

CASE STUDY
ON
PERSONAL FINANCE MANAGER

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OBJECTIVE

1. The objective of this project is to develop a personal finance manager application that helps users track their income, expenses, budget goals, and visualize their financial health using data analysis techniques.

PROBLEM STATEMENT

Managing personal finances can be challenging due to overspending, lack of budgeting, and difficulty in tracking expenses. This project aims to provide a structured solution for better financial planning and monitoring.

SOLUTION

The finance manager's application will:

1. Track income and expenses with categorized transactions.
2. Compare actual spending against a predefined budget.
3. Visualize financial trends using graphs and charts.
4. Provide insights on savings and expenses to help users make informed decisions.

IMPLEMENT CODE

The implementation of this project includes:

1. Data Collection & Preprocessing: Loading or creating financial data, categorizing transactions, and extracting trends.
2. Budget Comparison: Comparing spending against a predefined budget to highlight overspending or savings.
3. Data Visualization: Generating visual insights using Matplotlib and Seaborn, including budget vs. actual spending, monthly trends, and income vs. expenses.

IMPLEMENTATION CODE

GitHub: <https://github.com/SoniaM-0402/TSP4.0/blob/main/PersonalFinanceManager.py>

OUTPUT

The application provides key financial insights through:

1. Budget vs. Actual Spending: A bar chart comparison between planned budgets and actual expenses.
2. Monthly Expense Trends: A line graph showing how spending varies over time.
3. Income vs. Expenses Breakdown: A pie chart summarizing the proportion of income and expenses.
4. Correlation Analysis: A heatmap highlighting relationships between different spending categories.