



PLANNING DOCUMENT

Part 1

ABSTRACT

This planning document provides the budget application with features, user needs, project schedule/project, money management tools, security features, and implementation tactics for having an effective personal finance monitoring with effortless user experience.

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Open-Source Coding (Introduction) OPSC6311

Table of Contents

Introduction	2
Brief Overview	2
Budget Buddy: Fun & Interactive Personal Budgeting.....	2
5 Innovative Features to Enhance Budget Buddy	3
Requirements List.....	4
User Interface Design	7
Project Plan	10
Gantt Chart.....	13
Conclusion.....	13
Reference List.....	14
Figure 1: Logo and Slogan for Budget Buddy	2
Figure 2	8
Figure 3	8
Figure 4	8
Figure 5	8
Figure 6	9
Figure 7	9
Figure 8	9
Figure 9	9
Figure 10	9
Figure 11	9
Figure 12	9
Figure 13	10
Figure 14	13

Introduction

From our comprehensive research, we now have all the information necessary to develop our own budgeting app as Cosmic Developers. This report is a step-by-step guide to our app, Budget Buddy, whose slogan is "Spend Smart, Live Better."

It will include a Brief Overview of our application, its features, and functionality. A Requirements List, which states the minimum development requirements, will be attached to it. Our User Interface Design will describe our desire for an intuitive and easy-to-use design. Our Project Plan will then include the development schedule and deployment plan. Finally, the Conclusion will encapsulate our objective and plan of action.

We will also integrate functionality from high-ranked budgeting software such as Goodbudget, PocketGuard, and You Need a Budget (YNAB) to offer best functionality and deliver the best economic management experience to customers.

Brief Overview

Budget Buddy: Fun & Interactive Personal Budgeting

Purpose: Budget Buddy is the pioneering personal money app that keeps money matters uncomplicated by keeping expenditure trends and saving goals accessible and lively in view. Utilizing game-fun concepts, the application gamifies the art of budgeting otherwise monotonous affair in such a lively way as to transform what one otherwise used with an unpleasant association. Cash-flow quizzes, quick graphical displays and reward responses give the individuals added encouragement to look very carefully over their own expenses and make usage smarter.



Figure 1: Logo and Slogan for Budget Buddy

5 Innovative Features to Enhance Budget Buddy

From our review of top budgeting apps, we have selected five features that will propel Budget Buddy to new heights, increasing user experience, financial literacy, and wiser budgeting choices.

1. Savings Goal Tracker – Visual Progress & Motivation

Taking a cue from GoodBudget, users will be able to:

- Set savings goals.
- Track progress with a visual bar.
- Be reminded and rewarded with motivational milestones.

Why it matters: Saving is dull, but evident progress and rewards make it exciting and feasible.

2. "In My Pocket" Tracker – Real-Time Expenditure Insights

Driven by PocketGuard, this tracker helps users track spendable money left after the payment of bills and saving:

- Automatically calculates the remaining budget from income and expenditures.
- Displays real-time "pocket money" updates.
- Sends notifications when users are about to overspend.

Why it matters: Live access to cash banishes math and budget worry.

3. Smart Budget Segmentation – Virtual Envelope System

Drawn from YNAB, this capability prevents overspending through categorized budgeting:

- Users allocate money into virtual envelopes (rent, groceries, entertainment, etc.).
- Spendable funds within an envelope are exhausted before further spending is allowed.
- Users can also transfer funds between envelopes when needed.

Why it matters: This automated budgeting system prevents overspending in a single category of expense while attending to required expenses.

4. Receipt Categorization & Expense Tracking

This feature simplifies financial record-keeping:

- Users take pictures and store receipts digitally.
- Merchant, date, and amount information are collected automatically with OCR.
- Receipts can be categorized with ease by type.
- Category expense reports provide views of spending.

Why it matters: The budgeting, taxation, and refund tracking of receipts becomes automatic.

5. AI-Guided Financial Insights & Advice

Empowering with AI, this feature enhances money management:

- Recognizes profligate spending and suggests reductions.
- Provides personalized budgeting recommendations based on existing outlays.
- Suggests cost-reduction alternatives (e.g., switching to cheaper subscriptions).
- Makes predictions of future cash inflows and warns of upcoming shortfalls.

Why it matters: It provides proactive data-driven financial advice, which makes budgeting more intelligent and efficient.

By integrating these elements, Budget Buddy will be more interactive, efficient, and informative in budgeting, allowing users to effectively track, save, and manage their money.

Requirements List

User Registration & Authentication:

- There is easy user registration and account login using a secure username and password.

- The app offers total security, which guards personal data to provide a secure and reliable experience for all.

Expense Tracking:

- Users have the option of creating their own personalized categories to track expenses like Groceries, Entertainment, Transport, Rent, etc.
- Detailed information about every expense can be entered by the users, such as:
 - Amount: The value in dollars of the item or service.
 - Date: Date on which the expense was made.
 - Description: Brief description of the buy (e.g., "Dinner at restaurant").
 - Category: Pre-defined or user-defined category for categorizing the expense.
 - Attachment of receipt photo (optional): Users have an option to upload a photo of the receipt to refer to it or for purposes of verification.

Budgeting & Spending Insights:

- Build a Monthly Budget: One can set an overall monthly budget and provide several allowances to spend in each category of spending (e.g., food, dining out, vacations, etc.).
- Expense Summary: An overview of all expenses tracked over a user-specified time (day, week, month). This provides a total list of where money is going and whether one is staying within the limit.
- Category Analysis: Break expenditures down to manageable category, so users can see how much they have spent in a specific category and whether they are staying within limits they have set.
- Graphical Analysis: Graphical representation like a spending chart by the day, which gives users understandable, graphical representations of trends in spending over time broken out by type of expense.

Gamification & Engagement:

- Progress Dashboard: This feature provides a graphical representation of how well users are sticking to their budget, with ongoing feedback on the progress they are

making. Users can track what they are spending and receive feedback as to how close they are to achieving their goals.

- **Overspending Alerts:** As soon as a user spends over a predetermined figure in any one category, Budget Buddy gives loud visible alerts indicating which spending categories are in over-run, so users can curb spending right away.
- **Rewards & Badges:** Budget Buddy offers interactive fun challenges that reward consumers with badges for:
 - Being under their monthly budget.
 - Frequently logging and monitoring spending within a time.
 - Completing fun money challenges or reaching savings goals.
 - These badges provide the users with a sense of accomplishment and motivate them to keep their financial reins tight.

User Benefits:

- **Fun & Interactive:** By integrating game-like features such as rewards and challenges, Budget Buddy turns budgeting into a fun activity, eliminating the fear of managing finances and making it more interactive.
- **Lucid Insights:** Equipped with easy-to-understand tools such as dashboards and graphs, the user can easily understand their money trends and make better choices. Insights give the user a clearer picture of how they spend money, enabling them to continue managing their finances.
- **Better Money Management:** The app facilitates good money management by ensuring it is easy to track spending, budget, and achieve savings goals. This, eventually, allows one to acquire better money management skills towards better personal finance.

Platform & Security:

- **Cross-Platform Availability:** Budget Buddy is available on iOS, Android, and the Web, allowing users to access money facts and resources anywhere, anytime.
- **World-Class Security:** The application is privacy- and data-security-conscious in respecting users' privacy and security of their data. It employs secure

authentication protocols and data encryption to protect all personal and financial details from unauthorized access.

Finally, Budget Buddy is a fusion of utility and fun that pairs necessary budgeting functionality with hip features to enable users to be in control when it comes to managing finances and reaching financial objectives with ease.

User Interface Design

App Navigation and Features (refer to page 8 - 9)

- **Homepage Screen (Figure 2)**
 - Gives users the ability to log in or sign up for the app.
- **Registration Screen (Figure 3)**
 - Gives new users the privilege to register for an account by inputting their username, email, password, and other details needed.
- **User Login Screen (Figure 4)**
 - Gives registered users the privilege to log into the app.
- **Dashboard Screen (Figure 5)**
 - Gives an overview of the user's current financial situation, for example, their budget and recent expenses.
- **Add Expense Screen (Figure 6)**
 - Gives users the option to add new expenses to their account.
- **Category Management Screen (Figure 7)**
 - Gives users the option to add, edit, and remove expense categories.
- **Budgeting Screen (Figure 8)**
 - Gives users the option to set monthly budget and category spending limits.
- **Expense List Screen (Figure 9)**
 - Gives a list of all the expenses, allowing users to view them and filter them.
- **Category Spending Screen (Figure 10)**

- Gives a graph and list of categories, showing the amount spent in each category.
- **Savings Screen (Figure 11)**
 - Gives savings balance and account balances at present.
 - Allows users to transfer new money or transfer money from one account to another.
- **Progress Dashboard Screen (Figure 12)**
 - Records the user's financial situation, including budget and spending status.
 - Shows rewards and milestones.



Figure 3



Figure 2

Figure 5

Figure 4

Planning Document

Budget Buddy

Part 1

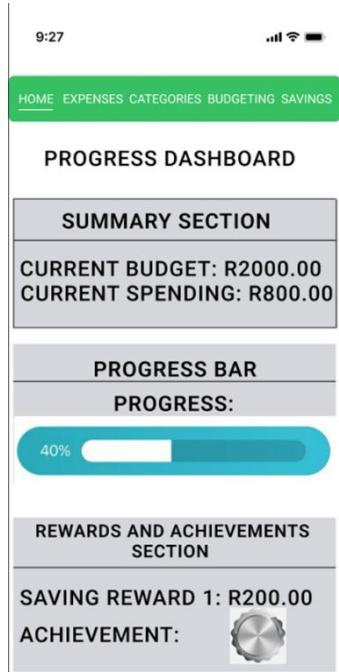


Figure 12

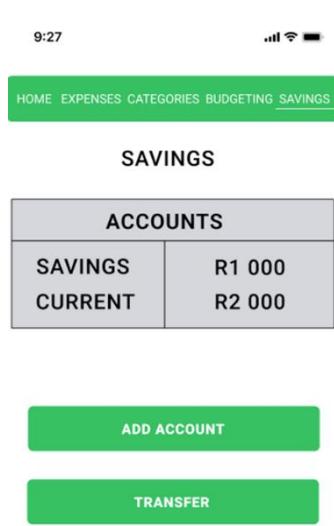


Figure 11

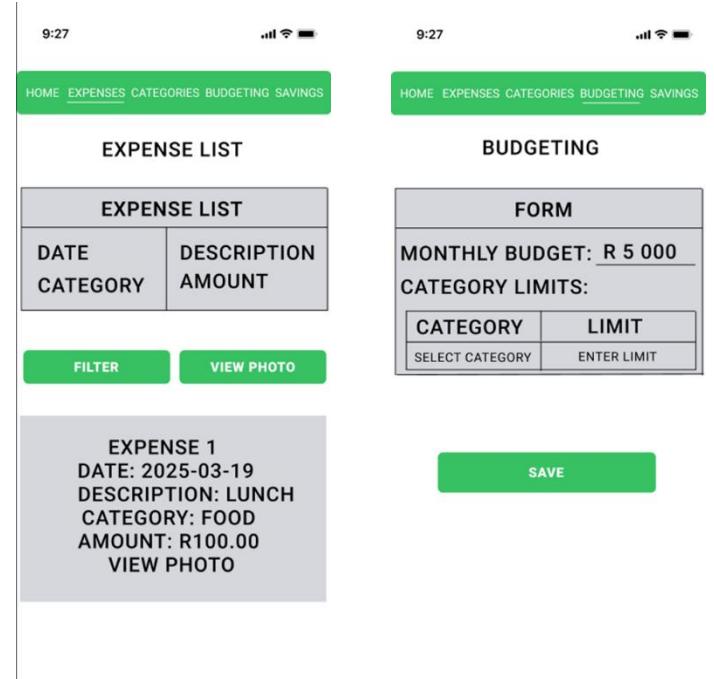


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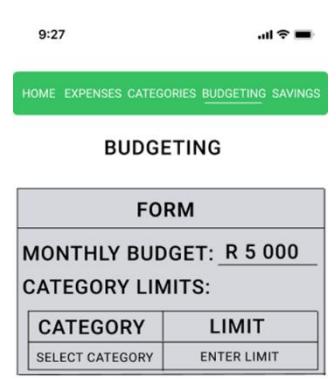


Figure 10

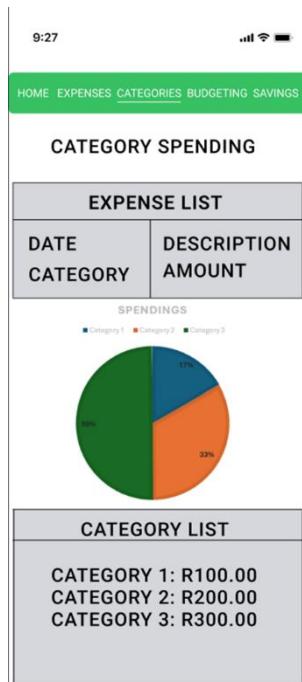


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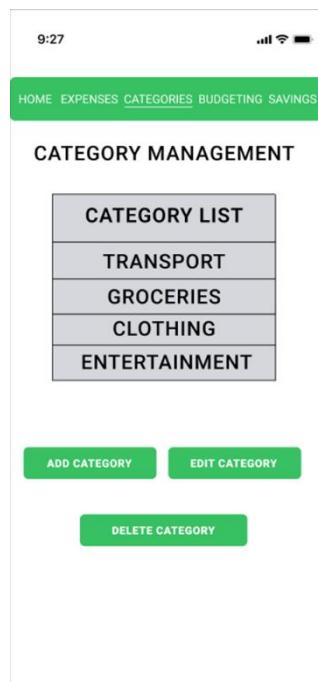


Figure 7

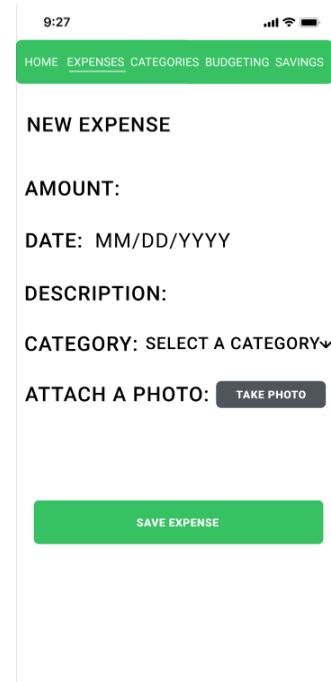


Figure 6

Navigation Diagram

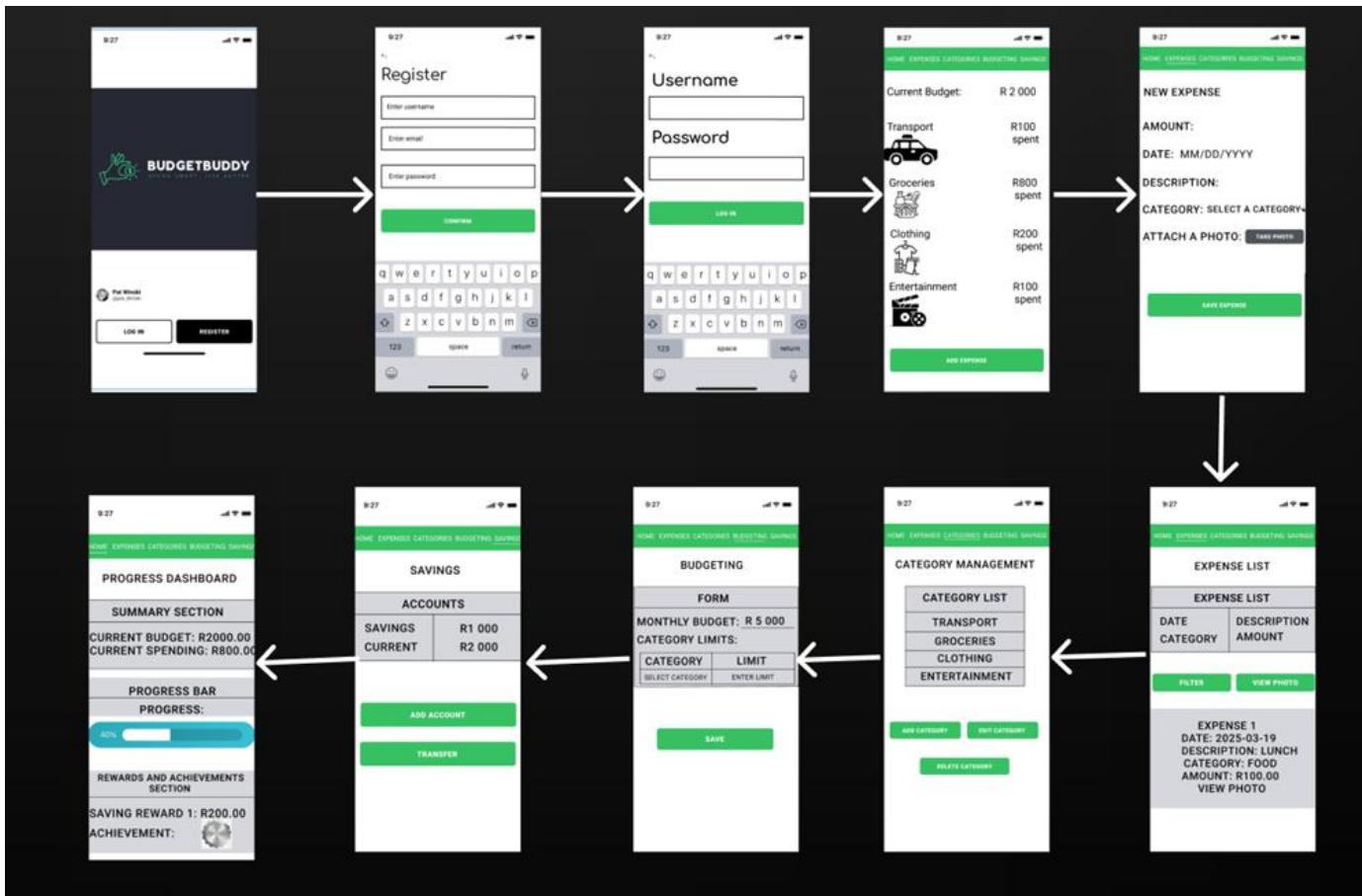


Figure 13

Project Plan

Project Phases & Task Assignments

Phase 1: Planning & Research (March 4 – March 8)

- ◆ Define project scope and objectives – *Puleng* (March 4)
- ◆ Identify target audience and key features – *Palesa* (March 5)
- ◆ Research similar budgeting apps and best practices – *Unako* (March 6)
- ◆ Assign roles and responsibilities – *Puleng* (March 7)
- ◆ Team meeting to review research – *All Members* (March 8)

Phase 2: UI/UX Design (March 9 – March 14)

- 🎨 **Create wireframes for main screens (dashboard, transactions, reports, settings)**
– *Unako* (March 9-10)
 - 🎨 **Design user interface mock-ups** – *Palesa* (March 11-12)
 - 🎨 **Gather feedback and adjust** – *Puleng* (March 13-14)
-

Phase 3: Part 1 Implementation & Submission (March 15 – March 19)

- ❖ **Set up project repository and development environment** – *Puleng* (March 15)
- ❖ **Implement user authentication (login/sign-up)** – *Unako* (March 16-17)
- ❖ **Basic dashboard layout and navigation** – *Palesa* (March 18)
- ✓ **Submit Part 1** – *Puleng* (March 19-20)

📌 **Deadline: March 20**

Phase 4: Core Features Development (March 21 – April 10)

- 💰 **Implement income and expense tracking** – *Palesa* (March 21-25)
 - 💰 **Add category-based budget management** – *Unako* (March 26-30)
 - 💰 **Implement database integration** – *Puleng* (March 31-April 5)
 - 📊 **Develop transaction history and reports** – *Unako* (April 6-10)
-

Phase 5: Testing & Bug Fixing (April 11 – April 18)

- 🔍 **Conduct unit testing for each feature** – *Puleng* (April 11-13)
 - 🔍 **Identify and fix major bugs** – *Palesa* (April 14-16)
 - 🎨 **Refine UI based on testing feedback** – *Unako* (April 17-18)
-

Phase 6: Part 2 Finalization & Submission (April 19 – May 1)

- 📌 **Final review of core features – Puleng (April 19-22)**
 - 📌 **Write documentation for implemented features – Palesa (April 23-27)**
 - ✓ **Submit Part 2 – Unako (May 1-2)**

 - 📌 **Deadline: May 2**
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Phase 7: Advanced Features & Final Touches (May 3 – May 20)

- 🌟 **Implement additional features (e.g., reminders, data export) – Palesa (May 3-7)**
 - 🎨 **Enhance UI/UX based on feedback – Unako (May 8-14)**
 - ⚡ **Optimize app performance – Puleng (May 15-20)**
-

Phase 8: Final Testing & POE Preparation (May 21 – May 30)

- 🔍 **Conduct full system testing – Unako (May 21-24)**
 - 🔍 **Fix remaining bugs – Palesa (May 25-27)**
 - 📄 **Prepare project report and presentation – Puleng (May 28-30)**
-

Phase 9: POE Submission (June 1)

- ✓ **Finalize all deliverables – All Members (June 1)**
 - ✓ **Submit POE – Puleng (June 2)**

 - 📌 **Deadline: June 2**
-

Gantt Chart

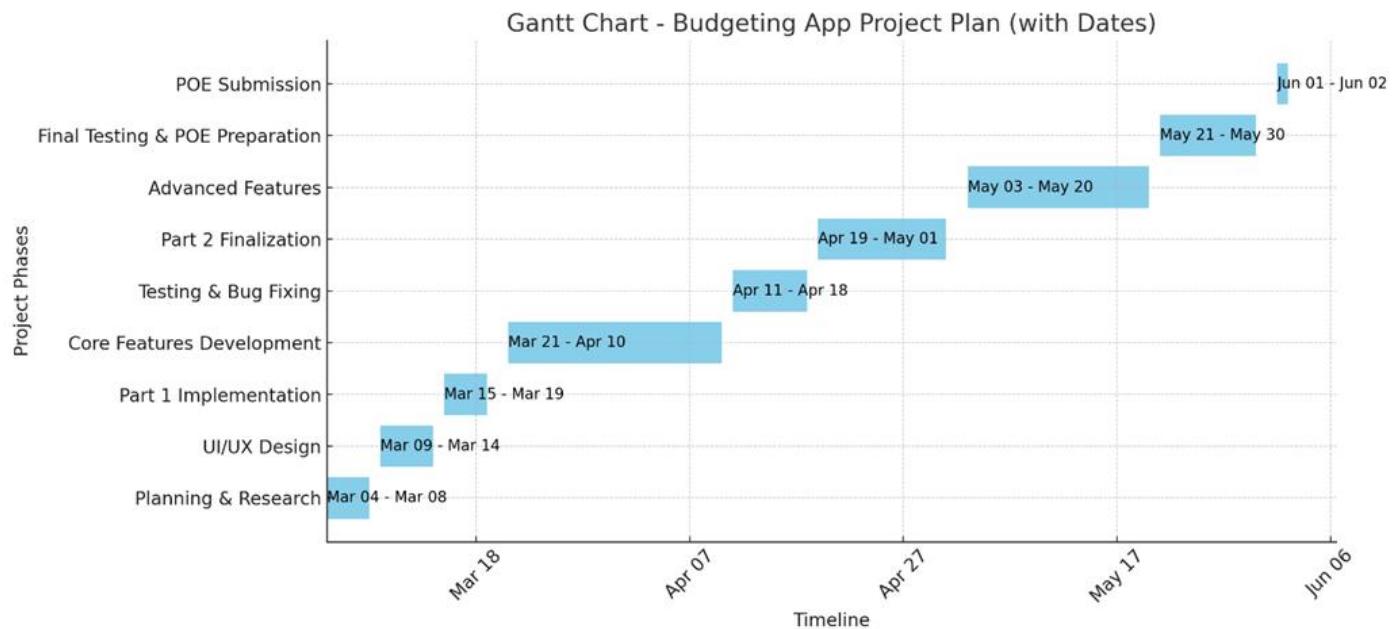


Figure 14

Conclusion

Through its ability to make money management interesting, interactive, and perceptive, Budget Buddy aims to transform personal budgeting. Our app's gamification, AI-powered insights, and user-friendly monitoring tools enable users to easily form healthier financial habits. Our well-organised project plan, which integrates best practices from top budgeting apps, guarantees a smooth development process. With its cross-platform compatibility, strong security, and user-friendly design, Budget Buddy seeks to deliver a dependable and pleasurable financial planning experience. As we continue to evolve, we are committed to provide customers with an intelligent, effective, and enjoyable budgeting solution that will enable them to "Spend Smart, Live Better."

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