

# Project Plan

## Product-based Capstone Project

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**Team Member** :

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### Final Selected Themes:

Economics Empowerment: Navigating Sustainable Economies for All ▾

### Title of the Project:

Financify: Smart Wallet for Financial Inclusion with Expense Tracking, Analytics, and Budget Alerts

### Executive Summary/Abstract:

Financify is a mobile application designed to address the critical financial management challenges faced by individuals and small business owners who lack access to traditional financial tools. This project aims to empower users to effectively track income, expenses, and budgets, ultimately promoting financial stability and better decision-making. The problem stems from the limited availability of accessible financial management solutions, which leaves many users struggling to monitor their finances accurately, often resulting in unplanned spending and poor financial habits.

Our primary research question is: *How can a user-friendly e-wallet enhance financial management by offering accessible budgeting, expense tracking, and actionable financial insights to those lacking conventional financial tools?* In emerging markets especially, financial empowerment is key to economic growth, yet existing digital tools often overlook those with limited financial resources or access. By integrating machine learning and analytics, Financify provides personalized insights and budget alerts, offering a practical, all-in-one solution to help users make informed, responsible financial decisions. Motivated by a commitment to economic empowerment, our team aims to create a platform that equips users with the tools they need to achieve greater financial independence and resilience.

### How did your team come up with this project?

Our team is driven by a mission to support financial inclusion and economic empowerment. By analyzing underserved users' needs, we realized that a tailored e-wallet with advanced expense tracking, budget alerts, and analytics could make a tangible impact in their financial lives

### Project Scope & Deliverables:

#### a. Project Scope:

The project consists of three main phases:

#### 1. Design and Development:

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- Create an intuitive UI/UX design in Figma for seamless user interaction.
- Implement primary functionalities in Flutter, including income/expense tracking, budget management, and analytics.
- 2. Backend and Cloud Integration:**
  - Develop a secure backend using Laravel to handle transactions, budgeting, and analytics.
  - Integrate with third-party services (e.g., MyTrans) to provide enriched data and additional functionalities.
- 3. Machine Learning:**
  - Train a machine learning model with TensorFlow for personalized spending insights and alerts based on spending patterns

#### b. Deliverables:

- Fully operational mobile application (APK)
- Backend API documentation and secure data handling protocols
- User-centric features like financial analytics, budget alerts, and spending insights
- Comprehensive report on research findings and user testing results.

#### Project Schedule:

Milestone	Tasks	Week					Part Learning Path
		1	2	3	4	5	
Design Phase	Figma design, User flow creation						Mobile Development
Frontend Development	Develop UI components, implement transactions & expense tracking						Mobile Development
Backend Development	API creation, data security, integration with Laravel backend						Mobile Development, Cloud Computing

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ML Model Training	Data processing, model selection, training for expense categorization						Machine Learning
Testing and Validation	System testing, bug fixes, user testing						All team member
Final Submission	Polish UI/UX, finalize documentation, and submit						All team member

Based on your team's knowledge, what tools/IDE/Library and resources that your team will use to solve the problem?

- **Frontend:** Flutter for development, Figma for UI design, Android Studio
- **Backend:** Laravel, MySQL
- **Machine Learning:** Library (TensorFlow, TensorFlow Lite, Numpy, Pandas, etc), Visual Studio Code, Google Colab, Open Source Dataset
- **Cloud and APIs:** Firebase Authentication, MyTrans API, Google Cloud for storage
- **Other:** Visual Studio Code, Postman for API testing

Based on your knowledge and explorations, what will your team need support for?

- Mentors with experience in fintech or financial management applications.
- Access to datasets for training spending pattern models.
- Resources for best practices in security and API handling.

Based on your knowledge and explorations, tell us the Machine Learning Part of your Capstone!

The app uses TensorFlow to develop a model that categorizes user expenses based on spending history. This model will provide tailored insights and alerts to help users make better financial decisions. The model will be deployed using TensorFlow Lite to ensure lightweight, efficient predictions on mobile devices.

Based on your knowledge and explorations, tell us the Mobile Development Part of your capstone?

Leveraging Flutter for cross-platform compatibility and Android Studio for native Android components, *Financify* will handle transactions securely, deliver real-time notifications, and

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provide an interactive expense tracker with analytics to support user engagement and ease of use.

#### **Based on your knowledge and explorations, tell us the Cloud/Web/Frontend/Backend Part of your capstone?**

Using Laravel for backend transactions and API handling, the app will provide secure, documented endpoints for all functionalities. Firebase ensures robust user authentication, and backup APIs will be available to ensure app reliability during the demo.

#### **Based on your team's planning, is there any identifiable potential Risk or Issue related to your project?**

1. **Data Privacy Concerns:** Financial data demands high encryption standards, so we'll use Firebase to secure user authentication.
2. **Integration Challenges:** Dependence on third-party APIs may affect stability; fallback functionalities are planned to ensure consistent performance.
3. **User Adoption:** A complex interface could hinder adoption; hence, we'll conduct regular user testing and iterate on the UX.

#### **Any other notes/remarks we should consider on your team's application**

Our goal is to create a solution that fosters financial literacy and independence. With budget alerts and spending graphs, the app will guide users toward smarter financial habits, aligning with our mission of economic empowerment and financial inclusion.