

SAHYOG

Introduction

This mobile app is developed keeping one of the most essential sectors of our country that is agriculture in mind. Its built focusing on the needs and perspective of both buyer as well as seller who will use this app for maintaining a strong and easy communication. While selling his/her crops, the farmer's ultimate motive is to get the desired deserving price for his crops. The app will help him in deciding and showcasing the best price that can be possible.

On the other hand, the buyer's main aim is to receive the best quality crops according to the criteria he sets and also gives him the opportunity to choose the buyer that fulfils his needs.

Purpose

The Objective of this project is to solve the following two purpose:

- Enable farmers to make better decisions about crop quality and the appropriate buyer
- Ensure that the farmer gets fair value for their produce.

About the App

- On the Seller's side, a farmer can take a photo of the crop sample. The app gives information about type of crop & its quality. The farmer can then list the order with details like type of crop, quality of crop, lot size to sell and starting price per lot. After successfully listing the order, the app shows the maximum bid for that listing.

- On the buyer's side, one can place bids with details like Type of crop, Quality of crop, lot size and bid price. A bid can then be placed.

Implementation

- The coding platform used to implement this project will be VS code v1.56.2, Android Studio & Firebase to store data.
- An App which has two users & two different work flow:
 - Seller
 - Buyer
- Seller side will consist 5 pages (login page, home page, information page, selling page & orders page). When the user clicks a picture on his camera, the ML algorithm will detect whether the given picture is valid or not. If it is valid, the ML model will determine the quality of the crop and the user will be taken to the information page where he will be displayed information about the crop (Grade & Name). The user will now be given 2 options, whether to proceed to the selling page or to go back to the home page. If the actor proceeds to the selling page, he will be asked the quantity of crop in Lot size and the price per kg. The user will then be able to see all his bids in the order section.
- On the buyer's side, there will be 3 pages (home page, listing's page & order's page). The home page will contain the buyer's requirements (the type of crop, the quality of crop & quantity of crop). The listing page will contain all the listing from the sellers.
- The order's page will contain all approved bids, followed by the active bids.

Benefits

- Simplifies the process of determining the quality of crop and enables the seller to fix the desired price of the produce.
- Simplified UI for getting vital information.
- Standardized crop quality grades that eliminates unambiguity.
- Assures best price for the produce.

Application

- The app is intended to be used by buyers and sellers of produce.
- The broader use of app can also be achieved by farmers to reassure crop quality before sowing the seeds farmers can check the seed quality to ensure best yield.
- The app ensures that the buyer gets the appropriate quality of crop.

Future developments

- The app will have specialised grading system.
- The app will have extended number of crops.
- We can add more categories to our app like vegetables, fruits, pulses etc.
- We can introduce a certification for crop quality.
- Corporatisation can be introduced as another option for selling produce.
- Provide farmers with courses to produce higher quality of crops.
- We can introduce a rating system for Sellers/Buyers.
- We can translate it into different languages to make it more user friendly.