

Hi ! I am Nilay Kachalia. **Experience Designer. Certified Usability Analyst. Product Designer. Bachelors in Sociology.**

I want to create holistic user centered experiences through research and design.

This is my Portfolio.

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Securities Investment Platform. App and Website.

Brief

Re-design the entire customer experience and digital experience strategy for one of the largest investment houses of India.

12 Month Team Project

My Role

- Collaborated with stakeholders to understand scope and requirements for the project.
- Supported during user research and analysis.
- Conducted competitor analysis across the industry to look at best practice to guide ux strategy.
- Created wireframes, mock ups and prototypes and other artifacts to re-design a more usable and persuasive design system based on proposed solution.
- Conducted usability testing to test proposed solutions and iterate designs as per user feedback.

Process

1. Stakeholder Expectations

2. User Research and Personas

3. Structural Design

4. Usability Testing

5. Detailed Design

1. Stakeholder Interviews and Expectations

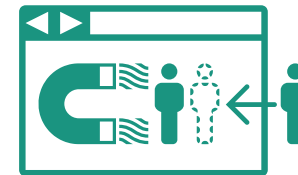
12 internal high level stakeholders were interviewed to understand their expectations and needs from this redesigning.

Increase Revenue



- Increase number of transactions.
- Increase usage.
- Reduce drop off.
- Make it convenient to trade.

Increase Acquisitions



- Leverages existing bank customers and onboard them to securities and investments.
- Onboard new and younger users.

Trade with less Assistance



- Make it easy to trade so customers will rely least on phone calls to place trades.
- Let the service be mobile first.
- Empower customers to trade without dependencies.

2.2 Personas



Beginner Camper



Guided Traveler



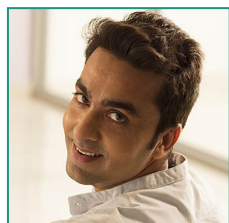
Intermediate Climber



Expert Trekker



Relaxed Ranger



Demographics	Rahul, 30 Construction Contractor	Hina, 29 Sr. HR Executive	Raj, 26 Accountant	Ramesh, 40 Sr. Operations Manager	Manoj, 43 Civil Lawyer
Level of Involvement	Waiting for Guidance	Low	Low to Medium	Highly Involved	Medium to High
Goal	Saving Money	Saving Money	Building Portfolio	Building Portfolio	Growing Income
Domain Knowledge	None	Low	Medium	Medium to High	High
Actively Investing in	FD, RD, Gold, Real Estate	Mutual Funds	Mutual Funds, Equity	Equity, Options	Equity, Futures & Options
Risk Appetite	Low	Low to Medium	Medium	High	Medium to High
Investing Frequency	High	Low	Medium	High	High
Expenses vs Investments	Spender	SIP Investor	Planned Investor	Planned Investor	Spender and Investor
Decision Making Ecosystem	Family & Friends	Family & Friends	Self + Recommendations	Self + Expert Recommendations	Self

3. Structural Design

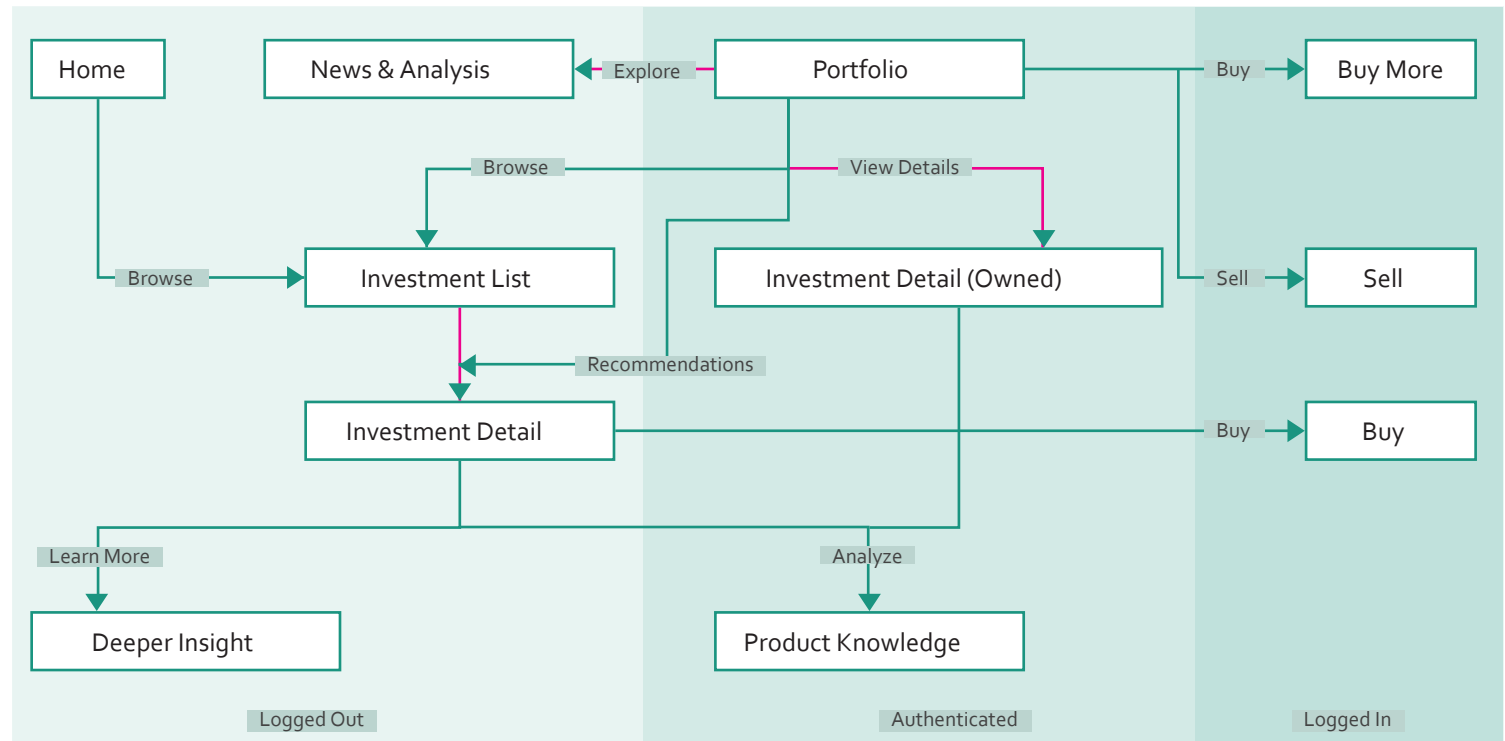
Primary Noun Architecture

Primary Noun Architecture suggested that the object of investment was paramount, everything else supplementary from a performance point of view.

Primary Noun	Count	Views	Action	Attributes
Investments	Hundreds	List Detail Buy/Sell	Buy Sell Analyze Learn Track	Name Invested date Invested amount Returns (% , ₹) Historical Analysis
Portfolio	One	Detail	Analyze Adjust	Ownership Returns
Profile	One	Detail	Update	Name Information Goals

Navigation Diagram

Navigation diagram highlights the expected user journeys on the platform from a performance point of view as well, but a performance study is not the best reflection of persona’s expectations.

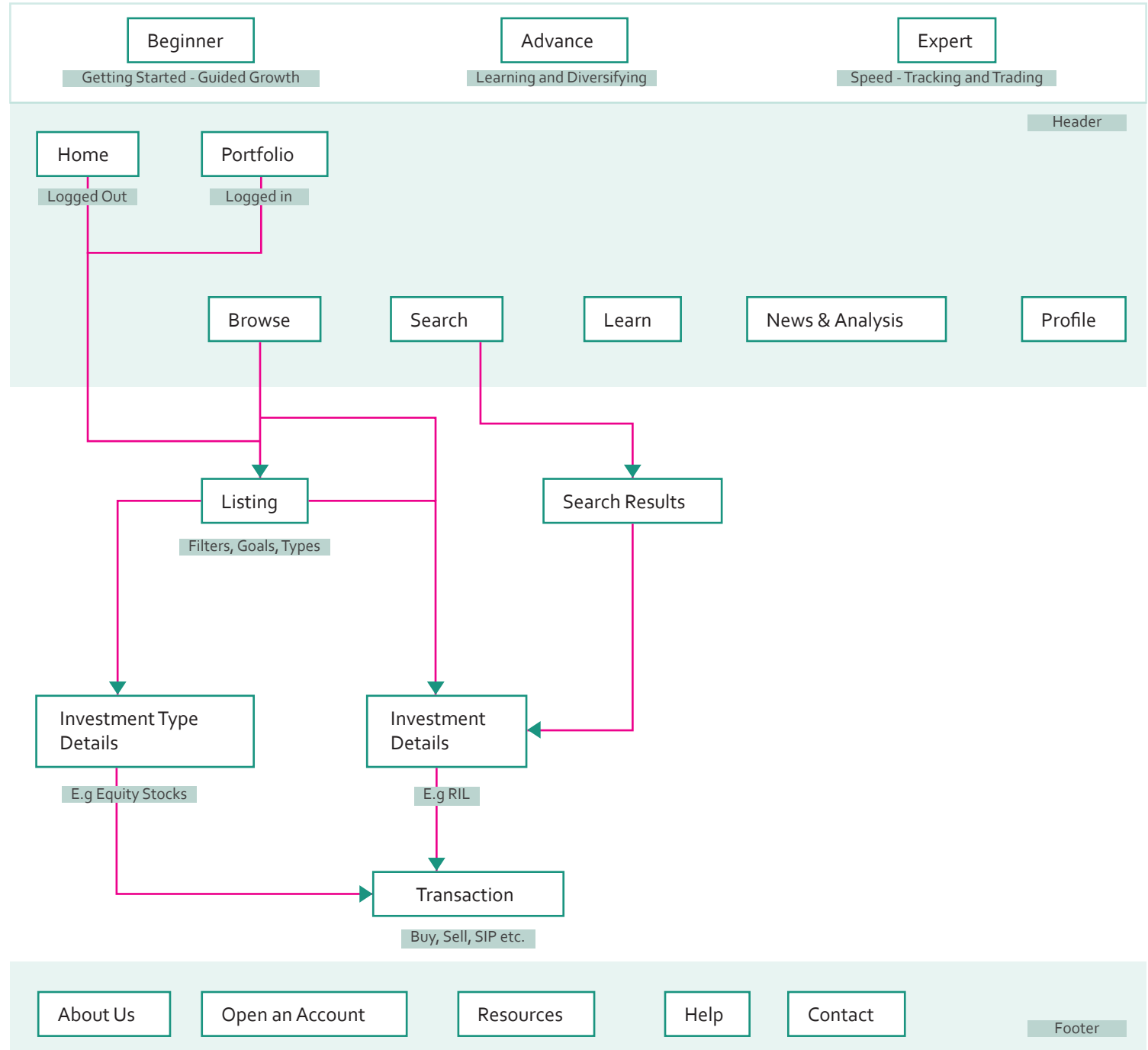
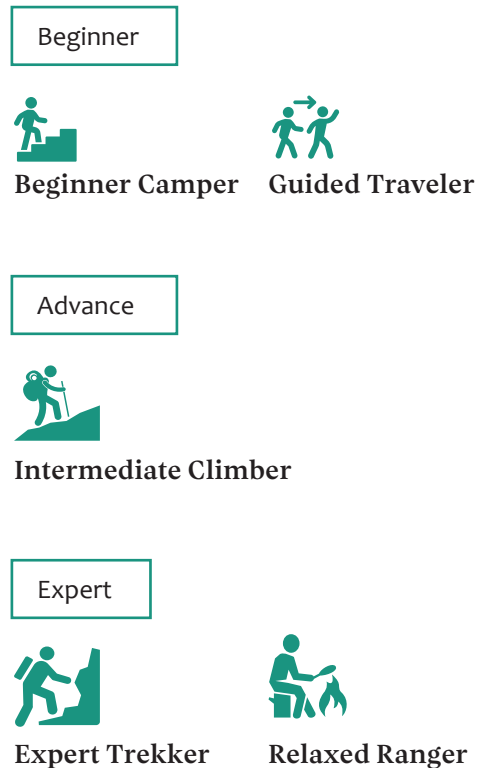


3. Structural Design

Simplified Information Architecture

All information is unnecessary for all users, specially when there are diverse personas.

Hence, the information architecture is simplified, yet the users are segmented in three categories, so that the right information can be shown to them in order to complete the transaction with least difficulty and stress.

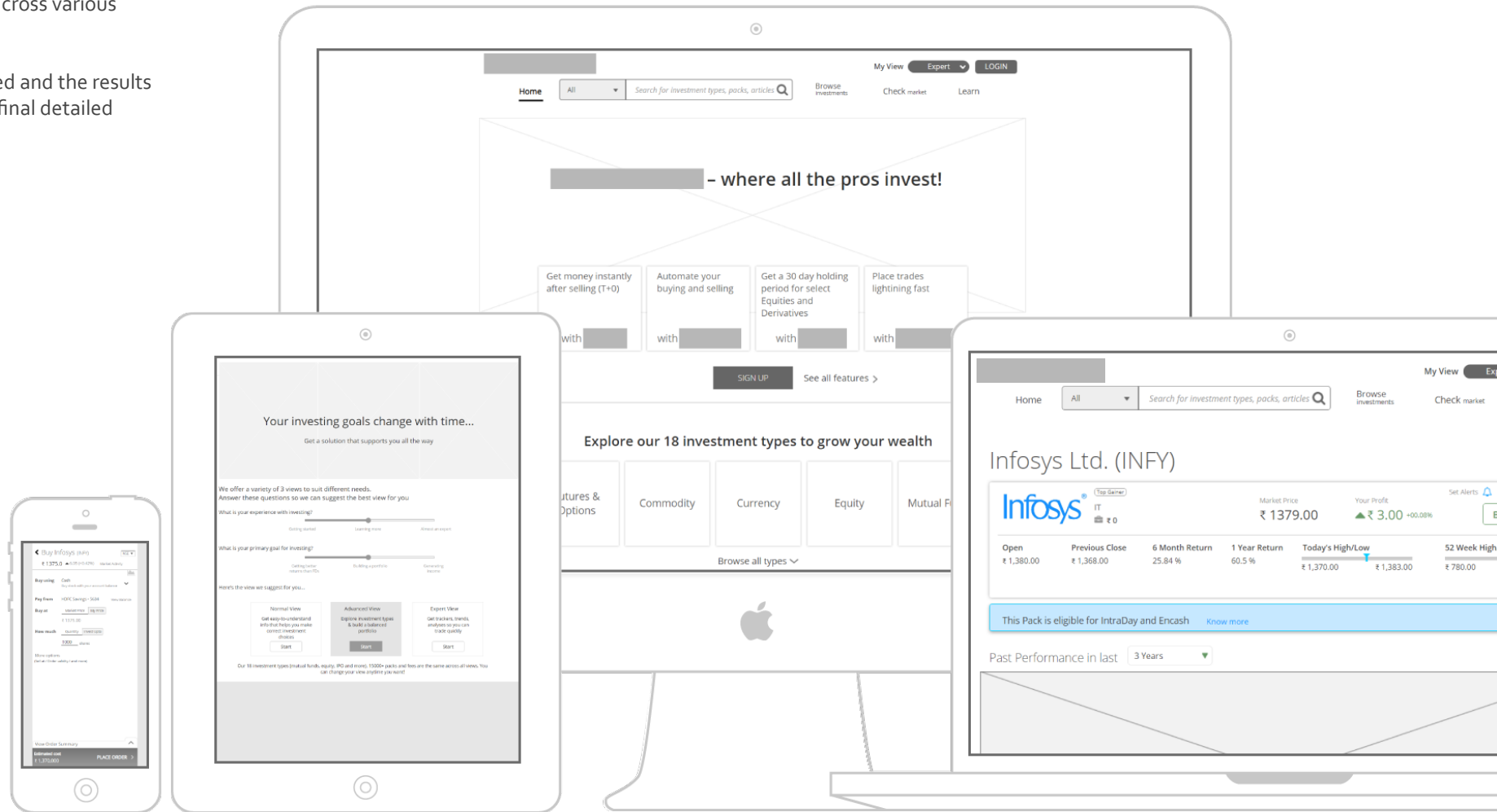


3. Structural Design

User Interface Structure

The user interface structure was designed to be tested with real users across various devices and levels.

These wireframes were tested and the results were used to determine the final detailed design.



4. Usability Testing



Basic flows were conceptualized and visually treated for the users. These were then tested with real users to get valid feedback.

Not Started Investing	6
Savings oriented users.	6 Mumbai
Low Involvement	6
Customers already investing.	4 Mumbai
	2 Ahemdabad
Actively Involved	12
Customers with trading in volumes in instruments like equity and F&O.	6 Mumbai
	6 Ahemdabad

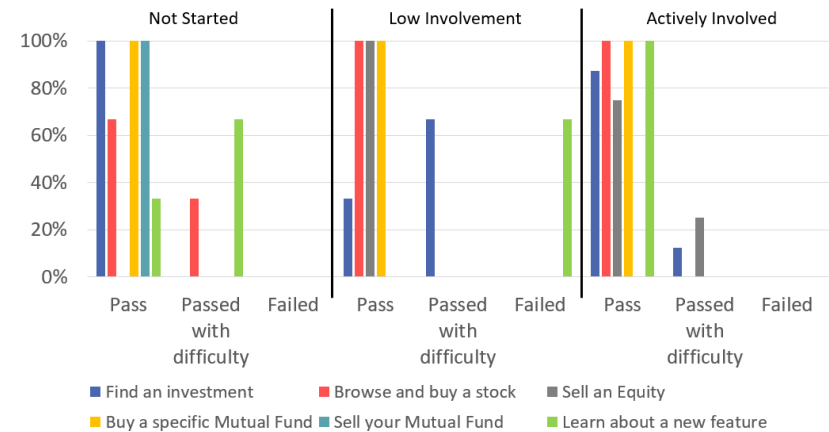
Intent

- To find out if the segmentation into beginner, advanced, expert work.
- To check performance on primary tasks like finding an investment, getting details and making a transaction.
- To find out if user can track their investments in the portfolio.
- Show demo UI for look and feel validation.

Analysis

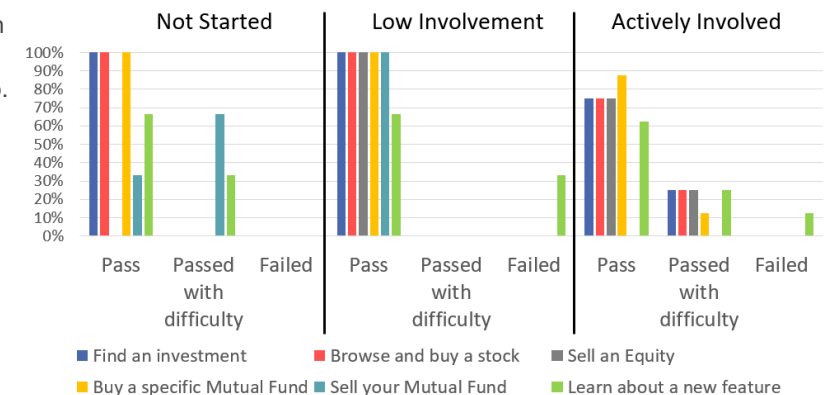
On Desktop

- Actives initially had difficulty getting oriented as they expected sell via Order panel.
- Search and buy were the most popular paths for stocks.
- Finding features difficult for new users.



On Phone

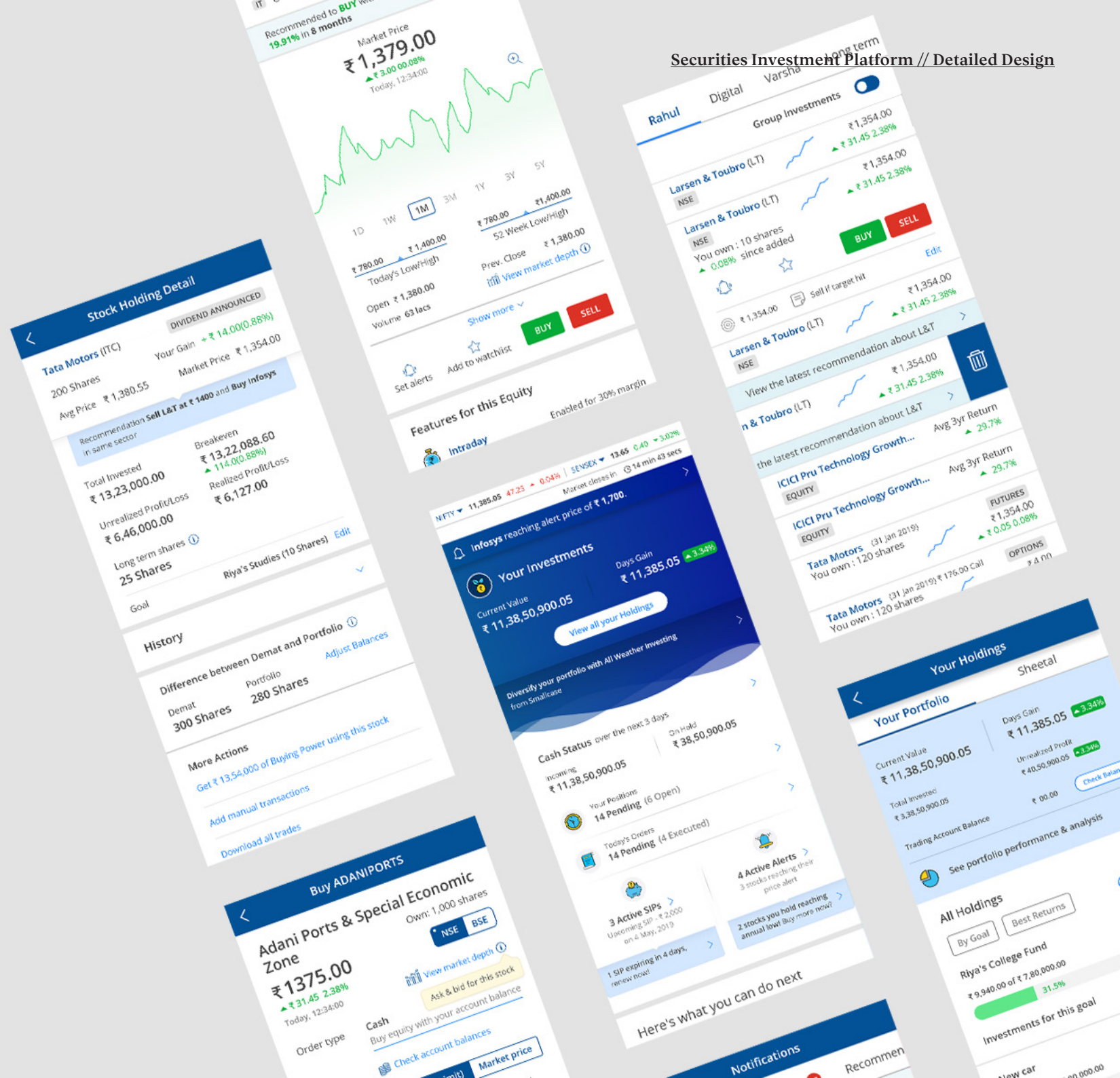
- Users were able to perform tasks well.
- Were able to track portfolio.
- Buy panel was very compact.
- Users did not appreciate the segmenter as it questioned their ability.



Detailed Design

After the testing, the team went ahead to create detailed design for every screen on the platform in 3 resolutions.

The team created more than 500 screens to finish the project.



Securities Investment Platform // Detailed Design

University Website. Responsive.

Brief

Redesigning website for a large university. The intent was to make it persuasive and easier for students and parents to understand the offerings and increase applications.

3 Week Team Project

My Role

- Collaborated with business to understand and analyze the existing website and customer journeys.
- Collaborated with external consultants for strategic input.
- Conducted user research with students to understand in detail the user needs and motivations.
- Optimized design at a strategic as well as tactical level for the college website.
- Created wireframes, mock ups and prototypes and other artifacts to re-design a more usable and persuasive design system based on proposed solution.

Process

1. Stakeholder Expectations

2. User Research

3. Structural Design

4. Usability Testing

5. Delivery

1. Stakeholder Interviews and Expectations

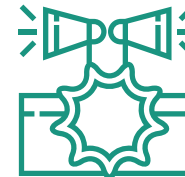
12 internal high level stakeholders were interviewed to understand their expectations and needs from this redesigning.

Increase Applications



- Increase number of applications.
- Convert most visitors to applicants.
- Enable conversions for domestic as well as international prospects.

Increase Brand Awareness



- To popularize recent rebranding.
- Increase awareness about the programs and potential of the university.
- Communicate effectively the value to all stakeholders. Primarily students, parents and prospective faculty.

2. User Research



User research was conducted with new and existing students on at location of the university in Dehradun. #Deadlines

New Students **10**

Just started studying at the university. 1st yr or 2nd yr students.

Existing Students **10**

Senior year students who have spent enough time at the university.

Analysis

Selecting a University - User Needs

Campus Placements

Course of Choice Faculty

How do Users gather information

Word of Mouth Helpline

Education Counselors Online Forums

Website

Application Process

Online process was smooth Clashing dates with other applications not good.

Good offline service

Scarce hostel accommodation

On Spot ranking

Other Insights

Beautiful campus and facilities Student Groups

Various Specializations Collaborative Learning

Information is transparent Students don't like uniforms

Good placements Commute to campus not great

Good campus Culture Bad hostel facilities

Relationships with peers

4. Structural Design

Information Architecture

As this was a redesigning exercise, the existing IA was simplified and the old pages were mapped to a new simpler IA.

Level 1	Level 2	Level 3	Level 4
Home			
	Specialized Programs		
	Campus		
	Schools		
		List of all programs	
			Applicants
			Is UPES right for You?
			Can you qualify?
			Programs
			Program details.
			Admissions 2019 - dates and other details
			Scholarships & Financial Assistance
			Fee refund policy
			Entrance test Calendar
			FAQs
			Details for International Students
			Login
			Apply
			Parents
			Campus - facilities, safety
			Achievements of Students
			Placement Stats
			Events
			Schools
			Programs
			Students
			Log in to other portals (LMS, Student Portal, Student Mail, GenNext Tool)
			Events
			Announcements
			Facilities including medical services
			Student Chapters, Clubs etc
		Program builder/chooser - gamified	
		Certifications, Accreditations & Awards	
		Placement stats	
		Faculty	
		Our History + Who we are, Vision etc	
		Achievements of Students	
		Events	
		Top Programs in each school	

Concept Wireframes

Concept wireframes were created on Axure RP. These screen designs were then visually treated by a vendor.

The wireframes illustrate the structural design for the university website across different devices:

- Desktop Wireframe:** Features a navigation bar with links like Home, Industry Partners, Aspiring Students, Parents, Research, About Us, and Media. The main content area includes a large hero section with the text "University With A Purpose" and "THE FUTURE NEEDS SPECIALISATION". Below this, there are sections for "Preparing you not only for a Job but a Life after college." and "Add Specialisations like these to your Degree and be more future ready:" with a list of fields such as Aerospace Engineering, Mechanical Engineering, and Nano Technology.
- Mobile 'Applicants' Wireframe:** Shows a header with "APPLICANTS" and a collage of images of students. Below the collage is a call to action: "Hassle-free admissions to help you focus on building your future." The main content area is titled "GET A SPECIALIZED COURSE FOR YOU" and contains several dropdown menus for "Course Type in UPES", "Your Highest Qualification", and "Marks Scored in Percentage". There are also buttons for "Select Your Interests" with options like Art, Design, Law, and Software.
- Mobile 'Application Form' Wireframe:** Displays a form titled "APPLICATION FORM" with sections for "Your Details" (Full Name, Date of Birth, City) and "How do we contact you?" (Email ID, Phone Number). It also includes a section for "What would you like to study at".

Usability Testing



Basic flows were conceptualized and visually treated for the users. These were then tested with real users to get valid feedback.

1st Year Students 5

Already in University

12th Grade Students 5

Prospective students.

Parents 5

Parents of prospective students.

Intent

- Check if the redesigned screens work with real users.
- Assess ease of use and satisfaction.
- Uncover the obstacles to usage.
- Determine the design implications.

Analysis

What worked

"Feels like it is not just investment for education but investment for life which is very good."

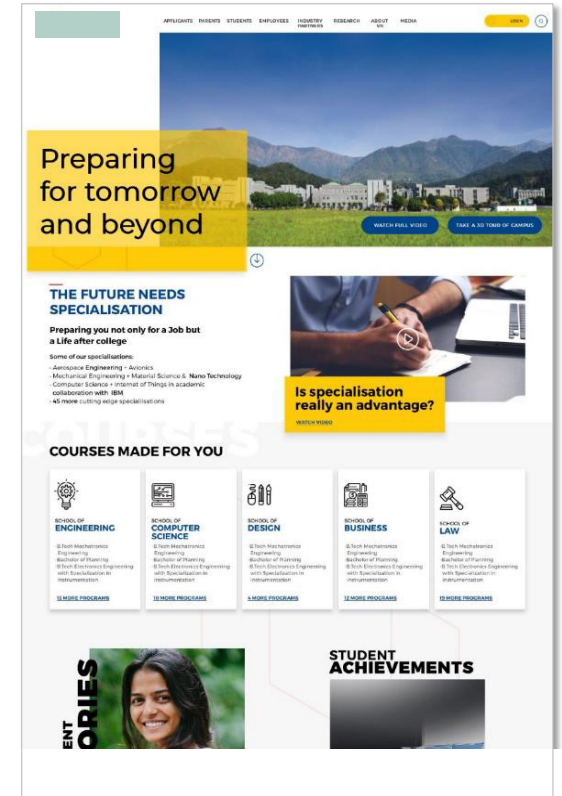
"This is good, this will take your interests and then make a courses according to what you have given."

"Innovative tagline, the way they displayed the screen, the order they placed everything, it was handy.."

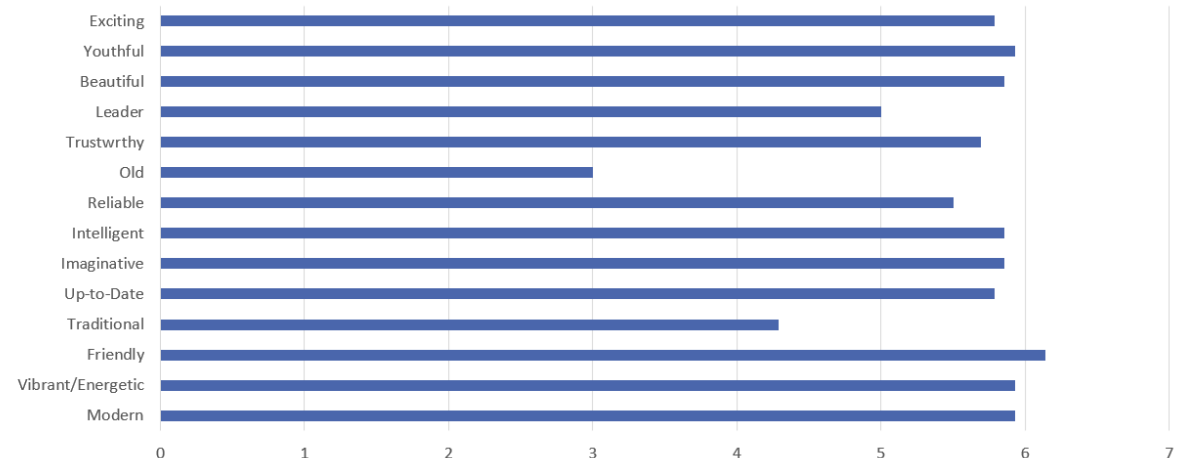
What did not work

"they should have elaborated on core structure and their ranking..."

"The university, they should talk about achievement and board of directors, future goals and universities also..."

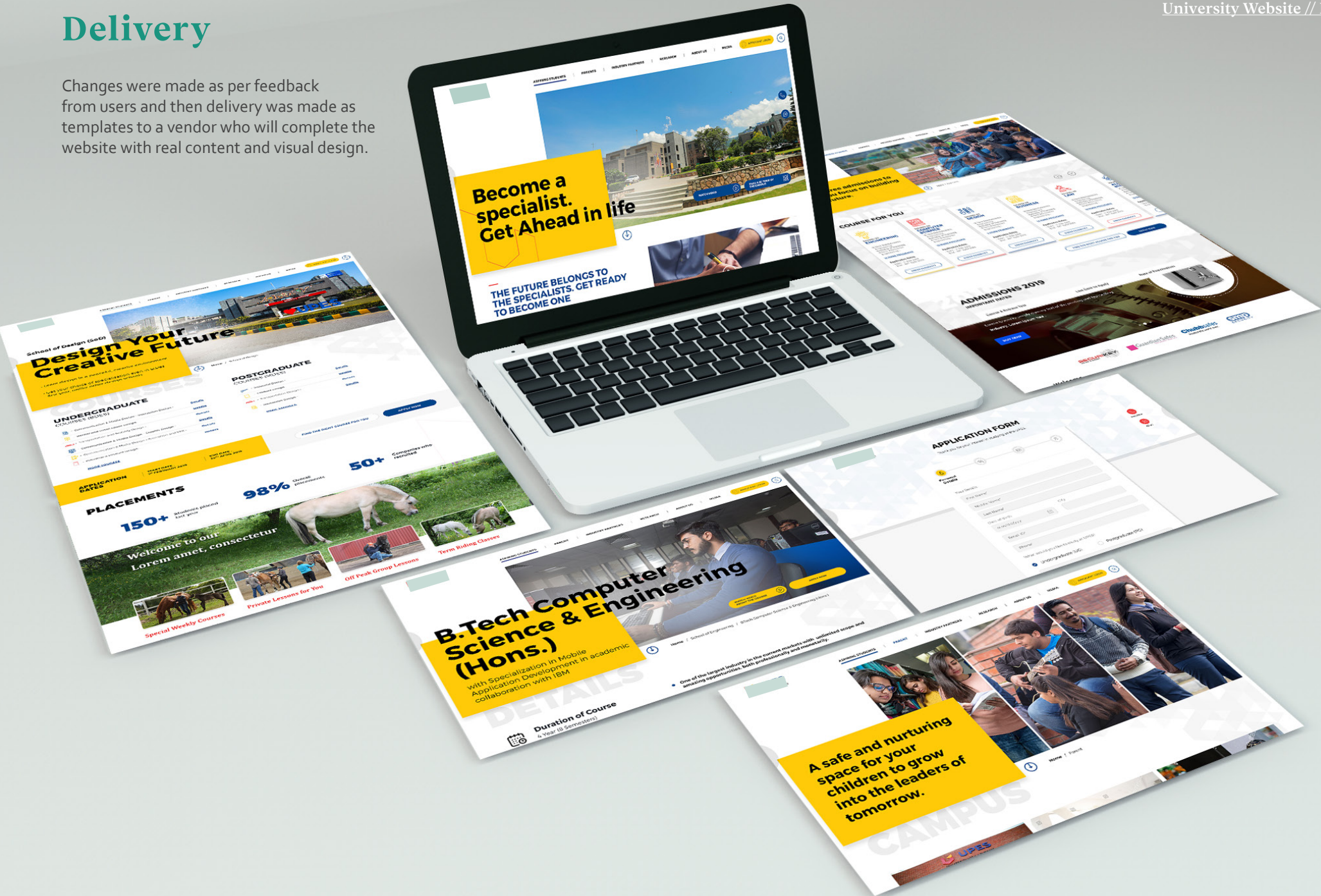


Brand Attribute Testing



Delivery

Changes were made as per feedback from users and then delivery was made as templates to a vendor who will complete the website with real content and visual design.



Banking for Millennials. Digital Bank App.

Self Initiated Brief

Millennials are willing to spend and make transactions only digitally, yet they are not ready to invest or save money digitally. The general outlook of theirs towards investments is that it is risky and a strong mistrust exists towards the highly volatile markets. Hence most millennials earn enough and spend carefully or invest into start ups rather than stocks or assets.

Bank.Now is an attempt to create a digital bank for the millennials of India.

15 Week Graduation Project under mentorship at HFI

Process

1. Validate Hypothesis - Secondary Research

2. Competitor Benchmarking & Trend Analysis

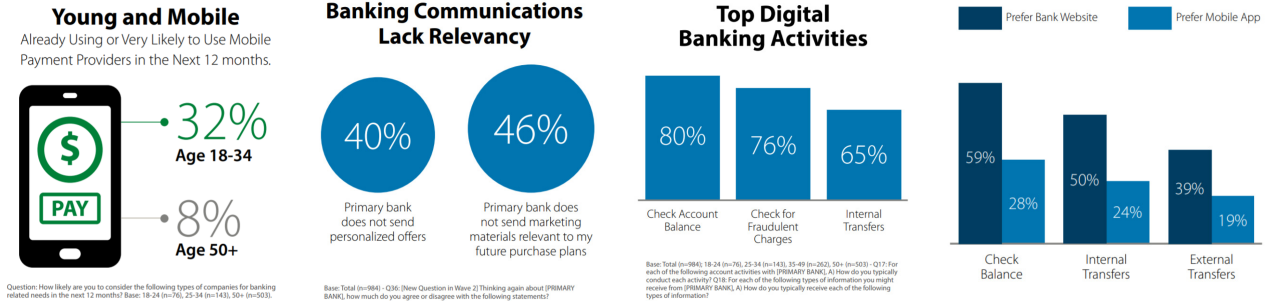
3. User Research & Personas

4. Structural Design

5. Branding

6. Visual Design

1. Validate Hypothesis - Secondary Research



From the research carried out, following are a few insights and observations that validates the problem statement

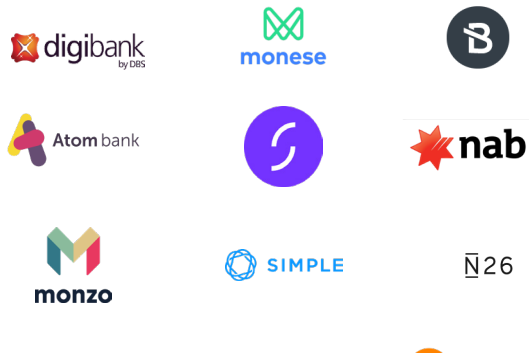
- The generation now is more **digitally enabled**.
- Banks around the world are trying to be more **transparent and user driven**.
- Millennials are most open to using **non-traditional financial institutions**.
- Millennials are surrounded by **Mobility** and this should be the first layer of focus.
- **Instant gratification** from a readily available mobile device is what a millennial seeks.
- **Omnichannel** has become a way of life for millennials and they crave for experience-driven banking in any channel of their choice.
- Millennials want **agility, authenticity and accuracy**.
- They **trust the digital ecosystem**.
- Millennials say that there aren't any banking products made for them or **personalized** in other words.

Kurzweil's law of accelerating returns says that technological change would be exponential; we won't experience 100 years of progress in the 21st century but a staggering 20,000 years of progress!

2. Competitor Review and Trend Analysis

Benchmarking

The most regular occurring features and also the most necessary features for a Digital Bank are stated as below and mapped to the international market leaders (Only Banks).



	Paperless/ Branchless	Quick Account Creation	Auto Spending categorizations	Free ATM Withdrawals	Integration with Apple Pay etc.	Multi channel Money Transfer	Encryption	Debit card block unblock	Issuance of physical card
DBS Digibank	No	Claimed	Yes	Yes	No	Yes (UPI)	Not Mentioned	No	No
Monese	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
BankMobile	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No
Fidor	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Atom Bank	Yes	Yes	No	No	No	Yes	Yes	No	No
Starling Bank	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Simple	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Monzo	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Moven	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hello Bank	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes
N26	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Trend Analysis

Personalization

Automation

Instant Gratification

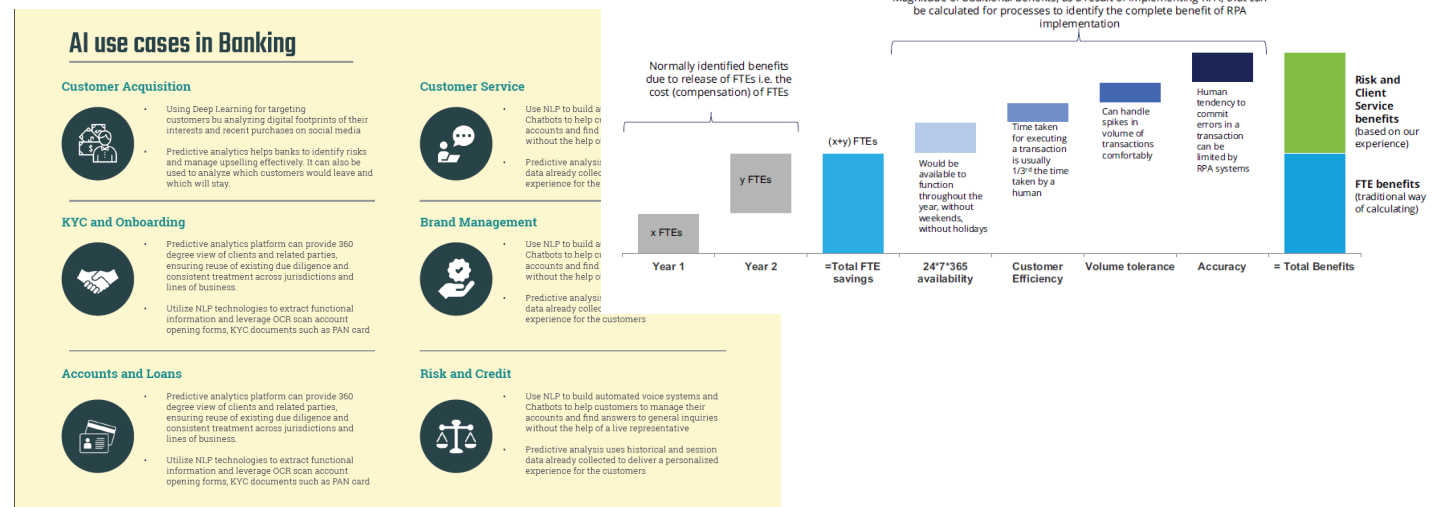
Ubiquity

Simplification

Gamification

Open Banking

Artificial Intelligence



3. User Research



It is of prime importance to understand the user, and their needs and expectation. That can be done qualitatively and quantitatively.

Existing Bank Users **13**
 Millennials who already use a bank account and are familiar with banking services.
 3 Age 18 - 22
 5 Age 22 - 25
 5 Age 25 - 30

No Bank Account **2**
 Millennials with no bank account of their own.
 2 Age 18 - 22

Intent

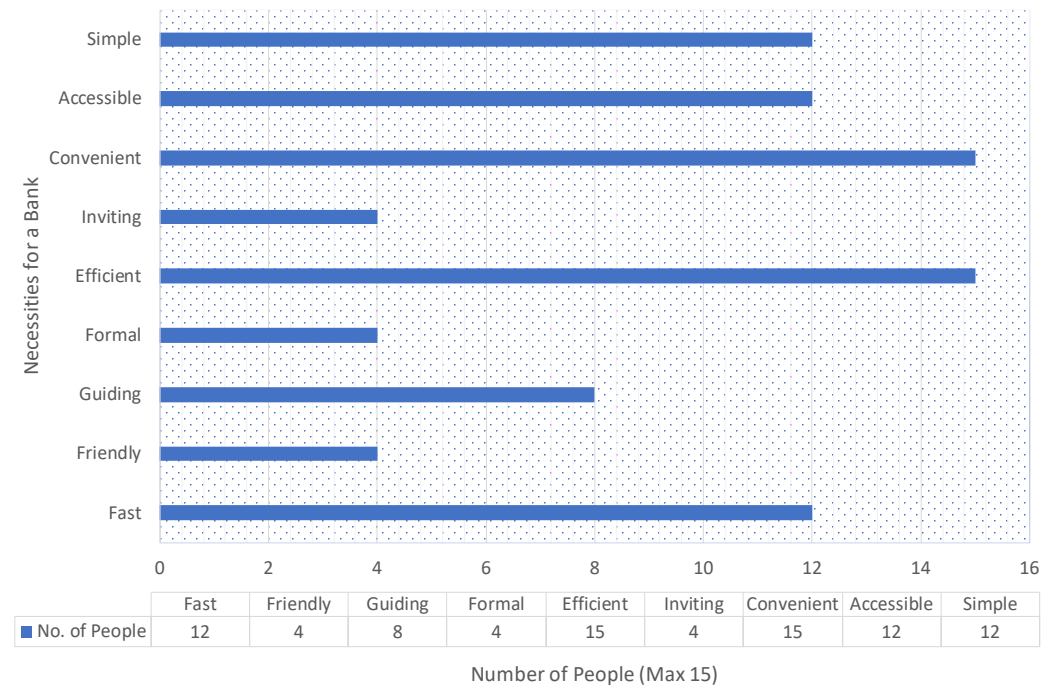
- Basic knowledge about banking
- Account usage
- Reliance on banks and its extent
- Experience of operation and engagement
- Spending patterns and channels of spending
- Expectations from a normal bank
- Thoughts on digital bank. Expectations from a digital bank
- Card Sorting: attributes necessary for a digital bank

Analysis

Insights

- Accounts usually opened by parents and operated by them. Many times aren't even aware of that.
- Dislike formalities
- Current account for rapid payments and less formalities
- Pocket money and allowance directly to account
- Documentation (red tape) is annoying.
- Have to be dependent on parents and most times answerable to them as well
- Most of them don't know much about banking as they haven't been taught in school or have had any real life experience yet.

Attributes Users Expect from a Digital Bank



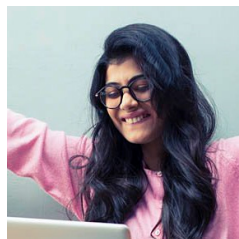
4. Personas

Dad's Approval Daksh



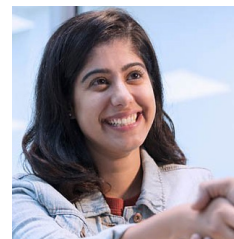
Age: 19
Occupation: Student
City: Mumbai, Maharashtra

Freelance Farah



Age: 22
Occupation: Student
City: Mumbai, Maharashtra

Started Earning Simran



Age: 24
Occupation: Chartered Accountant
City: Mumbai, Maharashtra

Making it Big Mohan



Age: 27
Occupation: Interior Designer
City: Mumbai, Maharashtra

Expectations

- Banking app should never hang and must be informative and guiding.
- Must help me in budgeting and managing money and banking anytime, anywhere.
- Help on call.
- Keen on offers and rewards through digital banking.
- All processes must be digital.

- Banking app should be intuitive and well designed and all digital.
- Should be able to manage money easily.
- One click bill payments.
- Sharing bank details should be more easy.
- Payments must be fast.
- Direct contact to customer care without machine answering, anytime.

- Transfer and use money quickly.
- Reward points and offers for online payments.
- Direct online payment from the bank to be extremely simple.
- Payments are secure.
- Application process very simple and optimized and all digital.
- A digital card for online payments.

- Banking app should be intuitive and well designed.
- Should be able to transfer and use the money instantly.
- Bank must be extremely secure.
- Cyclic regular bill payments built in.

Key Feelings

- Independence
- Empowerment
- Approval
- Convenience
- Control
- Reliability
- Accessibility

- Independence
- Convenience
- Control
- Speed
- Security

- Freedom
- Empowerment
- Convenience
- Control
- Security
- Accessibility

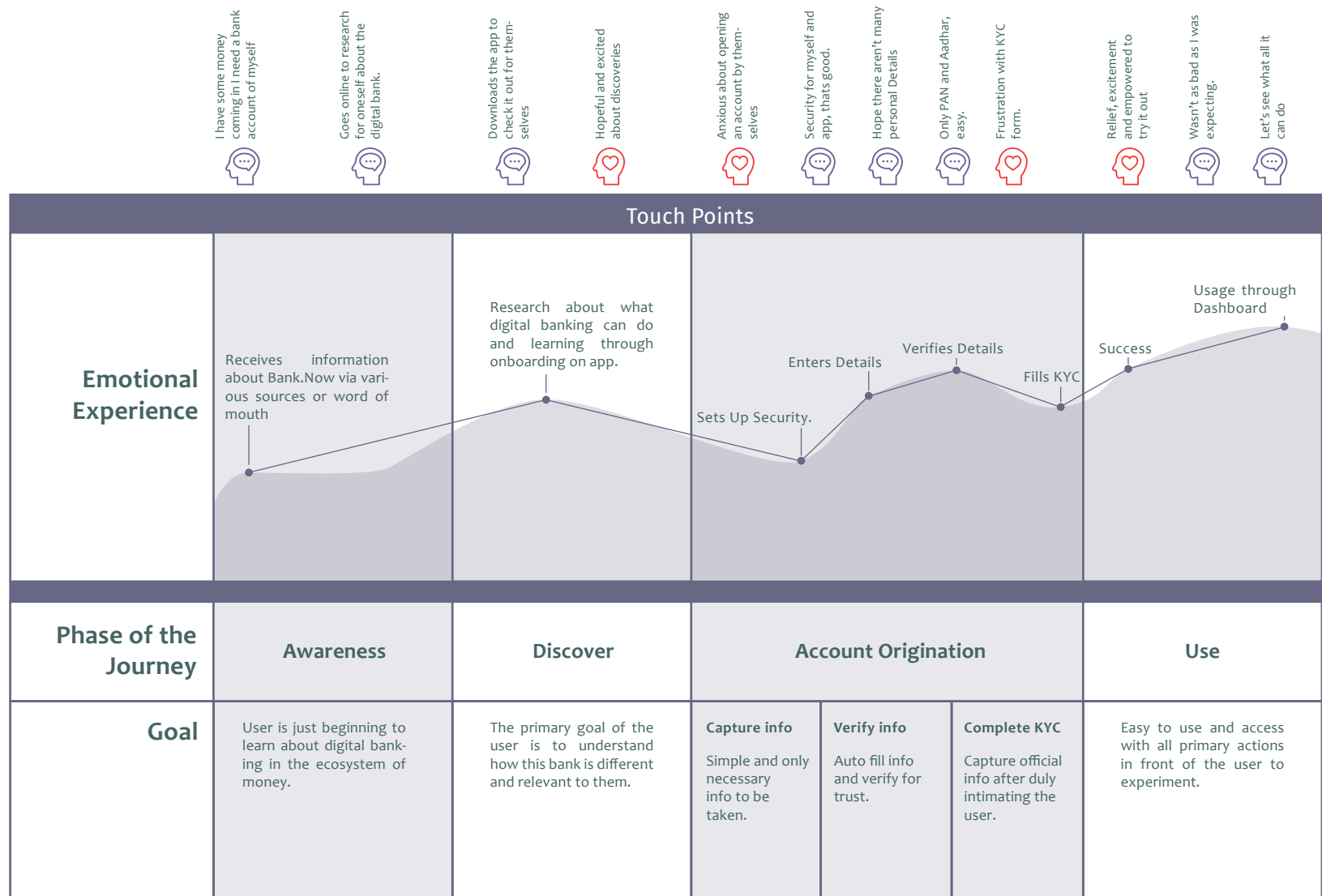
- Reliability
- Security
- Convenience
- Control
- Accessibility

5. Structural Design

User Journey

Farah is now getting paid for some of the freelance jobs she had taken up a month back. The clients are asking her for her bank details so they can directly transfer her the money. She currently has a joint account with her father and would want to control her own earnings by herself and manage them for herself as well.

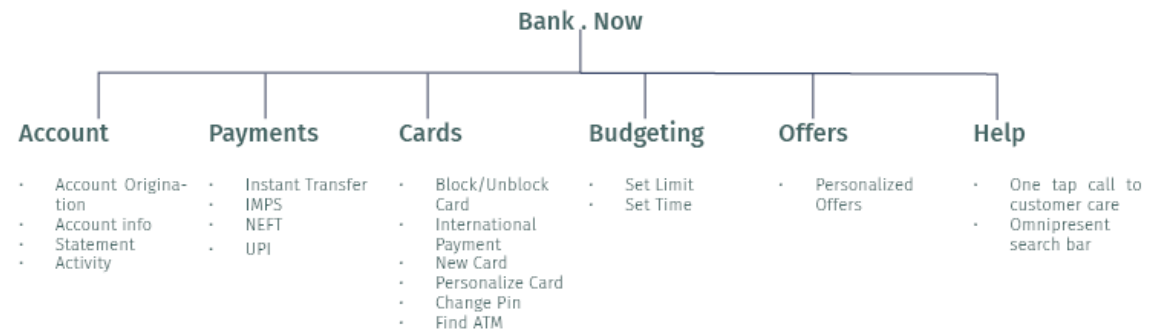
She starts looking for a bank account that she can easily access and has asks her friends and recalls ads she had seen on her instagram feed.



5. Structural Design

Information Architecture

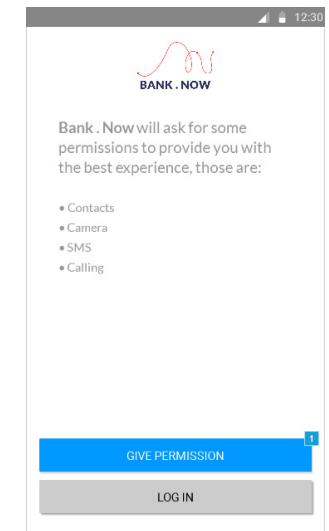
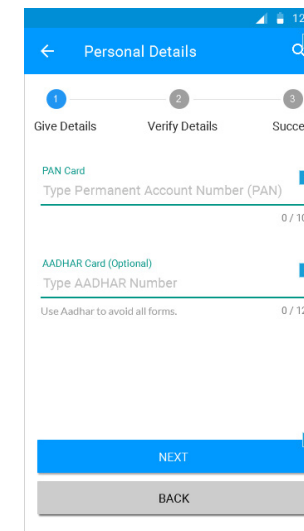
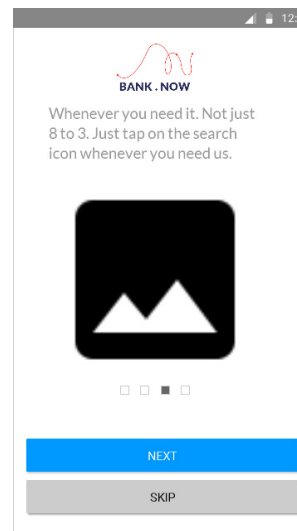
Information architecture was simple and was molded to fit the strategy of this project. The information architecture only shows the necessary overview of what the app must consist.



Wireframes

After understanding the users emotional state during the whole journey it becomes clear where the user requires what kind of feedback from the screen.

All wireframes were created digitally. This was done for ease of editing and prototyping in the future. The software used for wireframing and prototyping is Axure RP8.



6. Branding

Brand Attributes

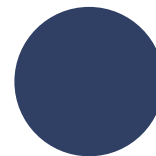
These attributes or principles were derived from the pain points of the user and are major opportunities for this project. They establish the importance of the vision and purpose of the brand and empower users to see the same for better engagement.

FAST
EMPOWERING
SIMPLE
TRANSPARENT
ACCESSIBLE
UNDERSTANDING
SAFE

Brand Identity

The brand identity is the most visible part of the brand. The name created for this brand was **"BANK.NOW"**. This was meant to be as simple and engaging as possible and catering to the brand attributes like fast, accessible and simple.

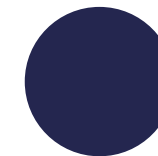
The logo mark was created as a simple digital signature visual that is also an upward going graph. It is to show the digital empowerment and simplicity of representation of functions. The flexible nature of the logo mark also suggests speed. The typographic element goes along with the logo mark at all times and they shouldn't be separated.



Color Hex: #324165

C: 50% M: 36% Y: 0% K: 60%

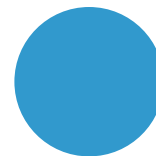
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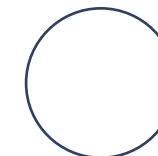
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Color Hex: #3599CC

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R: 53 G: 153 B: 204



Color Hex: #FFFFFF

C: 0% M: 0% Y: 0% K: 0%

R: 255 G: 255 B: 255

7. Visual Design



Telemedical Diagnostic Device for Rural Areas.

Self Initiated Brief

To create a telemedical diagnostic device for ASHA workers in remote villages..

15 Week Team Project (Academic)

Process

1. Validate Hypothesis - Secondary Research

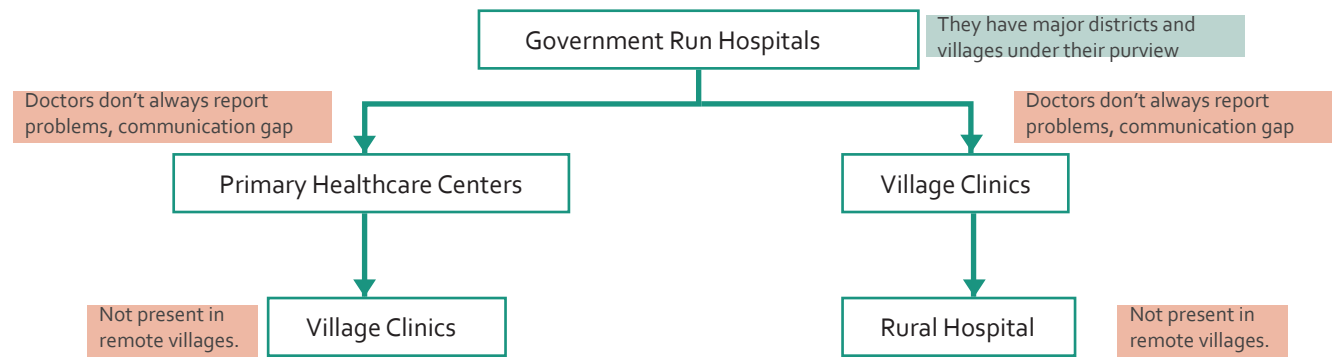
2. Primary Research

3. Concept

4. 3D Model & Proof of Concept

1. Validate Hypothesis - Secondary Research

Plotting the Indian medical institutional hierarchy along with problems found after research.



Scope for TeleMedicine in India

- Easy access in remote areas.
- Reduce the time and costs of patient transportation. Also aids home care and ambulatory monitoring.
- Used as a tool for public awareness and disaster management.
- Tele-mentored procedures-surgery using hand robots.
- It provides an opportunity for standardization and equity in provision of healthcare.
- Critical medical functions can be regulated and implemented remotely.
- Second opinion and complex diagnosis.
- Disease surveillance and program tracking.

2. Primary Research

Field Trip

To study the problems of villages more closely, the group travelled to a village just 10km from a major hillstation city.

The village was called Udhewadi and even though it was in close proximity to a major health care center, the roads are barely motorable. The village barely has medical infrastructure.

Insights

- Developed village: Villagers know sufficient technology, can run and maintain solar street lights, many villagers use advanced phones.
- General Medical issues: know how to treat certain diseases only post generic symptoms.
- Transport is a major issue.
- Pregnancy highlighted as a major issues, including death of pregnant women in transit to closest hospital due to bad roads.



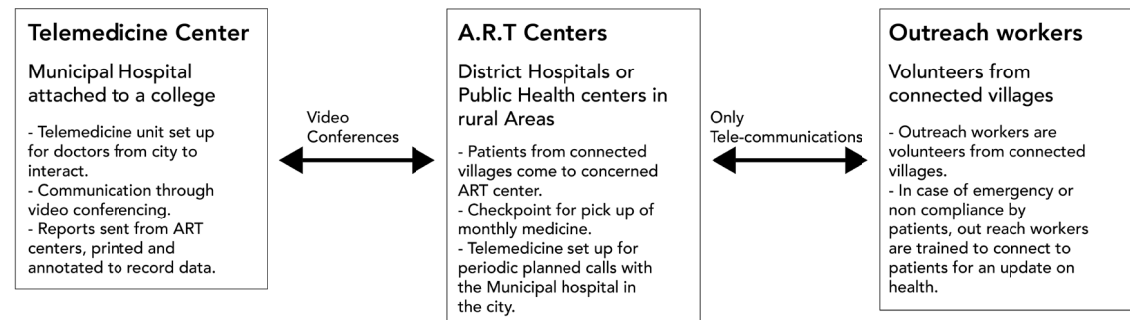
Case Study

To design better, we needed to study the existing ecosystem of telemedicine in India.

To do so, we visited Sion Hospital and Medical college in Mumbai city itself, where exists a telemedicine cell.

Observations

Case Study Table for Telemedicine in ART Centers for pediatric HIV domain



3. Concept

Final Concept

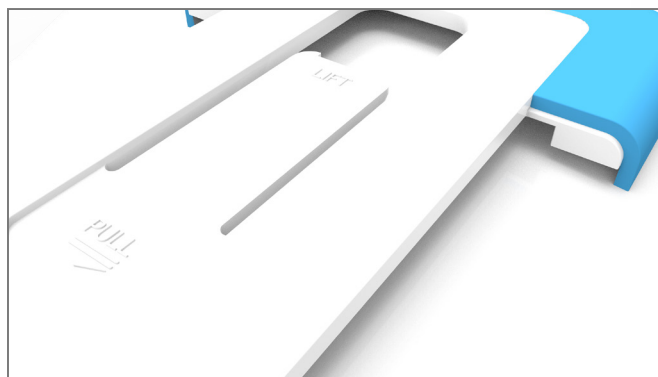
Sehat is a diagnostic telemedical device.

It is specifically designed to bridge the gap between the villages to the medical institutions in cities through available technology. This product connects any village to any doctor through the Asha Worker.

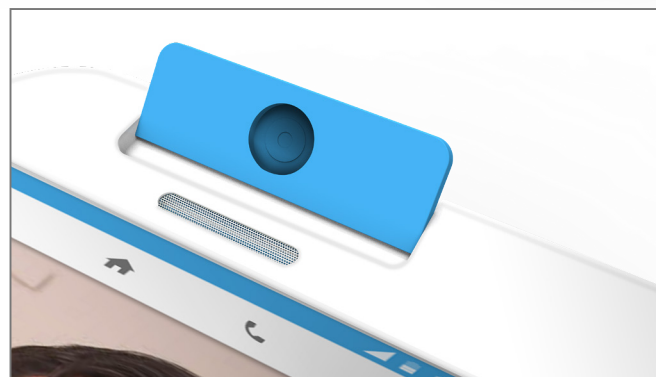


Sehat CT

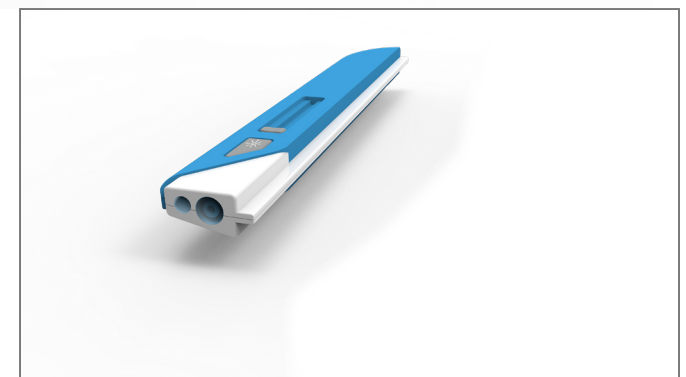
Sehat CamTorch (CT) is a detachable device that slides out to be used as a torch or portable/mobile camera to capture details of patient's body.



Detachable Clip slides out with a simple gesture and allows the user the choice of using it or not.



The flexible flap with camera to adjust angle and view to accommodate not so flat surfaces.

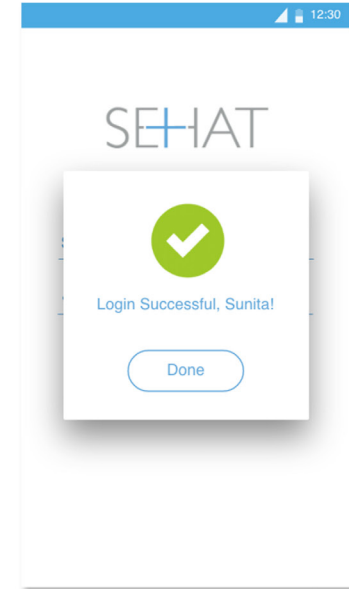
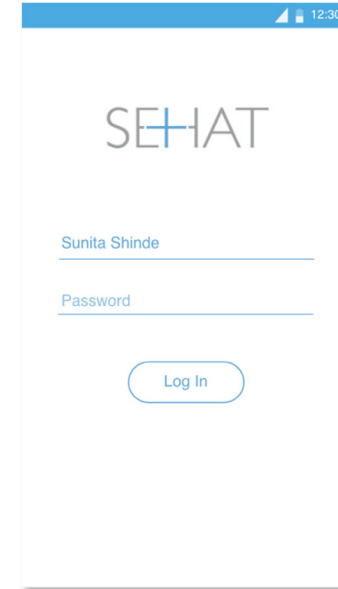
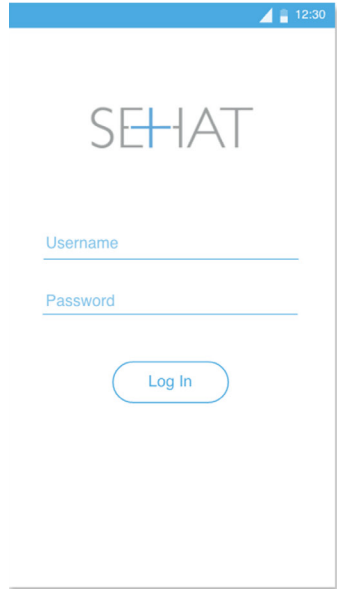


The Sehat CamTorch (CT) acts as a portable camera for close ups of affected areas and torch to enhance image.

3. Concept

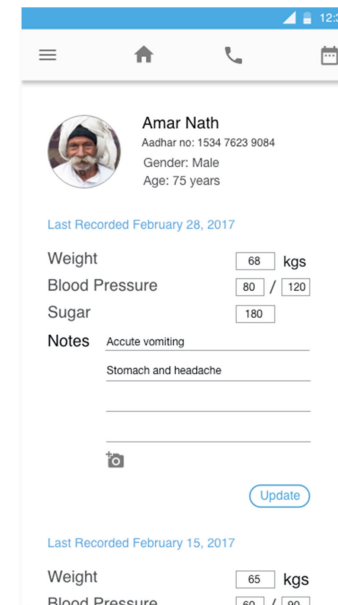
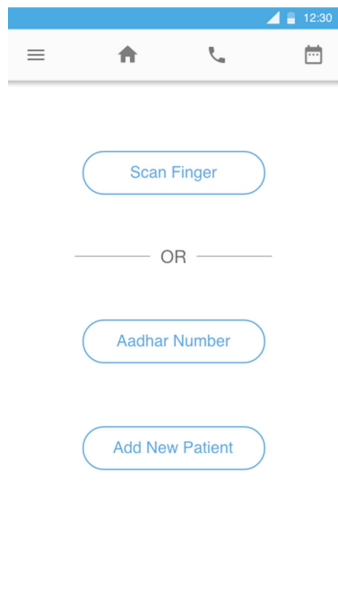
Sehat App

Sehat device and app help in validation of primary diagnosis and communicating expert advice directly given by the doctor through video conferencing. Data about the vitals and symptoms will be available through the software both to the Asha worker and the Doctor. The data is synced with the aadhar card database, hence the information and history can be accessed by doctors in the future for continuous recording and care.



Sehat App has been designed to be as simple as possible for the ASHA worker to operate.

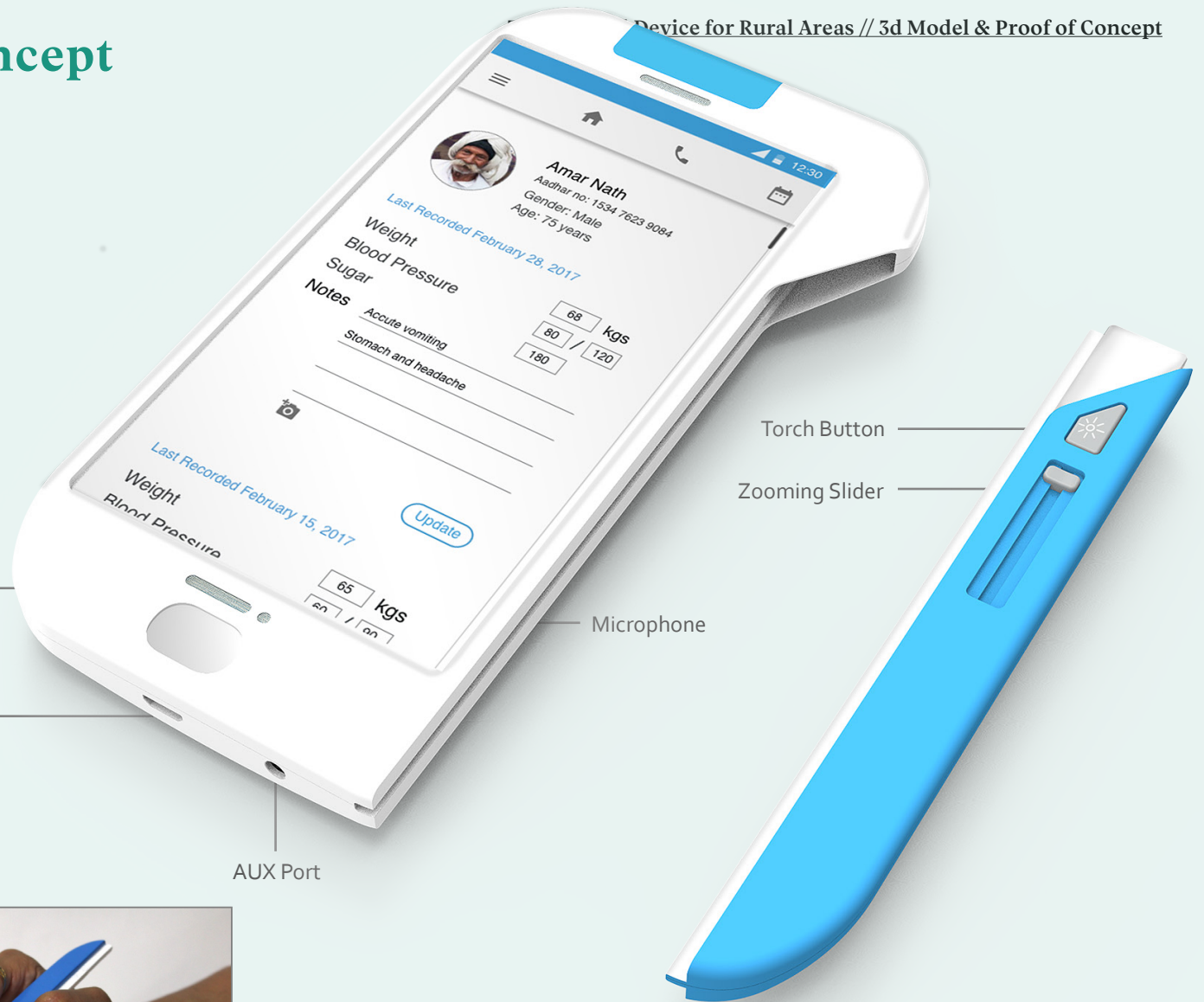
It enables the ASHA worker to log in quickly and add patients as well quickly start up remote diagnostic video call.



4. 3d Model & Proof of Concept

We made a touch and feel prototype to scale to check the ergonomics and grip.

The model was made by hand using MDF.



About Me. Résumé.

Work Experience

Human Factors International Jan 2018 - Present
Senior Human Factors Specialist, User Research, UX Design, Prototyping, Usability Testing

- Observe, analyze UX issues on existing digital products.
- Conduct user research to understand empathetically user's drives and blocks while using a product/service.
- Collaborate with a team to create user profiles, personas, scenarios, wireframes and other artifacts to support the user centered design process with the guidance of a team lead.
- Collaborate with internal design leads and external consultants to develop high level strategic design and project plans.
- Collaborate with internal and external UI teams to produce visually striking and highly usable products.
- Conduct usability testing to test products in real environments.

ISDI School of design and innovation Aug 2019 - Nov 2019
Visiting Faculty

- Facilitated and taught a UX design course in collaboration with HFI.

Ware Innovations Dec 2016
Design Intern

- Assisted in conceptualization of designs, outsourcing and procurement of resources for mock ups and prototyping.
- Contributed to setting up operations of a new studio.

Crevolve Design technologies Jul 2017 - Aug 2017
Design Intern

- Created a Neonatal Vitals Monitoring product and system under mentorship.
- Prototyped using Arduino.

Education

ISDI School of design and innovation Aug 2014 - May 2018
Mumbai - Diploma in Product Design

Mumbai University - IDOL Aug 2015 - May 2018
Mumbai - B.A in Sociology

Oberoi International School Aug 2011 - May 2013
Mumbai - International Baccalaureate Diploma

Skills

User Research
Usability Testing
UX Content Writing
Wireframing
Prototyping
Presentation
Client Interaction
Leadership
Creative Writing
Model Making

Languages

English
Hindi
Gujarati

Digital Tools

Adobe XD
Sketch
Axure
Microsoft Office Tools
Adobe Illustrator
Adobe InDesign
Adobe Photoshop
RhinoCeros
AutoDesk Fusion 360

Interests

World Cinema
Business Development
Culture
Philosophy
Social Economics
Philosophy
Astrophysics

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References available on request.

Thank you.