

# Virtual Fruits Market An Application for Farmer

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**Abstract:** Today mobile devices are used commonly by everyone, including the farmers and countryside people. Agriculture is the support of Indian economy so information sharing to the knowledge intensive agriculture area is upgraded by mobile-enabled information services and speedy growth of mobile telephony. Mobile application provides varied information services to farmers which are helpful for management, controlling and monitoring of the farm. Mobile app is very helpful for farmers to increase their farming to yield more profit. This paper explores how Mobile Apps of agricultural services have impacted the farmers in their farming activities and which more innovative agriculture services will provide through Mobile App.

India is one of the world's biggest producers of fruits and vegetables but its share in the global horticulture market is insignificant. The fragmented supply chain and inadequate health, safety and quality mechanisms (means the quantity and quality of fruits and vegetables) often do not meet the demands of high-end or international markets. Moreover, Indian farmers receive less than a fifth of the end price for the fruits and vegetables they produce, while a long line of middlemen, transporters, wholesalers and retailers get the rest. So, the aim behind developing this app is to give India's huge farming community a fair and consistent price for their produce. Using this android based app "Virtual Fruits Market", will help some of the farmers to overcome this problem. Using these app farmers can directly connect with the end users and supply the product directly to them. This will increase the profit of the farmers and also end users can get good quality product in fewer prices as they will directly buy from farmers.

**Keywords:** Mobile application; Agricultural marketing ; information Management; Farmer, Rural Development, Consumer

## I. INTRODUCTION

India is an agricultural country. About seventy percent of our population depends on agriculture.

One-third of our National income comes from agriculture. The development of agriculture has much to do with the economic welfare of our country. Now our country is self-sufficient in foodgrains. In the upcoming years agriculture will see major changes. The vast majority of Indian farmers, which includes small-scale producers are often unable to access the information and technological resources that could increase the yield and lead to better prices for their crops and products.

The data regarding farming are available from many sources like printed media, audio and visual aids, newspaper, TV, internet, mobile etc. but the formats and structures of data are dissimilar. So it's very hard for farmer to get the information and to understand the various information which are disseminate from various sources.

Sometime many manual steps are required while processing data for transforming data from one format to another. In India, Many farmers are not aware about the outside world and the technical advancement about the farming.

Most of the farmers doesn't have any idea about the rates of the crops and their products and they sell their products at any cost. In today's world, farmers gets news through newspaper and television . But not every farmer has time to read newspaper or they don't watch TV as they don't have so much time to sit in front of the TV for some time. So because of that they don't get any idea about the current values about the farming schemes at the end they has to sell their products at very low cost. And because they get very less money, they end up taking loan from the bank or any other person on interest.

## **II. LITERATURE SURVEY**

**Paper Name:** Upliftment of Socio-Economical Life Style of Farmers through Farmer's Data Network

**Author:** Tanuja R.Patil, Rajashekhhar G.Patil,3Diwakar Kulkarni, Shamshuddin K

According to this theory, a data network must first be set up to connect the data of every farmer in every village to the data of every Taluka, every Taluk to the data of every District, and the data of every State. Software initiatives that employ DBMS and VB.Net are responsible for carrying this out. Engineering curricula include projects, and ones that are center on societal needs aid in learning. The information regarding each farmer's needs, such as for seeds, fertilizer, and manure, is gathered by a non-governmental organization.

The manufacturers are informed of this information, and with the support and cooperation of the Government and involved banks, materials will be delivered to an NGO, which is then able to serve each village's farmers. Similar to this, the network is used to estimate the crop yields in each community during harvest time.

**Paper Name:** Web use usability testing for farmer And farmer group data collection System

**Author:** Halim budi santoso, rosa delima, Wahyuni

The primary players and major contributors to the development of agriculture are farmers. They work the ground, raise the produce, then harvest it. Farmers assemble with their neighbor to the farmers group. A system has been created to gather information from farmers and its group. This system will assist in gathering information about farmer group membership, farmer group organization, and farmer group identity .

The organization structure for the farmer group is covered by this system.

Today's farmers' markets are embracing digital technology in a number of ways just like a few taking advantage of online tools to connect to their customers. In foreign countries, promoting farmers' markets and other local agricultural businesses is the goal of the MI Farm Market Finder .Using a smart-phone's GPS, the app reveals farm markets cider mills, farmers' markets and pick your own orchards closest to a user when they search the app.

More than 350 listings in the app include hours of operation with a link to a market's website, a map to the market and a list products.

## **III. PROBLEM STATEMENT**

Poverty and illiteracy of the farmers prevent them from making large-scale capital investments and adopting scientific methods of cultivation. Small land holdings due to fast-growing population which leads to fragmentation of land at quick succession .More than half of Indian farmers have small holdings and they don't produce enough to dictate the price of their produce. Most of the farmers don't have storage facility. So middlemen take advantage of weakness of farmers & purchase their produce at less price than the market as well as most of the farm produce are having less life such as vegetables & fruits need immediate selling , but middlemen himself sells that product with profit or to others with share in profit.

So, I am going to design an application using "Android Technology", where farmer can login to app & give the complete details of farms & fruits. Also purchaser can see the various ranges of fruits & they can select the fruit of their choice & get the price & location of farm from their current location

## **IV. SOFTWARE INFORMATION**

Android Studio is the official integrated development environment (IDE) for Android application development. It is based on the IntelliJ IDEA Java integrated development environment for software, and incorporates its code editing and developer tools.

To support application development within the Android operating system, Android Studio uses Gradle-based build system, emulator, code templates, and Git hub integration. Every project in Android Studio has one or more modalities with source code resource Files .These modalities include Android app modules, Library modules, and Google AppEngine modules.

Android Studio uses an Instant Push feature to push code and resource changes to a running application. A code editor assists the developer with writing code and offering code

**ANDROID STUDIO:**

Java means that you don't have to adopt Kotlin all at once. You can have projects with both Kotlin and Java code. For more information on adding Kotlin to an existing app, see Add Kotlin to an existing app. If you are a part of a larger team, the size of your organization and codebase may necessitate special focus. For tips and other information, see Adopt Kotlin for large teams.

**FIREBASE:** Firebase is a product of Google which helps developers to build, manage, and grow their apps easily. It helps developers to build their apps faster and in a more secure way. No programming is required on the firebase side which makes it easy to use its features more efficiently. It provides services to android, ios, web, and unity.

**KOTLIN LANGUAGE**

Kotlin is an open-source, statically-typed programming language that supports both object-oriented and functional programming. Kotlin provides similar syntax and concepts from other languages, including C, Java, and Scala, among many others. Kotlin does not aim to be unique—instead, it draws inspiration from decades of language development. It exists in variants that target the JVM (Kotlin/JVM), JavaScript (Kotlin/JS), and native code (Kotlin/Native)

**V. SYSTEM OVERVIEW**

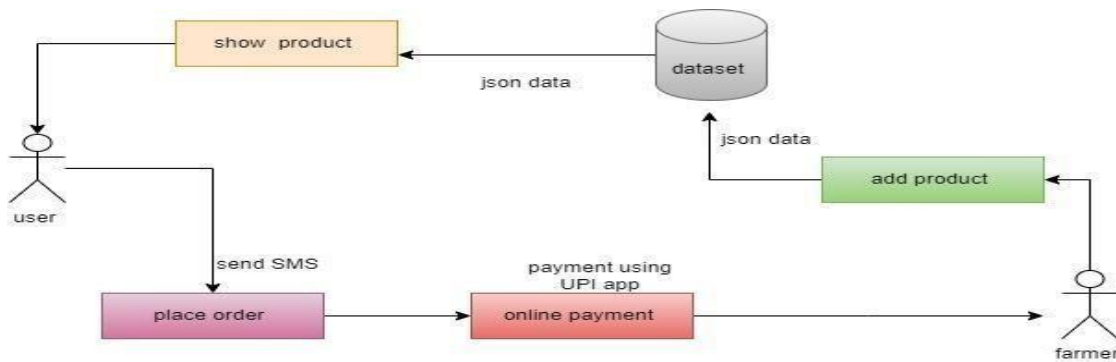


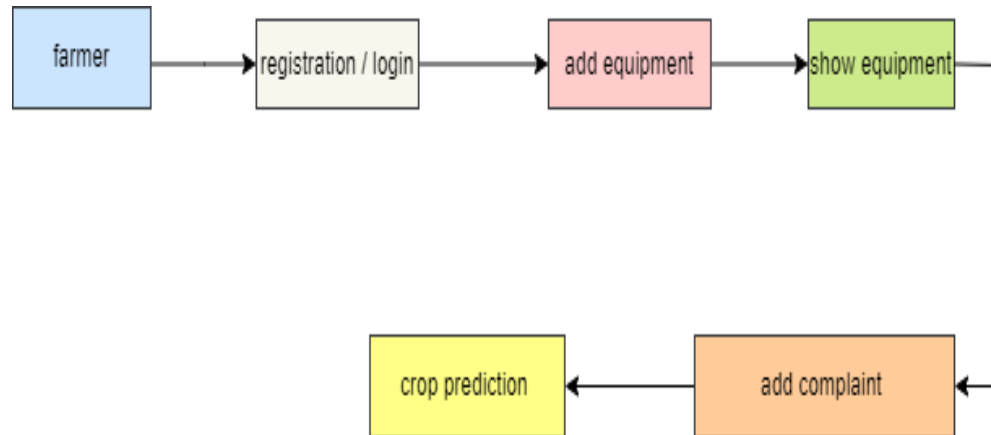
Figure : System Architecture

**VI. PROPOSED OUTCOMES**

Android has an incredible ability to solve real life problems. Problems are mainly based on two factors, time and money. The problem encountered was to create a provide a platform to the farmers where the produce from the farms can be easily sold at better rates, pooling or sharing of the transport to take the produce to the markets and to help farmers in to take precautions based on the forecast of weather. Since it is an android application, it is supported by all android devices or smart phones which are easily accessible to the users. The availability of various functionalities like buy/sell, transport and weather forecast helps farmer to get what they want saving their effort and money. This android application will help the farmer to sell their produce quickly under the right price. The transportation feature will help the farmer to transport the produce from one place to another because the transportation cost will be shared. The freshly cultivated product can be bought directly from the farmer at the right price. It is indeed a very long process to grow crop. They expect to get some profits. For this the e-market system where the farmer can upload his produce details and can directly contact the customer is developed. Sharing of transport can help in reducing the overall transportation cost for farmers. Precautions based on weather forecast of rainfall can prevent loss of stored produce. Also, crop guidance based on seasons will be provided in this application.

**Data Flow Diagram**

In Data Flow Diagram, we Show that flow of data in our system in DFD0 we show thatbase DFD in whichrectangle present input as well as output and circle show our system, In DFD1 we show actual input and actual output of system input of our system is text or image and output is rumor detected like wise in DFD2 we present operation of useras well as admin.



**ADVANTAGE**

- Convenience at Your Fingertips. ...
- Freshness and Quality are guaranteed. ...
- Time and Effort Savings. ...
- Customization and Special Requests. ...
- Tracking and Delivery Updates. ...
- Supporting Local Farms. ...
- Product Selection: Evaluate the app's product selection to ensure it meets your preferences and requirements.

**VII. CONCLUSION**

The Farmers will derive greater benefit when they can make better decisions about where to sell their output after getting market prices for a variety of local and distant markets. societal problems in the agriculture sector. It would assist in protecting the crops in different weather and the main approach is for buying and selling of the crops, which help the farmer to sell the product and get a better profit rate than the markets. The transport feature helps the farmer to share a ride with other people which are taking the same route.

The compensation is distributed resulting in profit to the farmer. We have used modern tools and platforms like android studio and fire- base. During the development we have understood the importance of individual and teamwork while project development and management. While presenting our project in various seminars we have enhanced our communication skills and displayed professional ethics which will result in lifelong learning.

**REFERENCES**

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