Mobile App for Direct Market Access for Farmers

Batch Number:CSE_198

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Problem Statement Number: 281

Organization: Ministry of Agriculture and Farmers Welfare

Category (Hardware / Software / Both) :Software

Problem 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.

Content

- Problem Statement

- Objectives

- Background and Related work for title Selection

- Analysis of Problem Statement

- Innovation or Novel Contributions

- Git-hub Link

- Timeline of the Project

- References

Analysis of Problem Statement

Technology Stack Components:
Frontend: Flutter (Dart) for cross-platform mobile app development
Backend & Database: Node.js and Firebase
Authentication: Firebase Authentication
Payment Gateway Integration: Razorpay or PayPal API
Push Notifications: Firebase Cloud Messaging (FCM)
Maps & Location Services: Google Maps API
IDE & Development Tools: Android Studio

Github Link

The Github link provided should have public access permission.

Github Link
https://github.com/ramsakethboyapati/Capstone-project-Mobile-App-for-Direct-Market-Access-for-Farmers
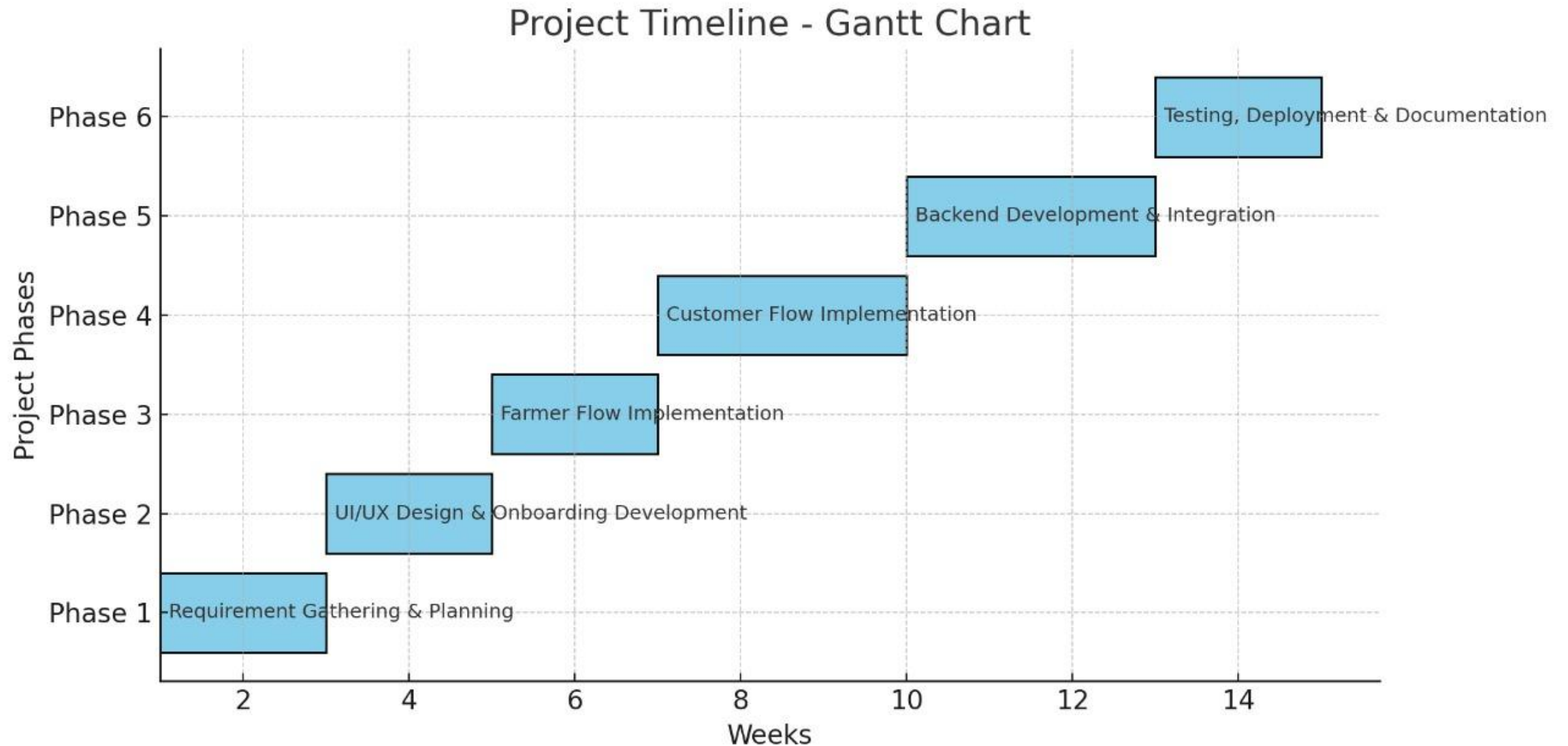
Analysis of Problem Statement (contd...)

Software Requirements:

- Operating System: Windows 10 / macOS / Linux
- IDE: Android Studio (with Flutter & Dart plugins)
- Backend Services: Firebase (Cloud Firestore / Realtime Database, Authentication, FCM)
- Payment Gateway APIs: Razorpay / PayPal API
- Maps & Location API: Google Maps API

Analysis of Problem Statement (contd...)

The goal is to develop a mobile application that bridges the gap between farmers and end consumers or retailers by eliminating middlemen. This platform should allow farmers to list their produce, facilitate direct price negotiation, and manage transactions efficiently. By doing so, the app aims to empower farmers with better market access, increase their profitability, and provide consumers with fresher produce at competitive prices. The solution needs to be user-friendly and accessible to farmers with varying levels of digital literacy.

Timeline of the Project (Gantt Chart)

Project Timeline - Gantt Chart

References (IEEE Paper format)

An Android Based E-Commerce Application for Farmers" Ayush Kumar, Anchal Thakre, Sudhir Kadam,(Department of Electronics and Telecommunication, College of Engineering, Bharati Vidyapeeth (Deemedto Be University) Pune, Maharashtra, India)

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