THE UNIVERSITY OF DODOMA
COLLEGE OF INFORMATICS AND VIRTUAL EDUCATION

REMINDSHERE PROJECT
GROUP MEMBERS
GROUP N0: 03

SN	NAMES	ADMISSION NUMBER
1	ELIA WILLIAM MARIKI	T22-03-13063
2	HAROON AHMED ABDALLAH	T22-03-11755
3	HERI CYPRIAN MINJA	T22-03-14506
4	HAFIDHI ABDALA MKORI	T22-03-04660
5	JULIUS PETER NTALE	T22-03-05441
6	JACQUELINE OSWALD NDUHIRUBUSA	T22-03-13164
7	ZAINABU MIRAJI KISINGE	T22-03-08141
9	CLAIKE B ANDREW	T22-03-01946

DESCRIPTION

RemindSphere is a user-friendly mobile application designed to assist individuals in managing their reminders, tasks, and events effectively. With its intuitive interface and powerful features, RemindSphere aims to streamline the process of organizing and staying on top of important commitments.

Key Features:

1. Reminder Management: RemindSphere allows users to create, schedule, and manage reminders effortlessly. Users can set reminders for various tasks, appointments, deadlines, and events, ensuring they never miss an important moment.
2. Task Tracking: The application provides a comprehensive task tracking system, enabling users to create and manage their to-do lists. Users can prioritize tasks, mark them as completed, and track their progress, enhancing productivity and organization.
3. File Storage: The application offers a secure file storage feature, enabling users to upload and manage important documents, such as passports, bank cards, NIDA cards, Certificates, Insurance Cards and other essential credentials. Users can access these files whenever needed, ensuring easy retrieval and peace of mind.
4. Customizable Reminders: RemindSphere provides users with the flexibility to customize their reminders according to their preferences. Users can set recurring reminders, choose notification preferences, and personalize reminder settings to suit their individual needs.
5. User-Friendly Interface: RemindSphere boasts a clean and intuitive user interface, making it easy for users to navigate and utilize its features. The application's design prioritizes simplicity and ease of use, ensuring a seamless user experience.

Whether it's remembering important tasks, staying on top of deadlines, or managing events, RemindSphere is the go-to mobile application for

individuals seeking an efficient and reliable solution for their reminder and task management needs.

User Functional Requirements:

1.User Registration:
- Users have the capability to create an account within the system by entering their personal information, including their full name, email address, phone number, and a chosen username. This account creation process allows users to establish their presence in the system.

2.User Login:
- Users can securely log into the system using the credentials they provided during the registration process. This ensures that only authorized users can access their personalized settings and information.

3.System Customization:
- Within the system, users have the ability to make the experience more tailored to their preferences. They can change their password to enhance security. Additionally, users can personalize their profile by updating their profile picture and name, making the system feel more familiar and reflective of their identity.

4. File Management:
- The system provides users with a centralized space for managing important files. Users can upload and update essential documents such as passports, bank cards, resident cards, and other vital credentials. The system acts as a secure repository, allowing users to access these files whenever needed.

5. Reminder Functionality:
- The system features a built-in reminder feature that assists users in keeping track of tasks and responsibilities. Users can set alarms within the program, helping them stay organized and informed about upcoming events, to-do items, and commitments.

6. Logout:
- Users can conclude their interaction with the system by logging out. This action ensures that their account and information are secure and inaccessible by anyone else who might have access to the same device.

System Requirement:

1. Background Operation:
   - The system is designed to operate continuously in the background, ensuring that it remains available and responsive at all times. This uninterrupted operation allows users to access their files and reminders whenever they need, without delays caused by system startup.

2. Reminder Alarms:
   - The system's reminder alarms are always active as long as the user is logged in. Even if the user is actively using the system, the alarms will continue to function. This constant presence of reminder alarms helps users stay up-to-date with their schedules and commitments.

3. User Profile Settings:

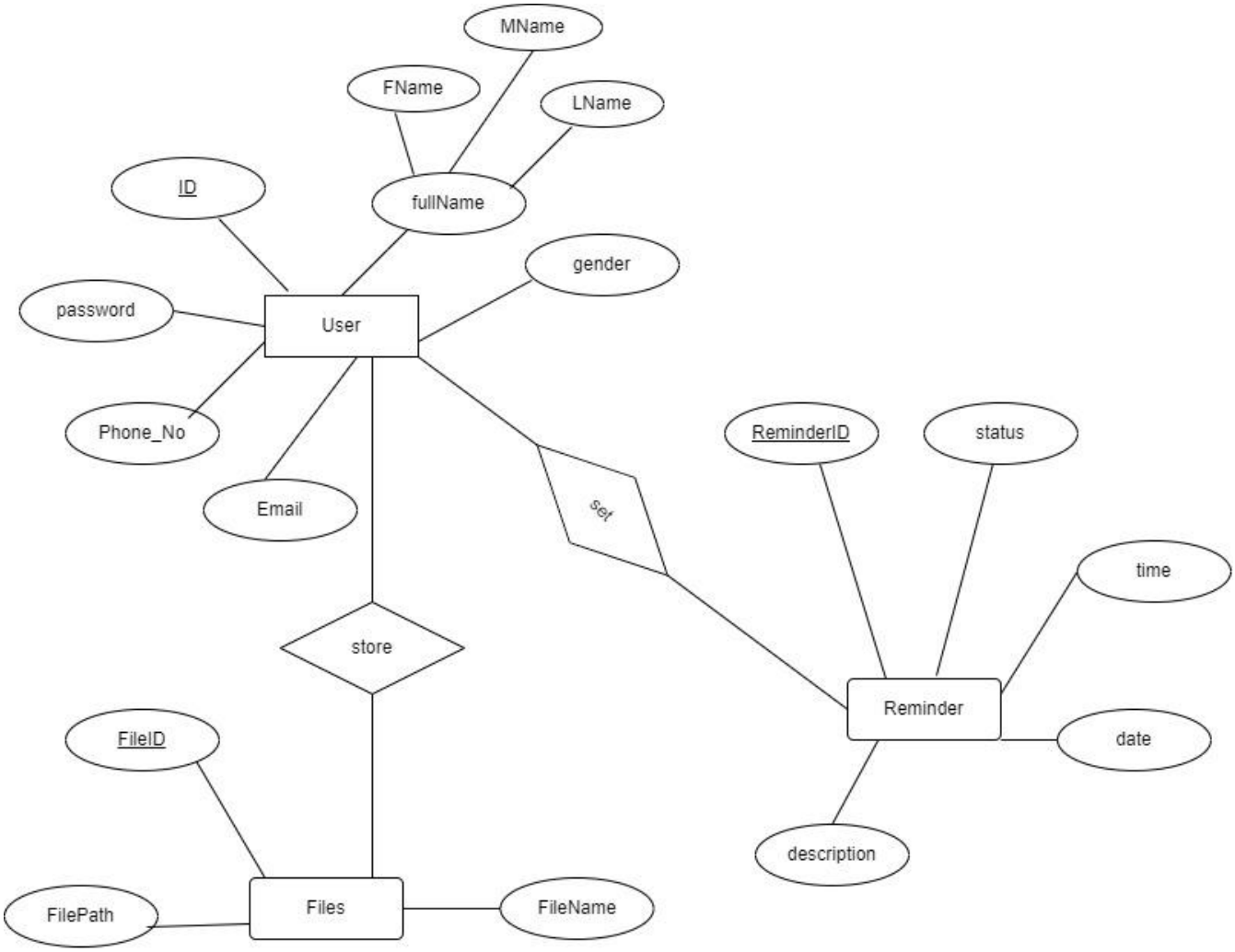
   - Users should have the ability to customize additional settings within their profile, such as notification preferences, time zone, and language preferences.

4. Sync Across Devices:
   - The RemindSphere mobile application should allow users to sync their data and settings across multiple devices, ensuring a seamless experience regardless of the device they are using.

5. Data Backup and Recovery:
   - The application should provide a reliable data backup and recovery mechanism to prevent data loss in case of device failure or accidental deletion.

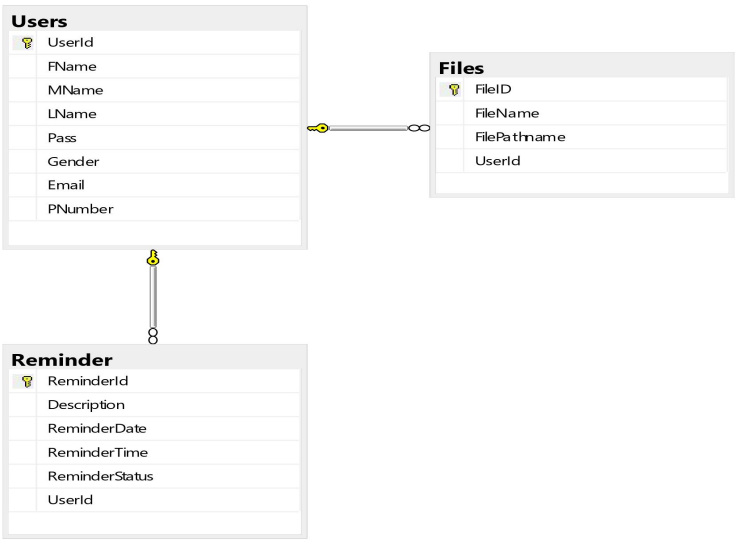
6. Integration with Calendar:
   - The RemindSphere mobile application should integrate with the user's device calendar, allowing them to sync their reminders and events with their existing calendar app

ER DIAGRAM.



Database design and documentation:

LOGICAL SCHEMA:



DATA DICTATIONARY.

User.

Attribute Name	Format	Datatype	Field size	Description
ID	Text	Varchar	25	ID Varchar25, PRIMARY KEY, NOT NULL.
Full Name	Text	Varchar	30	Full Name Varchar30, NOT NULL.
Password	Text	Varchar	08	Password Varchar08, NOT NULL.

Phone No	Auto number	Integer	10	Phone number Integer10, NULL.
Email	Text	Varchar	20	Email Varchar20, NOT NULL.
Gender	Text	Varchar	02	Gender Varchar02, NULL.

Reminder.

Attribute Name	Format	Data type	Field size	Description
Reminder Id	Text	Varchar	25	Reminder Id Varchar25, PRIMARY KEY, NOT NULL.
Date	Auto number	Date	12	Date NOT NULL
Time	Auto number	Integer	12	Time NOT NULL.
Status	Text	Varchar	30	Status Varchar30, NOT NULL.
Description	Text	Varchar	40	Description Varchar40, NOT NULL.

Files.

Attribute Name	Format	Data type	Field size	Description
File ID	Text	Varchar	20	File ID Varchar20, PRIMARY KEY, NOT NULL.
File Name	Text	Varchar	25	File Name Varchar25, NOT NULL.

File Path	Text	Varchar	10	File Path Varchar10, NOT NULL.

Physical schema:

```
CREATE DATABASE Remindspere;

USE Remindspere;

CREATE TABLE User (
   UserId INTEGER PRIMARY KEY AUTOINCREMENT,
   FName VARCHAR(20) NOT NULL,
   MName VARCHAR(20) NOT NULL,
   LName VARCHAR(20) NOT NULL,
   Pass VARCHAR(60) NOT NULL,
   Gender VARCHAR(1) CHECK(Gender IN ('M', 'F')),
   Email VARCHAR(50),
   PNumber VARCHAR(11)
);



CREATE TABLE Files (
   FileID INTEGER PRIMARY KEY AUTOINCREMENT,
   FileName VARCHAR(50) NOT NULL,
   FilePathname VARCHAR(50) NOT NULL,
   UserId INTEGER,
   FOREIGN KEY(UserId) REFERENCES User(UserId)
);

CREATE TABLE Reminder (
   ReminderId INTEGER PRIMARY KEY AUTOINCREMENT,
   Description TEXT,
   ReminderDate DATE,
   ReminderTime TIME,
   ReminderStatus VARCHAR(20) CHECK(ReminderStatus IN ('pending', 'completed')),
   UserId INTEGER,
   FOREIGN KEY(UserId) REFERENCES User(UserId)
);
```

THE IMPLEMENTATION PLAN AND MANAGEMENT

WEEK 01:

Milestone 1: System Design and Documentation

- Requirement Gathering:
  - User functional requirements
  - System requirements
- Database Design and Implementation:
  - Create ER diagram
  - Design logical schema
  - Implement physical schema
  - Develop data dictionary and documentation
- User Interface Design:
  - Design user registration and login form
  - Design user dashboard and profile settings page
  - Design content upload interface
  - Design reminder page
  - Design logout functionality

WEEK 02:

Milestone 2: User Registration and Authentication

- Implement user registration back-end logic with secure credential storage.
- Develop login page with registration number and password fields.
- Create authentication logic to verify user credentials and manage sessions.

Milestone 3: System Customization and File Management

- Allow users to change their passwords for enhanced security.
- Implement user profile customization:
  - Enable users to upload profile pictures
  - Implement profile name customization
- Implement secure file management functionality:
  - Develop back-end logic for uploading and updating files
  - Design user interface for accessing and managing uploaded files

WEEK 03:

Milestone 4: Reminder Functionality

- Implement built-in reminder feature:
  - Create UI for setting reminders
  - Develop back-end logic for scheduling and managing reminders
  - Implement reminder alarm system

Milestone 5: Integration and Syncing

- Integrate the application with user's device calendar:
  - Develop synchronization logic
  - Allow users to sync reminders and events with their device calendar
- Enable data backup and recovery mechanism:
  - Implement secure data backup functionality
  - Develop data recovery process in case of device failure or accidental deletion

Milestone 6: User Experience Enhancement

- Implement additional user profile settings:
  - Allow users to customize notification preferences
  - Enable users to set their time zone and language preferences
- Ensure background operation of the system:
  - Design and implement continuous background operation
- Test and verify reminder alarms:
  - Ensure reminder alarms remain active even during user interaction

Progress Tracking Checklist:

Week 1;	System Design and Documentation	status
1.	Requirement Gathering	
	User functional requirements	
	System requirement	
2.	Database Design and implementation	
	Er diagram	
	Logical schema	
	Physical schema	
	Data dictionary and documentation	
3	User interface Design	
	User registration and login form	
	User dashboard and profile settings page	
	Content upload interface	
	Reminder page	
	Logout functionality	

Week 2	User Registration, Authentication, system Customization and file management	status
4	Implement user registration back-end logic with secure credential storage	
5	Develop login page with registration number and password fields	
6	Create authentication logic to verify	

	credential and manage sessions.	
7	Allow user to change their password for enhanced security	
8	Implement user profile customization	
	Enable users to upload profile picture	
	Implement profile name customization	
9	Implement secure file management functionality	
	Develop back-end logic for uploading and updating files	
	Design user interface for accessing and managing uploaded files	

Week 3	Reminder functionality	status
10	Implement built-in reminder feature	
	Create UI for setting reminders	
	Develop back-end logic for scheduling and managing reminder	
	Implement reminder alarm system	
11	Integrate the application with user's device calendar	
	Develop synchronization logic	
	Allow user to sync reminder and events with their device calender	
12	Enable data backup and recovery mechanism	
	Implement secure data backup functionality	
13	Test and verify reminder alarms	
	Ensure reminder alarms remain active even during user interaction	

Task Sharing Plan for the Team:

Designer ( ):

- Design user registration and login form.
- Design user dashboard and profile settings page.
- Design content upload interface.
- Design reminder page.
- Design logout functionality.
- Design user profile customization elements.
- Design secure file management user interface.

Front-end Developer ( ):

- Implement front-end components for user registration, profile customization, content upload, reminders, and logout.
- Ensure user interface responsiveness and visual consistency.
- Collaborate with designers for seamless UI integration.

Back-end Developer ( ):

- Implement user registration back-end logic with secure credential storage.
- Develop authentication logic for login and session management.
- Develop back-end logic for user profile customization and secure file management.
- Create back-end logic for setting and managing reminders and alarm system.
- Integrate data synchronization with user's device calendar.
- Implement data backup and recovery mechanisms.

Tester ( ):

- Test user registration, authentication, profile customization, content upload, reminders, and logout functionality.
- Identify and report bugs or issues.
- Ensure overall application stability and reliability.

Project Manager ( ):
- Oversee the project's progress and ensure milestones are met.
- Coordinate tasks among team members.
- Address any challenges or roadblocks.
- Ensure communication and collaboration within the team.

My RemindSphere App UI Design Document

1. Introduction:

App Overview

Welcome to our innovative and user-friendly RemindSphere management application designed to streamline your financial life. Our app aims to simplify the way you manage your expenses, budgets, and financial goals, offering a seamless and intuitive experience.

With our app, you can effortlessly keep track of your transactions, organize your RemindSpheres, and gain valuable insights into your spending patterns. Whether you're a meticulous planner or just want to stay on top of your finances, our app is tailored to cater to your individual needs.

Stay tuned to discover how our app can empower you to take control of your finances with ease and efficiency.

2. Color Schemes and Topology:

Primary Colors:

Black: Typically used as a background color, black provides a clean and elegant base for your UI. It helps create a sense of depth and contrast, making other elements stand out.

White: Often used for text and content on black backgrounds, white offers high contrast and readability. It can also be used as a background color for certain sections to provide visual relief.

Orange: This is your primary accent color, adding a vibrant and energetic touch to your design. It can be used for buttons, icons, and other elements that need to grab the user's attention.

Secondary Colors:

Since you've mentioned using black, white, and orange as your primary colors, you might not need many secondary colors. However, it's good to consider a few shades of orange or grayscale tones to add variety to your design.

Font Choices:

The font choices you make play a significant role in defining the overall look and feel of your application. Consistency in font usage helps maintain a professional and organized appearance.
For headings and titles, you might opt for a bold and attention-grabbing font that complements your color scheme, such as a sans-serif font with a modern feel.
For body text and content, you could choose a legible and comfortable font that ensures readability, especially on a dark background

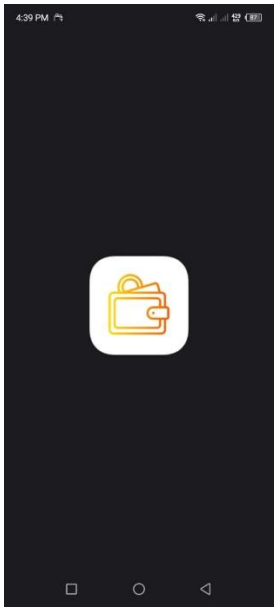
3. Logo and Branding:
   - App Logo

   - Brand Identity

4. Screens and Layouts:
   - Screen 1: Splash Screen

- Brief Description

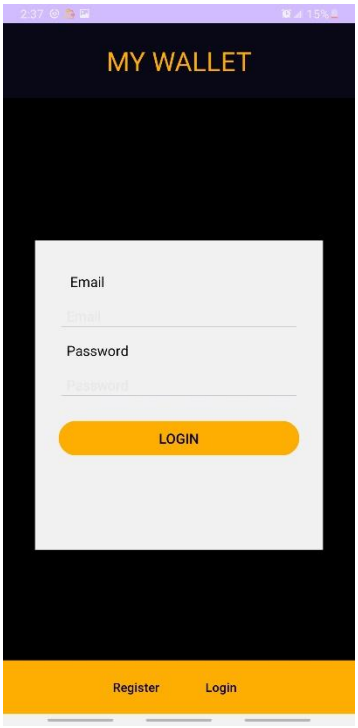
- Components Used



- Screen 2: Login Screen:

- Brief Description

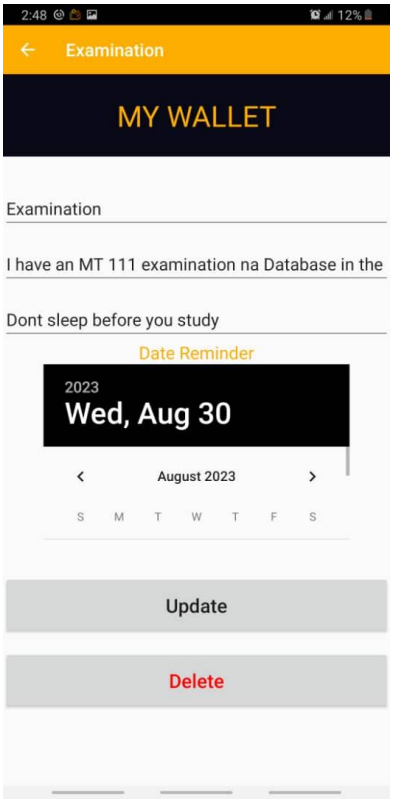
- Components Used



- Screen 4: Add RemindSphere Screen:

  - Brief Description

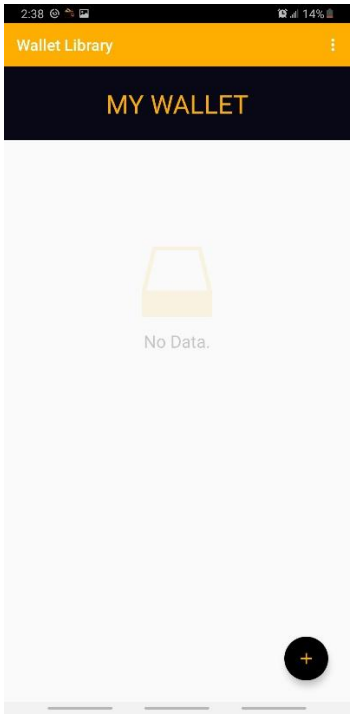
  - Components Used

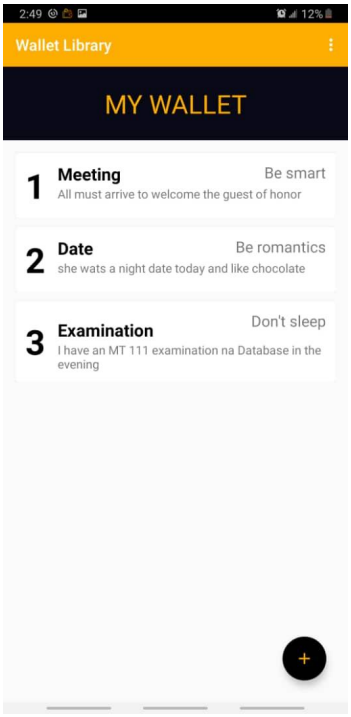


- Screen 5: RemindSphere Details Screen:

  - Brief Description

  - Components Used





5. **Component Details:**

This section delves into the various UI components that constitute the My RemindSphere mobile application. Each component is described along with its purpose and usage within the application.

Buttons:

Buttons are essential elements for user interaction and navigation within the application. They serve as triggers for actions and transitions between screens.

Primary Buttons: These buttons are prominently colored in the application's primary color (orange). They are used for important actions such as registration, login, and adding a new RemindSphere.

Secondary Buttons: Secondary buttons are styled in the application's secondary color (black). They are used for less critical actions like canceling or navigating back.

Text Inputs:

Text inputs allow users to provide information through text. They are used for collecting user input, such as RemindSphere title, content, and summary during RemindSphere creation.

- Title Input: This field allows users to enter a title for their RemindSphere.
- Content Input: Users can input the content or description of the RemindSphere.
- Summary Input: This input collects a concise summary of the RemindSphere's contents.
- Email and Password Inputs: Used during registration and login processes to collect user credentials.

Lists (Recycler View):

Recycler Views are used to display lists of items, such as the list of RemindSpheres on the main dashboard. Each item in the list includes RemindSphere details like title, content, and summary.

- RemindSphere List: Displays a scrollable list of added RemindSpheres with their titles and summaries.

Cards:

Cards are used to group related information together. In the My RemindSphere application, cards are used to display RemindSphere details on the main dashboard.

- RemindSphere Cards: Each RemindSphere is represented by a card, which includes the RemindSphere's title, content, and summary. Tapping on a card navigates the user to the RemindSphere details screen.

Floating Action Button:

The Floating Action Button (FAB) is a circular button used to trigger the addition of a new RemindSphere.

- Add RemindSphere FAB: Positioned at the bottom-right corner of the main dashboard, it provides a quick way for users to add a new RemindSphere.

Icons:

Icons are used to visually represent actions, items, and concepts within the application. They enhance the user experience by providing a recognizable and intuitive visual language.

Navigation Icons: Used in the navigation bar for screens such as dashboard, add RemindSphere, and RemindSphere details.
Action Icons: Icons representing actions such as edit and delete on the RemindSphere details screen.

By utilizing these UI components effectively and consistently, the My RemindSphere application offers users a cohesive and user-friendly interface that enables them to manage their RemindSpheres efficiently.

6. Navigation:

Bottom Navigation Bar:

Our app features a user-friendly bottom navigation bar that provides easy access to the key sections of the application. The bottom navigation bar remains consistent across different screens, ensuring that you can swiftly switch between essential features. This intuitive navigation method allows you to explore different functionalities, such as viewing your RemindSpheres, adding new transactions, checking your financial insights, and more, all with a simple tap.

Up Navigation (Back Button):

Navigating through the app is made effortless with the inclusion of an intuitive "Back" button functionality. Whenever you venture deeper into the app's features or view specific RemindSphere details, you can easily return to the previous screen by tapping the "Back" button. This functionality provides a sense of continuity and helps you navigate through the app's hierarchy with convenience.

Whether you're seamlessly gliding through the bottom navigation bar or smoothly returning with the "Back" button, our navigation design ensures a seamless and engaging user experience.

7. User Experience Flows:

The user experience flows outline the step-by-step processes that users will follow while interacting with the My RemindSphere mobile application.

These flows encompass essential actions such as user registration, login, adding a new RemindSphere, and viewing RemindSphere details.

User Registration Flow:

1. User opens the application for the first time.
2. User is presented with the registration screen.
3. User enters their desired email address and password.
4. User confirms the password.
5. User taps the "Register" button.
6. The system validates the input data for completeness and format.
7. If validation is successful, a confirmation message is displayed, and the user is registered.
8. The user is redirected to the login screen to log in with their new credentials.

User Login Flow:

1. User opens the application.
2. User is presented with the login screen.
3. User enters their registered email address and password.
4. User taps the "Login" button.
5. The system validates the provided credentials.
6. If credentials are correct, the user is authenticated and directed to the main screen.
7. If credentials are incorrect, an error message is displayed, and the user can attempt to log in again.

Adding a New RemindSphere Flow:

1. User logs into the application.
2. User arrives at the main dashboard.
3. User taps the "Add RemindSphere" button.
4. User is directed to the "Add RemindSphere" screen.

5. User enters the RemindSphere title, content, and summary.

6. User selects the RemindSphere's date reminder (if applicable).

7. User taps the "Add" button.

8. The system validates the input data.

9. If validation is successful, the RemindSphere details are saved, and a success message is displayed.

10. User is redirected back to the main dashboard, now displaying the newly added RemindSphere.

Viewing RemindSphere Details Flow:

1. User logs into the application.

2. User arrives at the main dashboard.

3. User sees a list of their added RemindSpheres.

4. User taps on a specific RemindSphere from the list.

5. User is directed to the "RemindSphere Details" screen.

6. User can view the title, content, summary, and date reminder (if applicable) of the selected RemindSphere.

7. User can tap the "Edit" button to make changes to the RemindSphere's details.

8. User can tap the "Delete" button to remove the RemindSphere.

9. User can navigate back to the main dashboard by tapping the back button or using the navigation bar.

8. Conclusion:

In the process of designing the My RemindSphere mobile application, several key design choices were made to ensure a visually appealing, user-friendly, and cohesive user interface. These choices were guided by the application's core functionalities and the user experience it aims to provide.

Typography choices further enhance the application's visual appeal and readability. A balanced combination of bold and legible fonts was employed to establish a clear hierarchy between headings, titles, and body content.

This approach ensures that users can quickly scan and understand information, leading to a seamless navigation experience.