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Farmer Application

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Abstract: *The aim of the program is to provide a platform for farmers to rent modern agricultural machinery and equipment as well as rent storage space for crops. The app will also connect to government servers to track data on crops, fertilizer use and government funds. Records of machinery and equipment will be kept along with details of the crop stored. In India, agriculture is the main source of income for the majority of the population. However, many farmers are not aware of advances in agricultural technology and cannot understand the market value of their products. That's why they often sell products at very low prices. In addition, they also try to follow the government's agricultural plans and reports. To solve these problems, our initiative will create a platform where farmers can get the latest information on vegetables and fruits in every market in India. This will help them sell their products at reasonable prices and improve their financial situation. Additionally, farmers will also receive notifications regarding government agricultural programs and in-app notifications to benefit from these programs. Additionally, our application will help farmers prepare the required products by estimating the amount of vegetables and fruits according to the market. We will also include weather data to support farmers' planning for the next 2-3 days. Overall, our programs focus on providing farmers with new knowledge and technology that will improve their livelihoods and increase their productivity*

Keywords: mobile applications; commercial Products; Information Management; agriculture, urban development, vegetables

I. INTRODUCTION

India is an agriculture-based country, around 70% of the population depends on agriculture. Agriculture accounts for approximately one-third of the country's national income. However, most Indian farmers, including small producers, often do not have access to knowledge and technology to enable profits to be made and prices to increase for their crops and products. Although agricultural information is obtained from many sources such as printed books, audiovisual materials, newspapers, television, internet and mobile devices, different data have different patterns and structures. This makes it difficult for farmers to access and understand information published from different sources. Many guides also need a tool to convert it from one format to another. Additionally, many farmers are unaware of advances in agricultural technology and the market value of their products. They often sell their produce at very low prices because they cannot get instant updates on crop prices and farm planning. Although some farmers get the news from newspapers or television, not everyone has time to read or watch. Therefore, they are missing out on important information that could help them sell their products at the right price and improve their financial situation. Due to these problems, many farmers are forced to take large loans from banks or other people, which increases their financial problems. Therefore, it is important to create a platform that can provide instant updates on crop prices, agricultural planning and agricultural technology outputs so that farmers can increase their profits and increase their income.

II. LITERATURE SURVEY

1. Article Title: Improvement of Agricultural Monitoring Using Agri-App for Better Crop Production Author: Anand Vijay KM Abstract::- In agricultural countries, development Crops are the basis of the economy and farmers are dependent on crops for survival. In order to increase crop yields, agricultural monitoring systems have been developed to monitor and evaluate crop data to increase crop yields. We recommend the development of agricultural use-based

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analyzes to increase efficiency. The aim of this article is to establish a system containing sensor stacks such as soil moisture sensors and temperature sensors that know the humidity and temperature of the agricultural land and provide water according to the sensor data, thereby increasing crop yield and yield. With the help of RFID tags, agricultural land can be fenced to prevent entry of animals and unauthorized persons, and if anyone enters, farmers can be alerted. Detection of crop disease is done by taking images of crop leaves with a camera. This completed data is uploaded to the app and appropriate recommendations are generated through the app and farmers can view the relevant data.
Farmers can analyze the environment to achieve maximum yield, increase productivity and realize significant energy, total cost and crop protection.
2. Article Title :The SWAMP project leverages technologies such as IoT, cloud and cloud computing, and machine learning to
create a smart water management platform. This article introduces the SWAMP Farmer application for water monitoring and
management. The app keeps farmers informed about soil moisture by displaying current and historical moisture data for their fields,
including maps and outlook charts. The application also includes water planning and drone operations
3. Article title: Study of mobile terminal data collection behavior from perspective and corresponding needs Author: Chen Junjin, Abstract::-Mobile Internet provides a way to improve agricultural information and lay a solid foundation for building a prosperous society. in every way. Based on the UTAUT theoretical model, a behavioral model of agricultural APP adoption data was developed, and surveys and empirical equation models were used to evaluate the relationship between factors influencing the adoption of agricultural APP data. Research results show that farmers' performance expectancy, effort expectancy, social influence and personal change will influence the response to data used for agricultural APPs, and policy recommendations are placed on these four factors.

III. PROBLEM STATEMENT

Poverty and illiteracy of Indian farmers prevent them from making large investments and using farming methods. In addition, the rapid growth of the population led to the fragmentation of property; More than half of Indian farmers own small land holdings whose profits are insufficient to determine the price of agricultural products. Additionally, most farmers do not have storage space, causing people in the middle market to profit from their inability to purchase goods at below market prices. In addition, poor quality agricultural products such as vegetables and fruits need to be sold immediately, but intermediaries often sell the products themselves or share the profits with others. To solve these problems, we propose to create an application using Android technology that farmers can access, providing them with all the details about their farm and fruits. The app will allow buyers to view a variety of fruits and choose their favorites, while also getting farm prices and locations from their current location. In this way, farmers will be able to sell their products directly to buyers at reasonable prices, eliminating the need for intermediaries and increasing their income. Overall, the app aims to provide farmers with the latest technology and provide them with a platform to sell their produce directly to consumers, improving their financial well-being for clean drinking and reducing dependence on middlemen.

III. SOFTWARE INFORMATION

Android Studio is an integrated development environment (IDE) for Android application development. IntelliJ IDEA Java software is based on the integrated development environment and integrates code editing and development tools.
Android S dio uses the Gradle-based development system, emulator, code templates and Git hub integration to support application development on the Android operating system. Every project in Android Studio has one or more types that contain data files. These modules include Android application modules, library modules, and Google App Engine modules.
Android Studio uses the push lifecycle to push code and source changes to the running application. Code editor helps developers write and share code

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ANDROID STUDIO:

Java means you don't have to adopt Kotlin all at once. You can have a project that includes Kotlin and Java code. For more information about adding Kotlin to an existing application, see Adding Kotlin to an existing application. If you're part of a larger team, the size of your organization and code base may require special attention. For more information and tips, see Adopting Kotlin for a large team.

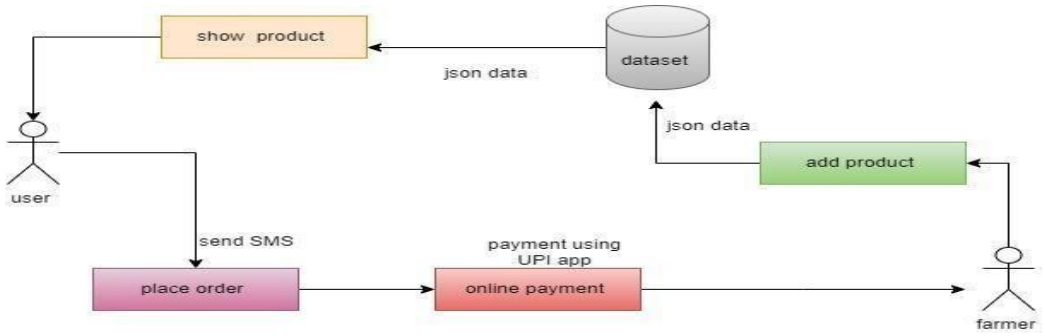
FIREBASE:

Firebase is a Google product that helps developers easily build, manage and test their applications. It helps developers build applications faster and more securely. There is no need for any programming on the Firebase side, making it easier to use its better features. It provides Android, iOS, web and integration services

KOTLIN Language:

Kotlin is an open source programming language that supports object-oriented and functional programming. Kotlin provides concepts and concepts similar to other languages, including C, Java, and Scala, among others. Kotlin's goals are not unique, but they are inspired by years of language development. Variants are available for JVM (Kotlin/JVM), JavaScript (Kotlin/JS) and native code (Kotlin/Native).

IV. SYSTEM OVERVIEW



V. PROPOSED OUTCOMES

Android technology has an incredible ability to solve real-life problems, especially those related to time and money. The problem we want to solve is to provide a platform where farmers can sell their products more easily at better prices, share transportation options to buy their products, and take precautions according to weather conditions. Easily accessible from smartphones, our Android app offers features like trading, traffic and weather, helping farmers get what they need while saving labor and money. While the application will enable farmers to sell their products quickly and at affordable prices, the transportation function will help them move their products from one place to another by sharing transportation costs. The e-commerce system created by the app will allow farmers to upload details of their products and directly contact customers to sell their produce at a fair price. Sharing transportation costs can reduce farmers' transportation costs. Additionally, the weather forecast feature will provide weather forecast-based protection to farmers to prevent loss of stored products. Additionally, the app will provide information on planting seasonal crops to help farmers grow crops better. As a result, our Android application aims to support farmers by providing them with a platform where they can easily sell their products, reduce transportation costs and be careful in weather forecasting. By using this application, farmers can save time and money while also increasing their profits

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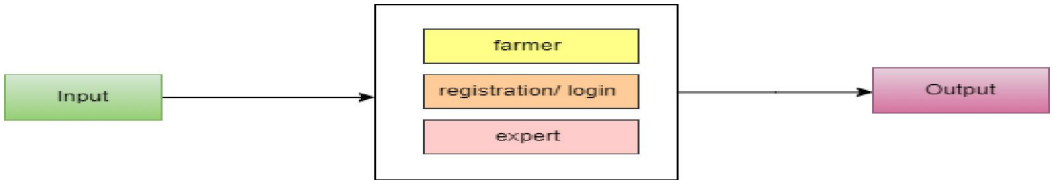
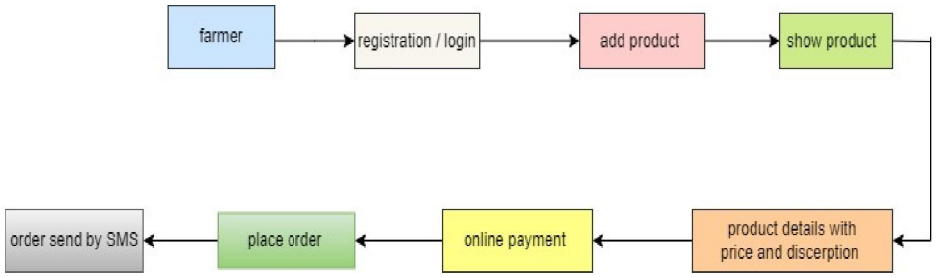
Data Flow Diagram

DFD1

DFD2



DFD 3



VI. SCREENSHOTS

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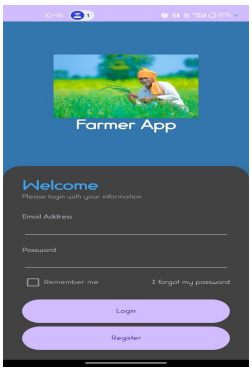
2.



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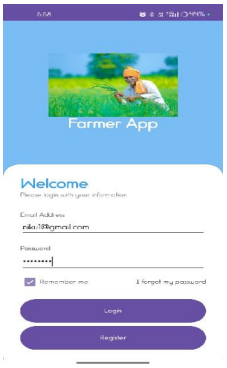

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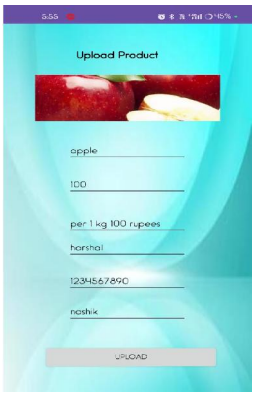

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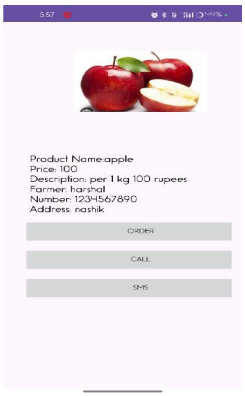

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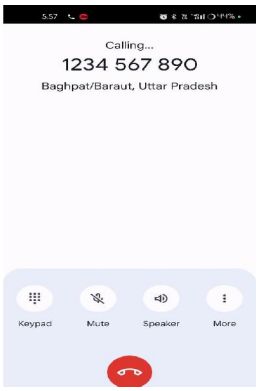

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ADVANTAGE

- Easily at your fingertips. ...
- Freshness and quality guaranteed. ...
- Save time and effort. ...
- Personalization and special requests. ...
- Follow and send updates. ...
- Support local farms. ...
- Product Selection: Test the app's product selection to make sure it meets your preferences and needs.

VII. CONCLUSION

One of the main problems of farmers in India is the middleman problem, which often leads to low productivity. To solve this problem, our app will allow buyers to find specific properties and buy products directly from farmers, eliminating the need for middlemen. This approach will not only benefit farmers but also benefit buyers and fruit producers. We use modern tools and platforms like Android Studio and Firebase to build this app. During the development process, we gradually realized the importance of collaboration and personal involvement in the development and management of the project. In addition, while presenting our work in various workshops, we improve our communication skills and produce good work that will lead to lifelong learning. Overall, our app aims to support farmers by providing them with a platform where they can sell directly to buyers, eliminating the need for middlemen and ensuring they get a fair price for their produce. This is a step towards creating a transparent and profitable market for Indian farmers.

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