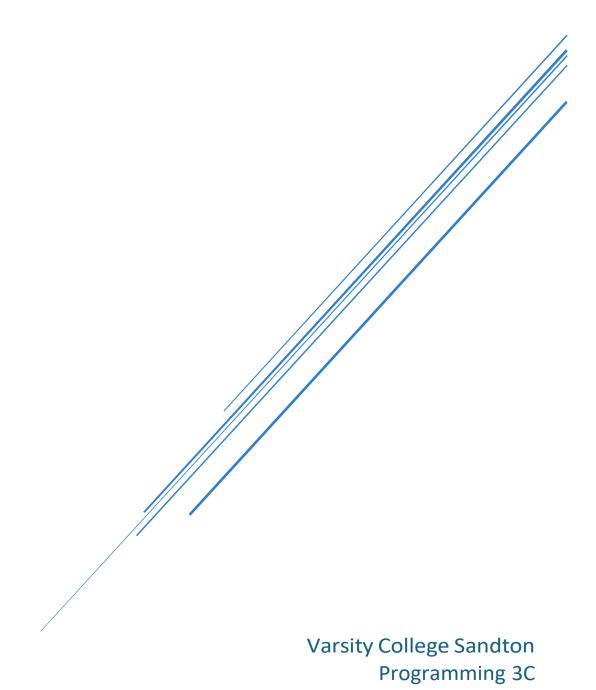
## PROG7313 POE PART 1

KALMM Budgeting



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# Research



## Introduction

Budgeting applications have become an essential component to keeping track of your finances. They are crucial in the assistance of building good budgeting habits and keeping track of you expenditures. When developing a new application it is important to identify what has worked and failed in previous executions of the concept in order to maximize this apps developement.

The objective of this research is to identify best practices and innovative features that can be incorporated into the design of the KALMM Budgeting app. By examining user experience, functionality, gamification elements, and overall usability of 3 already existing budgeting apps this study will provide valuable insights into how an effective personal finance app should be structured. It will give us insights into the strengths, weaknesses and general user experience each app offers which will aid in ensuring the KALMM Budgeting app is developed with a strong foundation.

Muskaan Lazar ST10352526 PROG7313 POE Budget app



#### PocketGuard: A Simple Way to Manage Your Money

#### 1. Introduction

Personal budgeting applications have changed the way people manage their finances by providing an efficient method to track expenses, set savings goals, and regulate spending habits. With many budgeting apps available for Android devices, PocketGuard has gained significant popularity due to its user-friendly design and powerful financial management tools. In this research we will be differentiating and analyzing the features of PocketGuard such as its strengths, weaknesses and innovative features, not forgetting its best features. This will allow us to determine its usefulness as a budgeting solution. PocketGuard has two types of versions, paid and free version which also includes additional features that are available for premium users. PocketGuard's main aim is to ensure and assist users by controlling their expenses so that they may have a transparent view of their financial status.

#### 2. Overview of PocketGuard

PocketGuard is a renowned budgeting app that helps users manage their finances by managing income, reducing expenses and tracking financial status. PocketGuard is also a user-friendly budgeting app that helps users track their savings after all expenses are paid for. *In my Pocket*, which is an innovative feature of PocketGuard, allows users to see their available balance within a budget.

#### **Innovative Features**

- "In My Pocket" Feature: Allows users to see their remaining savings balance they have after all expenses and utility essentials are paid.
- **Expense tracker:** Categorizes transactions made by the user allowing them to see their purchasing pattern.
- **Budgeting tools:** Allows users to easily set their expenditure limits and financial aims.
- **Debt plan:** Helps users with a manageable plan to pay off their debts.
- **Automatic Bill Detection:** PocketGuard hs the ability to see recurring payments and is able to help users by recommending cheaper ways to help them save.

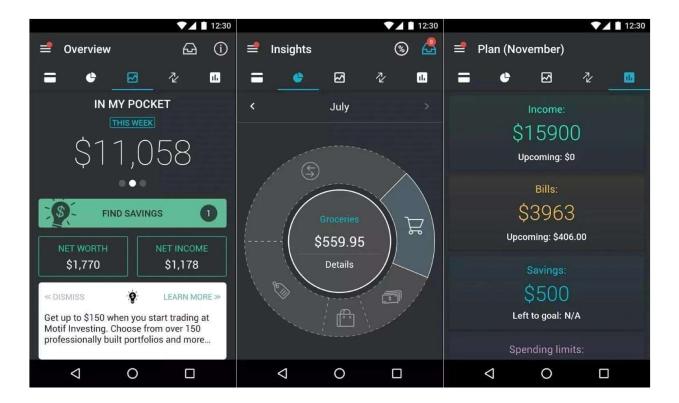
• **Security features:** Users financial data is safe and secure as PocketGuard uses advanced encryption.



#### 3. Strengths and Weaknesses of PocketGuard

#### **Strengths**

- **User-friendly interface:** PocketGuard's easy-to-use design makes budgeting simple for beginners as it provides a hassle-free experience.
- Automated expense categorization: Groups transactions into fixed categories as it lessens the need for human data entry and allows users to have an idea of their money and where it's spent.
- Smart savings feature: Helps users save money effortlessly.
- Bank synchronization: Allows users to get real-time updates on their account as it links to multiple financial institutions.
- **High-level security:** Makes sure user's data is safe by using high-level encryption and ensures data is private and protected from any sorts of threats.



#### Weaknesses

- **Subscription cost:** A paid subscription is expected to be paid when wanting to use the premium version as it has more innovative features, however there is a free version as well.
- Limited customization options: Users may want to change the preset spending categories as they feel the options are limited.
- No investment tracking: Has no investment racking features.
- Bank syncing issues: Some users have reported occasional difficulties in linking their bank accounts, which may result in delayed or incomplete financial updates.
- **Premium features locked:** PocketGuard's free version is limited resulting in useful features available to users that pay.

#### 4. Unique features that make PocketGuard stand out

PocketGuard includes many features that distinguish it from other budgeting applications:

• "In My Pocket" Calculation: Provides real-time updates on user expenses after essentials are paid for and what their remaining balance is.

- Al-powered budgeting assistance: PocketGuard uses artificial intelligence to determine spending patterns and suggest budget adjustments according to the user's performance.
- **Bill negotiation service:** PocketGuard helps users reduce their monthly expenditure by finding and suggesting better options for their recurring payments.

These features make PocketGuard a competitive and valuable app for users seeking a smart, automated approach to managing their personal finances.







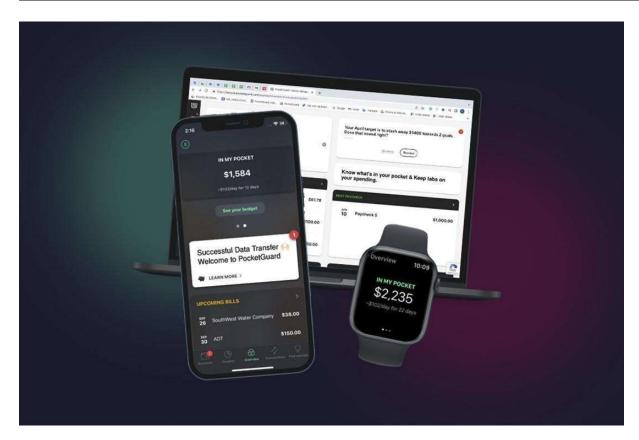


#### 5. Visual Comparison (Infographic)



## **Comparison Table**

Price	Freemium
Auto-Sync	Yes
Credit Monitoring	No
Bill Negotiation	Yes (Paid)
Automatic Saving	Yes
Investment Tracking	No

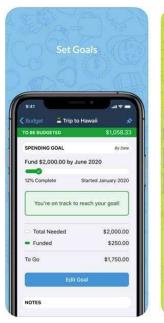


#### 6. Best Features to Include in Your Own Budgeting App

For developers looking to create a personal finance application, including the following innovative features inspired by PocketGuard can enhance user experience and efficiency:

- Automated expense tracking and categorization: Minimizes the need for humans to enter data and allows users to have a detailed and clear view of their spendings.
- "In My Pocket" disposable income calculator: Allows users to immediately determine the amount they can spend and after paying off essential expenses.
- **Real-time bank account synchronization:** Keeps users finances' up to date by directly connecting to the bank account.
- **Smart savings goals and personalized recommendations:** PocketGuard uses Alpowered insights to help users to effectively plan and reach their saving goals.
- Bill negotiation and recurring expense detection: Identifies subscription services and payments to give users ideas on how to stop wasting money and move to cheaper options.

By combining these key features, a new budgeting application can provide a built-in and effective solution for personal financial management.









#### 7. Conclusion

PocketGuard is a well know recommended effective budgeting app that helps simplify financial management by automatically tracking expenses, providing insightful analyses, and assisting by offering artificial intelligence budgeting options. However, even though it has limitations, such as the cost of premium features and irregular financial issues, its benefits exceed its cons.

Users who are looking for a user-friendly and thorough budgeting solution, PocketGuard provides a good mix of automation, security, and financial insights, making it a helpful resource for managing money and achieving financial stability.



ST10357417

Mitreyu Pillay

Spendee Budgeting App



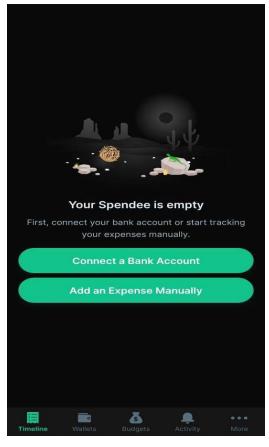
#### **Introduction**

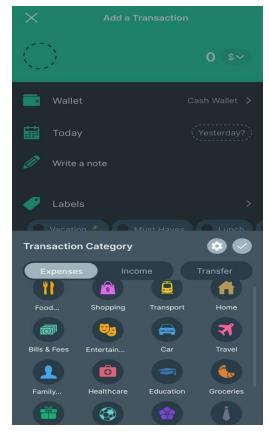
Budgeting apps have become essential tools for managing personal finances. Spendee is one such app that simplifies financial management through its "Track – Analyze – Budget" approach. By offering features like bank synchronization, visual financial insights, and goal tracking, Spendee aims to help users take control of their spending habits. (Spendee, 2025) This document explores the strengths, weaknesses, and innovative features of Spendee to assess its effectiveness as a budgeting solution.

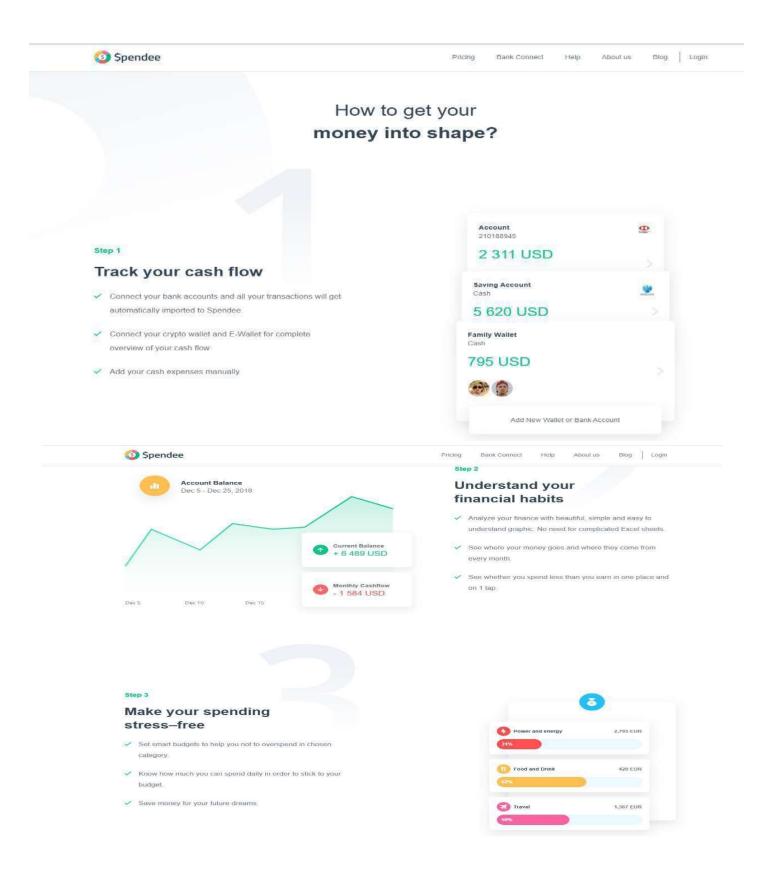
### **Overview of Spendee**

Spendee is a personal budgeting app that boasts being the only app that gets your money into shape by helping you take control of your finances. (Spendee, 2025) Their reason for this is they have a system in place to help individuals manage their finances with the app called the "Track – Analyze – Budget" cycle.

The way that the "Track – Analyze – Budget" cycle works is Spendee connects to your bank account, they import the data and categorize your transactions, alternatively you can input your finances manually to track them. Spendee then takes the data it's collected and puts it into a graph for you to understand, from there you can start seeing where your money comes and goes, and that's how simple it is to use Spendee.







### **Strengths & Weaknesses of Spendee**

#### Strengths

#### Visual Financial Insights:

 The app offers charts and graphs that show where your money is coming a going, making it easier to identify patterns and adjust your spending habits. (Phroogal, 2025)

#### Shared Wallets:

 Spendee's shared wallet feature is great for families, roommates, or travel partners since they can easily share a wallet, track shared expenses, and see who contributed what. (Phroogal, 2025)

#### Goal Tracking and Savings Features:

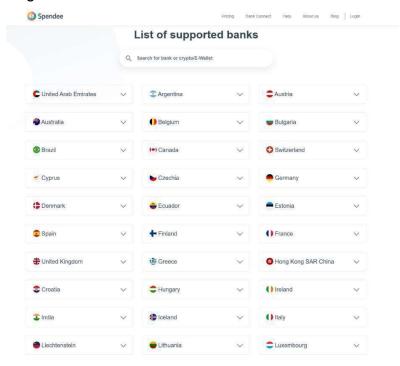
 You can create specific savings goals (e.g., for a vacation, emergency fund, or large purchase) and track your progress. The app provides reminders and progress visuals, making it easy to stay motivated.

#### Multiple Currency Support:

 Ideal for international users or frequent travelers, Spendee supports multiple currencies, allowing you to track your expenses in different currencies and convert them to your home currency seamlessly.

#### Security:

 Spendee uses bank-level encryption for transactions and data protection, ensuring that your financial information is secure, especially if you're linking bank accounts.



#### Weaknesses

#### Limited Features in Free Version:

 The free version of Spendee offers basic tracking and budgeting. Users will need to upgrade to the premium version to access key features like bank sync, advanced reports, and more wallets. (Phroogal, 2025)

#### No Investment Tracking

 Unlike some other budgeting apps, Spendee does not offer features to track investments or other financial assets (like stocks or real estate).

#### No Debt Management Tools

 While you can track income and expenses, Spendee doesn't offer dedicated tools for debt management (e.g. tracking loan repayments, credit card debts, or debt payoff strategies).

#### Occasional Bugs and Glitches

 Some users report bugs and glitches, particularly around synchronizing or the app freezing on certain devices. While not a widespread issue, these bugs can impact the overall user experience.

## **Innovative features of Spendee**

#### Financial Goals & Progress Tracker

Spendee lets users set specific savings goals and track progress toward them in a visual, intuitive way. Users can create goals for specific purchases or savings. Spendee provides a progress tracker that shows how close you are to reaching your target and reminds you to stay on track.

#### Multi-Currency Support with Automatic Conversion

The app allows you to track expenses in different currencies and then converts them to your primary currency. This ensures that whether you're traveling or managing finances in different countries, your expenses remain consistent and organized. (Spendee, 2025)

#### Budget Alerts and Notifications

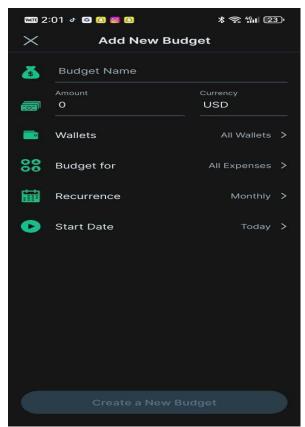
When you set a budget for a category (e.g., dining, groceries, entertainment), Spendee will alert you as you approach the budget limit, helping you stay on track and avoid overspending.

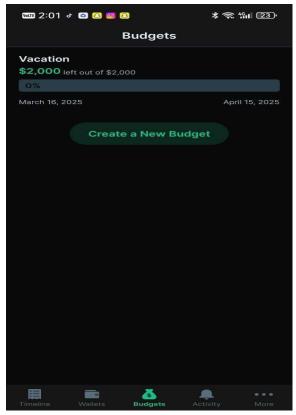
#### · Automated Expense Categorization

After syncing your bank accounts, Spendee automatically categorizes your expenses into predefined categories like "Groceries," "Dining Out," "Entertainment," etc. Users can tweak and adjust categories if necessary. (Spendee, 2025)

#### Visual Savings Goals with Progress Tracking

As you make progress toward your savings goals, the app visually displays how close you are to achieving them, with progress bars that fill up as you save.





## **Best Features Spendee**

- Smart Budgeting & Expense Tracking help users keep track of their spending habits.
- Bank & Wallet Synchronization this would be a great feature to include, however, it will be excluded.
- Data Visualization & Reports Graphs and charts make financial data easier to understand and track.
- Goal-Oriented Savings encourages setting saving targets.
- Reminders & Notifications keep users in touch with their spending.

## **Conclusion**

Spendee stands out as a user-friendly budgeting app with intuitive tracking, automated categorization, and multi-currency support. While its premium version unlocks advanced features, the free version still provides essential budgeting tools. Overall, its combination of smart budgeting tools and visual insights makes it a great budgeting tool.



**Leyah Dadoo** 



#### Introduction

Mint is personal finance app developed by Intuit it is widely used on both Android and iOS devices. It offers a variety of financial management tools, such as expense tracking, budget creation, bill reminders, and credit score monitoring. By syncing with users' bank accounts, credit cards, and investment portfolios, Mint provides real-time updates on financial activity.

This app was designed to help users gain control over their finances. It delivers a clear overview of spending habits, personalized budgeting insights, and goal-setting features. Its automation and user-friendly interface make it suitable for both beginners and experienced users.

Mint's accessibility is further enhanced by its free-to-use model, though it is supported by advertisements. While the app provides an extensive set of features, users have noted concerns regarding ad intrusiveness and the lack of bill negotiation tools. This research explores Mint's strengths, weaknesses, and key innovations, offering insights into how these features can be improved for the development of a new budgeting app.

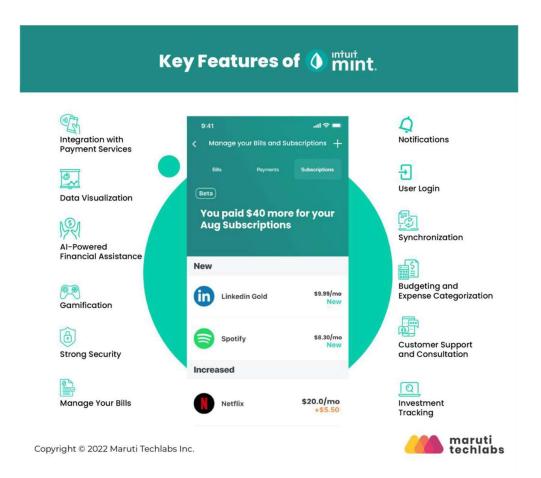
#### **Research on Mint**

#### Overview of the App

Mint is a comprehensive budgeting tool that allows users to manage their finances efficiently. The app consolidates financial data from linked accounts and automatically categorises transactions to provide an organised snapshot of income and expenses. Users can create budgets, set financial goals and receive reminders for bill payments, ensuring they stay on track with their finances.

A major advantage of Mint is its ability to sync with financial institutions in real time, giving users accurate, up-to-date insights into their spending and account balances. It also includes a credit score monitoring feature to help users track and improve their financial standing over time. The app's dashboard is visually appealing and provides detailed spending insights, allowing users to identify areas where they can cut costs and save more effectively.

Mint also offers investment tracking, enabling users to manage their portfolios alongside their daily expenses. While it is a highly useful financial management tool, some users find the presence of ads distracting, and the app lacks certain features, such as bill negotiation services.



#### Strengths of Mint:

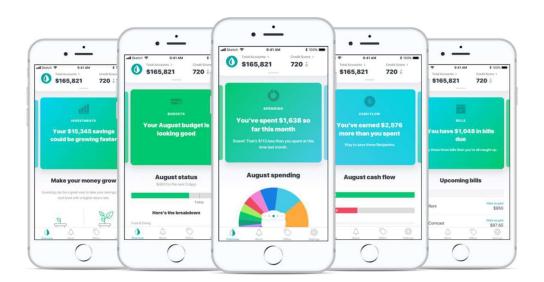
The following features contribute to Mint's reputation as a reliable all-in-one financial management tool.

- Free Access: The app is available at no cost making it widely accessible.
- **Real-Time Updates:** Transactions are automatically updated ensuring users always have the latest financial data.
- **Credit Score Monitoring:** Users can view and track their credit scores for free assisting them in managing and improving their financial health.
- **Flexible Budgeting:** Mint allows users to create and adjust budget categories based on their individual needs.

#### Weaknesses of Mint:

While Mint provides extensive budgeting tools, addressing these concerns could enhance its usability and appeal.

- Advertisements: As a free app, Mint includes ads, which can sometimes interfere with the user experience.
- **Limited Budget Customisation:** While the app allows budgeting adjustments, it does not offer advanced customization for dynamically changing expenses.
- **Security Concerns:** Some users are hesitant to link all their financial accounts due to concerns about privacy and data security.
- **No Bill Negotiation Feature:** Unlike some competitors, Mint does not assist users in negotiating lower bills or securing better deals.



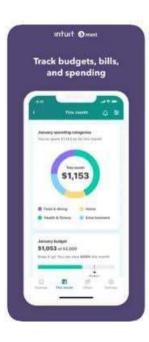
#### **Visual comparison:**

Price	Free
Auto-Sync	Yes
Credit Monitoring	Yes
Bill Negotiation	No
Automation Saving	No
Investment Tracking	Yes

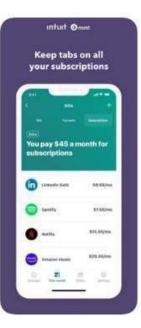
#### **Innovative Features of Mint:**

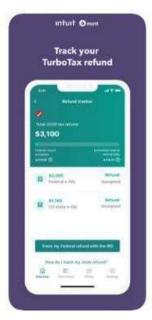
The following features distinguish Mint as a leader in personal finance management, offering valuable insights that can inspire future app development.

- **Bill Payment Alerts:** Users receive timely notifications to help them avoid late fees and penalties.
- **Goal Setting and Tracking:** The app allows users to define financial objectives, such as saving for a vacation or paying off debt, and monitor their progress.
- **Investment Insights:** Mint helps users track investment accounts, providing a holistic approach to personal finance management.
- **Spending Analysis:** The app generates Al-driven reports that identify spending patterns and suggest areas for improvement.









#### **Best Features to Include from Mint:**

By adopting these features while addressing Mint's limitations—such as eliminating ads and introducing bill negotiation tools—a new budgeting app could offer a more user-friendly and well-rounded experience.

- **Real-Time Transaction Syncing:** Automatically update transactions from connected accounts.
- Credit Score Tracking: Help users monitor and improve their credit standing.
- **Customizable Budgeting Tools:** Enable users to personalize budget categories to fit their financial goals.
- **Goal Management:** Allow users to set, track, and achieve savings and debt repayment goals.

#### Conclusion

Mint has established itself as a leading personal finance tool by offering automation, accessibility, and comprehensive financial tracking. With real-time syncing, credit score monitoring, customizable budgets, and detailed spending insights, it has become a popular choice for users who are seeking better financial management. However its adbased model, lack of bill negotiation tools, and limited budget flexibility leave a lot of room for improvement.

A new budgeting app could build upon Mint's successes while addressing its shortcomings. By incorporating essential features such as real-time transaction syncing, credit score tracking, and goal management and therefore removing ads and adding bill negotiation capabilities providing an improved and more user-friendly experience.

Mint's impact highlights the importance of automated financial tracking and personalized financial insights in budgeting apps. By refining and expanding upon these concepts, a new application could establish itself as a strong competitor in the personal finance industry.

# Planning and Design



Kumbirai Nenguke and Anashe Choruma

#### Introduction

Controlling your finances is one of the unavoidable struggles of life. Not being on top of your finances can lead to undo stress which will afect the general experience of your life. By allowing the user to monitor their spending, set financial goals, and gain insights into their financial habits the KALMM Budgeting App is designed to alleviate your stress and make maximizing your finances a real and wildly possible reality.

This document outlines the planning and design of the KALMM Budgeting App ensuring that the development phase utilizes a well structured approach. The document includes a detailed overview of the app, its key features, and the functional and non-functional requirements that will guide the implementation. Additionally, the document presents user interface designs, navigation flow, and a project timeline to ensure a controlled development process.

Through our focus on simplicity, eficiency and the maximization of the user experience KALMM Budgeting provides users with high quality budget tracking, budget maximization and rewarding gamification features to encourage user devotion. This planning phase ensures that the app is aligned with user needs and best design practices, laying the foundation for a successful and impactful budgeting tool.

#### Overview

App Name: KALMM Budgeting

Icon Design:



KALMM Budgeting is a mobile application designed to assist and expedite the users ability to track expenses, set budgeting related goals and provides the ideal environment to build healthy long term budgeting habits. Through our user-friendly platform, users are provided the ability to: Make detailed expense entries, Set budget goals, View visual representations of their budgeting habits and compare their budgeting success to previous months.

To ensure the experience is not only efective but also exciting and engaging gamification elements will be implemented to ensure the user is more easily able to build long term habits. Gamification is comprised of a rewards and challenge based system that rewards the user for consistent budget tracking and budget adherence. These rewards will consist of unlockable app design themes to ensure the user has a recreational motivation for budget adherence, reducing the stress filled nature often associated with the budgeting experience.

The apps interface will be simple, clear, clean, easy to navigate, and engaging ensuring financial management is accessible to users of all experience levels.

Through the combination of financial tracking, insightful analytics, user-friendly design and gamification, KALMM Budgeting aims to transform the budgeting experience from a gruelling and uninviting endeavour to a fun, engaging and rewarding venture that the user is excited to return to, an app worthy of idle entry, ultimately providing the user with healthy long term financial awareness and practices.

### **Functional Requirements**

#### **User Authentication:**

**User Registration:** The registration process will include the entry of the users: Full name which acts as their Username, email address and password.

User Login: The Login process will include the entry of the users: Username and Password.

Password: Secure Password hashing for storage.

#### **Expense Tracking:**

**Expense Entry (Required):** Users can create an expense entry containing an expense **amount**, **date** of expense, detailed **description** of the expense, and what **category** the expense falls under.

**Expense Entry (Optional):** When making an expense entry users have the option to attach a photo to the entry (e.g. receipt).

#### **Budget Management:**

**Total Budget Goals:** Users can set monthly total budget goals and budget limitations for specific categories.

**Visual Tracking:** Users can access visual representations of their budgets to assist with their understanding of their finances.

#### Data Storage:

Local database: The app will have ofline database functionality in its initial iteration.

**Online database:** The app will have online database functionality for its final iteration allowing for sync capabilities for multi-device access.

#### Reports & Insights:

Visual: The app will provide the user with graphical representation of their budget management.

Comparison: The app will provide the user with a dashboard comparing the budgeting success and failures of previous months allowing the user to reflect and compare habits and circumstances month to month. This will allow the user to better understand what lifestyle habits work better for their budgeting goals.

#### **Gamification Features:**

**Reward system:** The user can unlock custom app achievements through the reward system. The reward system will mainly be taking adherence to the budget into account with seasonal/day specific rewards for logging expenses on certain day (e.g. Christmas).

**Daily streak tracking:** To encourage consistent expense logging a streak system will be implemented to ensure the user is aware of their discipline. Rewards can be received based on the magnitude of the streak.

Budget Goals Progress Tracking: To encourage user adherence a budget goal progress bar is present to provide the user with an easy to understand visual representation and rewarding budgeting experience.

## Non-Functional Requirements

**Security:** The app will utilise encryption for sensitive data.

Performance: The app should be able to handle 100+ expenses smoothly.

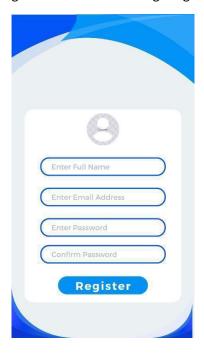
Usability: Simple, Clear, easy to navigate UI with one-hand usability.

Scalability: Designed to support future API integrations.

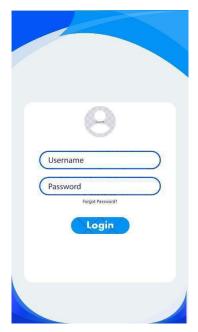
## User Interface Design (Mock-ups & Navigation)

#### Screen Mockups:

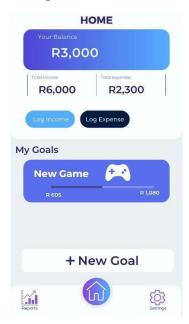
**Register Screen:** Through entering their Full Name, Email and Password users are able to generate a KALMM Budgeting account to begin there transformed budgeting journey.



**Login Screen:** Through entering their username and password the user is able to log into the profile the created during the register process.



**Home Screen:** The central hub of the app. Through the home all aspects of the app can be accessed: Your total monthly balance can be viewed, total income, total expenses, The log income screen can be accessed, the log expense screen can be accessed, your budgeting goals can be tracked, new goals can be created, the reports screen cab accessed and the app settings can be accessed.



**Log Expenses Screen:** This screen allows users to create an expense entry for tracking specifying details like the expense amount, the payment method used, the date of the transaction, a description of the transaction, what category the expense falls under with the ability to create a new one and the ability to add an image to the entry for any reason e.g. receipts.



**Budget Report (Expense) Screen:** This screen allows the user to view a list of their expenses which they are able to filter based on category, view their total monthly expenses, view their current balance, view their incomes and access their annual overview.



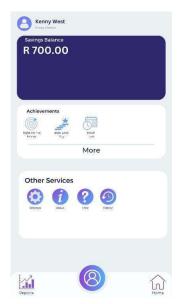
**Budget Report (Income) Screen:** This screen allows the user to view a list of their incomes which they are able to filter based on category, view their total monthly income, view their current balance, view their expenses and access their annual overview.



**Annual Overview Screen:** This screen allows the user to view a graphical representation of the years monthly expenses, a comparison of your monthly expenses. This screen allows the user to observe their expenses through a broader lense and improve their budgeting habits through comparing months where they budgeted better to the months they didn't.



User Profile Screen: This screen allows the user to view their savings balance, view and access their achievements/rewards and access other services the app provides e.g. access the settings, access the about, request help etc.



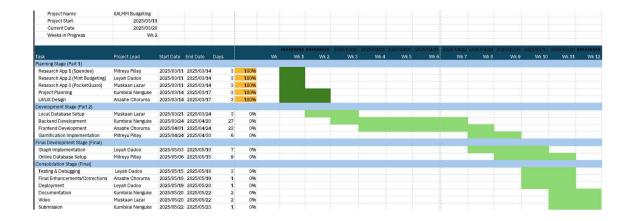
## User Navigation:

A diagram displaying how the app can be navigated.



## **Project Plan**

To ensure the smooth and successful development of the KALMM Budgeting app, a structured project plan in the form of a Gantt diagram has been created. This plan breaks down the tasks into clear and manageable milestones, providing a clear realistic timeline for each phase of the project.



#### Conclusion:

KALMM Budgeting seeks to transform the user budgeting experience by utilising its simple, clear and consistent design as well as its user friendly navigation to turn budgeting from an unwelcoming stressful task to a habitual, rewarding, recreational activity. The use of gamification techniques, efective and descriptive expense tracking as well as visual budgeting representation will provide the ideal environment for users to develop healthy long tern budgeting habits.

This document has outlined the research, planning, and design phases, ensuring a well-structured development approach. Through the research of the budgeting apps: Mint, PocketGuard and Spendee, key lessons were learnt towards the importance of app format consistency, user friendly navigation and gamification through prioritising a rewarding experience, by defining clear requirements, designing an intuitive user interface, and establishing a detailed project plan, this phase lays a solid foundation for a controlled and successful implementation.

As the next steps in the cycle involve prototyping, testing, and refining the application, the insights gained from this planning phase will become a guiding force in the development process. With a strong focus on user experience, accessibility, and user engagement, KALMM Budgeting is set to become an essential tool for anyone looking to evolve their budgeting experience to one they can enjoy and maintain for the long run.

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