AGRO ASSIST

AGRICULTURE USING SMART PERSPECTIVES

GROUP MEMBERS:

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ENOCH JOY - 700746947

ROLES & RESPONSIBILITIES:

CHANDRASHEKHAR:

- Developed the core functionalities of the AGRO ASSIST mobile app using Flutter framework and Dart programming language.

NIKHITA:

- Designed the UI & UX of the AGRO ASSIST app to be intuitive and easy to use.

JUHAIZA:

- Testes the AGRO ASSIST app thoroughly to identify any bugs and errors or inconsistencies in functionality.

ENOCH:

- Created easy to follow guidelines explaining how to use different features of the AGRO ASSIST APP.

MOTIVATION:

The motivation behind creating the “Agro Assist” project was to use technology to empower farmers worldwide. By developing a mobile app with features like crop management, marketplace connections, and weather forecasts, the project aimed to streamline agricultural practices and bridge the gap between farmers, buyers, and service providers. Additionally, the project focused on inclusivity by offering multilingual support and aimed to modernize agriculture by leveraging technological innovation for widespread adoption and usability.

OBJECTIVES:

THE OBJECTIVES FOR THE AGRO ASSIST PROJECT INCLUDE:

1. **EMPOWERING FARMERS:** PROVIDE FARMERS WITH REAL-TIME AND RELEVANT INFORMATION TO ENHANCE THEIR DECISION-MAKING PROCESSES AND INCREASE EFFICIENCY IN AGRICULTURAL ACTIVITIES.

2. **BRIDGING THE GAP:** CREATE A COMPREHENSIVE PLATFORM THAT CONNECTS FARMERS, BUYERS, AND ESSENTIAL AGRICULTURAL SERVICES TO FACILITATE DIRECT TRANSACTIONS AND STREAMLINE COMMUNICATION.

3. **MODERNIZING AGRICULTURAL PRACTICES:** INTRODUCE FEATURES LIKE A SMART MARKETPLACE FOR DIRECT TRANSACTIONS, WEATHER FORECAST INTEGRATION, AND TOOL RENTAL SECTIONS TO MODERNIZE AND STREAMLINE AGRICULTURAL ACTIVITIES.

4. **INCLUSIVITY:** ENSURE INCLUSIVITY BY INCORPORATING MULTILINGUAL SUPPORT TO CATER TO THE DIVERSE LINGUISTIC LANDSCAPE OF THE FARMING COMMUNITY, MAKING THE PLATFORM ACCESSIBLE AND BENEFICIAL TO FARMERS WORLDWIDE.

5. **TECHNOLOGICAL INNOVATION:** UTILIZE FLUTTER AND DART FOR ROBUST APPLICATION DEVELOPMENT, PROVIDING A USER-FRIENDLY INTERFACE ACCESSIBLE ON BOTH ANDROID AND IOS DEVICES, AND EMBRACING TECHNOLOGICAL INNOVATION FOR WIDESPREAD ADOPTION AND USABILITY.

RELATED WORK:

Expert System Design and Architecture for Farming Sector:

- Proposes an expert system for agricultural advice.
- Can provide timely and relevant information to farmers.
- Requires significant effort to develop and maintain the expert system.

Supply Chain Management of Rice in India: A Rice Processing Company Perspectives:

- Case study analysis of a rice processing company.
- Provides insights into specific challenges and solutions within the Indian rice industry.
- Limited generalizability due to single case study approach.

PROBLEM STATEMENTS:

PROBLEM STATEMENT 1:

Inability of small and poor farmers to buy expensive tools for their fields because they prove to be budget busters.

PROBLEM STATEMENT 2:

Plant diseases are a significant yield and quality constraint for farmers, which also cause huge loss economically.

PROPOSED SOLUTIONS:

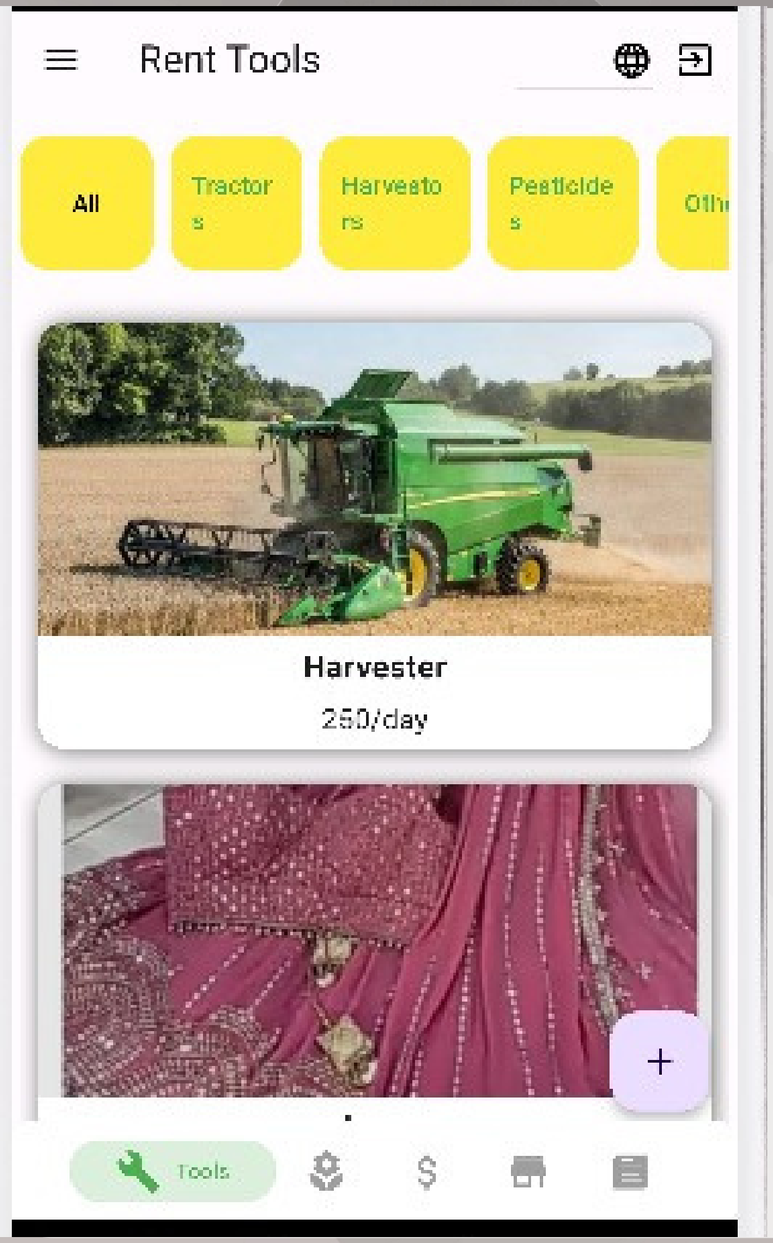
SOLUTION 1:

Our app provides the platform to rent tools instead of buying them. The farmer is at the winning end of the game since he would only pay for the machine when he’s in need of it and also get access to up-to-date technology which is more efficient, rapid and competent.

SOLUTION 2:

Using Convolutional Neural Network, disease detection is carried out at an early stage and scientific preventive measures are suggested accordingly. Supervised Machine Learning, Multiple Linear Regression, K-Nearest Neighbor Regression algorithms are used in model construction.

RESULT: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All
Tractor s
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Pesticide s
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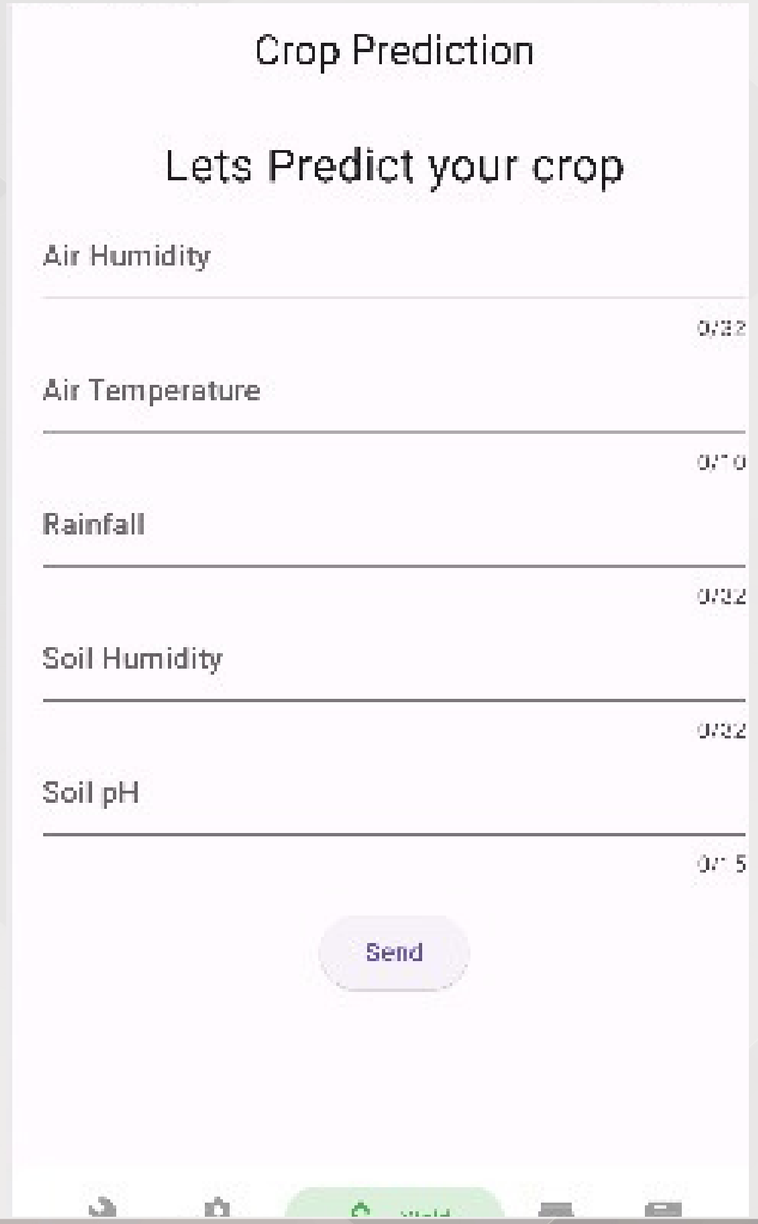
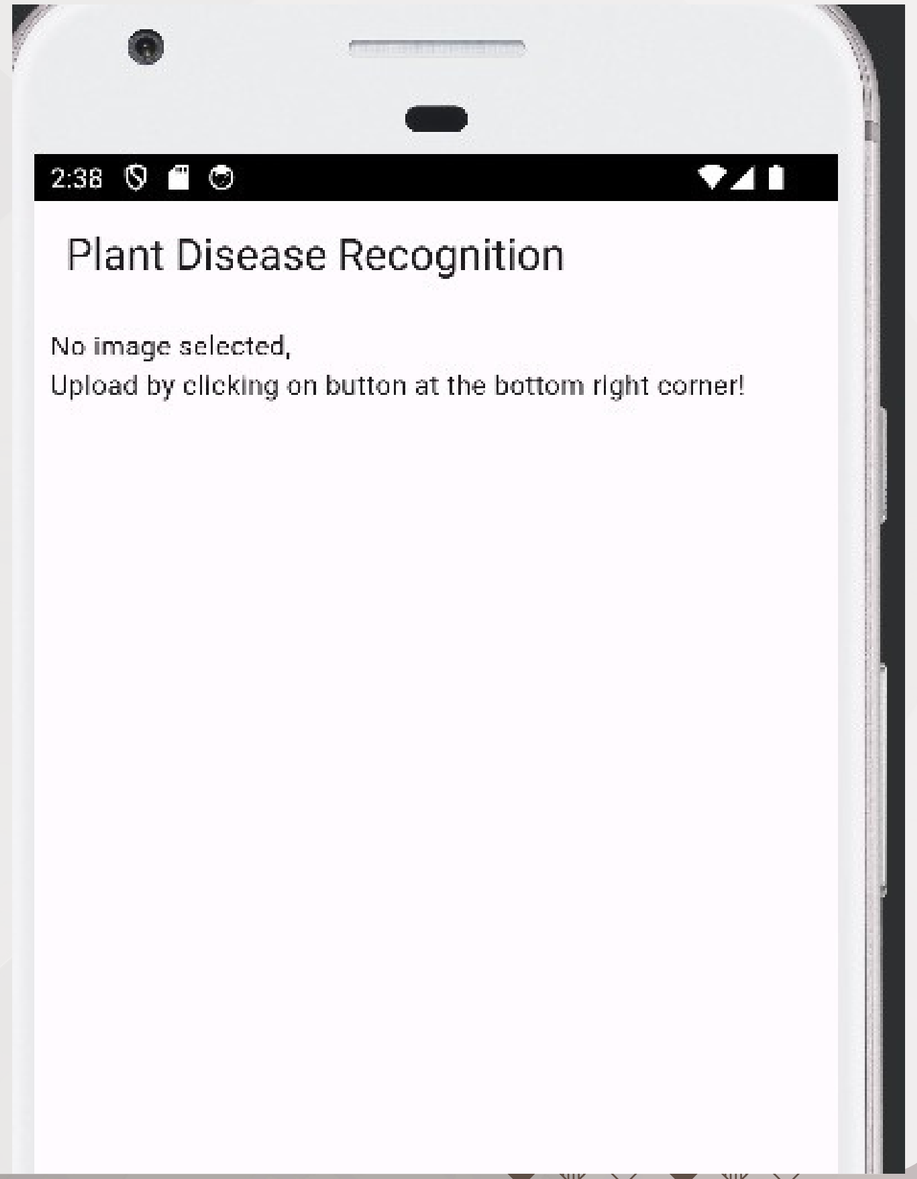

Crop Prediction
Lets Predict your crop
Air Humidity
Air Temperature
Rainfall
Soil Humidity
Soil pH
Send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Plant Disease Recognition
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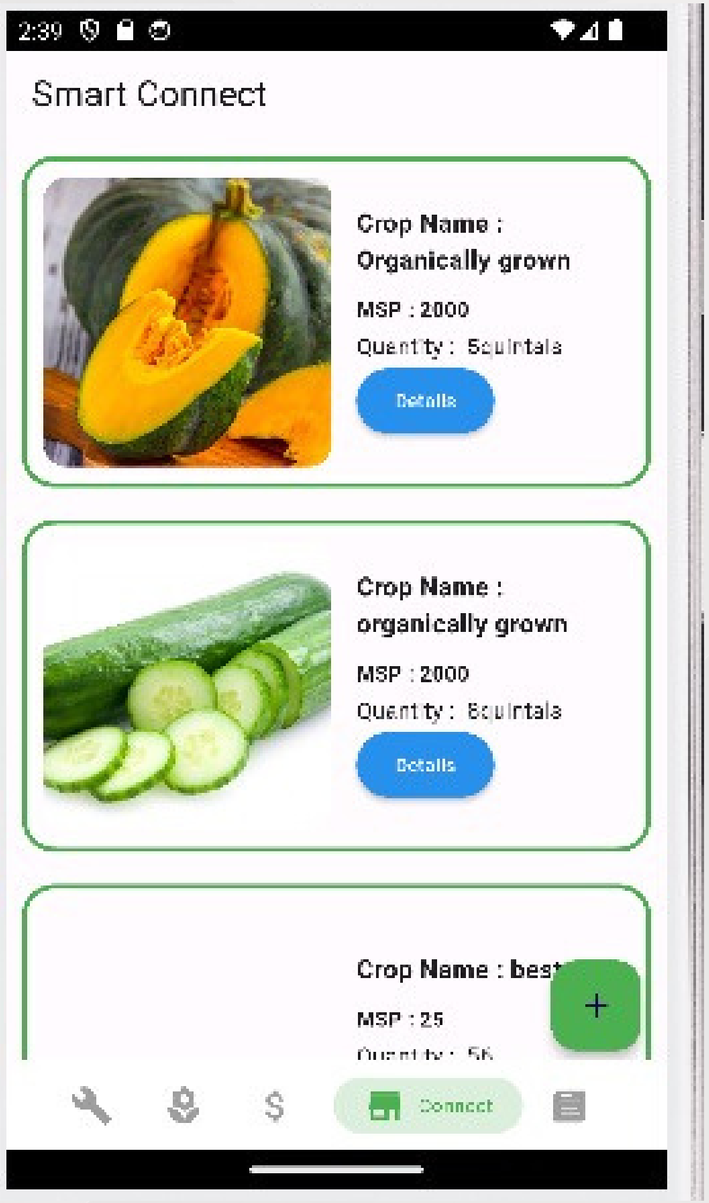
RESULT:


2:39
Feed
Weather
Accelerating the Growth of Smart Farming with Agri-tech in India
20 Aug 2020
IIM Rohtak
Agriculture and economic experts at the webinar on Future of Farming in India: Reflecting on Farm Bills 2020 organized ...
23 Nov 2020
Feed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Smart Connect
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Organically grown
MSP : 2000
Quantity : Squintals
Details
Crop Name :
organically grown
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Quantity : Squintals
Details
Crop Name : best
MSP : 25
Connect

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THANK YOU