PIP4004: UNIVERSITY PROJECT

Review-0 Presentation

MOBILE APP FOR DIRECT MARKET ACCESS FOR FARMERS

Batch Number: G147

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Problem Statement Number:

Organization: Ministry of Agriculture and Farmers Welfare

Category : Software

Problem Description: Farmers often face challenges in accessing markets, leading to lower income due to middlemen. This gap restricts their ability to sell produce at fair prices. Description: Create a mobile application that connects farmers directly with consumers and retailers. The app should include features for listing produce, negotiating prices, and managing transactions, thereby reducing dependence on intermediaries. Expected Solution: A user-friendly mobile platform that enables farmers to showcase their products and connect with buyers directly, enhancing their income potential.

Difficulty Level: Complex

Github Link

Github Link

https://github.com/jyothisripolisetti18/capstone-project

Analysis of Problem Statement

Technology Stack Components:

1. Frontend
HTML, CSS, JavaScript – If a web-based version is needed.

2. Backend (Server & API Development)
Flask (Python) – Alternative backend with Python.

3. Database (Data Storage & Management)
MySQL – Relational database for structured data.

4. Authentication & Security
Firebase Authentication – Phone number & social logins

5. Payment Integration
UPI – Secure payment gateway for transactions.

Analysis of Problem Statement (contd...)

6. Cloud Storage & Hosting

Google Cloud / Firebase Storage – Store product images and documents.

7. Push Notifications & Messaging

Firebase Cloud Messaging (FCM) – Notifications for orders, price updates.

WebSockets / Socket.io – Real-time chat between farmers and buyers.

8. Mapping & Location Services

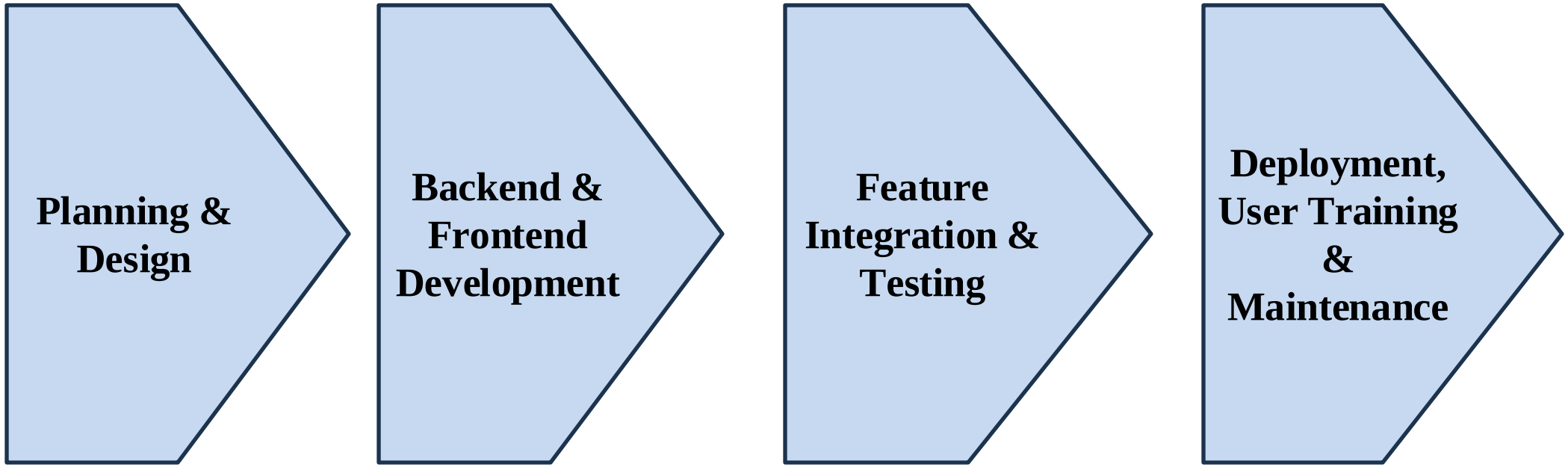
Google Maps API – Location-based product listings, delivery tracking.

9. AI & Data Analytics (Future Enhancements)

AI-Based Price Prediction – Machine learning for price recommendations.

Chatbot – Virtual assistant for farmer support.

Timeline of the Project (Gantt Chart)



References (IEEE Paper format)

[1] M. A. Khan, S. A. Rizvi, and S. F. Siddiqui, "Digital Marketplace for Farmers: An Innovative Approach to Improve Agricultural Trade," *International Journal of Agricultural Technology, 2021.*

This paper discusses digital marketplaces for farmers and their impact on reducing dependency on middlemen.

[2] S. Patel, "Mobile Applications for Smart Agriculture: A Review," *Journal of Agricultural Informatics, 2020.*

This study highlights mobile apps that connect farmers with markets and improve productivity.

[3] Food and Agriculture Organization (FAO), "E-commerce for Farmers: A Guide to Market Access," 2022.

This guide provides insights into how e-commerce platforms help farmers sell directly to consumers.

[4] Ministry of Agriculture, India, "Digital Agriculture and Market Access Report," 2021.

This government report discusses existing digital platforms and policies for farmer market access.


Thank
You!