

## **Group Project Log**

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<b>Deliverable:</b>	Project report, Front-end code, deployed web app
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Shreya Kapoor	16.7%
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# **TECHNICAL REPORT**

## **PROJECT GROUP 14**

### **FINTastic - Your daily financial tracking fantastic app**

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Team 14

CSCI 5709 Project Report

## **ABSTRACT**

FINTastic is a revolutionary Financial Management Platform designed to address the complexities individuals face in managing their finances effectively. In a landscape marked by disorganization, limited visibility into spending, and challenges in decision-making, FINTastic offers comprehensive solutions. Through robust tools for expense tracking, budget planning, and goal setting, coupled with an intuitive interface promoting financial literacy, FINTastic empowers users to navigate their financial journeys with confidence. With a focus on data security, insightful analytics, and tailored solutions for diverse financial needs, FINTastic fosters long-term financial stability and empowers individuals to achieve their financial goals efficiently and securely.

## **KEYWORDS**

FINTastic, Personal Finance, Expense tracking, Objectives and Key Results (OKR), MERN stack, Budgeting, Financial planning, Data visualization, Income analysis, Web application, Pro-Subscription

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# **1. INTRODUCTION**

In today's complex financial landscape, individuals often struggle with managing their finances effectively, facing challenges such as disorganization in financial records, limited visibility into spending patterns, and the difficulty of making informed financial decisions. FINTastic emerges as a solution by providing a comprehensive Financial Management Platform designed to empower users at every step of their financial journey.

FINTastic offers a range of features and functionalities aimed at simplifying financial management processes and promoting financial empowerment. Users can benefit from robust tools for expense tracking, budget planning, and goal setting, allowing them to streamline their financial activities and make more informed financial decisions.

One of FINTastic's key strengths lies in its accessible and intuitive design. The platform ensures that users of all backgrounds can navigate its features effortlessly, fostering financial literacy and encouraging proactive financial management practices.

Security and data privacy are paramount concerns in today's digital age. FINTastic addresses these concerns by prioritizing data security through authentication measures and providing users with insightful analytics, such as credit score tracking, to gain valuable insights into their financial health.

By addressing diverse financial needs and promoting long-term financial stability, FINTastic aims to empower individuals to take control of their financial well-being with confidence and ease. It's not just a platform but a transformative tool that guides users towards achieving their financial goals and enhancing their overall financial literacy.

## **1.1 Live Project URL**

Application: <https://fintastic-grp-14.netlify.app/home>

Git: <https://git.cs.dal.ca/gosaliya/CSCI-5709-Grp-14>

## 2. BACKGROUND

The project centers around the development of a Financial Management Platform, a comprehensive solution crafted to empower users to manage their finances effectively. With a primary focus on financial planning, tracking, and management, the platform aims to provide users with a suite of tools and features designed to streamline their financial activities. By offering a user-friendly interface, the platform ensures accessibility for individuals seeking to take control of their financial health. Through intuitive design and functionality, users can navigate the platform with ease, facilitating informed decision-making and goal achievement.

At its core, the project strives to enhance users' financial well-being by providing them the necessary resources and insights to make informed financial decisions. This includes features such as authentication to ensure the security of user data and credit score tracking to offer insights into their financial health. By offering a range of functionalities tailored to meet the diverse needs of users, the platform aims to foster a sense of financial empowerment, enabling individuals to navigate their financial journey with confidence.

Moreover, the project seeks to address the various aspects of financial management, including expense tracking, budget planning, and goal setting. Through features like expense management and a budget planner, users can efficiently track their expenses, allocate funds, and set financial goals. Additionally, the platform offers tools for uploading financial documents, generating reports, and managing financial events through an integrated calendar. These features collectively aim to streamline the financial management process, allowing users to stay organized and focused on their financial objectives.

### 2.1 Competitive Landscape

List of competitors to FinTastic:

1. Mint
2. Personal Capital
3. YNAB (You Need a Budget)
4. Quicken
5. Pocket Guard

FinTastic differentiates itself from its competitors in these ways:

1. **Intuitive User Interface (UI):** FinTastic boasts a clean and intuitive user interface that prioritizes simplicity and ease of use. Unlike some competitors

with cluttered layouts, FinTastic's UI focuses on essential features, ensuring users can navigate the platform effortlessly.

2. **Responsive Design:** FinTastic is designed with responsiveness in mind, ensuring seamless user experience across various devices and screen sizes. While some competitors may lack optimization for mobile or tablet devices, FinTastic's responsive design adapts fluidly to different platforms, enhancing accessibility and usability.
3. **Streamlined Workflow:** FinTastic offers a streamlined workflow, minimizing unnecessary steps and complexities in financial management tasks. Unlike competitors with convoluted processes, FinTastic prioritizes efficiency, allowing users to accomplish tasks quickly and efficiently.
4. **Optimized Performance:** FinTastic prioritizes performance optimization to deliver fast and responsive user experiences. While some competitors may suffer from sluggish loading times or latency issues, FinTastic's optimized performance ensures swift interactions and smooth transitions throughout the platform.
5. **Clear Information Hierarchy:** FinTastic implements a clear information hierarchy, ensuring users can easily locate and access relevant financial data. Unlike competitors with cluttered information architecture, FinTastic organizes information logically, facilitating seamless navigation and efficient data retrieval.
6. **Customizable Features:** While competitors offer standard features, FinTastic provides customizable tools tailored to diverse user needs. From flexible budget planning options to personalized notifications and goal-tracking features, FinTastic empowers users to customize their financial management experience according to their preferences and goals, setting it apart from one-size-fits-all solutions.
7. **Data Visualization:** FinTastic excels in data visualization, offering dynamic charts, graphs, and dashboards that provide users with comprehensive insights into their financial data. While some competitors may offer basic visualization tools, FinTastic's advanced graphics and interactive elements enhance users' understanding and decision-making capabilities.

## 2.2 Problem and Approach

### Problem:

In the current financial landscape, many individuals face significant challenges in managing their finances effectively. These challenges include:

- 1. Disorganization in Financial Records:** Many people lack a systematic approach to organizing financial documents and tracking transactions, leading to confusion and mismanagement.
- 2. Limited Visibility into Spending Patterns:** Without a clear understanding of where their money is going, individuals struggle to identify areas where they can cut expenses or optimize savings.
- 3. Difficulty Making Informed Financial Decisions:** A lack of comprehensive financial data and insights makes it challenging for individuals to make decisions that align with their long-term financial goals.

These issues often result in financial inefficiencies and prevent individuals from achieving financial stability and empowerment.

## **Approach:**

FINTastic addresses these challenges with a comprehensive Financial Management Platform designed to enhance user experience and promote financial literacy and autonomy:

### **1. Robust Tools for Financial Management:**

- **Expense Tracking and Categorization:** This helps users systematically record and categorize expenses, which is crucial for budgeting and understanding spending habits.
- **Budget Planning:** Enables users to create detailed budgets that reflect their income, expenses, and savings goals, promoting better financial discipline.
- **Goal Setting and Tracking:** Allows users to set specific financial objectives and track their progress, fostering a more goal-oriented approach to financial management.

### **2. Accessible and Intuitive Platform Design:**

- The user-friendly interface ensures that individuals from all backgrounds can navigate and utilize the platform's features with ease, thereby enhancing financial literacy and promoting proactive financial management practices.

### **3. Security and Data Privacy:**

- Implements rigorous authentication measures to protect user data and privacy, which is vital in building trust and ensuring user comfort with digital financial management.

- Provides analytics tools, such as credit score tracking, which offer valuable insights into users' financial health and help them make informed financial decisions.

#### **4. Tailored to Diverse User Needs:**

- Recognizes and addresses the specific financial management needs of various user segments, including digital nomads, freelancers, students, retirees, and small business owners. For example, freelancers benefit from specialized tools for invoicing and expense management, while retirees can use retirement planning features.

By tackling common financial management hurdles with tailored, intuitive tools and prioritizing user security and data privacy, FINTastic empowers users to take control of their financial well-being, make informed decisions, and achieve their long-term financial goals with confidence and ease. This holistic approach ensures that FINTastic is not only a tool for financial management but a transformative platform for financial empowerment and stability.

## **3. APPLICATION DETAILS**

### **3.1 Target User Insights**

The financial management platform, FinTastic, is designed to cater to a wide range of users, including digital nomads, entrepreneurs, parents, freelancers, students, retirees, and small business owners. Each of these user segments has specific financial management needs and aspirations that FinTastic aims to address effectively. For example, freelancers can take advantage of FinTastic's expense categorization and invoicing tools to streamline their freelance finances, while students can use budget planning features to manage expenses and savings during their academic journey. Retirees, on the other hand, can utilize retirement planning tools and investment tracking features to ensure financial security post-employment. By recognizing and serving the distinct needs of these diverse user categories, FinTastic empowers individuals to take control of their financial futures and achieve long-term financial goals.[1]

Furthermore, FinTastic's commitment to user-centric design encompasses robust security measures, intuitive interfaces, and personalized notifications, creating a seamless financial management experience for all users. Through continuous innovation and refinement, FinTastic aims to differentiate itself in the market and become the preferred choice for comprehensive financial management tailored to individual needs and objectives.[1]

### 3.1.1 User Persona and Intended Scenario

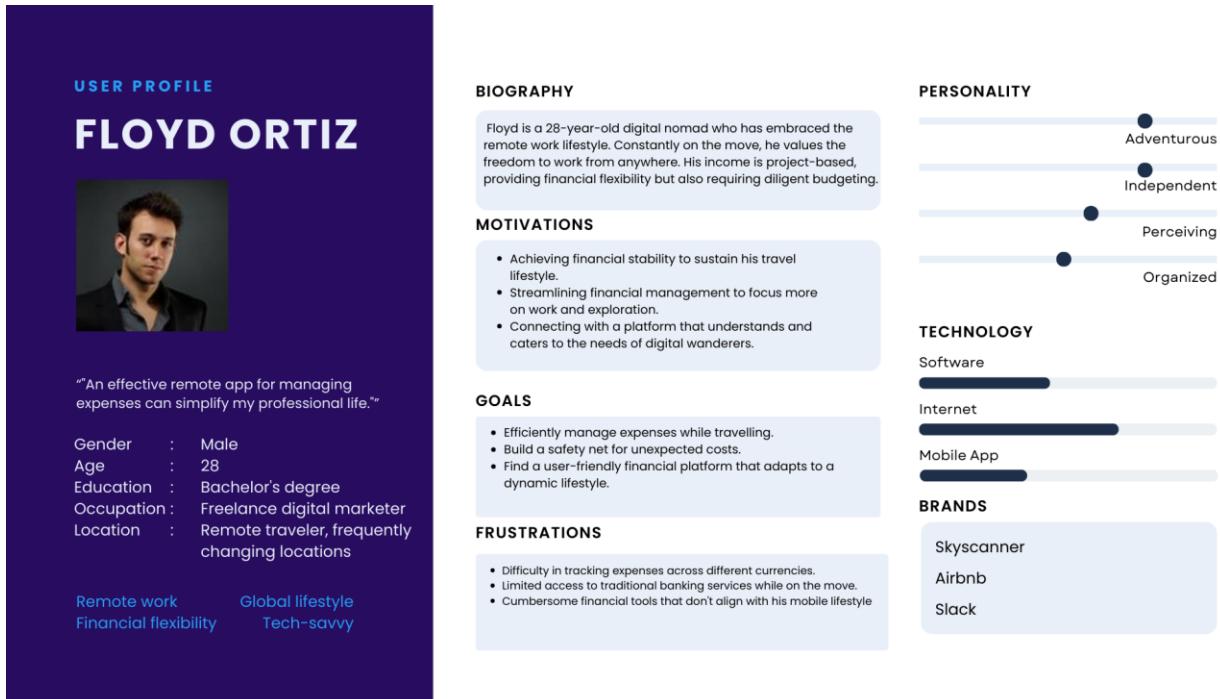


Figure 1: User Personna- digital marketer [1]



Figure 2: User persona – Parent [1,2,3,5,9]



Figure 3: User persona – Business Owner [1,4,6,7,8]

## 3.2 User-Centered Design Approach

### 3.2.1 Information Architecture

FINTastic offers a user-friendly experience with a single access point on its main Dashboard page. The navigation bar allows easy access to different features like expense tracking, goal setting, credit score monitoring, and OKR management.

The User Interface (UI) is designed for simplicity and functionality across various devices, ensuring a seamless experience. The Dashboard provides a comprehensive overview of financial status, goals progress, expense trends, and credit score updates.

Responsive design principles ensure that FINTastic is accessible and visually clear on desktops, laptops, tablets, and smartphones. The intuitive UI elements and interactive visualizations enhance user engagement and productivity. Here is the illustration of the sitemap.

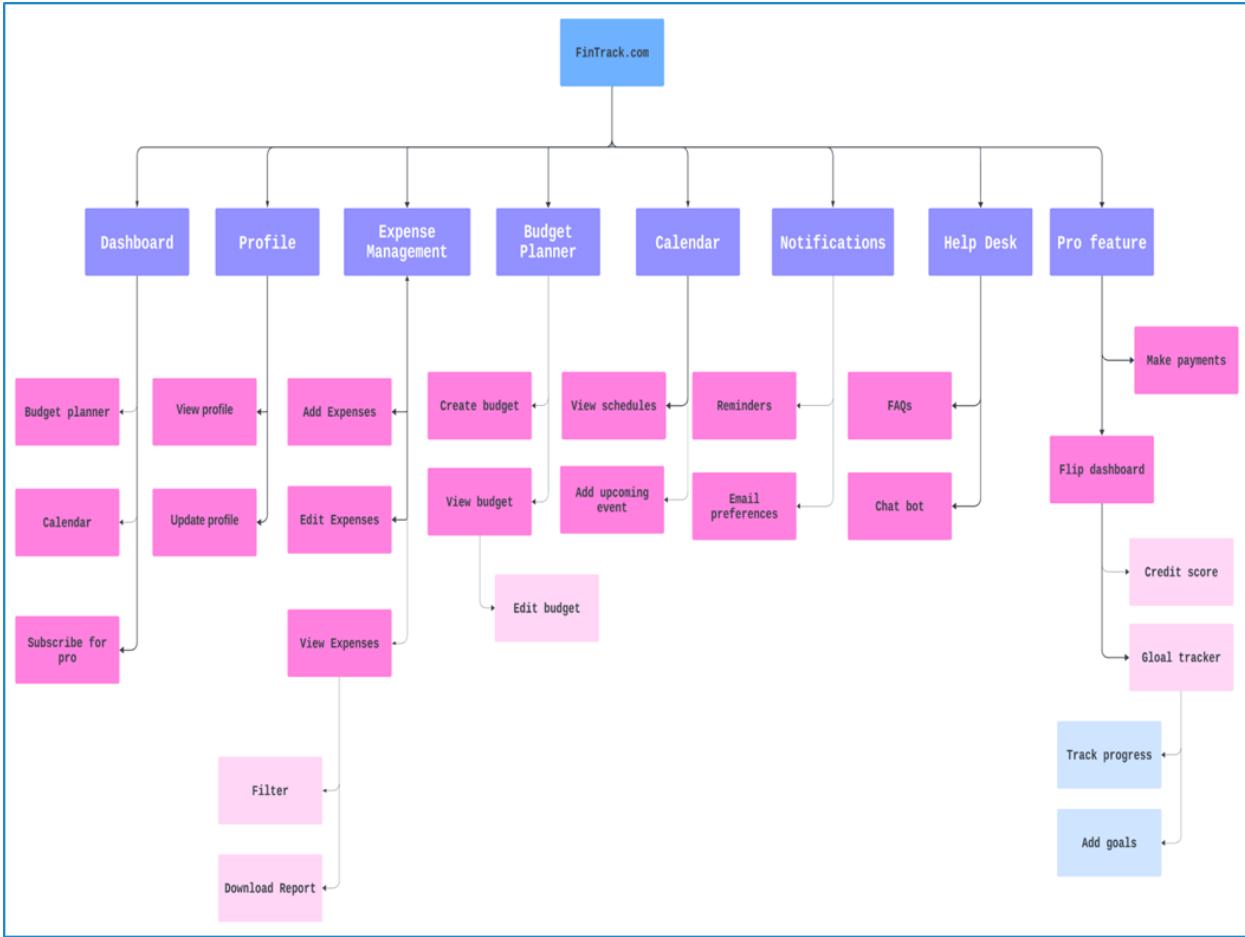


Figure 4: Sitemap of FINTastic web application[10].

## 3.2.2 Design and Layout

### 3.2.2.1 Wireframes

Here are the wireframes of our FINTastic application which depict the user interface of our overall website.

#### Landing page:

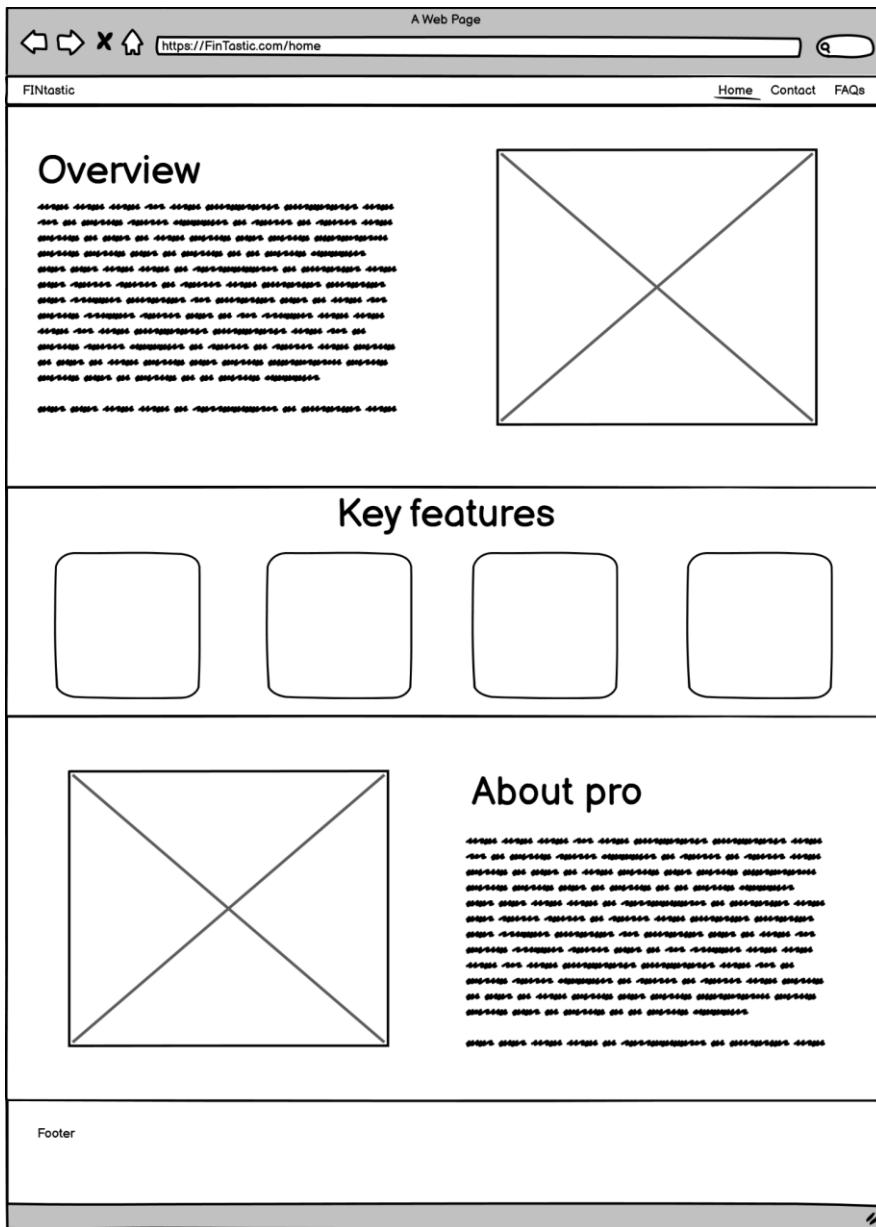
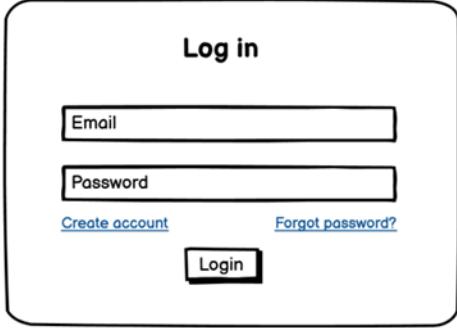


Figure 5: Landing page wireframe [11].

#### Login page:

A Web Page

https://FinTrack.com/login



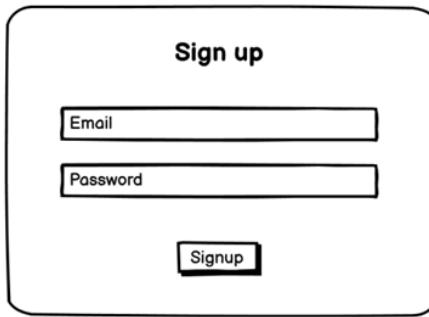
The wireframe shows a login form titled "Log in". It contains two input fields: "Email" and "Password". Below the fields are two links: "Create account" and "Forgot password?". A "Login" button is at the bottom of the form.

Figure 6: Login page wireframe [11].

### Signup page:

A Web Page

https://FinTrack.com/signup



The wireframe shows a sign-up form titled "Sign up". It contains two input fields: "Email" and "Password". A "Signup" button is at the bottom of the form.

Figure 7: Signup page wireframe [11].

## Profile page:

A Web Page  
https://FinTrack.com/userprofile

Dashboard Budget Planner Calendar Profile Signout

Profile

Full name

Email  

Number  Income

~~XXXXXXXXXX~~  Payment detail

Edit

Figure 8: Profile page wireframe [11].

## Feature: Notification

A Web Page  
https://fintastic.com/notifications/

Notifications

New Expense has been added. Please check. 5 mins. ago

Balance has been added. Please check. 1 day ago

Password has been changed. 3 days ago

Exceeded budget for this month. Please check. 10 days ago



Figure 9: Notifications wireframe [11].

## Feature: Help desk

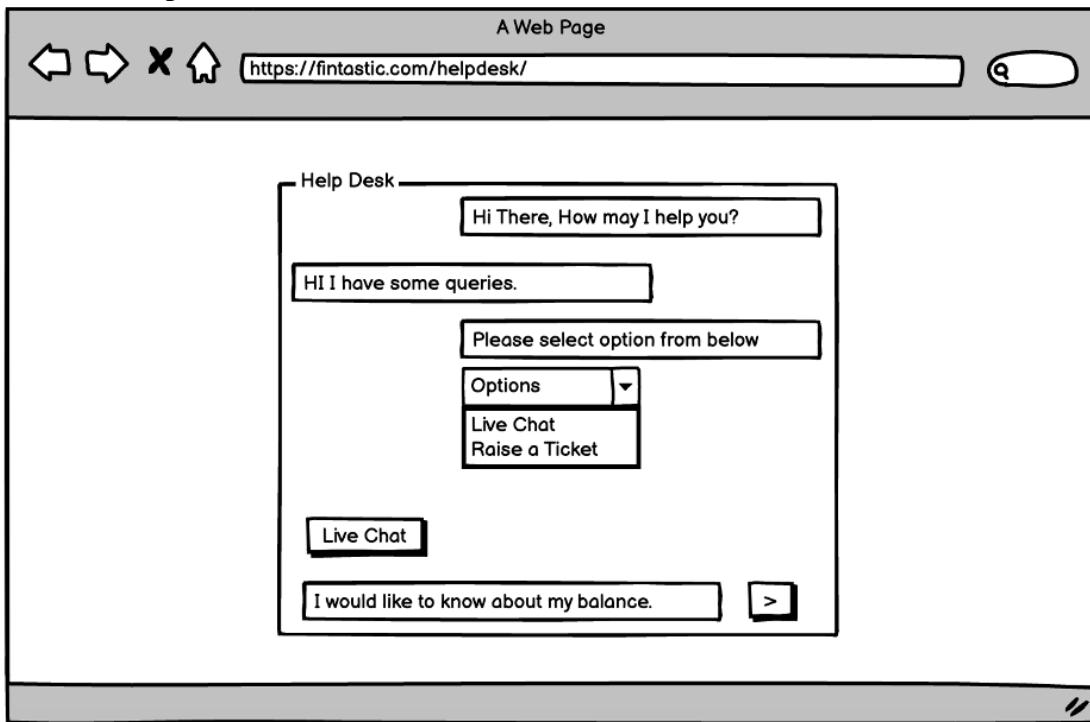


Figure 10: Help desk page wireframe [11].

## Feature: OKR - Objective Key Results/Goal Tracker Implementation for Financial Goal Achievement

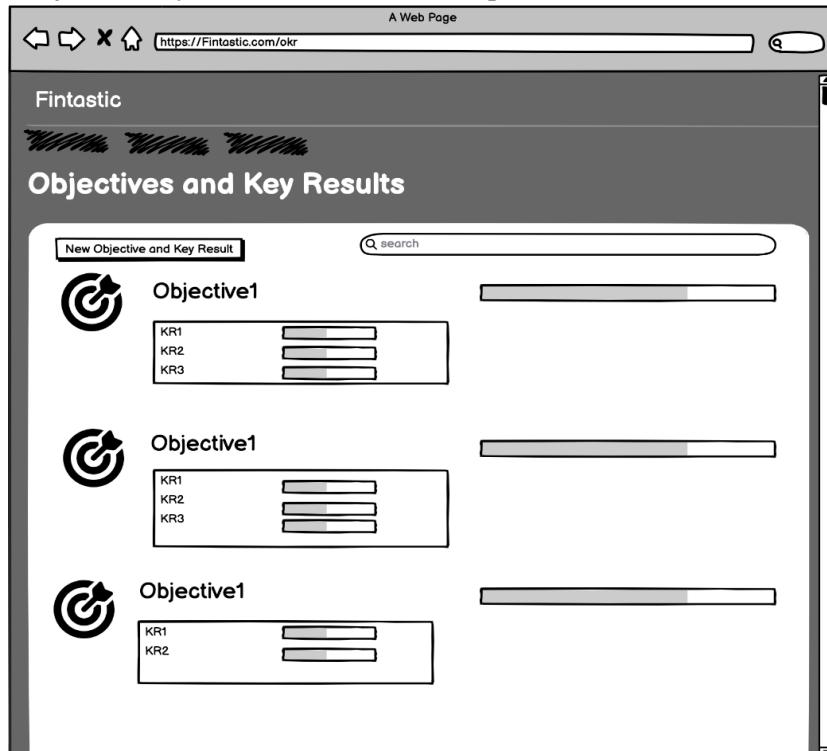


Figure 11: Wireframe for OKR List page [11].



Figure 12: Wireframe for Add Objective Page [11].

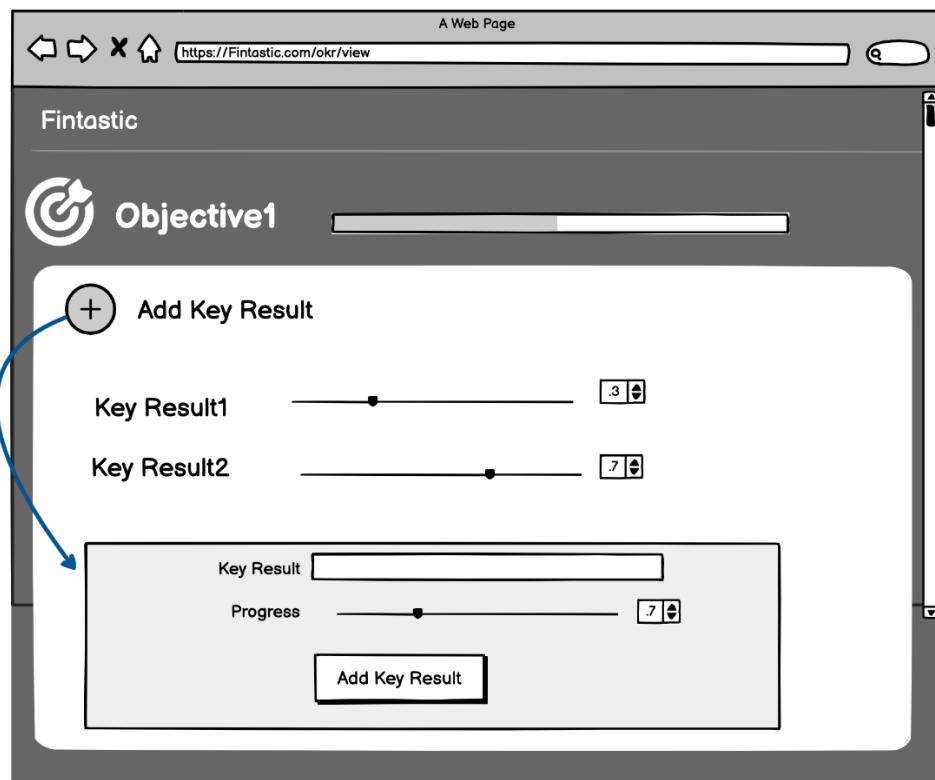


Figure 13: Wireframe for Adding Key Results [11].

## Feature: Data Visualization

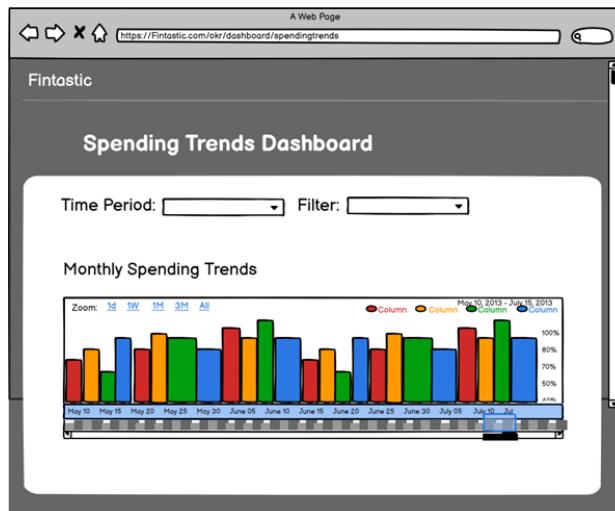


Figure 14: Dashboard wireframe [11].

**Feature:** Pro Users

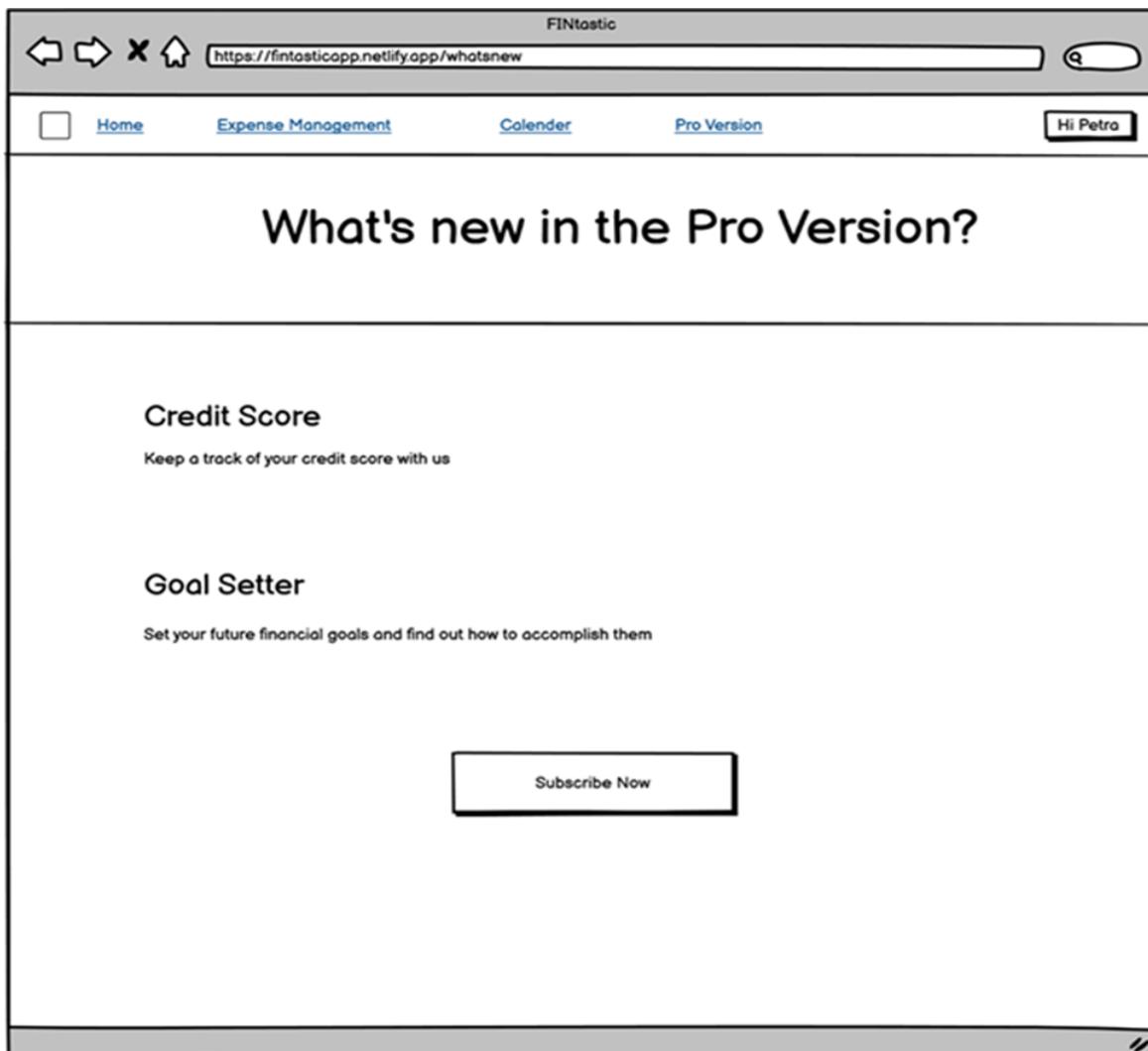


Figure 15: Wireframe for what's new webpage [11].

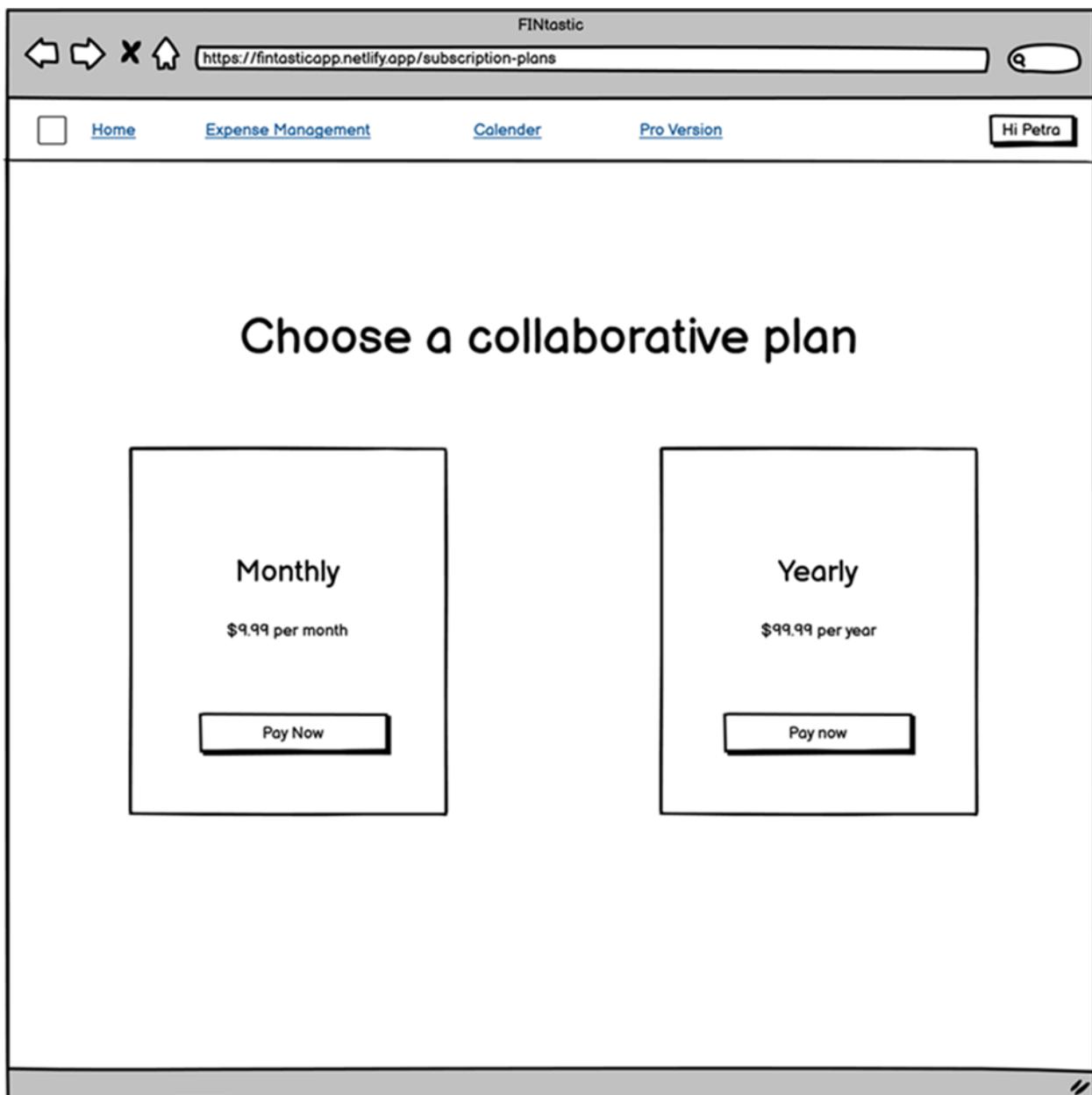


Figure 16: Wireframe for choosing a plan webpage [11].

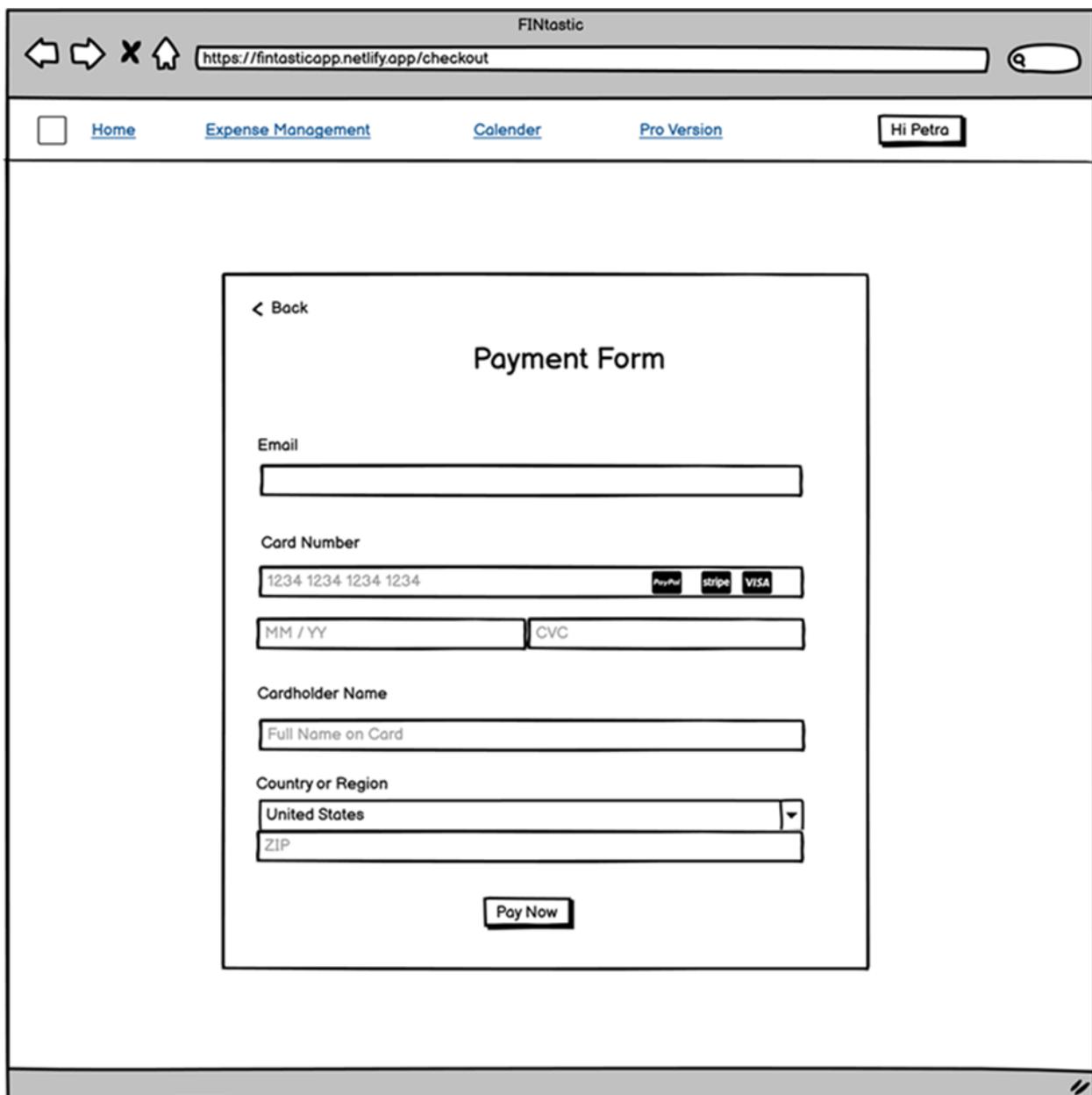


Figure 17: Wireframe for payment gateway webpage [11].

FINtastic

<https://fintasticapp.netlify.app/checkout>

Home Expense Management Calender Pro Version Hi Petra

< Back

## Payment Form

Email

Payment Method

Card  Bank Account

Card Information

1234 1234 1234 1234 PayPal stripe VISA

MM / YY CVC

Cardholder Name

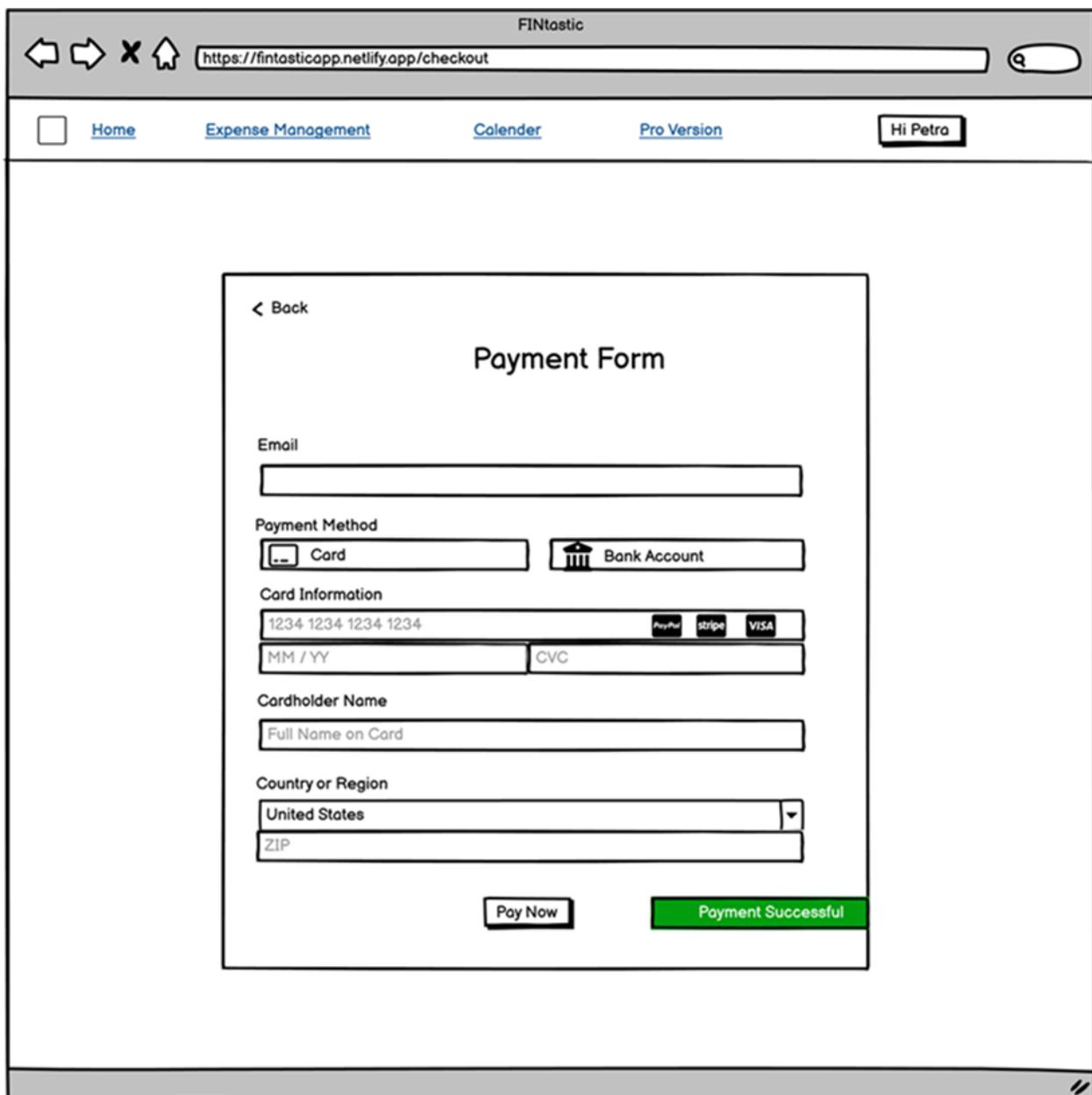
Full Name on Card

Country or Region

United States ▼

ZIP

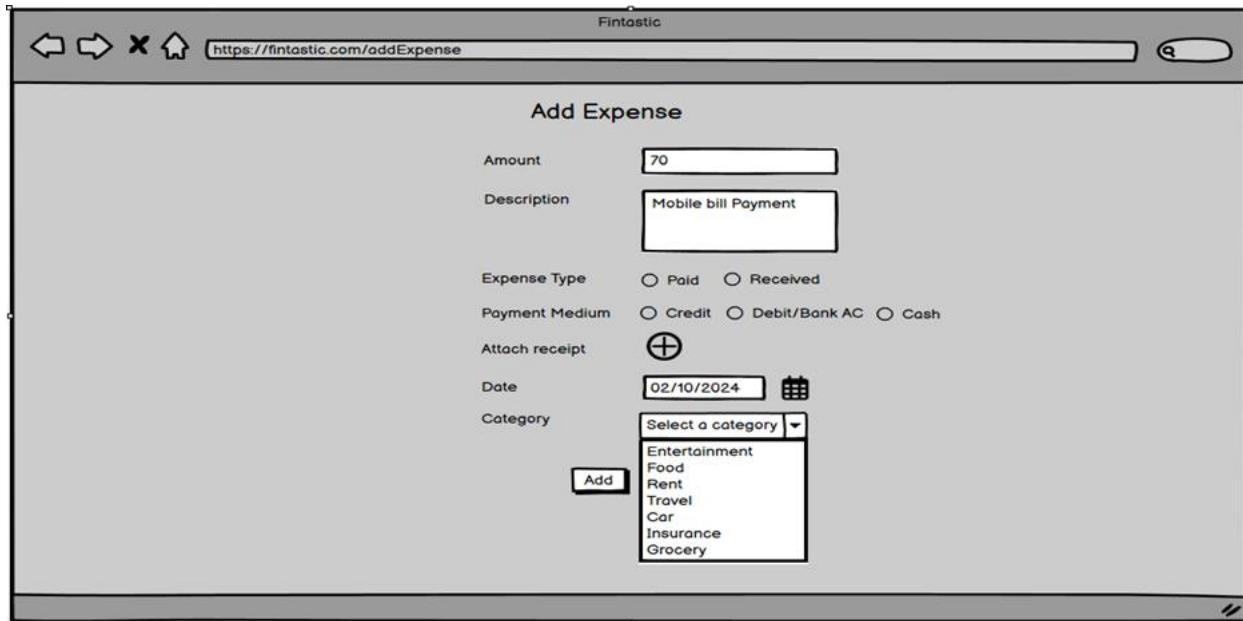
Pay Now Payment Successful



This wireframe depicts a payment form within a web browser window. The header shows the application name 'FINtastic' and a URL 'https://fintasticapp.netlify.app/checkout'. A navigation bar includes links for 'Home', 'Expense Management', 'Calender', 'Pro Version', and a personalized greeting 'Hi Petra'. Below the navigation is a large rectangular form area with a thin black border. At the top of this area is a back-link '< Back' and a title 'Payment Form'. The form fields include: 'Email' (represented by a long input field), 'Payment Method' (with radio buttons for 'Card' and 'Bank Account'), 'Card Information' (including a card number field with sample data '1234 1234 1234 1234' and logos for PayPal, stripe, and VISA, along with separate fields for 'MM / YY' and 'CVC'), 'Cardholder Name' (a long input field), 'Country or Region' (a dropdown menu set to 'United States'), and a 'ZIP' code input field. At the bottom of the form are two buttons: 'Pay Now' (in a standard black button) and 'Payment Successful' (in a green button with white text). The entire wireframe is contained within a light gray browser frame.

Figure 18: Wireframe for payment gateway webpage success [11].

## Feature: Expense Management



The wireframe shows the 'Add Expense' form. It includes fields for Amount (70), Description (Mobile bill Payment), Expense Type (Paid), Payment Medium (Credit), Attach receipt (+ icon), Date (02/10/2024), Category (dropdown menu showing Entertainment, Food, Rent, Travel, Car, Insurance, Grocery), and an Add button.

Figure 19: Add Expense wireframe [11].



Figure 20: Successfully added Expense wireframe [11].

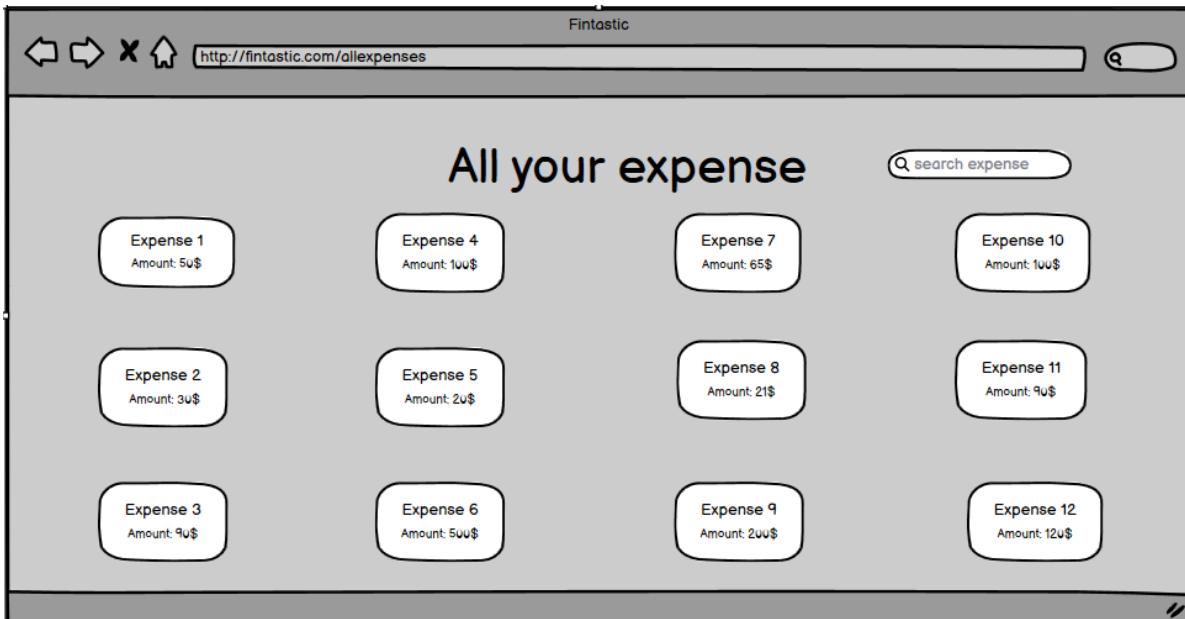


Figure 21: Listing All Expenses [11].

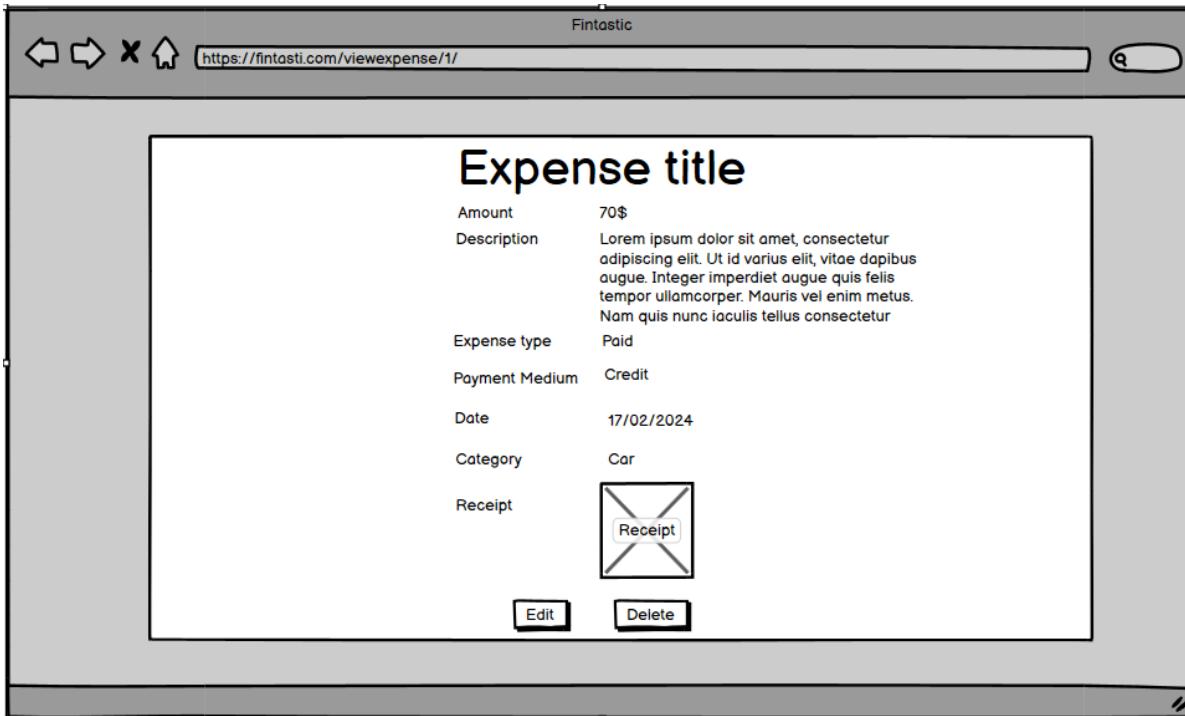


Figure 22: View Expense wireframe [11].

Fintastic

<https://fintastic.com/editExpense/1>

### Edit Expense

Amount

Description

Expense Type  Paid  Received

Payment Medium  Credit  Debit/Bank AC  Cash

Attach receipt

Date

Category

Entertainment  
Food  
Rent  
Travel  
Car  
Insurance  
Grocery

This wireframe illustrates the user interface for editing an expense. It features a header with browser navigation icons and a URL bar. The main section is titled 'Edit Expense' and contains fields for 'Amount' (70), 'Description' (Mobile bill Payment), 'Expense Type' (Paid), 'Payment Medium' (Credit), 'Attach receipt' (with a plus icon), 'Date' (02/10/2024), and a 'Category' dropdown menu. The category dropdown is open, showing a list of options: Entertainment, Food, Rent, Travel, Car, Insurance, and Grocery. At the bottom is an 'Update' button.

Figure 23: Edit expense wireframe [11].

## Feature: Calendar View

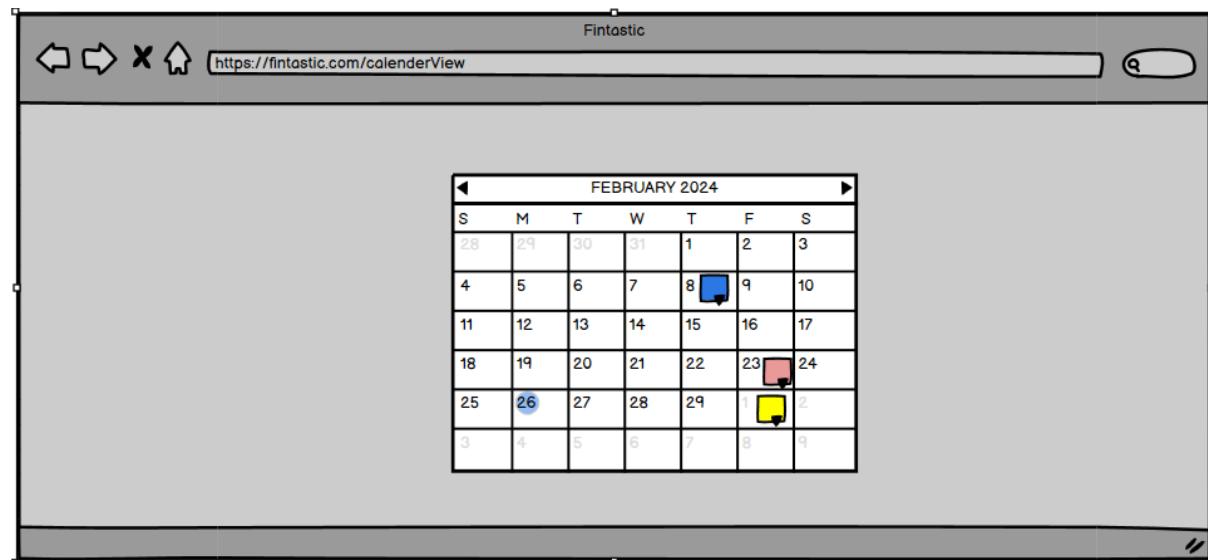


Figure 24: Calendar View wireframe 1 [11].

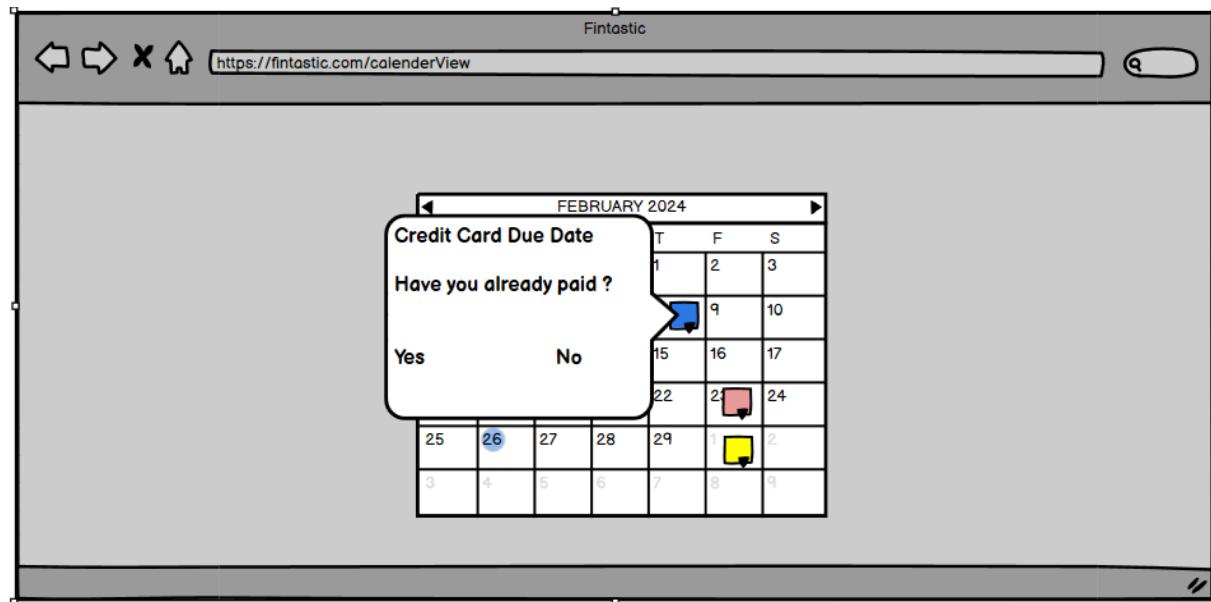


Figure 25: Calendar view wireframe 2 [11].

## Feature: Budget Planner

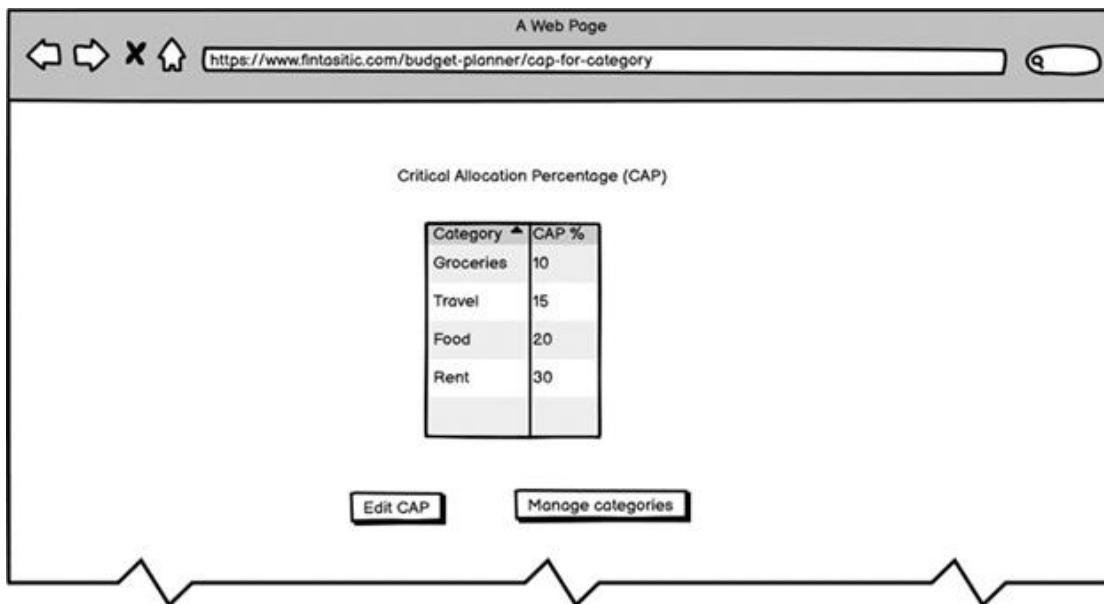


Figure 26: Critical Allocation Percentage main page wireframe [11].

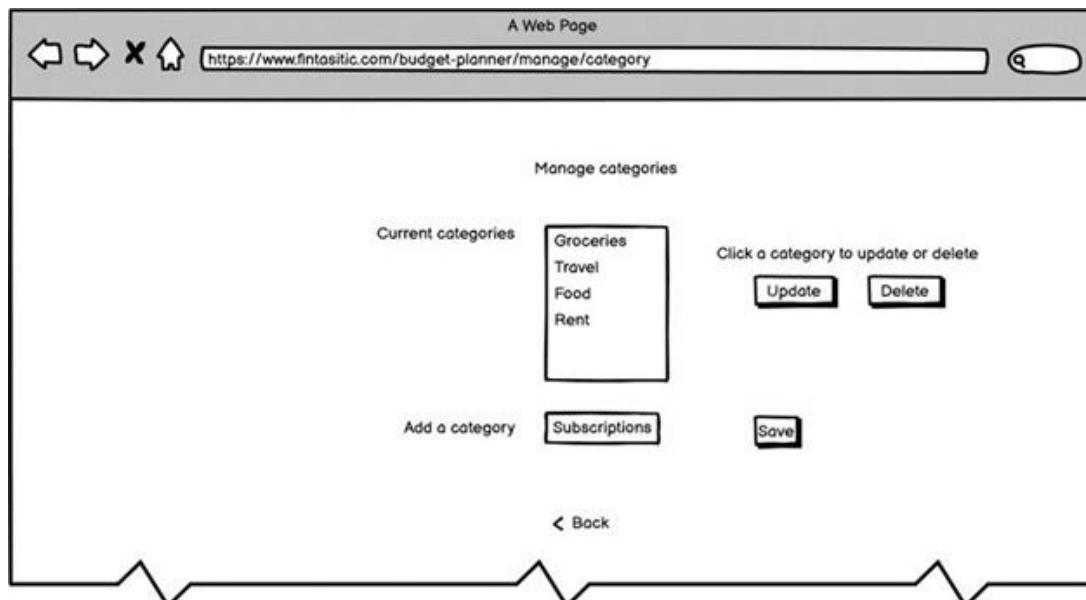


Figure 27: Manage categories of CAP wireframe [11].

**Feature:** Document upload

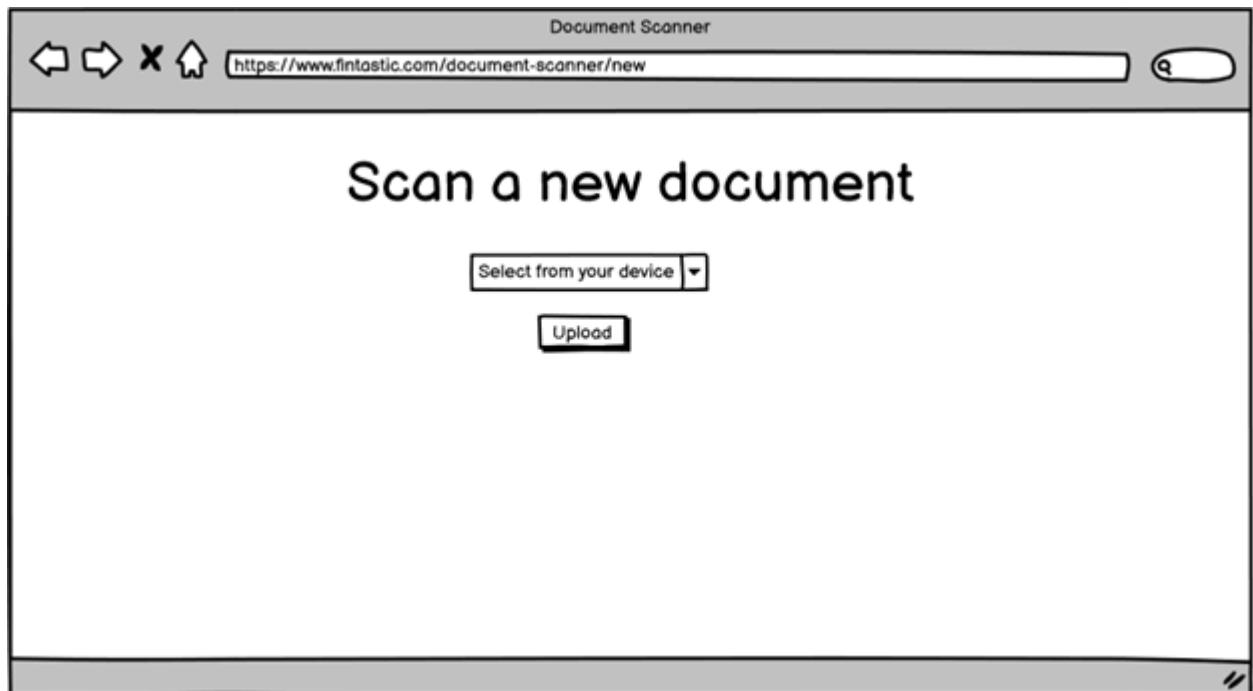


Figure 28: Wireframe for uploading a new file [11].

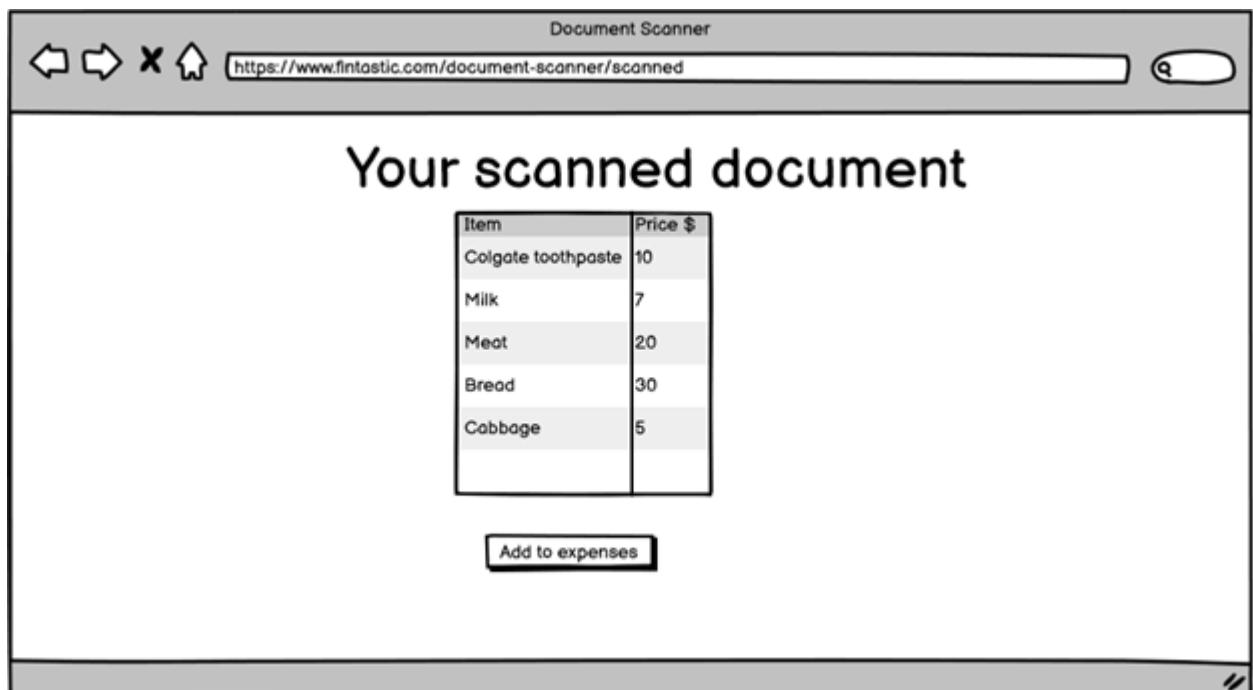


Figure 29: Wireframe for a scanned file [11].

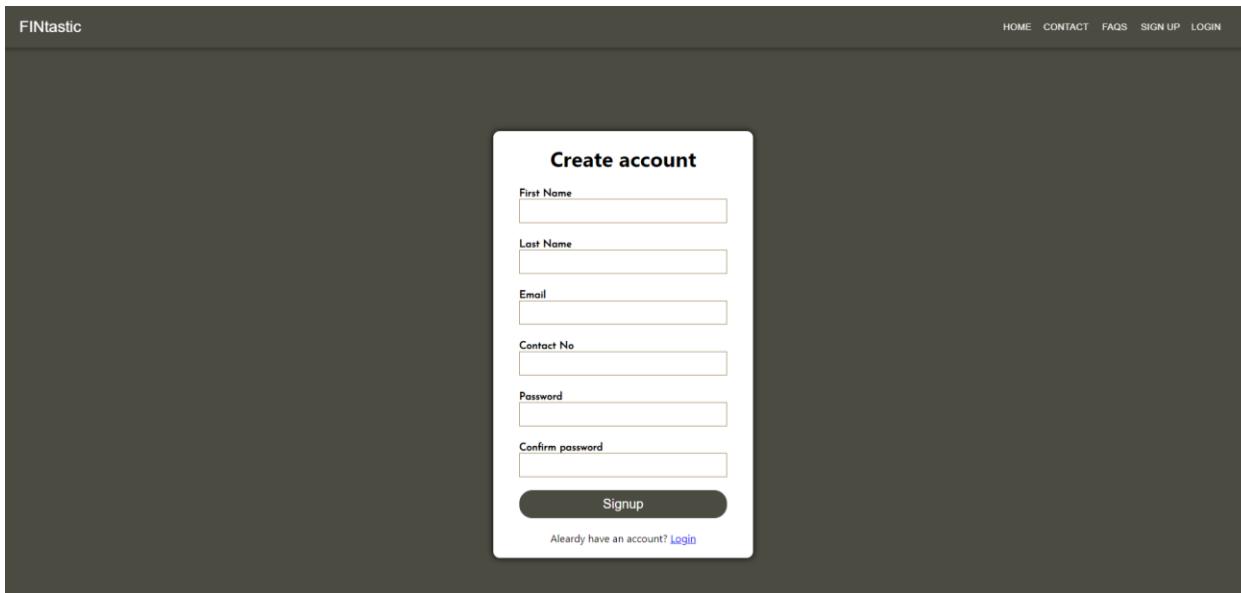
## 3.3 Design

### 3.3.1 Signup page

The FINTastic lets users create an account using a signup page where the user enters all the basic required details to get started.

The following are the features and functionalities of the signup page:

- The signup form collects first name, last name, contact number, email, and password.
- UI design emphasizes simplicity for user convenience.
- Frontend validation was implemented for error-free data submission.
- Error messages are displayed for each field to guide users effectively.
- Ensures accurate and complete user information for platform engagement.
- Contributes to a positive user experience and journey on the website.



A screenshot of the FINTastic website showing the 'Create account' form. The form is titled 'Create account' and contains six input fields: 'First Name', 'Last Name', 'Email', 'Contact No.', 'Password', and 'Confirm password'. Below the form is a 'Signup' button and a link 'Already have an account? [Login](#)'. The top navigation bar includes links for HOME, CONTACT, FAQS, SIGN UP, and LOGIN.

Figure 30: Signup Page [12].

### 3.3.2 Login page

The FINTastic login page allows users to access their accounts securely and offers the following features:

- Users input their email address and password to log in to their accounts.
- The interface is designed for easy navigation and user convenience during the login process.
- Includes a "Forgot Password" feature for users to reset their passwords securely.
- Ensures accurate login credentials and displays error messages for incorrect inputs.
- Protects user accounts and data through secure authentication methods (JWT).
- Contributes to a seamless and positive user journey on the platform.

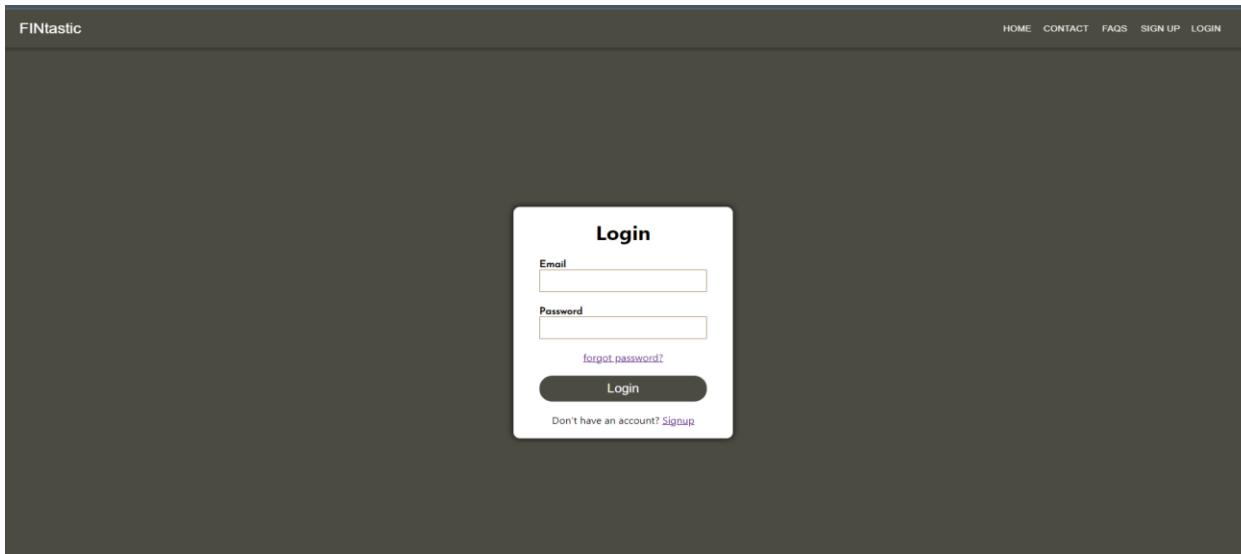


Figure 31: Login page [12].

### 3.3.3 Profile page

The FINTastic profile page offers users comprehensive control over their account details, including the ability to update existing information and add new data:

- Shows the user's first name, last name, contact number, email, and profile picture.
- Users can edit and update their first name, last name, contact number, and email address directly on the profile page.
- Provides a feature to input and update income details for financial tracking purposes.
- Allows users to upload or change their profile picture easily.
- Maintains a simple and intuitive design for effortless navigation and interaction.
- Ensures data security and privacy during profile updates and information additions.
- Enhances user satisfaction by providing comprehensive account management capabilities within a single page.

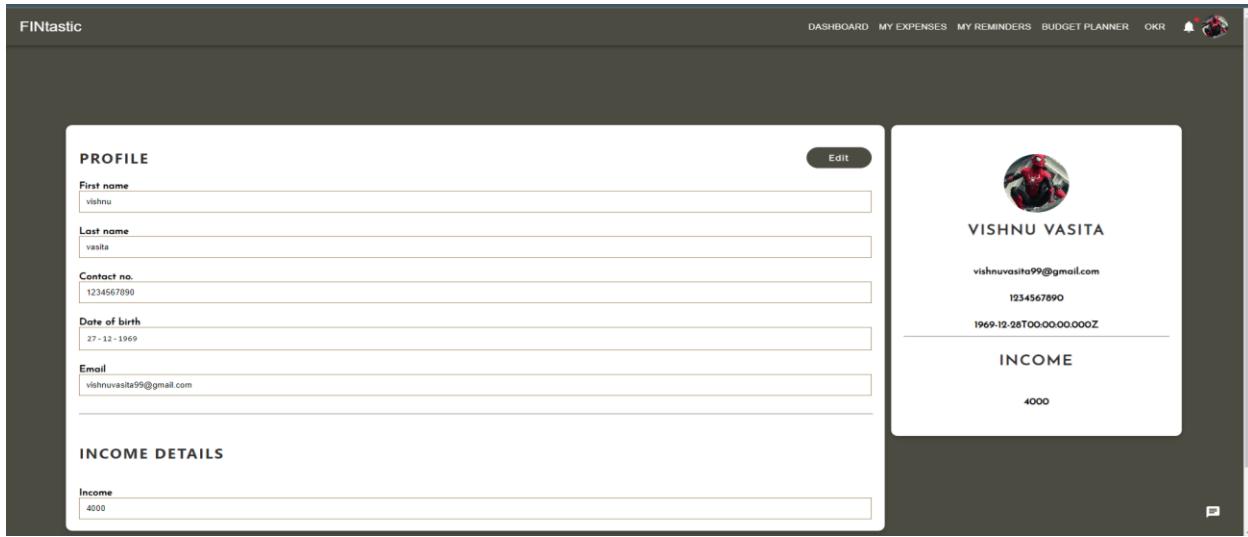


Figure 32: User profile page [12].

### 3.3.4 Help desk:

#### 3.3.4.1 Help Desk Initialization

This page initiates the helpdesk functionality, seamlessly integrating a chatbot interface. Users can easily communicate with the chatbot to obtain information regarding expenses and effortlessly raise tickets to address any issues they encounter within the system.

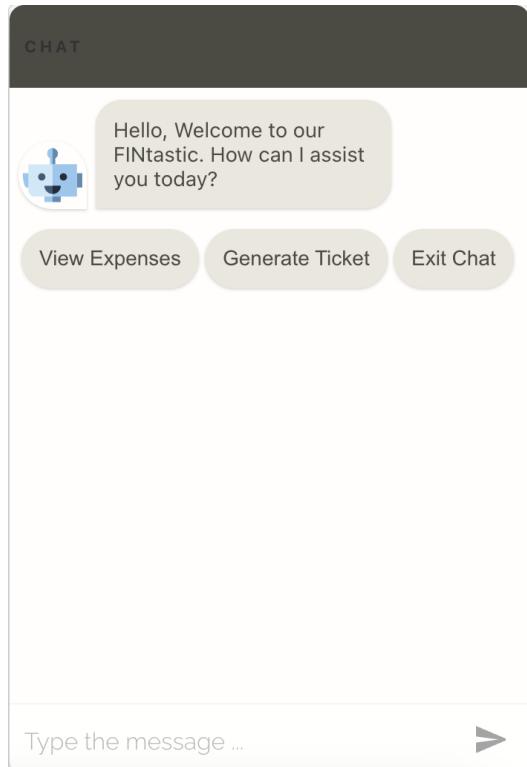


Figure 33: Help desk initialization [12].

### 3.3.4.2 Expense list from user:

By clicking on the "View Expenses" button, users gain direct access to view all previous expenses, streamlining their process and saving valuable time. This feature provides users with a convenient way to review expense history, enhancing efficiency and convenience within the system.

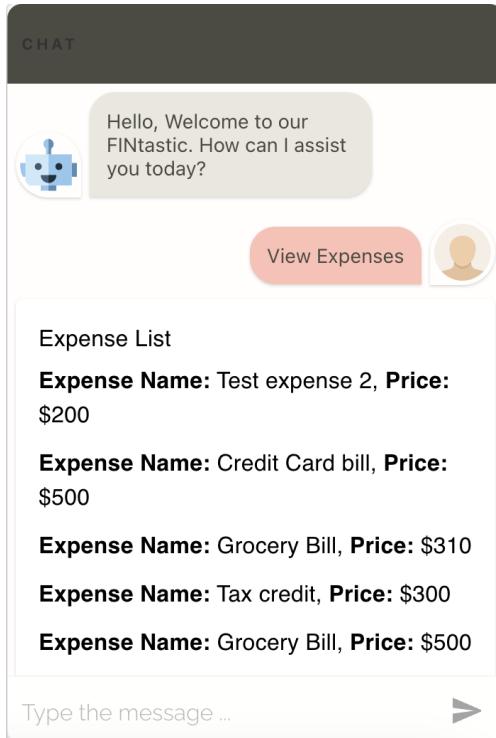


Figure 34: User asking for expense list [12].

#### 3.3.4.3 Generate tickets at help desk:

Upon clicking the "Generate Ticket" button, users are prompted to input their queries, which are then seamlessly transmitted to the administrator. This streamlined process ensures efficient communication between users and administrators, facilitating prompt resolution of issues.

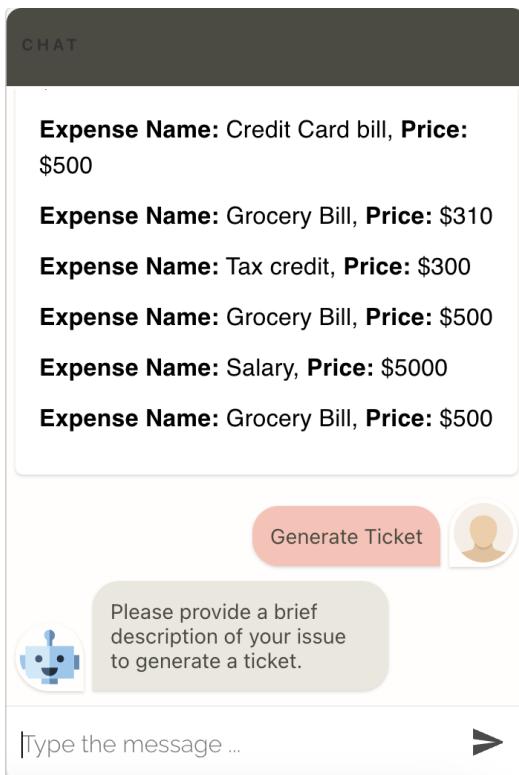


Figure 35: User opts to generate a ticket [12].

#### 3.3.4.4 User writes queries:

Users input their query and seamlessly transmit it to the admin with a single click, facilitating efficient communication and issue resolution.

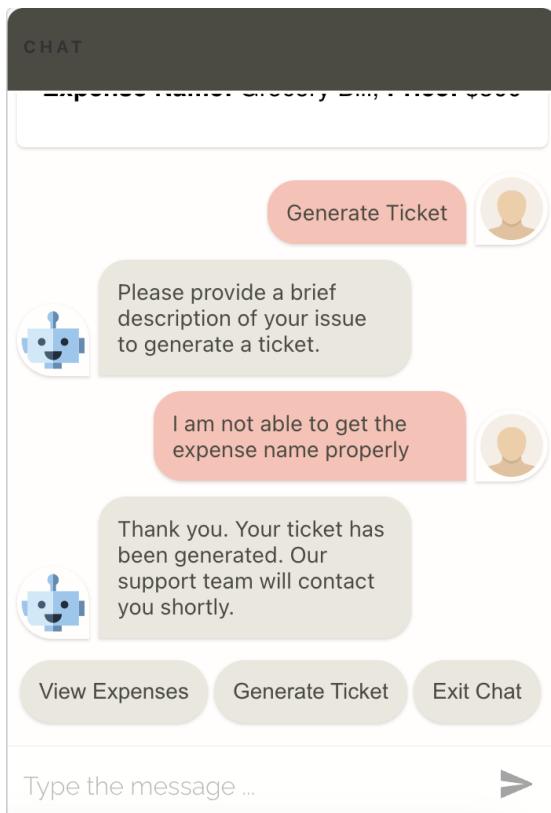


Figure 36: User provides the queries [12].

### 3.3.4.5 Exiting the chat:

To exit the chat, users simply click on the "Exit Chat" button, allowing for a smooth and effortless end to the conversation.

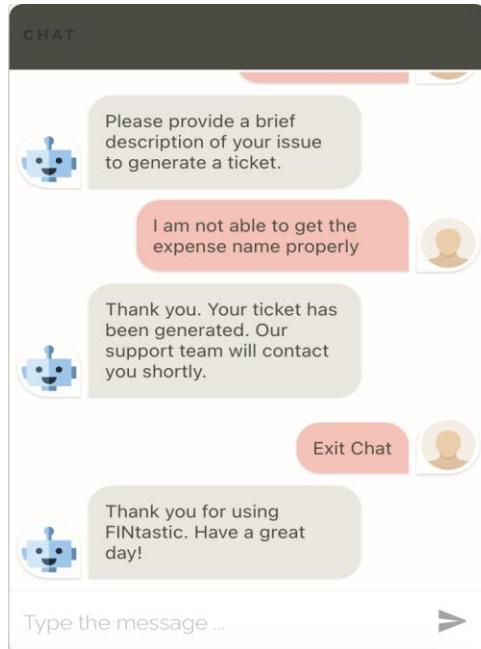


Figure 37: User selects the exit chat option [12].

### 3.3.5 Expense Management

In this feature, the User will manage all the details regarding expenses.

#### 3.3.5.1 Add Expense

In this Add Expense page, the User will fill in all the details about the expense and click the Add Expense button and it will ask the user for confirmation It will call the backend API and will display an appropriate message based on the response of the API.

**Add Expense**

\* Expense Name:

\* Enter Amount:

\* Expense Type:  Paid  Received

\* Payment Medium:

\* Date:  Select date

Description:

Attach:

\* Category:

Figure 38: Add Expense [12].

### 3.3.5.2 List Expenses:

In the List Expenses Page, as shown in the figure, all the expenses the user received will be shown with a green border, and paid will be shown as a red border and there will be certain filters to filter out the by different categories, types, sorting and also user can search by it's name.

My Expenses			
<input type="text" value="Search by name"/> <span>Sort by Date</span> <span>All Types</span> <span>All Categories</span> <span>Add Expense</span>			
Salary \$ 5000 received 4/6/2024 other	Tax credit \$ 300 received 4/5/2024 other	Credit Card bill \$ 500 paid 4/2/2024 other	
Grocery Bill \$ 500 paid 4/2/2024 grocery	Grocery Bill \$ 500 paid 4/2/2024 food	Test expense 2 \$ 200 paid 4/1/2024 grocery	
Grocery Bill \$ 310 paid 4/1/2024 grocery			

Figure 39: List all expenses [12].

### 3.3.5.3 View Expense:

As shown in the figure below It will display all the details about expenses and the user can update by clicking on the update button similarly clicking on the delete button user can delete the expense.

### EXPENSE DETAILS

**Expense Name:** Tax credit  
**Expense Type:** received  
**Expense Amount:** \$300  
**Payment Medium:** debit  
**Description:** Received tax credit  
**Category:** other

Update Delete

Figure 40: View Expense [12].

### 3.3.5.4 Update Expense:

As shown in the figure, the User can update the expense but filling in by changing values and clicking the Update button. It will ask for confirmation and It will show an appropriate message.

**Edit Expense**

\* Expense Name: Tax credit

\* Enter Amount: 300

\* Expense Type:  Paid  Received

\* Payment Medium: Debit Card/Bank AC

\* Date: 2024-04-05

Description: Received tax credit

Attach:


+ Upload

\* Category: Other

**Update**

Figure 41: Update expense [12].

### 3.3.6 Calendar View

As shown in the Figure, In the calendar view the user can see all expenses and reminders by dates and recurring reminders will be displayed on every month the same date if it is monthly, and if it is yearly it will display on the same date on every year.

Sun	Mon	Tue	Wed	Thu	Fri	Sat
31	Grocery Bill Test expense 2	Credit Card bill Grocery Bill Grocery Bill			Tax credit	Salary
7			9	Electricity bill		
14		15	16		Mobile Payment	Netflix Subscription
21		22	23	24		

Figure 42: Calendar View [12].

### 3.3.7 Reminders

In this feature, the User will manage all the details regarding reminders.

#### 3.3.7.1 Add reminder:

For this task, the User can fill in details to add Reminders.

\* Reminder Name:

\* Expense Type:  Paid  Received

\* Occurrence:  One time  Reoccurring

\* Occurrence Duration:  Monthly  Yearly

\* Date: 2024-04-18

\* Category:

**Submit**

Figure 43: Add reminder [12].

#### 3.3.7.2 List Reminders:

As shown in this snapshot, the User can see all the reminders and filters, search, and sort using different categories.

Mobile Payment	Netflix Subscription	Electricity bill
paid 4/12/2024 technology	paid 4/13/2024 entertainment	paid 4/10/2024 technology
All Types <input type="button" value="▼"/>	All Categories <input type="button" value="▼"/>	All Reoccuring <input type="button" value="▼"/>

Figure 44: List reminders [12].

### 3.3.7.3 View Reminder:

As shown in the figure below It will display all the details about reminders and the user can update by clicking on the update button similarly clicking on the delete button user can delete the reminder.

The screenshot shows a modal window titled "REMINDER DETAILS". Inside, the reminder details are listed:  
Reminder Name: Mobile Payment  
Expense Type: paid  
occurrence: reoccurring  
occurrence Duration: monthly  
Category: technology

At the bottom right of the modal are two buttons: "Update" and "Delete".

Figure 45: View Reminder [12].

### 3.3.7.4 Update Reminder:

As shown in the figure, the User can update the reminder by filling in by changing values and clicking the Update button. It will ask for confirmation and It will show an appropriate message.

The screenshot shows a modal window titled "Add Reminder". The form fields are:  
\* Reminder Name: Mobile Payment  
\* Expense Type:  Paid  Received  
\* Occurrence:  One time  Reoccurring  
\* Occurrence Duration:  Monthly  Yearly  
\* Date: 2024-04-12   
\* Category: Technology

At the bottom center is a "Submit" button.

Figure 46: Edit reminder [12].

### 3.3.8 Notification:

#### 3.3.8.1 Notification button:

The notification button will display a red dot to signal new activity whenever a user updates, deletes, or makes any other modification to their expenses or account.



#### Monthly Expenditure

Total Spent: 2010

Total Received: 5300



Figure 47: Notifications button enabling [12].

#### 3.3.8.2 Notification window:

Clicking the notification button triggers a pop-up that displays details of recent user activity, providing instant updates on any modifications or changes made to their account.

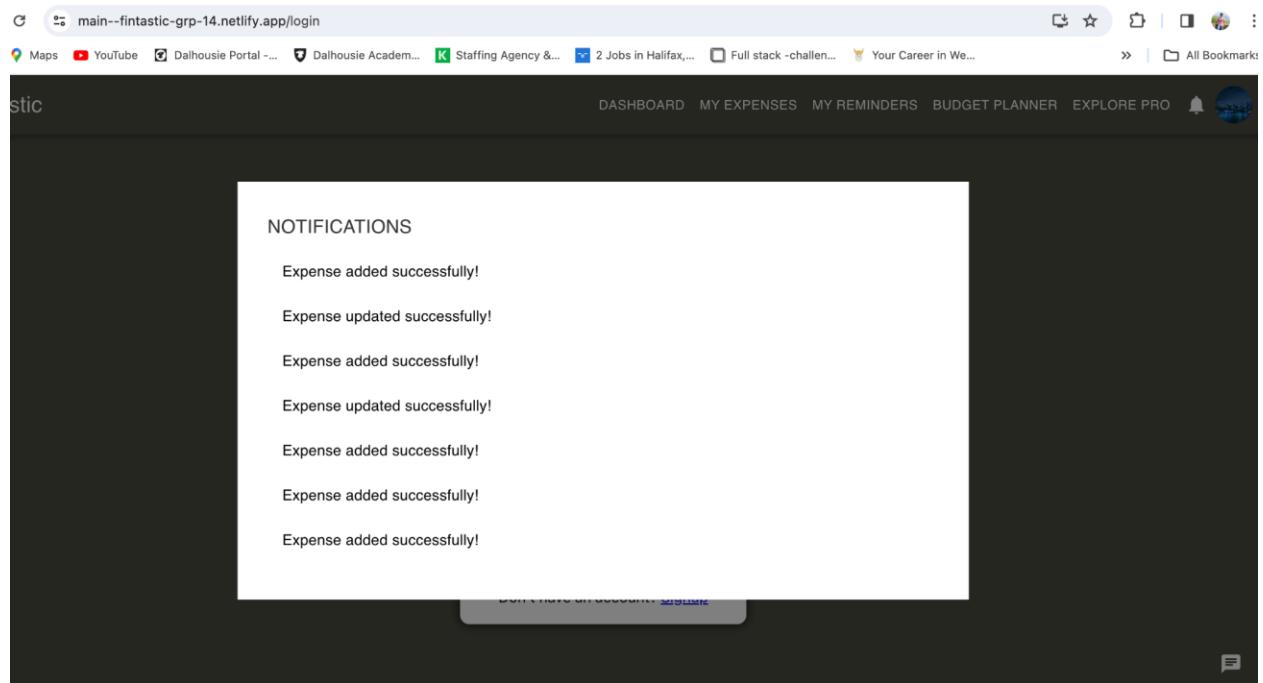


Figure 48: Notifications [12].

### 3.3.9 Dashboard:

The dashboard in the application displays the user's monthly and weekly expenses categorized by different types of expenditures such as travel, technologies, rent, marketing etc. This breakdown helps users track their spending habits, identify trends, and even manage their finances more effectively, enabling them to plan and adjust their budget as needed.

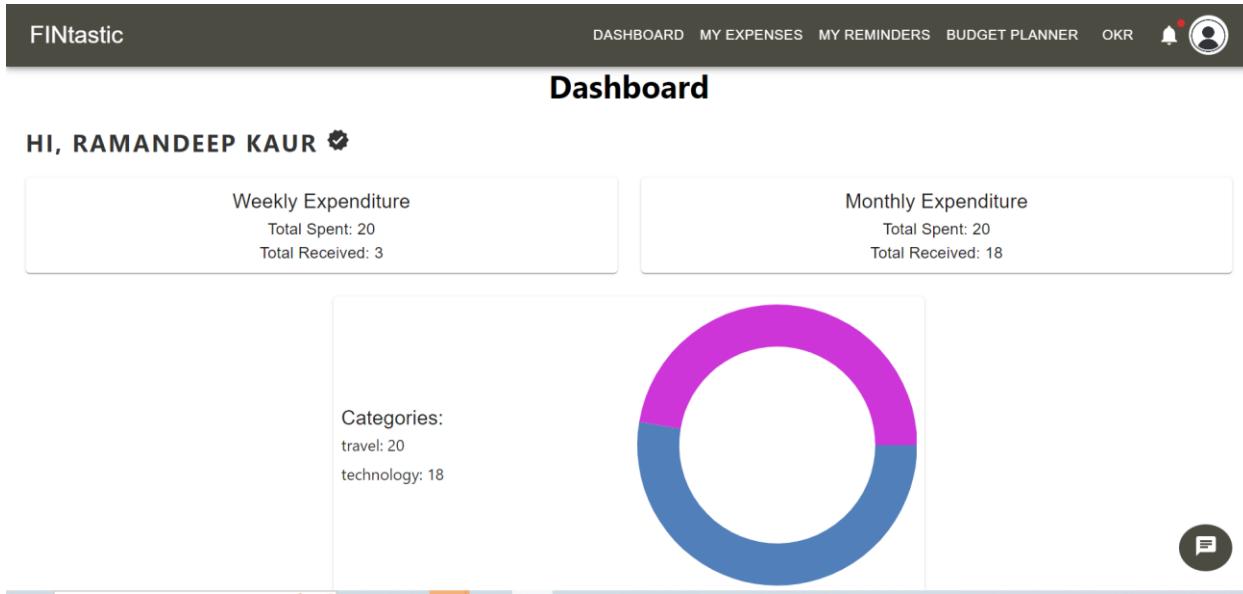


Figure 49: Dashboard [12].

### 3.3.10 Objective and Key Result

#### 3.3.10.1 Objective Home Page:

The objective home page in the OKR (Objective Key Results) feature provides an overview of the financial growth objectives set by the user. On this page, users can view the details of each objective, including the defined goal, timeframe, and associated key results. Progress indicators show how close the user is to achieving each key result, providing a clear visual representation of their progress.

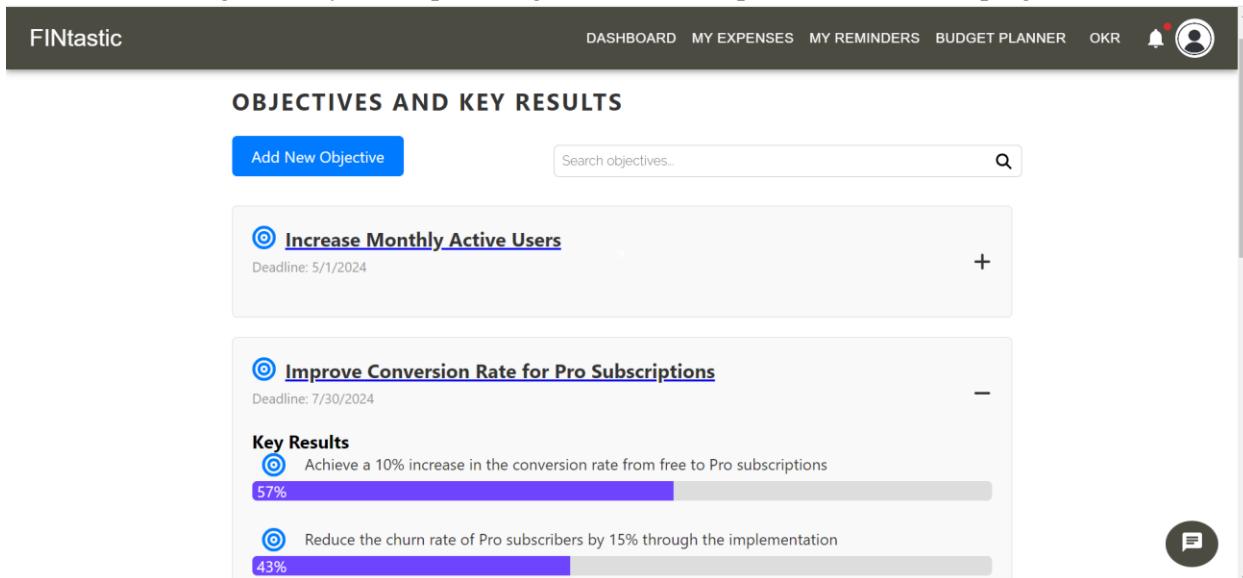


Figure 50: Objective Home Page [12].

### 3.3.10.2 Objective View Page:

In this page, users can specify key results—measurable outcomes—that align with their financial growth objective. The system calculates and tracks progress for each key result, allowing the user to measure their success against the goal.

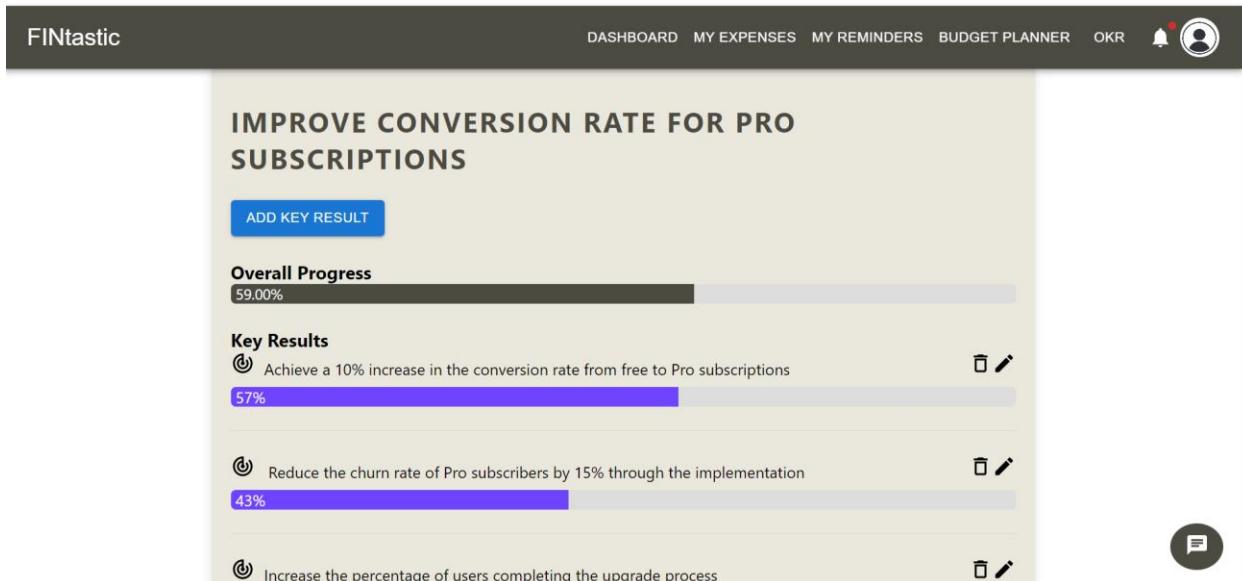


Figure 51: Objective View Page [12].

### 3.3.10.3 Add Objective Page:

This page allows users to establish a new financial growth objective. Users can define the goal they want to achieve, such as increasing business revenue, and set a specific timeframe for completion. The system provides confirmation upon successful creation.

The screenshot shows the FINtastic application's 'Add New Objective' page. At the top, there is a navigation bar with links for DASHBOARD, MY EXPENSES, MY REMINDERS, BUDGET PLANNER, OKR, a notification bell icon, and a user profile icon. The main content area has a title 'ADD NEW OBJECTIVE'. It contains two input fields: 'Title:' with a text input box and 'Timeframe:' with a date input box showing 'dd - mm - yyyy'. Below the input fields is a blue 'Submit' button and a link 'Go back to Objectives'.

Figure 52: Add Objective Page [12].

### 3.3.10.4 Add Key Result Page:

The "Add Key Result" pop-up in the OKR (Objective Key Results) application allows the user to define measurable outcomes for their financial growth objective. The pop-up features a clear title, "Add Key

Result," and includes sections for users to specify the key result's details, such as a description and target values. A progress indicator is also present, providing a visual representation of the user's progress towards each key result they have already defined.

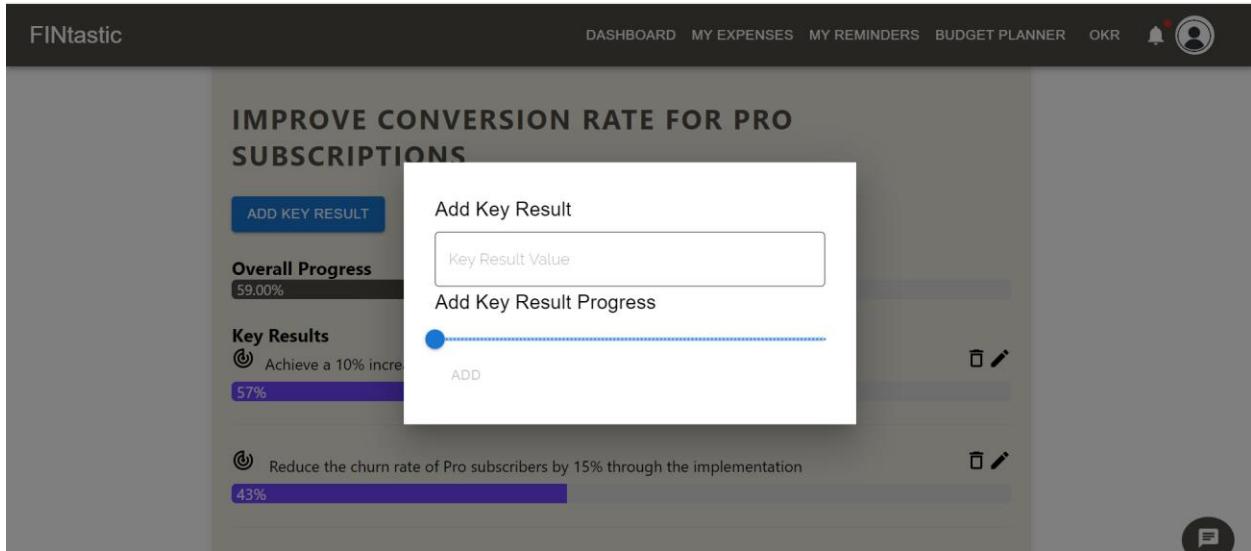


Figure 53: Add Key Result Page [12].

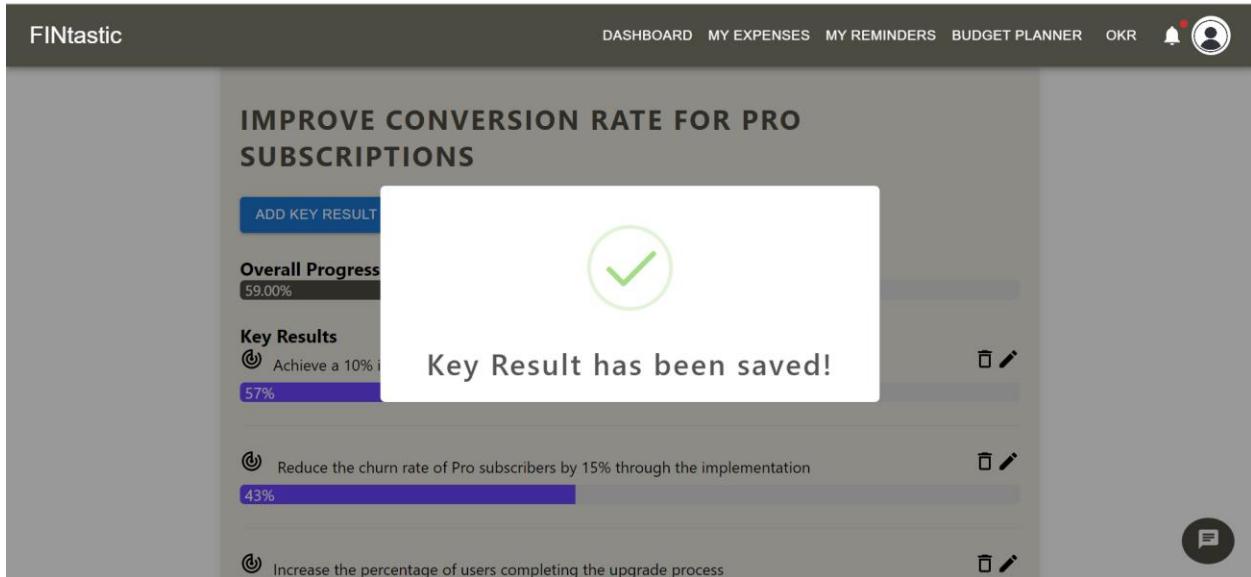


Figure 54: Key Result saved [12].

### 3.3.10.5 Edit Key result:

The "Edit Key Result" feature in the OKR application allows the user to modify the details of an existing key result, such as adjusting the target. Once the changes are saved, the system confirms the successful update, ensuring that the user's goals remain current and aligned with their objectives.

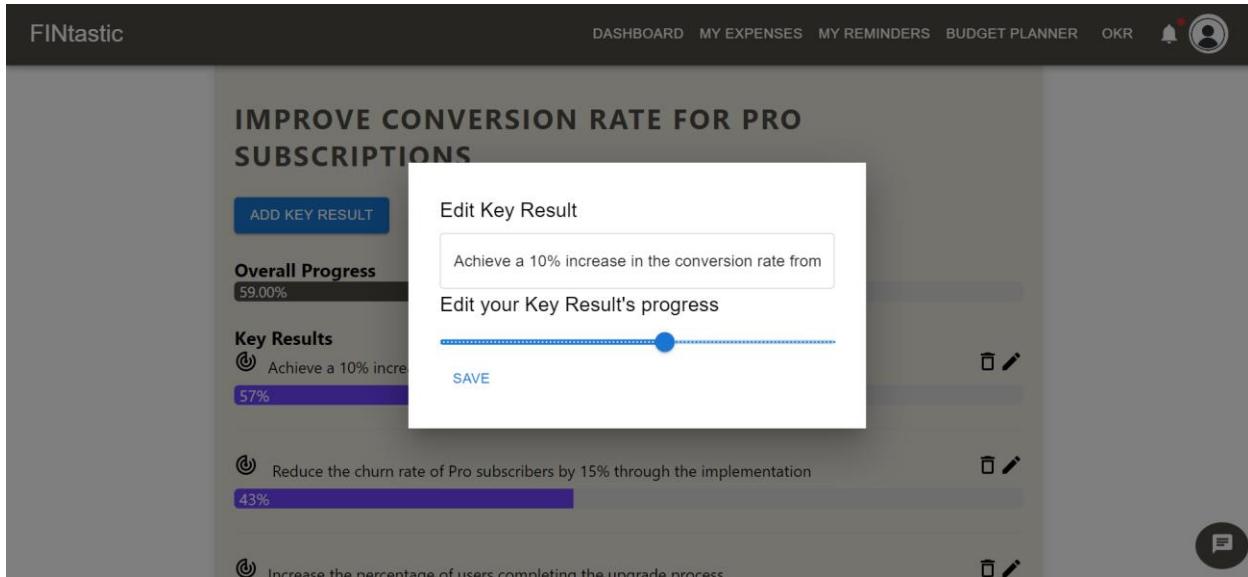


Figure 55: Edit Key Result [12].

### 3.3.10.5 Delete Key Result:

The "Delete Key Result" pop-up in the OKR application prompts the user to confirm the removal of a key result. Upon confirmation, the system deletes the key result and updates the objective accordingly, helping the user keep their goals streamlined and relevant.

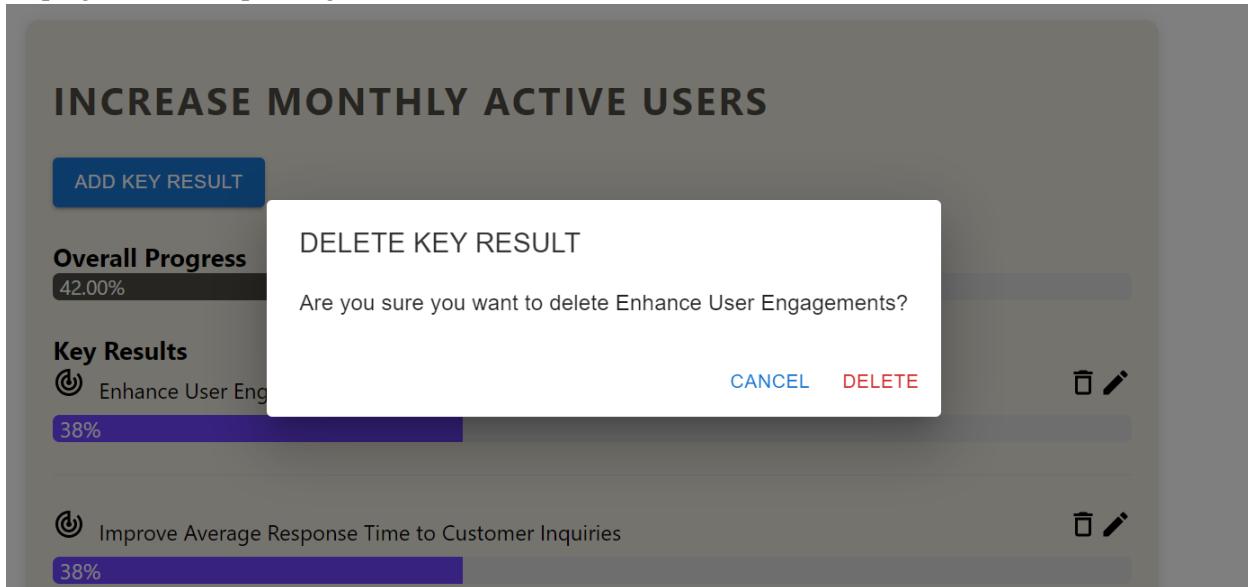


Figure 56: Delete Key Result [12].

## 3.3.11 Pro Subscription

### 3.3.11.1 Explore Pro

This feature involves integrating a secure payment gateway into the Financial Management Platform, allowing users like Petra to subscribe to the Pro plan seamlessly. The feature aims to

provide users with a straightforward and secure payment process directly within the platform, enhancing the overall user experience and encouraging conversions to the Pro plan.

The screenshot shows the FINtastic mobile application interface. At the top, there is a dark header bar with the app's logo 'FINtastic' on the left and navigation links 'DASHBOARD', 'MY EXPENSES', 'MY REMINDERS', 'BUDGET PLANNER', 'EXPLORE PRO', a notification bell icon, and a user profile icon on the right. Below the header, the main content area has a title 'What's New in the Pro Version?'. Under this title, there are two sections: 'Credit Score' with the subtext 'Keep a track of your credit score with us' and 'Goal Setter' with the subtext 'Set your future financial goals and find out how to accomplish them'. At the bottom of the content area is a purple 'Subscribe Now' button. To the right of the button is a circular icon containing a white speech bubble with a dot inside. A horizontal red line is positioned between the 'Credit Score' and 'Goal Setter' sections.

Figure 57: what's new in pro version [12].

### 3.3.11.2 Choose a Plan

This "Choose a Plan" page within the Financial Management Platform, offering users like Petra the flexibility to select between monthly and yearly subscription options for the Pro plan. The page should provide clear information about the benefits and pricing of each subscription option to help users make informed decisions.

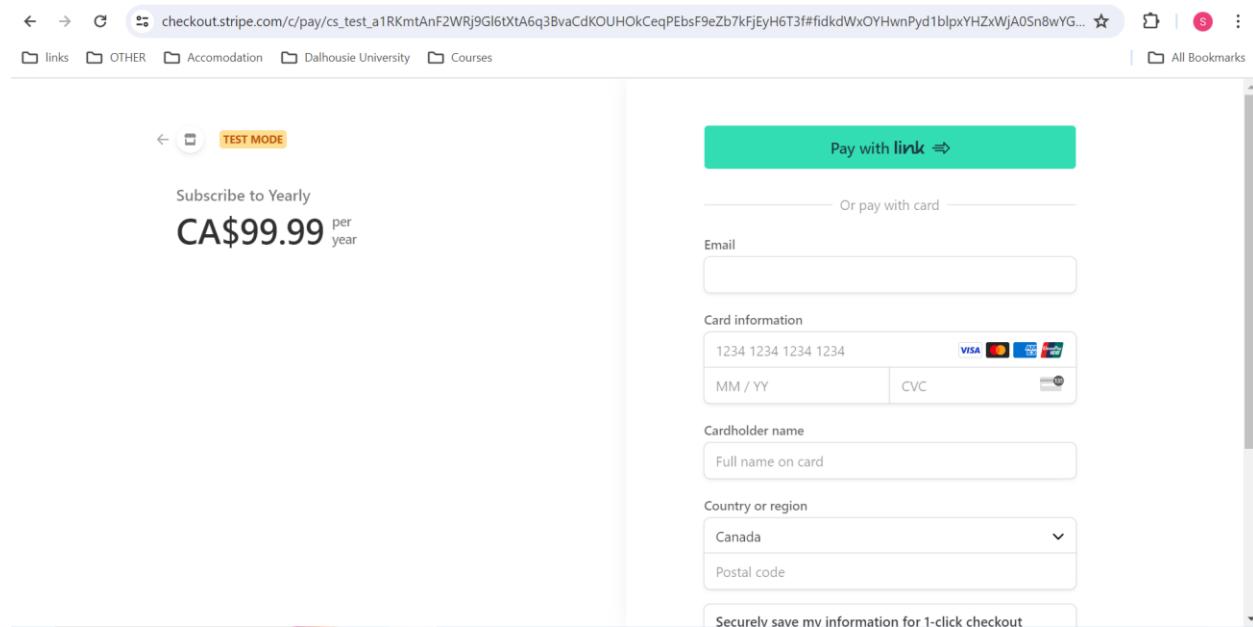
The screenshot shows the 'Choose a Collaborative Plan' page from the FINtastic app. The top navigation bar is identical to Figure 57. The main content features two large, rounded rectangular boxes side-by-side. The left box is labeled 'MONTHLY' at the top, shows a price of '\$9.99', and has a purple 'Pay Now' button at the bottom. The right box is labeled 'YEARLY' at the top, shows a price of '\$99.99', and also has a purple 'Pay Now' button at the bottom. To the right of the 'YEARLY' box is a circular icon containing a white speech bubble with a dot inside. A horizontal red line is positioned between the two main content boxes.

Figure 58: Choose a plan [12].

### 3.3.11.3 Payment Gateway

This feature involves integrating a secure payment gateway into the Financial Management Platform, allowing users like Petra to subscribe to the Pro plan seamlessly. The payment gateway Team 14

feature aims to provide users with a straightforward and secure payment process directly within the platform, enhancing the overall user experience and encouraging conversions to the Pro plan.



The screenshot shows a payment form for a yearly subscription. At the top left, it says "Subscribe to Yearly CA\$99.99 per year". At the top right, there are buttons for "Pay with link" and "Or pay with card". Below these are fields for "Email" and "Card information" (with placeholder "1234 1234 1234 1234" and icons for VISA, MasterCard, American Express, and Discover). Further down are fields for "MM / YY", "CVC", "Cardholder name" (placeholder "Full name on card"), "Country or region" (dropdown menu set to "Canada"), and "Postal code". At the bottom right is a checkbox for "Securely save my information for 1-click checkout".

Figure 59: Card details using stripe [12].

### 3.3.11.4 Payment Successful

Users receive immediate confirmation and an email with subscription details.

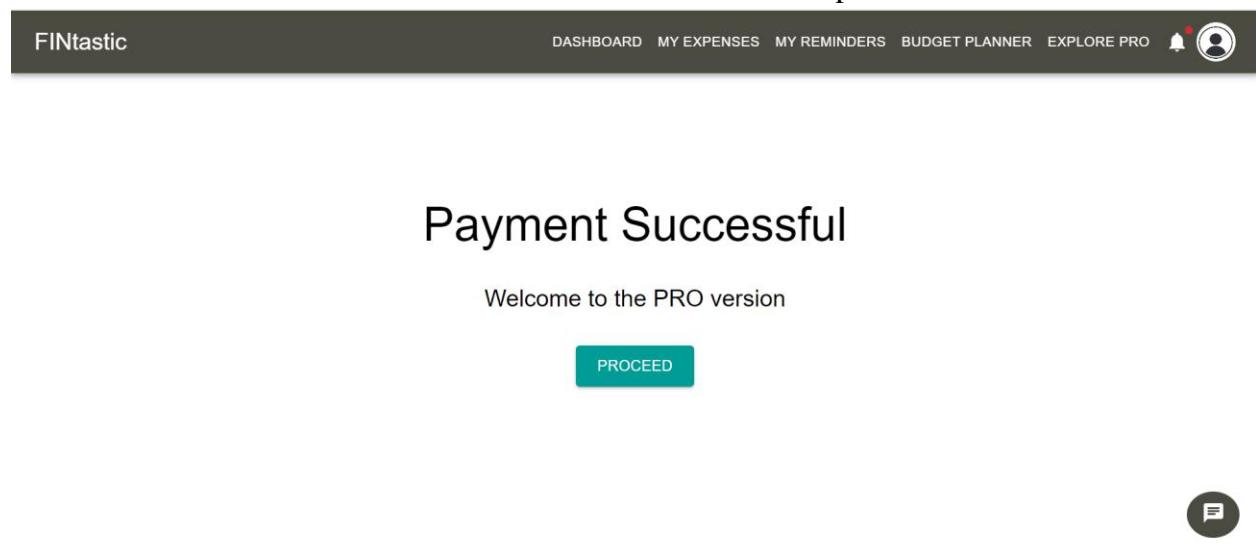


Figure 60: Payment successful [12].

### 3.3.11.5 Payment Failure

Users are notified of the issue and given instructions to resolve it.

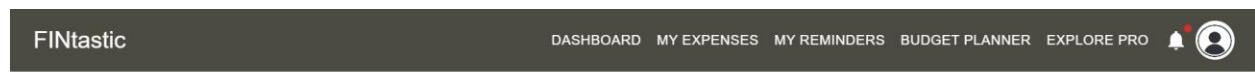


Figure 61: Payment failure [12].

### 3.3.12 Budget Planner

FinTastic lets users plan their budget based on their monthly salary. The user can add all the monthly spending and their percentage allocation using this feature.

The following are the features and functionalities of this page:

- Fetches and displays the monthly income of the user.
- Forward the page to the profile section if monthly income is not entered for a user.
- User engagement using visual charts showing individual contributions of each category.
- Update and delete button to update and delete categories to plan a budget.
- Proper error and info messages to show the success/failure of a user's operation.

#### 3.3.12.1 Budget Planner Page

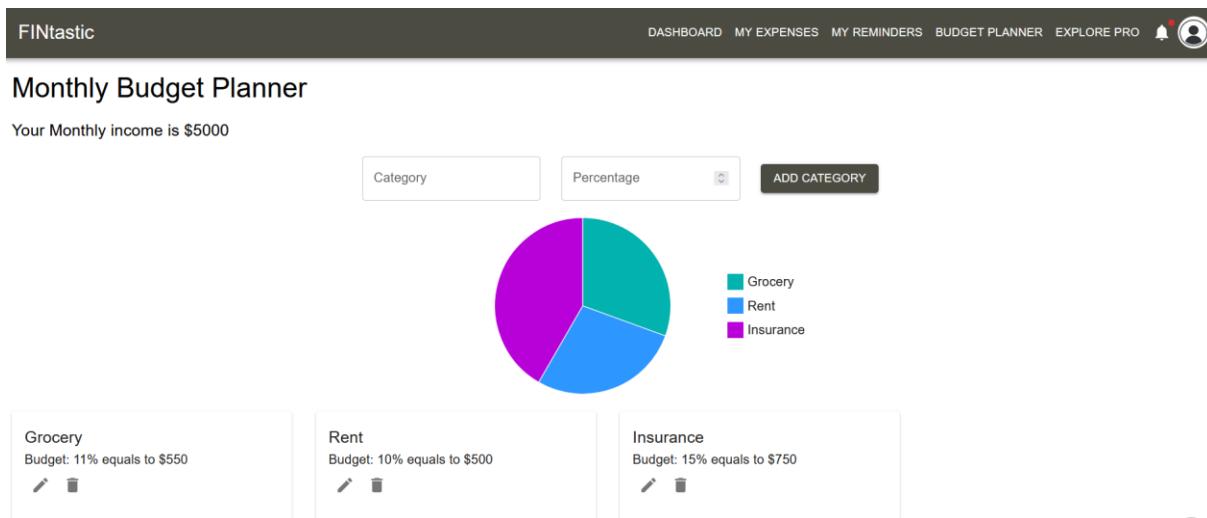


Figure 62: Budget Planner Page [12].

### 3.3.12.2 Add a new category to the budget

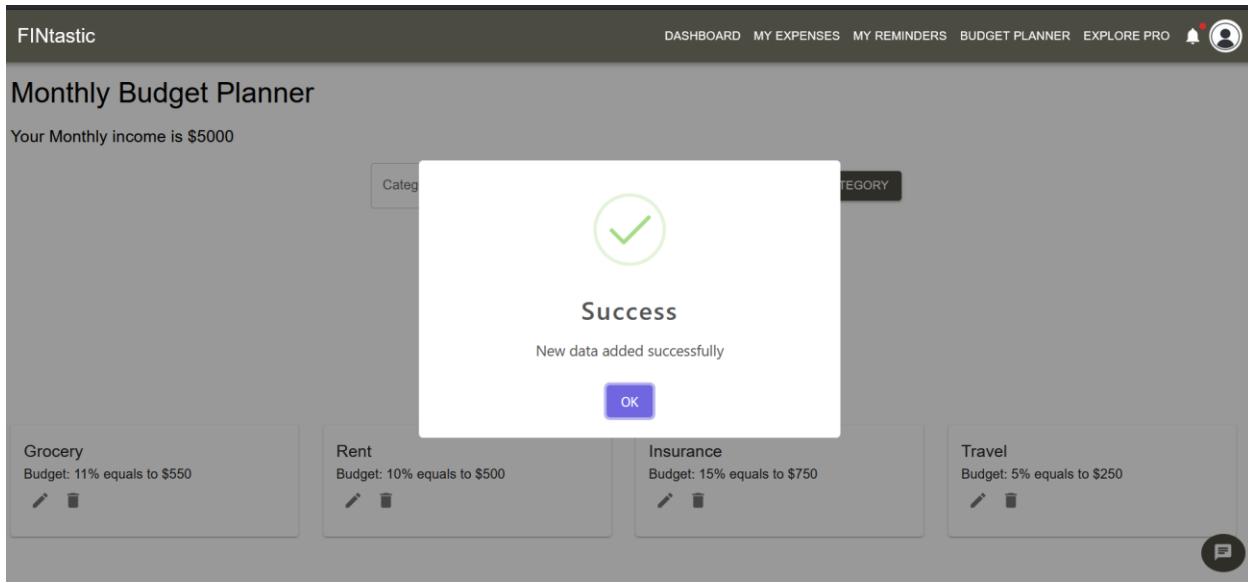


Figure 63: Add new category in budget [12].

### 3.3.12.3 Update allocation of budget in a category

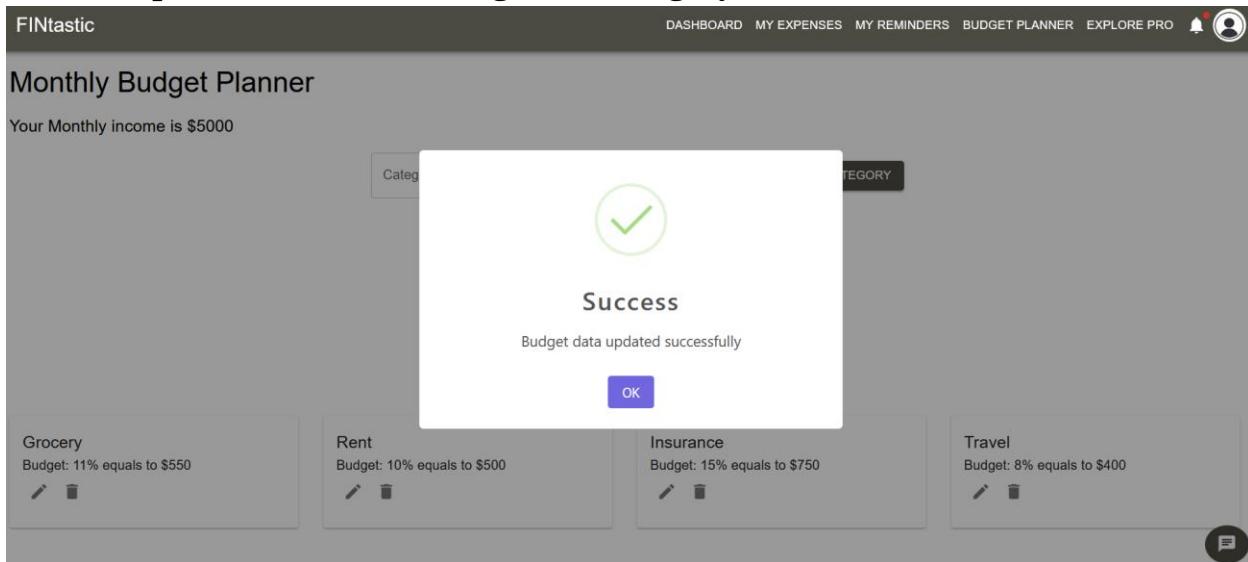


Figure 64: Update allocation of budget in a category [12].

### 3.3.12.4 Delete category in the budget

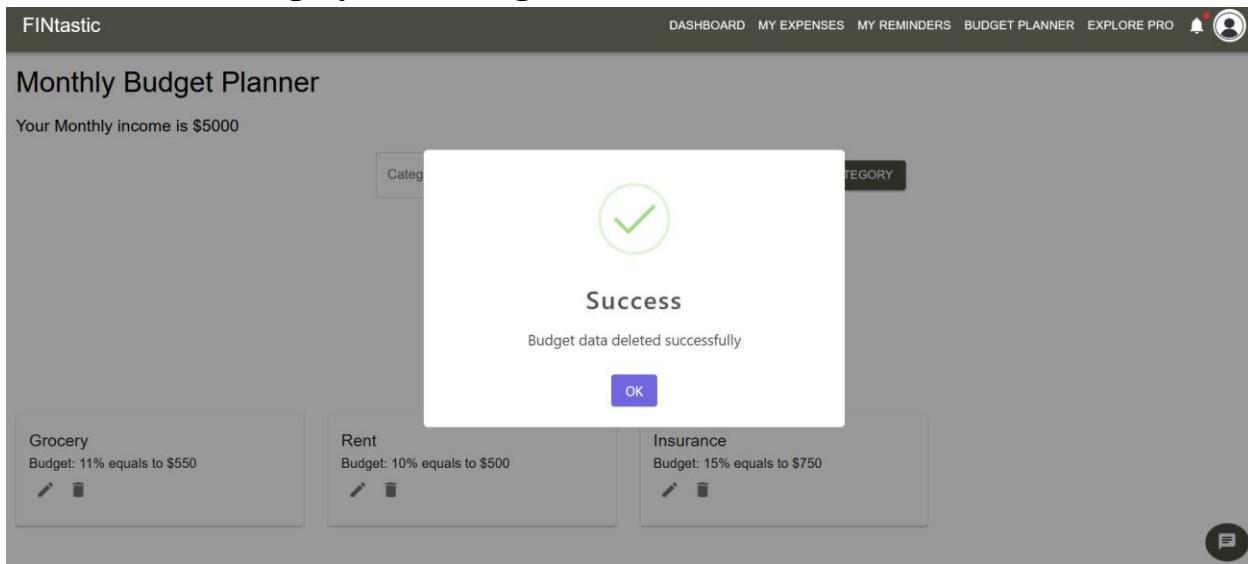


Figure 65: Delete category in budget [12].

### 3.3.13 Documents Upload

FinTastic allows users to upload documents and provides information for these documents. Based on this entered data, users can view and filter the uploaded documents.

#### 3.3.13.1 Upload a document in my documents.

This page allows users to upload documents to the FinTastic application.

The following are the features and functionalities of this page:

- Provide a form to upload documents, document type, document description, and document category.
- Handle error messages for each field to guide users.
- This simple UI design emphasizes user convenience.

The screenshot shows the 'Add Document' interface. At the top is a header bar with the FINtastic logo, navigation links (DASHBOARD, MY EXPENSES, MY REMINDERS, BUDGET PLANNER, EXPLORE PRO), and user icons (bell, profile). Below the header is a large white box titled 'Add Document'. Inside, there's a button '+ UPLOAD DOCUMENT', a 'Document Type' input field, a 'Document Description' input field, a dropdown menu set to 'Expense', and two buttons at the bottom: 'SUBMIT' and 'VIEW DOCUMENTS'.

Figure 66: Upload a document in my documents [12].

### 3.3.13.2 View documents in my documents.

This page allows users to view and filter documents on the FinTastic application.

The following are the features and functionalities of this page:

- Provide a page where users can view all their uploaded documents with their type and category.
- Provide information messages if there is no document uploaded for the user.
- This simple UI design emphasizes user convenience.
- Filter documents based on document category and document type.

The screenshot shows the 'View documents in my documents' page. At the top is a header bar with the FINtastic logo, navigation links (DASHBOARD, MY EXPENSES, MY REMINDERS, BUDGET PLANNER, EXPLORE PRO), and user icons (bell, profile). To the left is a sidebar with 'Filter by Category' (Expense, Taxes) and 'Filter by Type' (sample, Receipt, Tax). The main area lists four documents in a grid:
 

- Screenshot (1) - Copy.png: description. Actions: DOWNLOAD, DELETE.
- cmd.exe: receipt. Actions: DOWNLOAD, DELETE.
- Screenshot 2024-03-25 024153.png: tax 2024. Actions: DOWNLOAD, DELETE.

Figure 67: View documents in my documents [12].

### 3.3.13.3 Filter documents in my documents

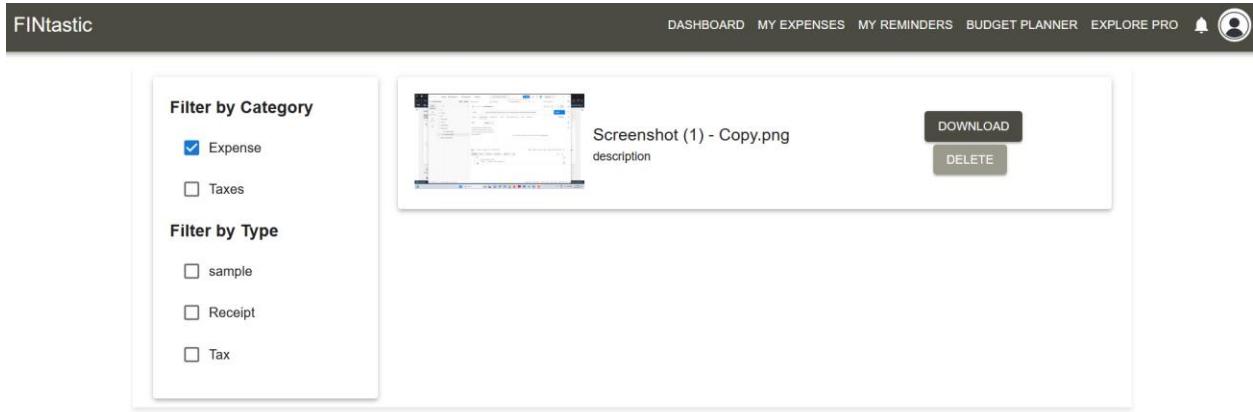


Figure 68: Filter documents in my documents [12].

## 4. APPLICATION WORKFLOW

### 4.1 Interaction Design

#### 4.1.1 Feature: Authentication

This feature lets the user create a new account, log in using JWT, and reset the password to access the website. Users can create accounts using the sign-up page and users can log in using the login page. For the account creation user will need a first name, last name, unique email and password. Using these credentials user can log in and to secure the routes JWT is used for authentication.

**Task:** Login to the application

**Scenario:** The user wants to log into their account on the application.

**Use Case:**

1. The user accesses the application.
2. The user navigates to the login section.
3. The user enters their registered email/username and password.
4. The user submits the login form.
5. The system verifies the credentials entered.
6. If the credentials are correct, the system grants access to the user's account.
7. The user is redirected to the dashboard of the application.

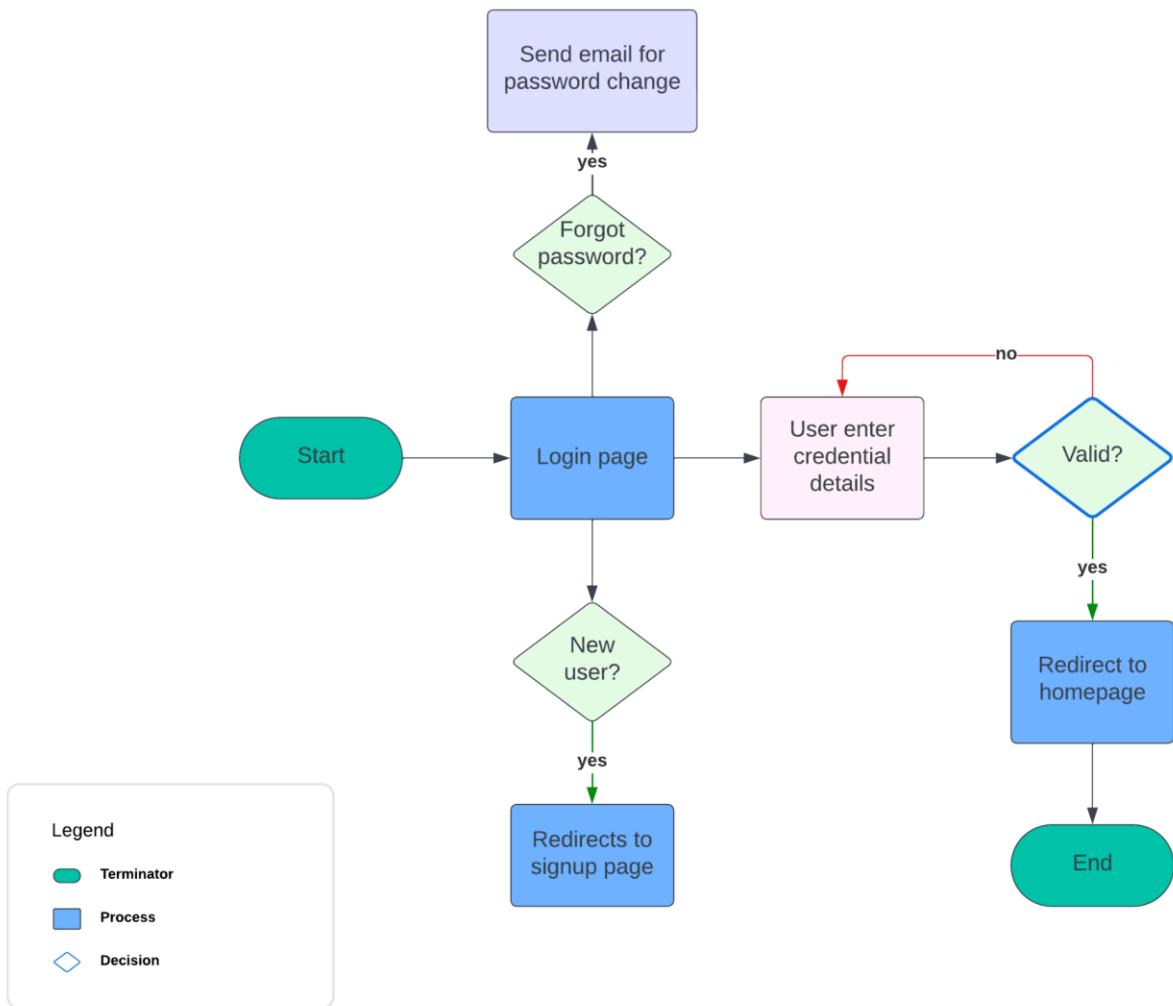


Figure 69: Login task flow [10].

**Task:** Create a new account

**Scenario:** The user wants to create an account on the application.

**Use Case:**

1. The user accesses the application.
2. The user navigates to the sign-up section.
3. The user enters their email, username, and password.
4. The user submits the sign-up form.
5. The system validates the entered information.
6. If the information is valid and unique, the system creates a new account for the user..

7. Upon successful account creation, the user is redirected to the login page.

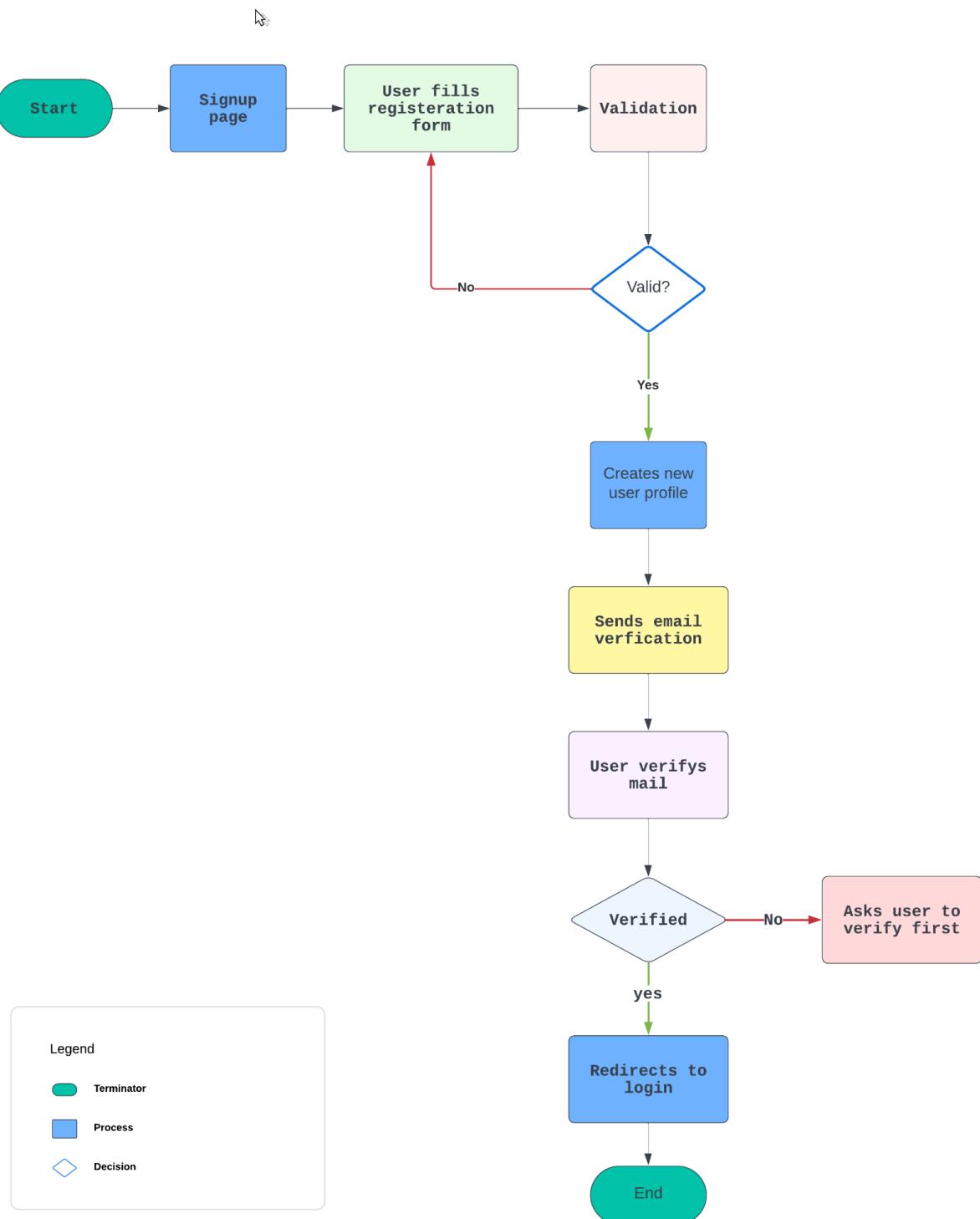


Figure 70: Signup task flow diagram [10].

## **4.1.2 Feature: profile management**

**Scenario:** A user wants to manage her profile information to ensure accurate tracking of her financial data and preferences.

### **Task 1: View Profile Information**

#### **Use Case 1: Normal Flow**

1. Sarah navigates to the Profile section within the Fintastic App.
2. She clicks on the "View Profile" option.
3. The system displays Sarah's profile information, including her name, email address, and any other relevant details she provided during registration.
4. Sarah reviews her profile information for accuracy.

### **Task 2: Update Profile Information**

#### **Use Case 1: Normal Flow**

1. Sarah navigates to the Profile section within the Fintastic App.
2. She clicks on the "Edit Profile" option.
3. The system presents a form where Sarah can update her profile information, such as her name, email address, phone number, and password.
4. Sarah makes the necessary changes to her profile information.
5. She saves the changes, and the system confirms the successful update.

#### **Use Case 2: Alternate Flow (Cancel Update)**

1. If Sarah decides to cancel updating her profile:
  - i. She clicks the "Cancel" button.
  - ii. The system discards the changes and returns to the profile view.

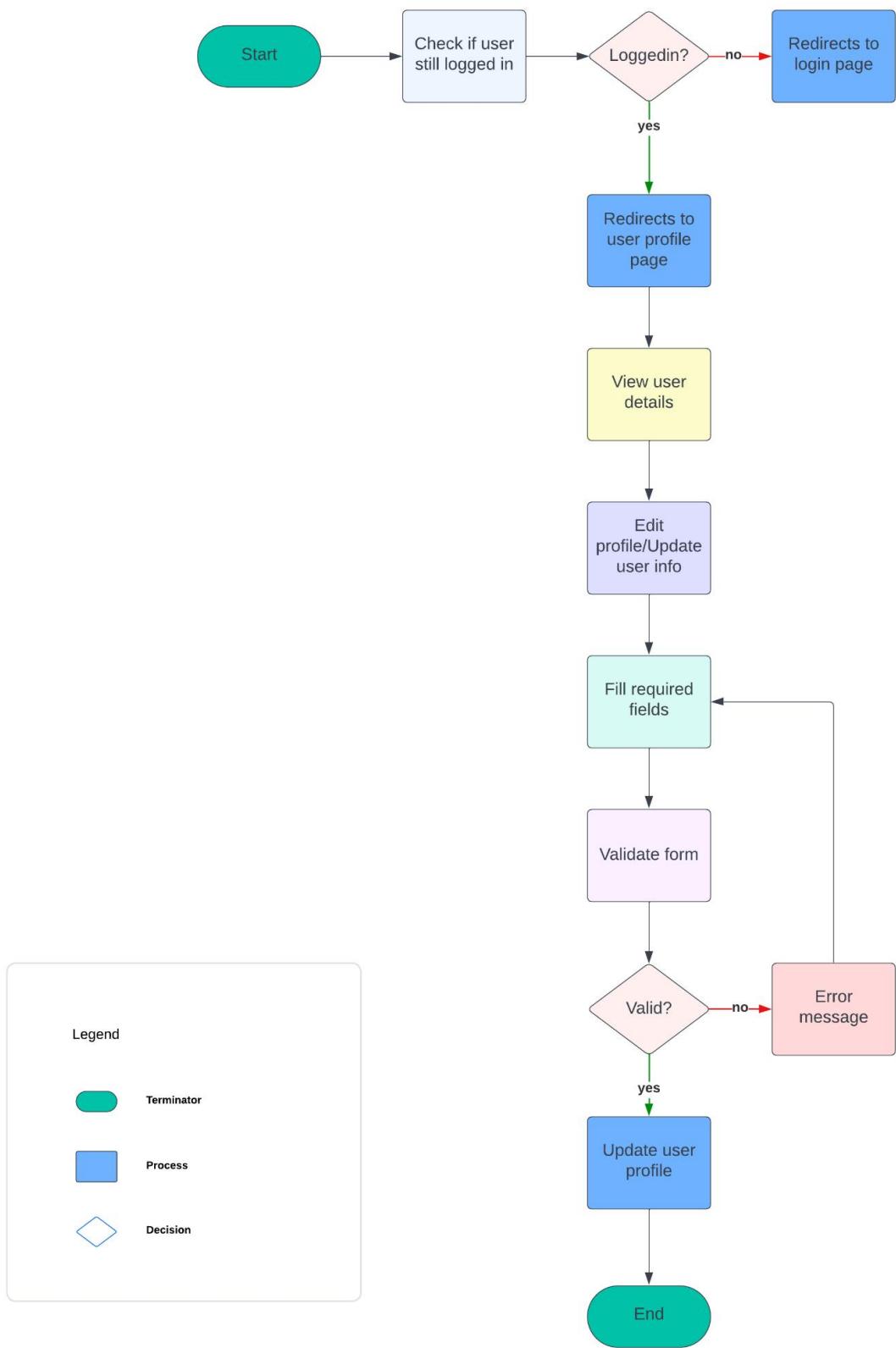


Figure 71: Profile Management Task flow [10].

### **4.1.3 Feature: Helpdesk For Finance Tracking App**

#### **Task 1: Streamlining Financial Processes**

**Scenario:** Ethan, the 33-year-old small business owner, is currently struggling with the time constraints of managing both personal and business finances. He wishes to streamline these processes to gain more time for business development. One day, he faces challenges reconciling his business expenses and personal transactions.

**Use Case:** Ethan submits a ticket to the help desk of a financial management platform, seeking assistance on integrating his business and personal expenses efficiently. He receives a prompt response acknowledging his ticket submission.

The support agent assigned to Ethan's ticket reaches out to him, initiating a conversation to understand his specific needs and challenges.

The support agent guides Ethan through the platform's features via the ticketing system, providing step-by-step instructions on how to categorize and manage both sets of finances seamlessly.

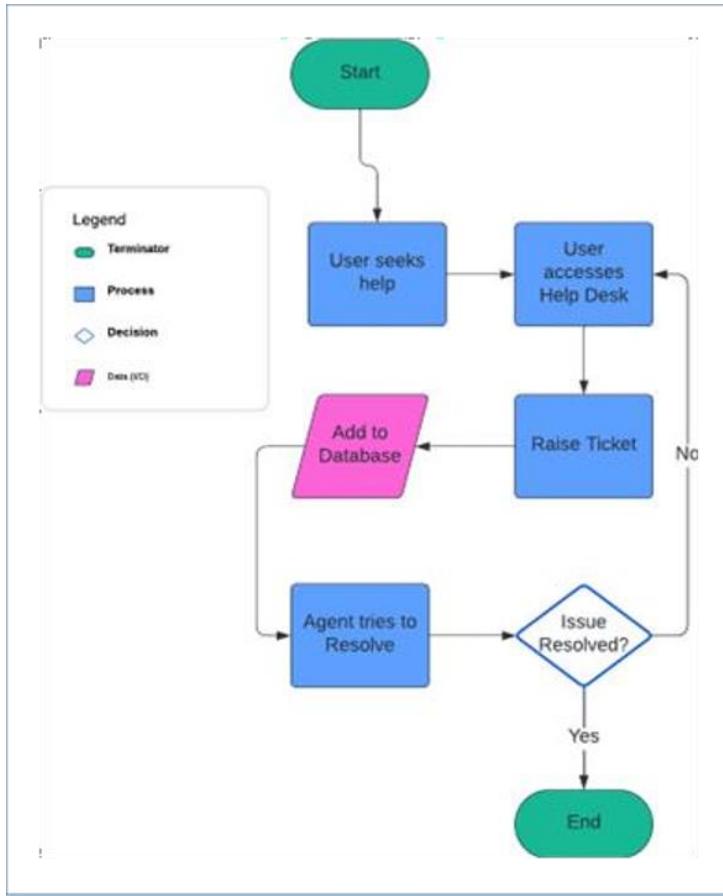


Figure 72: Tickets Helpdesk [10].

## Task 2: Identifying and Leveraging Investment Opportunities

**Scenario:** Ethan, the ambitious entrepreneur, is eager to explore investment avenues for wealth creation. However, he is frustrated with the lack of personalized financial tools that cater specifically to entrepreneurial needs. He wants to identify and leverage investment opportunities that align with his variable income and business goals.

### Use Case:

- Ethan utilizes the help desk of an investment platform, opting for the live chat feature to connect with a financial advisor.
- He seeks guidance specifically on investment strategies tailored for entrepreneurs with variable incomes.
- The support agent offers personalized advice to Ethan's situation and directs him to the platform's resources, including educational materials and investment calculators.
- These resources aid Ethan in making informed decisions aligned with his entrepreneurial journey.

5. Furthermore, Ethan finds the comprehensive FAQs on the help desk to be a valuable reference as he continues to explore and leverage investment opportunities.

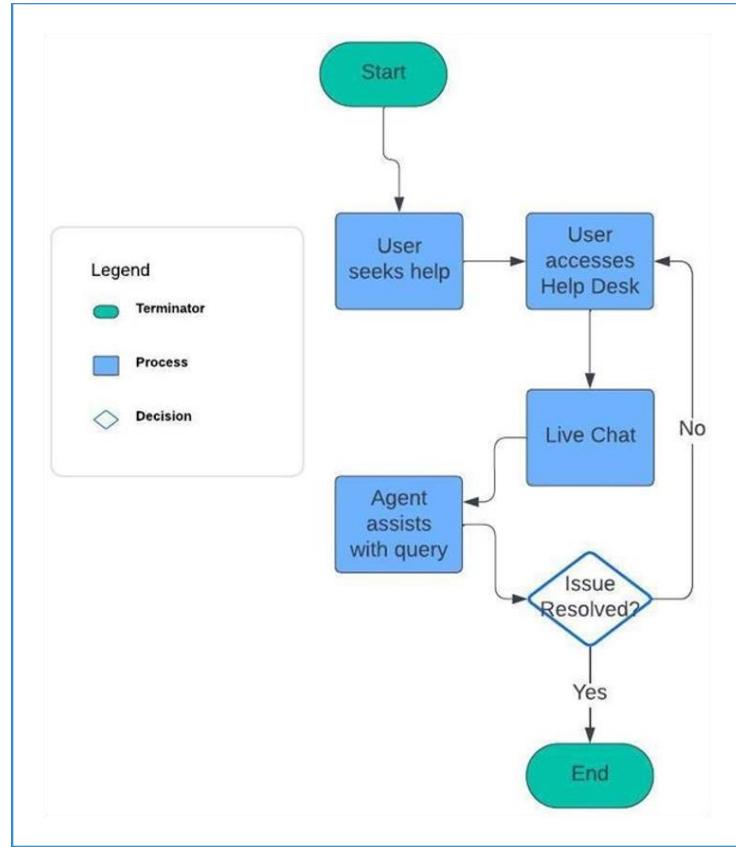


Figure 73: Live Chat Help Desk [10].

#### 4.1.5 Feature: Notifications

##### Task 1: Managing Notifications

**Scenario:** Ethan, the 33-year-old small business owner, is utilizing a financial management platform to handle both his personal and business finances. He often forgets to check his account balance and is unaware of important updates regarding his finances. Ethan wants to receive timely notifications to stay informed about his financial status and any significant events related to his accounts.

##### Use Case:

Ethan configures his notification preferences within the financial management platform to ensure he receives timely updates. He sets up notifications for low balance alerts, bill

reminders, and significant account transactions. One day, Ethan's business account balance falls below the threshold he set. The financial management platform detects this and sends him a notification immediately.

Ethan receives the notification on his smartphone, alerting him about the low balance in his business account. He takes prompt action to transfer funds from his personal account to cover the shortfall, preventing any potential issues with payments or transactions. Additionally, Ethan receives a notification reminding him of an upcoming bill payment for his business utilities.

He appreciates the timely reminder and ensures that the bill is paid before the due date, avoiding late fees or service interruptions.

These notifications help Ethan stay on top of his finances and manage both his personal and business accounts effectively.

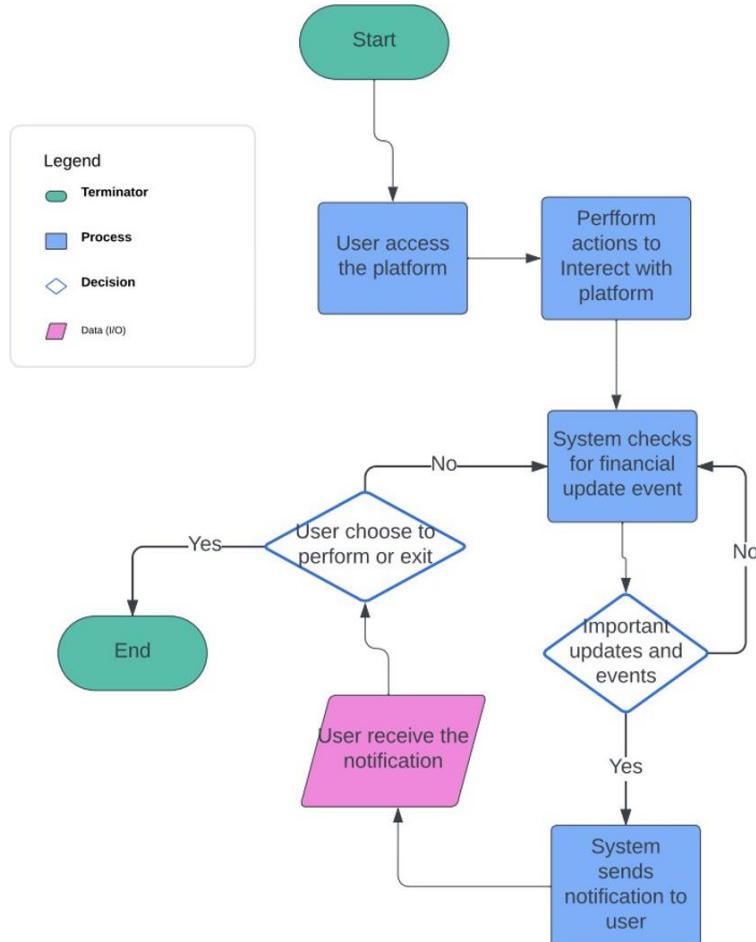


Figure 74: Notifications [10].

## **4.1.6 Feature: Expense Management**

### **Task 1: Add The Expense**

**Scenario:** Ethan is an entrepreneur spending lots of money every month without keeping track of expenditures. So, he has created an account on the application. Now he wants to add his expenses for the meal he had in the afternoon.

#### **Use Case:**

1. Ethan Logs into the application.
2. Ethan clicks on the Add Expense button.
3. Ethan enters the description, price, category, and type (paid/received).
4. Ethan hits the enter button.

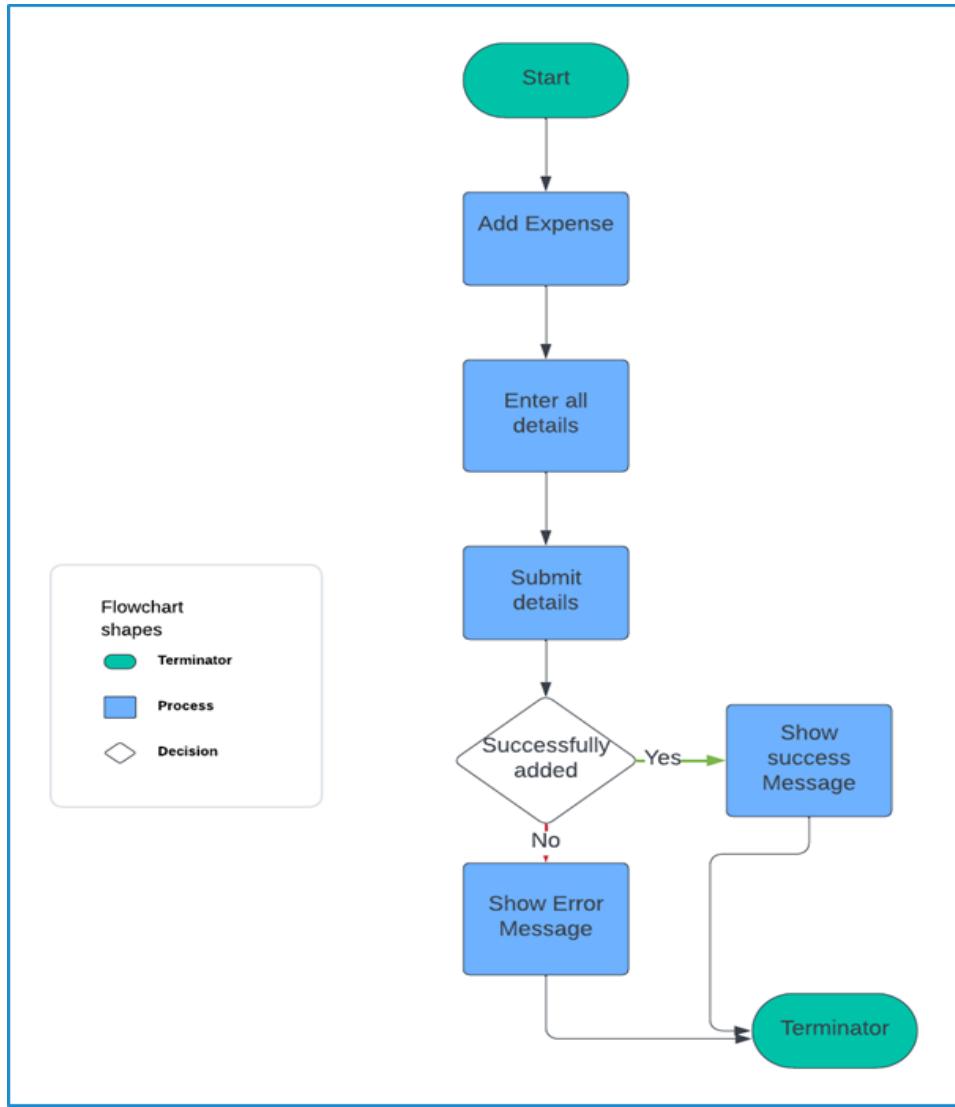


Figure 75: Add Expense Task flow [10].

## Task 2: Update The Expense

**Scenario:** Now Ethan regularly adds his expenses on the application. He can now track his expenses and is pretty much satisfied with the application but suddenly he realizes that he had added his electricity bill accidentally 200\$

instead of 100\$. Now he wants to update the expense.

### Use Case:

1. Ethan Logs into the application.
2. Ethan goes to all expenses.

3. He selects the electricity bill expense
4. He clicks on the edit expense button.
5. He changes the amount.
6. Press the Enter button.

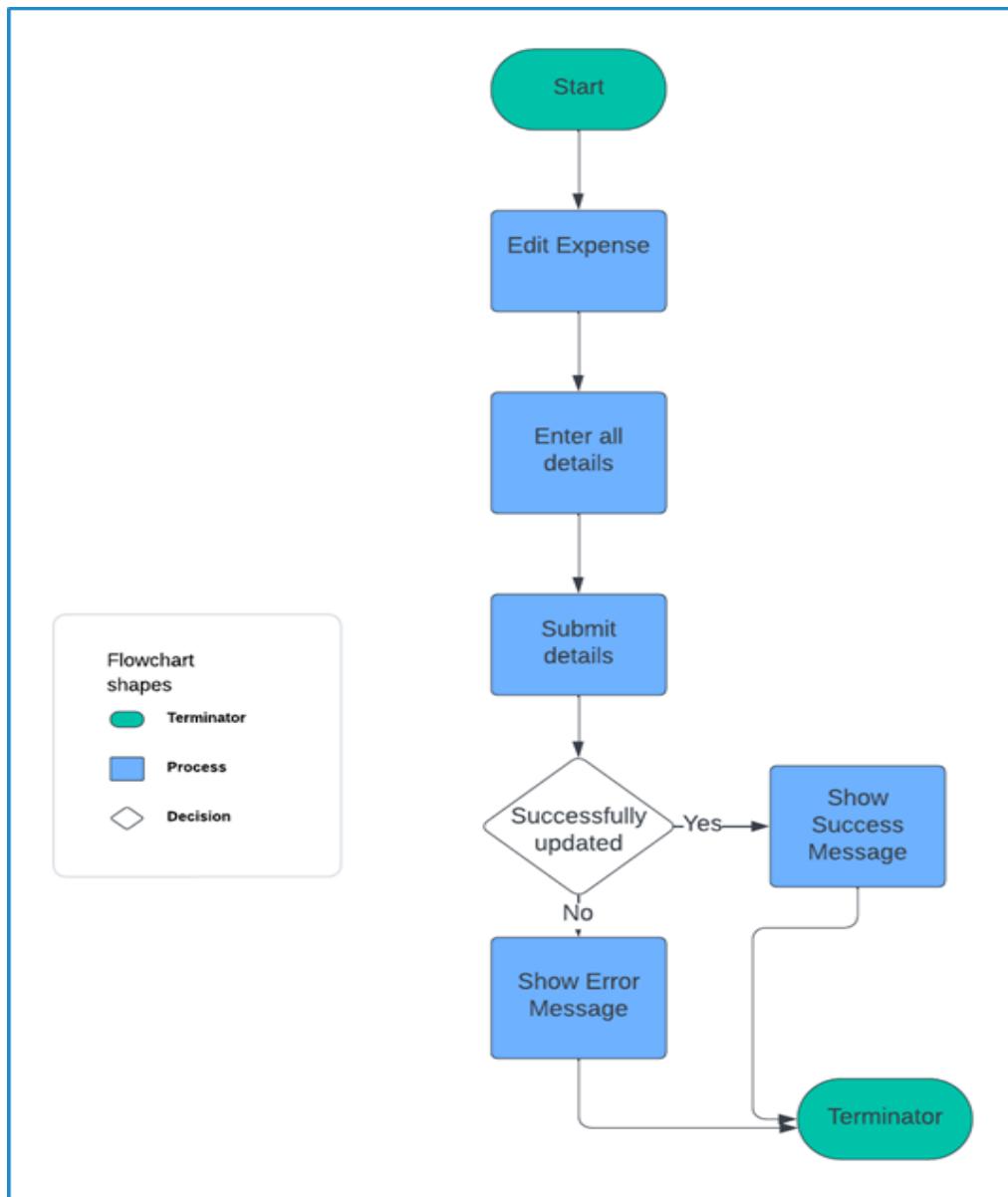


Figure 76: Edit Expense task flow [10].

### Task 3: Delete the Expense

**Scenario:** Ethan has added one entry for his Taxi expense of 35 dollars, but he got to know that he had a promotional offer, so he didn't pay anything. Now he wants to delete that entry of Taxi.

### Use Case:

1. Ethan logs into the application.
2. Ethan goes to all expenses.
3. He selects the Taxi fare expense.
4. He clicks on the delete button.
5. He confirmed that he wants to delete it.
6. Now expense is deleted.

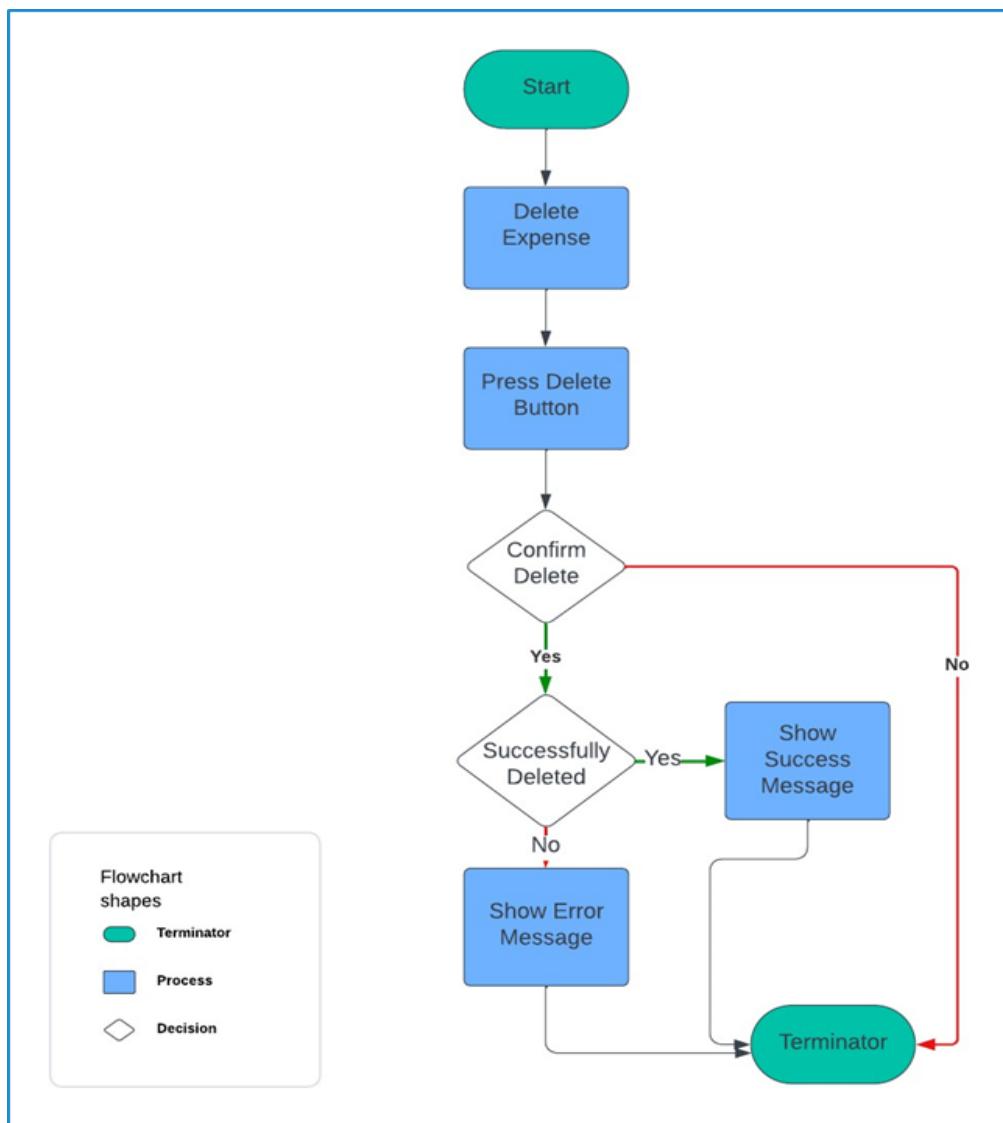


Figure 77: Delete expense task flow [10].

#### 4.1.7 Feature: Calendar View

##### Task 1: Calendar View for Managing Payment Due Dates

**Scenario:** Ethan wants to see all his payment due dates so he can remember to pay on time.

**Preconditions:**

- Ethan is logged into the application.
- Ethan has access to the calendar feature.
- There are existing payment due dates recorded in Ethan's account.

**Use Case:**

1. Ethan navigates to the calendar view section within the application.
2. The system displays a monthly calendar view with all the due dates for payments highlighted.
3. Ethan selects a specific date to view the payment details associated with it.
4. The system presents a list of payments due on the selected date.
5. Ethan chooses a payment entry from the list.
6. If Ethan has made the payment:
  - a. Ethan selects the payment entry.
  - b. Ethan marks the payment as "paid."
  - c. The system updates the payment status accordingly.
7. If Ethan wants to add a reminder:
  - a. Ethan selects the payment entry.
  - b. Ethan chooses the "Add Reminder" option.
  - c. Ethan sets the reminder date and time.
  - d. The system saves the reminder.
8. If Ethan decides to delete a payment entry:
  - a. Ethan selects the payment entry.
  - b. Ethan chooses the "Delete" option.
  - c. The system prompts Ethan for confirmation.
  - d. Ethan confirms the deletion.
  - e. The system removes the payment entry from the calendar view.

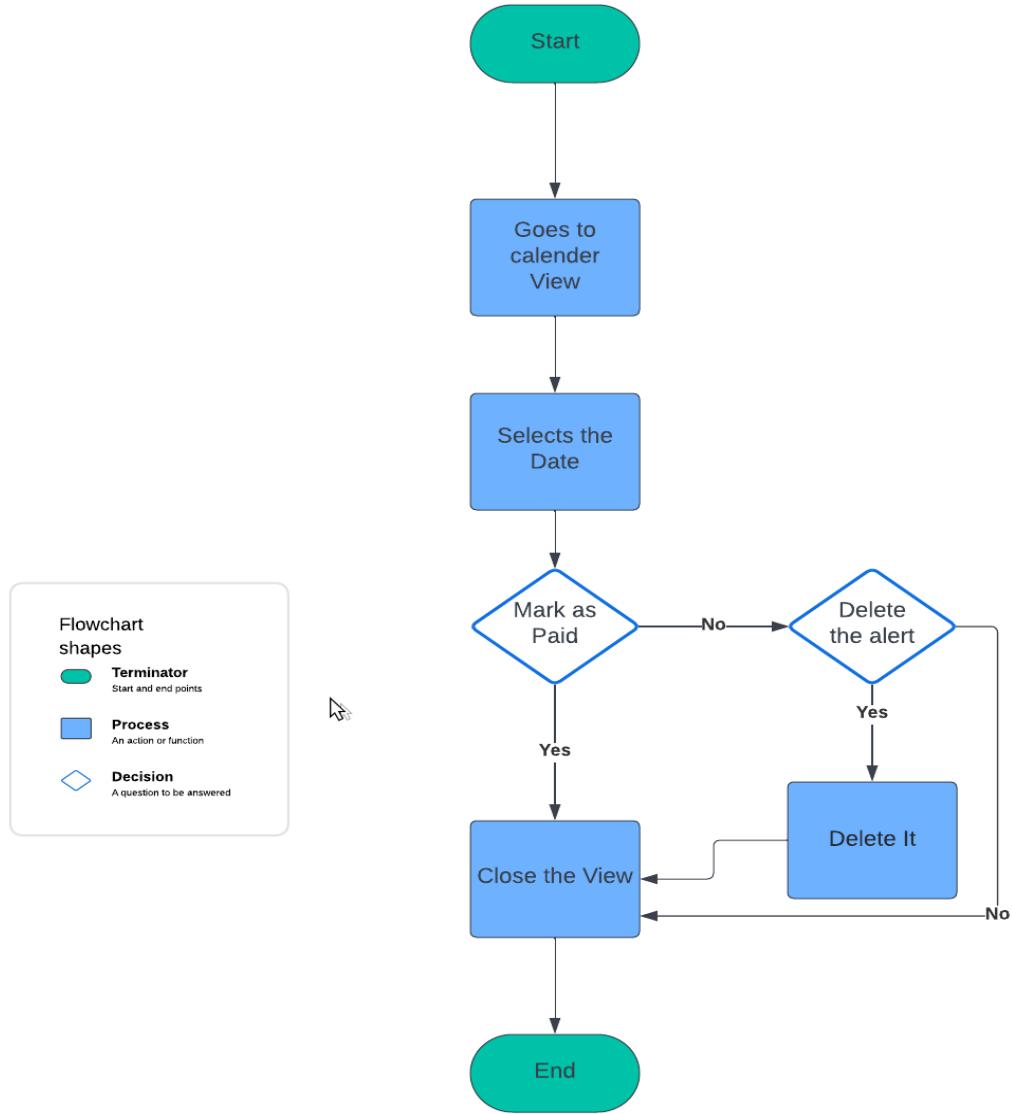


Figure 78: Calendar view task flow [10].

#### 4.1.8 Feature: OKR - Objective Key Results/Goal Tracker Implementation for Financial Goal Achievement

**Scenario:** Ethan, a small business owner, has set a financial goal to increase his business revenue by a certain percentage over the next quarter. He wants to ensure that he stays focused on achieving this business growth objective. To support his efforts, Ethan plans to use the OKR (Object Key Results) feature in the Goal Tracker application.

##### Task 1: Define Financial Growth Objective

### **Use Case 1:** Normal Flow

1. Entrepreneurial Ethan navigates to the OKR feature within the application.
2. He clicks on the "New Objective" button to define a new financial goal.
3. The system presents a form where Ethan enters the financial objective details (e.g., increase business revenue by 20%).
4. Ethan establishes a timeframe for achieving the objective (e.g., next quarter).
5. He saves the objective, and the system confirms the successful creation.

### **Use Case 2:** Alternate Flow (Cancel Creation)

1. If Ethan decides to cancel creating a new objective:
2. He clicks the "Cancel" button.
3. The system returns to the main OKR interface without saving the new objective.

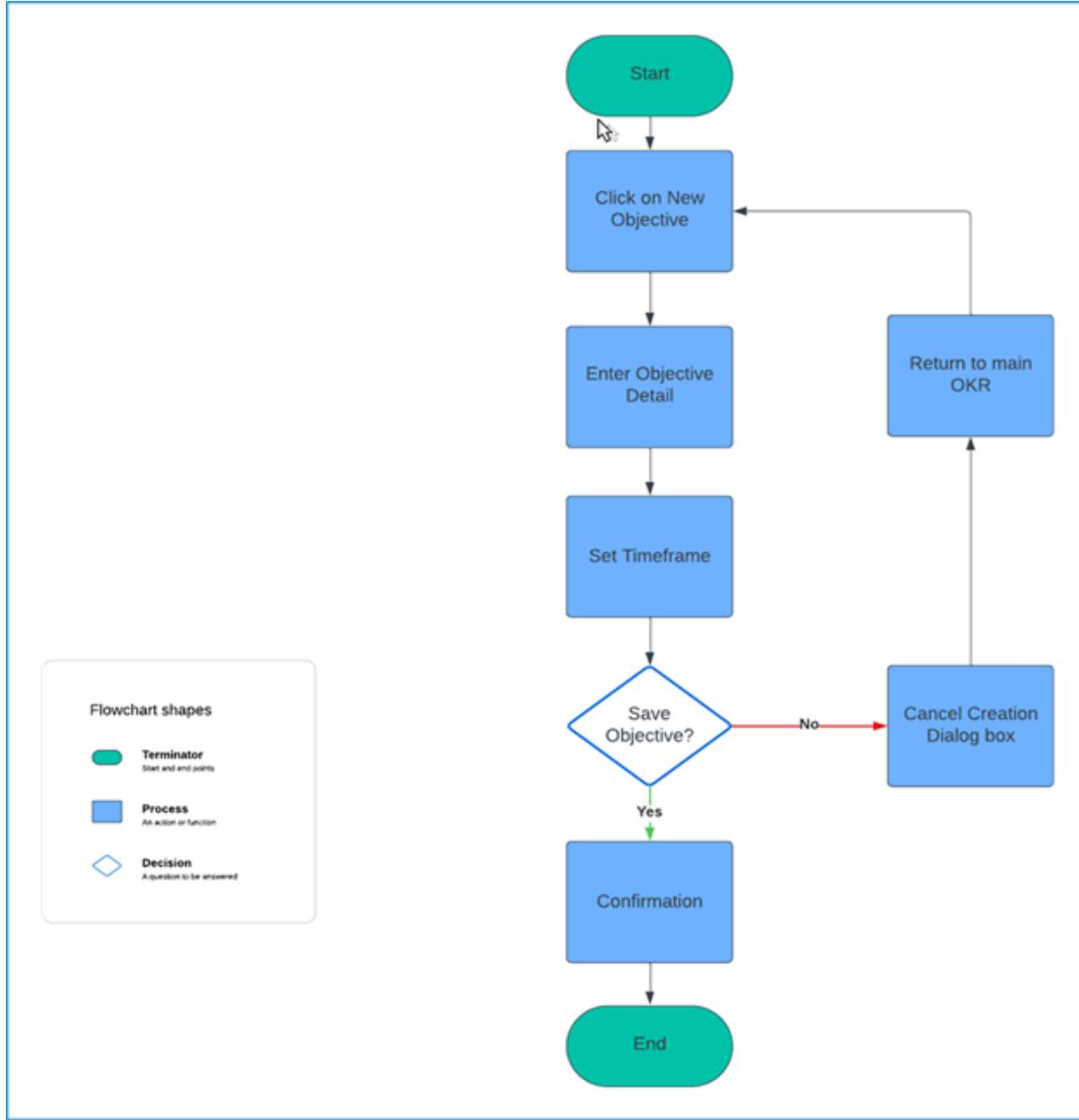


Figure 79: Add new Objective [10].

## Task 2: Set Key Results for Financial Growth Objective

### Use Case 1: Normal Flow

1. Ethan navigates to the OKR feature within the application.
2. He selects the active financial objective he previously defined.
3. The system displays the details of the objective.
4. Ethan clicks on the "Set Key Results" button to add measurable outcomes aligned with the financial goal (e.g., increase online sales by 15%, acquire 20 new clients).
5. The system automatically calculates and displays progress indicators for each Key Result.
6. Ethan saves the Key Results, and the system confirms the successful addition.

### Use Case 2: Alternate Flow (Skip Key Results)

1. If Ethan decides not to add Key Results at the moment:
2. He skips the Key Results section.
3. The system retains the financial objective without specific Key Results.

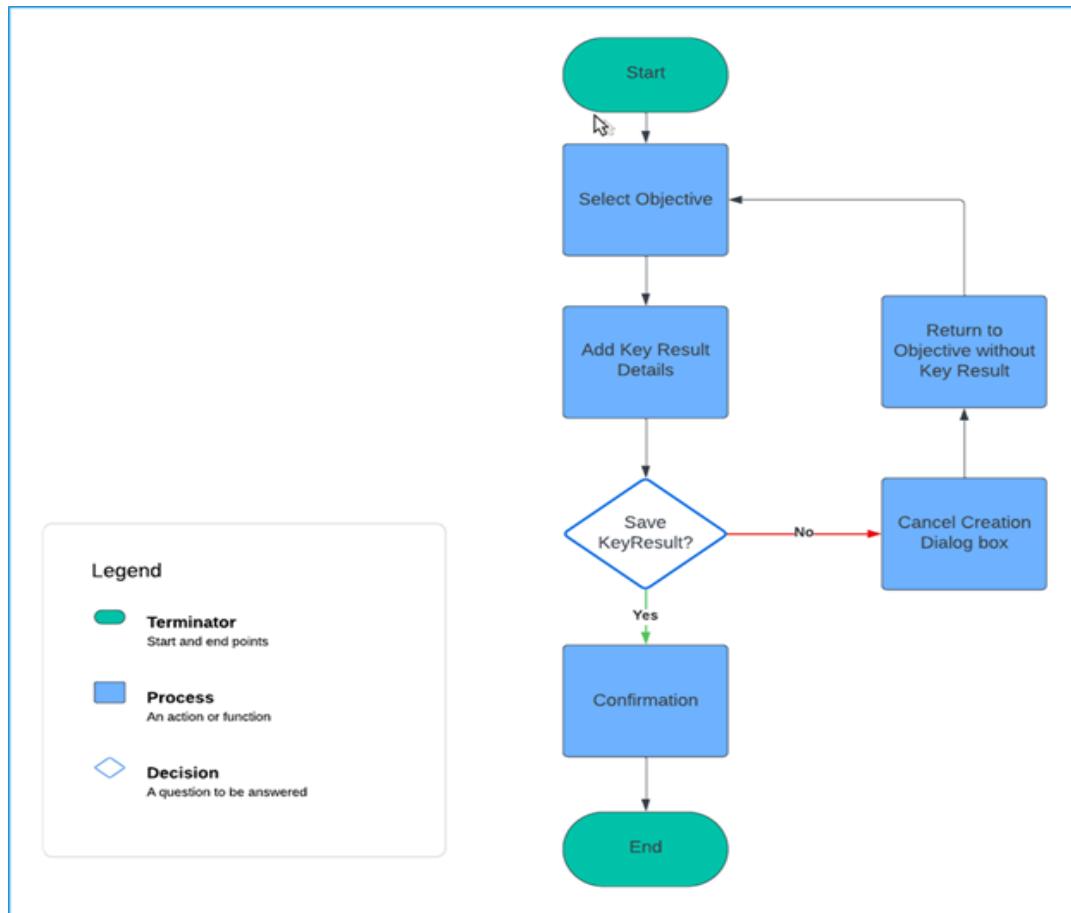


Figure 80: Add key Result for an Objective [10].

### Task 3: Track Progress Towards Financial Growth Objective

#### Use Case 1: Normal Flow

1. Ethan accesses the OKR feature within the application.
2. He selects the financial growth objective he wants to track.
3. The system displays the progress indicators for each Key Result.
4. Ethan reviews the progress towards each Key Result and overall objective.

#### Use Case 2: Alternate Flow (No Progress Indicator).

1. If there are no progress indicators available:

1. The system informs Ethan that there is no data available for tracking progress.
2. Ethan acknowledges the message and continues with other tasks.

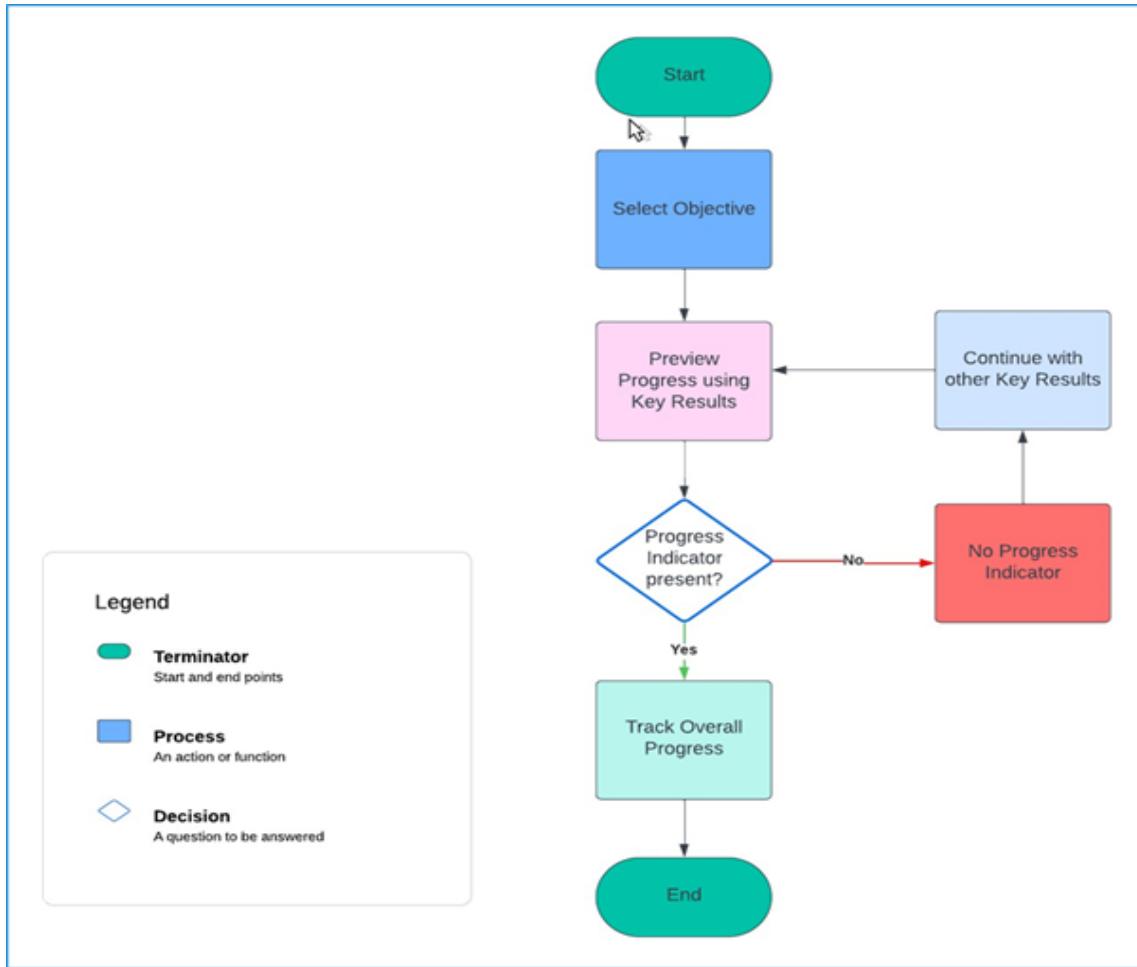


Figure 81: Add a Key Result for an Objective [10].

#### Task 4: Edit Financial Growth Objective

##### Use Case 1: Normal Flow

1. Ethan accesses the OKR feature within the application.
2. He selects the financial growth objective he wants to edit.
3. The system displays the details of the objective, including the current settings.
4. Ethan makes the necessary changes to the objective details or timeframe.
5. He saves the changes, and the system confirms the successful update.

##### Use Case 2: Alternate Flow (Cancel Edit)

1. If Ethan decides to cancel editing the objective:
  1. He clicks the "Cancel" button.
  2. The system discards the changes and returns to the main OKR interface.

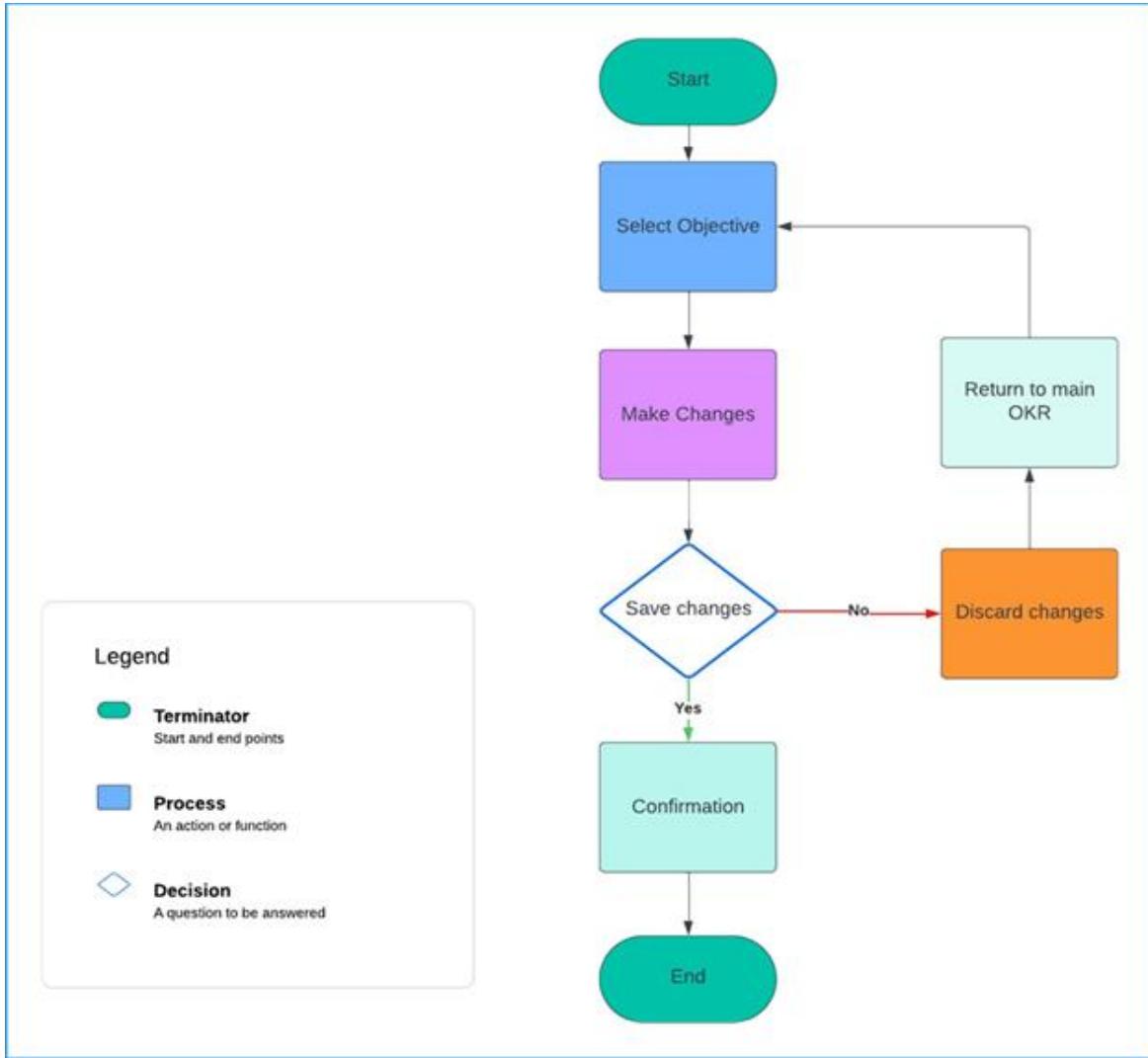


Figure 82: Edit OKR [10].

### Task 5: Delete Financial Growth Objective

#### Use Case 1: Normal Flow

1. Ethan accesses the OKR feature within the application.
2. He selects the financial growth objective he wants to delete.
3. The system displays a confirmation prompt to ensure Ethan wants to proceed with the deletion.
4. Ethan confirms the deletion action.
5. The system removes the objective from the list and confirms the successful deletion.

### Use Case 2: Alternate Flow (Cancel Deletion)

1. If Ethan decides to cancel deleting the objective:
  1. He cancels the deletion action.
  2. The system returns to the main OKR interface without removing the objective.

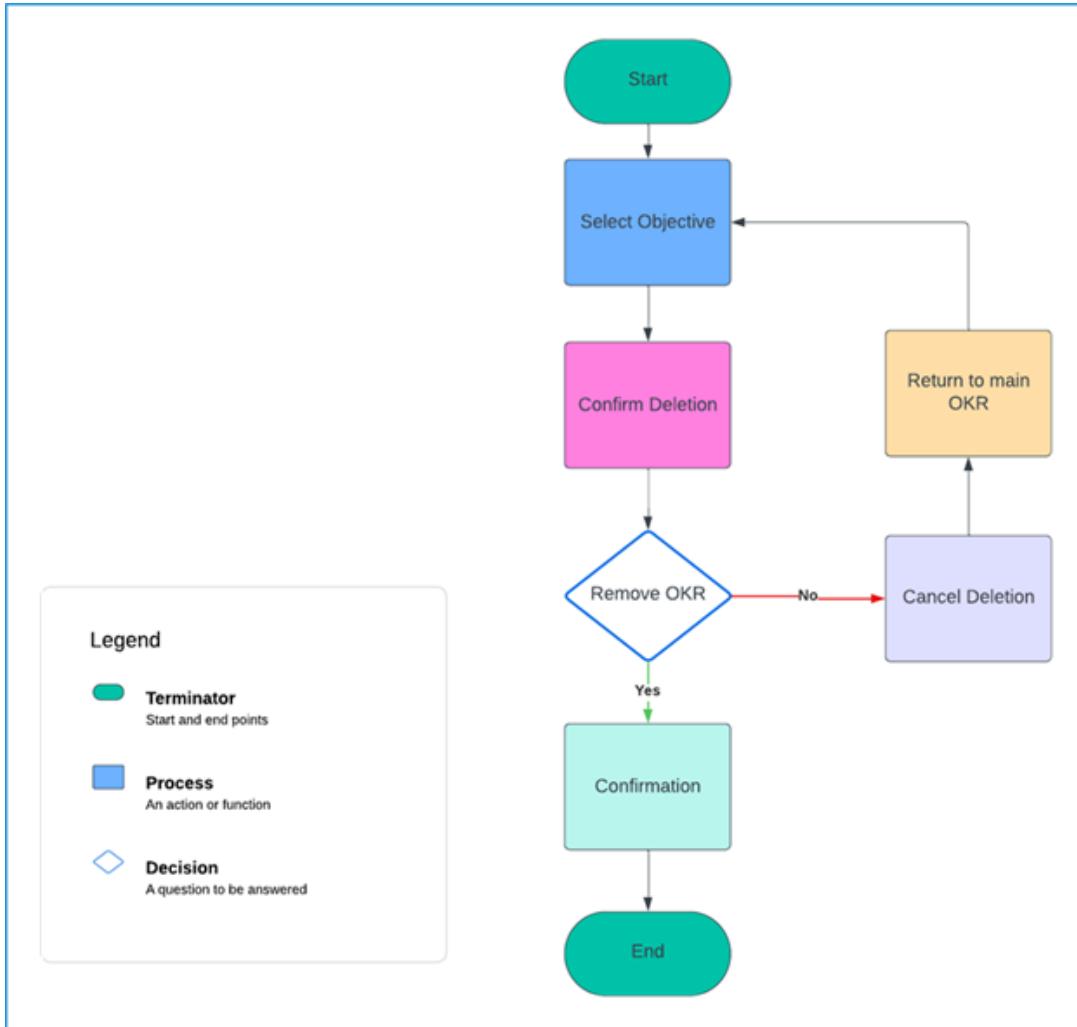


Figure 83: Delete OKR [10].

### 4.1.9 Feature: Pro Subscription: Payment, Dashboard (Flip UI)

#### Task 1: Payment gateway for the subscription

**Scenario:** Petra has been using the Financial Management Platform diligently to keep track of her family's budget and savings. One day, as she explores the platform, she notices the Pro Subscription that offers additional features to enhance her financial planning. Petra decides to upgrade to the Pro version to access these premium features. As she initiates the subscription process, she encounters a seamless and secure payment gateway integrated into the platform. The platform guides her through a straightforward payment process. She looks

forward to exploring the exclusive features that will help her achieve her family's financial goals.

### Use Case:

1. Petra logs into her Financial Management Platform account, ready to explore the benefits of the Pro plan.
2. She navigates to the subscription section by clicking on the "Upgrade to Pro" option prominently displayed on the platform.
3. The system guides her to a dedicated subscription page, presenting the advantages and features of the Pro plan.
4. After reviewing the benefits, Petra selects the Pro plan and proceeds to the integrated payment gateway.
5. The payment gateway provides Petra with various secure payment options, and she chooses to pay with her preferred method.
6. Petra enters her payment details, ensuring a seamless and secure transaction.
7. The system processes the payment and promptly confirms the successful upgrade to the Pro plan.
8. Petra now has immediate access to premium features, including advanced budget tracking and personalized savings recommendations.

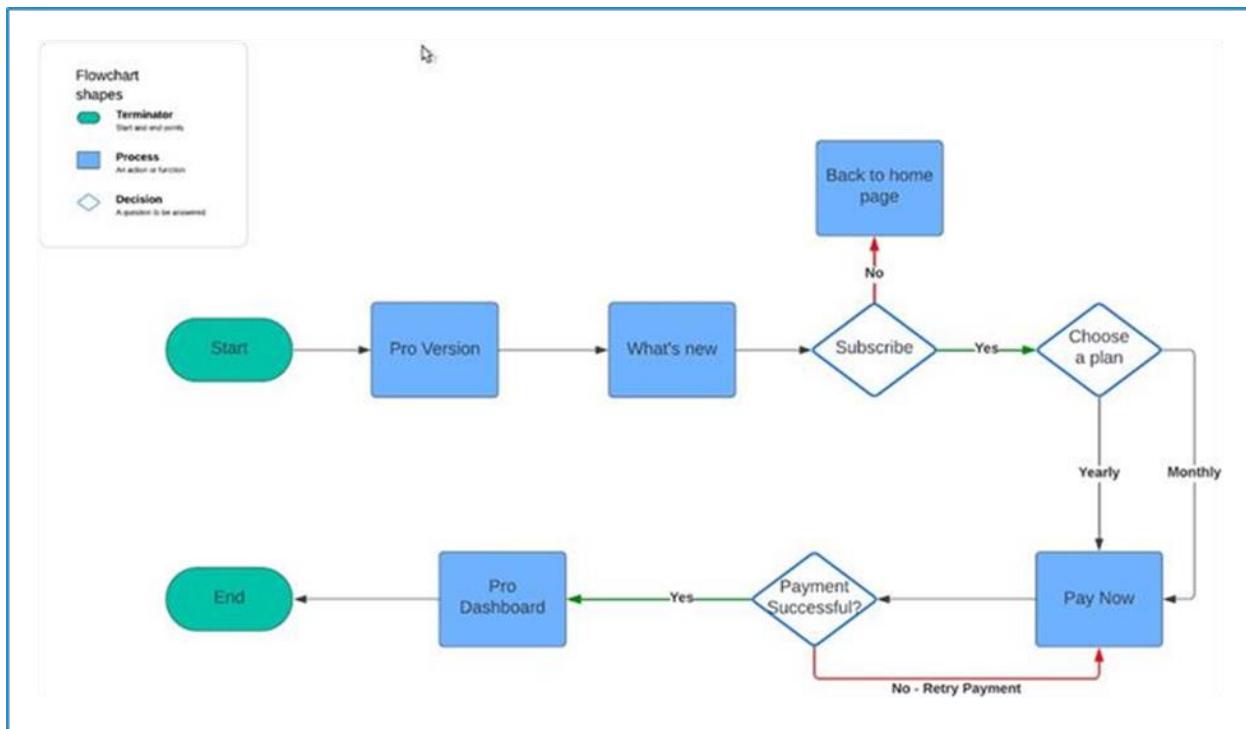


Figure 84: Task flow for payment process of pro [10].

### Task 2: Dashboard with Additional Features for Pro Users

**Scenario:** After successfully subscribing to the Pro plan, Petra is eager to explore the enhanced features on the upgraded dashboard. She logs into her account and is greeted by a revamped interface tailored for Pro users. The

dashboard now displays a comprehensive goal-setting tool that allows her to plan for major life events. She decides to set a long-term goal of saving for children's education. The platform guides her through a personalized savings plan, considering her current financial situation and offering realistic milestones to achieve over the next decade. She also ventures into the "Credit Score Insights" section. The upgraded dashboard displays her current credit score. This upgraded dashboard meets Petra's expectations and empowers her to proactively plan for significant life events.

### **Use Case:**

1. Petra logs into the Financial Management Platform, having recently subscribed to the Pro plan.
2. Navigating to the newly designed dashboard, she discovers distinct sections for "Credit Score Insights" and "Financial Goals."
3. Intrigued by the prospect of improving her financial health, Petra clicks on "Credit Score Insights."
4. The system displays her current credit score, along with personalized tips on how to enhance it.
5. Satisfied with the insights, Petra then moves to the "Financial Goals" section to set a specific long-term objective, like saving for her children's education.
6. Clicking on the "Set Financial Goal" button, Petra inputs the details, such as the targeted amount and the desired timeframe.
7. The system not only calculates the periodic savings required but also provides achievable milestones to track progress.
8. Encouraged by the seamless goal-setting process, Petra proceeds to the "Objectives & Key Results" module within the dashboard.
9. Here, she sets a specific Key Result related to her goal, for instance, saving a certain percentage of the targeted amount within a defined period.
10. After confirming her Key Results, the system automatically calculates and displays progress indicators for each measurable outcome.
11. Petra saves the Key Results, and the platform confirms the successful addition, providing her with a visual representation of her financial objectives and progress.

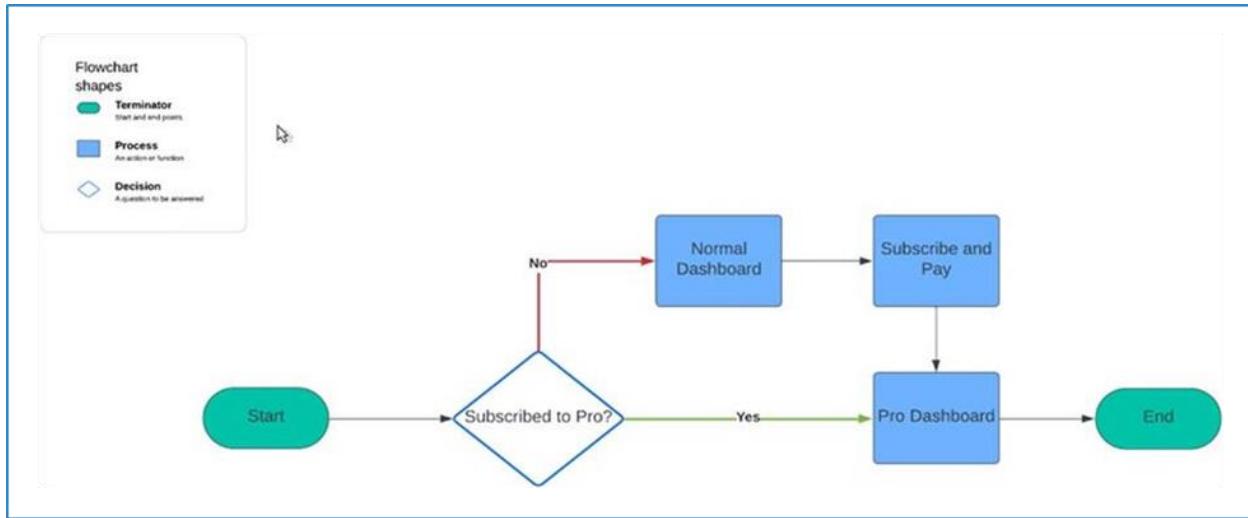


Figure 85: Task flow for the pro dashboard [10].

#### 4.1.10 Feature: Reminders management

##### Task 1: Add The Reminder

**Scenario:** Ethan is an entrepreneur forgetting lots of his payment due dates and end up having penalties for late payment or missing out on services.

##### Use Case:

1. Ethan Logs into the application.
2. Ethan clicks on the Add Reminder button.
3. Ethan enters all the necessary details.
4. Ethan hits the enter button.

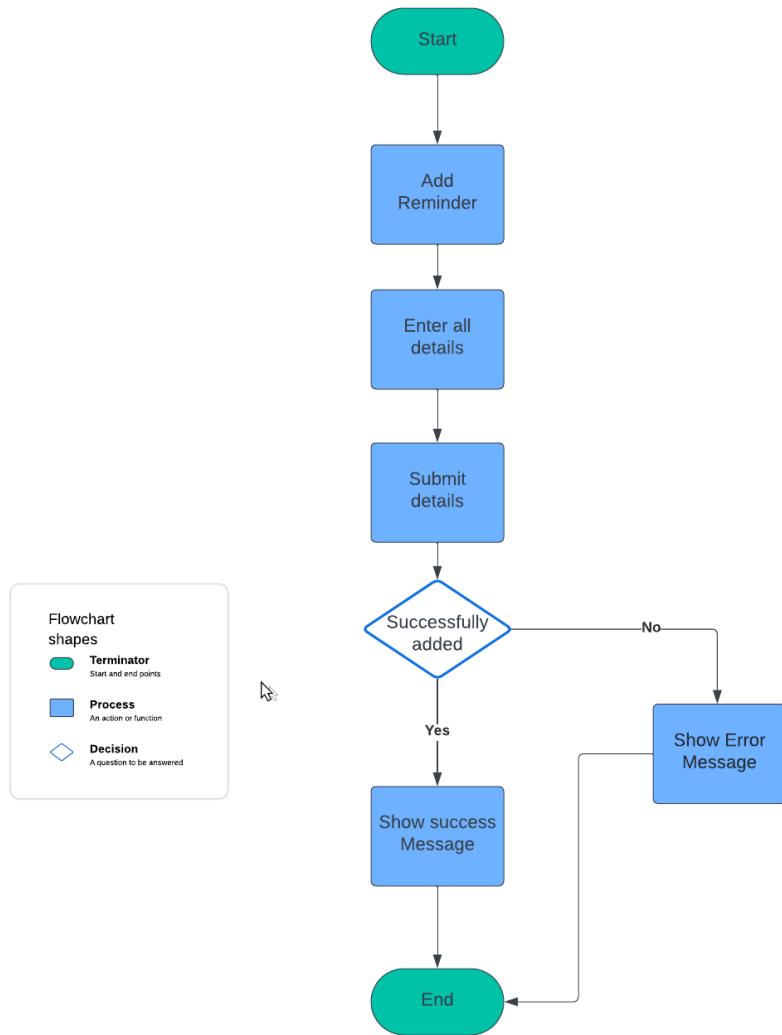


Figure 86: Add Reminder [10].

## Task 2: Update The Reminders

**Scenario:** Now Ethan regularly adds his reminders on the application. He doesn't forget all of his payments due dates but while creating a reminder he accidentally added his electricity bill payment as a one-time reminder instead of monthly. Now he wants to update his reminder.

### Use Case:

1. Ethan Logs into the application.
2. Ethan goes to all reminders.
3. He selects the electricity bill reminder.
4. He clicks on the edit reminder button.
5. He changes the its occurrence and selects the duration.
6. Press the Enter button.

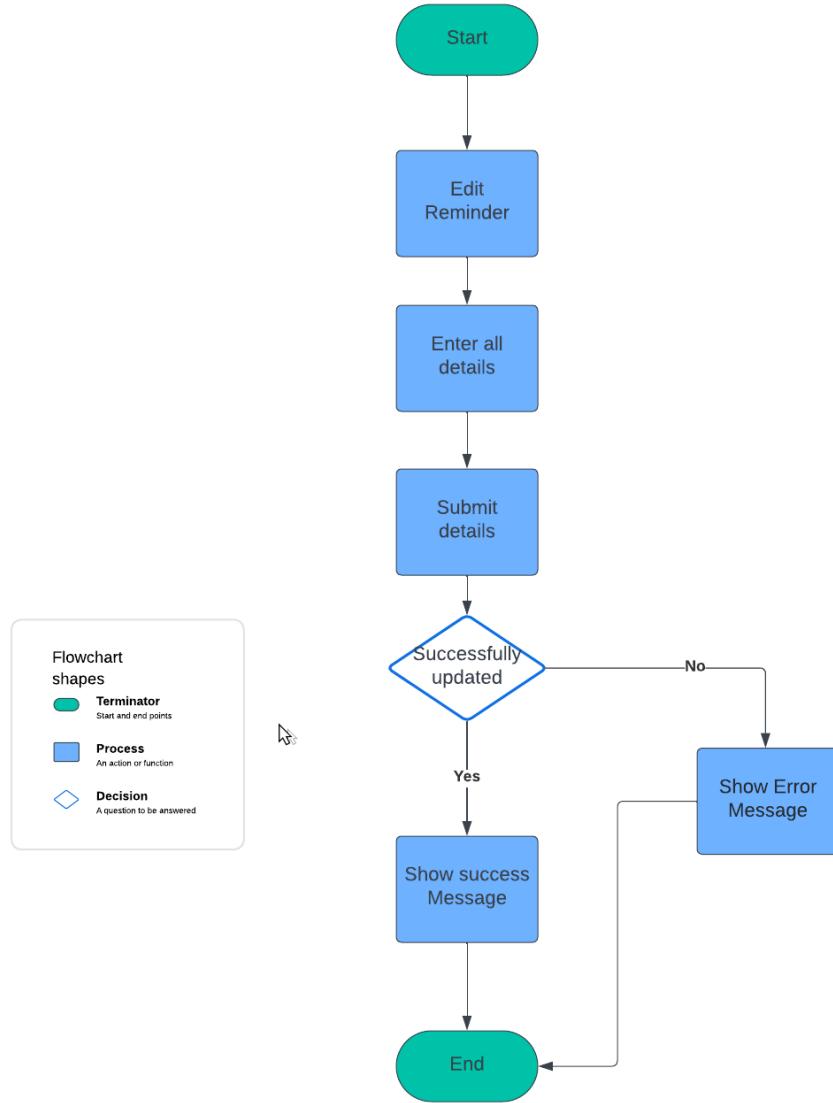


Figure 87: Edit Reminder [10].

### Task 3: Delete the Reminder

**Scenario:** Ethan has added his reminder for Netflix subscription payment. But now he is not using Netflix anymore. So, he decides to delete the reminder.

#### Use Case:

1. Ethan logs into the application.
2. Ethan goes to all reminders.
3. He selects the Netflix reminder.

4. He clicks on the delete button.
5. He confirmed that he wants to delete it.
6. Now the reminder is deleted.

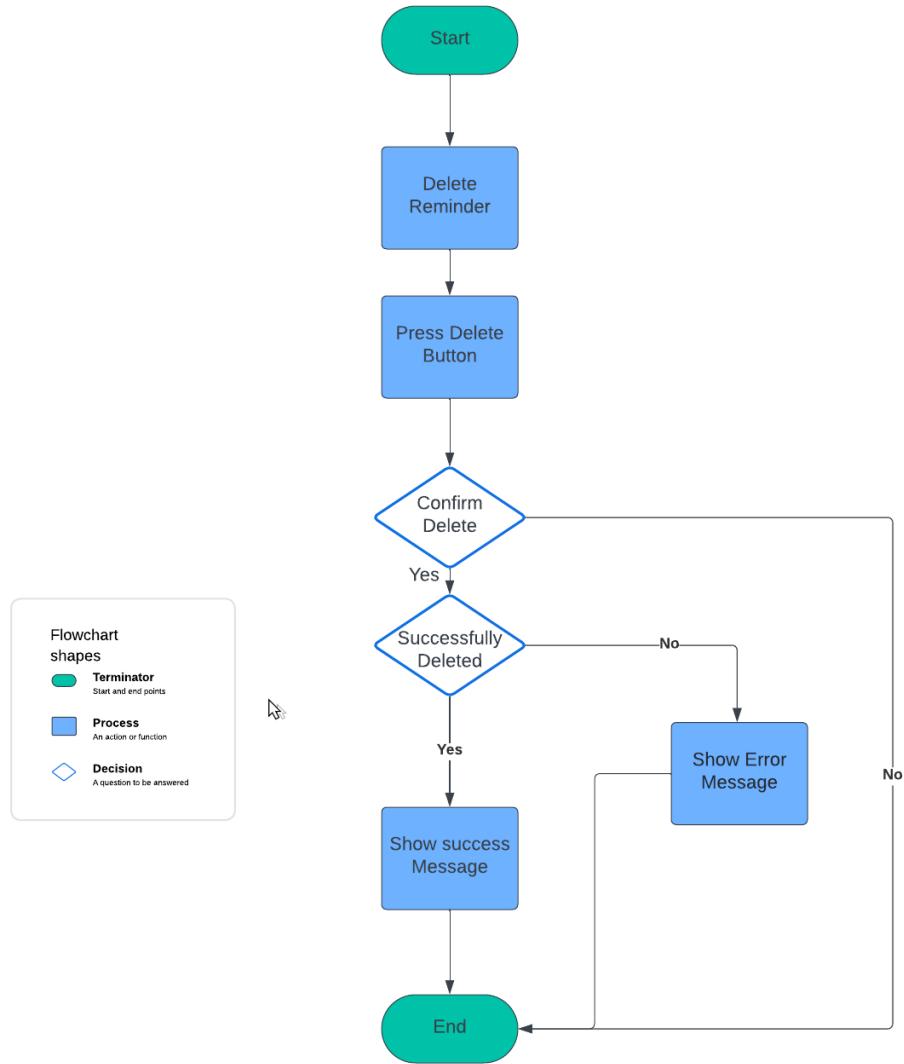


Figure 88: Delete Reminder [10].

#### 4.1.11 Feature: Document Upload

##### Task 1: Upload Document

**Scenario:** The user wants to upload financial data for analysis.

##### Use Case:

1. The user accesses the application.
2. The user navigates to the file upload section.
3. The user selects the financial data file from their device.

4. The system validates the uploaded file.
5. If the file is valid, the system extracts and processes the data.
6. The system generates insightful reports based on the processed data.
7. The user can view the generated reports for financial analysis and decision-making.

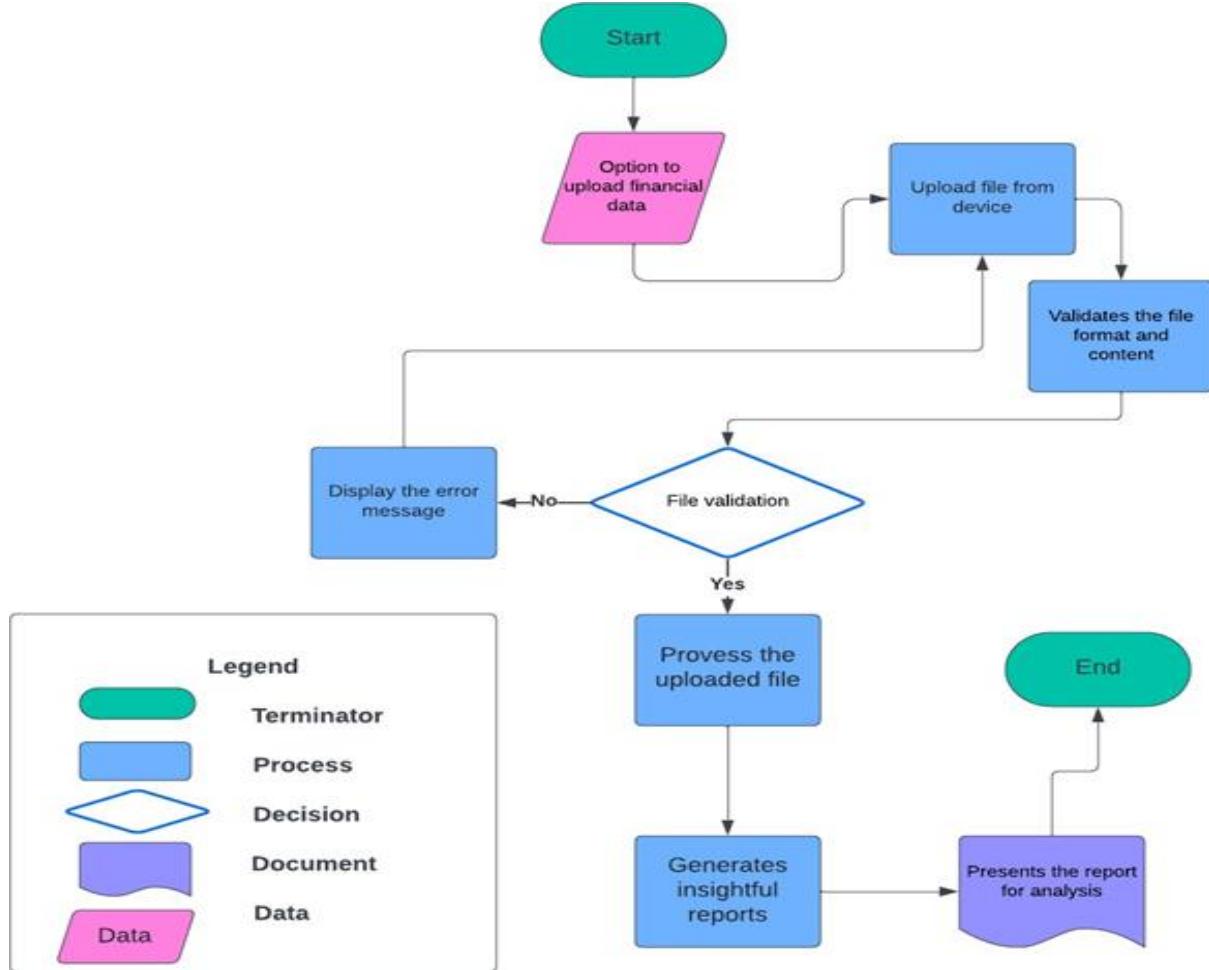


Figure 89: Document upload task flow [10].

#### 4.1.12 Feature: Budget Planner

##### Task 1: Budget Planning

**Scenario:** The user wants to plan their budget using the application.

**Use Case:**

1. The user accesses the application.
2. The user navigates to the budget planner section.
3. The user sets their budgeting preferences and financial goals.
4. The user allocates percentages of their budget to different categories (e.g., housing, food, savings).

5. The system implements the Critical Allocation Percentage (CAP) system to ensure essential categories receive minimum allocations.
6. The system calculates the budget allocation for each category based on the user's inputs and the CAP system.
7. The user can review and adjust the budget allocations as needed.
8. The system monitors the user's financial transactions and alerts them if any budget category exceeds the allocated percentage or deviates from the CAP system.

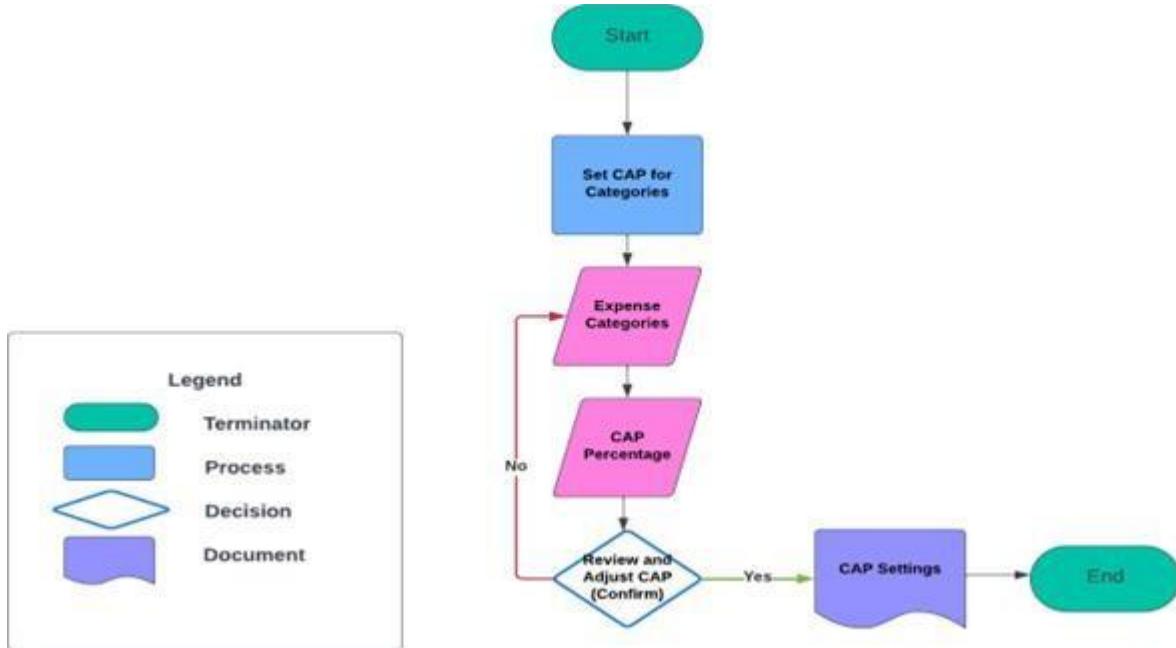


Figure 90: Setting Critical Allocation Percentages (CAP) for Categories flow chart [10].

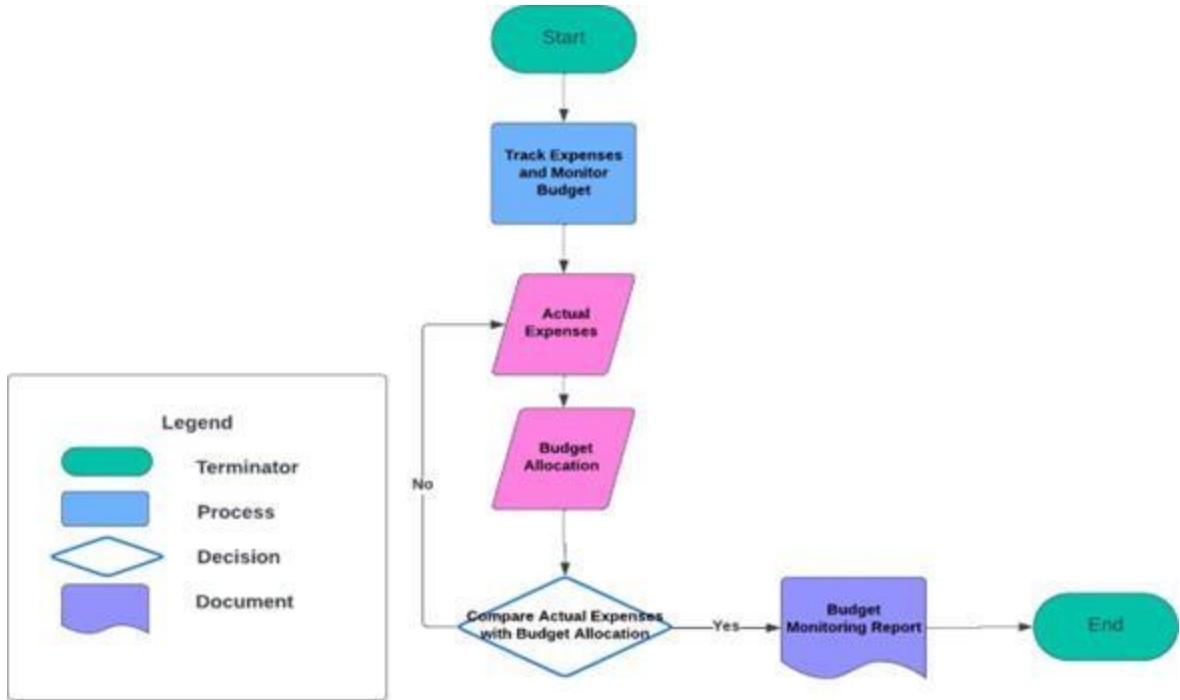


Figure 91: Monitoring and adjusting budget task flow [10].

## 4.2 Process and Service Workflow

For our website, FINtastic, we've adopted the MERN stack along with JWT for authentication. This architectural choice leverages MongoDB for data storage, ExpressJS for backend development and integration with MongoDB, and ReactJS for the frontend interface using Material UI components. This setup ensures efficient handling of data structures, robust business logic management, and accelerated performance for seamless user experiences.

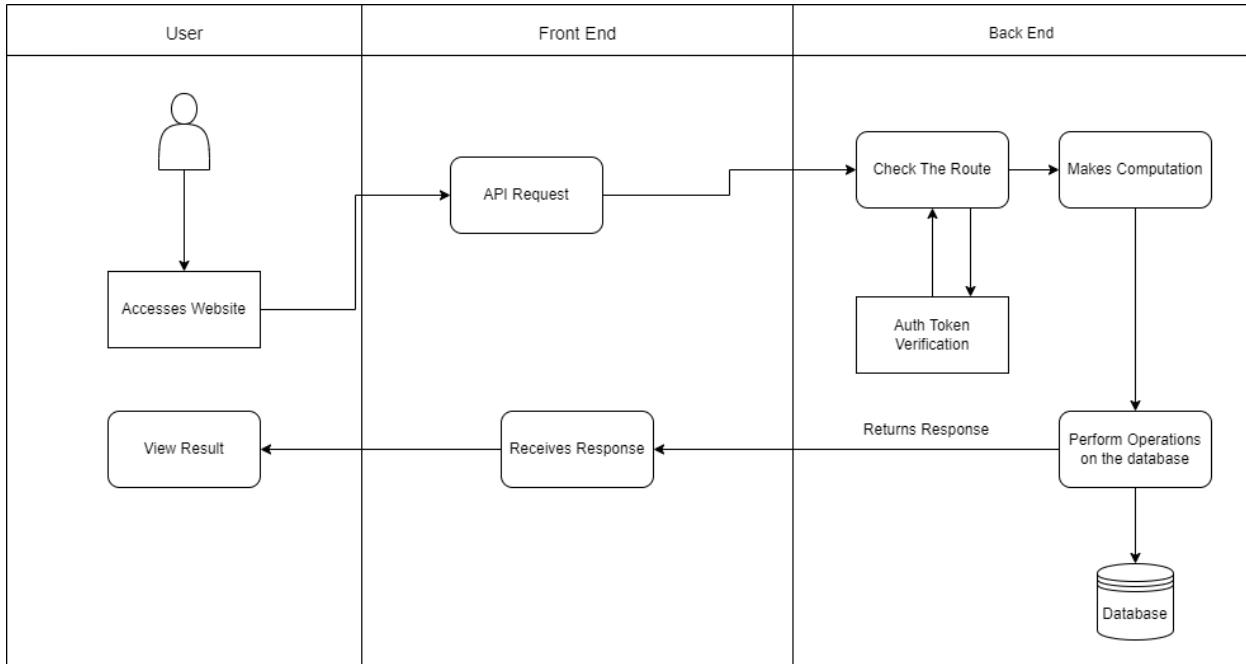


Figure 92: Process workflow diagram (FINtastic) [13][14]

## **5. Asset Inventory**

### **5.1 Presentation Tier**

- ReactJS – A powerful JavaScript library for building interactive user interfaces.
- Material UI – An open-source React component library for creating stylish and responsive UI designs.
- Antd - An open source React for designing and creating forms to take input from the user.
- React-simple-chatbot - A simple chatbot component to create conversation chats.

### **5.2 Application Tier**

- NodeJS – An efficient and scalable JavaScript runtime environment for server-side applications.
- ExpressJS – A minimalist and flexible Node.js web application framework for building robust APIs.
- JWT (JSON Web Tokens) – A compact and secure method for transmitting information between parties as JSON objects.

### **5.3 Database Tier**

- MongoDB – A flexible and scalable NoSQL database system that stores data in JSON-like documents, ideal for handling dynamic and evolving data structures.

### **5.4 Image Storage**

- AWS S3 Bucket: An Object storage service to store all the documents.

## **6. CONCLUSION**

Fintastic offers an outstanding platform for users to efficiently manage their expenses, receive payment reminders, plan budgets, and achieve long-term financial goals through secure and reliable services. It also provides visualizations to depict all the relevant details.

## **7. RECOMMENDATIONS**

To enhance user experience and achieve new milestones in this application, we can integrate additional visualizing graphs for better data representation. Furthermore, implementing end-to-end encryption will ensure a more secure environment for users' data. We aim to provide all

existing features while also introducing multi-user expense-splitting functionality to cater to diverse user needs.

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