UPLIFITING THE FARMER THROUGHT A CONNECTED ECOSYSTEM

Batch Number : CAI-G03

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Problem Statement Number:

Organization: Mahindra & Mahindra (FarmEq)

Category: Software

Problem Description: How can a farmer gain access to all the elements of his farming cycle? one stop shop where he has access to information from different aggregators, for retailing, leasing & finally taking his produce to the nearest mandi. Application to provide a means of easy transaction for all his farming activities and his personal expenses. Agri credit should help him buy/lease Farm Machinery & have access to all the local vendors for his plantation needs including expert advice from the local university.

Difficulty Level: Complex

- The project is complex and faces challenges in real-time data integration
- Difficulty in finding machinery and taking farms for rent.
- Implementing features like weather data and mandi prices requires API integration.



Analysis of Problem Statement

Technology Stack Components:

Programming Language: XML- Frontend, JAVA- Backend

Database: Firebase

Toolkit- Android Studio

SDK- Android SDK

Analysis of Problem Statement (contd...)

Software Requirements:

Figma- To develop the UI/UX of the app

Android Studio- To develop the app

Firebase-For data storage

Analysis of Problem Statement (contd...)

Block Diagram for the Problem Statement: Start Open App Show Login Screen **Enter Credentials** Authenticate with Firebase Show Dashboard Access Features View Weather Data View Mandi Prices Manage Transactions Select Action Add Transaction View Transactions

Save to Firestore

Display Transactions

Timeline of the Project (Gantt Chart)

PHASE	START DATE	DURATION
Phase 1: Setup & Initial Development	Sep 16, 2024	1 Week
Phase 2: Frontend Design and Development	Sep 25, 2024	2 Weeks
Phase 3: Backend Development & Integration	Oct 15, 2024	2 Weeks
Phase 4: Testing and Finalization	Nov 1, 2024	2 Weeks

References (IEEE Paper format)

- https://ymerdigital.com/uploads/YMER210478.pdf
- https://www.upwork.com/resources/how-to-design-a-mobile-app
- https://www.researchgate.net/publication/374164307 Mobile Application s Empowering Smallholder Farmers An Analysis of the Impact on Agricul tural Development

