

## Survey on Development of an Android Application for Kisaan(Farmers)

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**Abstract:** This paper presents the mobile application for the farmers. Today, everyone is familiar with mobile devices. Nowadays farmers are facing problem due to inappropriate information available. Mobile is the new way through which farmers can easily get information through smartphones. Also include farmers and people from rural areas. Mobile plays an important role in the life of farmers as well as other people[21]. Farmers, who depended on clouds for rain, are now looking into the Android application for their solution towards the cultivation of crops in today's modern agricultural world. In India, the traditional methods used especially by farmers are very slow and understandable. It is still not possible for farmers to collect all information properly[4]. India is an agro-based developing country. This bridges the gap between the availability of agricultural inputs and the distribution of agricultural production and agricultural infrastructure. Mobile computing, cloud computing, machine learning and soft computing are nowadays mostly used in various types of field like engineering, Medical and Agriculture[18]. This paper describes how the Android app of agricultural services has influenced farmers in their farming activities.

**Index Terms:** JAVA , JSON , XML , PHP , ANDROID, Cloud Computing , Mobile Computing

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### I. Introduction

The project is proposed for the G. H. Raisoni University at Saikheda. The university is focused on addressing issues related to agriculture. There he identified a problem for farmers. Farmer often struggle for basic information such as weather updates, crop prices, crop information and expert advice. Agriculture is the root cause of food and raw materials production, which is ultimately the reason for population survival. Most of the Indian population is dependent on agriculture. However, there is a need to review the mechanism for updating the technology There will be big changes in agriculture in the coming years. Unlike the previous 'green revolution' which had the basics of modern pesticides and fertilizers, agriculture is now revolutionized with the help of technology.

Agriculture is the irreparable pillar of every developing economy, and so is India. The agriculture sector in India accounts for up to 20% of gross domestic product (GDP). Directly or indirectly, 60% of India's total population depends on agriculture Many Indian farmers, including small-scale growers, often lack access to information and technical resources, which can increase yields and produce better prices for their crops and produce. In this issue, the wide spread of mobile phones is a network game changer.

Nowadays there are various applications for agriculture such as Bharat Krishi, PDKV Akola and Agrovan. It mainly focuses on displaying crop information(agrovan) and informing dealers.

The main objective of such a project is to develop a mobile phone based solution that will help farm management, improve farm yields and help manage farms. Smart farming practices increase production in almost every area. Modern agriculture and the use of agriculture are essential because modern farming, methods can increase production and feed the world Economy of some country is mostly dependent on agriculture and farming related business. There are various types of problems still unresolved which can be solve with the help of application. This Application will let the people know about the information about all the crops and related pesticides ,the person can also login, register, there is also a group chat feature in the application, weather forecast information and Frequently Asked Questions in which the farmer can also add type question.

### II. Literature Review

The main objective of this project is to provide the farmers with the android application which provides the registration, login, weather, supplier and retailer, crops information, notice voice speech, multiple language support , market trading[20]. They have used various technologies like JAVA,JSON,XML,PHP,ANDROID[10]. This project consist of a weather module which our project also has. Our project is basically not a GPS based

application which will let the users know the weather forecast about their current location but this application consist of the weather information that will be fetched from the meteorological devices or the setup which is at the GHRU , Saikheda. It will provide the required information about the weather in Madhya Pradesh. However the weather will be displayed on the basis of the meteorological setup which is based in Saikheda[1].

The main awareness for this work focuses on Indian farmers as it addresses the major problems of obtaining market updates, weather updates and rainfall information for various products and also provides several language support. Annually, such loss is over 40% of the total. Therefore, the paper presented here suggests various ways in which a farmer can use a mobile on his handset to help them for relatively better farming and trading[16]. This Application is providing the Login, Registration, Weather Report, market news, information of the crops and market trading[1]. Our application also consist of the module of displaying the crops information. We will also displaying the details of all the dealers selling fertilizers and pesticides nearby the university. Also will be providing the information regarding pesticides[2].

This paper describes about various applications that are being developed for the agricultural sector. Many Apps are made for different purposes. Such as Farm Manager, Agro mobile, Krishi Ville and various other Apps. These Apps provides with the proper information regarding the pesticides and other related components[22]. Depending Upon these Apps we took the idea of creating an application which will have all the aspects which have been covered in some of the apps. The only different module which will be implemented is the Group Chat module. Different types of ideas are taken from different Application[21].

This application consist of the modules which many other application has. Such as login, registration, weather, crop info, etc[19]. The main purpose of introducing the proposed system is to provide the farmer with appropriate information about the details of flowers, fruits and vegetables (such as soil, fertilizer, methods for harvesting, etc.) All data is in Gujarati language, so illiterate farmers of Gujarat can easily operate this system and get the data obtained from it[5]. The general purpose of designing the proposed system is to develop a mobile based application which can be operated by any user. [11]. System once installed in Android smart phone, it provides information and it is free from network coverage problem also. System is freely available on Android system just by sharing an

APK once it is downloaded and installed in Smart phone it provides information without internet service.

This application provides the information to the users in Gujrati Language. The idea of single language use has been implemented in proposed application. With the help of google translator the data will be provided in Hindi as well as in English language[2]. Also the login module through which the farmer can login the Application and create the account for the further usage [4].

The main objective of the application is to information required from the crop planning to the selling of crop. The very basic information needed by the farmers are about information of soil, sort of seed, required pesticide for the actual crop altogether stage of its growth, fertilizer type, crop diseases and its selling[16]. This application provides with the information required for the pesticide required for the particular crop and also provides the type of the fertilizer. This application consist of the data in English language also and also in Hindi language[5].

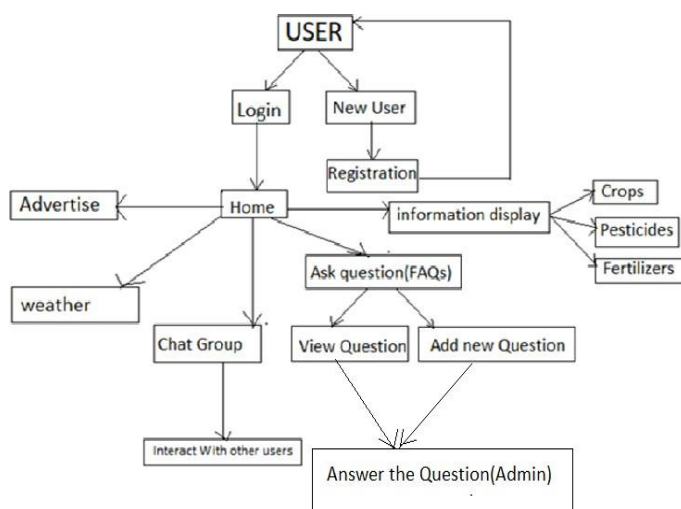
Mobibush Application is an app for farmers , first they have to register on the application[4] . Only registered farmers can get the knowledge about crops with the assistance of mobibush app. With the help of this app user can get the information about soil properties, water level by sending a single message STATUS. This message goes to GSM toolkit and reply with the requested in-formation .Now in this project they have also connected the hardware. The GHRU Application doesn't contain any hardware part. The proposed Application also consist of the registration. Only registered users can participate in the Group Chat[10].

The researchers have developed a client-server application called Optel Billing System. Interface design, socket programming style, java, and exceptions also are considered within the development stage. This project is being developed for the client server communication. The GHRU Application consist of a client-server in which all the data regarding the application is being stored[6]. The data such as login details, registration details as well as the information about all the pesticides and crops. This project consist of the data regarding only the Billing system [14].

The Mobile Government Application provides various facilities which are not found in other applications such as Agricultural news, Agricultural Policies ,Funding Opportunities, Weather Forecasts , Alerts And Market Forecasts, Advertisement. This app is very helpful by the farmers perspective as in they can reach up to all the news regarding agriculture. Also the prior knowledge regarding the funding opportunities the farmers can get from the government. By this the farmers will be directly in touch with the government .

The proposed Application uses the advertising regarding the crops and other materials which is being available at GHRU saikheda[16].

### III. Working Of The Proposed System



### IV. Conclusion

The development of the project solves the issue of Information regarding the crops, group chat and the FAQs .It is being found that most of the Application are developed for displaying the information and buy the fruits and vegetables. This Application is providing the new feature of group chat. Group chat let the farmers to interact with others. The application also contains the feature of Frequently Asked Questions in which there are all the FAQs by other users or farmers The farmer or the user can also add new question.

### Acknowledgement

G.H. Raisoni University in Saikheda, we discussed our project titled as "GHRU Sahayata Kendra Application". We have understood the problem of the farmers that how much it is difficult to get the information about crops and pesticides. So we are giving a solution as an application will not only provide the information about the crops and pesticides but also will be able to register, login, have a group chat, ask questions and weather forecast. The work presented in this paper is supported by Center of Excellence in Artificial Intelligence and Machine Learning (COE AIML) of G H Raisoni College of Engineering Nagpur. The authors are acknowledged to G H Raisoni University Saikheda M.P. India for providing real-time environment and dataset for this project.

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