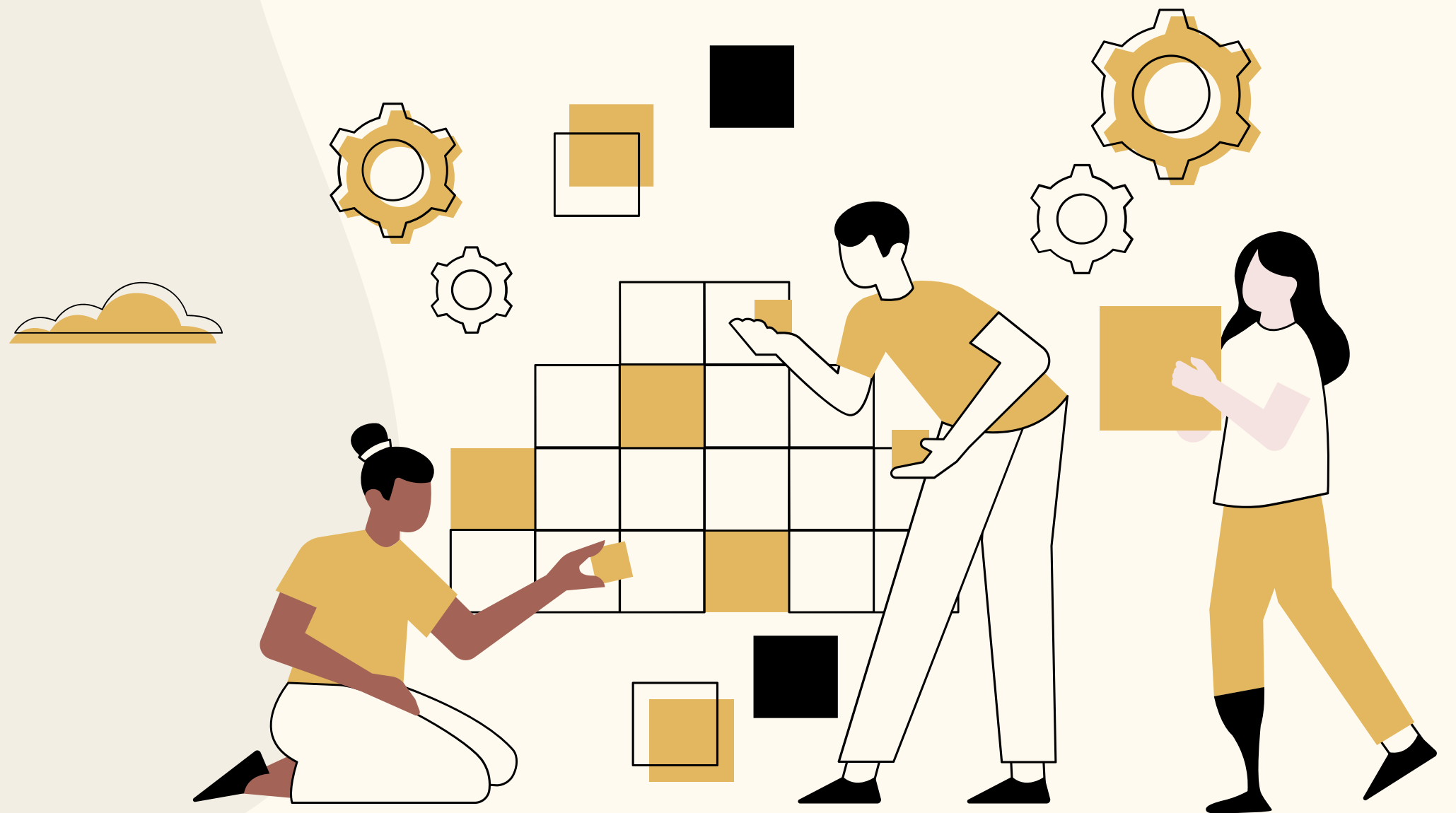


SaveSage

Personal Finance Advisor

Created by Varsha Vikraman

10/10/2025



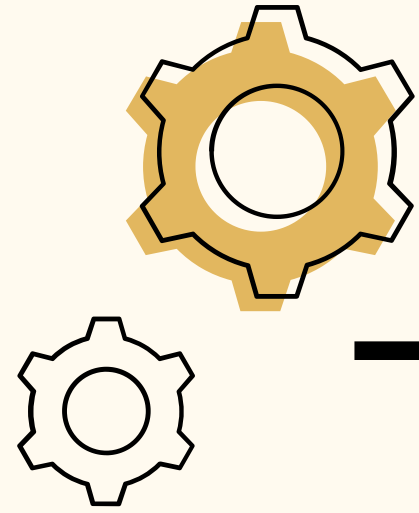


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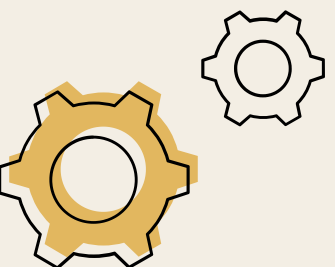
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Introduction

This Personal Finance Advisor is designed to help users to track income, allocate funds automatically, manage budgets, monitor savings, and achieve financial goals effectively.

It combines automation, data visualization, and financial insights to help users maintain spending discipline and make smarter money decisions.

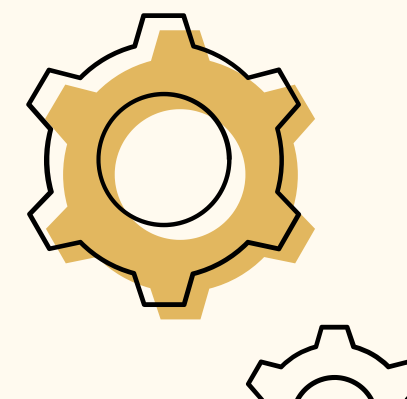


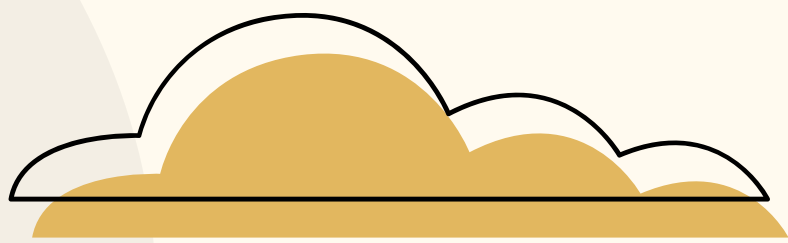
Objectives:

- Automate income distribution into budget, savings, and goals.
- Provide secure and easy tracking of monthly income, expenses, and savings.
- Enable users to visualize financial data using interactive charts.
- Deliver personalized insights and alerts to encourage better money habits.

Technology Stack:

- Frontend: React.js, Tailwind CSS
- Backend: Node.js, Express.js
- Database: MongoDB
- Authentication: JWT with HTTP-only cookies
- Charts: Recharts for expense and savings visualization

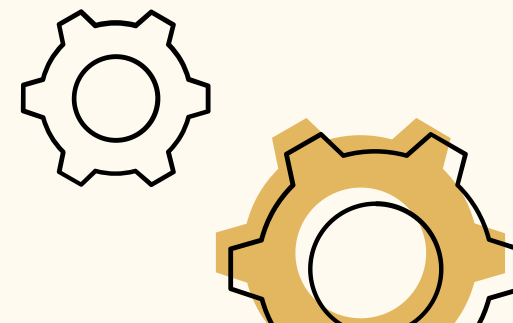




Project Scope & Key Features

The Personal Finance Advisor covers all major aspects of individual financial management — from income allocation and budgeting to savings tracking, expense control, and goal achievement.

It provides real-time analytics and alerts, ensuring users maintain a balanced financial lifestyle.



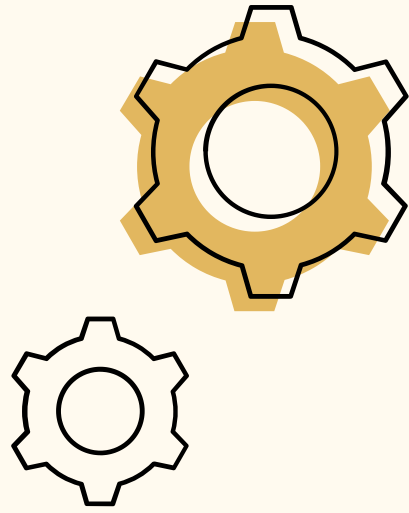
Key Features

1. User Registration & Login

- Secure account creation and login using authentication.
- Personalized access with data isolation per user.
- Protected routes for authorized access only.

2. Income Allocation

- Users must first add their monthly income.
- The system automatically divides it into:
 - Budget: For monthly expenses (food, travel, shopping, etc.)
 - Savings: Including emergency buffer
 - Goals: For long-term plans (vacation, gadget, debt repayment)
- Supports predefined allocation strategies like 50/30/20, 60/20/20, or 70/10/20.
- Previous month's income is auto-carried forward and can be updated if needed.

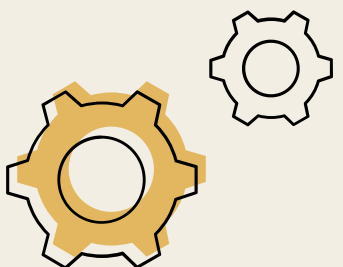


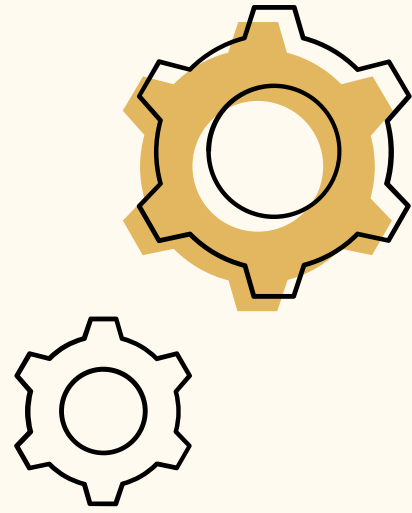
3. Budget Management

- Set category-wise spending limits (e.g., food, travel, shopping).
- As expenses are added, the corresponding budget decreases automatically.
- If a category overspends:
 - Extra amount is deducted from the remaining budget.
 - If the budget reaches zero, the system deducts from savings.
 - If savings are exhausted, the amount is taken from goal allocations.
- Users receive notifications when spending nears or exceeds limits.

4. Savings Management

- The Savings Component allows users to:
 - View allocated savings (based on income distribution).
 - Withdraw funds from savings when required.
 - Track total savings and remaining balance dynamically.
- Each withdrawal automatically updates the user's total available savings.
- A Bar Chart visually represents monthly savings allocation.



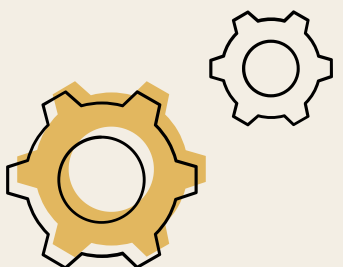


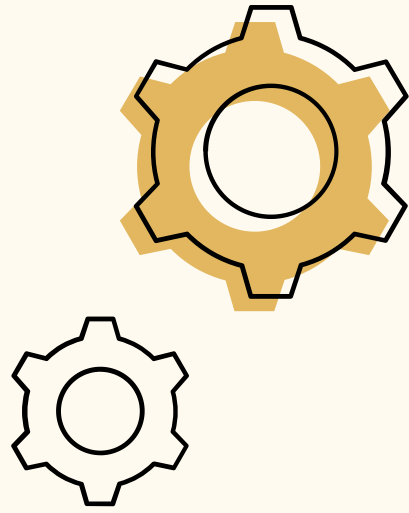
5. Expense Tracking

- Users can add expenses manually by category.
- Expenses automatically reduce the respective category's budget.
- Supports monthly and multi-month expense analytics:
 - Monthly expense overview chart
 - Range of months overview chart
 - Category breakdown and report

6. Goal Allocation & Tracking

- A portion of income is allocated to goals at month-end.
- When multiple goals exist, allocation is distributed proportionally.
- Once a goal is achieved:
 - The system stops further allocation.
 - Sends a goal completion notification.



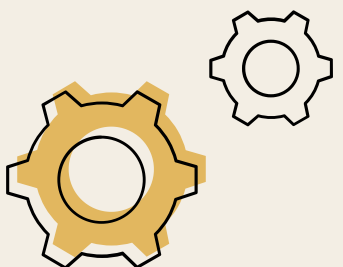


7. Financial Insights & Advice

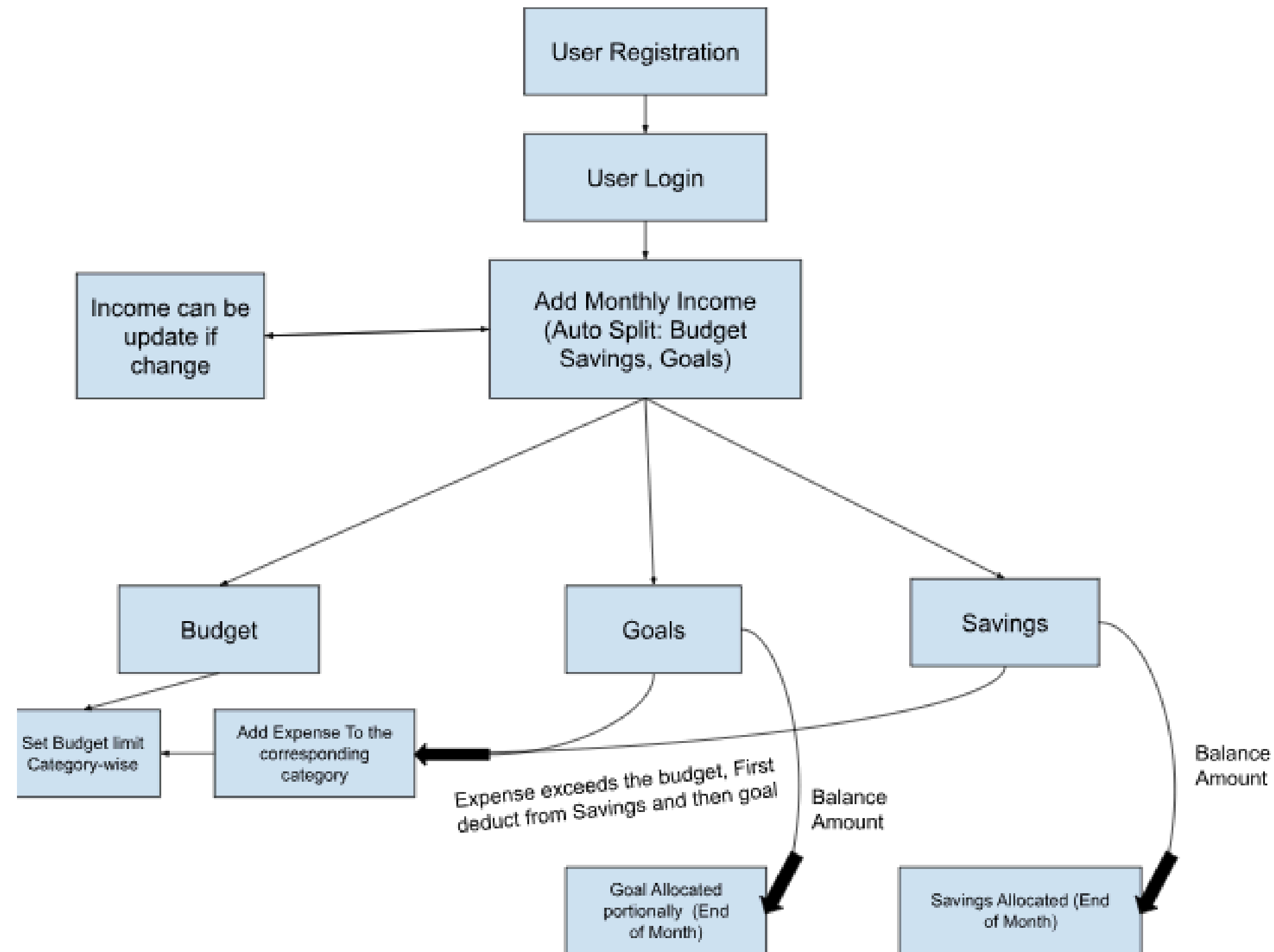
- The system provides personalized insights such as:
 - “You spent 20% more on travel this month compared to last month.”
 - “You are on track to achieve your vacation goal two months earlier.”
- These insights help users:
 - Detect overspending trends.
 - Stay motivated toward savings and goals.

8. Visual Reports & Charts

- Expense Charts: Monthly and multi-month trends with category-wise breakdown.
- Savings Charts: Bar charts showing monthly savings and withdrawal history.
- Goal Progress Charts: Percentage completion visualization for each goal.



Workflow Diagram



Use Case: Managing Monthly Income & Expenses

- **User Registration & Login:** A new user signs up, verifies their account, and logs in.
- **Income Entry:** The user enters their monthly income.
- **Automatic Allocation:** The system automatically divides the income into Budget, Savings, and Goals based on the chosen allocation strategy. The previous month's income is carried over for continuity.
- **Expense Logging:** The user manually adds expenses, specifying the category.
- **Budget Update:** The system automatically deducts the expense amount from the corresponding budget.
- **Overspending Logic:** If an expense exceeds the budget, the system follows a cascading deduction:
 - Deduct from the allocated budget first.
 - If the budget is empty, deduct from Savings.
 - If Savings is also empty, deduct from Goals.
- **Financial Insights:** The system analyzes the user's spending data and provides a visual overview with charts and personalized advice.
- **Goal Progress Tracking:** At the end of the month, the system allocates the set portion of the income to the user's goals. Progress is tracked and displayed.



Future Enhancements

1. **AI-driven finance advice**

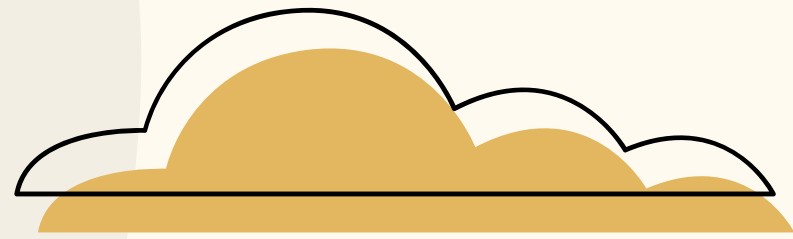
It provides not just what happened, but what will happen and what the user should do next to achieve their financial independence faster.

2. **Recurring Expenses**

Allow users to set up recurring expenses (e.g., rent, subscriptions) that are automatically logged each month.

3. **Custom Allocation Strategies**

Allow users to set up recurring expenses (e.g., rent, subscriptions) that are automatically logged each month.



Conclusion

- The Personal Finance Advisor provides an all-in-one platform for income management, budgeting, savings, and goal achievement.
- The inclusion of a Savings Component with withdrawal functionality and bar chart visualization enhances user control and awareness of financial growth.
- Overall, the system encourages smart financial habits through automation, analytics, and actionable advice.

