**BudgetMate**

Project Report

Team

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**Introduction:**

**Application Name:** BudgetMate

**Purpose:**

BudgetMate is designed to help users manage their budgets and monitor income and expenses in an efficient and user-friendly way.

**Problem Statement:**

Many individuals struggle with keeping track of their financial activities. Without a structured system, managing expenses and understanding income flow can become overwhelming. BudgetMate aims to provide an easy-to-use solution for tracking and organizing personal finances, ensuring users can make informed financial decisions.

**Target Audience:**

BudgetMate is targeted towards a broad range of users, from teenagers to older individuals, who are looking for a way to stay informed about their financial status and make better budgeting decisions.

**Features:**

1. Adding and managing transactions (Income and Expense):
   * Users can easily add new transactions, specifying whether they are income or expenses. This feature allows for the categorization of transactions to ensure proper financial tracking.
2. View Statistics for Different Time Periods:
   * BudgetMate offers users the ability to view financial statistics divided into four predefined time periods: daily, weekly, monthly, and yearly. These statistics reflect the user's income and spending, categorized by transaction type.
3. Visualizations in Pie Chart and List:
   * For each time period, BudgetMate provides a detailed breakdown of income and expenses by category, visualized using a pie chart. Users can also view a list of categories with the total spending for each category, giving them clear insights into their financial behavior.

**Technologies Used:**

* Front-end:
  + - The front-end of BudgetMate is built using Flutter, a popular cross-platform development framework that allows the app to run on both Android and iOS devices.
* Back-end:
  + - While BudgetMate interacts with a back-end API for managing data, the focus of this project is on the front-end implementation only. The API handles the back-end logic, including database interactions.
* Database:
  + - The database is managed on the API side, meaning the mobile app communicates with the back-end to retrieve and store data.
* Design Tools:
  + - Figma was used for designing the user interface (UI) and user experience (UX) of BudgetMate. It helped create wireframes, prototypes, and visual assets for the application.

**Development Process:**

* **Methodology:**
  + - The development process for BudgetMate followed the Agile methodology, which allowed the team to work in iterative cycles, ensuring continuous improvement and adaptation throughout the project.
* **Task Management and Collaboration:**
  + - Each team member contributed by creating at least one page and implementing the core logic of these pages, ensuring proper functionality and integration of the various components.
* **Challenges Faced:**
  + - Some challenges that arose during development include:
    - **Integrating Front-End with API:** Ensuring smooth communication between the Flutter front-end and the back-end API was initially challenging.
    - **Design and Usability Concerns:** Adjusting the user interface to be both visually appealing and easy to navigate for a diverse target audience required multiple design iterations.
    - **State Management in Flutter:** Managing application state efficiently across different pages and ensuring that updates (like transaction additions) reflected correctly was a technical challenge.
* **Testing Approach:**
  + - Manual testing was performed throughout the development process. The team tested the app on multiple devices to ensure compatibility and correct functionality, especially for adding transactions and displaying statistics in pie charts.

**Conclusion:**

* **Key Achievements:**
  + - The BudgetMate app successfully delivers on its core functionality, allowing users to add and categorize transactions, view detailed statistics for multiple time periods, and visualize their financial status through interactive pie charts. The seamless and intuitive design helps users manage their income and expenses with ease.
* **How It Meets User Needs:**
  + - BudgetMate meets the needs of a wide audience by providing an easy-to-use platform for monitoring finances. The breakdown of statistics by time periods helps users stay informed about their financial habits and make better budgeting decisions. The ability to visualize data in pie charts enhances the overall user experience by making complex information easy to understand.
* **Future Improvements or Additions:**
  + - Future improvements for BudgetMate may include integrating additional features such as:
    - Syncing with external financial accounts or banks for automatic transaction logging.
    - Implementing advanced analytics, such as predictive expense analysis or budget recommendations.