

Monex - Expense Management System Application

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Abstract - The objective of implementing an Expense Management System is to streamline and automate the manual system through the use of computerized equipment and comprehensive software. This will enable efficient data/information storage for extended periods, with easy accessibility and manipulation. The required software and hardware are readily available and user-friendly.

By employing an Expense Management System, organizations can achieve an error-free, secure, reliable, and efficient management system. This system allows users to focus on other activities instead of spending time on record keeping. Consequently, the organization can optimize resource utilization, maintain accurate computerized records without redundant entries, and access relevant information without distraction.

Key Words: Expense Management, Expense Manager, Expenditure Management System, Expense Tracker

1. INTRODUCTION

Our project is designed to support staff in capturing their effort spent on respective areas, while generating valuable information for effective money management. The system will be expandable, with a user-friendly interface that facilitates easy usage. The project will also generate comprehensive reports on expenses, categories, payments, and more, providing valuable insights for efficient financial management.

People do not have track on their monthly expenses and receivables, and they do not have any control over what they spend. Developing an application which will be able to keep track on expenses and receivables can solve this problem.

To manage our monthly expenses, we designed a mobile application. Whatever we spend monthly or daily will be recorded in this application. And it is used to manage our monthly expenses.

Users can enter their limited budget of the entire month in this mobile application where when the user exceeds their given budget in the respective month will be notified

through Expenses Management System Application. And also some mathematical calculations are done to calculate the expenditure on what items users spend a lot and users will be notified that they are spending a lot of amounts on the respective item so that they can reduce their expenditure on that item in future and Chatbot is also included Called as Financial AI Assistance

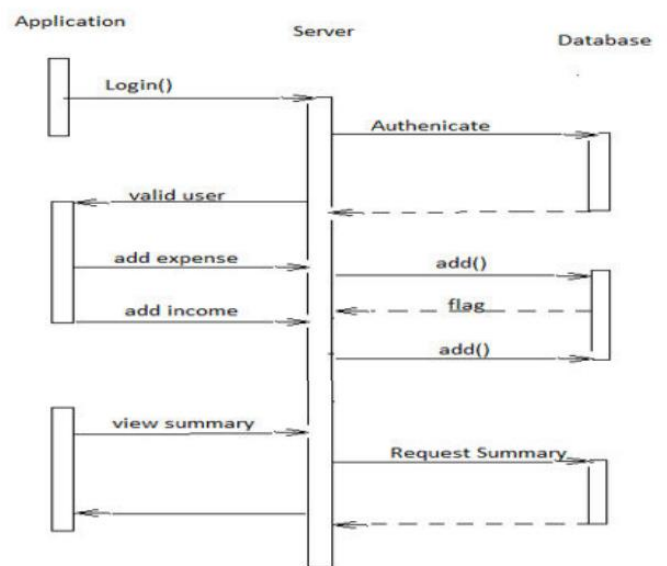


Fig -1: Sequence Diagram

2. MODULE DESCRIPTION

2.1 User Registration/Creation

New User Onboarding And Splash Screen Android Splash Screen is the first screen visible to the user when the operation's launched. Splash screen is a Special Issue Published in Int. Jnl. Of Advanced Networking & operations(IJANA) one of the most vital defenses in the operation since it's the user's first experience with the application. Call it when you want- to know the fresh features of the app new user onboarding is enforced. The user module also plays a pivotal part in enhancing the security of the operation.

It allows for features such as password hashing and encryption, account verification, and two-factor authentication, which help in safeguarding user data and preventing unauthorized access. The user module in a web application allows users to register an account by inputting their registration information, such as username, email, and password. The module validates and securely stores the user data in a database, generates a unique user ID, and provides functionalities like login, logout, profile

management, and access control to enhance the overall user experience and security of the application.

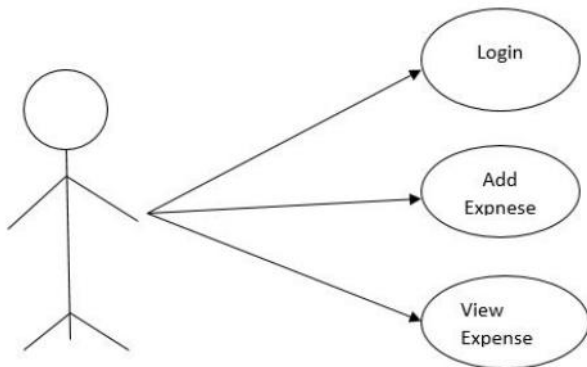


Fig -2.1: User Module

2.2 Budget Organiser Module

Budget tracking module in a project management system provides functionalities for planning, tracking, analyzing, and reporting on project budget data, allowing for effective financial management, course correction, and data visualization to support decision-making.

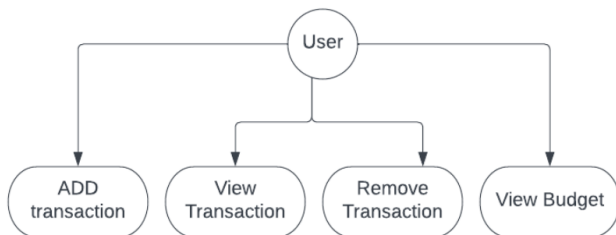


Fig -2.2: Budget Organiser Module

2.3 Categorization Module

Proper categorization of expenses can help individuals and businesses gain a better understanding of their spending patterns, identify areas where cost savings can be made, and make informed financial decisions. By accurately categorizing expenses, it becomes easier to track and analyze spending, create realistic budgets, and manage overall financial health effectively.

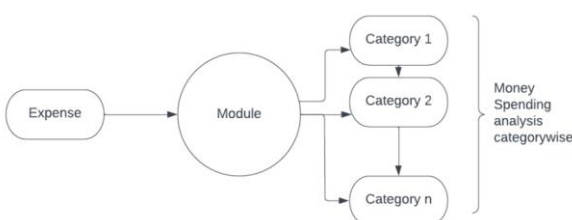


Fig -2.3: Categorization Module

2.4 Fianancial AI Assistance Module

To integrate ChatGPT into project or system, we can follow these general steps: Sign up for an OpenAI account and obtain an API key. Choose the appropriate API endpoint, such as the "davinci-codex" model. Make API requests using your API key and preferred programming language. Format input and output as messages with roles ("system", "user", or "assistant") and content. Parse API responses to extract generated text. Handle API rate limits to avoid rate limit errors. Test and iterate to fine-tune conversation flow and input format. Review and follow OpenAI's usage policies and guidelines for ethical AI practices. By following these steps, you can integrate ChatGPT into your project and leverage its capabilities for conversational interactions with users or other applications.

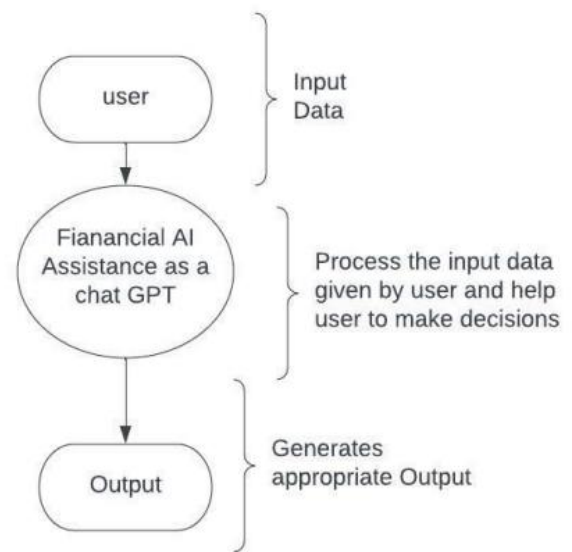


Fig -2.4: Financial AI Assistance Module

3. CONCLUSIONS

Our project involves the development of a mobile application that enables users to track their personal expenses, personal contributions towards expenses, and monthly incomes. The application provides information on "who owes who and by how much," eliminating the need for sticky notes, spreadsheets, and ledgers that often result in confusion and data inconsistency. With our application, users can effectively manage their expenses. We have also considered adding additional features to make the application more user-friendly, such as allowing users to register using their existing email or social network accounts and synchronizing their profile information with the application.

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