



Self-Budgeting App Analysis and Improvement

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1. Introduction

Apps that allow people to self-budget are tools that help to regulate money spends, save money and meet other financial objectives in today's society. Since more people use these tools in exercising self-control in their spending, some of the most common ones include YNAB (You Need a Budget), Mint and Pocket guard, among others among all age groups. But nevertheless, these apps have certain shortcomings which are briefly described below. The current and potential problems of each app are different and may include high subscription fees and low level of personalization, data sharing violation, and annoyance of advertisements.

This proposal seeks to look at these common problems through the use of a critical evaluation of the users feedback and to come up with the solution to the problems that exist in self-budgeting technology. Seeing the existing flaws of YNAB, Mint, and Pocket Guard, this project will show the design of a new app specifically aimed at a large audience to embrace, with an affordable price and improved privacy to support users and help them manage their financial lives.

2 .Literature Review

2.1Why budgeting and financial planning is relevant

Budgeting and financial planning is important for people to manage money, improve their financial well being and to prepare for future wants and needs (Johnson & Widows, 2020). Budgeting helps one to keep record of the amount of money being earned, the amount spent, and the part to be spent on necessities and those for luxuries which the later can help to minimize once one feels they are adding too much stress on the pocket (Baker & Ricciardi, 2019). Budgeting is especially crucial today to be always ready for emergencies or unpredictable circumstances that may occur in any person's life – financially (Williams & O'Reilly, 2021).

2.2 Technology in Self Finances

Many technological advances have found their way into the financial management process as well as provision of easy to use tools in creating budgets, investing and monitoring all expenses (Sullivan, 2018). Self-budgeting apps have enhanced the management of funds as it is easier, easier

and dynamic to monitor and make decisions based on the information that is processed in real time (Foster, 2019). These apps help the users to differentiate expenses, inform about spending, and review trends, thus stimulating rational finance usage and financial education among users (Anderson, 2020).

2.3 Problems Suffered By Consumers Of Self-Budgeting Apps

However, various user-reported issues related to self-budgeting apps include; Complexity, Lack of Personalization, and Privacy (Miller & Parker, 2021). For example, most clients complain that apps such as YNAB can be complicated to use because it is complex and may require prior engagement in budgeting, and substantial effort investment (Nguyen & Brown, 2022). However, it is mentioned that the intrusive ads like pop-up ads are common with certain apps like Mint, and regarding data privacy there are sources with some concern because sharing of financial information is involved (Smith et al., 2020).

2.4 An Analysis of YNAB, Mint, and Pocket Guard Apps

Some of the most well known budgeting apps include YNAB, Mint, and Pocket Guard that will all have their own strengths and weaknesses. YNAB and everydollar both specialize in budgeting but while ynab employs detailed planning of finances regularly, it can be complex for new users, and it is expensive (Barker & Collins, 2021). Mint comes with a host of budgeting and financial tracking tools for free but it hitches which include use of subscription charges, Saudia Arabia's strict data localisation rules and the company's alleged inability to fairly handle user data (Chen, Lee, & Zhang 2021) . Finally, Pocket Guard provides a basic budgeting function, although its configuration choices are very basic and it only has 20 free categories for tracking expenses, which makes the application less useful for people with special needs regarding their budgeting (Robinson, 2020).

3 .Identification of Problems

App 1: YNAB (You Need a Budget)

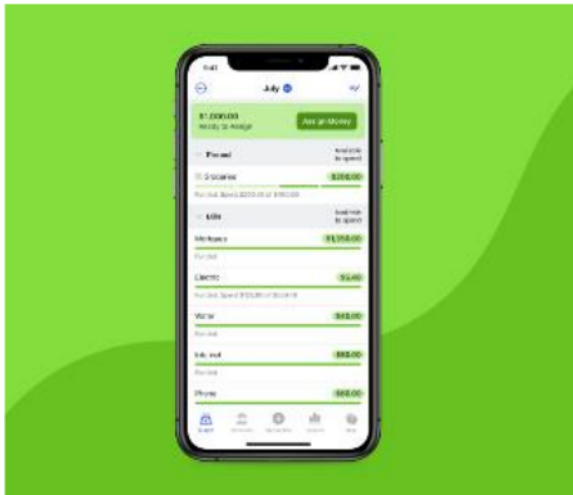
- **Problem 1: Steep Learning Curve**

While calculating the detailed budget is quite helpful, the YNAB approach needs a good understanding of personal finance and initial preparation time, which is crucial for novices.

- **Problem 2: High Subscription Cost**

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The monthly subscription of YNAB is comparatively higher and this set back cannot appeal to the low budget class individuals who are in desperate need of such tools.



<https://www.ynab.com/our-app-lineup>

App 2: Mint

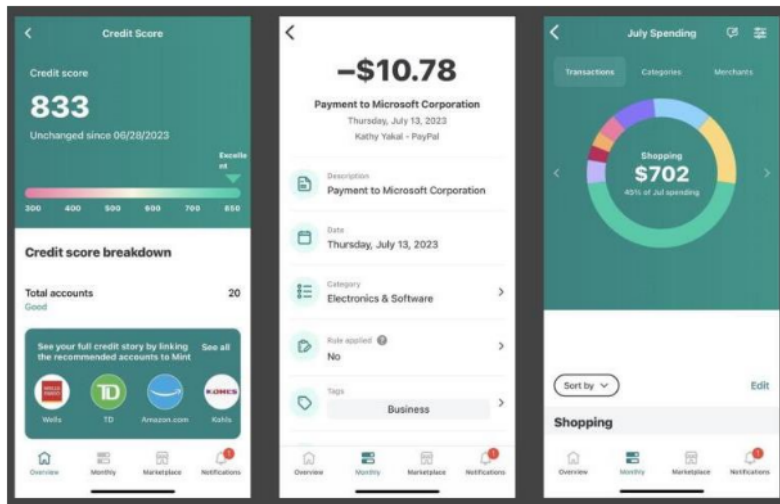
- **Problem 1: Excessive Ads**

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Mint on the other hand generates its income through advertisement which facility disrupts the normal flow and is quite annoying to most users.

- **Problem 2: Data Privacy Concerns**

Common negative consequences of using Mint include the privacy issue where user data is shared with third parties and even financial specific information processed inappropriately.



<https://www.pcmag.com/reviews/mintcom>

App 3: Pocket Guard

- **Problem 1: Limited Customization**

However, one disadvantage of having such a structure is that Pocket Guard is not flexible enough to allow the user to view their budgeting requirements to fit their customized picture.

- **Problem 2: Limited Free Version**

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Pocket Guard has a basic version which lacks important functionality and forces users to pay to get the necessary budgeting instruments.



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<https://www.matellio.com/blog/how-to-develop-a-money-management-app-like-pocketguard/>

4. Data Collection Methodology

Secondary Data Analysis

- **Collection Method:** They collected feedback and complains from users through app store and app reviews and social media. It offers an understanding of the general problems that customers experience while using each of the applications.
- **Secondary Data Table:**

App Name	Problem	User Feedback (Negative)
YNAB	Steep Learning Curve	"This app is too complicated for beginners. I couldn't understand the setup process."
YNAB	High Subscription Cost	"I can't justify paying this much for a budgeting app, even though it's effective."
Mint	Excessive Ads	"Ads keep popping up and ruin the experience. It's really annoying."
Mint	Data Privacy Concerns	"I'm worried about where my data goes and how it's shared."

Pocket Guard	Limited Customization	"I want to adjust categories to my needs, but the app won't let me."
Pocket Guard	Limited Free Version	"Many features are locked behind a paywall, making the free version almost useless."

Primary Data Collection

- **Questionnaire Design:** The subsequent Yes/No questions are designed to search out user encounters with prevalent problems in budgeting apps.

• Question Number	Question
1	Do you find the current budgeting app challenging to use?
2	Is the subscription cost of the app a concern for you?
3	Do you feel your data privacy is adequately protected?
4	Are ads in the app disruptive to your experience?
5	Do you find it challenging to customize budgeting categories?
6	Does the app provide clear instructions for new users?
7	Are you able to access all essential budgeting features in the free version?
8	Is customer support responsive and helpful when issues arise?
9	Do you find the app's reports and insights easy to understand?
10	Would you recommend this app to others based on your experience?

5. User Personas

Persona 1: Emma – A New Graduate Starting Her First Job

- **Demographics:**
 - Age: 23 years old
 - Income Level: Entry-level income
 - Needs: Budgeting support to manage limited finances and student loan payments
- **App Issues Experienced:**

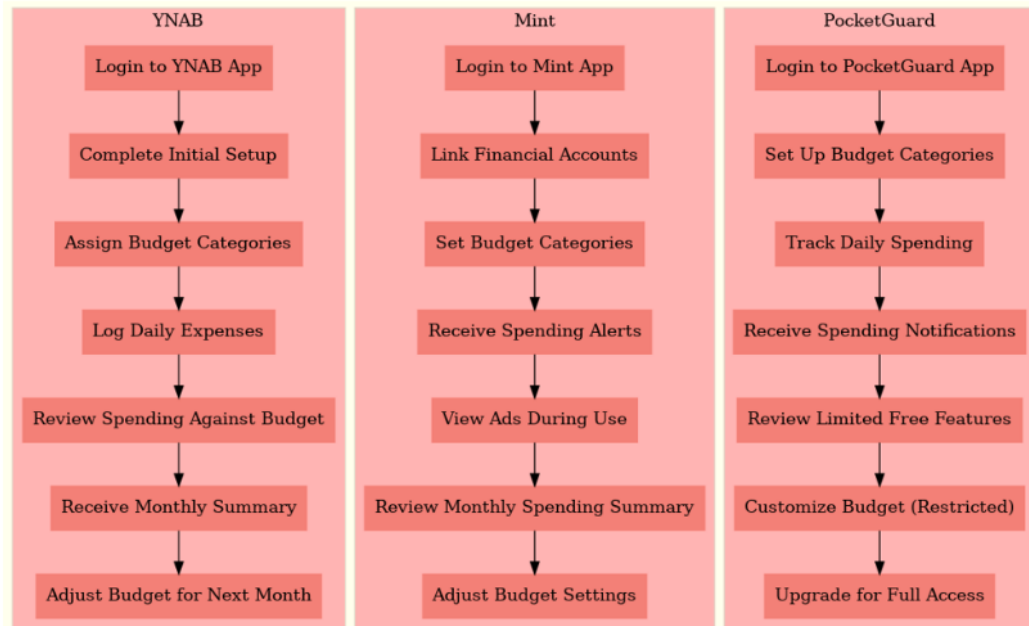
- **Learning Curve (YNAB):** Emma finds YNAB's setup process challenging, as she lacks extensive financial knowledge and finds it difficult to navigate.
- **Ads (Mint):** They mention that in Mint, Emma has to deal with many pop up ads all the time, which actually interferes with her budgeting work and overall experience.

Persona 2: Liam – A Young Professional Managing Family Expenses

- **Demographics:**
 - Age: 30 years old
 - Income Level: Mid-level income
 - Needs: Focus on privacy and detailed budgeting to manage household and family expenses
- **App Issues Experienced:**
 - **Subscription Cost (YNAB):** Beside the analysis which shows that Personal Capital can be an effective replacement for YNAB in terms of features and functionality, there are other arguments influenced Liam's choice: Liam is managing many family expenses, he doesn't think it is possible to justify the subscription cost of YNAB.
 - **Privacy Concerns (Mint):** Liam tries to consider how Mint process and store information about users because he has to protect his family's financial data.

These personas are average or typical users and various problems they can face when using self-budgeting apps, potential improvement of which has been described above.

Event Flow for Each App



6. Explanation of Event Flow for Each App

YNAB (You Need A Budget) - Event Flow for Emma and Liam

1. App Setup

- Emma: Challenges are observed often with regards to the many steps in the set up procedure as well as the struggle in distribution of her budget since she has no background knowledge on the manner.
- Liam: Fantasy is just completed at the same time, the author realizes that the subscription cost is very high, despite this he will not use it frequently.

2. Learning Process

- Emma: Difficult to grasp something not quite using YNAB and needs help often.

- Liam: It learns the features very fast but then wonders whether it warrants the expense.

3. Daily Use and Budget Updates

- Emma: Stops feeling much like it helps, being more like a tedious task to update expenses on a daily basis.
- Liam: Uses the app smartly but keep on questioning the relevance of the subscription.

Mint - Event Flow for Emma and Liam

1. Account Setup and Linking Financials

- Emma: It is very easy to create but is instantly bombarded with ads, which really interferes with her.
- Liam: It also runs across ads but is more sensitive to privacy and feels uncomfortable about being able to link his financial accounts because of data privacy.

2. Budgeting and Spending Overview

- Emma: Attempts of which she fails to do so, but is restricted by the numerous times ads pop up.
- Liam: Also distracted by ads but more so by the thought of what his data can do.

3. Reviewing Insights and Recommendations

- Emma: Problems in finishing her goals on budgeting because of too many advertisements.
- Liam: Little information as he decided not to connect the sensitive accounts again, making the efficiency of the app lower: focus.

Pocket Guard - Event Flow for Emma and Liam

1. App Download and Initial Setup

- Emma: It performs a one-click setup and the simplicity of the software's interface is valued.
- Liam: It points out few choices for customization; thus, does not let tracking the family budget to the smallest detail.

2. Category Customization

- Emma: Tries to make changes to budget categories, however, she feels that choices are limited and therefore, can have a great impact on her measurement of her budget.
- Liam: The author recognizes the need to have a customized setup of the categories, but lack the flexibility to have the categories adjusted to any family's needs.

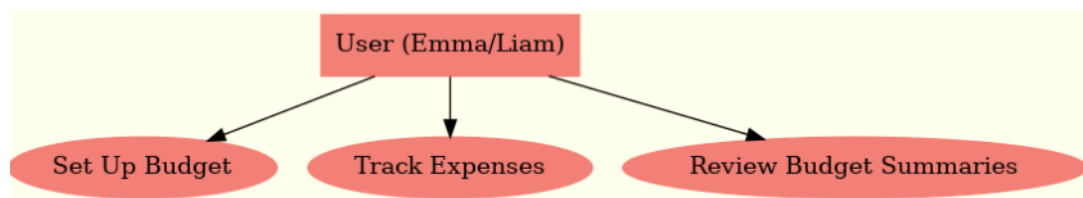
3. Daily Expense Tracking

- Emma: Accounts for expenditures, hindered by the freemium approach of the app, which does not allow using full functionalities.
- Liam: Has similar problems to the others, as while they did find the app very helpful, it is not nearly as functional without paying money.

This lvds_of_the_event focus on the concrete pain points that each persona experiences in their user journey through YNAB, Mint, Pocket Guard.

7. Use case diagrams

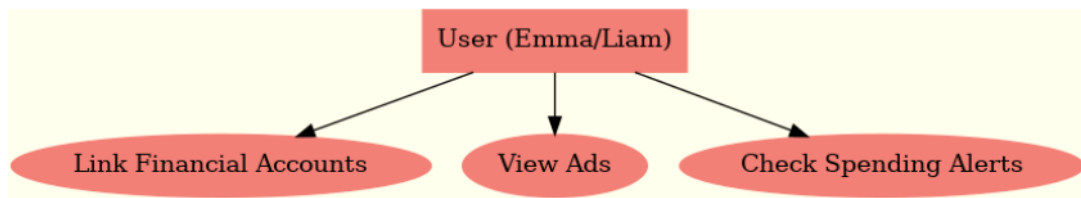
YNAB Use Case Diagram



Explanation:

- **Set Up Budget:** Users, such as Emma and Liam first proceed to their budget organization by creating categories. Emma says that she started to struggle with the initial setting up, because of limited comprehensibility of YNAB.
- **Track Expenses:** Employees enter debits based on different codes every day. This unceasing tracking can be bulky and exhausting to those practicing gardening for the first time.

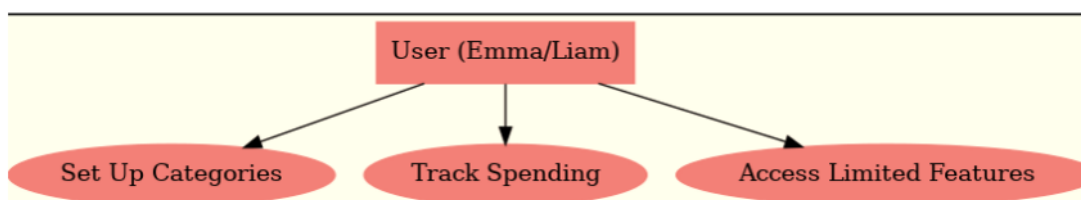
- **Review Budget Summaries:** At the end of every month, users take time to view a summary of their spending. Occasionally, there is even doubt within Liam about whether its benefits can indeed cover the cost of subscription.



- □ **Explanation:**

- **Link Financial Accounts:** This allows the users to share their bank statements by linking them for the systems' automatic tracking. Liam however is wary of it because of privacy.
- **View Ads:** Both Emma and Mint use advertisements as a source of income; however, every time we notice that it is becoming frequent, it interrupts the customer experience, making budgeting rigid.
- **Check Spending Alerts:** Users get notified concerning charges they make, though Emma complains that important alerts are uncontrollably accompanied by ads.

□ **Pocket Guard Use Case Diagram**



- **Explanation:**

- **Set up Categories:** Much like how users organize their spending, they are split into categories; however, there is not much flexibility as it can be seen in the following screenshot:
- **Track Spending:** It balances users' expenses within categories while the free version restricts the complete experience.
- **Access Limited Features:** While Pocket Guard is available for free, its basic version is limited by functions and as for such users as Liam, the necessity of the paid version emerges.

These diagrams depict the post-design considered user tasks for each app and problems that the two attributed personas, Emma and Liam are likely to experience.

8. Proposed Solution: New Self-Budgeting App

App Overview and Key Features

The proposed self-budgeting app primary targeting is to solve the biggest problems that users of YNAB, Mint, Pocket Guard, and other similar apps face. As a result of easy user interface, versatility, cost and respecting the users' privacy this app is designed for people of all levels of experience with the budgeting apps.

Key Features of the Proposed App:

1. Simplified Onboarding Process:

One of the main ideal guiding the use of the app has to do with minimal steps required to set up different budgets. In contrast to YNAB which uses the complicated setup and personal accounting experience, this application provides a regular set of instructions and easy-to-follow lessons to teach the user how the budget operates.

2. Affordable Pricing or Free Version with Minimal Ads:

The app will available the basic version free of charge with limited functions and no obtrusive ads. Additional paid options will cost a reasonable amount so that users with a limited budget for a budgeting app as Emma and Liam consider themselves will be able to get a full-fledged product experience.

3. Enhanced Data Privacy Features:

Acting on the knowledge that most users are very sensitive over their data privacy especially when connecting their accounts to third parties, this app has extensive strict user privacy measures, control over information sharing and clear accountable user's data management. In contrast to Mint, which had issues with user privacy, this application respects their consent and does not allow third parties to access user's information immediately.

4. Customization Flexibility in Budget Categories:

One of the things that make the app flexible it is when setting up, one can use the drag and drop option to customize budget categories depending with the actual financial scenario of the user. While with Pocket Guard you cannot customize the app much in the free version, within this app, one can create, form, and sort out categories and their importance.

Comparison Table

Feature	Proposed App	YNAB	Mint	Pocket Guard
Onboarding Process	Simplified with guided steps and tutorials	Complex and requires prior budgeting knowledge	Easy, but lacks in-depth guidance	Simple, but lacks tutorials
Pricing	Free version with minimal ads, affordable premium	Expensive subscription	Free, but ad-supported	Free version with limited features, paid upgrade required
Ads	Minimal, non-intrusive	No ads	Frequent, intrusive ads	No ads in premium, limited features in free version

Data Privacy	Enhanced privacy controls and transparency	Standard privacy protections	User data shared with third-party advertisers	Limited data sharing policies
Customization	Highly customizable budgeting categories	Moderate customization with emphasis on zero-based budgeting	Moderate customization	Limited in free version

9. How the Proposed App Addresses Each Identified Problem

Comparison against YNAB

Identified Problem in YNAB	Proposed Solution
Steep Learning Curve	The proposed app simplifies the onboarding process with tutorials and guides, making it easy for new users.
High Subscription Cost	Unlike YNAB's high subscription cost, this app provides a free version with essential features and an affordable premium option.

YNAB's core functionality, the zero-based budgeting is efficient but a newcomer may be discouraged by the relatively high difficulty level. Although people like Emma mention that it is relatively difficult to work with YNAB due to the lack of information about how the system functions and how to budget properly. The proposed app helps by guiding and simplifying the onboarding process within a specific field. The seven strategies that the users can follow are categorized based on the budgeting experience level as well as budgeting goals, There more tutorials to help the users to complete their budgeting task.

On the aspect of costs, the audiences that may find it hard to spend on this app are the one like the young man Liam who uses the viewpoints of cost in his evaluation of various apps. A free app with a limited number of ads will be the starting point as a proposed app that does not incorporate

obligatory subscription for basic functions. To the users who seek more functionality, this plan is quite cheap to ensure that even those who do not want to break a bank can afford it.

Comparison against Mint

Identified Problem in Mint	Proposed Solution
Excessive Ads	The proposed app offers minimal and non-intrusive ads, allowing users to focus on budgeting without interruptions.
Data Privacy Concerns	Enhanced data privacy features ensure that users have control over data sharing and are protected from third-party access.

Mint has its business model depending on the advertisement and, at times, they are incongnitive. Some clearest effects are: Emma, for example, notices that ads interfere with her interaction with the application. The ads in the proposed app does not disturb the users and in the free version, it can only contain non-converting ads. This approach can preserve the revenue, according to the user experience as a top priority. The users do not often pay attention to other something else whiles the budgeting activity is going on.

Another essential challenge that users of Mint.com face is data privacy because the app sends users' information to third-party advertisers. Liam, being worried about privacy issues, cannot connect his money accounts simply because there are risks involved. The proposed app looks into the concerns to address through strict controls on data privacy. Users of the site have full control and decide who should use the information they provide, while third parties have restricted access. Therefore, the purpose of the Avast Remote Access Tool is to clarify data-use policy and privacy regulation concerning the users' feelings when linking their financial information.

Comparison against Pocket Guard

Identified Problem in Pocket Guard	Proposed Solution
Limited Customization in Free Version	The proposed app offers flexible category customization even in the free version, allowing users to tailor budgets to their needs.

Limited Free Version	Unlike Pocket Guard, the free version of this app includes essential features for effective budgeting without forcing users to upgrade.
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The problem is that Pocket Guard offers little control over its features, especially in the free version limiting the possibilities for customization might be disadvantageous for users such as Emma with unconventional priorities and requirements. This defect is skipped by the proposed application by offering an option for category flexibility even in the basic model. As for existing categories, they can add new ones, rename and prioritize them referring to their personal finance, so the budgeting tool is custom-made.

Furthermore, the features of the free Pocket Guard application are limited; therefore, the buyers are persuasively offered to take advantage of the paid application. For the clients like Liam who want all the features and tools for budgeting but do not want to pay for a subscription, there are all the basic functions in the free version of the application. This also ensures that and users can manage their budgets efficiently without necessarily having to upgrade hence making the app more affordable among the populace that does not have deep pockets.

10. They types and ages of users and their incentives towards the proposed budgeting app

Below this breakdown, you can get you to narrow down different age categories according to their spending power.

Age Group	Potential Users	Motivation for Using the App
18-24 years	College students, young adults	Learn basic budgeting, manage limited income, and save for short-term goals.
25-34 years	Early-career professionals	Track expenses, manage monthly budgets, pay off student loans, and save for future milestones.
35-44 years	Mid-career professionals, young families	Set up family budgets, manage household expenses, save for children's education and future plans.

45-54 years	Established professionals, parents	Plan for long-term goals like retirement, manage investments, and optimize savings.
55+ years	Near-retirement and retirees	Track retirement income, control spending, and ensure financial stability for future expenses.

This table will indicate how various age groups can find the options presented by the app useful, including easy registration and possibility to change categories, as well as increased focus on data protection throughout the account, to meet various financial requirements.

11. Detailed Feature Enhancements and Benefits

1. **Simplified Onboarding Process:**

- This app is to be equipped with a smart setup that will have a guide on how to use it and create a budget for the first time users.
- According to the financial goals and knowledge, customers can opt for different types of budgets which are as follows, envelope budgeting, zero budgeting, percentage budgeting.
- It also serves user such as Emma who may at times find it difficult to set up complex structured processes in apps such as YNAB to operate when it comes to handling money.

2. **Affordable Pricing and Minimal Ads:**

- It has a basic version that has all the app's functionalities required for effective monetary management without charges.
- Applications are the only minimal ads and they are placed in such a way that they do not interfere with the budgeting process; users are more satisfied compared to those who frequent use mint app.
- Customers who choose the paid version will agree that the additional options are quite reasonably priced without causing any financial burden. This model assists users such as Liam who are locked out of app like YNAB due to its high subscription charges.

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

- The app also has a clear option concerning the data privacy with specific regulation concerning data sharing to avoid leakage of users' data.
- Every user has an option to opt out of sharing his or her data with third parties, which also gives a nod to the privacy concerns customers of Mint have to face.

- This ensures that users have enhanced security for their funds besides the fact that adding financial accounts is secure because this in addition, the platform's encryption system is robust, and it adheres with global data privacy protocols and policies.

4. Customization Flexibility in Budget Categories:

- The creation of the budget allows users to set unlimited variables of the categories according to the goals, incomes, and expenses.
- With freeware, users are allowed full control in the process of creating and transporting categories and thus develop a workable budget for their projects.
- This feature is particularly useful for Pocket Guard users, who complain about the lack of customization in the free version of the application.

The self-budgeting app that will be proposed here is a well-integrated solution to cater for the main drawbacks that been noticed in YNAB, Mint, and Pocket Guard. Hence, with an intuitive interface, affordability, improved privacy and customisation this app plans to become one that can deliver budgeting experience that is satisfaction to each user. Features of the app consider both the novices and the experienced budgeters and eliminate the limitations which the users like Emma and Liam experience; All in all, the app provides users with a secure, handy, and easy to use instrument for proper budgeting.

Future recommendation

The conceptualization of the third app has a high likelihood to be valuable in the future for users since it provides a means of making the budgeting app more convenient and secure for modern users needs has been adjusted in the budgeting app. And as more options for financial technology emerge, the app will appeal to a diverse writing level for those unfamiliar with budgeting and for experienced persons planning their budget smartly. Its pricing model is cheap and, it avoids the overzealous use of ads which may disrupt the user's experience hence the ability to retain the user for a long time due to the benefits of the app without the clutter of ads normally associated with many free budgeting apps today. Safety measures implemented protect the user data rights for

digital concerns and assure the users by maintaining a responsible database. Further, because the app can be easily set up with the financial goals and priorities being configurable, the app can grow with the user as their unique situations evolve, whether for themselves or as part of a family. All in all, this application has all the potential to expand as a product right alongside with the clients since using one's money without putting it into adequate risk is only possible when operating smart digital assistants.

12. Conclusion

As a result, the current leading self-budgeting apps like YNAB, Mint, and Pocket Guard have two main problems that affect user satisfaction and, in turn, the overall app accessibility. New customers and people with a limited budget are pried off by YNAB's complex and expensive application, on the other hand, excessive advertisements present in the application and concerns related to data security are also coming across the path of Mint users. Likewise, their color options are very few, and the free version is too limited to allow users to create a personalized experience when it comes to budgeting.

The issues above are resolved in the proposed self-budgeting app through; A seamless onboarding process, cheap subscriptions with limited ad interruptions, improved data privacy controls and very flexible settings. These solutions increase the efficiency and aspect of the communities in encouraging equal use of relevant products for the financial security of individuals.

Much is expected from this app as presented below. The focus on simplicity, low cost, confidentiality, and customization empowers the user and offers meaningful value for every end user from a younger person trying to manage a first allowance to a family with multiple and intricate needs. This app will not only help to improve people's financial literacy but also keep them engaged in the long term will create added value and become an indispensable tool in managing personal finances. Altogether, End User perspective, well-considered conception and insistence on users' issues response makes the new app for self-budgeting a prospect of a reliable further development of a utility that will grow with the user, tailoring to their needs.

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