4

4f.5. Week Five: Presentation on

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4f.5.1. Presentation

4f.5.2. Project Synopsis

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3. Problem Statement
4. Projects
 - 4a, 4b, 4c, 4d, 4e
 - 4f. Cultural Identity of Kerala
 - 4f.1, 4f.2, 4f.3, 4f.4
 - 4f.5. Week Five: Presentation on Final Design Solution
 - 4f.5.1. Presentation
 - 4f.5.2. Project Synopsis
 - 4f.5.3. Stories
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5. Videos
6. Contact Details

Project Synopsis

Problem Statement

Creating a system to preserve the Cultural Identity of Kerala

Keywords

Cultural Loss	Preserving Kerala Culture	Post Colonialism	Kerala
Malayalam	Artforms	Farming	Crafts
Traditions	Storytelling	Students	Folktales
Graphic Novel	Schools	Illustrated Books	Cuisine

A project focused on building a system to preserve the culture of Kerala. A system to help preserve the traditional techniques and styles in areas like Farming, Crafts, Arts, Artforms, Cuisine, Clothing, Architecture, Language, Literature etc. The system aims to help build a firm cultural Identity in Keralites from a young age by providing them with platforms to learn about their culture in both their curricular as well as leisure activities. This is achieved by introducing a set of guidelines created to be implemented in the current school system to introduce topics such as various types of farming, Crafts, Cuisine and Artforms as electives that students can choose to practice and also illustrated books and graphic novels telling stories of folktales and historical events and people are incorporated as reading materials in language classes and made available as comic books.

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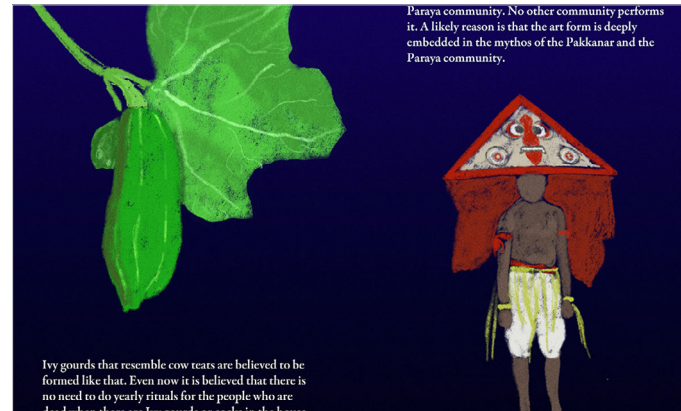
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Stories



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3. Problem Statement

4. Projects

4a, 4b, 4c, 4d, 4e

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4f.1, 4f.2, 4f.3, 4f.4

4f.5. Week Five: Presentation on

Final Design Solution

4f.5.1. Presentation

4f.5.2. Project Synopsis

4f.5.3. Stories

4f.5.4. Video

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4a, 4b, 4c, 4d, 4e

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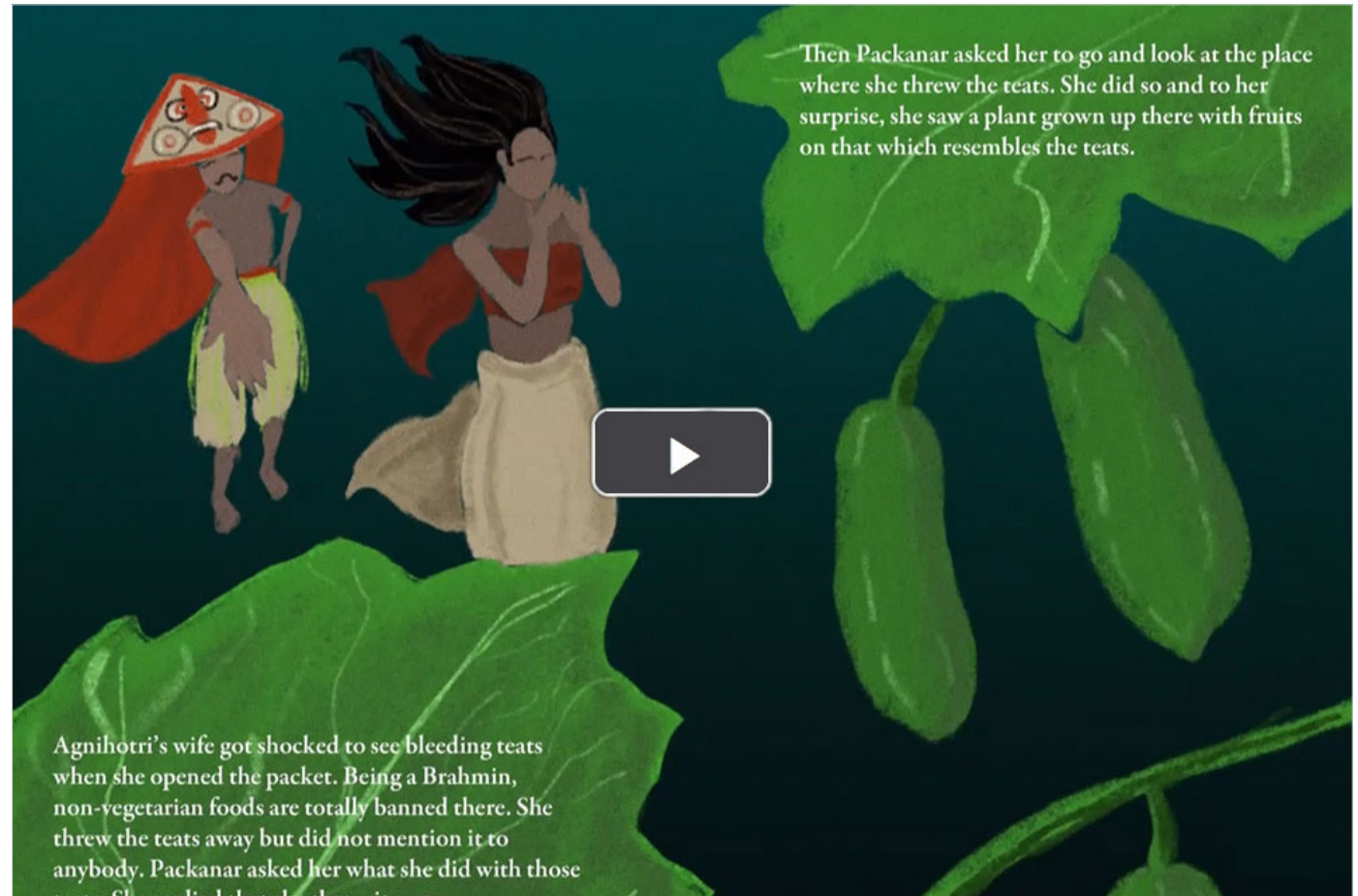
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4f.5.4. Video

5. Videos

6. Contact Details

Video



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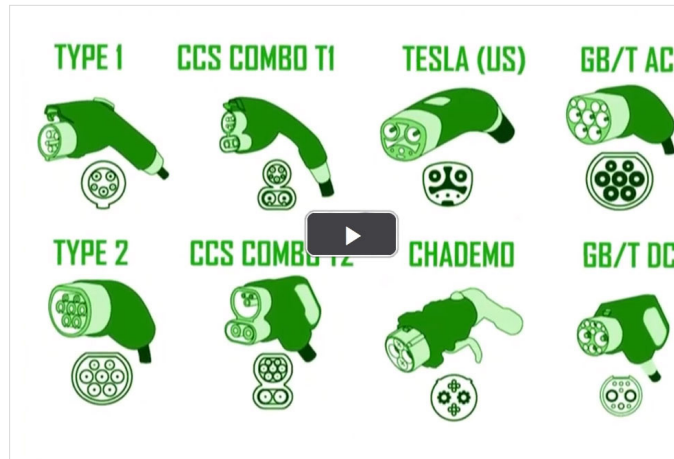
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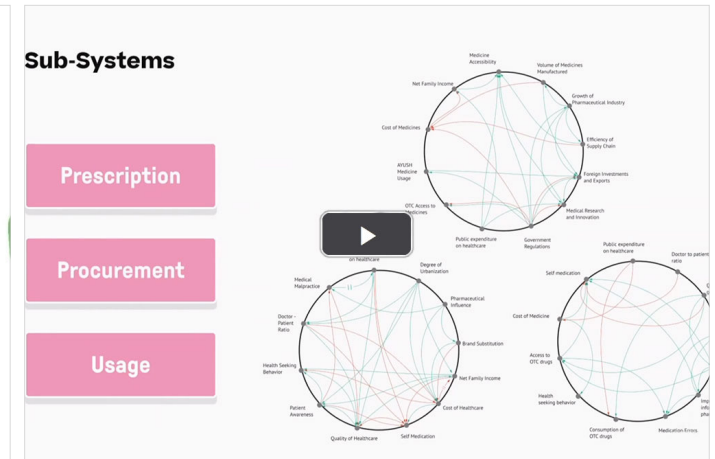
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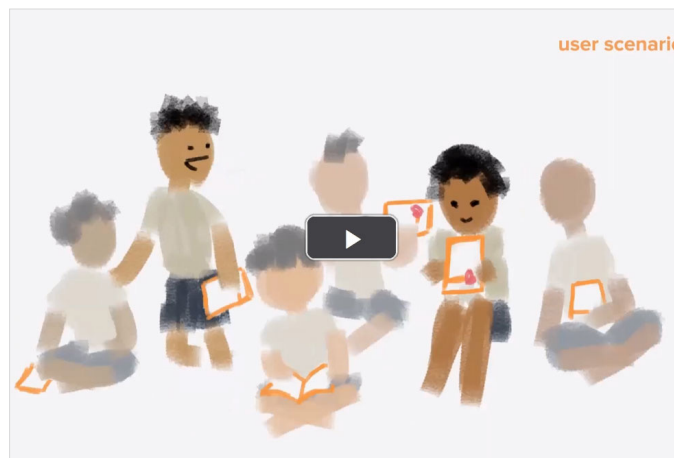


Navaaz EV Charging Solution



The Indian Medicine System

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2. Course Schedule and Grading
3. Problem Statement
4. Projects
5. Videos
6. Contact Details



The BudBud Foundation



Sustainable Housing System

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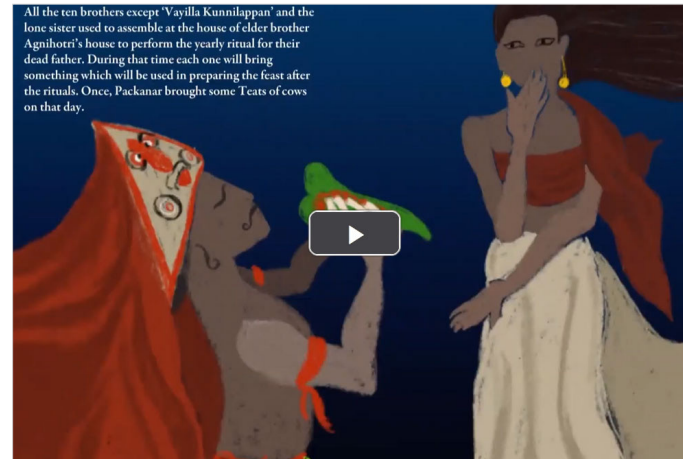
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Cultural Identity of Kerala

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This documentation was done by Professor Ravi Poovaiah faculty at [Industrial Design Centre \(IDC\), IIT Bombay](#).

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3. [Problem Statement](#)
4. [Projects](#)
5. [Videos](#)
6. [Contact Details](#)