# PORTFOLIO

UI/UX Design Projects

Patient Portal

Patient Engagement Tool | Carestack

Patient Portal is an online patient engagement tool, which helps registered patients of dental institutions to manage and keep track of their medical records and other patient-related tasks on a self-serve basis.

This includes viewing treatment and visit summary, scheduling an appointment, updating patient and medical history, monitoring insurance claiming progress, making bill payments, completing intake forms, and downloading receipts.

It also allows them to access these features on behalf of their dependent family members.

Product Definition → Research → Analysis → Design → Validation
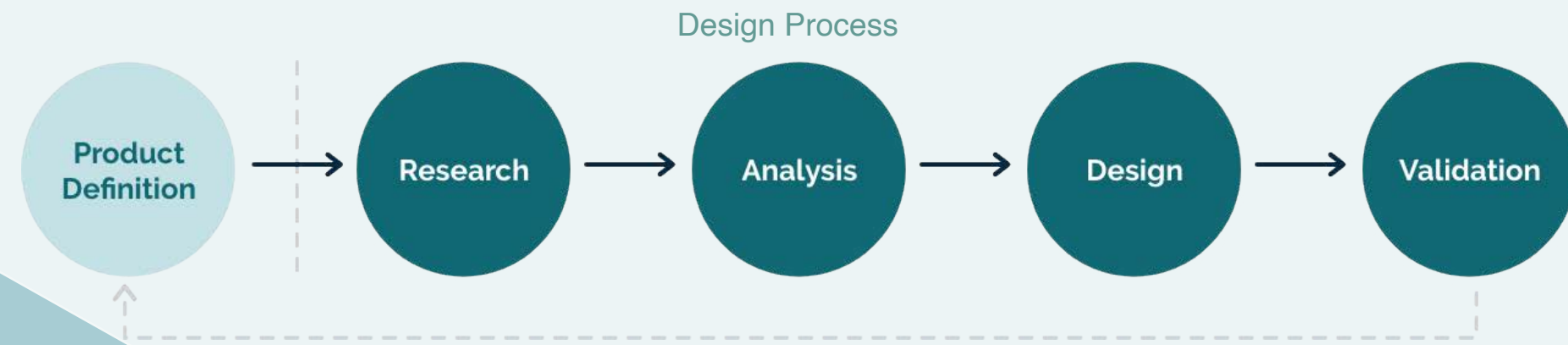
PRODUCT DEFINITION

Project Background

CareStack is a cloud-based software solution providing company for dental institutions of US. They provide SaaS applications to manage their daily operations and softwares.

In 2021, CareStack planned to upgrade and revamp their product - Patient Portal, which the dental institutions use as their patient engagement tool.

Targeted Market:

Dental healthcare providers/institutions.

Value Proposition Mapping

What is it:

A stand-alone web tool that allows patients to view and perform patient-related activities of dental healthcare providers.

Who will use it:

Registered patients of dental institutions in US.

Four main personas

1. Patients with insurance

2. Patients with dependance and insurance

3. Patients without insurance

4. Patients with dependance

Why they will use it:

To view, track and perform patient-related activities

Problem Statement

Very few patients use the dental institutions existing portal tool to perform patient activities because of its limited support features, complicated user interface, and scattered communication support.

RESEARCH

Primary

Web Survey

With hospital authorities and patients

Interviews (through video call)

With hospital staff, doctors & patients

Secondary

Data Analysis

Use the patient details stored in the patient database to discover patient types, patterns, and activities.

Market Study

- We need to know what others are doing to stand out

- Explore similar products to familiarise with their offerings.

ANALYSIS

Data Synthesis

Findings

80% - insurance holders

60-70% - have dependant

80% - prefer to have online portal

90% - find difficulty in remembering appointment dates

70-80% - want/prefer a common place to find all the details

60-65% - take 2-3 appointments in 6 months

60-70% - use laptop to fill the forms and upload

Pain Points

- keeping all the treatment documents in a single place

- difficult to track the insurance claim status

- not getting prior information of eligibility for insurance claim

- payment break (from insurance side and self payment)

- keeping track of the appointments

- make an appointment (need to call the reception & then go through the call process to fix a date)

Persona

| Patient With Insurance | Patient With Dependents & Insurance | Patient With Dependents | Patient Without Insurance |

Individual Goals

Patient With Insurance	Patient With Dependents & Insurance	Patient With Dependents	Patient Without Insurance
- Book doctor appointment	- Track dependent history	- Track dependent history	- Bill settlement
- Billing with insurance	- Book appointment for dependent	- Book appointment for dependent	- View billing break-up
- View balance availability	- Dependent bill settlement with insurance	- Dependent bill settlement	- Download receipt
-View insurane break-up	- Insurance break-up	- View billing break-up	
		- Download receipt	

Common Goals | - Make an appointment, get the treatment, do followups, review treatment history

OUTCOME

A responsive application for patients to manage their hospital activities
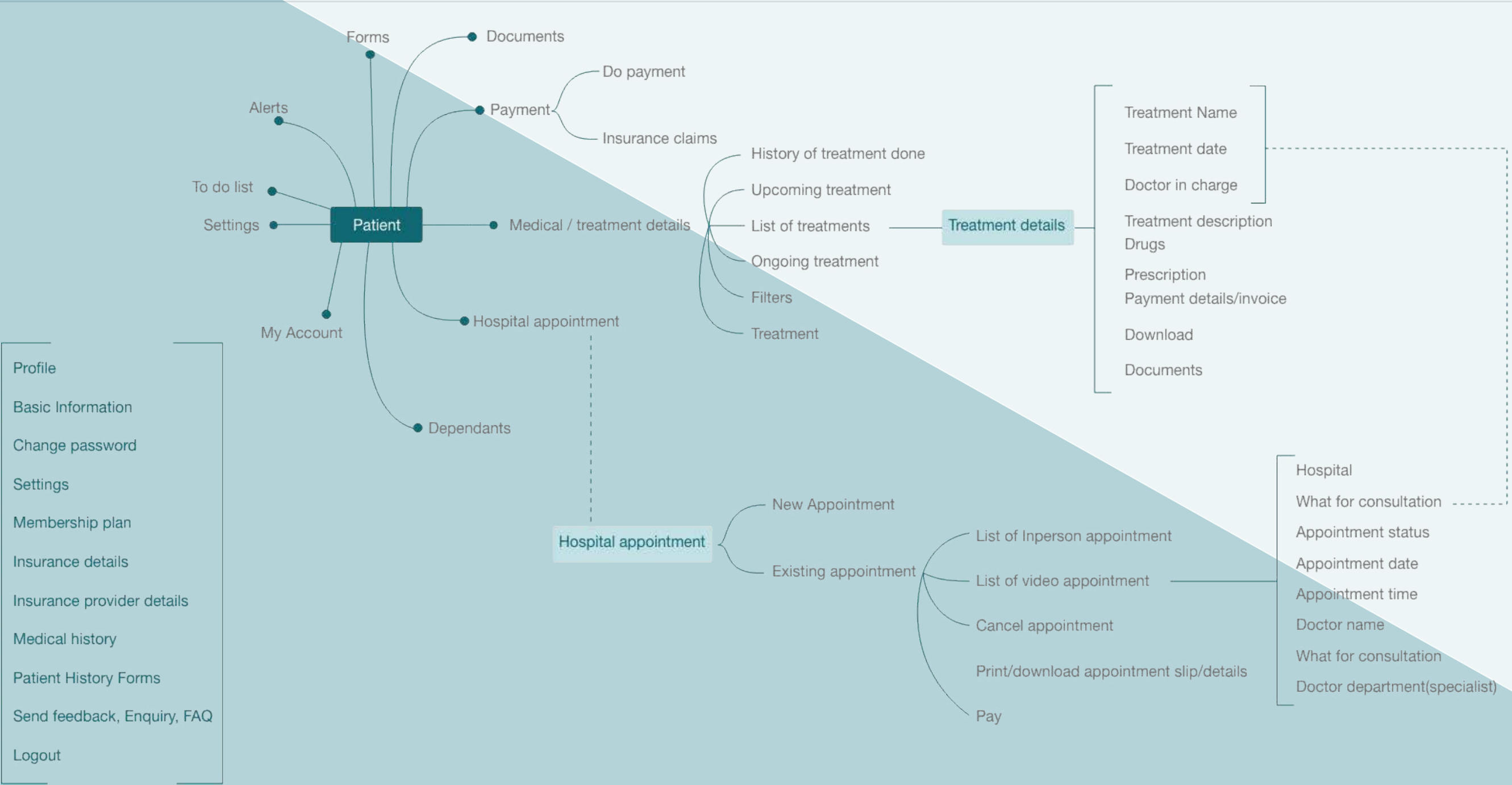
- Scheduling and managing clinical appointment
- Make bill payments
- View treatment and visits summary
- Monitor insurance claiming progress

- Fill and update intake forms
- Download receipts.
- Updating patient and medical history
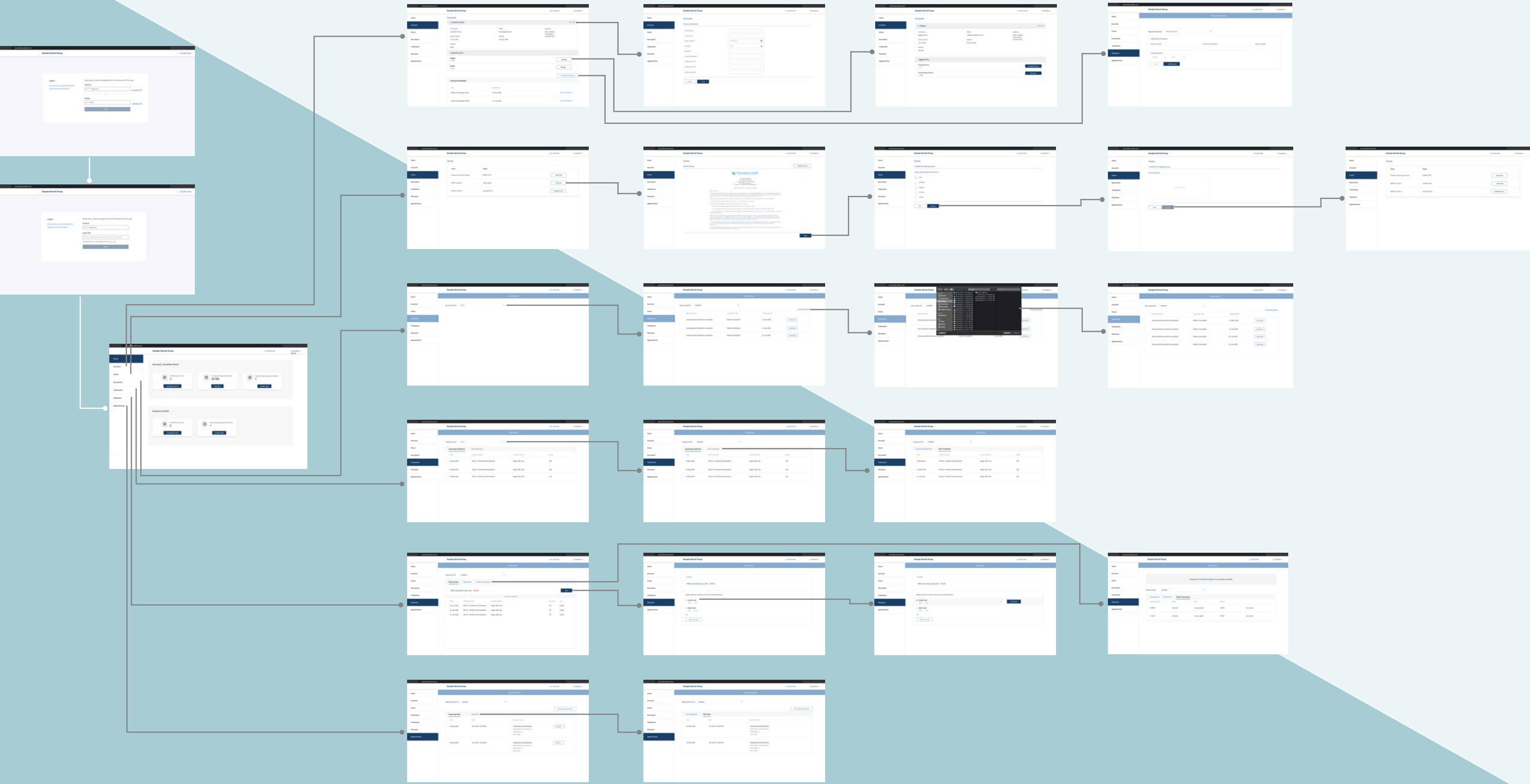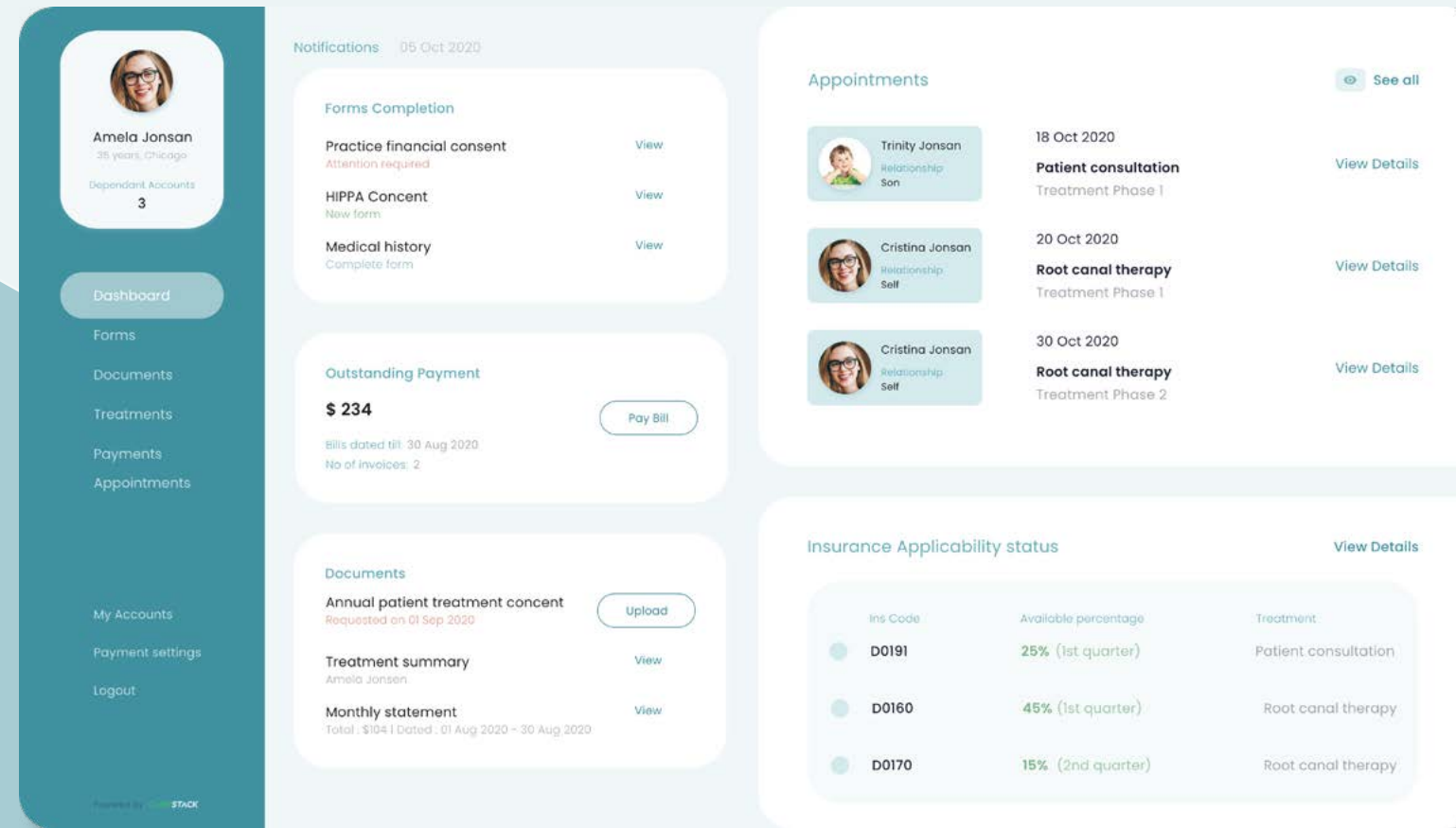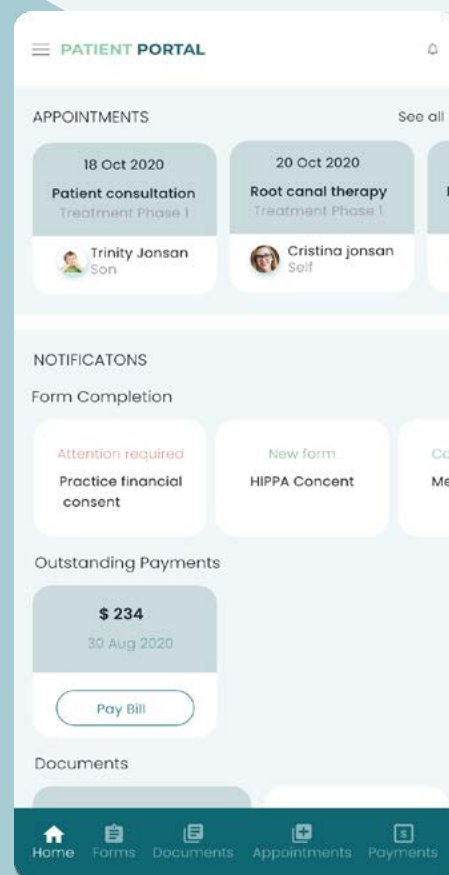- Get updates on coverage benifits for treatments

5

Mind Mapping | Sketching | Wireframing | Prototyping | Visual Design

Mind Mapping

Patient
- Forms — Documents
- Payment
  - Do payment
  - Insurance claims
- Alerts
- To do list
- Settings
- Medical / treatment details
  - History of treatment done
  - Upcoming treatment
  - List of treatments — Treatment details
    - Treatment Name
    - Treatment date
    - Doctor in charge
    - Treatment description
    - Drugs
    - Prescription
    - Payment details/invoice
    - Download
    - Documents
  - Ongoing treatment
  - Filters
  - Treatment
- Hospital appointment
- My Account
  - Profile
  - Basic Information
  - Change password
  - Settings
  - Membership plan
  - Insurance details
  - Insurance provider details
  - Medical history
  - Patient History Forms
  - Send feedback, Enquiry, FAQ
  - Logout
- Dependants

Hospital appointment
- New Appointment
- Existing appointment
  - List of Inperson appointment
  - List of video appointment
    - Hospital
    - What for consultation
    - Appointment status
    - Appointment date
    - Appointment time
    - Doctor name
    - What for consultation
    - Doctor department(specialist)
  - Cancel appointment
 - Print/download appointment slip/details
  - Pay

Wireframe

Roles & Responsibilities

• Identifying user groups, conducting UX research and exercises to define user journey, mapping pain-points etc.

• Discover the customer need and derive the problem statement by defining user journeys and use cases.

• Market study, analysis, mind mapping for concepts building.

• Making information architecture, wireframes, high & low fidelity prototypes for the concept.

• Interactions with product managers & stakeholders to understand business scope, platform support, tech feasibility.

• Visual language Proposal.

• Delivering GUI guidelines by aligning visual trends and brand guidelines.
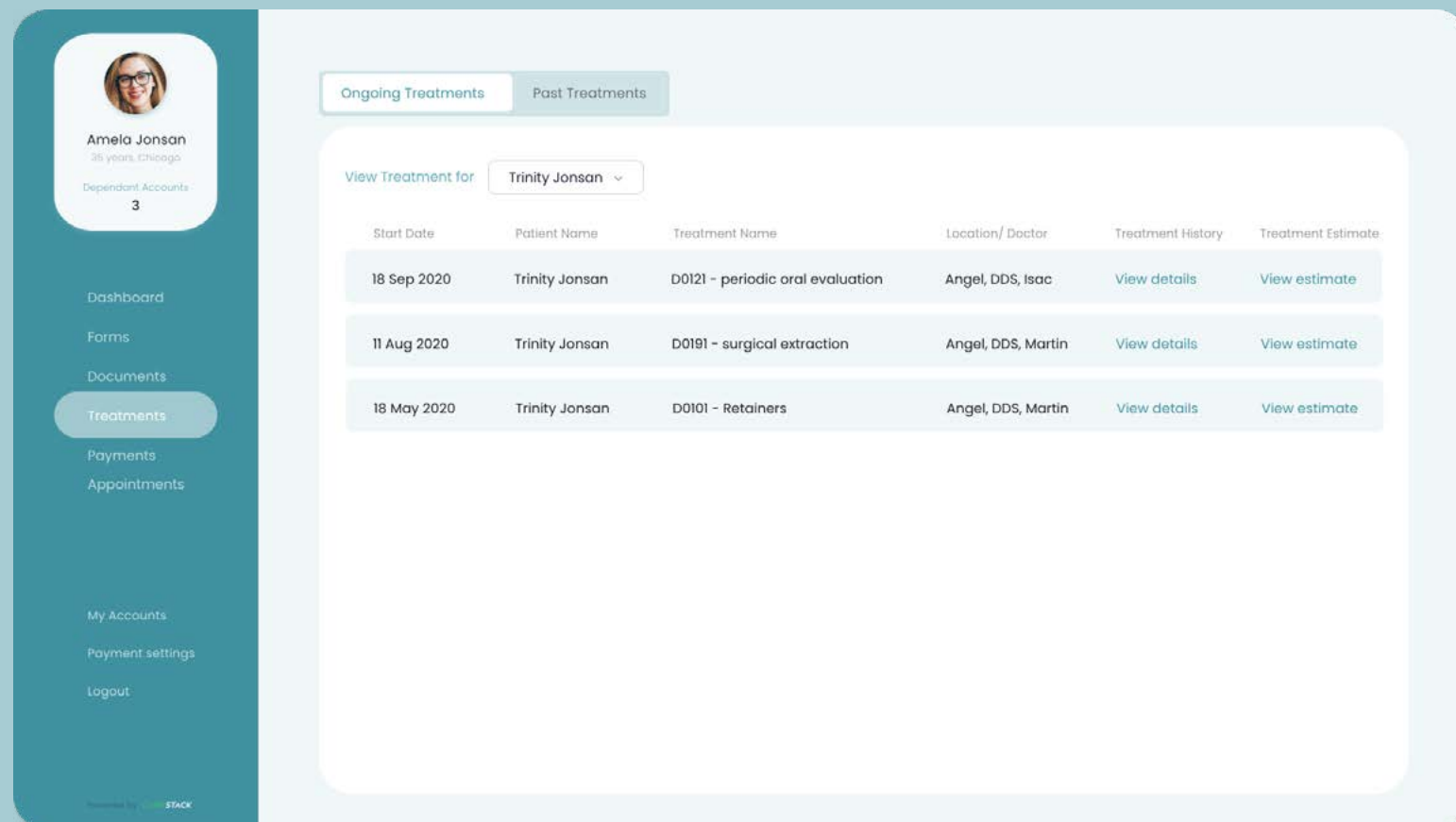
AIM

Data Scraping Tool | Envestnet Yodlee

The Aim is a visual data extraction (scraping) tool designed and developed by Yodlee to extract data for account aggregation. It helps create scraping templates for bulk extraction of unstructured customer account data from the financial data provider (e.g. bank accounts, brokerage accounts etc.) and stored in Yodlee's database in a categorised and structured format.

Problem Statement

Yodlee is an American software company providing data aggregation and data analytics platform powering dynamic, cloud-based innovation for digital financial services.

With their existing scraping application,

- New and experienced users feel trouble followup with lengthy scraping process and lose track and data during the process.

- Template creation and testing take a lot of time as the application restricts the user from performing other tasks on the scraping template when testing is performed on an individual section of the template.

- Users find it difficult and need help understanding and fixing the errors that occurred during the template testing phase.

Users

Site analysis team

- Team members

- Managers and team leads

Site Configuration team

- Team members

- Managers and team leads

Outcome

Revamp the application

- Convert the advanced machine learning extraction algorithm to an ease-of-use and intuitive data extractor interface, thereby reducing the data extraction time to a few days which previously take weeks to extract.

- Adding a sector-wise testing feature allows to keep up the testing and extraction process for different sectors at the same time, thereby saving a lot of waiting time.

- Increase onboarding success and engagement by simplifying the scraping phases and navigation flows between the phases.

- Introduce error diagnose and resolve suggestions feature to help users to fix errors occurring at the time of template testing by themself.

- Add save, reuse and update options to the template to help improve the user's performance time and reduce duplicate creation of templates for different sites.

Roles and Responsibilities

- Conduct UX audit and study scraping algorithm functionality logic for user interactions

- Conduct interviews, surveys, and focus group observatory surveys to understand the key requirements and activities.

- Create affinity mapping, identify personas, data analysis, and create use cases, flows and interactions based on them.

- Make wireframes and prototypes for various user flows and use cases eg: testing flow, and template state navigation flow.

- Interact with various stakeholders to understand hardware support, tech feasibility, and feature delivery timelines.

- Create design specs and assets for the design.

- Work with developers to achieve the desired result by constantly testing and reviewing the errors.

- Involve and participate in the feature testing with actual users and collect feedback for future design improvements.
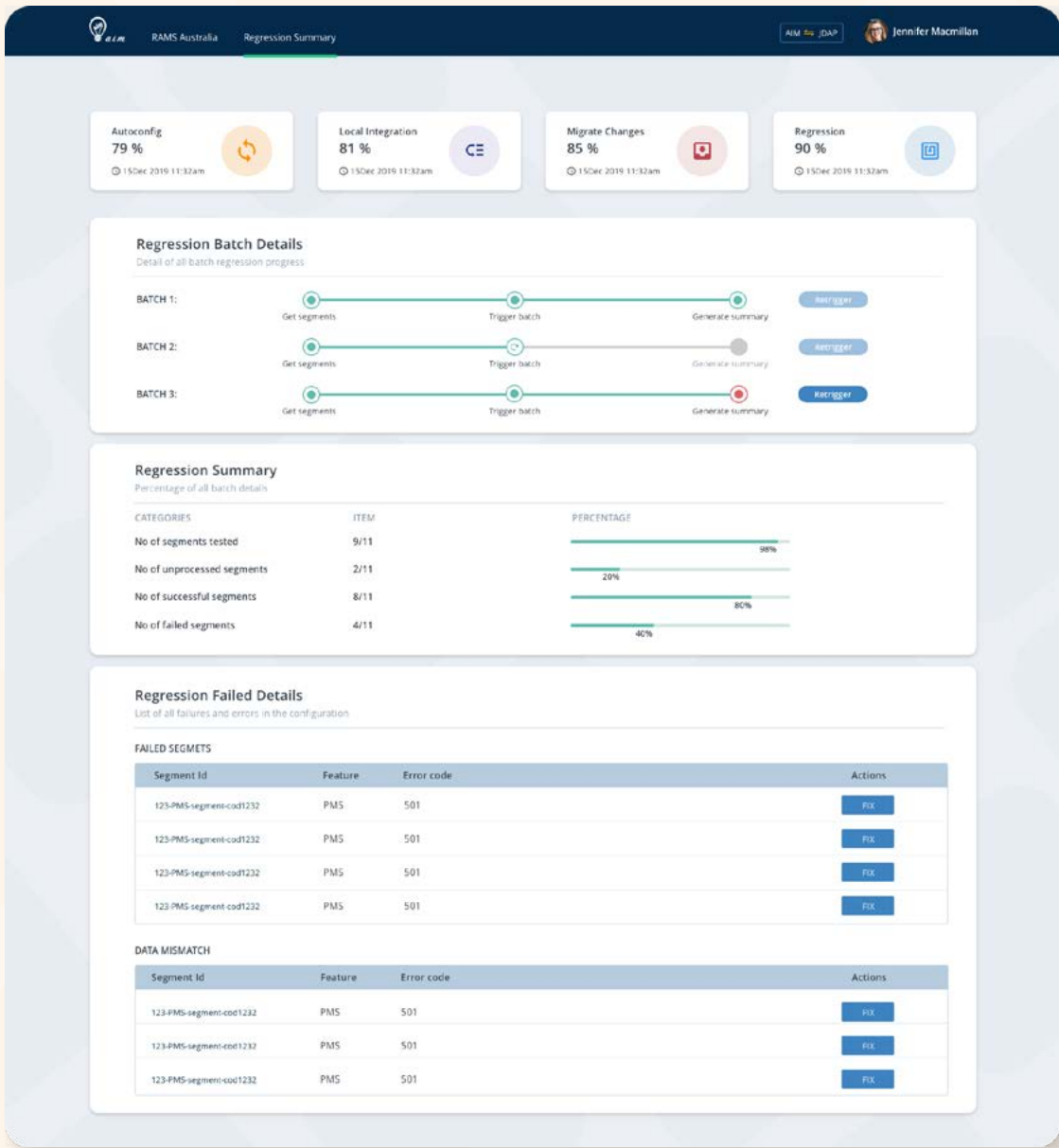
Visual Design

Modular container structure for different account types
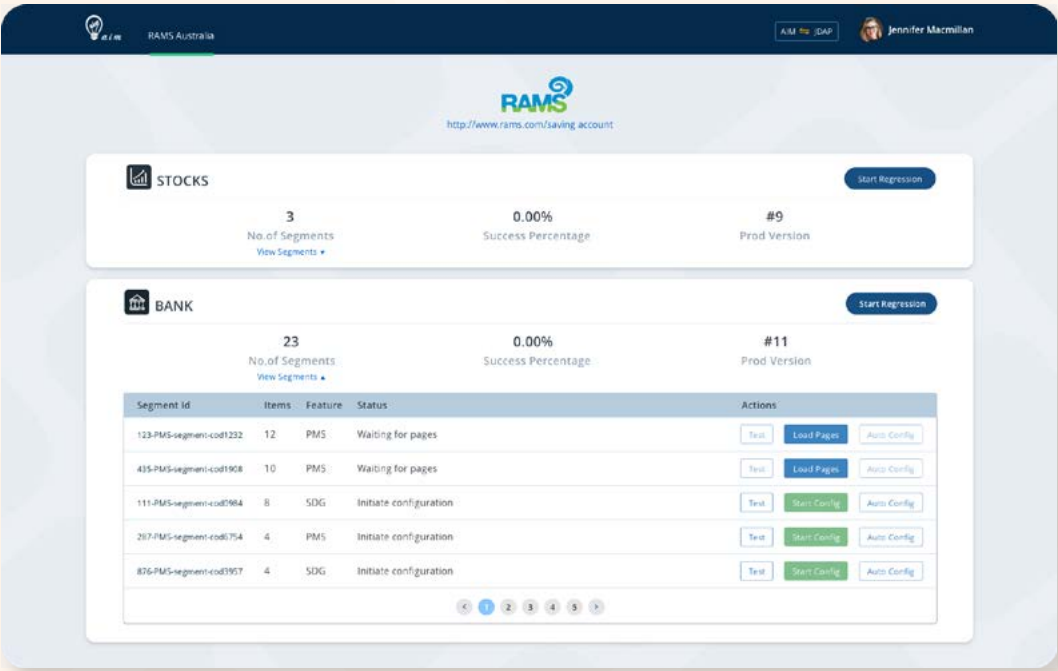
Page - Extraction steps
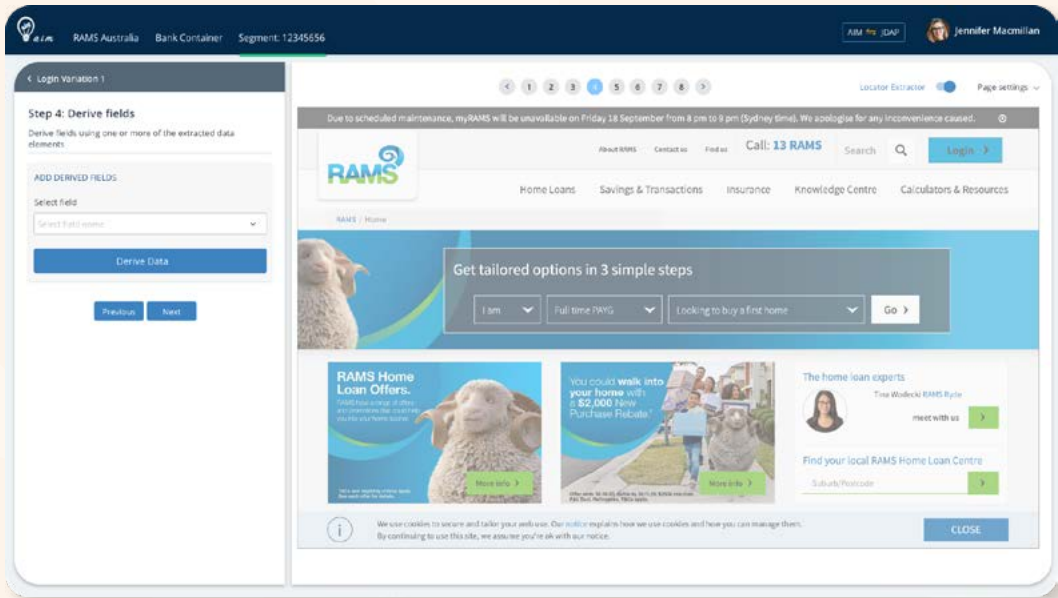

Test Summary Dashboad

Online Appointment Booking

Web Application | Carestack

A dynamic web application that allows patients to book physical and virtual clinical appointments through the service provider's web from any time and anywhere.

The booking system allows people in different locations to search for a dentist and book an appointment. It also provides appointment reminder notifications and alerts.

The application is an extension of the clinical website and is integrated with the patient portal of the service provider.
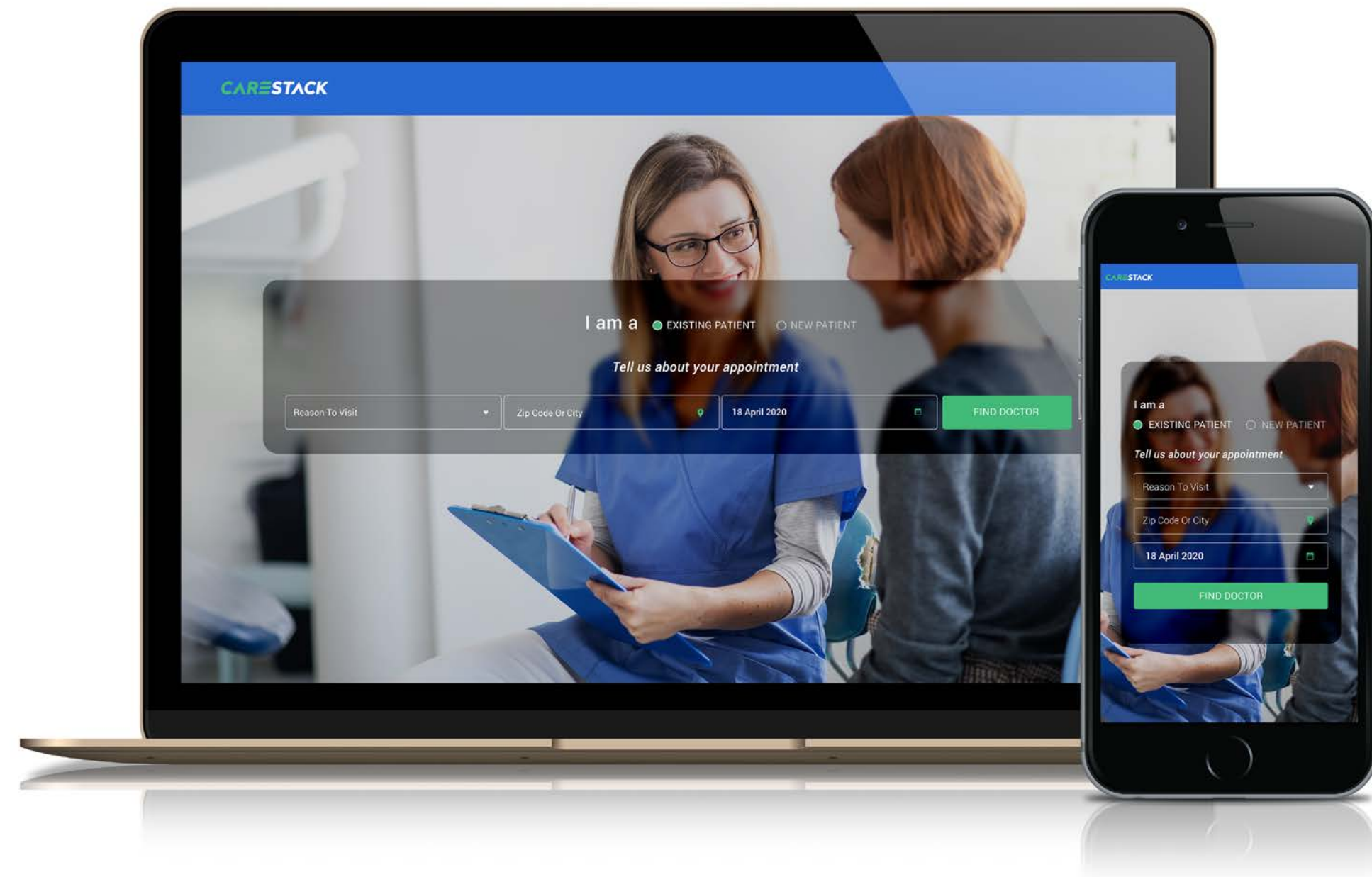
Problem Statement

With the current telephonic and in-office booking scenario,

- Patients cant call to make an appointment whenever they like. They have to wait and do it when the phone hours are open, hence less convenient and time-consuming.

- Making changes and rescheduling an appointment date is complicated and less satisfying as it is difficult to know all the available dates and match them with the patient's convenient date.

- Patients forget the appointment dates and miss out the consultation.

- There is no way to have a quick update discussion with the doctor, other than visiting the doctor.

Users

- Registered Patients of dental health institutions

- Dental Patients - People who need dental care

Outcome

An online appointment scheduler for dental patients.

- It help users book appointments through the service provider's website from any time and anywhere, making appointment scheduling quick and stress-free.

- Multiple booking types - in-person visit appointments and video calls for a quick consultation.

- Multiple calendar views - reduce user's workload and time of overseeing booking and scheduling.

- Cancelation policies and customizable services allow client to make changes to their appointment with ease.

- Send reminders and confirmations to the client after their booking, thereby giving an appointment track and preventing them from missing out on the appointment.

- Provide information of treatment expenditure with insurance claim availability at the time of booking confirmation.

- Treatment and location-based search for best search results with multiple clinical options within the organization to find the perfect booking.

- Request Enquiry feature to get assistance for special treatment requirements and inquiry

Roles and Responsibilities

- Interact with stakeholders to understand the requirement and business scope.

- Partner with product managers and engineers to understand tech feasibility and hardware support

- Analyze and synthesize the patient data stored in the patient database to identify user's behavioral patterns and pain points

- Perform market research, benchmarking, data analysis, and mind mapping for concept building.

- Create a customizable design

- Create site maps, user flows, wireframes, mock-ups, and production-ready specs for the customizable design

- Establish and standardize UX components

- Create Visual language for the solution

- Deliver GUI guidelines with customizable elements
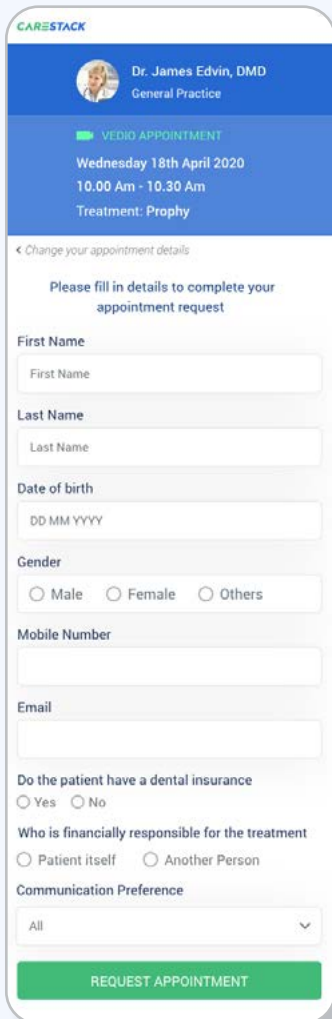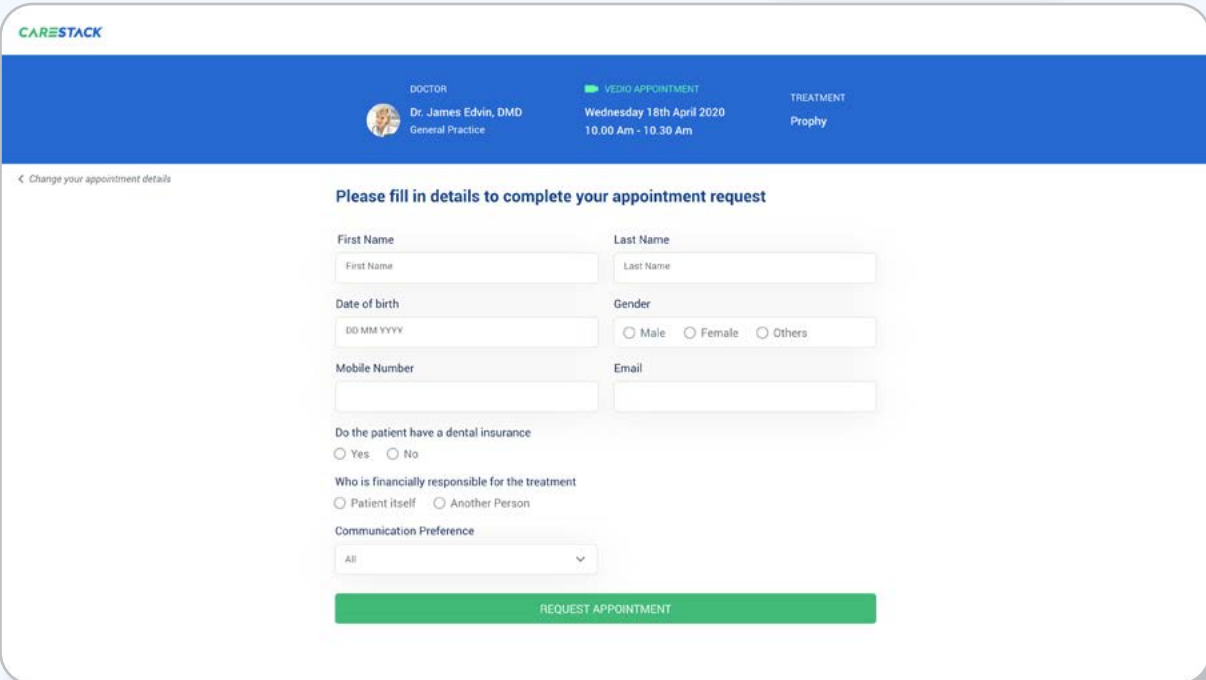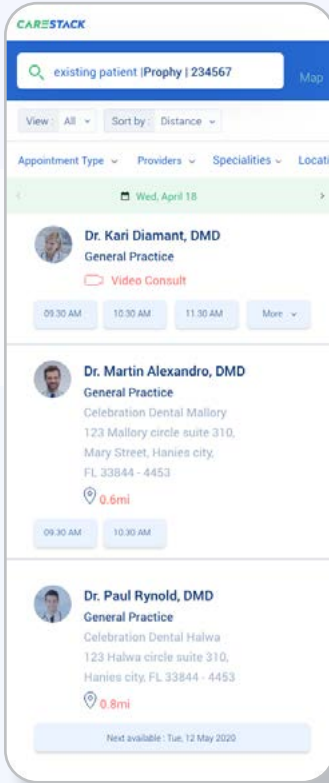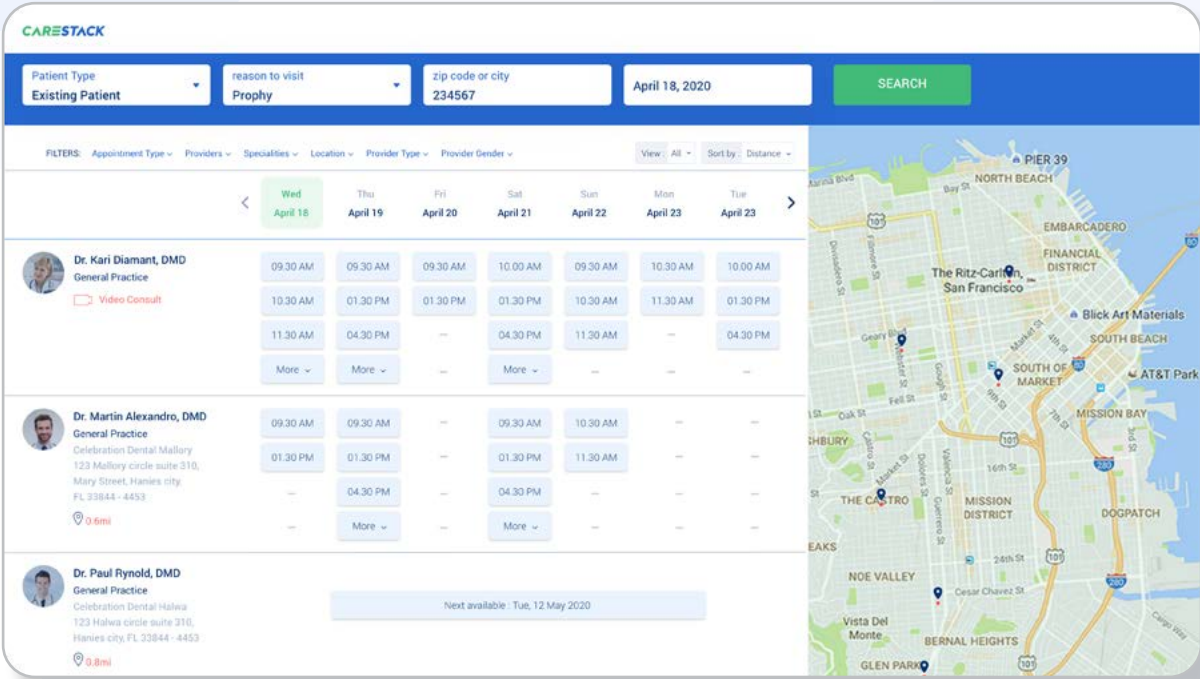
RPG Share
Socializing & Entertaining App I Moonraft Innovation Labs

RPG Share is a cloud-based intranet socializing application for social networking and collaboration and a self-entertaining platform. It builds an engaging workplace for the organization and enhances and brings employees closer by allowing and keeping them posted on what's happening culturally in the organization.

With RPG Share, employees can easily post organizational images, like other's posts, and see organizational news.

Another feature that set the app apart is the amusement zone. Here they can play games and earn rewards.

Furthermore, the app has an interactive dashboard that incorporates user's posts in the interaction and incentivizes users to participate. A better way to engage and recognize the employee.

Problem Statement

RPG Group is an Indian industrial and service conglomerate company.

They approach us to bring up ideas that resonate and reflect the brand and brand tagline - **Hello Happiness** globally and across the companies in the group.

Hello Happiness is a bold statement of confidence and purpose - a statement that helps employees and companies to open their doors to a world of opportunities and possibilities; a statement that signifies the company's intent to touch and enrich the lives of others.

Users

- Employees of different departments
- Human Resources team (who organise and manage companies cultural activities)
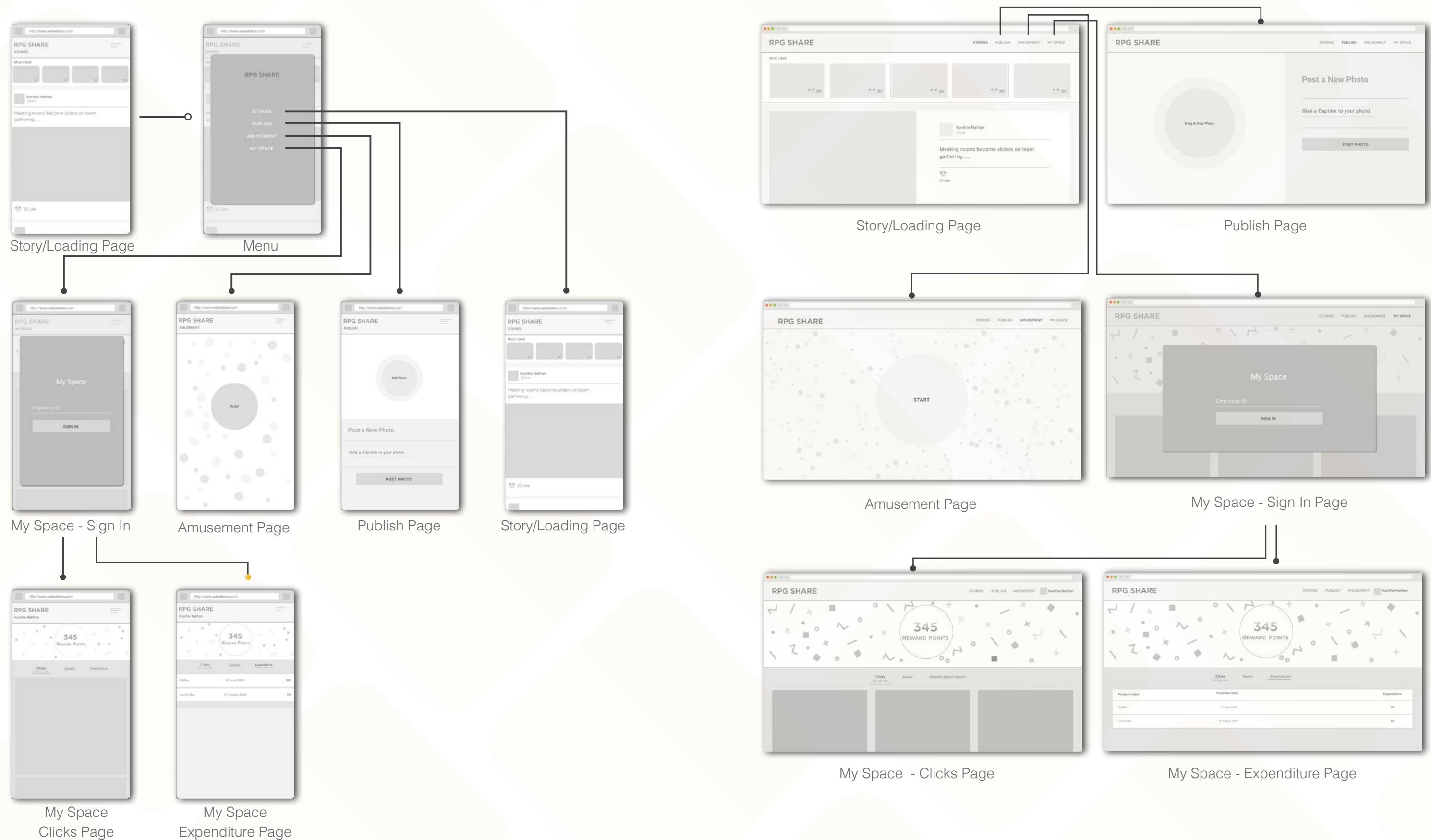
Outcome

After understanding the client and their vision, we finalize three products that unleash talent, fun, and touch lives by creating a high-energy environment with a keen sense of belonging and smiling faces everywhere.

1. Socializing and entertaining applications for the company employees.

2. Responsive and interactive wall installation in the office headquarters.

3. A live digital display of the dynamic wall installation in the public gathering place of each company.

Socializing and Entertaining App

- Users can post images and like images posted by colleagues. They can also earn points when their posts are in the top fifty likes list of the week.

- Amusement zone, have games that one can play and win rewards. It also helps the users to overcome their office stress.

- Reward zone, where user store and manage there rewards. They can use these reward points to purchase items from office cafetaria.

- Interactive dashboard, users can interact and explore the elements. These elements incorporates users posts and boosts the employee engagement.

Story/Loading Page

Menu

Story/Loading Page

Publish Page

My Space - Sign In

Amusement Page

Publish Page

Story/Loading Page

Amusement Page

My Space - Sign In Page

My Space
Clicks Page

My Space
Expenditure Page

My Space - Clicks Page

My Space - Expenditure Page

Roles and Responsibilities

- Understand the organization, their deep rooted values,their vision, and history to propose the concept.

- Interact with internal and external stakeholders to understand the product scope, platform support, and tech feasibility.

- Study and empathise the user group and conceptualize the product by defining user journeys and use cases.

- Create information architecture, wireframes, and high & low-fidelity prototypes for the concept.

- Create graphic user interface elements, like wizards, navigation elements, data visualizations, and widgets

- Study the RPG guidelines.

- Visual language Proposal.

- Create mood boards, define colours and make visual mockups for wireframes

- Delivering GUI guidelines by aligning visual trends and brand guidelines.

PDF Scraper

PDF Scraping Tool | Envestnet Yodlee

PDF Scraper is an efficient, powerful and scalable tool to create scraping templates and extract large amount of data stored in PDF statements (bank statement). It extract and convert relavent unstructured data into structured data that fits the organizational needs.

The application is stand-alone and can be integrated to and accessed from other applications.
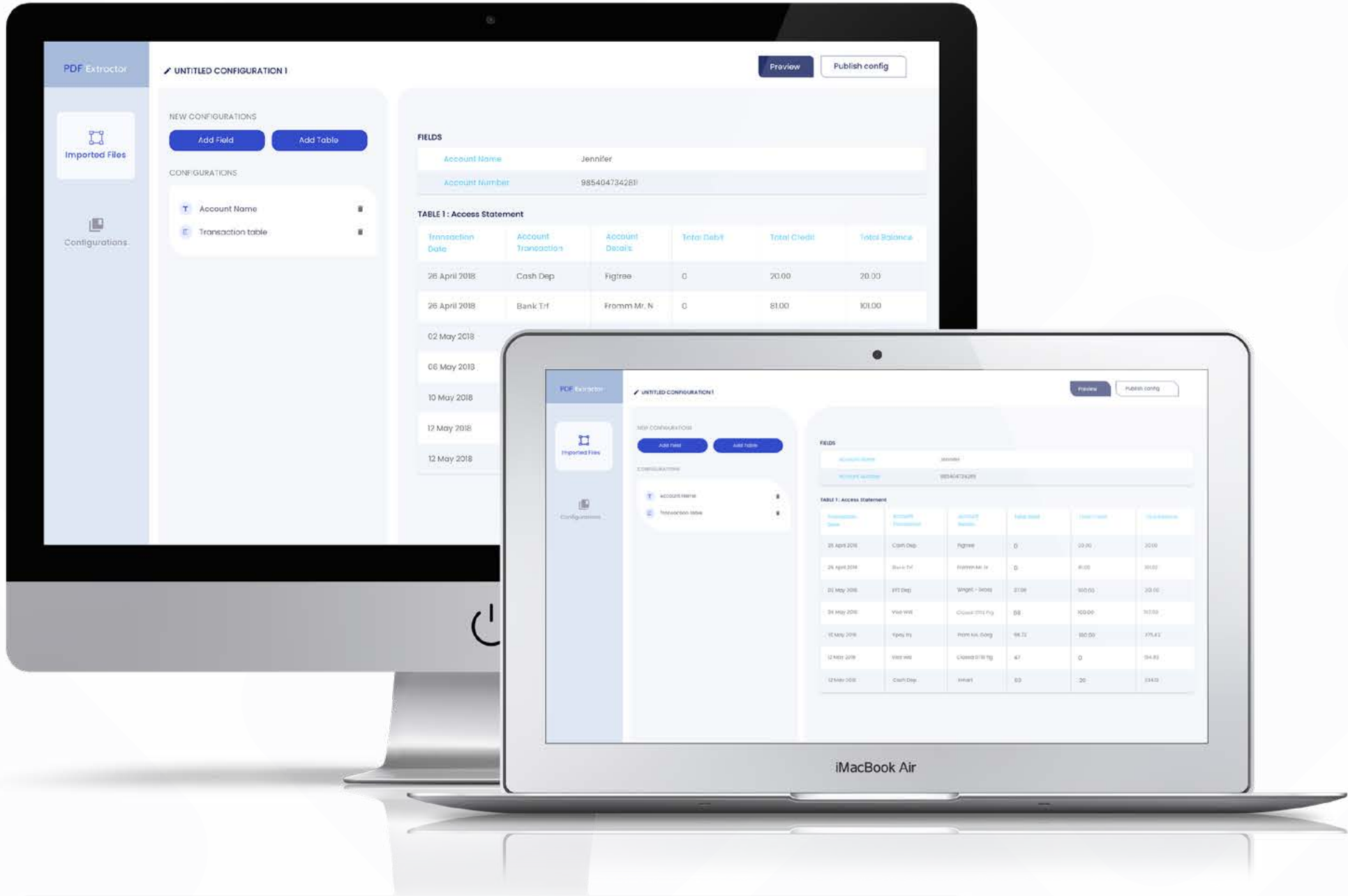
Problem Statement

- Extracting data manually from PDF bank statements is very inconvenient and time-consuming.

- Manual extraction is more error-prone and non-scalable too.

- The current scraping application of Yodlee does not support pdf scraping. Hence the configuration team majorly depends on the coding team for pdf scraping. They write scraping algorithms to scrape pdf files of individual financial providers.

  - These algorithms are complicated for a configuration team member to follow up and work on.

  - It also affects the development team's work strength and time as they cannot be assigned to other work.

Users

Site Analysis team

- Team members

- Managers and Team leads

Site Configuration team

- Team members

- Managers and Team leads

Outcome

A pdf scraping application,

- To create scraping template to scrape pdf files of any size.

- It can handle unstructured data, common data constraints, multi-page documents, tables, and multi-line items.

- It allows the users to save and update templates for future items.

- The test and preview modes test the template and show the expected scrapped outcome in a real-time environment.

- It is a stand-alone application and can be integrated to and accessed from other applications.

Roles and Responsibilities

- Carry out research and interview site analysis and configuration teams to understand the user requirements deeply.

- Collaborate with the engineering team to study the technical aspects and data entry points of the PDF scraping algorithm.

- Perform a market study to understand the working of similar application

- List out the engineering dependencies for the product

- Conduct meetings with product owners, coding team, and other stakeholders to plan the product development and release pipelines

- Develop flow chars for the algorithm and map it with the user journey

- Create information architecture and user flows

- Create wireframes and prototypes to explain different use cases.

- Create tech stories and design specs for the engineering team to start development

- Create UI guidelines and icons

- Oversees the development process and user testing

Visual Design
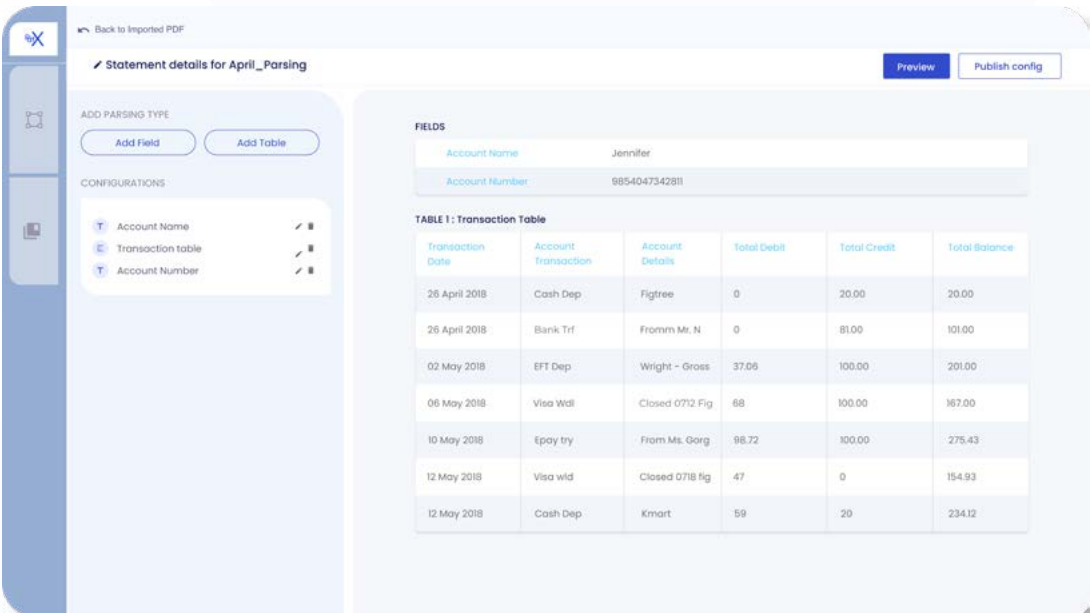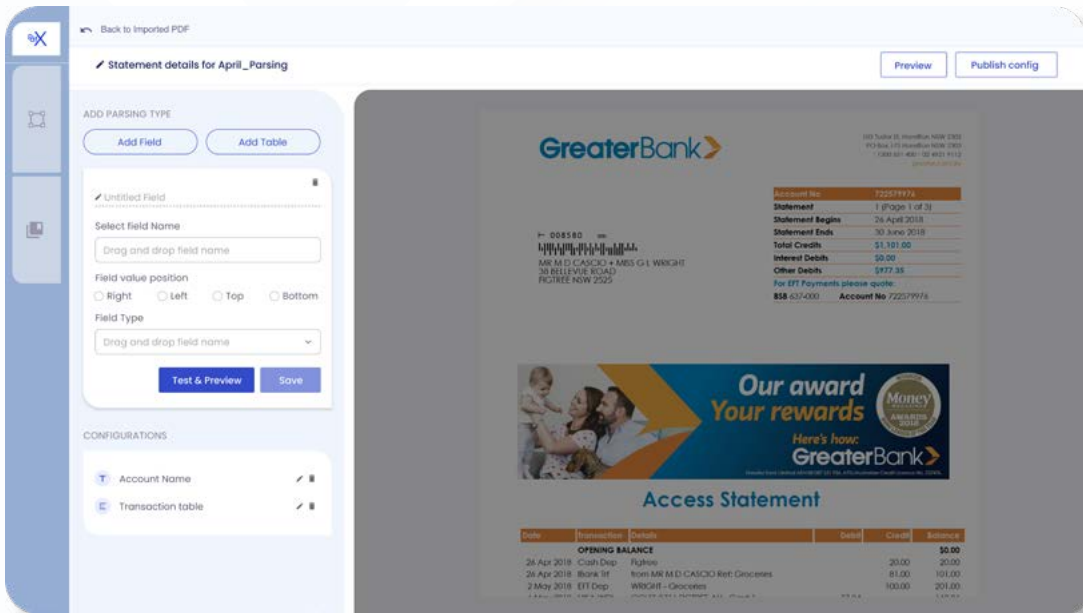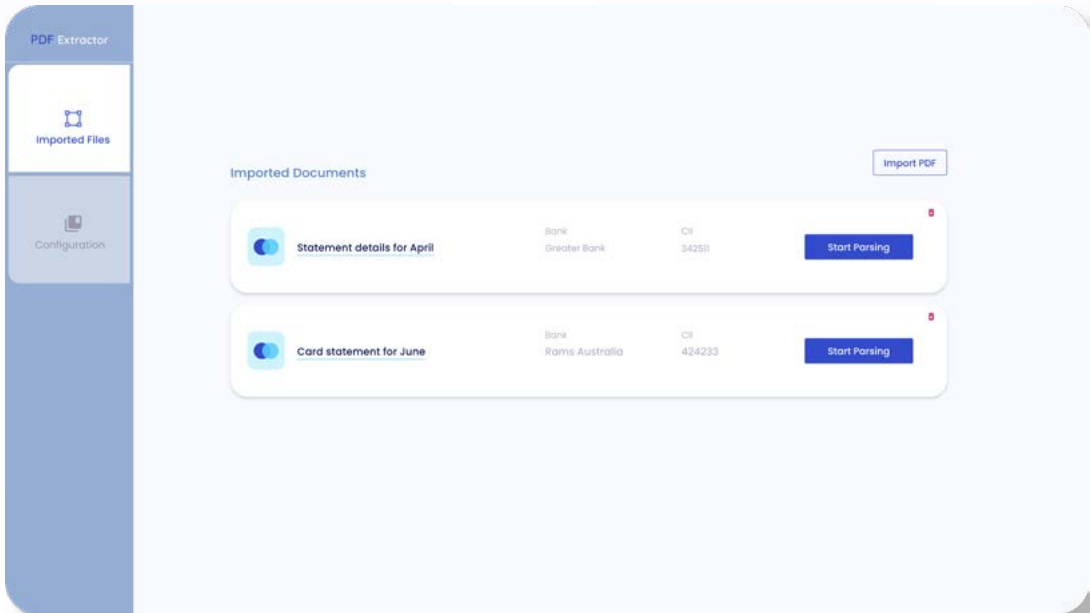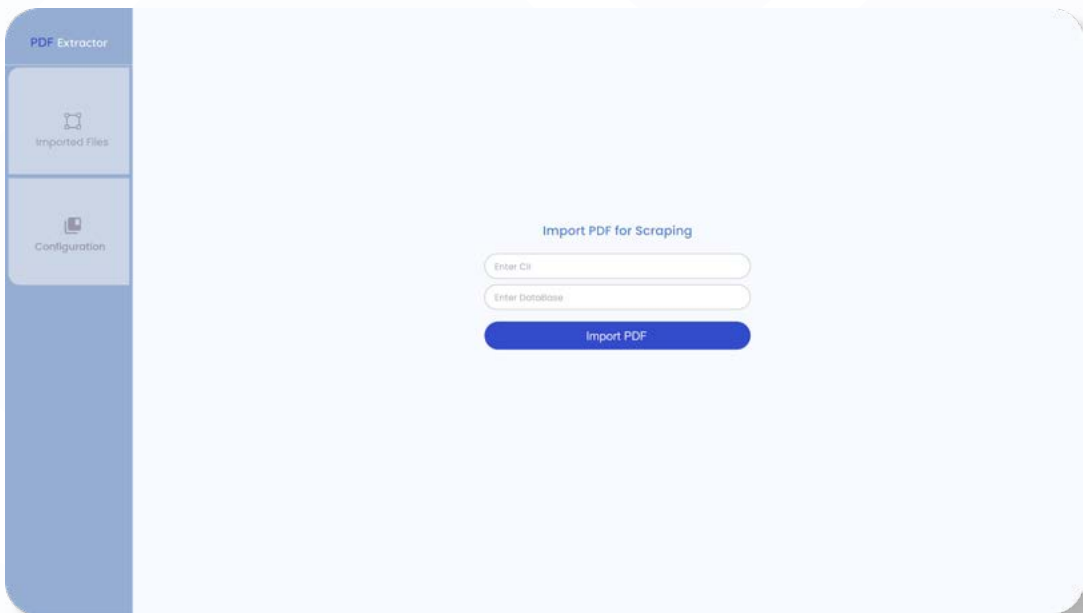
NM Store Assists

Assisting Apps for Sales & Store Handling | Nirav Modi

Nirav Modi is an Indian high-end jewellery brand that designs, manufactures and sell diamond jewellery and have stores in India, London, Hongkong, Macau and United States.

Store Assist Apps - NM Sales Assist and Store Handling apps support and enhance the sales process in the Nirav Modi stores.

NM Sales Assist app helps the sales team to perform their sales process assuredly and with ease.

NM Store Handling app helps to manage and organize the jewelry details, store organization and sales team activities.

Problem Statement

In the boutique, the sales executives interact with clients having different requirements and priorities. For successful sales to happen, the sales team should be quick and accurate in delivering the product and briefing the product features.

Their major pain points include

- Each product has specific features and details. The sales executive has to memorize and deliver the product details accurately which is a studious and risky task.

- Due to security purposes, the products counter gets shuffled weekly which makes it difficult to remember and track the product and counter

- Clients take time panning through the jewelry magazine to shortlist the jewelry they want to try out. But miss out on the new collections as it is an yearly magazine and difficult to add new pages to it.

Users

Store Executives

Store Managers

Customers

Outcome

Product and Design proposals for

- Tablet application for sales assistance

- Tablet application for store handling

Tablet application for sales assistance

Have a duel app mode with customised features for

- Customers

- Sales Executives

In the Customer mode

- The customers can have a glimpse of all the collections without walking around the store.

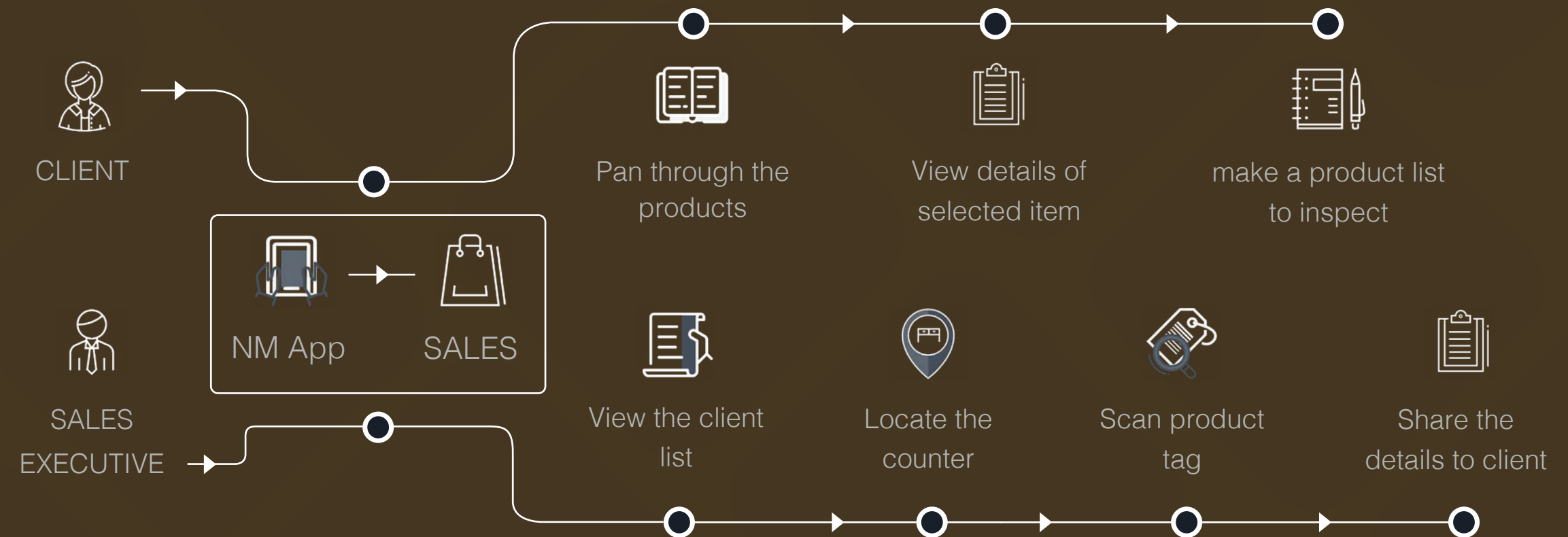- Customers can list out and share the items they want to view.

In the Sales Executive mode

- Tag Scanning feature: One can view the product detail by scanning the product tag.

- The sales executives can view customer's shortlisted items in sales mode with the option to view its product details.

- The app will auto-populate the counter details for the product listed by the client and its available variants.
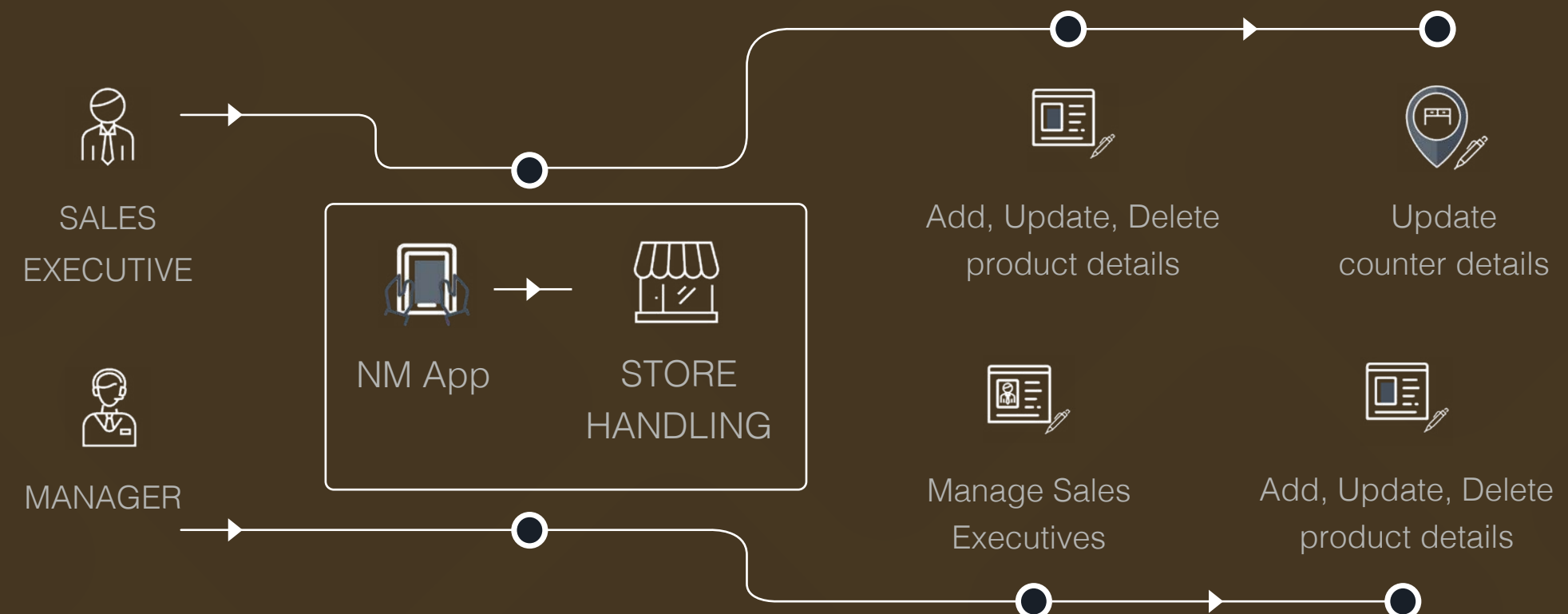
Tablet application for store handling

- Users can add, update, delete and view product and counter details

- The managers can also keep track of the sales and sales executives performance with this application.

User Flow - Sales

CLIENT

SALES EXECUTIVE

NM App → SALES

Pan through the products

View details of selected item

make a product list to inspect

View the client list

Locate the counter

Scan product tag

Share the details to client

User Flow - Store

SALES EXECUTIVE

MANAGER

NM App → STORE HANDLING

Add, Update, Delete product details

Update counter details

Manage Sales Executives
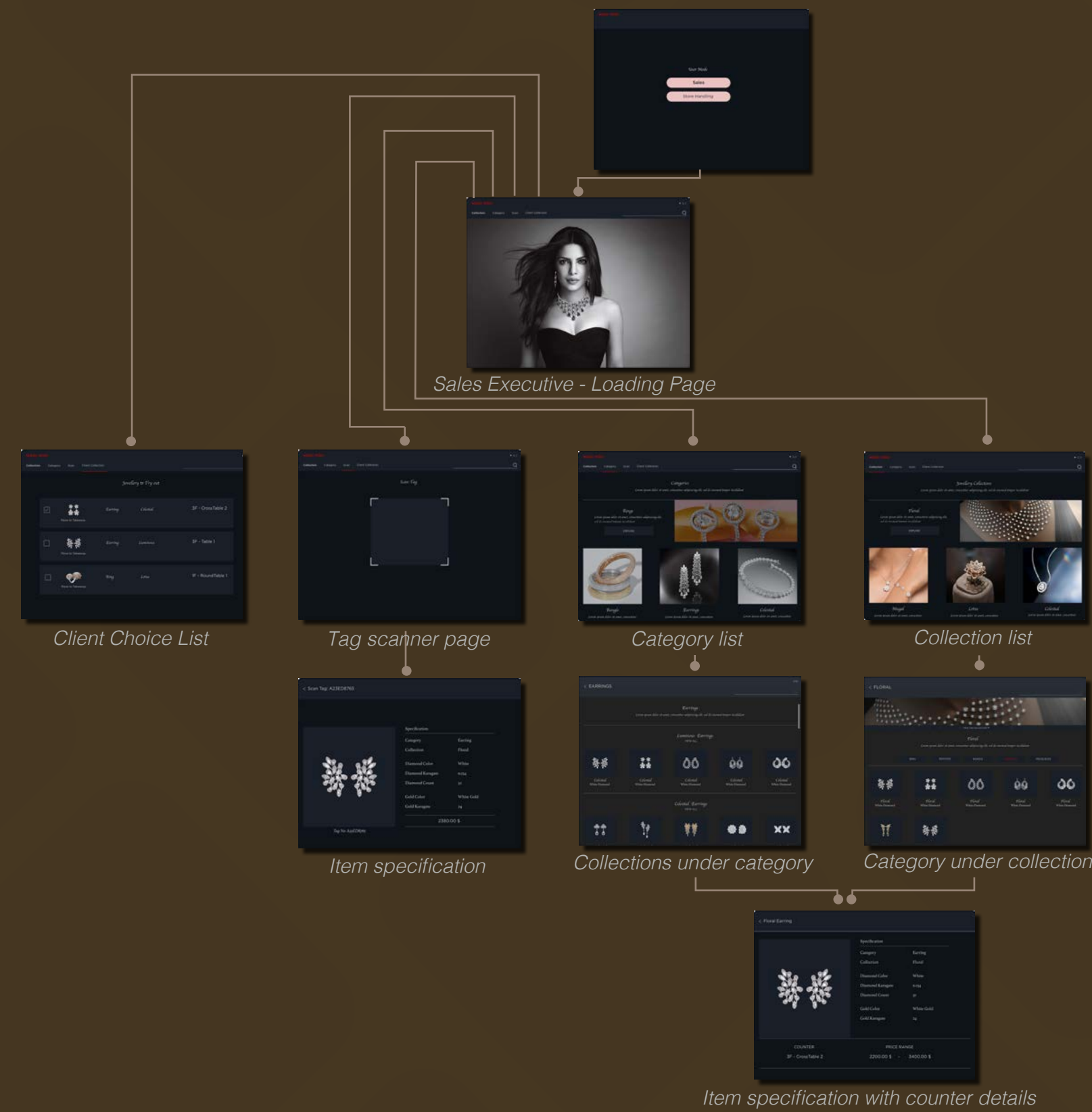
Add, Update, Delete product details
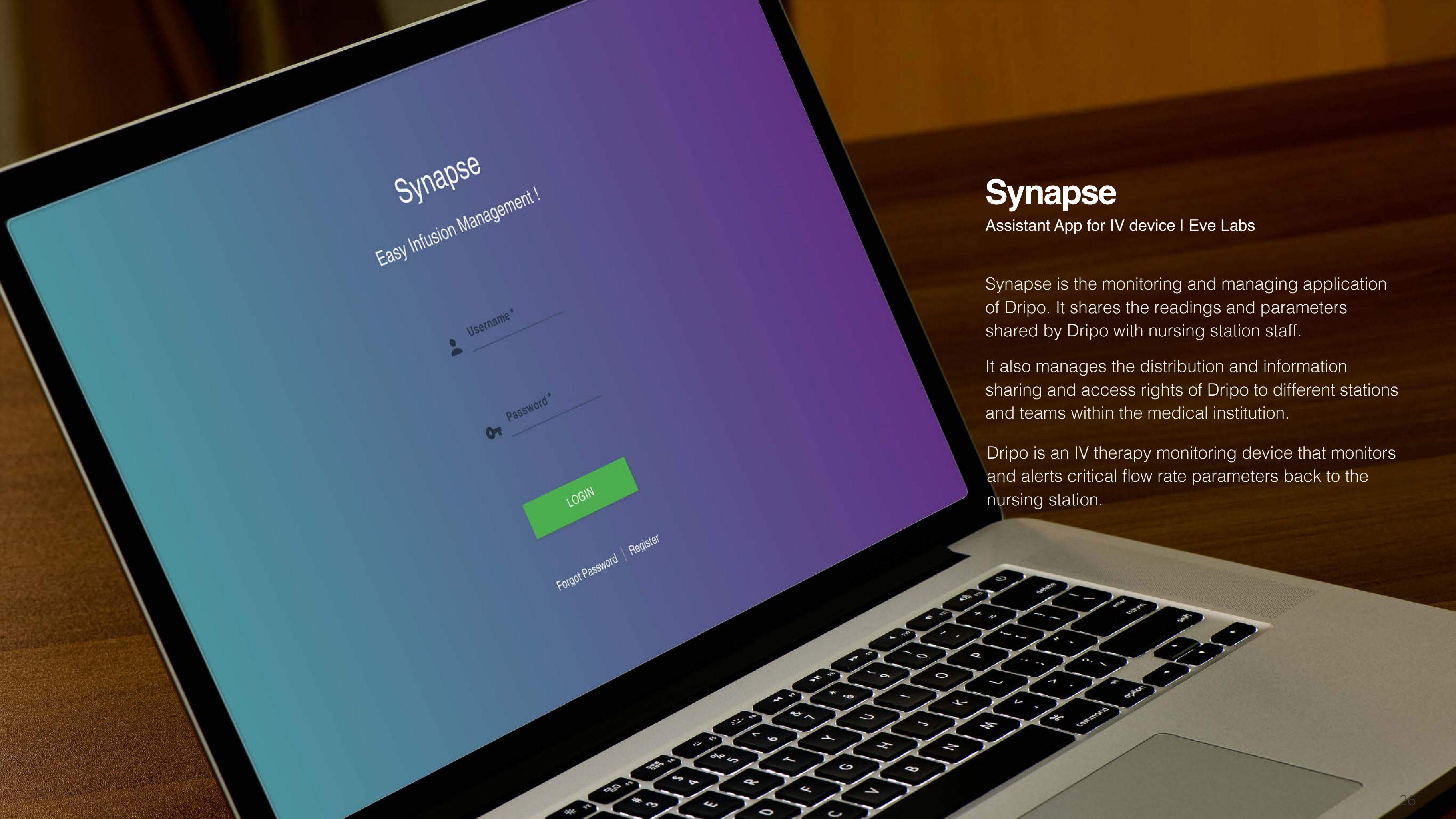
Roles and Responsibilities

- Collaborate with different units in the store to identify and create compelling digital solutions that align with their business objectives.

- Identify pain points and improvement areas through research, interviews, and ethnographic analysis.

- Create concepts to resolve business problems through multiple iterations.

- Present Proof of Concept (POC) to the visual merchandising head, sales and store management team, and to the CEO for approval.

- Create user flow diagrams, wireframes, and visual mockups for the concept.

- Explore trends and competitive landscape to incorporate type, tone, and style into the design along with brand guidelines.

Constraints

Have to go with hypothetical assumptions on technical challenges as there is no in-house development team to discuss with during the design phase.

Initial Mockups - Sales Executive

Sales Executive - Loading Page

Client Choice List

Tag scanner page

Category list

Collection list

Item specification

Collections under category

Category under collection

Item specification with counter details

Synapse
Assistant App for IV device I Eve Labs

Synapse is the monitoring and managing application of Dripo. It shares the readings and parameters shared by Dripo with nursing station staff.

It also manages the distribution and information sharing and access rights of Dripo to different stations and teams within the medical institution.

Dripo is an IV therapy monitoring device that monitors and alerts critical flow rate parameters back to the nursing station.
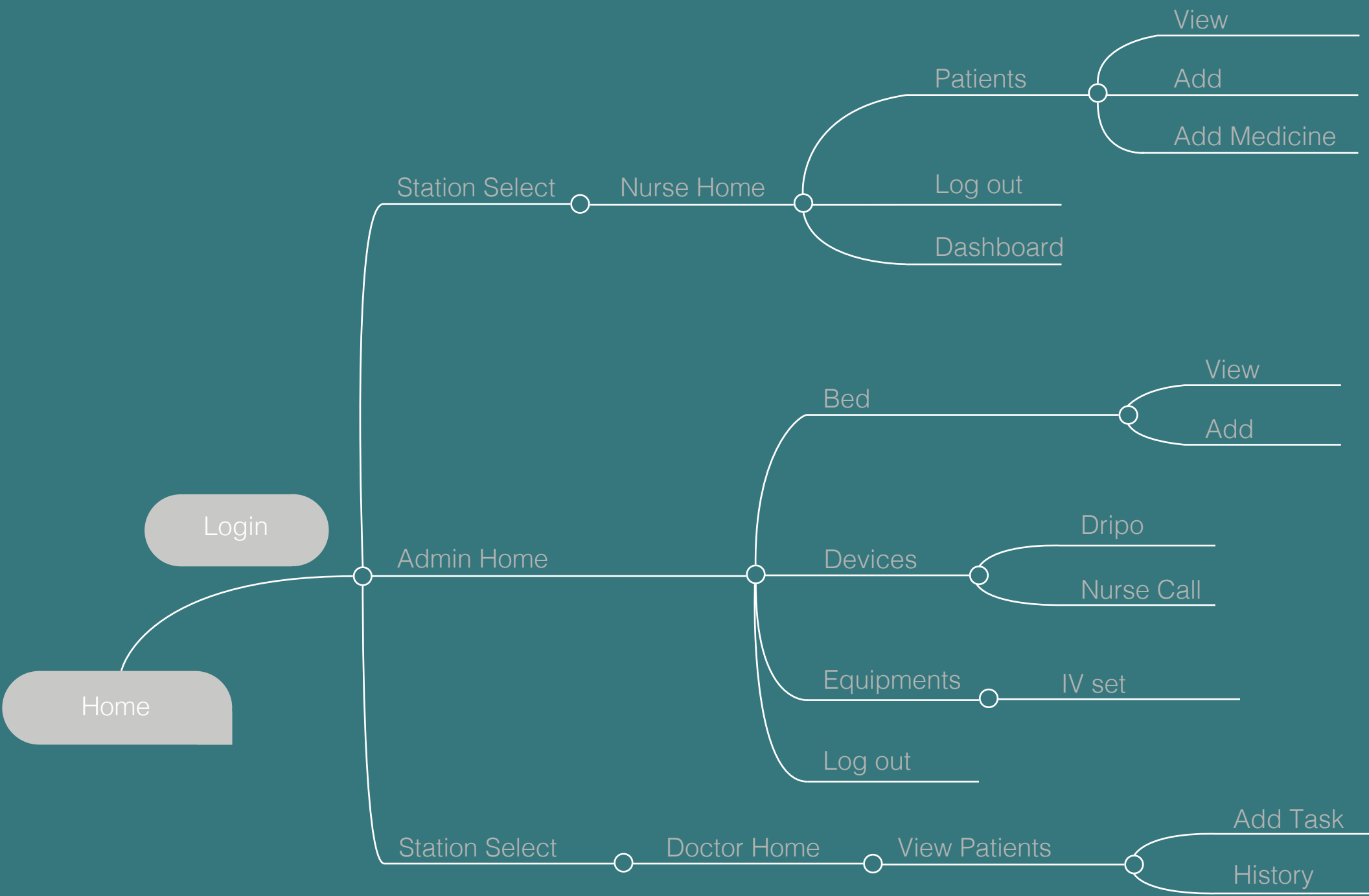
Problem Statement

After understanding the daily work routine of different departments in the hospital, we have identified pain points that affect their quality and time of work while working with the IV device.

- Visiting the patient's bed to check the current status of IV device is time-consuming and disturbs the patient. Doctors and nurses want a solution to access the current data of IV devices from their stations.

- Different departments require specific data. They don't want to pan through a lot of information to filter out the required information.

- Sometimes it is difficult to remember the IV details of individual patients and track down the patient with IV devices on a priority basis.

- There are chances of having an error while keeping records and daily updates of IV device distribution manually.

Users

- Nurses
- Doctors
- Hospital Administrators

Information Architecture

Home → Login → Admin Home

Station Select → Nurse Home → Patients → View / Add / Add Medicine
Nurse Home → Log out
Nurse Home → Dashboard

Admin Home → Bed → View / Add
Admin Home → Devices → Dripo / Nurse Call
Admin Home → Equipments → IV set
Admin Home → Log out

Station Select → Doctor Home → View Patients → Add Task / History

Outcome

A companian app of IV device, which monitors and shares the readings of the device and manages the device activities and distribution details.
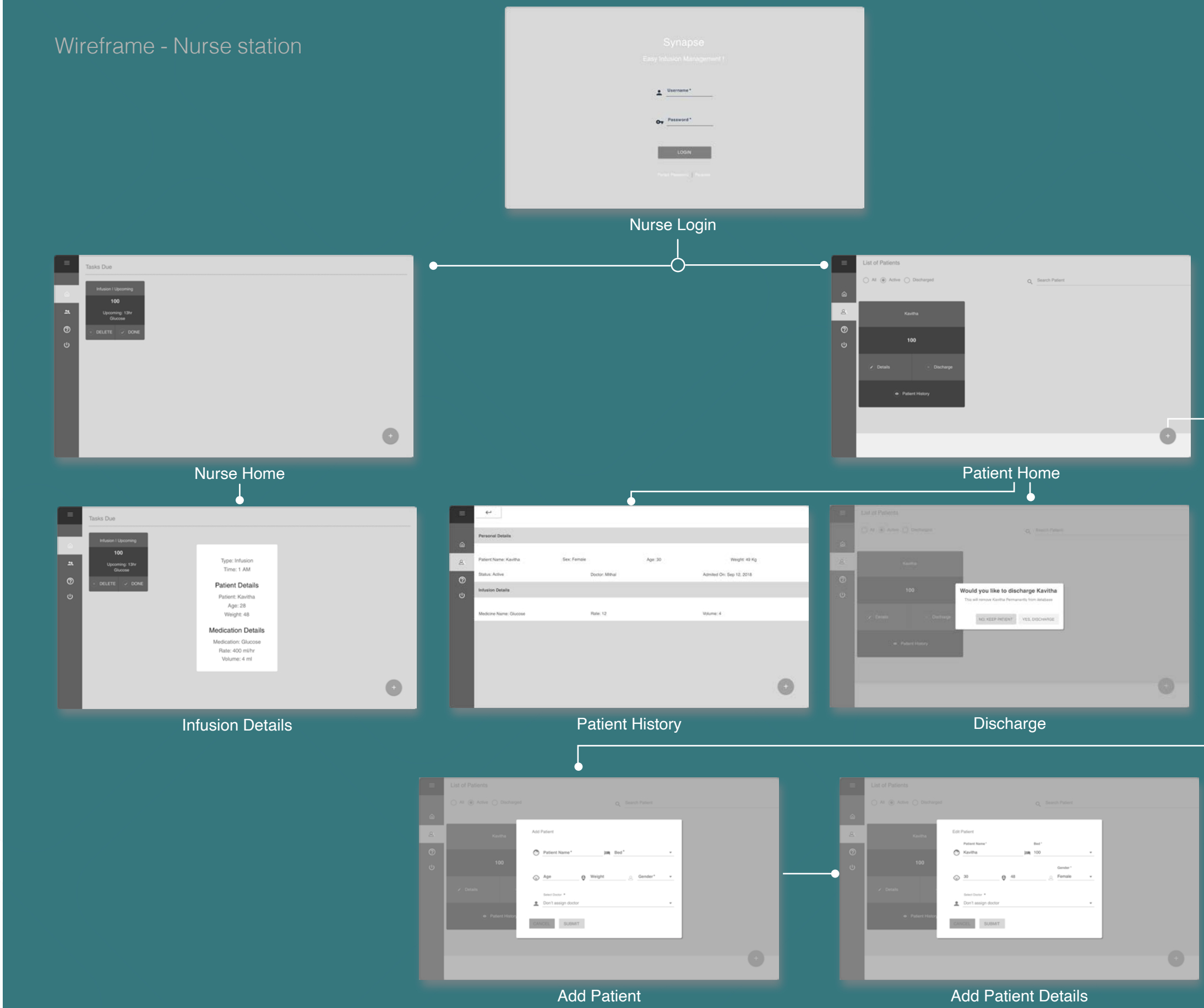
Its key features include

Remote and Live Monitoring: Allows the nurses and doctors to monitor the infusion status from their respective stations without visiting the patient's bed and save the commute time.

Infusion History: Provides the intricate details of all the infusions carried out for the patient, which is otherwise difficult to keep track of. This reduces the transaction and omission errors when manually documenting the patient data.

Data Fluidity: Along with the infusion details, the application can manage patient details and device distribution in the hospital.

Wireframe - Nurse station

Nurse Login

Nurse Home

Patient Home

Infusion Details

Patient History

Discharge


Add Patient

Add Patient Details

Roles and Responsibilities

- Analyse and synthesize the research data to understand the user needs, behaviors, and pinpoints.

- Creates information architecture diagrams, mental models, personas, usability testing stimulus, site maps, wireframes, and high-fidelity mock-ups.

- Prioritising tasks and design proposals to visualize requirement.

- Work closely with the business, product team, and developers and create concepts to resolve the issue through multiple iterations.

- Responsible for the establishment and standardization of UX components.

- Prioritise tasks and develop visual style guidelines.

Mockup-Admin Dashboard
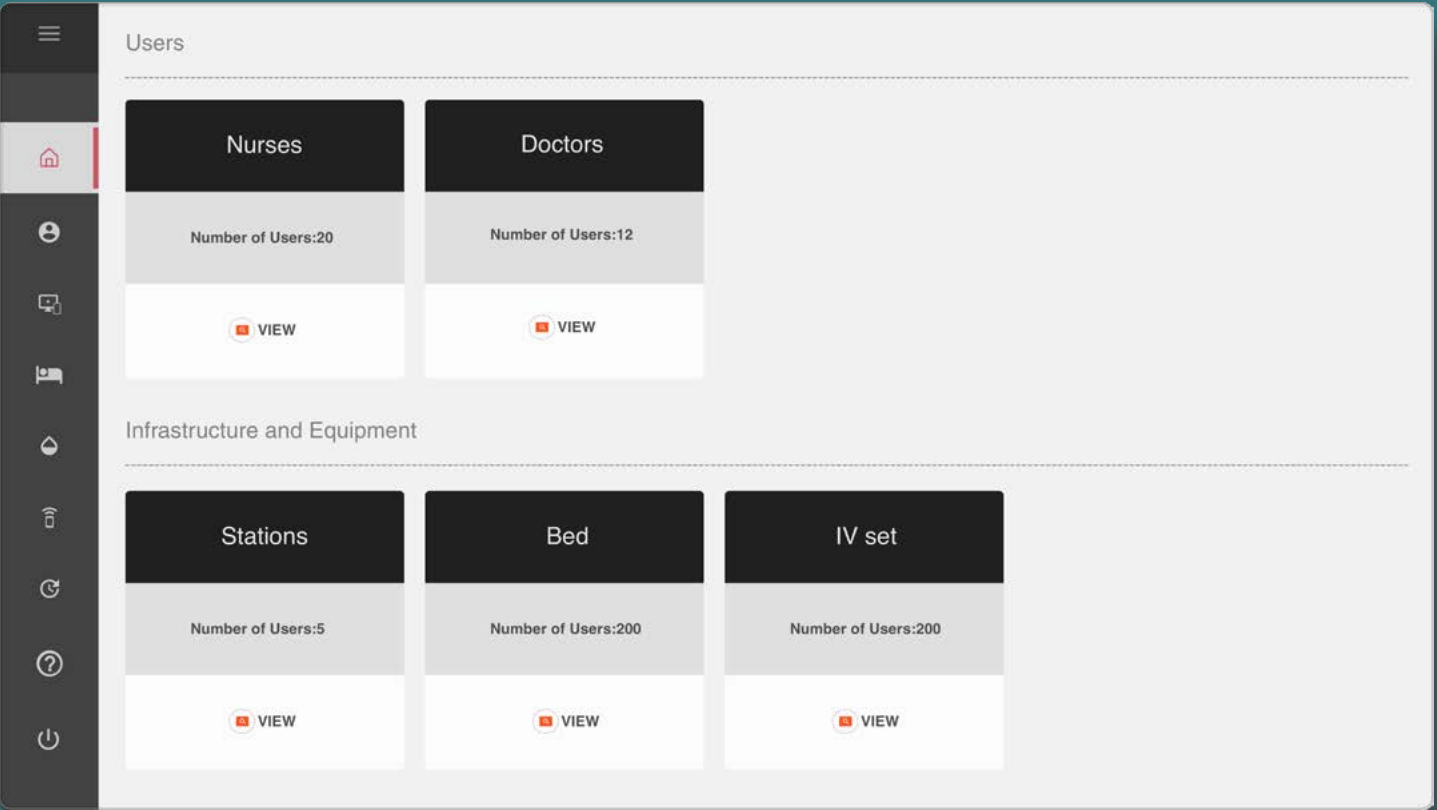
Mockup-Nurse Dashboard
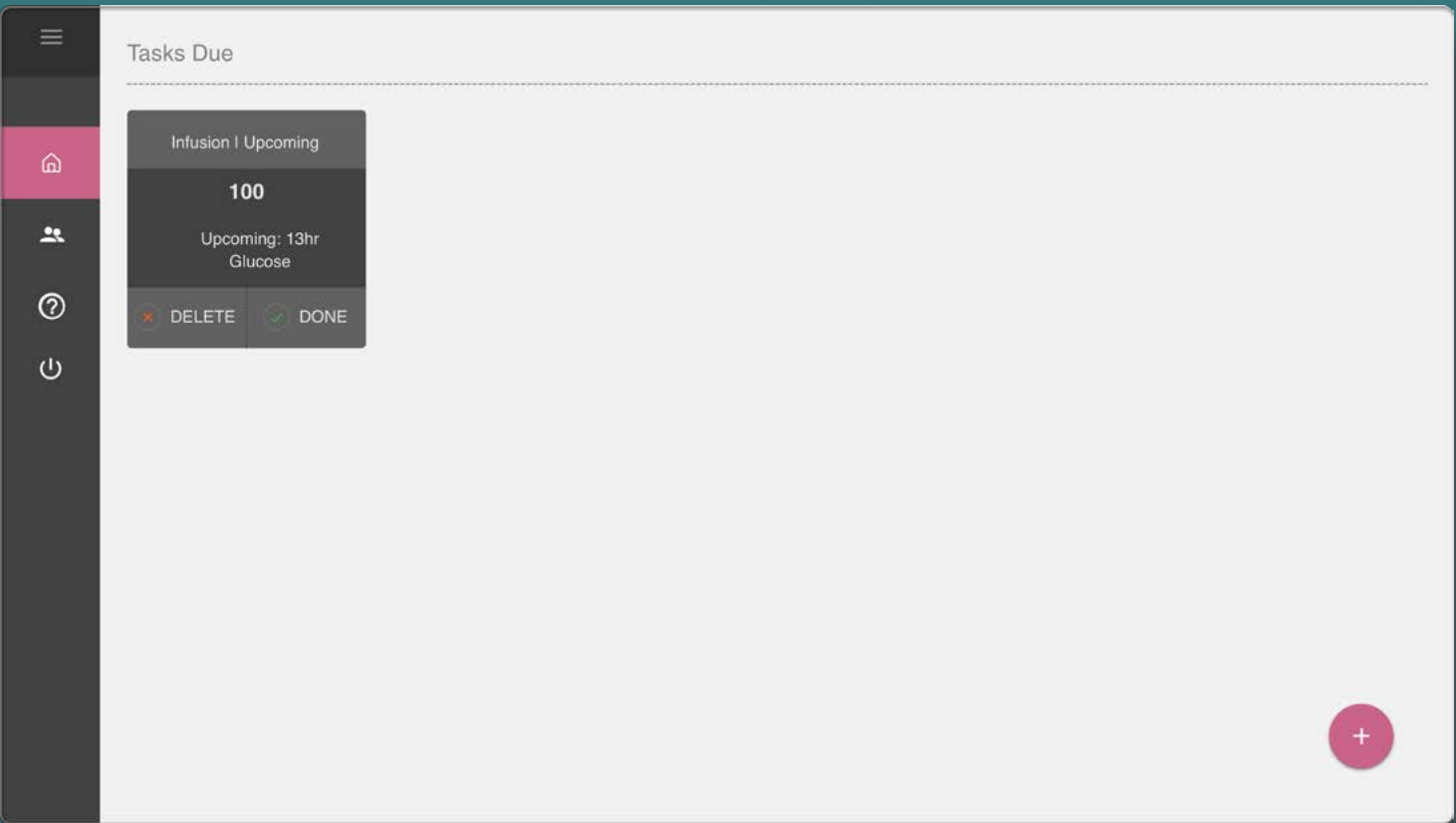
ANAJ MITR

AI - POWERED FAIR PRICE SHOP SOLUTION

Academic - National Institute of Design

Fair Price Shops (FPS) play a crucial role in government food security programs in India, ensuring that essential food grains are accessible to economically disadvantaged individuals at subsidized rates. However, 57% of FPS food grains fail to reach the intended beneficiaries due to leakages in the system, leading to inefficiencies and misallocation.

ANAJ MITR is an automated Point of Sale (POS) device designed to streamline the distribution process at FPS (ration shops). This system enables beneficiaries to collect their allocated food commodities with minimal reliance on store representatives, reducing human intervention and improving efficiency.

KEY FEATURES

USER LOGIN THROUGH BIOMETRIC AUTHENTICATION

- Uses fingerprints to verify identity, ensuring subsidies reach genuine beneficiaries.

- Aligns with the government's UID (Aadhaar) initiative to prevent fraud by ensuring only eligible individuals access allocated food commodities.

DEVICE INTEGRATION WITH WEIGHING MACHINE

- Allows real-time verification by users, displaying weight data on both the POS device and the weighing machine.

- Reduces discrepancies and fraud by automating weight tracking, ensuring beneficiaries receive the correct

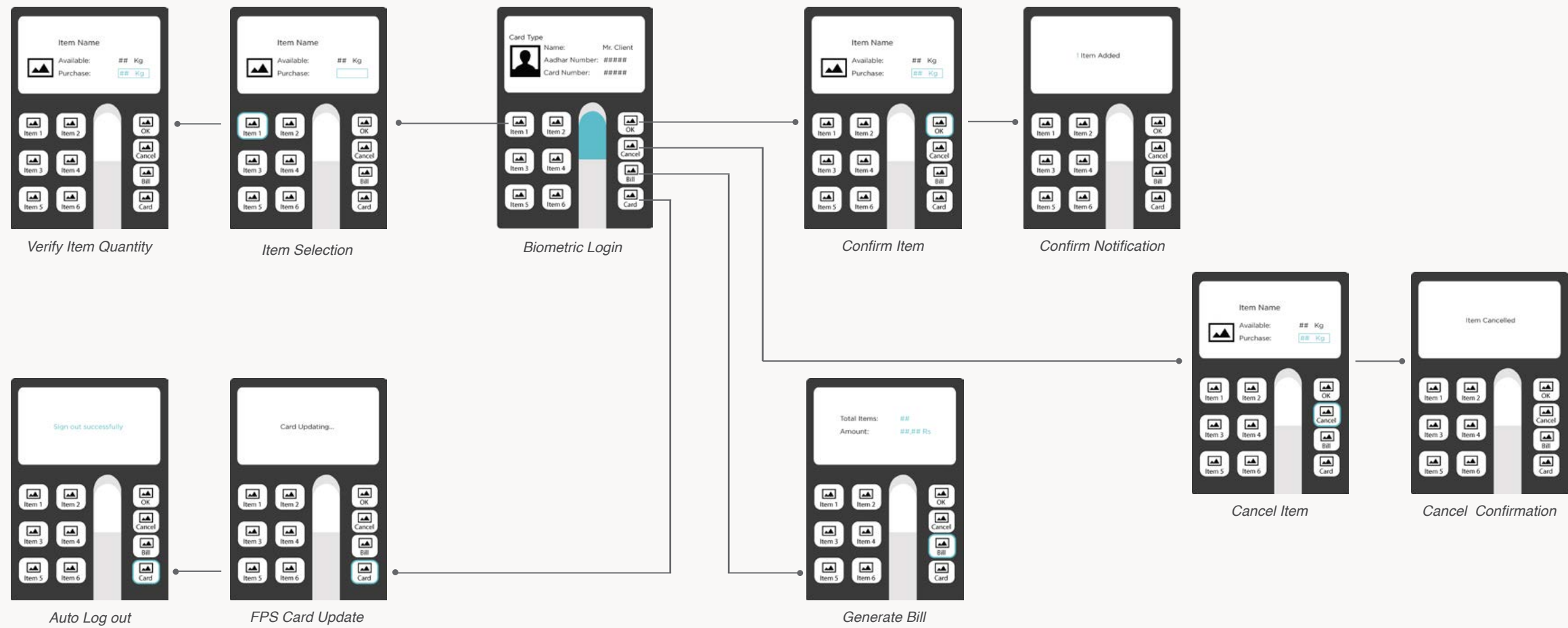## IMAGE-ASSISTED DIAL KEYS FOR EASY IDENTIFICATION

- Incorporates icons alongside text to enhance accessibility for beneficiaries with limited literacy.

- Enhances usability by aligning visual cues with on-screen data, reducing errors and improving efficiency.

LOCK RESET & BILL GENERATION

- Automatic or manual reset of locked keys after each transaction, ensuring smooth system operation.

- Inbuilt billing system automates bill generation, offering beneficiaries a hassle-free and transparent purchase record.

Connecting Port to Weighing Machine

Power Button

Digital Display

Biometric Authentication

Decision Keys

Key for Bill Generation

Key for FPS card punching

Image - Assisted dial keys

Verify Item Quantity

Item Selection

Biometric Login

Confirm Item

Confirm Notification

Auto Log out

FPS Card Update

Generate Bill

Cancel Item

Cancel Confirmation

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