MOBILE APPLICATION REDESIGN

A PROJECT REPORT

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE AWARD OF THE DEGREE

OF

MASTER OF DESIGN

IN

PRODUCT DESIGN

Submitted By:

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CANDIDATE DECLARATION

I, Anshuman Gupta, Roll No. - 2K22/MDPD/01; student of M.Des. (Product Design) of Department of Design, hereby declare that the project Dissertation titled **"Mobile Application Redesign"** which is submitted by me to the Department of Design, Delhi Technological University, Delhi in partial fulfilment of the requirement for the award of degree of Master of Design, is original and not copied from any source without proper citation. This work has not previously formed the basis for the award of any Degree, Diploma Associateship, Fellowship or other similar title or recognition.

Place: Delhi Anshuman Gupta

Date: 10.05.2024

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CERTIFICATE

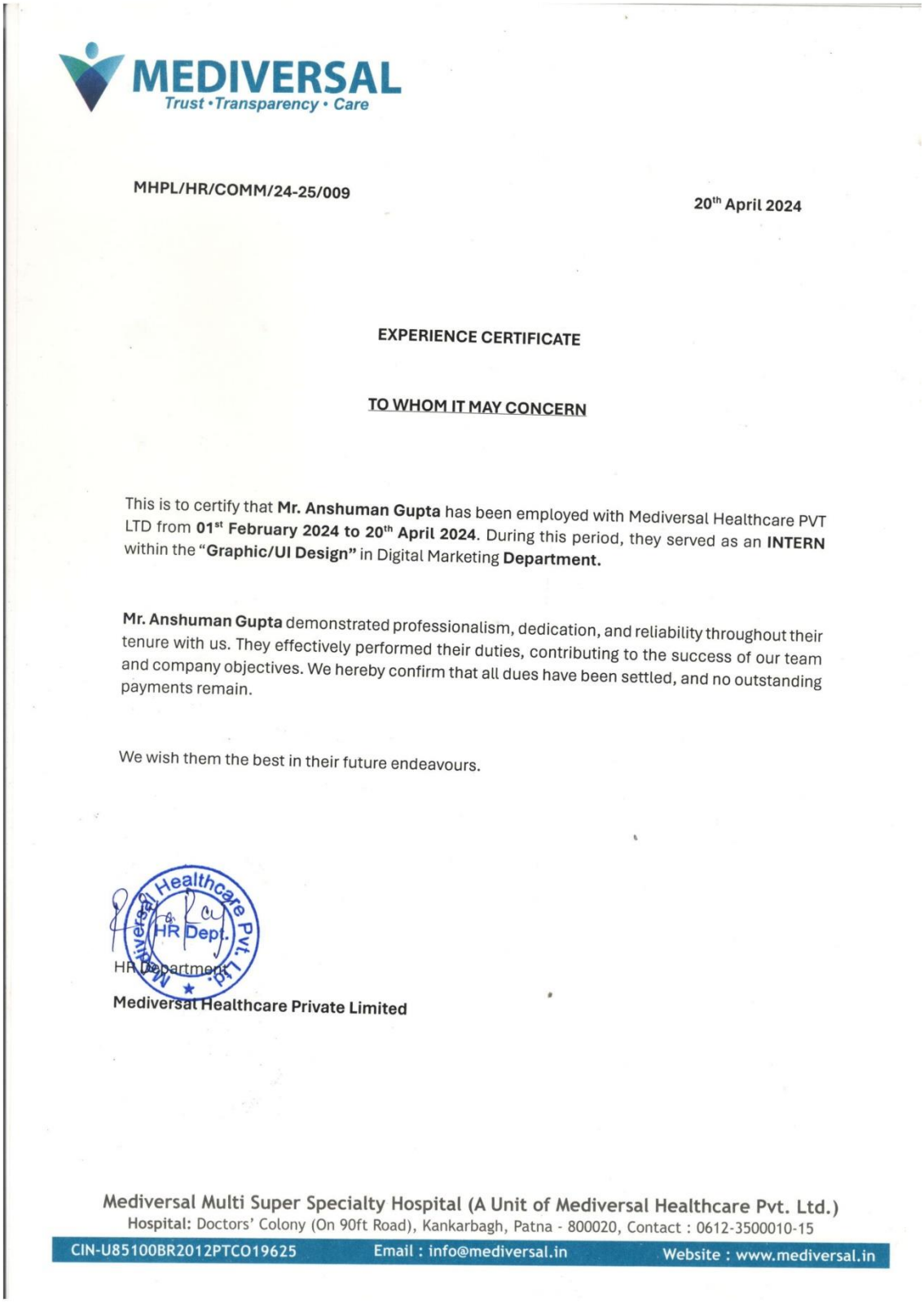
I hereby certify that the Project Dissertation titled **"Mobile Application Redesign"** which is submitted by ANSHUMAN GUPTA, Roll No. – 2K22/MDPD/01, Department of Design, Delhi Technological University, Delhi in partial fulfilment of the requirement for the award of the degree of Master of Design, is a record of the project work carried out by the students under my supervision. To the best of my knowledge; this work has not been submitted in part or full for any Degree or Diploma to this University or elsewhere.

Place: Delhi

Mr. Neeraj Rathee
SUPERVISOR

Date: 10.05.2024

Internship Certificate



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20th April 2024

EXPERIENCE CERTIFICATE

TO WHOM IT MAY CONCERN

This is to certify that **Mr. Anshuman Gupta** has been employed with Mediversal Healthcare PVT LTD from **01st February 2024 to 20th April 2024**. During this period, they served as an **INTERN** within the **"Graphic/UI Design"** in Digital Marketing **Department.**

Mr. Anshuman Gupta demonstrated professionalism, dedication, and reliability throughout their tenure with us. They effectively performed their duties, contributing to the success of our team and company objectives. We hereby confirm that all dues have been settled, and no outstanding payments remain.

We wish them the best in their future endeavours.

Mediversal Healthcare Pvt. Ltd. HR Dept.

HR Department

Mediversal Healthcare Private Limited

Mediversal Multi Super Specialty Hospital (A Unit of Mediversal Healthcare Pvt. Ltd.)
Hospital: Doctors' Colony (On 90ft Road), Kankarbagh, Patna - 800020, Contact : 0612-3500010-15
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Place: Delhi

Date: 10.05.2024

Abstract

Through my Industrial Training at **Mediversal Healthcare Pvt. Ltd.,** I have done my Major Project Report on 'Mobile Application Redesign' under its Design team.

I was responsible for the design of User Interface (UI) of the Mobile Application, carried on through initial qualitative research methods, including surveys, Competitive Analysis, and usability testing, then making layouts such as User Flow, Information Architecture to meet the need of Application optimization.

The project begins with an in-depth exploration of user needs and pain points through user survey. These insights help in evaluation of the current application design, encompassing interface analysis, navigation structure, and accessibility evaluation. Through this project, I was able to analyse the areas of improvement such as optimizing usability, visual appeal, and overall user engagement.

Its User Interface was designed, keeping in mind the Visual Consistency, effectiveness, accessibility & the experience of the users while they interact with the Application.

Focus on Aesthetics and Simplicity of the application was also covered keeping in mind of its Initial App features.

Initial Interface of the Mediversal Mobile Application was very cluttered with complex navigation, causing frustration to the users.

So, the Key objectives of this project include –

1. Identifying User Needs and Pain Points
2. Analysing Current Application Design
3. Developing Redesign Concepts
4. Implementing the Redesign

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Introduction

Mediversal Healthcare serves the tertiary/service sector of our Indian economy. It specializes in providing quality healthcare service with its Primary Multi Super Specialty Hospital located within the city of Patna, Bihar and other branch hospitals specializing in Mother & Child Care, OPD healthcare in Dermatology, ENT, Dentistry, Ophthalmology, etc.

They currently have their Mobile Application platform which serves an important role for providing various healthcare facilities to users such as Booking online/offline Doctor Consultation, Buy medicines, Book health test, Home Care Services for Medical equipment renting such as Ventilators, ICU Beds, Nursing facility for certain amount of time, several others. However, in its current iteration, the application grapples with various usability challenges, hindering its effectiveness and diminishing the user satisfaction. These challenges encompass issues ranging from complex navigation structures and cluttered interfaces to accessibility gaps and a lack of personalization.

This thesis project seeks to address these pain points through a comprehensive redesign effort aimed at revitalizing the application's user experience. By leveraging principles of human-centred design, usability testing methodologies, and insights from secondary research, the redesigned application aims to deliver a more intuitive, accessible, and engaging interface that empowers users to take control of their health journey.

Key objectives of this project include –

1. Identifying User Needs and Pain Points
2. Analysing Current Application Design
3. Developing Redesign Concepts
4. Implementing the Redesign

Mobile Application and their significance in Modern Society

Mobile application has become an integral part of modern society, revolutionizing the way we communicate, work, shop, entertain ourselves, and access information. They play a central role in modern society, offering convenience, connectivity, empowerment, and entertainment to users worldwide. They are the catalysts for change, innovation, and progress in the digital age.

Following are their significance in Modern Society -

- **Ubiquitous Access**

Mobile applications enable users to access a wide range of services and functionalities anytime, anywhere, directly from their smartphones or tablets.

- **Convenience and Efficiency**

Mobile applications streamline various tasks and processes, offering convenience and efficiency to users such as ordering food, booking travel tickets, managing finances, or staying connected with friends and family.

- **Enhanced Communication**

Messaging apps and social media platforms have revolutionized communication, enabling instantaneous and easy way interactions between individuals and groups across the globe.

- **Empowerment and Access to Information**

Mobile applications empower users by providing access to a wealth of information and resources at their fingertips such as educational apps, news aggregators, and other reference tools.

- **Digital Transformation of Industries**

Mobile applications have driven the digital transformation of different sector of industries, from healthcare and finance to retail and entertainment.

- **Entertainment and Leisure**

Mobile gaming, streaming services, and multimedia apps offer various entertainment and leisure options that cater to diverse interests and preferences.

- **Health and Well-being**

Health and fitness apps empower users to take care of their physical and mental well-being by tracking activities, monitoring health metrics, and accessing personalized health resources.

- **Economic Opportunities**

Mobile applications have created new economic opportunities for developers, entrepreneurs, and businesses. The app fuels job creation, innovation, and entrepreneurship, driving economic growth, contributing to global GDP.

- **Social Impact and Empowerment**

Mobile applications have the potential to address social issues and empower marginalized communities. Social impact apps can tackle challenges such as education inequality, healthcare access, environmental sustainability, and humanitarian aid.

- **Cultural and Technological Influence**

Mobile applications can shape cultural trends, behaviours, and norms, influencing how people interact, consume various content, and perceive the world around them. They serve as a reflection of societal values & aspirations, driving cultural shifts and technological advancements.

Importance of Mobile Application Design

The importance of mobile application design cannot be ignored in today's digital landscape, where smartphones and tablets have become integral parts of people's daily lives. Few points mentioning its importance in today's life are -

First Impression

A well-designed mobile app creates a positive first impression on users. It reflects the professionalism, credibility, and attention to detail of the brand or company behind it, influencing the users perceptions and attitudes towards the app.

User Experience (UX)

Mobile application design directly impacts the user experience (UX), which emphasises how users interact with it. A well-designed app is intuitive, easy to navigate, and aesthetically pleasing, leading to higher user satisfaction, engagement, and retention.

Usability

Good mobile app design prioritizes usability, making it easy for users to finish tasks and achieve their goals within the app. Intuitive navigation, clear information hierarchy, and user-friendly controls contribute to a smooth and efficient user experience.

Brand Identity

Mobile app design plays a crucial role in shaping and reinforcing brand identity. It allows companies to express their brand personality, values, and visual identity through various design elements creating a cohesive and memorable brand experience.

Competitive Advantage

In a crowded marketplace, mobile application design can serve as a competitive differentiator. A visually appealing and user-friendly app can stand out from competitors, attract more users, and boost higher engagement and conversion rates.

Engagement and Retention

Effective mobile app design encourages user engagement and promotes repetitive usage. Engaging visuals, interactive elements, and personalized experiences keep users coming back to the app, increasing retention rates.

Accessibility and Inclusivity

Mobile app design should prioritize accessibility to ensure that the app is usable by individuals of all abilities. Accessibility features such as screen reader compatibility, adjustable font sizes, and color contrast options make the app more inclusive.

Conversion Optimization

Mobile application design can influence user behaviour and drive conversions. Thoughtfully designed user interfaces, persuasive calls-to-action, and smooth checkout processes increase conversion rates and drive revenue for businesses.

Data-Driven Insights

Mobile app design allows for the collection of valuable user data and insights through analytics and user feedback. Design decisions through data and user research can lead to continuous improvement and optimization of the app over time.

Customer Satisfaction and Loyalty

Mobile application design contributes to overall customer satisfaction and loyalty. A well-designed app that meets users' needs and fulfil their expectations fosters positive relationships with customers, leading to long-term loyalty with the brand.

User Experience (UX) in Mobile Application

User Experience (UX) in mobile apps refers to the overall experience that users have when interacting with a mobile application. It encompasses all aspects of the user's interaction with the app, including its design, usability, accessibility, performance, and the emotions it evokes. A positive experience is essential for ensuring user satisfaction, engagement, and their retention.

Some key components of User experience are -

- **Ease of Use**
  Mobile apps should be intuitive and easy to navigate, allowing its users to finish their tasks quickly and efficiently. Clear navigation, simple controls, and logical workflows contribute to a positive user experience.
- **Visual Design**
  The visual design of a mobile app plays a crucial role in making the user experience better. It includes aspects such as layout, typography, color scheme, imagery, and branding elements. A visually appealing design enhances usability and creates a memorable impression.
- **Responsiveness**
  Mobile apps should be responsive and perform well across different devices and screen sizes. Responsiveness ensures that the app adapts seamlessly to various screen orientations and resolutions, providing a consistent user experience regardless of the device used.
- **Performance**

  Users expect mobile apps to be fast and responsive, with minimal loading times and smooth animations. Performance optimization is essential to prevent delays, crashes, or other issues that can detract from the user experience.
- **Accessibility**

  Accessibility ensures that mobile apps are usable by people with disabilities, including those with visual, auditory, motor, or cognitive impairments.

  Accessibility features such as screen reader compatibility, alternative text for images, and adjustable font sizes make apps more inclusive and user-friendly.

- **Content Quality**

  High-quality content is essential for engaging users and providing value. Mobile apps should deliver relevant, accurate, and up-to-date content that meets users' needs and expectations.

- **Personalization**

  Personalization enhances the user experience by tailoring content, recommendations, and interactions to individual user preferences and behaviours. Personalized experiences increase user engagement and satisfaction.

- **Feedback and Communication**

  Mobile apps should provide clear feedback to users, indicating the outcome of their actions and guiding them through the app's interface. Effective communication, such as error messages, notifications, and prompts, helps users understand how to interact with the app and resolves any issues they encounter.

Mobile Application Design (UI) Principles

Mobile application design principles guide the development of intuitive, engaging, and user-friendly interfaces to enhance the overall user experience. Some key principles of Mobile Application Design are -

- **Simplicity**

  Keeping the interface simple and uncluttered to minimize cognitive load and streamline user interactions. Avoid overwhelming users with unnecessary features or information.

- **Consistency**

  Maintaining consistency in design elements, such as colors, typography, icons, and navigation patterns, to create a cohesive and familiar experience across the app.

- **Intuitiveness**

  Designing the app with intuitive navigation and controls to make it easy for users to understand and use without the need for extensive instructions or tutorials.

- **Feedback**

  Providing immediate and clear feedback to users when they perform actions, such as tapping a button or entering information, to confirm that their actions have been recognized and processed.

- **Accessibility**

  App should be accessible to users with disabilities by incorporating features such as screen reader compatibility, alternative text for images, and adjustable font sizes.

- **Visual Hierarchy**

  Visual hierarchy is needed to prioritize content and guide users' attention to the most important elements on the screen. Use of different sizes, color, contrast, and spacing create a clear hierarchy of information.

- **Usability**

  Designing the app with usability in mind, focusing on making tasks easy to accomplish and minimizing friction in the user journey. Also, conducting usability testing to identify and address any usability issues.

- **Responsive Design**

Create a responsive design that adapts to different screen sizes and orientations, ensuring a consistent user experience across devices.

- **Performance**

Optimize the app's performance to minimize loading times, reduce latency, and ensure smooth animations and transitions.

- **Personalisation**

Providing personalized experiences by tailoring content, recommendations, and interactions to individual user preferences and behaviours.

- **Aesthetics**

Paying attention to the visual appeal of the app by using colors, typography, and imagery that reflect the brand and create a positive emotional response in users.

Initial Interface Layout

Initial Interface of the **Mediversal Mobile Application** was very cluttered with complex navigation, causing frustration to the users. Use of key features multiple times at different pages within the app causes distress to the users. It did not stand to the company's brand guidelines.

Following are the Initial Interface pain points of the Application -

Cluttered Home Screen

The current home screen is cluttered with numerous buttons, banners, and notifications. This overwhelms users and makes it difficult for them to find what they need quickly. Users feel bombarded with too many options, leading to decision paralysis and frustration.

Complex Navigation

The navigation structure is convoluted, with multiple layers of menus and submenus. Users often struggle to find the desired feature or information due to the lack of intuitive organization of the feature.

Inconsistent Design Elements

The design elements, such as colors, fonts, and button styles, vary inconsistently throughout the app. Most of the button styles followed the traditional sharp boundaries with dark color tones, contradicting the visual sense of the brand. This inconsistency leads to a bad user experience.

Confusing Terminology

The app uses medical jargon and terminology that could be difficult for users to understand. This creates confusion and frustration.

Poor Accessibility Features

The app lacks accessibility features such as text-to-speech, high contrast mode, or adjustable font sizes, making it challenging for users with disabilities to navigate and use the app effectively.

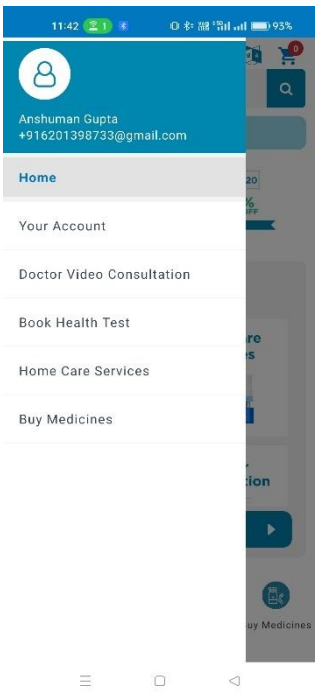
Repetition

The app does not offer personalized content or recommendations based on the user's health profile, preferences, or browsing history. This results in a one-size-fits-all approach that fails to engage users effectively.

Lack of Visual Hierarchy

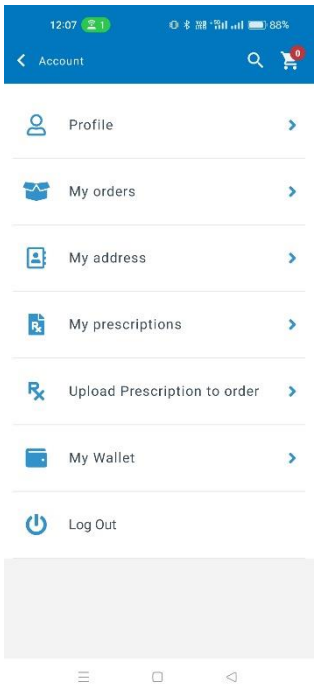
Important features and actions are not visually emphasized, making it challenging for users to prioritize their tasks or know where to focus their attention in the app.

Initial UI Flow



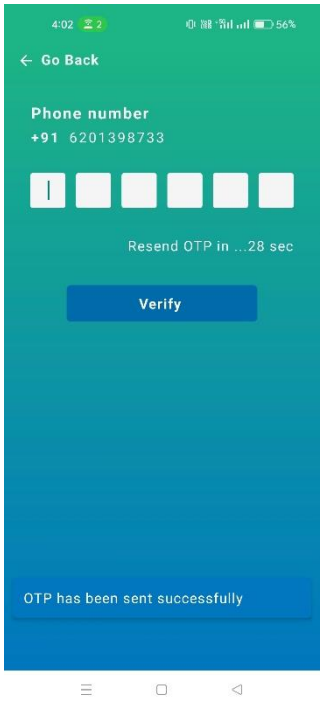
Menu section of consists of various options for navigating to profiles, such as Doctor Consultation, Buy Medicine, Book Health Test, Homecare Services which are repeated in the menu bar.

All these key features can be removed from here, which are pre-existing in the home page & instead carry on with My account section features such as Profile, My Orders, Address, Prescriptions, Wallets.



Account section of the App consists of various tools for finding and going through important options for navigation such as Profiles, My Orders, Address, Prescriptions, Wallet, logout option.

It can be changed with more user interactive icons & buttons, while maintaining the brand consistency, to proceed with that feature.



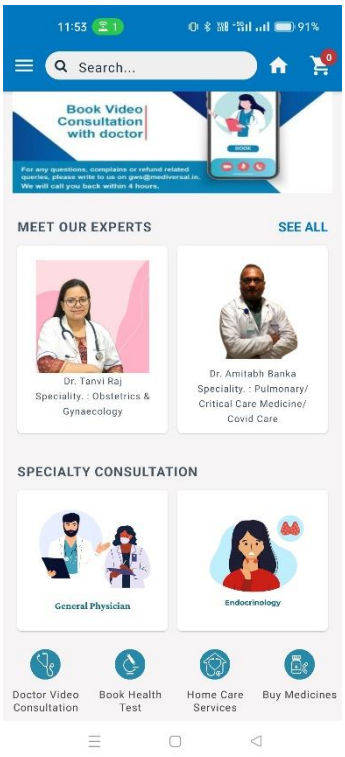
Login Screens consist of entering the OTP received through the entered mobile no.

The initial sharp boxes depict a traditional sense to the users and the background gradient color negatively impacts the front text part due to its darker tone.

Home Page consists of various options for booking Doctor Consultations, Buy medicines, Book health test, Home care services, through which customers can easily book their preferred slots.

Initial Home Page design looks cluttered with repetition of the key features of the app, which can cause confusion to the users due to multiple buttons availability.

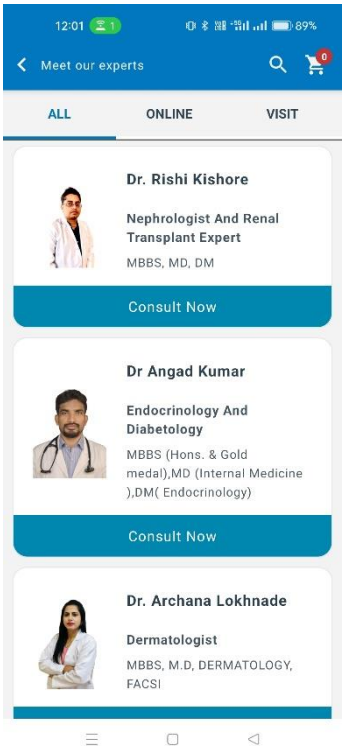
This section could be changed with more visual clarity & proper placement of features according to their usability & importance.



Doctor Consultation page consists of their list of doctors & Consultation through a particular specialty.

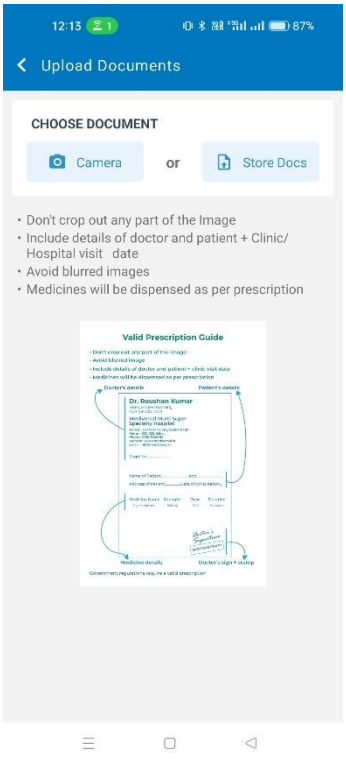
It could be changed to a more interactive visual identity with a highlight that could represent that the users are particularly going through that page section of the feature, i.e., Doctor Consultation.

Also, going to back page section could be added which could redirect them to the Home Page.



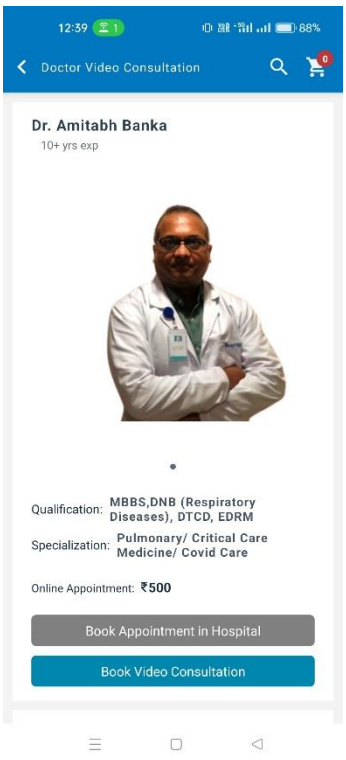
Doctor list is opened after going through all the list of doctors for online/offline consultation. Page displays the doctor list concerned with various specialties with description of their qualification mentioned along their name.

Here, visuals could be enhanced, with proper alignment & addition of consultation fees.



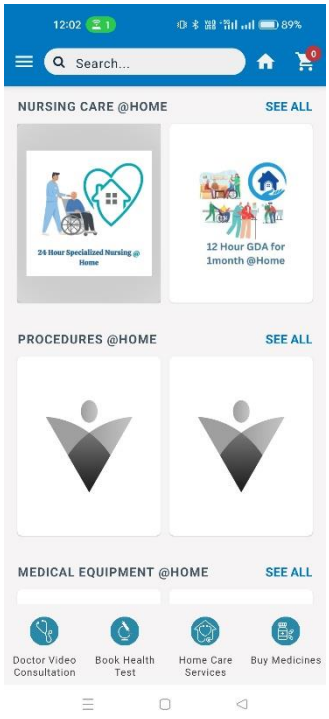
Upload Documents section consists of uploading prescription to dispense the medicine that are mentioned on it.

This page could be made more user interactive, with change of fonts & icons to increase aesthetics.



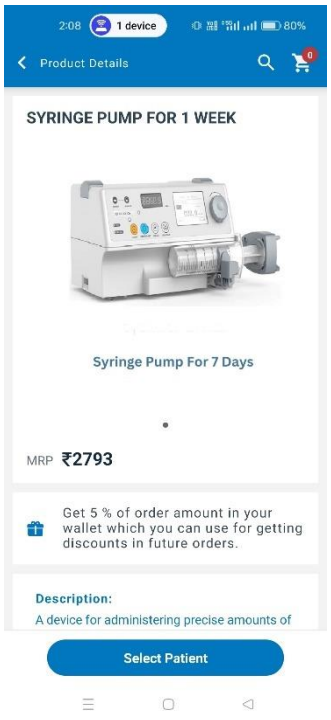
Doctor Description page consists of all the details of the doctor that they have achieved in their career, including their education, achievements, & work experience.

Doctor Description page could be altered more through addition of more Visual sense, which makes it more attractive & enhance the readability to the users.



Home Care Service page consists of various facilities to book nursing care to the concerned patient's home.

The Screen can be enhanced with proper alignment and adding the color tone that match with the brand identity.



Description section of a particular product screen such as medical equipment, medicines, nursing, other health facilities contain the detailed description of the product, MRP mentioned along with the available offers.

This screen could be enhanced with better visual hierarchy, intuitive buttons & proportionate distribution of all design elements to enhance the user experience.

Challenges and Considerations in Mobile App Redesign

Redesigning the Mobile Application comes with several challenges and considerations that need to be addressed to ensure a successful outcome.

Some key challenges and considerations that come in way while redesigning the Mobile App are –

- **Maintaining Brand Identity**

Redesigning a mobile app while preserving its brand identity is crucial. Balancing the need for a new look with maintaining brand consistency is crucial to ensure that users still recognize and trust the app.

- **User Adoption and Familiarity**

Users may be resistant to change, Redesigning the app in a way that feels familiar yet offers improvements can help mitigate resistance and encourage user adoption.

- **Addressing User Feedback**

Incorporating user feedback and addressing pain points identified through user research and usability testing is essential in the redesign process.

- **Maintaining Performance**

Introduction of new features and design elements in a redesign should not compromise with the app's performance. Also, optimizing performance is essential to ensure smooth operation on a variety of devices and network conditions.

- **Accessibility and Inclusivity**

Redesigning the app to make it more accessible to users with disabilities is an important consideration. Ensuring compatibility with assistive technologies and adhering to accessibility standards is essential for inclusivity.

- **Testing and Quality Assurance**

Thorough testing of the redesigned app across different devices, platforms, and user scenarios is essential to identify any issues before launch. Ensuring compatibility, usability, and performance through rigorous testing is essential for a successful redesign.

- **User Training and Onboarding**

Introducing new features or design changes require user training or onboarding to familiarize them with the updated app. Providing them clear guidance and support during this transition can help mitigate confusion and frustration.

Accessibility Considerations in Mobile App Design

Accessibility considerations in mobile app redesign involve ensuring that the app is usable and navigable by individuals with disabilities. By implementing accessibility features and adhering to best practices, app can become more inclusive and user-friendly. Some key aspects to consider for accessibility are -

Screen Reader Compatibility

Ensuring that the app is compatible with screen reader technologies used by individuals with visual impairments. This involves providing descriptive text for all user interface elements, including buttons, images, and navigation elements, to enable screen readers to convey information to users.

Adjustable Font Size

Allowing users to adjust the font size within the app to accommodate varying visual preferences and needs. Providing options for larger text sizes ensures that every individual can comfortably read the app's content without relying on external sources.

High Contrast Mode

Offering a high contrast mode option for users who have difficulty distinguishing between colors or who prefer a higher level of contrast for improved readability. High contrast mode enhances visibility by increasing the color contrast between text and background elements.

Voice Commands and Gestures

Incorporating support for voice commands and gestures to provide alternative methods of interaction for users with mobility impairments. Voice commands allow users to navigate the app, perform actions, and input text using their voice, while gestures can be used as an alternative to touch-based interactions.

Keyboard Accessibility

Ensuring all interactive elements in the app can be accessed and navigated using a keyboard alone. Providing keyboard shortcuts, ensuring proper tab order, and supporting keyboard-based navigation for users who cannot use a touchscreen interface.

Design Concept

Mediversal Healthcare Mobile app offers users the following essential features:

- Online Doctor Consultation booking
- Book health test
- Buy medicine
- Online booking of Lab Test
- Search feature for various medicines, doctors, lab tests.
- Prescription upload for online order of medicine

I have redesigned the User Interface of its Mobile App, following 8-point grid system, for defining all the consistency with the elements, such as buttons, images, icons, texts, etc.

'Buy Medicine' page offers various sections for the order of various healthcare products, equipment, and medicines.
Through that, users can easily buy any particular item required, and can make final purchase at the end of the checkout. They can also search for the particular medicine, which they cannot find in the list.

'Book Health Test' page consists of various sections for tests related with the Covid, various health test packages, or health check-up by specialty.
It provides the users to book various health related tests on the ease of their convenience.
They can also see the particular description of the various tests to understand it in better way.

'Doctor consultation' page consists of various sections for booking appointments with the doctors, online or, through in-person meetings, or the users can choose from various specialties available within the page.

Users can easily look after the specialty concerned with them & book an appointment with the doctor available within that specialty.

‘Home Care service’ page consists of various sections for renting of facilities such as nursing care, medical equipment, and medical procedures at the convenience of our home.
Users can easily rent any of the service at their home for the concerned patient against the particular time period.

‘Prescription Upload section’ helps users to upload medical prescription to the pharmacist and the mentioned medicines are released by the pharmacist and delivered at your doorstep.

‘Specialty Consultation section’ page consists of various specialties concerned within the hospital.
It provides users with the choice of their problem related to particular specialty.

‘Account section’ page consists of various options related with user information such as Profile, orders, Address, Prescriptions, wallet features.
Users can easily change/update any information they wish to, whenever required.
This page also consist of Log Out feature, through which users can easily disconnect with their login data within app.

User Flows

User flows shows the visual direction in which user proceeds further with different categories of options available within healthcare application.

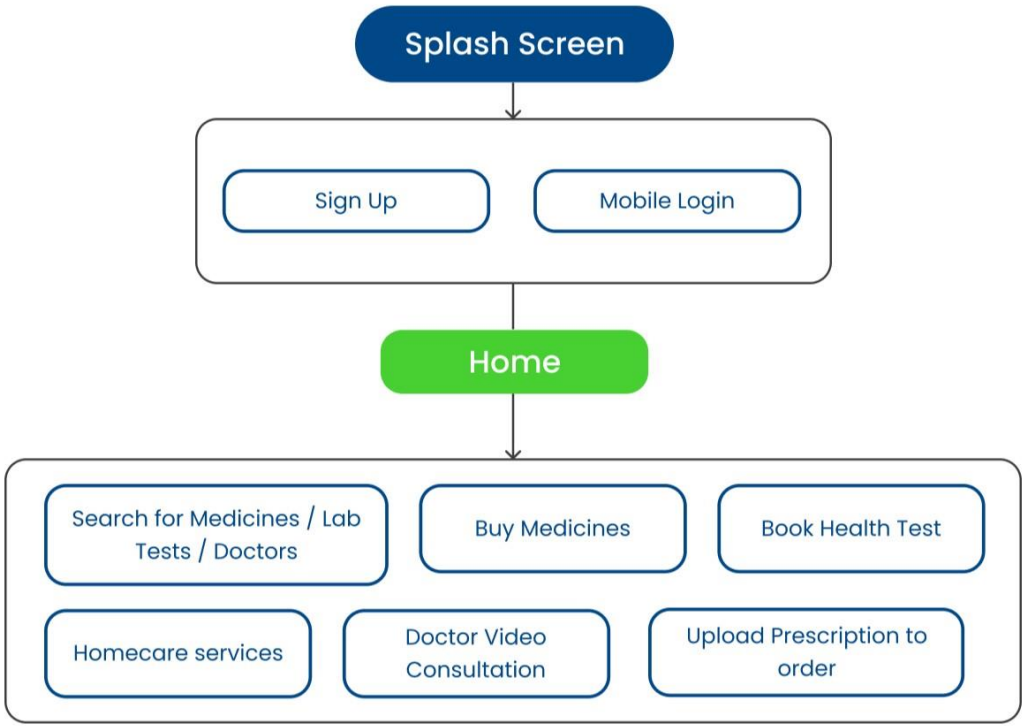


Fig. 1 - Splash & Home Screen Flow

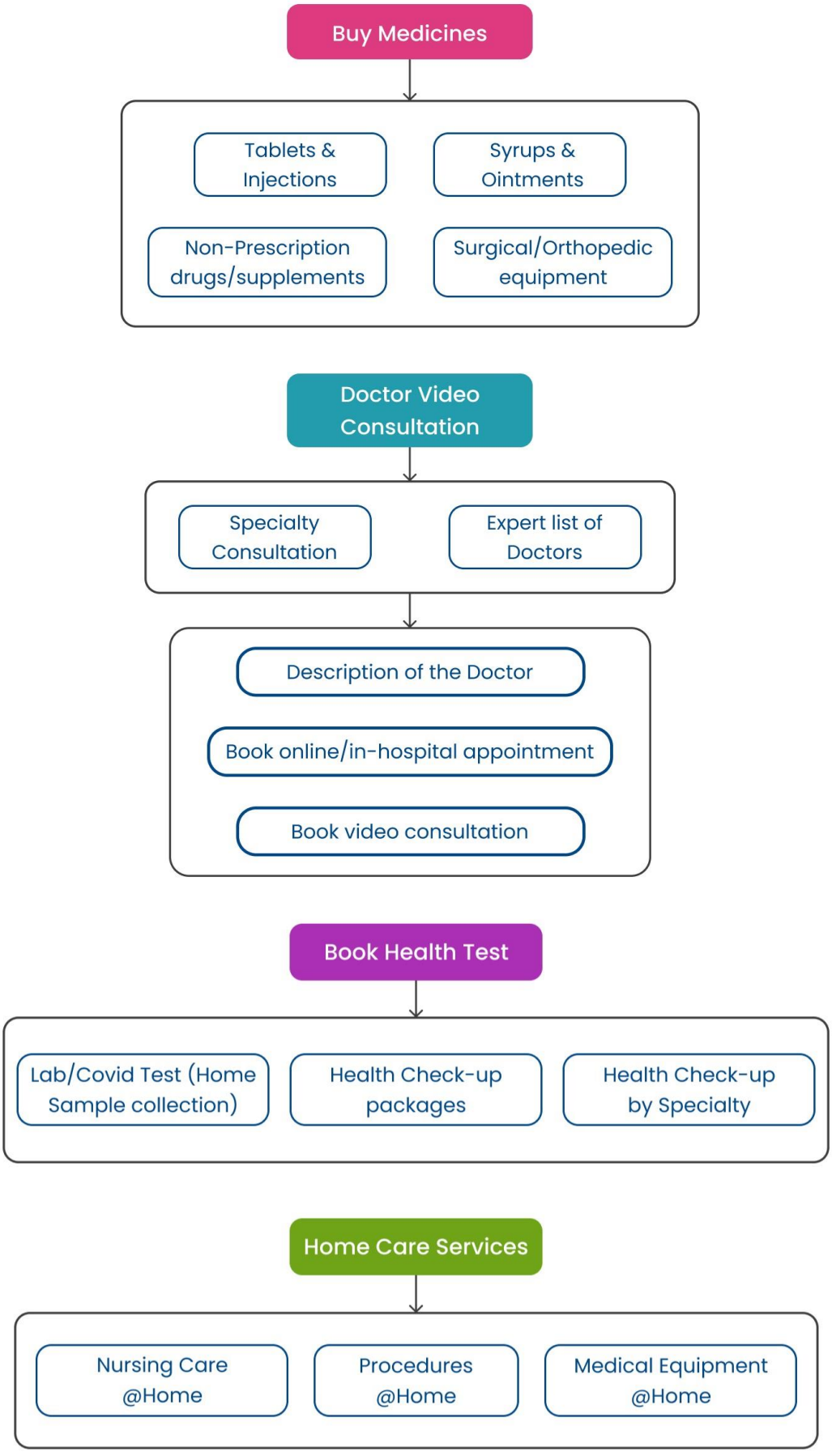


Fig. 2 – App Key features Flow

Information Architecture

Information Architecture defines how content will be structured and presented to a user when they are interacting with the design.

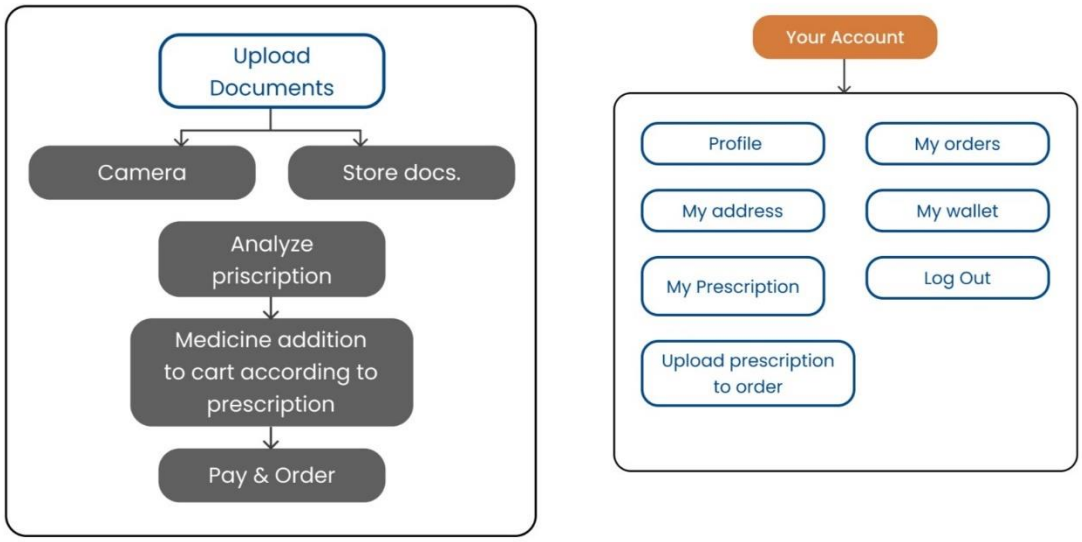


Fig. 3 – Upload Documents/Account Flow

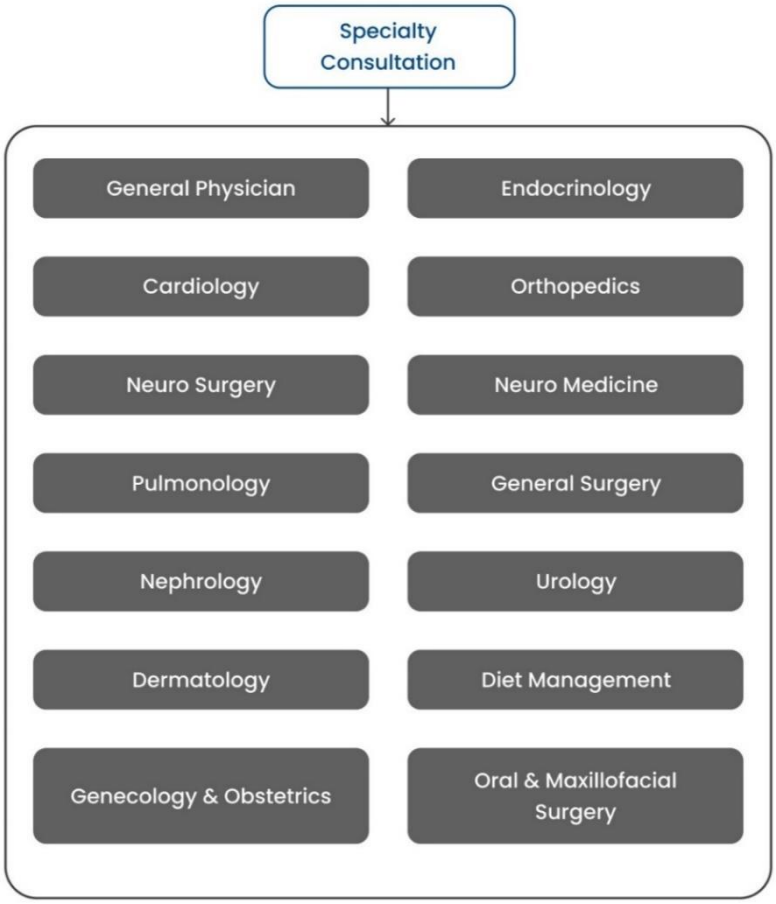


Fig. 4 – Specialty Flow

User Journey Mapping

The customer Journey Map about the Healthcare appointment App “Mediversal” outlines the customer’s experience from awareness to decision making. It starts with customers discovering the App through various touch points, such as recommendations & reviews. In the consideration stage, customers research and compare the App with others. The onboarding stage focuses on smooth setup process. In verification stage, customers confirm account details. Finally, in the decision stage, customers explore doctors for consultation, choose to to buy medicines, health test, etc according to their convenience.

Stages	Awareness	Consideration
Customers Action	Learning about the Mediversal App through recommendations, in-person hospital visit, positive reviews.	Exploring the App features, comparing with other Apps, understanding the ease of performance.
Touch Points	Word-of-mouth recommendations, hospital staff recommendations, social media posts, app store search results.	App reviews, various features of App, ease of use, Help/customer support.
Customer Experience	Neutral 	Sudden Increment 

Business Goals	To increase brand visibility, attract potential customers, and attract customers through its various features.	To highlight App Key features, attract customers through its unique Home Care Services, user reviews.
Pain Points	Lack of brand recognition, limited App visibility, hindering potential customer awareness.	Uncertainty about App reliability, Lack of initial visual Impact, improper interface layout over App store.

Stages	Onboarding	Verification	Decision
Customers Action	Downloading the App, logging into the account to access features.	Confirming account details, completing user profile.	Selecting preferred doctors & specialties, buying medicines/renting out equipment.
Touch Points	Account creation, mobile login, Splash screen interaction.	Account verification email, OTP, confirmation message.	Appointment booking, user interface, personalized recommendations, discount/offer.
Customer Experience	Slight Decrement 	Confused/Sceptic 	Dissatisfied 

Business Goals	To provide smooth onboarding experience, ensure positive first impressions to encourage continued App usage & customer loyalty.	To ensure accurate customer information, strengthen App security, to foster long-term user engagement & retention.	To showcase App Key Features, emphasize doctor qualification, experience & offer discount coupons on every purchase of medicine, provide renting facility of medical equipment.
Pain Points	Flat, unpleasing App buttons, lack of font consistency, cluttered layout of login page, creating confusion.	Unorganized verification process steps, cluttered screen.	Absence of specialty recommendation based on user health problems, bad interface.

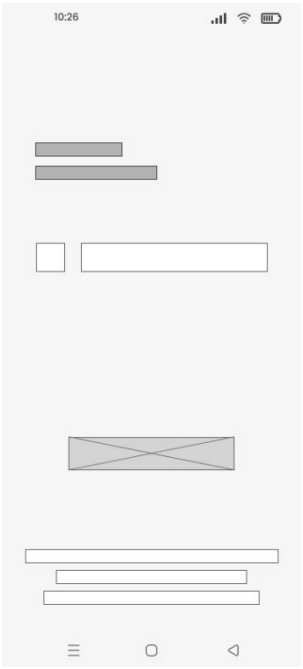
Table 1 – Customer Journey Mapping

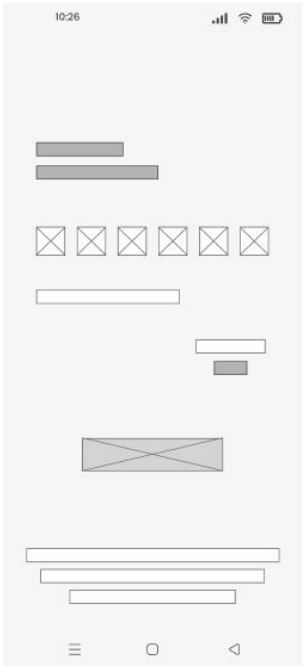
Wireframing

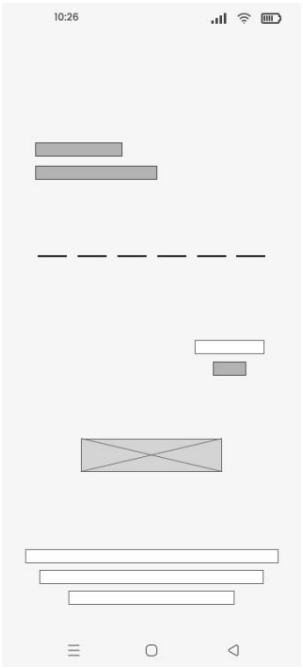
Low/Mid Fidelity Wireframes

Different wireframes for various screens have been visualized to depict the rough flow of the App, through which users would be guided.

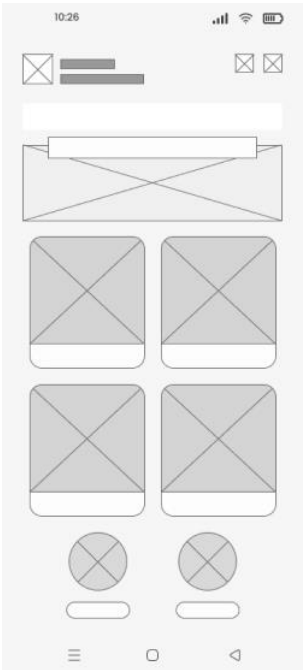
Login / Sign Up Screen



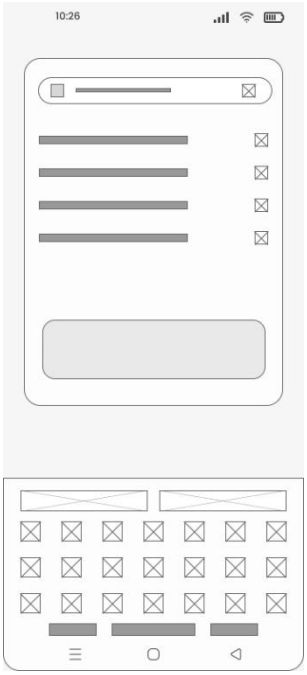




Home Page

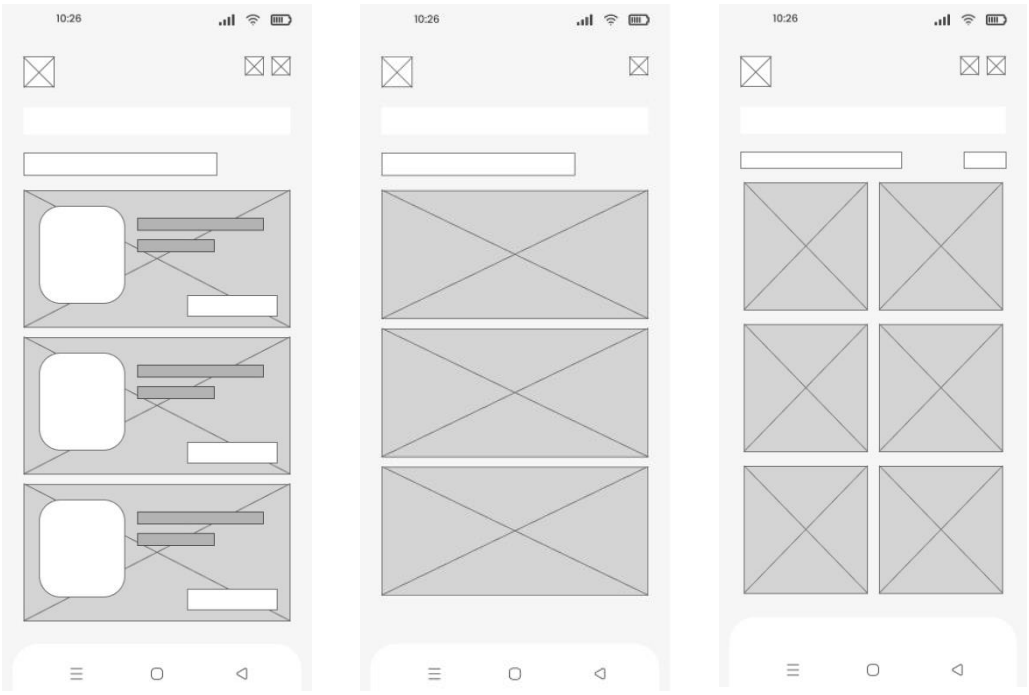


Search Page

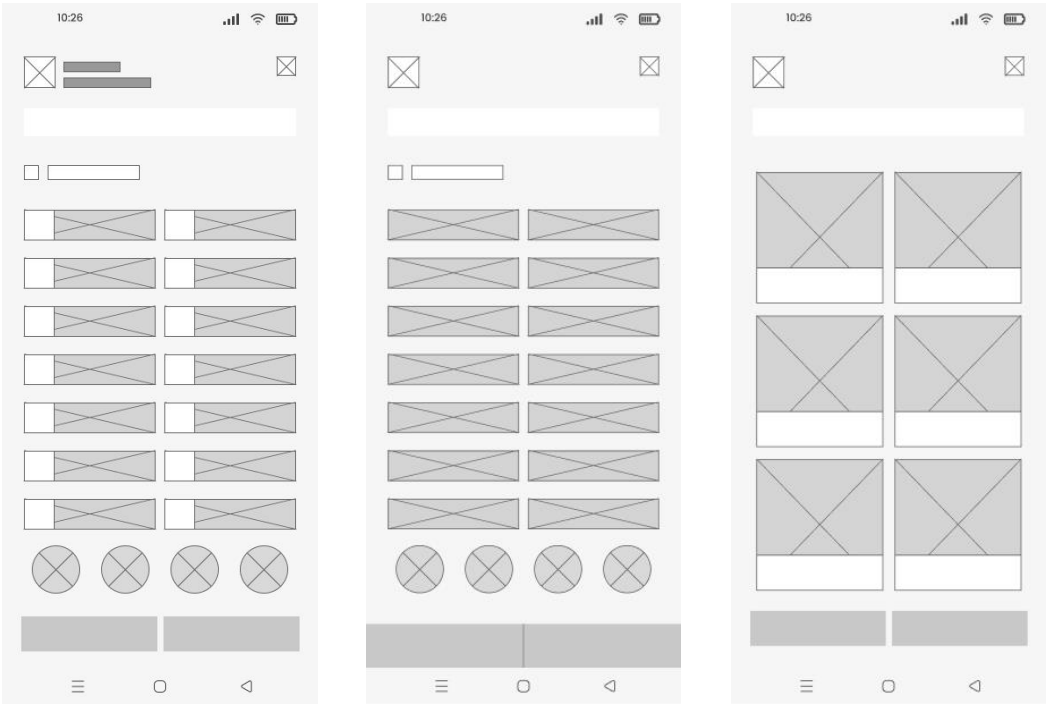


Menu Page

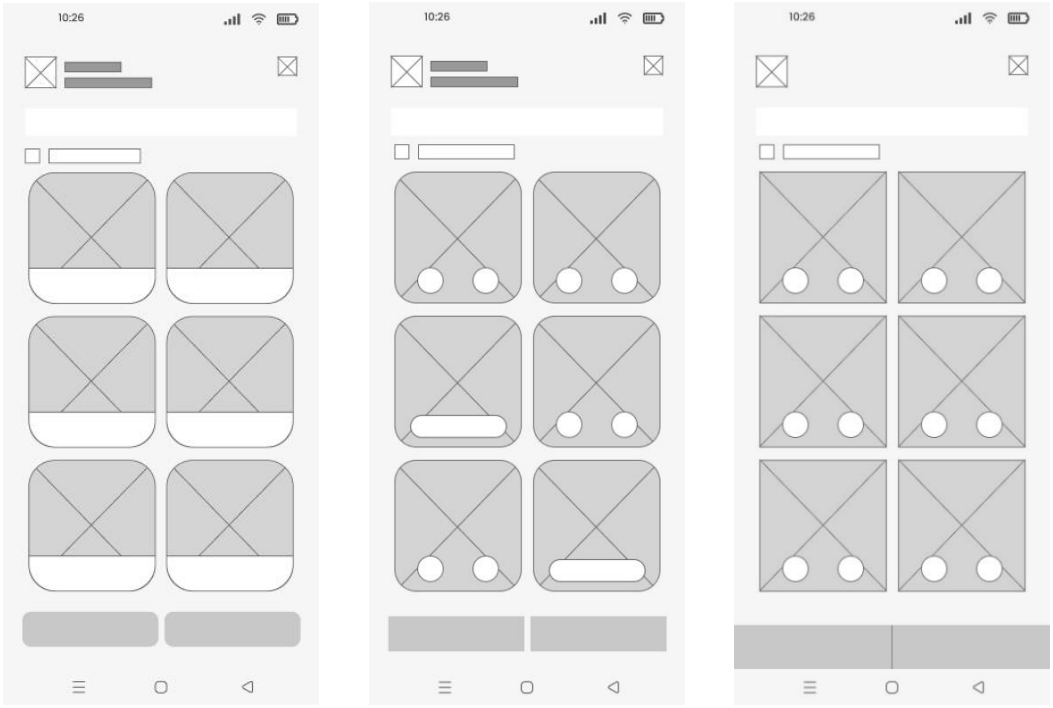
Doctor Consultation Page



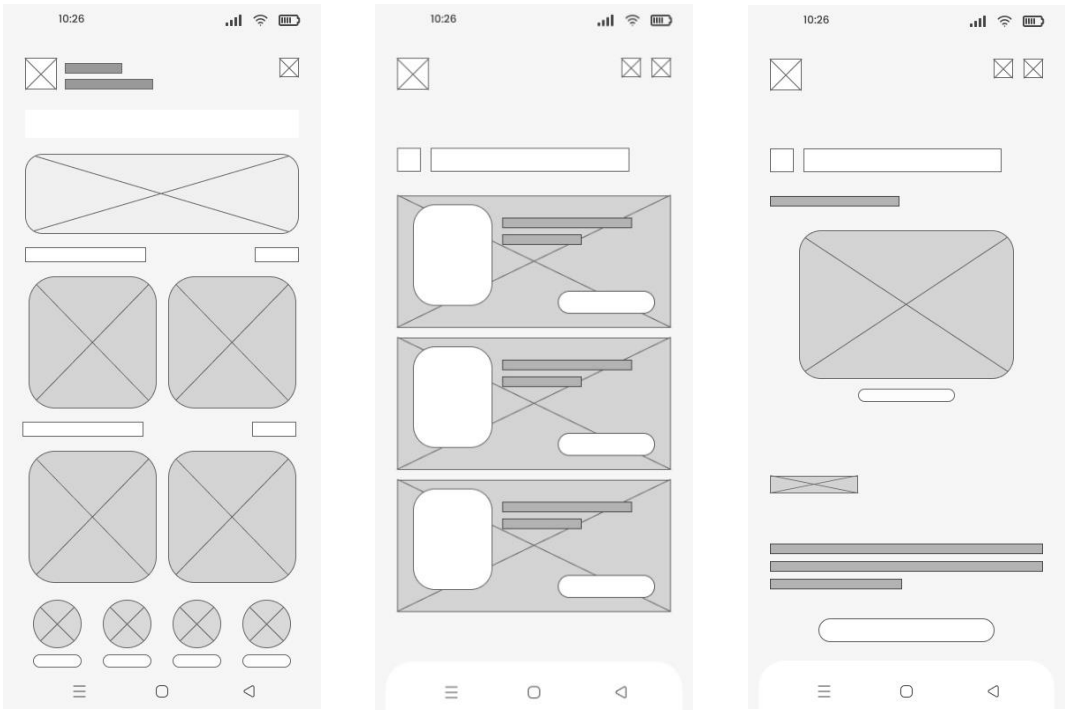
Specialty Consultation Page



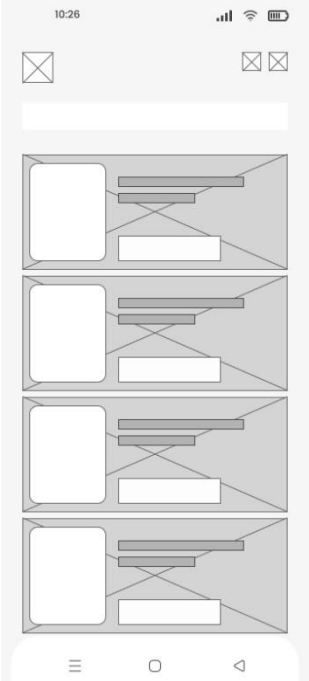
Buy Medicines Page

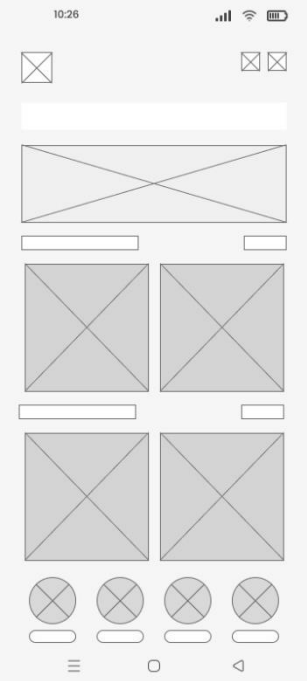


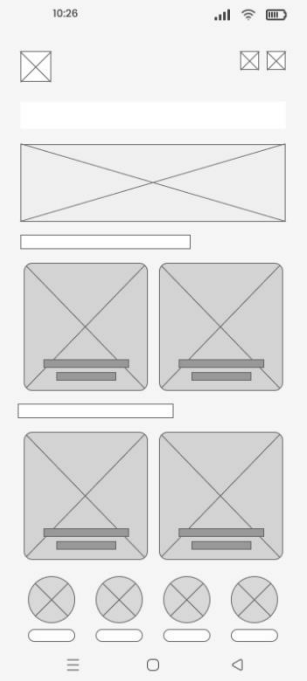
Home Care Services



Health Tests







Iconography

Various icons are used in the Healthcare mobile App for making it easier for users to understand the features easily, while connecting with these symbolic forms. These are made while taking consideration of the brand and its visual guidelines.

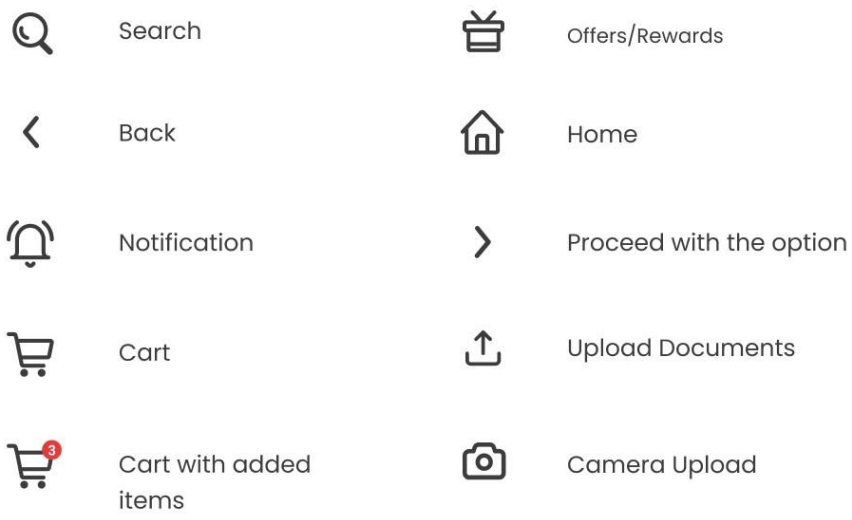


Fig. 5 – Different icons of the App

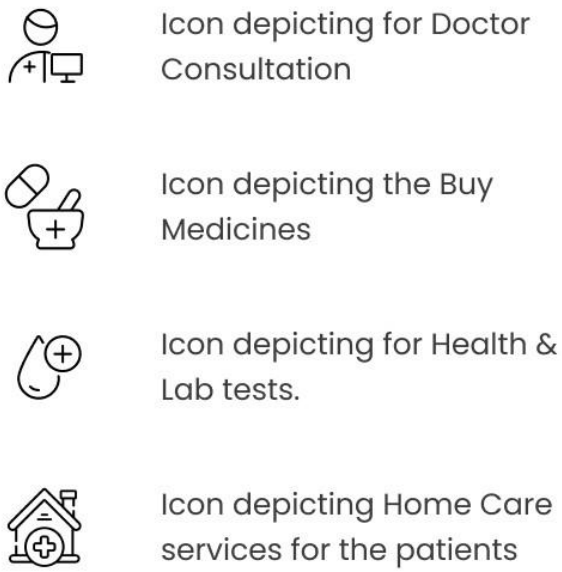


Fig. 6 – Icons for the App Key features

- Search
- Home
- Back
- Proceed with the option
- Notification
- Upload Documents
- Cart
- Camera Upload
- Medicine
- Homecare
- Cart with added items
- Icon depicting for Doctor Consultation
- Icon depicting for Health & Lab tests.
- Consultation
- Icon depicting the Buy Medicines
- Icon depicting the Home Care services for the patients.

Iterations in the Mobile App

Several elements and considerations were added to refine and enhance the user experience**.** Integrate feedback from users collected during usability testing sessions or through surveys to identify areas for improvement and refine the UI design accordingly. Prioritize addressing common pain points and enhancing features that received positive feedback.

Ensuring the accessibility standards and guidelines of the UI design, such as providing sufficient color contrast, and offering alternative text for images.

Reviewing the UI design to ensure consistency in visual elements, such as typography, color schemes, iconography, and layout. Standardizing UI components and patterns across different screens and sections of the application to create a cohesive and intuitive user experience.

Evaluating the navigation structure of the application to streamline user journeys and reduce complexity. Simplified navigation paths, eliminating unnecessary steps, and ensure that users can easily find and access key features and content within the app.

Lastly, I optimized the visual hierarchy of UI elements to guide users' attention and improve its usability. Use visual cues such as size, color, contrast, and spacing to prioritize important information and actions, making it easier for users to navigate & proceed with their task.

Key changes while designing the UI layout of the App -

- Proper branding of the Mediversal App
- Aligning various buttons & icons in their proper location on the screens, considering the uses scenario by the users.
- Smooth & easy navigation to different concerned pages while considering its various features.
- Increased the aesthetics of the App flow through proper layout, maintaining proportion, font & its sizes across the screens.
- Enhanced the user interaction through proper arrangement of feature details, information while moving forward with the flow.

- Removing unwanted repetitive primary buttons available at different screens of the App, which creates confusion among the users.
- Changing different Icons, Images, Clipart to highlight various features accordingly with the textual element in application.

Competitive Analysis

I have done the Competitive Analysis between 3 of the apps **M Fine, MediBuddy & Practo** from the Mediversal Healthcare App for analysing the availability of various features in them & how it differs from the one another.

	Availability on Apps		
Different Features	**M Fine App**	**Medibuddy App**	**Practo App**
Online Doctor Consultation	Available	Available	Available
Buy Medicine	Available	Available	Available
Prescription upload for Medicine	Available	Available	Available
Home Care Services	Not Available	Not Available	Not Available
In-person Consultation	Available	Available	Available
Lab Test Booking	Available	Available	Available
Health ID/ABHA account	Not Available	Available	Available
Medical Insurance Policy	Available	Not Available	Available
Chat Bot (for any query)	Available	Not Available	Not Available
Customer Support/Help	Available	Available	Available
Transaction/Order Details	Available	Available	Available
Rewards/Health Point	Available	Available	Available
Wallet	Available	Available	Available

Membership Plan	Available	Not Available	Not Available
Discount coupons on Medicine	Available	Available	Available
Language Choice	Available	Available	Available

Table 2 – Competitive Analysis with other healthcare App

Comparing the features with the Mediversal App -

Different Features	**Mediversal App**
Online Doctor Consultation	Available
Buy Medicine	Available
Prescription upload for Medicine	Available
Home Care Services	Available
In-person Consultation	Available
Lab Test Booking	Available
Health ID/ABHA account	Available
Medical Insurance Policy	Not Available
Chat Bot (for any query)	Not Available
Customer Support/Help	Available
Transaction/Order Details	Available

Rewards/Health Point	Not Available
Wallet	Available
Membership Plan	Not Available
Discount coupons on Medicine	Available
Language Choice	Available

Table 3 – Competitive Analysis with Mediversal App

Key Insights

Various key insights after comparison analysis between 3 different Health Care Service Provider Apps are -

Pain Points

- Main features of the App such as Doctor Video Consultation, Buy Medicine, Booking Health Test, Home Care Service are repeated thrice in the app, which create confusion to the users while handling the app.

- Help/Support query not placed in their proper place. It can be added in the side menu icon, when users open it for managing their account/order details.

- Top menu icon again showing all the primary features of the app, that could be replaced only with the account section of the user, with all the relevant features for viewing the previous orders, prescription details.

- Boarding with the Sign-in page is not smooth, with the absence of various other login options such as Google, facebook login.

- Various agreement related links such as About Us, Terms of Service, Privacy Policy, Refund Policy are not placed appropriately in the proper screen. It could be placed in the menu section or, at the Sign-in screen.

- Boarding with the Sign-in page is not smooth, with the absence of various other login options such as Google, facebook login.

Various pre-existing features that are available in the App are –

- Doctor Consultation (online/offline)
- Online order of medicines
- Online booking of Lab Tests
- Home Care Services
- Prescription upload for online order of medicine
- Search for various medicines, doctors, lab tests.
- Viewing of active orders/appointments
- Renting of nursing staff, medical equipment
- App Language choice

Various features that could be added to enhance the App experience are –

- Insurance Policy coverage
- Membership plan for the whole family
- Instant consultation facility with doctors (within few minutes)

Accessibility features that could be enhanced within the App are –

- Prioritized Consultation button on Home page
- Chat Bot Support
- Health Points on every medicine/equipment purchase

Brand Guidelines

Understanding the significance of Visual appeal, I carefully considered user preference, their interaction with the interface, and the overall experience they will face while going through the app.

Typography -

Poppins

Aa

1234567890

Font Size 10px 12px 15px

- Regular
- Medium
- Semi-bold

Mulish

Aa

1234567890

Font Size 10px 12px 15px

- Regular
- Medium
- Semi-bold

Colors -

#004888

#0085AD

#27B1CA

#29B2BC

#B5E2E5

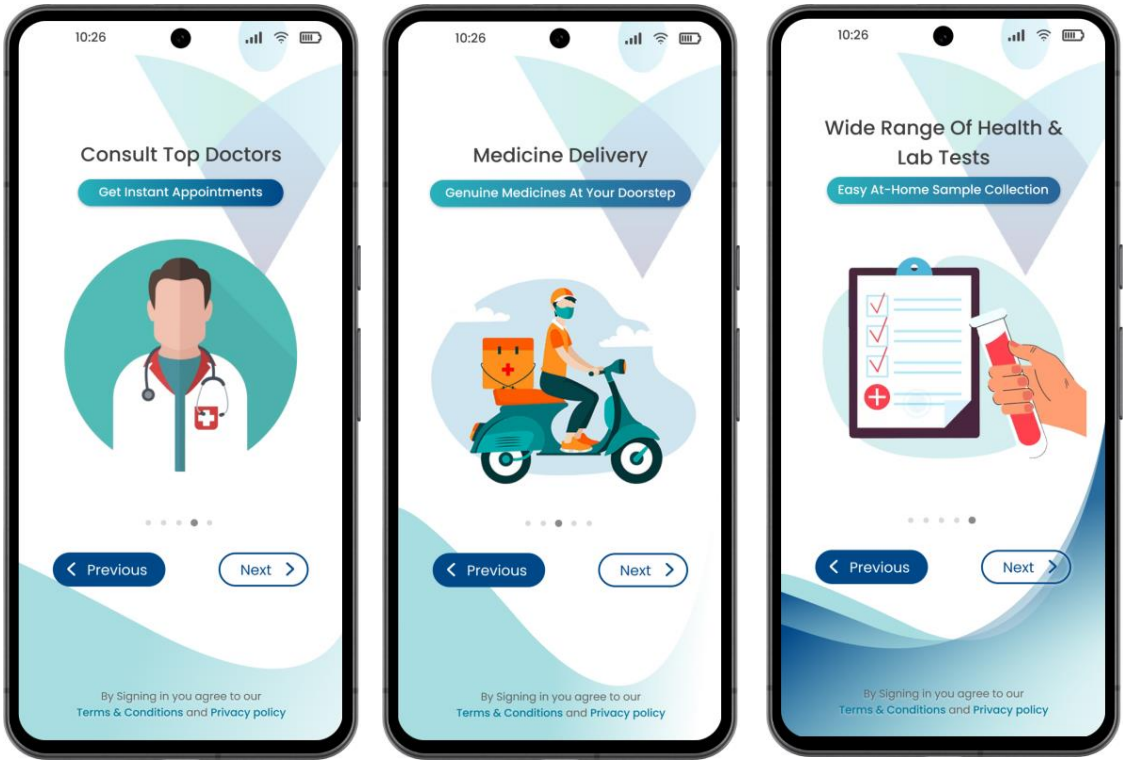
#A8DDE1

Fig. 7 – Image showing hexagon color code & brand logo

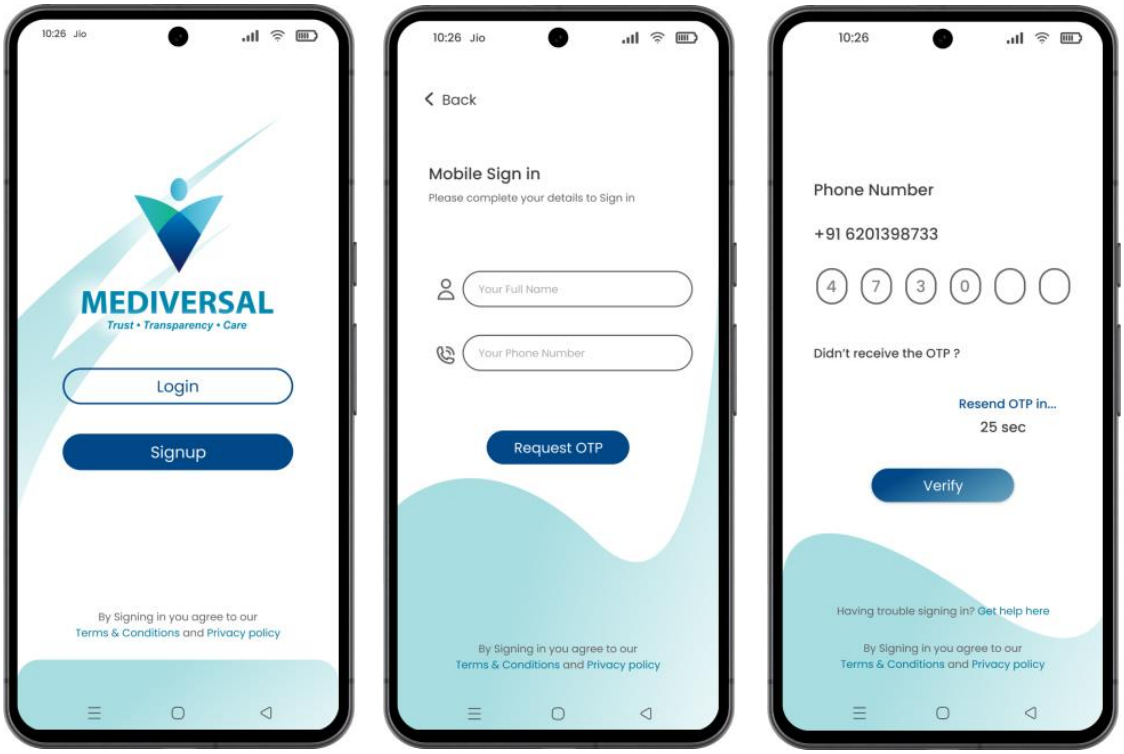
Visual Design (Screen)

Splash Screens

Splash Screen showing up the Mediversal Logo with its tagline **'Trust, Transparency, Care'** designed with its branding elements.

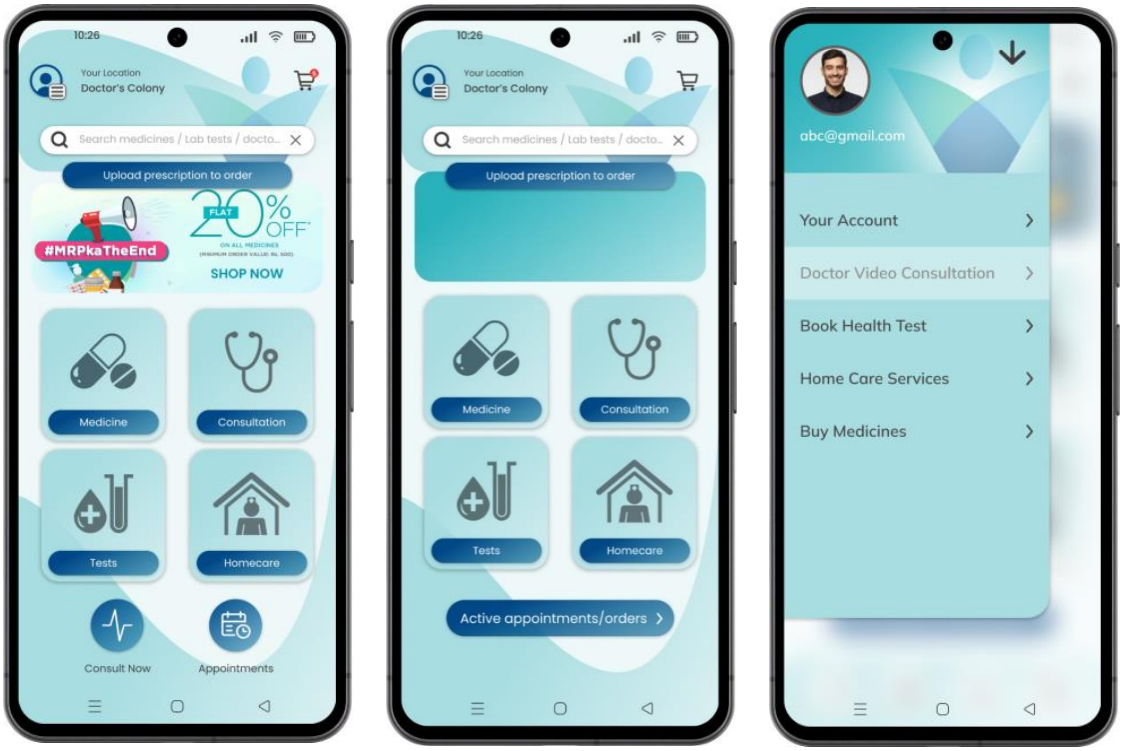


Login/Signup Screen



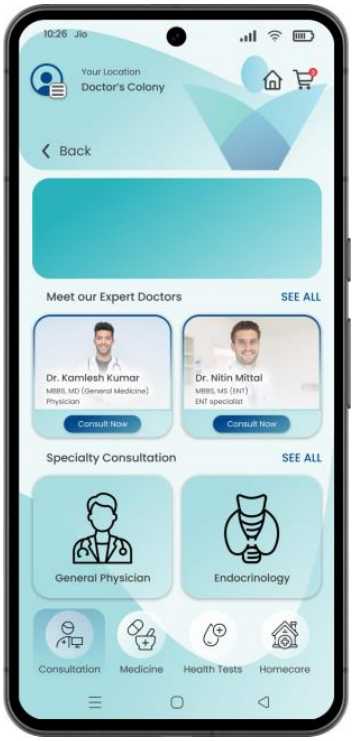
Home Screens

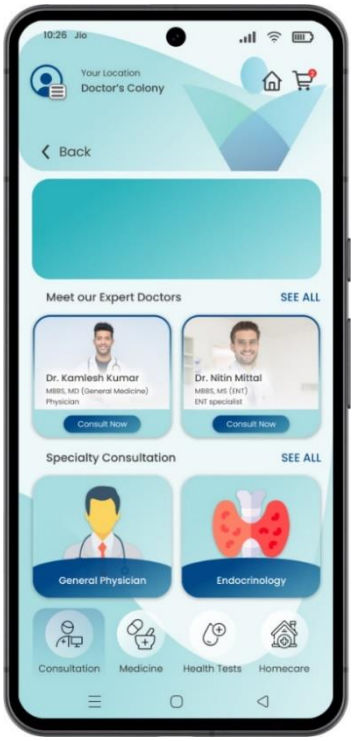
Home Screen shows all the Key Features of the App containing all the necessary elements users will interact with such as buttons, texts, coupons display, etc.

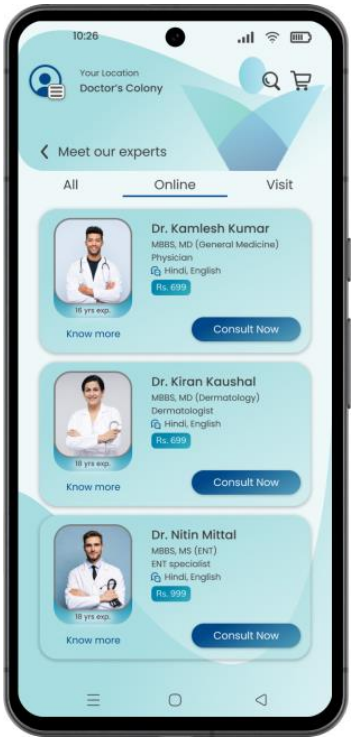


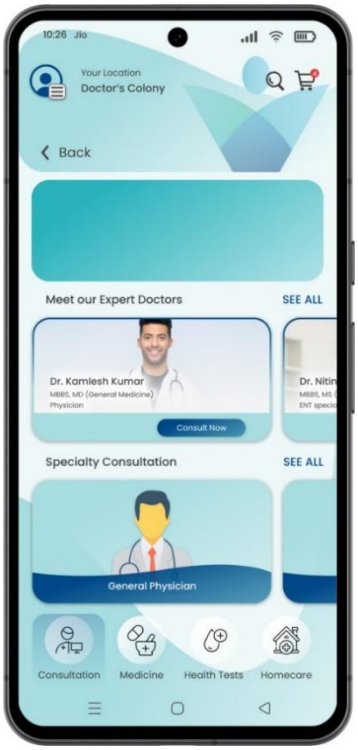
Doctor Consultation Screen

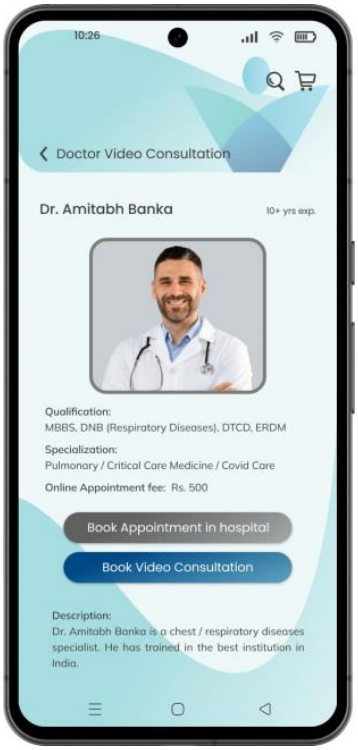
This screen shows the 2 ways through which doctor appointments could be booked. One by searching through all its expert doctor list, and another through a particular specialty concerned with the patient.

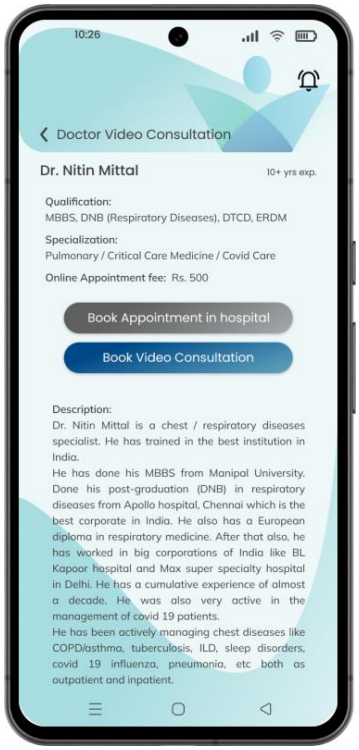




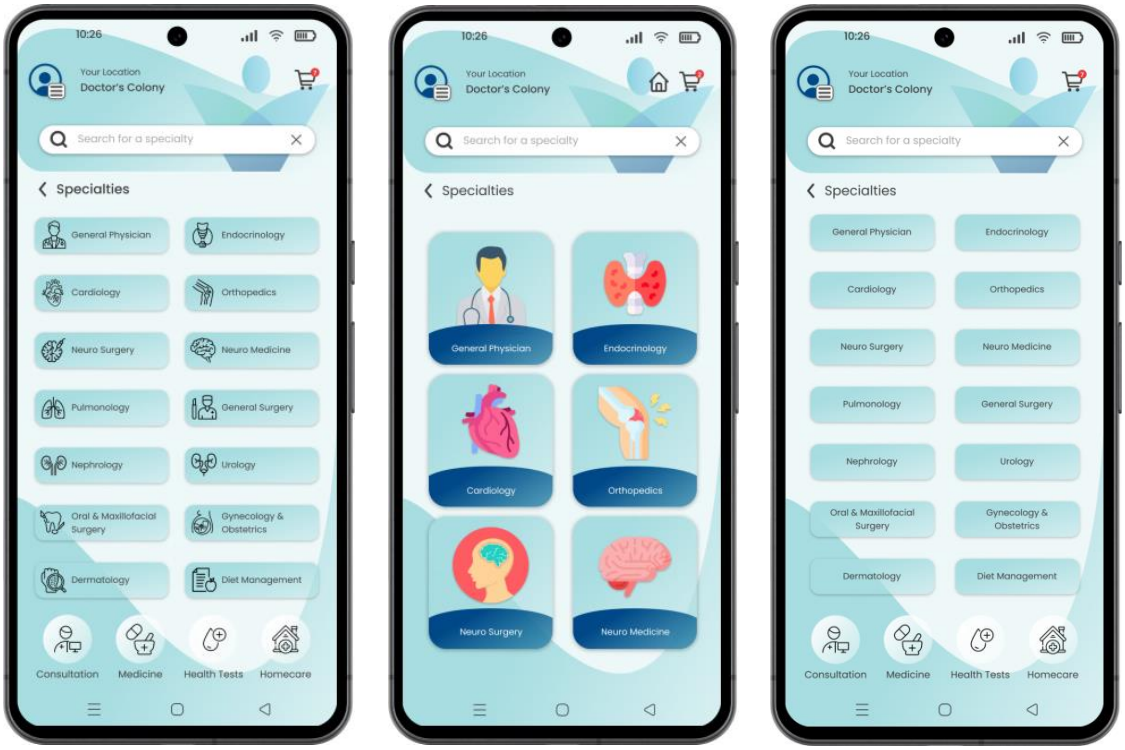






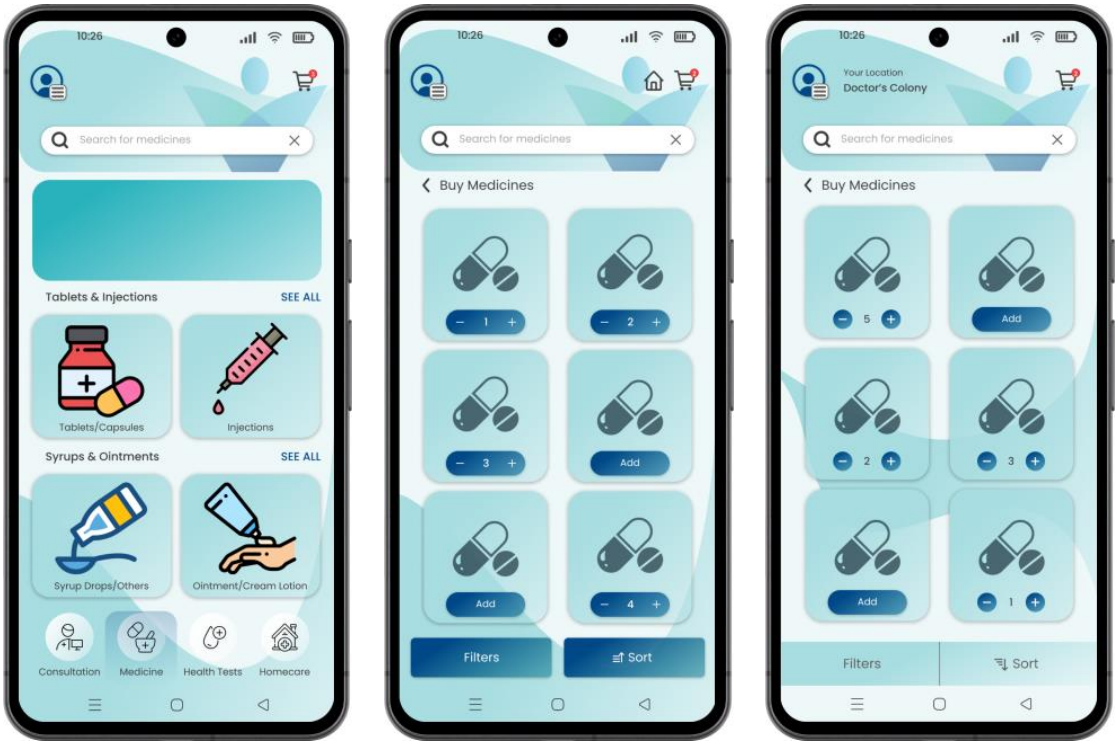


Specialty Consultation Screen

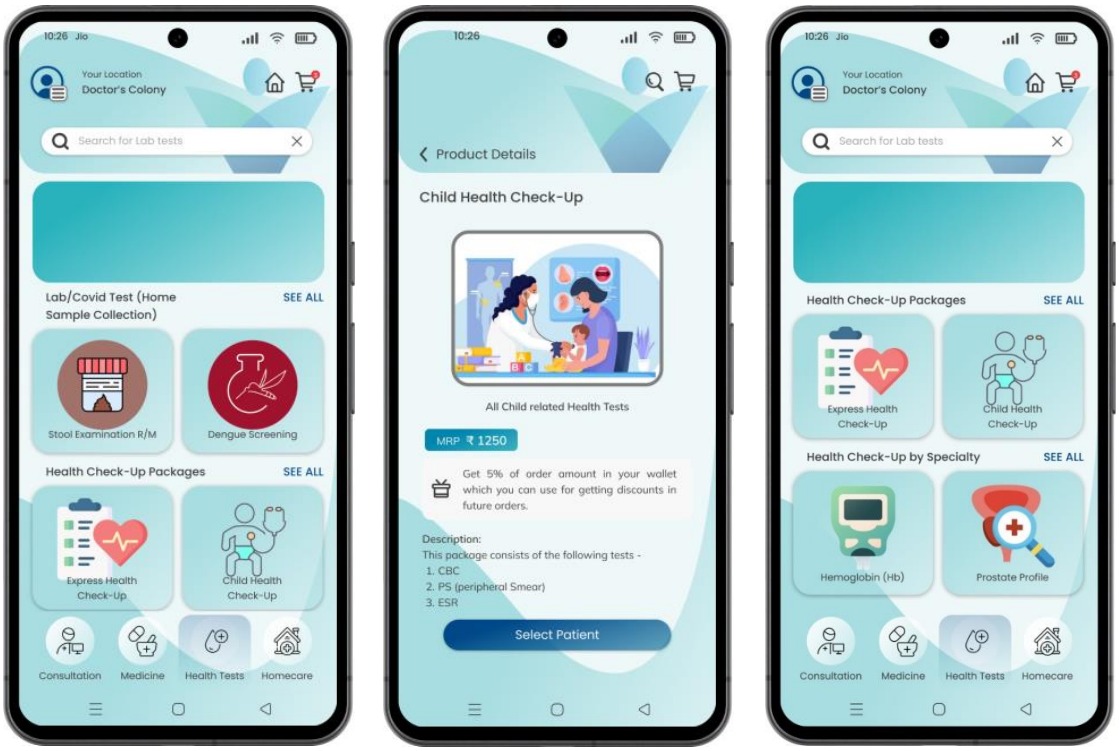


Prescription Upload Screen

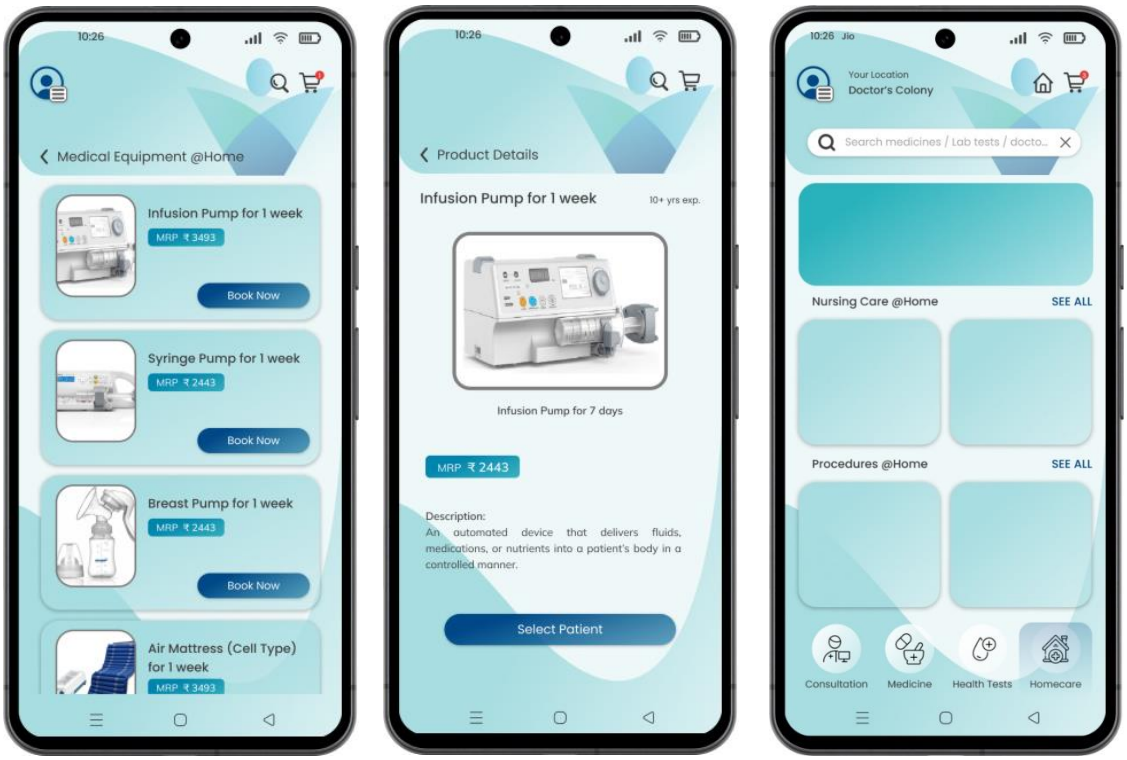
Buy Medicine Screens



Health Test Screens



Home Care Screens



Main Screens Detailing

Home page

Home page consists of all the essential buttons concerning for booking appointments, medicines, home care services, through which customers can easily book their preferred slots through simpler UI Design.

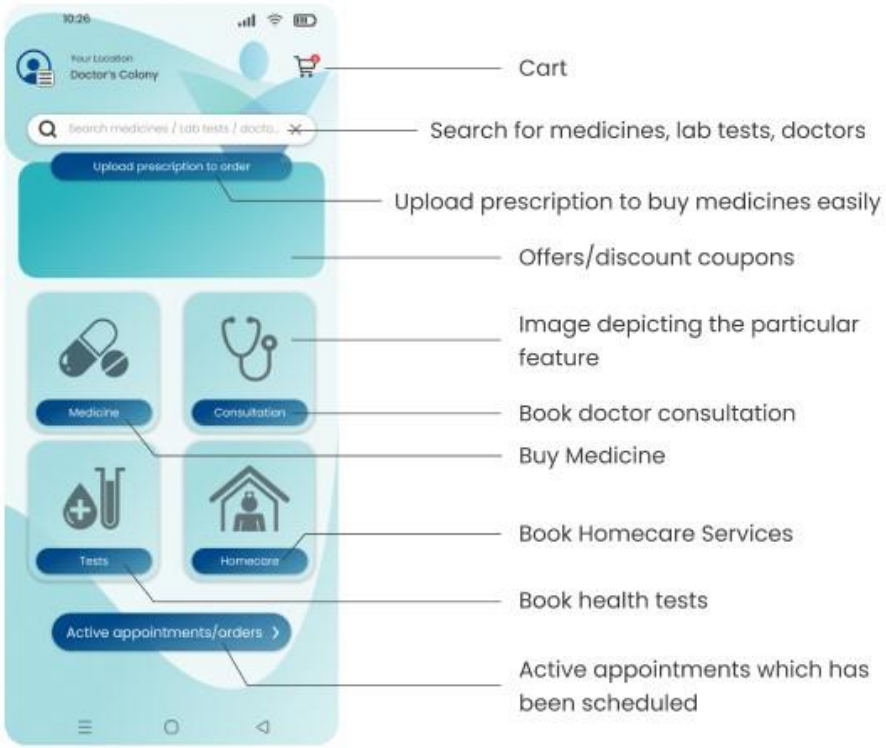


Fig. 8 – Screen representation (Home page)

Buy Medicine page

Buy Medicine page consists of all the essential buttons concerning for booking appointments, medicines, home care services, through which customers can easily book their preferred slots through simpler UI Design.

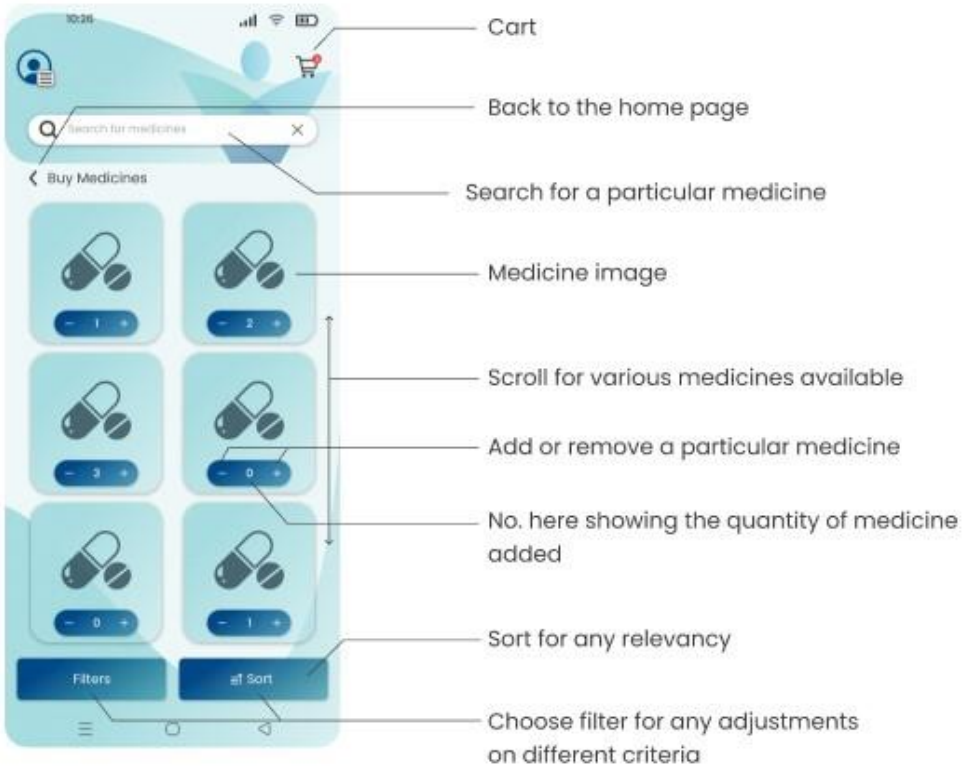


Fig. 9 - Screen representation (buy medicine page)

Doctor Consultation page

Doctor consultation page consists of all the essential features/buttons for booking doctor appointments, specialty consultation through which users can easily select their preferred doctors/specialty on this screen.

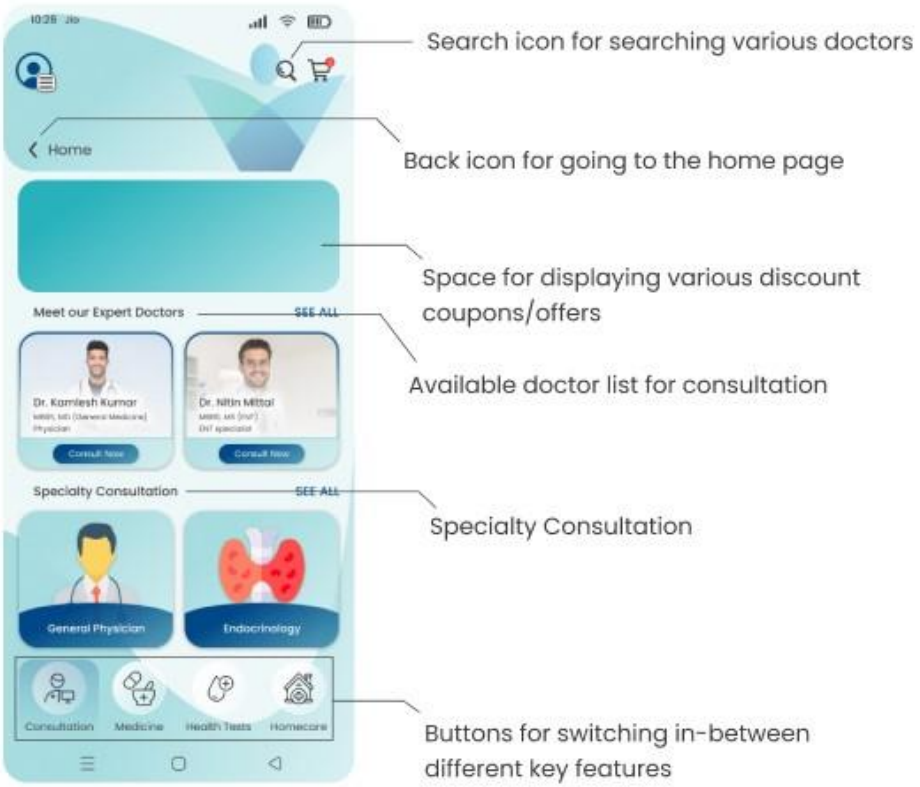


Fig. 10 - Screen representation (doctor consultation page)

Expert Doctor page

Expert doctor screen consists of all the doctors available for online/offline consultation booking, through which users can easily select their preferred doctors they want to consult regarding a particular problem.

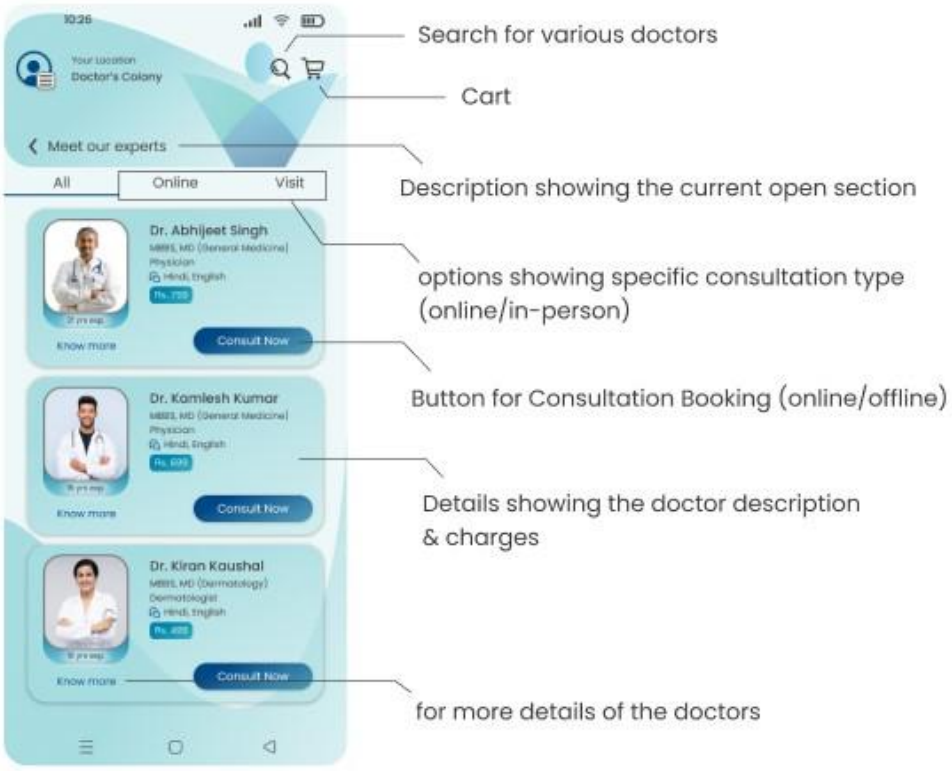


Fig. 11 - Screen representation (expert doctor page)

Conclusion

It was a wonderful learning experience for me while working on this research project. Redesign of the healthcare company's mobile application marks a significant commitment to enhancing user experience and delivering accessible, innovative healthcare solutions. Through a comprehensive and iterative redesign process, I have addressed usability challenges, improved accessibility, and elevated the overall user experience to better serve its users.

The redesign process began with initial user research, allowing me to gain deep insights into user needs, preferences, and pain points. By analysing user feedback, conducting usability testing, and evaluating the current application design, I identified areas for improvement and set clear objectives for the redesign.

Throughout the redesign process, I prioritized simplicity, intuitiveness, and inclusivity, ensuring that the app is accessible to users of all abilities. I incorporated accessibility features such as screen reader compatibility, adjustable font sizes, and high contrast mode to make the app more user-friendly for individuals with disabilities.

The redesigned app features a streamlined interface, intuitive navigation, and personalized recommendations, providing users with a seamless and engaging experience. Performance optimization, compatibility across devices were also key priorities to ensure a smooth user experience.

Lastly, Mediversal healthcare mobile application redesign represents a significant step forward in their mission to provide accessible, user-centric healthcare services. We remain committed to continuous improvement and innovation. Our team in future will closely monitor user feedback, track key performance indicators, and iterate design of the app based on emerging trends and user needs. By fostering collaboration across teams and implementing a user-centric approach, our team will continue to deliver impactful healthcare solutions that empower individuals to lead healthier lives.

References

Dribbble - Discover the World’s Top Designers & Creative Professionals

The Importance of Mobile Applications in Everyday Life - Aeologic Blog

Importance of App Design in Application Development | Key Principles & Process (cronj.com)

Why Design is the Most Important Factor in a Mobile App Development? | ISHIR-Mobile Application Development Company India

What Is UI Design? Definition, Tips, Best Practices | Coursera

5 Key UI Design Principles— And How To Use Them | Figma

User Interface Design Guidelines: 10 Rules of Thumb | IxDF (interaction-design.org)

What is Mobile User Experience (UX) Design? — updated 2024 | IxDF (interaction-design.org)

App UX Best Practices: Elevating User Experience in Mobile Design (survicate.com)

Appendix

Following short questionnaire were initially prepared, which was used to collect primary data from participants in the research study of **'Exploring User Preferences and Satisfaction'** with current Mediversal Mobile Application.

It was circulated through Google form links & few in-person discussion with different stakeholders. These were -

1. Please indicate your age. (Open-ended)
2. Gender
3. How often do you use 'Mediversal Healthcare Mobile Application?'
    - Daily
    - Weekly
    - Monthly
    - Rarely
    - Never used
4. On a scale of 1 to 5, how would you rate the overall usability of the app? (1 = Poor, 5 = Excellent)
5. What features do you find most useful in the app? (Open-ended)
6. What features do you find least useful in the app? (Open-ended)
7. How satisfied are you with the app's accessibility features? (1 = Very Dissatisfied, 5 = Very Satisfied)
8. Have you encountered any difficulties or challenges while using the app? If so, please describe. (Open-ended)
9. How likely are you to recommend the app to others? (1 = Not Likely, 5 = Very Likely)