

# Money Minder: Financial Well-Being Advisor

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***Abstract—Managing money, saving, and investing are central to personal finance, which encompasses mortgages, estate planning, investments, budgeting, insurance. Planning and budgeting are concerns by most people nowadays regarding their regularity of daily expenses. personal finance management system. A thorough description of the designed system is provided, along with test scenarios to demonstrate its functionality and effectiveness. The benefits of budgeting tools because budgeting applications are able to simplify people's life by helping them to take control of their financial affairs effectively.***

***Keywords: Managing money, investments, budget, banking, financial opportunities.***

## I. INTRODUCTION

The rational management and distribution of resources are more critical than ever. This issue arises at various levels, from managing personal time among schoolchildren to the financial planning of large corporations. As the amount of available information and created goods grows, so does the complexity of managing them. The concept of personal finance management is not new; it emerged alongside the monetary system thousands of years ago, rooted in basic human needs.

Planning income and expenses allows individuals to make useful predictions and change habits, such as reducing excesses or investing in important areas like education, health, and family. Effective financial management provides current information on cash flows and actual costs, helping to identify areas for saving and prioritizing spending. Budget planning is crucial for avoiding unplanned expenses and budget gaps, especially for those with loans or debts or needing to save money quickly. A planning tool can reveal the true financial picture, reduce unnecessary expenses, and increase available funds.

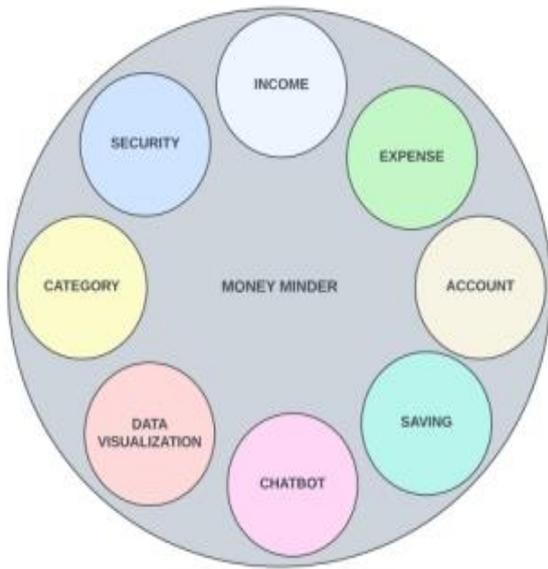


Fig 1: Modules

The proposed project for this proposal will be a Personal Finance Management mobile application with Chatbot in Android-based. The purpose of this application is to help users to keep track of their flow of cash, and provide them better visibility into their financial status in a way of computerised diary. This application is able to help us to reduce the hectic process caused by using the traditional methods of planning and budgeting. Sometimes it may lead to problems like wrong calculations, and data loss. Thus, we are trying to satisfy the user's requirements by building a mobile application that will help them reduce their burdens.

**II. LITERATURE SURVEY**

<p>[1] Reseach paper for personal finance tracker- May 2024</p>	<p>Applications must allow users to easily record and categorize their spendings. Transforming raw financial data into actionable insights through charts, graphs, and dashboards. The research includes a comparative analysis and platform adheres to the highest standards of data security.</p>
<p>[2] Peculiarities of Building Personal Finance Management System - 2022</p>	<p>The paper develops a personal finance management system with features like expense tracking, budget planning, and data visualization, helping users manage and optimize their finances effectively.</p>

<p>[3] Personal Finance Application GROW MORE-2022</p>	<p>Addresses the manual data entry drawback of system by suggesting future integration with banking accounts to automate transaction tracking. Emphasizes a more user-friendly interface.</p>
<p>[4] Design of a Rule based Personal Finance Management System based on Financial Well-being 2021</p>	<p>The research overcomes traditional PFM limitations by introducing a system based on awareness, insight, and advice. It automatically track transactions, provides visual insights, and offers personalized, rule based advice on saving and spending. This helps users set realistic financial goals and make informed decisions, promoting long term financial well-being.</p>
<p>[5] Strategies of Successfully Managing Personal Finances for System Excellence-Sept 2019</p>	<p>Emphasizes the importance of seamless mobile-desktop integration for an enhanced user experience as in previous was a web-based solution.</p>
<p>[6]Design and development of Finance management System- June 2019</p>	<p>User-Centered Features like income tracking, expense records, and savings goals. Cross-Platform Access as it develop a web-based solution that is accessible from multiple devices.</p>

**III. ARCHITECTURE**

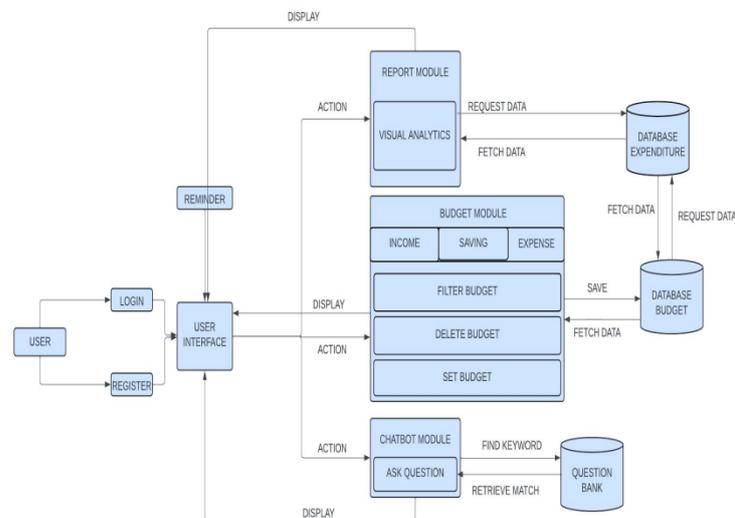


Fig 2: System Architecture

#### IV. METHODOLOGY

##### 1) *Category Module*

This module helps users set up and manage their personal budgets across various categories, such as food, rent, entertainment, and more. Users can create monthly or weekly budgets for different expense categories. Real-time tracking of spending against the budget is enabled, and users receive notifications if they are close to exceeding their budget limits.

##### 2) *Expense Tracking Module*

The core of the tracker, this module allows users to log and categorize their daily expenses. Expenses are categorized (e.g., food, travel, utilities) to give users a clear picture of where their money is going. This module also supports recurring expenses (e.g., monthly bills), which are automatically deducted from the user's balance.

##### 3) *Savings Module*

The Savings module helps users set and achieve financial goals by encouraging better saving habits and providing tools to track progress. Users can create specific savings goals (e.g., emergency fund, vacation, home down payment). The system will provide visual indicators (graphs, bars) to show the progress toward the savings goal. Real-Time Analytics analyzes spending patterns to identify potential areas where savings can be increased.

##### 4) *Chatbot Module*

The Chatbot module is an AI-driven virtual assistant that helps users interact with the personal finance management system through conversations. It provides quick responses to user queries, financial advice, and task automation. Expense Queries as Users can ask the chatbot for specific details, such as "How much did I spend on groceries last month?" or "What's my total income this year?"

##### 5) *Security and Privacy Module*

Ensures that user data is securely stored and accessed, maintaining privacy and compliance with security standards. Functionality: Uses encryption for secure data transmission and storage. User authentication and role-based

access control ensures only authorized users can access sensitive information. Adheres to financial data protection regulations to gain user trust.

##### 6) *Income Module*

Helps users track and manage their income from various sources, providing a clear overview of cash inflows. Functionality: Users can log multiple income sources (e.g., salary, freelance work, passive income) with details like date, amount, and category. Automatically calculates total income over a defined period (weekly, monthly) and integrates this data with the budget and savings modules. Provides insights into income patterns over time, helping users understand fluctuations in their earnings.

##### 7) *Account Module*

Securely store essential financial details, including **UPI IDs, bank account details, credit card, and debit card information**. This module ensures efficient management of multiple payment methods while maintaining data integrity and security. Utilizing encryption techniques, it protects sensitive user information from unauthorized access.

#### V. FLOWCHART

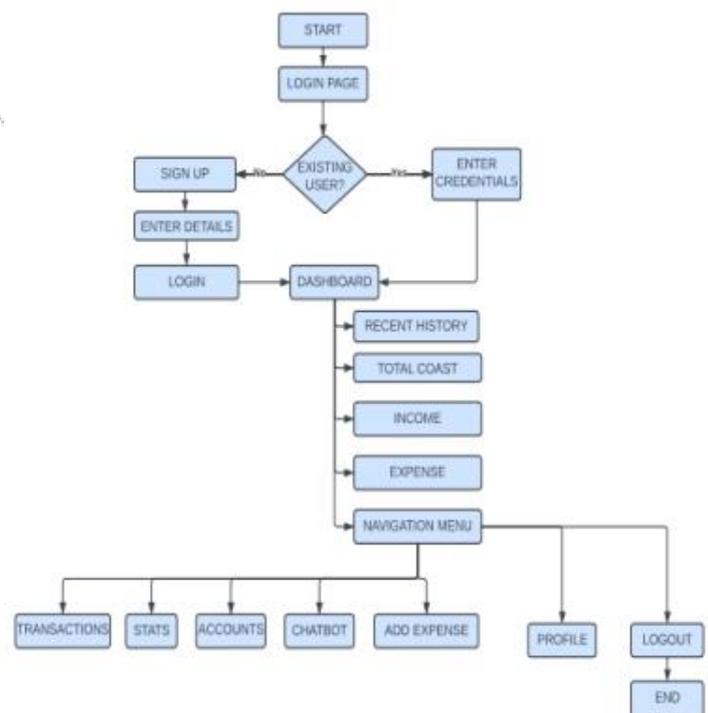


Fig 2: Flowchart

## VI. CATEGORIZING PERSONAL FINANCE

### 1) *Saving of Money*

For future spending or investing the excess cash can be consider as saving of money. If what the person spend and what he earn as income there is any surplus the difference can be defined as saving or investments. Saving management is the crucial factor of personal finance. Basic types of savings are as follows:

- a. Securities related to market of money
- b. Cash in Physical form
- c. Savings in bank accounts
- d. Bank account checking

### 2) *Income*

A source of cash flow that receive by a person can refers as income, the income are used for supporting family and themselves. Basic types of income are including:

- a. Pensions
- b. Bonus
- c. Dividends
- d. Salaries
- e. Hourly wages

### 3) *Investing*

The purchasing of assets in the hope that it will give more money that previously invested can be consider as investment. It use as an expectation of generate a rate of return. All investment does not give always positive return so investment carries some risks. Some basic types of investing are as follows:

- a. Commodities
- b. Mutual funds
- c. Private companies
- d. Stocks
- e. Real estate
- f. Bonds
- g. Art

### 4) *Prevention*

To guard against an adverse or unforeseen event Personal protection refers to a wide range of products. Some basic types of protection products are:

- a. Estate planning
- b. Life insurance
- c. Health insurance

### 5) *Expenditure*

Related to buying services and goods or anything consumable things all types of expenses an individual incurs including in appending. All spending divided in two categories: one is credit and other is cash. Some basic types of spending including:

- a. Food
- b. Taxes
- c. Rent
- d. Credit card payments
- e. Mortgage payments
- f. Travel
- g. Entertainment

## VII. RESULT

The software product has the functions of adding a new record, viewing cost history, category statistics, deleting and editing records, budget planning, setting financial savings goals, and getting tips on better financial planning and accounting. To achieve these results, the Java programming language and the Android Studio programming environment were used. The Realm mobile database were used to functional tests and GUI testing have been developed.

1)Expense Tracking:Accurate and intuitive expense tracking is fundamental.

2)Data Visualization:Transforming raw financial data into actionable insights through charts, graphs, and dashboards is essential. Clear and insightful data visualization helps users understand their financial patterns and make informed decisions.

3)Security:Ensuring the safety and privacy of users' financial data is paramount. Robust encryption, secure login methods, and data protection measures are critical to gain and maintain user trust.

4)Savings Goals:Effective budget planning tools help users create budgets for different categories and monitor their adherence in real-time.

5) Budget Planning: Setting and tracking savings goals is crucial for long-term financial health. Applications that allow users to set specific savings targets and track their progress with visual indicators can motivate users to save more effectively.

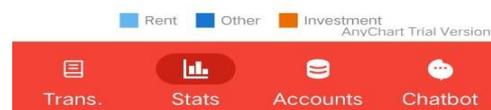
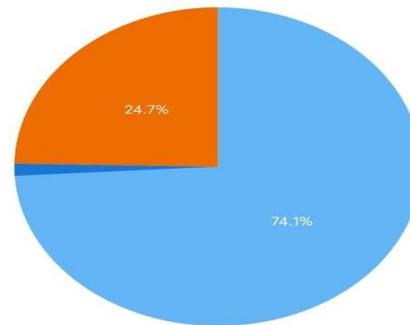
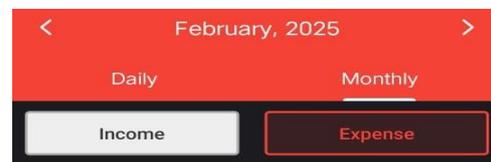
6) Comparative Analysis: The research includes a comparative analysis with five existing telemedicine systems, namely Toshl Finance, Buxfer, Money Lover, Spendee and Budget.

7) The program allows you to keep track of the finances of several people with different profile settings: currency, joint or separate budget.

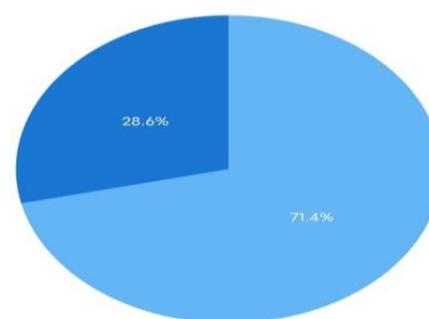
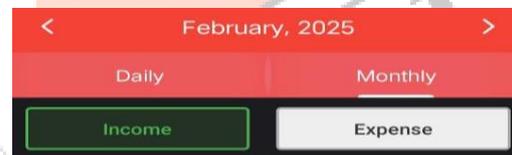
### VIII. ANALYSIS

A structured approach to personal budgeting by enabling users to allocate funds across various spending categories. By offering real-time tracking and notifications, this module enhances financial discipline and prevents overspending. The ability to set weekly or monthly budgets helps users adapt to different financial planning strategies. Categorizing expenses allows users to identify areas where they may be overspending and make adjustments accordingly. The inclusion of recurring expenses automation reduces manual input efforts, ensuring that fixed obligations are always accounted for.

The Chatbot Module leverages AI to provide an interactive and user-friendly experience for financial management. By offering instant responses to user queries, this module enhances accessibility and ease of use. The ability to fetch expense and income-related insights upon user request simplifies financial tracking. Furthermore, the chatbot can offer financial advice based on spending patterns, helping users optimize their financial decisions. This module bridges the gap between users and complex financial data, making financial planning more intuitive and efficient.



The Financial Advisor project is designed to provide a comprehensive solution for personal financial management. Each module contributes uniquely to creating a holistic and efficient financial ecosystem. The integration of real-time analytics, AI-driven assistance, and robust security measures ensures that users receive an intuitive, secure, and insightful experience.



## IX. FUTURE SCOPE

**Scalability:** The system is designed to handle increased data and user traffic as it scales. Optimizing backend operations and database performance will ensure the platform remains fast and responsive, even with large datasets.

**Accuracy and Data Insights:** Future improvements will focus on increasing the accuracy of transaction categorization and expense tracking through advanced algorithms and AI-driven suggestions.

## X. CONCLUSION

The proposed project is a personal finance management mobile application with chatbot and the purpose of this application is to help users to keep track of their flow of cash, providing them better visibility into their financial status. The target users of this project are those who are not aware of their overspending and have no idea where they have spent their money.

## XI. REFERENCE

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