Farming Assistant Android Application Service

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Abstract: Mobile internet will help the farmers to sell their products directly to consumers and food processing industries. This paper provides market information to a farmer using its easy interface on the mo- bile application. The mobile application is intended to be used for fast and updated information delivering system for farmers. Also, it has native language support to make the transaction easy for farm- ers. The mobile application treats farmers as a seller and a buyer. The intention behind this paper is to help farmers so they buy or sell their agriculture goods and products. Market prices provided by data.gov.in lets the system to keep the selling and buying prices in control. As the products are to be browsed and there may be plenty of products for the user. To make browsing easy many filters can provide. Farmers face many problems while selling their goods and products, this system promises to provide an easy and recreational way to sell the products. The system lets the farmers to sell goods at a reasonable price and makes business even fair and transparent. Consumers are the opposite side of the same coin. This system lets consumer to choose from a wide variety of products, select the prod- uct as per their requirement and also to apply price filters. Location is a one of parameter for consumer and producer while selling or buying their product it will helps the user to get the product nearby their location. The basic objective of the system is to considers every one need and full fills their requirement with fair and transparent agriculture business.

Keywords: Agriculture, Farm Assistant, Dealer, Customer, Shopping cart, Java, Android, Agricultural Products

I.   INTRODUCTION

The Farming Assistant Android Application is designed to support farmers by offering effective communication tools. The website has a login feature for farmers, suppliers, and admins. Suppliers can post advertisements or banners on the site. Farmers, suppliers, and admins can add various products to the platform. Farmers can also see real- time prices in the market, which helps them decide when to sell their cropsto get the best prices. They can even look at past prices to plan for future harvests. Buyers can makeoffers on the crops, and farmers can pick the best one based on price, how close the buyer is, and their reputation.Farmers work vigorously all through the session to develop their harvests; they con- front a lot of issues over the season like characteristic disasters, unpredictable rain, and unviability of water resources. Farmers need more facility to tackle the issues. If they could manage all the issues and produce their product the second major is- sues arise of the price they won't get the market price of their product they face lots of issues with price money most of the time they will not get the price for their product as per there expectation because of market strategy. The framer also man- ages other than farming like to handling the transportation, stockpiling or storage which is incorporated into the agribusiness market.under specific conditions, helping growers choose the most suitable crops for their land. ML algorithms continuously learn and acclimatize, perfecting recommendations over time by incorporating real- time data and stoner feedback. ML- driven recommendations enable precise resource allocation, reducing waste and environmental impact while maximizing yields.

II.   LITERATURE SURVEY

1.Paper Name: AGRITECHNO: A Development of a Revolutionized Farmer As- sisted Agricultural Product Forecasting Mobile App System

Author: Joe Marie D. Dormido, Alvin R. Malicdem

Abstract :- The agricultural sector in the Philippines is important in economic development. It helps supply crop products to the community and provides major employment in rural areas. But lately, the farmers are facing problems due to the low in price value of crops produced locally because of high importation from the neigh- boring Asian countries. Most farmers belong to the marginal sector of the community and sometimes given less importance in government support. Thus, the demand for food products escalates as the population increases. Another is the lifestyle and awareness of people which affect the food demand the consumer eats every day. The local market is mostly located in trading post areas and primarily serve as places where farmers can meet with traders to sell their products. This develops a potential market for domestic consumption to have a better quality of farm products produced delivered to them.

2.Paper Name: Android App to Connect Farmers to Retailers and Food Processing Industry

Author: Mr. Pranav Shriram, Mr. Sunil Mhamane

Abstract: Mobile internet will help the farmers to sell their products directly to consumers and food processing industries. This paper provides market information to a farmer using its easy interface on the mobile application. The mobile application is intended to be used for fast and updated information delivering system for farmers. Also, it has native language support to make the transaction easy for farmers. The mobile application treats farmers as a seller and a buyer. The intention behind this paper is to help farmers so they buy or sell their agriculture goods and products. Market prices provided by data.gov.in lets the system to keep the selling and buying prices in control. As the products are to be browsed and there may be plenty of products for the user. To make browsing easy many filters can provide. Farmers face many problems while selling their goods and products, this system promises to provide an easy and recreational way to sell the products. The system lets the farmers to sell goods at a reasonable price and makes business even fair and transparent. Consumers are the opposite side of the same coin. This system lets consumer to choose from a wide variety of products, select the product as per their requirement and also to apply price filters. Location is a one of parameter for consumer and producer while selling or buying their product it will helps the user to get the product nearby their location.

III. PROPOSED SYSTEM

The proposed system, known as the farming assistant project, is like a helpful tool for farmers. It's designed to make their lives easier and more profitable. You see, right now, when farmers want to sell their crops, they often have to involve middlemen or other people. These middlemen can sometimes take a part of the money that should rightfully go to the farmers. But with this project, things are different. It lets farmers sell their crops directly to buyers, like how you might sell something online without needing a store. This means farmers can get the best prices for their crops without anyone else taking a share of their earnings. The project also provides valuable information to farmers. It tells them where and when they should sell their crops for the highest prices, a bit like getting tips on when to sell something for the most money. This way, farmers can earn more money for their hard work and have more control over their farming business. It's like giving them a powerful tool to succeed in farming and ensure they get the fair prices they deserve.
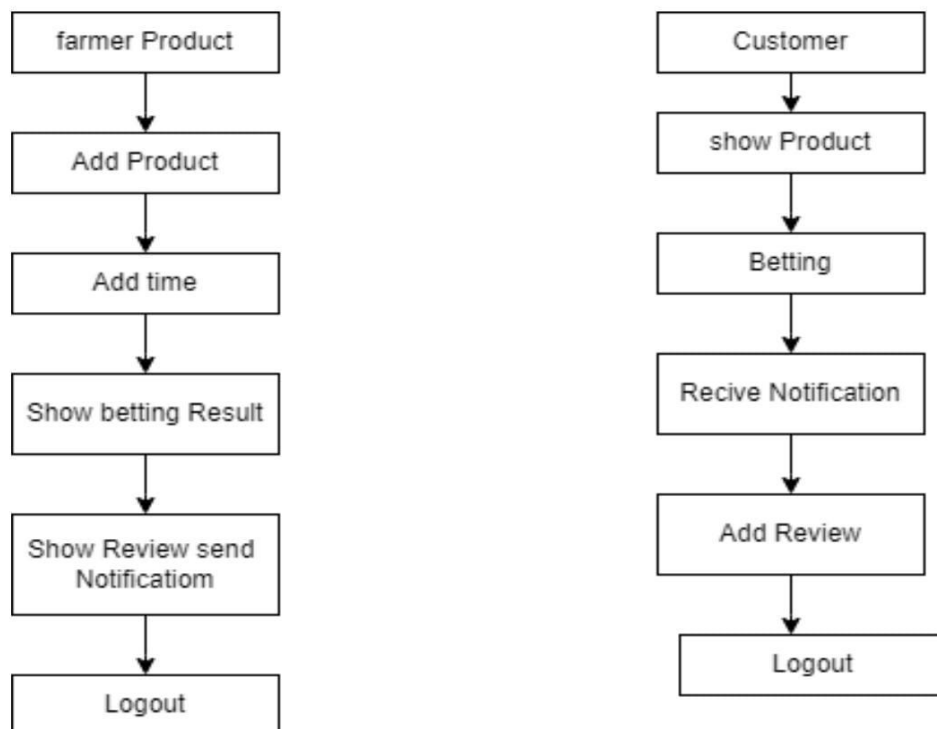
SYSTEM ARCHITECTURE

Fig 1. Block Diagram of System Architecture

The architecture diagram represents the overall design of the project. The System architecture of Farming Assistant Web Application include:

Admin In this module, the Admin has to log in by using valid user name and password. After login successful he can do some operations such as View All Users and Authorize, View All E-Commerce Website and Authorize, View All Products and Reviews, View All Products Early Reviews, View All Keyword Search Details, View All Products Search Ratio, View All Keyword Search Results, View All Product Review Rank Results.

View and Authorize Users:

In this module, the admin can view the list of users who all registered. In this, the admin can view the user's details such as, user name, email, address and admin authorizes the users.

View Charts Results:

View All Products Search Ratio, View All Keyword Search Results, View All Product Review Rank Results.

Ecommerce User:

In this module, there are n numbers of users are present. User should register before doing any operations. Once user registers, their details will be stored to the database. After registration successful, he has to login by using authorized user name and password Once Login is successful user will do some operations like Add Products, View All Products with reviews, View All Early Product's reviews, View All Purchased Transactions.

End User:

In this module, there are n numbers of users are present. User should register before doing any operations. Once user registers, their details will best or to the database. After registration successful, he has to login by using authorized user name and password. Once Login is successful user will do some operations like Manage Account, Search Products by keyword

IV.   IMPLEMENTATION

Android is a mobile operating system based on a modified version of the Linux kernel and other open source software, designed primarily for touchscreen mobile devices such as smartphones and tablets. Android is developed by a consortium. of developers known as the Open Handset Alliance and commercially sponsored by Google. It was unveiled in November 2007, with the first commercial Android device launched in September 2008.

Android Studio: Android Studio is the official [7] integrated development envi- ronment (IDE) for Google's Android operating system, built on JetBrains' IntelliJ IDEA software and designed specifically for Android development. [8] It is avail- able for download on Windows, macOS and Linux based operating systems or as a subscription-based service in 2020.[9][10] It is a replacement for the Eclipse An- droid Development Tools (E-ADT) as the primary IDE for native Android applica- tion development.

Android Studio was announced on May 16, 2013 at the Google I/O confer- ence. It was in early access preview stage starting from version 0.1 in May 2013, then entered beta stage starting from version 0.8 which was released in June 2014.[11] The first stable build was released in December 2014, starting from version 1.0

FIRE BASED

Firebase is a cloud service designed to power real-time, collaborative applications for mobile and web.

WHAT IS FIRE BASED?

Firebase is a platform developed by Google for creating mobile and web applica- tions. It was developed from Envolve, a startup founded by James Tamplin and Andrew Lee in 2011. It was acquired by Google in 2014 for offering mobile and web app development with their other technologies. Originally, Envolve provided developers an API (Application Programming Interface) that enabled the incorporation of online chat functionality onto their websites but later they found out that some application data was also being sent along with the chat messages on the on- line chat platform and so they decided to separate the chat system and the application platform. This application platform later became Firebase.

V. RESULTS

After using different machine algorithms for predicting crops, we have come with the following results -
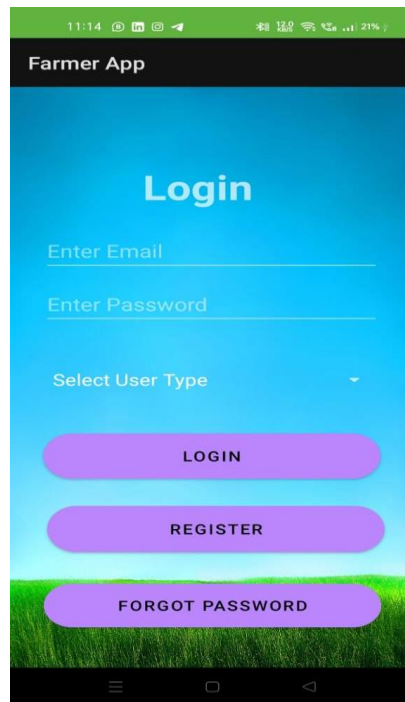
A.   Login Page:
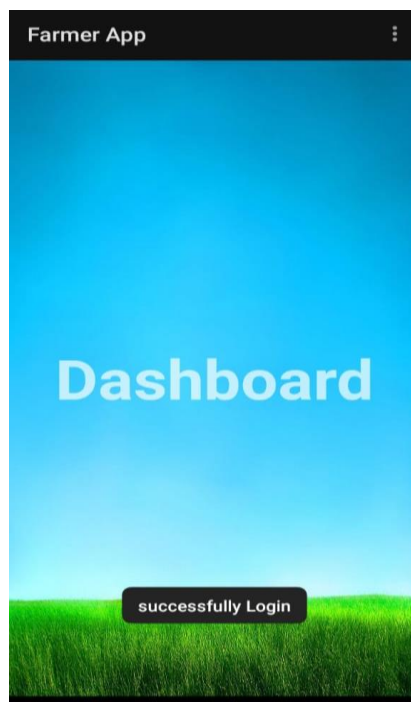

Fig. 3 Interface Of Login Page

B.   Dashboard:

Fig. 4 Interface Of Dashboard

C.   Dashboard And Other Options:
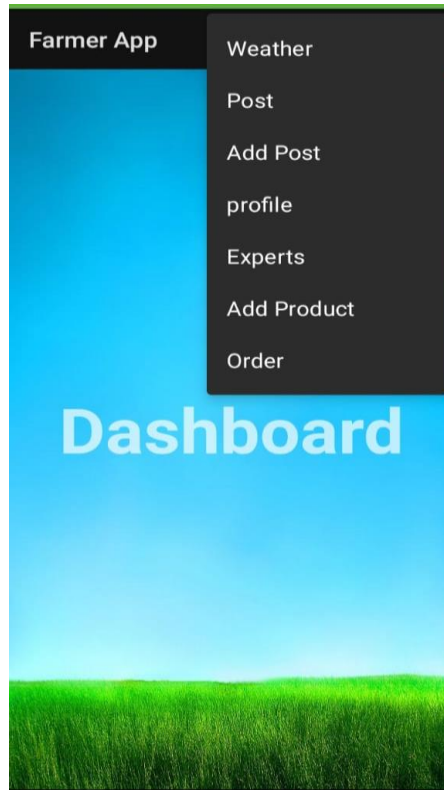

Fig. 6 Add Products And Others

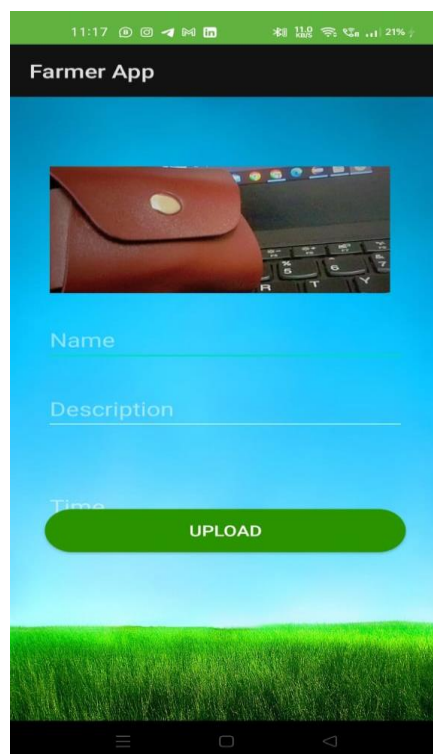**D.   Add Products:**

Fig. 7 Recommended fertilizer

E.   New User Registration Page:

Fig. 9 New User Registration Page

VI.   CONCLUSION

This system will help farmers and food processing industry and user to get the better return. It protects the interest of both consumers and producers. This application is a single window where all the agriculture industry, farm- ers and user negligible loss. The marketplace is the main communication link between farmers and the retailers/FPI. They acquire various taxes and trans- portation money from both the sides hence marketplace charges much higher rates. This system will help the farmers to compare the price with the market and sell according to it.

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