

Infosys Springboard Virtual Internship 6.0

Completion Report

Batch Number: 4 – TEAM D

BUDGETWISE AI BASED EXPENSE FORECASTING TOOL

Start Date: 13/10/2025

Internship Duration: 8 Weeks

1. Project Title

BudgetWise AI based Expense Forecasting Tool

2. Project Objective

The BudgetWise – AI-Based Expense Forecasting Tool is a smart financial management system designed to help users gain better control over their personal finances. The system combines expense tracking, budgeting, and predictive analytics to deliver meaningful insights into spending patterns. By leveraging artificial intelligence, it analyzes historical financial data to forecast future expenses and highlight unusual or irregular spending behaviors.

BudgetWise addresses a common challenge faced by individuals: the lack of visibility and planning in day-to-day financial activities. Traditional budgeting methods are often manual, time-consuming, and reactive, making it difficult for users to stay within limits or anticipate future financial needs. This tool simplifies the process by automating data collection, offering real-time analytics, and providing personalized recommendations that support informed decision-making.

The platform focuses on intuitive design and user accessibility. Users can categorize expenses, set budget limits, visualize their spending through interactive charts, and receive alerts when overspending is detected. AI-driven forecasting enables users to plan ahead, avoid financial stress, and work toward long-term financial goals more effectively.

BudgetWise aims to empower users with a reliable, intelligent, and user-friendly solution for financial management. Its ability to combine data analytics, automation, and adaptive learning creates a proactive system that not only reports expenses but also enables users to strategically manage and improve their financial habits over time.

3. Project Description in Detail

BudgetWise is an intelligent expense management and forecasting system designed to assist individuals in planning, tracking, and optimizing their financial activities. This application integrates traditional budgeting practices with modern data analytics and artificial intelligence techniques to provide a comprehensive and proactive approach to personal finance management.

The primary function of BudgetWise is to record day-to-day financial transactions and categorize them into relevant expenditure groups. Users can set monthly or custom budgets for each category, monitor their spending behavior, and evaluate their financial standing in real time. The system automatically processes the collected data to generate visual insights, including charts, trends, and summaries that enable users to understand how, where, and when their money is spent.

A key distinguishing feature of BudgetWise is its AI-driven forecasting engine. By analyzing historical spending patterns, seasonal variations, and user-specific behaviors, the system predicts future financial trends and estimates probable expenses. This predictive capability allows users to anticipate upcoming financial commitments, plan budgets proactively, and make informed decisions that minimize the risk of overspending or financial mismanagement. Additionally, the system incorporates anomaly detection mechanisms that identify irregular expenditures and alert users to potential financial risks.

To ensure a smooth user experience, BudgetWise emphasizes a clean and intuitive interface that is suitable for both technologically experienced and novice users. The application supports secure data management practices, ensuring that

financial information is processed and stored confidentially. Users are encouraged to engage with their financial data through intuitive dashboards, interactive charts, and personalized notifications.

BudgetWise is not merely a tool for tracking expenses; it functions as a holistic financial assistant that supports long-term financial literacy and discipline. By empowering users with predictive insights, performance analytics, and actionable recommendations, the system promotes responsible financial behavior and helps individuals achieve better control over their budgeting and expense planning. This makes BudgetWise a valuable solution in addressing the growing need for smart, automated, and user-centric financial management tools in today's digital ecosystem.

4. Timeline Overview

| WEEK | ACTIVITIES PLANNED | ACTIVITIES COMPLETED |
|--------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Week 1 | Requirement collection and understanding | Basic requirements identified |
| Week 2 | Project scope definition and planning | Scope defined and plan prepared |
| Week 3 | System design and module structuring | Initial designs/mockups created |
| Week 4 | Data collection and database setup | Sample data collected and structured |
| Week 5 | Development of core features: Implement expense tracking module, Develop budgeting features, Connect backend and UI | Basic modules implemented |
| Week 6 | AI Integration: Implement forecasting model Add analytics and reports Optimize algorithm accuracy | Forecasting model integrated |

| | | |
|---------------|-------------------------------------|-----------------------------------------------|
| Week 7 | Testing and debugging | Functional testing completed |
| Week 8 | Deployment and documentation | Application deployed, report completed |

5a. Key Milestones

| MILESTONE | DESCRIPTION | DATE ACHIVED |
|------------------------------|----------------------------------------------------------------------------------------|---------------------|
| Project Kickoff | Initial planning meeting to define goals, requirements, and project strategy. | 24/10/2025 |
| Prototype/First Draft | Basic working model developed to demonstrate core functionalities and UI flow. | 7/11/2025 |
| Mid-Term Review | Progress evaluation with feedback to improve features, design, and performance. | 21/11/2025 |
| Final Submission | Completed project with all modules integrated, tested, and documented. | 5/12/2025 |
| Presentation | Formal demonstration of the system, findings, and outcomes to the evaluators. | 12/12/2025 |

5b. Project execution details

1. Requirement Analysis

Identified user financial challenges and defined goals to create an intelligent expense forecasting tool.

2. Technology Selection

Selected suitable technologies to enable accurate predictions, efficient processing, and a user-friendly interface.

3. System Design

Planned system architecture and interfaces to support smooth data flow, analytics, and user interaction.

4. Data Collection

Collected expense-related data to build a reliable foundation for tracking, analysis, and forecasting.

5. Data Preprocessing

Organized and refined data to ensure high-quality inputs for accurate prediction and insights.

6. Model Development

Developed forecasting models to predict future expenses and support proactive financial planning.

7. Frontend Development

Created an intuitive dashboard to visualize spending, budgets, and AI-generated insights.

8. Backend Development

Built backend logic to manage data, run predictions, and securely connect users with financial insights.

9. Testing & Integration

Verified system accuracy, performance, and usability to ensure a reliable user experience.

10. Deployment & Documentation

Launched the application and documented key features to support users and showcase project results.

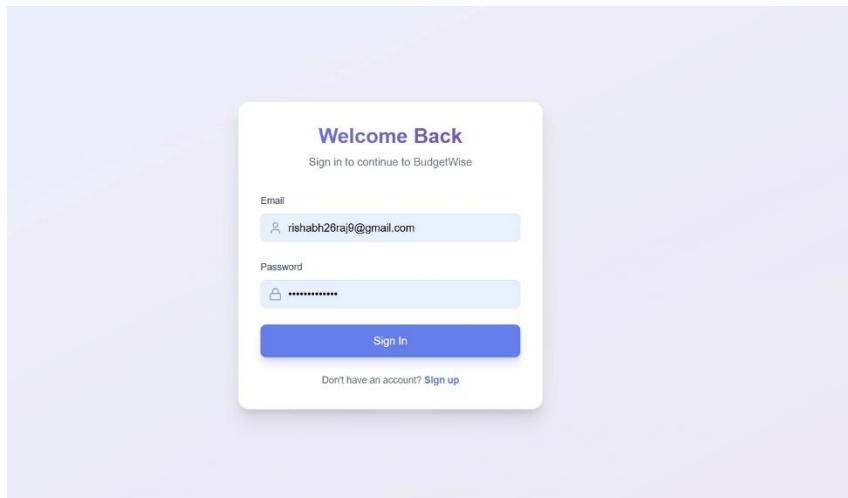
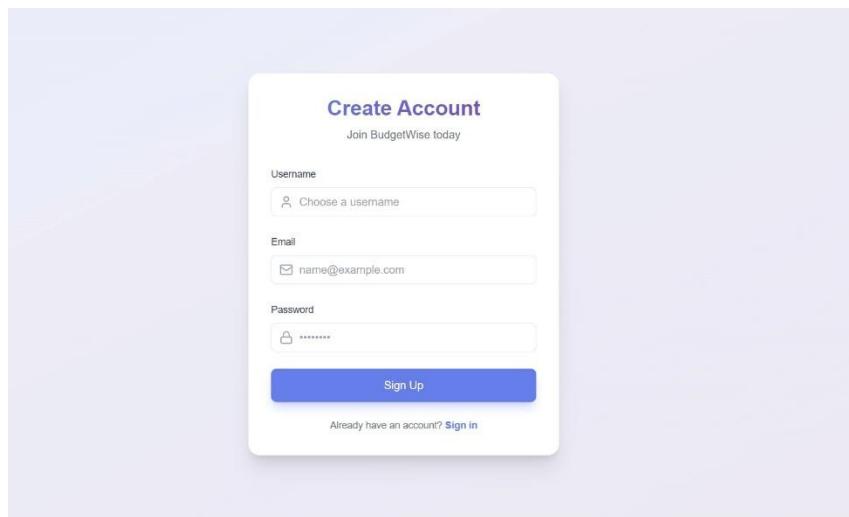
6. System Output Showcase

Step 1 : Go to Github and clone the Repository in your system then open in VS Code to do the execution , here is the github repo link :

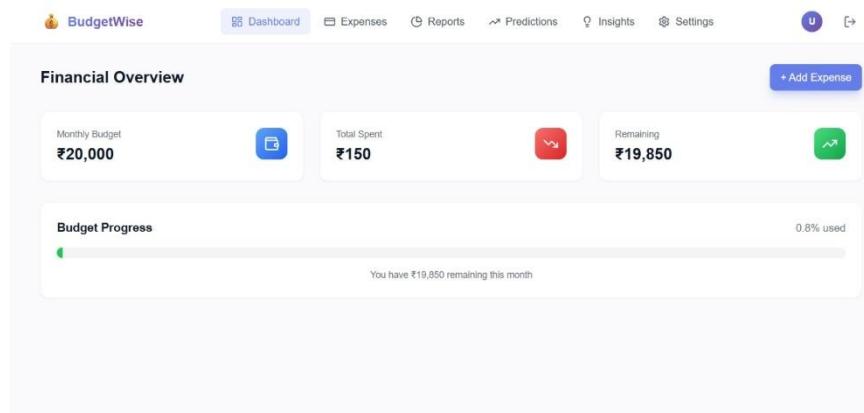
<https://github.com/rishabh26raj/Budgetwise>

Step 2 : Start the with python app.py

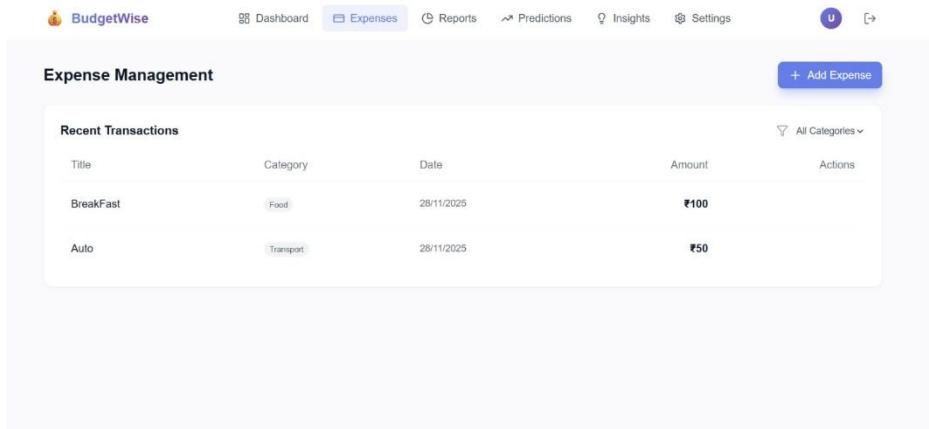
Step 3: After clicking on Login/Signup here user need to register and log in for Authentication.



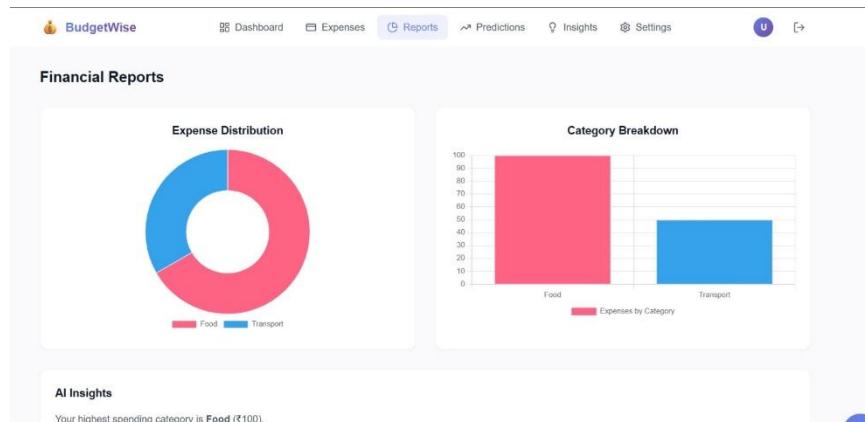
Step 4: After submitting user input it showcase the basic data on as a dashboard.



Step 5: In these Expense tab user can add new expense like food, transport and others.



Step 6: Here is basic report also with graph and charts.



Step 7: In this section we can predict our expenses periodically.

Step 8: In this section we can gain AI insights and suggestions (smart suggestions are provided in this tab).

Step 9 : The monthly budget limits are set and also a csv file upload option is given to upload as a .csv file.

7. Challenges Faced

1. Data Availability – Difficulty in collecting reliable and diverse financial data for the system.
2. Data Quality Issues – Need to handle missing, duplicate, or inconsistent records during preprocessing.
3. Model Selection – Choosing an appropriate ML model to achieve accurate expense predictions.
4. Performance Optimization – Ensuring fast processing while running analytics in real time.
5. UI/UX Design – Creating a simple interface that clearly displays complex financial insights.
6. System Integration – Connecting backend services and ML models without causing failures.
7. Testing & Debugging – Identifying and resolving errors to maintain overall system accuracy.

8. Learnings & Skills Acquired

- AI & Predictive Analytics – Gained hands-on experience in building expense forecasting models and generating data-driven insights.
- Data Management – Improved skills in collecting, organizing, and preparing financial datasets for analysis and model training.
- Time-Series Forecasting – Learned techniques for analyzing spending patterns and predicting future expenses using historical data.
- Full-Stack Development – Enhanced knowledge in creating both frontend interfaces and backend services for a functional application.
- Dashboard Design & Visualization – Developed user-friendly dashboards to display budgets, trends, alerts, and reports effectively.

- Problem-Solving & Optimization – Addressed challenges related to data quality, feature integration, and model performance.
- Application Deployment – Experienced deploying a working solution and making it accessible for real-time use.
- Teamwork & Coordination – Practiced effective collaboration through planning, task division, and regular progress reviews.
- Testing & Debugging – Strengthened skills in identifying issues and improving system reliability through structured testing.
- Financial System Understanding – Gained awareness of budgeting processes, expense categorization, and financial decision-making.

9. Testimonials from Team

Team Member 1 – Rishika A:

“I contributed to developing BudgetWise, focusing on data analysis and AI-driven forecasting. This project allowed me to apply machine learning techniques to create smarter financial insights for users.”

Team Member 2 – Rishabh:

“I worked on BudgetWise, enhancing the app’s user interface and experience. This project helped me design an intuitive platform that makes personal finance management simple and engaging.”

Team Member 3 – Siri Chandhana:

“I developed BudgetWise, an AI-powered personal finance tool that combines predictive analytics with intuitive expense tracking and budgeting. This project helped me create a user-friendly platform that empowers individuals to manage their finances smarter and make informed decisions.”

Team Member 4 – Sushant Naik: “I was responsible for implementing secure data handling and backend integration in BudgetWise. Through this

project, I strengthened my skills in building reliable and robust software systems.”

Team Member 5 – Sushree Mohanty:

“I collaborated on BudgetWise, focusing on data visualization and reporting features. This project enabled me to present complex financial data in a clear and actionable way for users.”

10. Conclusion

BudgetWise represents a seamless blend of technology and practicality, offering users an intelligent and intuitive way to manage their personal finances. Through AI-driven forecasting, expense tracking, and data visualization, the tool empowers individuals to make informed decisions, plan budgets effectively, and gain deeper financial awareness. This project reflects our commitment to innovation, problem-solving, and creating real-world solutions that make a meaningful impact.

11. Acknowledgements

Our team expresses sincere appreciation to **Infosys** for providing the opportunity to work on the **BudgetWise – AI-Based Expense Forecasting Tool** as part of the internship program. This experience greatly enhanced our knowledge of AI, machine learning, and their practical applications.

We are deeply grateful to our mentor, **Sangeetha**, for continuous guidance, constructive feedback, and invaluable support. Her mentorship played a vital role in helping us overcome challenges and grow both technically and professionally.

We also extend our appreciation to our team members for their collaboration, commitment, and consistent efforts, which contributed significantly to the successful execution of the project. Their teamwork made the internship experience productive and enriching.

Finally, heartfelt thanks to everyone who contributed, directly or indirectly, to our learning journey and the successful completion of this project. Their support has been truly invaluable.