Screen Sketches

TA4_1

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Project Name: Moneyflow

Actors and Their Functionality

❖ Actor 1- Guest User

➢ **Description:** The Guest User represents individuals who visit the app without signing in or creating an account. They have limited access to the features and functionalities of the platform.

➢ **Functionality:**

- View App Overview: Guest users can view information about the app's features, services, and purpose.
- Sign Up: Guest users have the option to sign up for a regular account or purchase a premium membership to unlock additional features.
- Limited Access: Guest users have restricted access to specific app sections and cannot access premium content or personalized features.

❖ Actor 2 - Regular User

➢ **Description:** Regular users are users who register using the "SIGNUP" button. Regular users have access to basic features within the app, such as uploading a bank statement and viewing cash inflow and outflow within their accounts.

➢ **Functionality:**

- Upload Bank Statement: Regular users can upload PDF bank statements, which get processed through a pdf-text converter API and parsed to gather inflow and outflow.
- Upgrade to Premium: Regular users can upgrade their plan to premium and obtain premium benefits.
- Add Additional Expenses: Besides adding bank statements, regular users can manually add additional expenses.
- View Metrics: Regular users can view metrics displaying how their money is spent, such as a pie chart displaying expenses in different categories.

❖ Actor 3 - Premium User

➢ **Description:** The Premium User represents individuals who have purchased a premium membership on the website. They can access enhanced features and personalized services, including financial recommendations based on income and expenses.

➢ **Functionality:**
  - Financial Recommendations: Premium users receive personalized financial recommendations after the grouping and calculation of the difference between their expenses and income has been made. These recommendations may include budgeting tips, investment suggestions, or savings strategies tailored to their financial situation.
  - Enhanced Features: Premium users can access additional features beyond those available to guests or regular users, such as advanced reports or priority customer support.
  - Expense and Income Analysis: Premium users can input their expenses and income data into the platform, which is then analyzed to provide insights into their financial health and behavior.
  - Goal Setting: Premium users can set financial goals within the platform, such as saving for a specific purchase or planning for retirement, and receive guidance on achieving these goals.

The Non-Functional Requirements

1. **Accuracy:** The financial recommendations provided to premium users should be accurate and based on reliable data analysis, ensuring that users receive relevant and actionable advice.
2. **Timeliness:** Premium users should receive financial recommendations promptly, with prompt analysis of their expense and income data to provide timely insights and suggestions for improvement.
3. **Personalization:** The recommendations and insights offered to premium users should be personalized to their financial circumstances, taking into account factors such as income level, spending habits, and financial goals.

Table and Fields

- User Table: To store user account information.
  - User ID – Primary Key
  - User Name
  - User Lastname
  - User Email
  - Hashed Password
  - Active (boolean)
  - Last Login Time

- Transaction Table: To store records of individual transactions.
  - Transaction ID – Primary Key
  - User ID – Foreign Key to User table
  - Category ID – Foreign Key to Category table
  - Amount
  - Transaction Date
  - Source/Destination Account
  - Transaction Type (Income/Expense)
  - Note/Description

- Category Table: For predefined categories such as clothing, food, etc.
  - Category ID – Primary Key
  - Category Name
  - Category Description

- Bank Statement Table: To store PDF bank statements uploaded by users.
  - Statement ID – Primary Key
  - User ID – Foreign Key to User table
  - File Path
  - Upload Timestamp

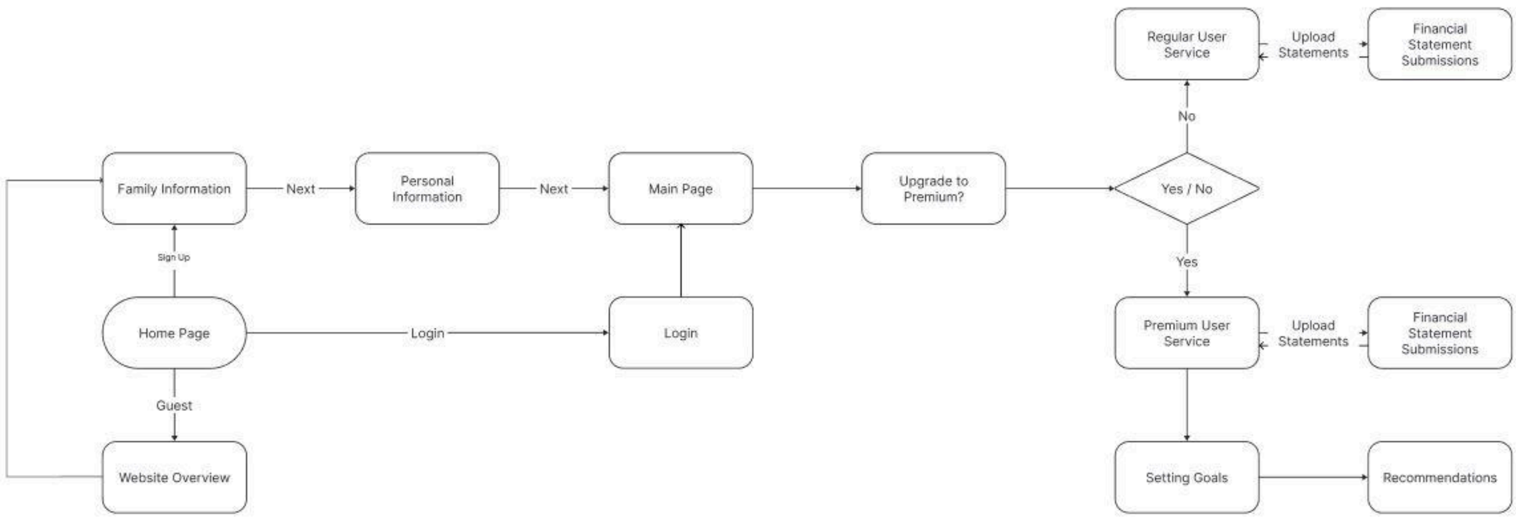
- Insight Table: To store personalized advice and insights for the user.
  - Insight ID – Primary Key
  - User ID – Foreign Key to User table
  - Insight Text
  - Date Generated

- Budget Table: To track user budgets.
  - Budget ID – Primary Key
  - User ID – Foreign Key to User table
  - Category ID – Foreign Key to Category table
  - Budget Amount
  - Budget Period (e.g., monthly, yearly)

- Device Table: If the application allows linking multiple devices.,
  - Device ID – Primary Key
  - User ID – Foreign Key to User table
  - Device Name
  - Registration Date

- Permissions Table: To handle user permissions for shared accounts or data.
  - Permission ID – Primary Key
  - User ID – Foreign Key to User table
  - Permitted User ID – Foreign Key to User table (the user who is granted access)
  - Permission Level
  - Date Granted
  - Date Revoked

Screen Flow Diagram



Home Screen:

- **Description:** The gateway to the app, presenting users with the option to log in, sign up, or continue as a guest. The home screen provides a brief overview of the app and its functionalities.
- **Annotation:** Essential for first impressions and user retention. Must be designed for optimal clarity and ease of navigation.

Transitions from Home Screen:

- **Sign Up Button:** Initiates the user registration process.
- **Login Button:** Directs existing users to the Login Screen to access their accounts.
- **Guest Option:** Allows new or undecided users to explore the app with limited functionality.

Family Information Screen:

- **Description:** Users provide family-related information which helps in customizing the app experience.
- **Annotation:** Important for personalizing the service to match the user's specific life situation. Collects data on family size and structure.

Transition from Family Information:

- **Next Button:** Saves the family information data and moves the user to the Personal Information Screen to continue the sign-up process.

Personal Information Screen:

- **Description:** Users enter personal details to complete their profile setup.
- **Annotation:** Captures essential information for account creation and further personalization of the app experience.

Transition from Personal Information:

- **Next Button:** Completes the profile setup and takes the user to the Main Page, where they can start using the app's features.

Main Page:

- **Description:** The main interface for the user post-login, which acts as the operational dashboard.
- **Annotation:** The hub of activity, allowing access to various features such as bank statement uploads, transaction management, and premium services.

Transitions from Main Page:

- **Upgrade to Premium?:** A decision point where the user can opt to upgrade their account for additional features.
    1. Yes: Leads to the Premium User Service with advanced options.
    2. No: Continues to Regular User Service with basic functionality.

Premium User Service:

- **Description:** An enhanced service tier for users who opt for the premium version.
- **Annotation:** Provides access to exclusive features such as detailed financial analytics, personalized recommendations, and goal setting.

Transitions from Premium User Service:

- **Upload Statements Button:** Enables premium users to upload financial statements for detailed analysis.
- **Financial Statement Submissions Button:** Allows for manual entry of financial data for personalized insight generation.
- **Setting Goals Button:** Assists users in defining and tracking financial goals.
- **Recommendations Button:** Offers tailored financial advice based on user data and goals.

Regular User Service:

- **Description:** The standard service tier available to all registered users without a premium subscription.
- **Annotation:** Provides basic features for financial management, including statement uploads and financial overview.

Transitions from Regular User Service:

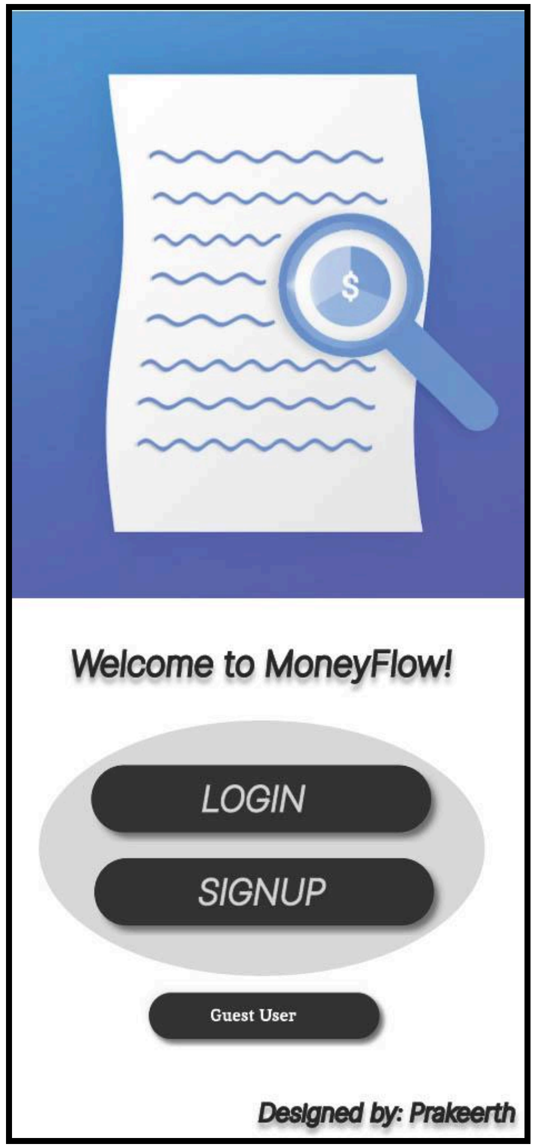
- **Upload Statements Button:** Enables users to upload bank statements for a basic financial overview.
- **Financial Statement Submissions Button:** Allows for manual input of transactional data to keep financial records updated.

Screen Sketches

Description: This initial interface greets users as they open the app. The loading screen serves not only as a visual placeholder while the app's content loads but also as an introduction to the application's branding and core functionality. The pop-up component might offer a brief tutorial or highlight key features that set the app apart from competitors. It could also function as a gateway, prompting users to log in, sign up, or continue as a guest, guiding them seamlessly into the main experience of the app. This screen is crucial as it sets the tone for the user's journey, capturing their attention and interest from the very first interaction.

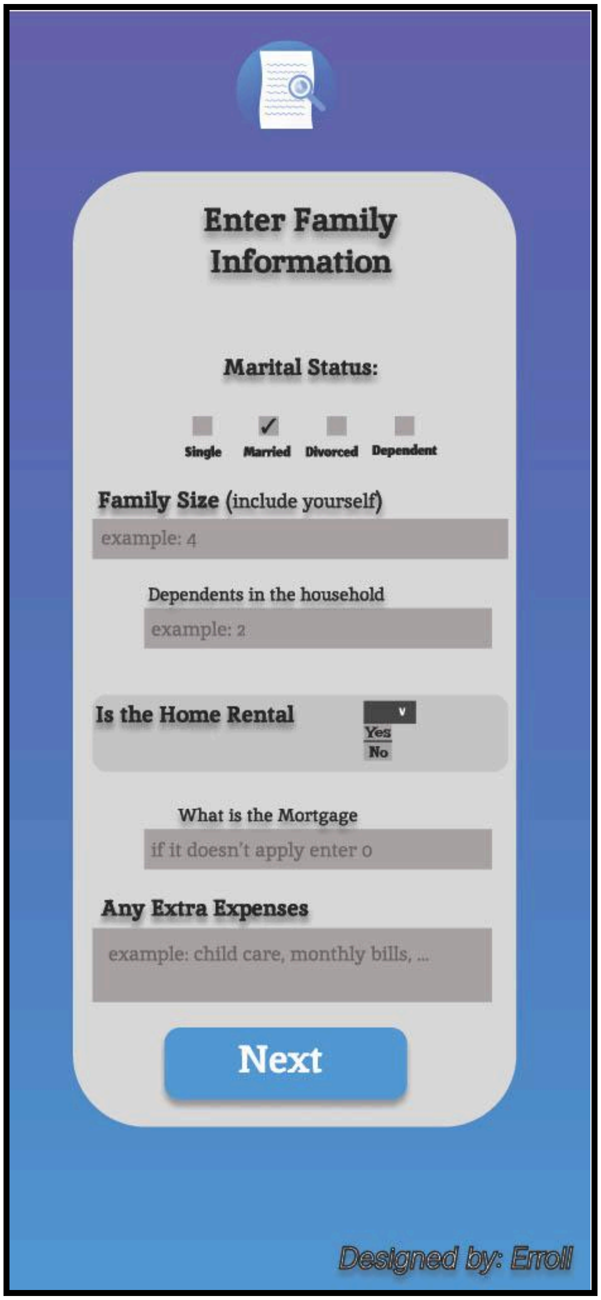
Annotation: The design of this screen should be visually engaging to capture user interest immediately. It may feature a combination of the app's logo, tagline, and graphics that align with the overall aesthetic and thematic elements of the app. If a pop-up is used, it should be succinct and informative without overwhelming the user. Its content should be thoughtfully crafted to ensure that users feel welcomed and informed, emphasizing the value proposition of the app in a concise manner.

Purpose: The primary goal of the first loading screen or pop-up is to provide a smooth transition into the app's environment, making sure the user feels oriented and ready to engage with the app's services. It should offer a balance between functionality and design, setting expectations for a positive user experience.



Description: The home screen serves as the entry point to the app, offering users three distinct options: log in to an existing account, sign up for a new account, or continue as a guest with limited access to the app's features.
Annotation: The design of this screen aims to be welcoming and intuitive, providing clear and distinct options for users at different stages of engagement with the app. It's crucial for user acquisition and retention.
Transitions:

- **Log In Button:** Clicking this button takes the user to the Login Screen, where they can enter their credentials to access their account.
- **Sign Up Button:** Clicking this button takes the user to the Sign Up Screen, where they can enter their personal information to create a new account.
- **Continue as Guest Link:** Clicking this link allows the user to explore the app with limited functionality, without the need to log in or sign up.



Description: This screen collects comprehensive family-related information to customize the user experience and tailor financial recommendations.

Annotation: The information captured here is critical for personalizing the service to the user's specific life circumstances.

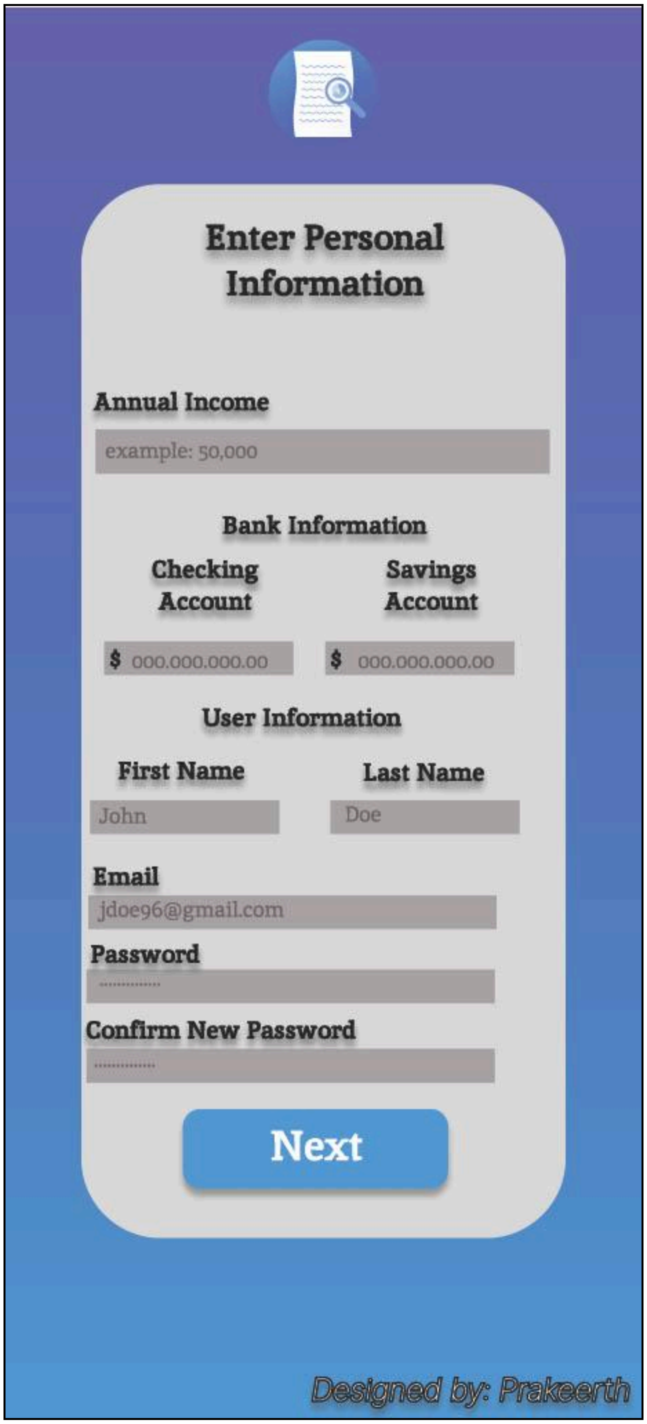
Fields:

- **Martial Status:** Dropdown menu with options (Single, Married, Divorced, Dependent) to understand the user's living situation which could influence financial planning.
- **Family Size:** Input field for the number of people in the user's household, impacting budget considerations and financial recommendations.
- **Dependents in the Household:** Input field for the number of dependents to gauge financial responsibilities.
- **Is the Home Rental:** Toggle switch or dropdown for Yes/No to indicate housing status, affecting disposable income calculations.
- **What is the Mortgage:** Input field for monthly mortgage payments, if applicable, which is a significant factor in budgeting.
- **Any Extra Expenses:** Free-form text field for additional regular expenses like child care or monthly bills, crucial for accurate financial advice.

Transitions:

- **Next Button:** Clicking this button saves the user's information and takes them to the Family and House Information Screen. It indicates progress in the sign-up process.

Description: This screen gathers individual and financial details, which are essential for setting up the user account and aligning app services with the user's financial status.



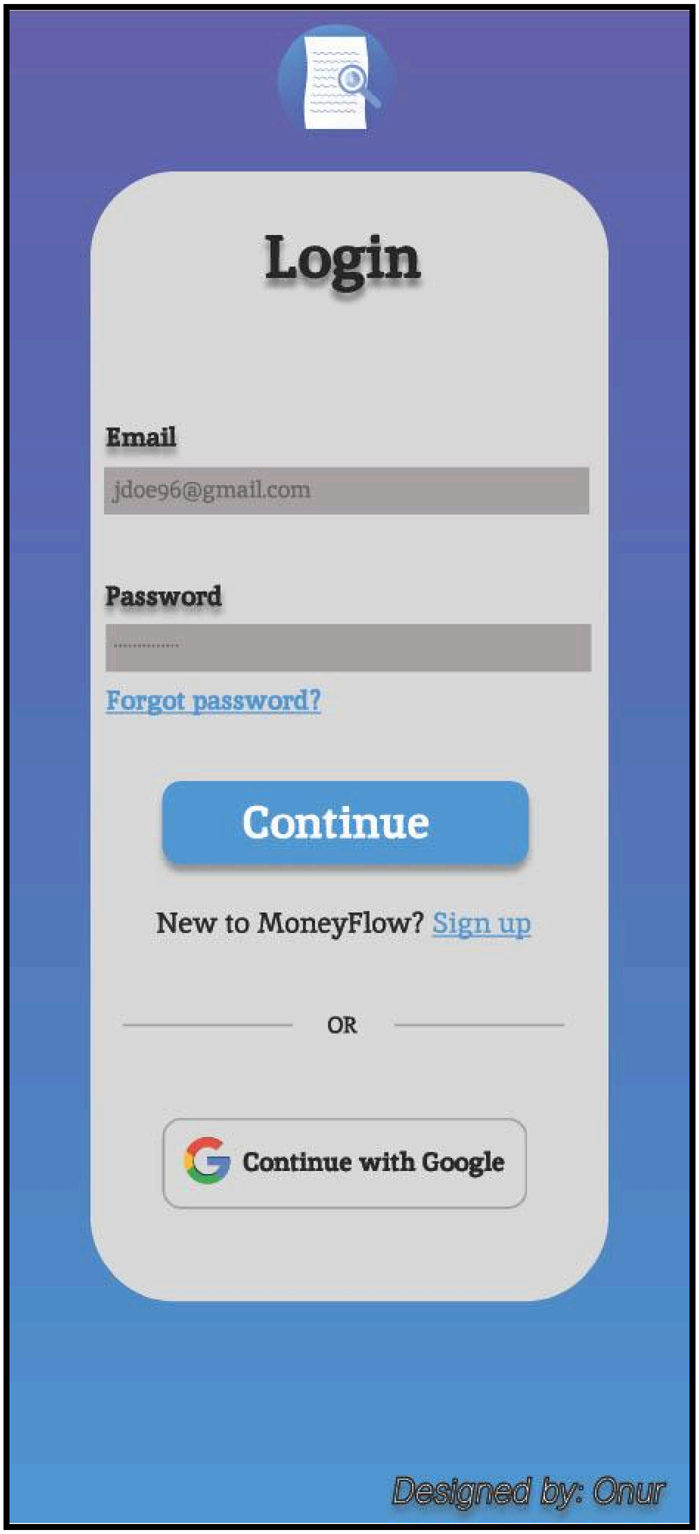
Annotation: Collecting accurate personal and financial details is vital for the integrity of the user profile and the effectiveness of the app's financial management features.

Fields and Annotations for the Personal Information Screen:

- **Annual Income:** Input field for the user's yearly earnings, which is fundamental for financial analysis and budgeting within the app.
- **Bank Information:** Section with fields for checking and savings account balances to provide a snapshot of the user's current financial assets.
- **First Name and Last Name:** Text fields for the user's legal name, which will be used for account identification and personalization purposes.
- **Email:** Input field for the user's email address, serving as the primary contact and login identification.
- **Password and Confirm:** Secure fields for setting up a password, ensuring account security and user privacy.

Transition:

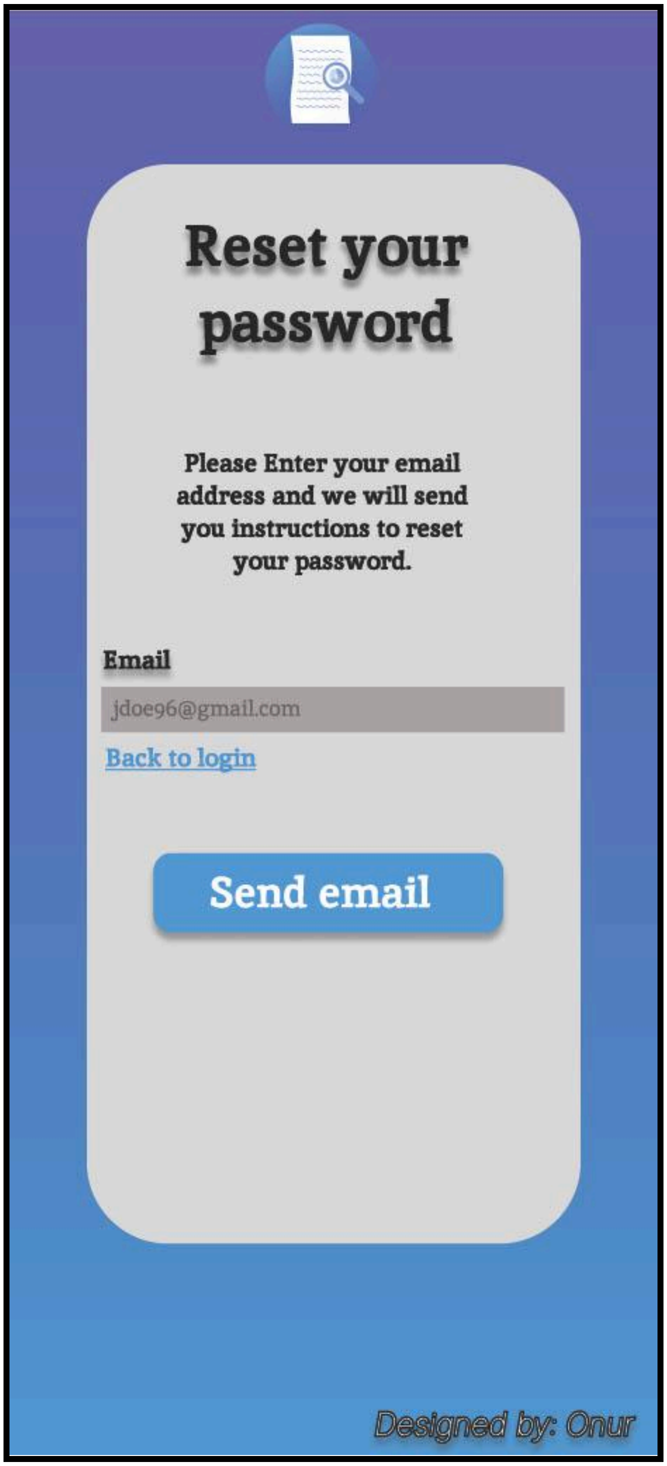
- **Next Button:** Clicking 'Next' after entering personal information saves the data and brings the user to the Main Page, where they can start engaging with the app's features.



Description: "The login screen" requires users who have already created an account to click the 'signup' button to access it. Here, the system will double-check whether the provided credentials match those stored in the database. The primary access point for users, this page presents a clean layout for entering login credentials, along with additional options for account recovery and alternative login methods.

Annotation:

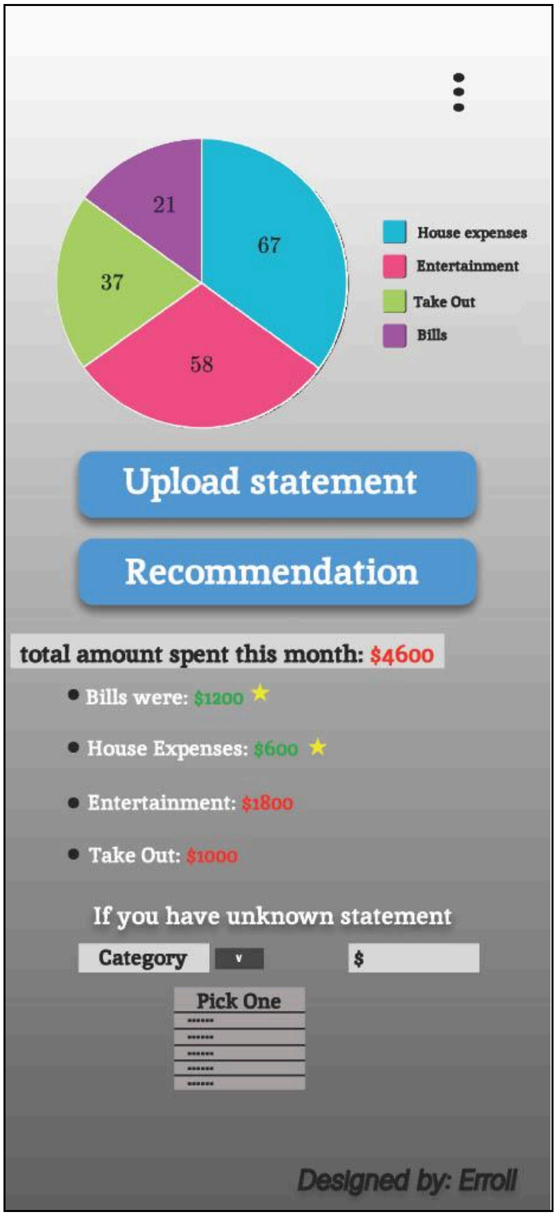
- **Email and Password Fields:** Standard login inputs.
- **Forgot Password Link:** Quick access to the password recovery feature.
- **Continue Button:** For submitting login details.
- **Sign Up Link:** Redirects new users to the registration process.
- **Continue with Google:** Offers a convenient alternative login method for users.



Description: During the login process, users will be directed to a password reset screen if they have forgotten their password. Here, they will be prompted to email the address associated with their account in our database. Upon clicking the link to their email, they will be granted access to reset their password. A user-friendly interface for account recovery, this page prompts users to enter their registered email to receive password reset instructions.

Annotation:

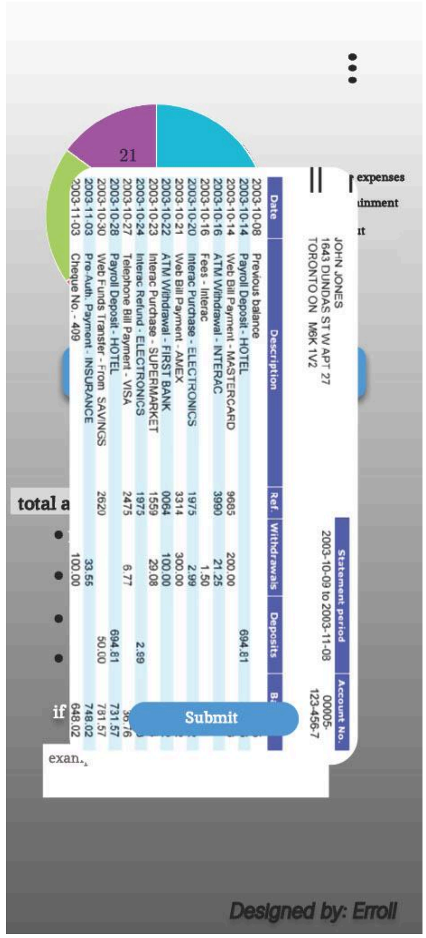
- **Email Input Field:** For users to provide their email address associated with the account.
- **Send Email Button:** To submit the request and initiate the password reset process.
- **Back to Login Link:** Offers a quick return to the login page if the user recalls their password or decides not to proceed.



Description: Users land on this page to manage their financial documents. It features a vibrant pie chart reflecting the distribution of expenses across categories such as 'House expenses', 'Entertainment', and 'Take Out'. Below the chart, there's a detailed breakdown of expenses with the total spent this month and individual amounts by category. A color-coded star system indicates which expenses are above average. At the bottom, there's an input section for categorizing any unclassified expenses from the statement.

Annotation:

- **Pie Chart:** Color-coded for quick visual reference.
- **Expense Breakdown:** Lists specific expense categories and amounts, with star indicators for overages.
- **Categorization Section:** Dropdown to classify unknown statement items, ensuring complete financial tracking.
- **Upload Statement Button:** Prominently displayed for easy access.
- **Recommendation Button:** Directs users to personalized advice based on their spending.



Description: This page provides an in-depth view of the functionality where users can upload their bank statement to the system. This feature is particularly useful for those looking to integrate their financial data for comprehensive analysis. After navigating to the designated section, the user can click the "Upload Statement" button, which prompts them to select the appropriate document from their files. Once the user has chosen the file and initiated the upload process, the interface will display a preview or confirmation of the uploaded statement. This visual feedback ensures the user that the correct document has been uploaded and is being processed.

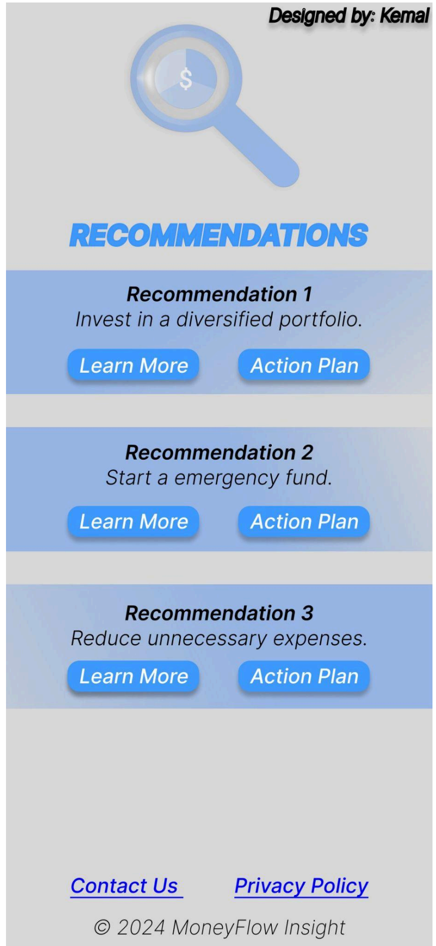
Annotation:

- **Upload Statement Button:** This button is used to initiate the upload process for the bank statement PDF. When a user selects this button after choosing the file, the system begins transferring the data from the local device to the application.
- **Submit Button:** After the bank statement file has been uploaded and possibly previewed, this button is engaged to complete the submission process. It confirms that the user has reviewed the uploaded document and is ready to integrate it with their financial profile within the application

Description: Our setting goals page is designed to understand the financial aspirations and objectives of our users. By providing selectable goal options such as emergency funds, vacations, education, retirement, and more, users can articulate their financial priorities and aspirations. Additionally, users have the option to specify their budget for each goal, enabling us to tailor personalized financial recommendations and strategies to help them achieve their objectives. This page serves as a pivotal step in our user-centric approach, empowering individuals to take control of their financial future and make informed decisions aligned with their goals and aspirations. This page is a strategic planning tool allowing users to articulate their financial aspirations. Users can add multiple goals, define a budget for each, set a timeframe, and assign a priority level. Options are provided in dropdown menus for consistency and ease of use.

Annotation:

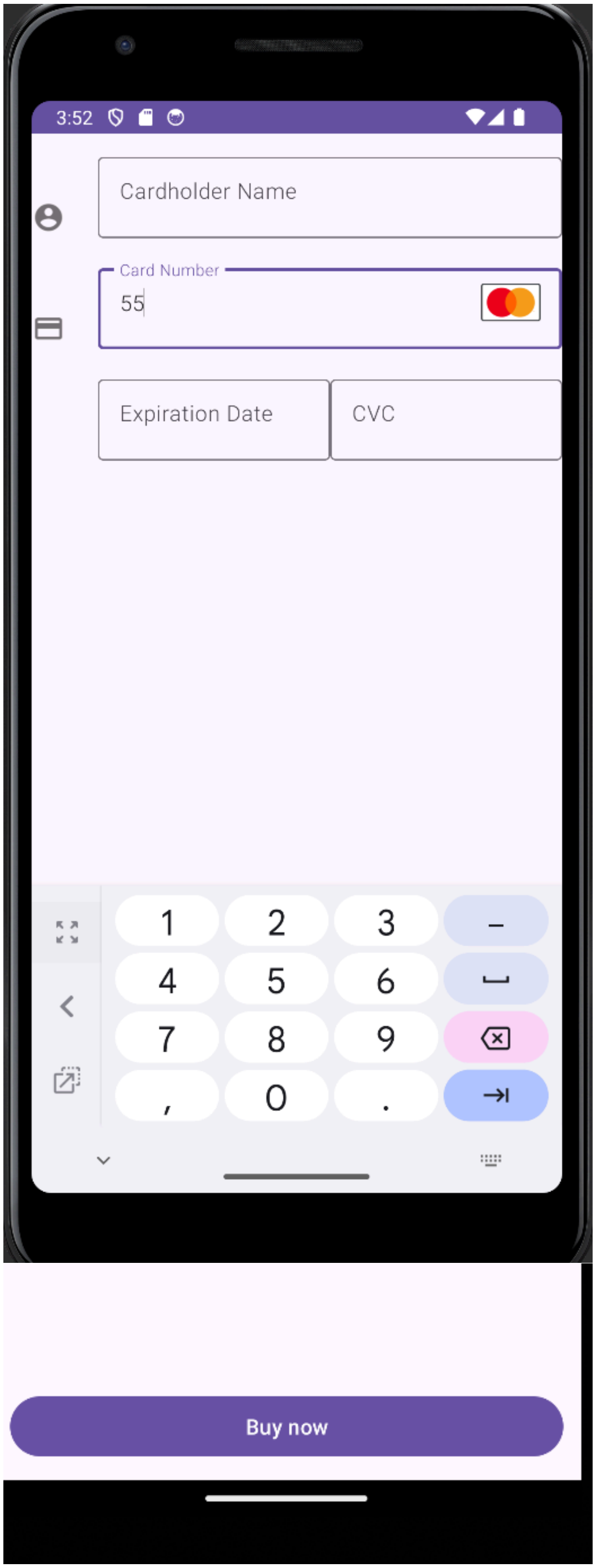
- **Goal Entry Fields:** Text fields and dropdown menus for inputting goal details.
- **Budget Input:** Numeric field for budgeting amounts.
- **Time-Frame Dropdown:** Options for short-term or long-term goals.
- **Priority Level Dropdown:** To set the importance of each goal.
- **Save Goals Button:** To confirm and save the goals.
- **Add Goal Button:** Allows the addition of new goal fields dynamically.
- **Cancel Button:** For discarding changes and returning to the previous screen.



Description: Our recommendations page offers personalized financial insights and suggestions tailored to each user's unique financial situation. By analyzing the user's income, expenses, spending patterns, and financial goals, our platform generates actionable recommendations aimed at improving financial health and achieving long-term objectives. Whether it's budgeting tips, investment strategies, or savings recommendations, our platform provides valuable insights to empower users to make informed financial decisions. With timely and relevant recommendations, users can optimize their financial management and work towards achieving their financial aspirations effectively. Presents a series of personalized financial recommendations to the user, each with options to learn more about the suggestion or to create a detailed action plan.

Annotation:

- **Recommendation Sections:** Each contains a brief on the advice, a 'Learn More' link for details, and an 'Action Plan' button to start implementation.
- **Contact Us and Privacy Policy Links:** Easily accessible for additional support and information on data handling.



Description: The card page comes in two separate formats: The “enter new card” page (where users register a new card for their account), and the “use default card” page which automatically enters the information of the default card of the user. When entering a new card, an API automatically determines the card type (mastercard, visa, etc..) once the user enters the first few digits of the card number, and also ensures that the other fields are entered correctly for a valid card. The card pages are used to enter the card information necessary to purchase the upgrade to premium user.

Annotation:

- **Cardholder Name:** The name featured on the card.
- **Card Number:** The 16-digit number on the card.
- **Expiration Date:** The expiration date of the card
- **CVC:** The three-digit card verification code
- **Buy Now Button:** Submits the new or existing card information and completes the transaction.