

E-Farm Farmers Assistant System

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Abstract- India is Associate in agriculture based developing country. Information dissemination to the information intensive agriculture sector is upgraded by mobile-enabled information services and rises of mobile telecommunication. This Project offers details regarding an App developed for agricultural help to the farmers in their farming activities. This code application is essentially for property development of farmers. Currently, farmers are the victimization for the web of Things and good senses to urge access to information of product. The importance of mobile devices are magnified and farmers are enclosed in medical care. The mobile apps provide countless integral functions, API's for the development of mobile application. It provides easy means for farmers to sell their product by basis of quality purpose of read. During this paper, we have got done rigorous survey on mobile applications used for farmers at the side of drawback statement, methodology adopted, result and discussion. During the project, our objective is to produce quantity help to Indian farmers world organization agency don't seem to be obtaining the correct timely treatment for his or her plants. There's Associate in an app which has the registration, storing and forwarding the tiny print and instant identification for the plants. Within the registration method, the farmers must be compelled to register their details and login to an app. They are going to read the tiny print of trees, crops, vegetables and fertilizers. That fertilizers are used for the affected plants and it'll provide some solutions for his or her issues.

Keywords- Farmer Interaction, MYSQL, Agro Details, Android App.

I. INTRODUCTION

Farmer Product is the app which will facilitate the farmers to perform the agro-marketing resulting in accomplish success and increase in their normal of living. The selling facility would permit the farmers to possess a read of the bills created and therefore, the connected data in their accounts[4]. Associate in Nursing Authorized-agent would function the way for the farmers to sell their merchandise within the market. The Centralized market committee can have management on the Agents through business activities review. App will offer market-wise, goods wise report back to farmer in the interactive method [8].

In geographical area, the SMS facility would offer the specified market data wherever web cannot be availed. Government can advance the new schemes for the farmers. Compensation are going to be provided for the farmers just in case of any loss to the assembly because of some natural calamities. Distinctive interface are going to be provided for applying and viewing the schemes.

Farmers and therefore, the Agents are going to be given a single ID for work into their accounts leading towards secure access. They will additionally act to the opposite farmers to grasp what square measure the updates is done[6]. The farmers additionally read the main points of the individual trees, vegetables, crops, greens associating the fertilizers from simply a click in an app. Thus, it'll be obtained by two completely different languages like Tamil and English. So, the information are going to be simply analyzed from associate in an app. It makes the new farming or cultivating individuals to straightforward learn and farm the system.

There will be additionally weather change system which provides the time, temperature, wetness and alternative details of the actual town. It makes conscious of the farmers regarding the climate.

II. BACKGROUND STUDY

Although, professional agriculture engineers are responsible for the recognition of plant diseases, intelligent systems can be used for their diagnosis in early stages. The expert systems that have been proposed in the literature for this purpose, are often based on facts described by the user or image processing of plant photos in visible, infrared, light, etc. The recognition of a disease can often be based on symptoms like lesions or spots in various parts of a plant. The color, area and the number of these spots can determine to a great extent the disease that has mortified a plant. Higher cost molecular analyses and tests can follow if necessary [2]. This application can easily be extended for different plant diseases and different smart phone platforms.

Information and Communication Technology (ICT) in agriculture is an emerging field specializing in the enhancement of agricultural and rural development in India. It

involves innovative applications using ICT within the rural domain. The advancement of ICT may be utilized for providing accurate and timely relevant information and services to the farmers, thereby facilitating an environment for remunerative agriculture. This paper describes a mobile based application for farmers which might help them in their farming activities[6]. We propose an android based mobile application—Krishi Ville which might be sure of the updates of various agricultural commodities, forecast updates, agricultural news updates. The appliance has been designed taking Indian farming in consideration [4] [5].

Forecasting and technical information regarding farming is often provided by the experts of farming community to the farmers by using new development in Information and Communication Technology (ICT)[7]. Agriculture kiosk is often one of the route through which farmers within the rural areas have gotten various agriculture information on the fly using IT based application installed within the Kiosk. There are certain disadvantages of kiosk like: a) It's not user-friendly. b) Setup cost of kiosk is incredibly high. c) Problem of the internet network connection. d) Security cost for shielding kiosk[1][2]. Here, during this research paper we've got discuss styling IT based application which gives an information to the farmers overcoming the above problems by developing android application. Android software is an open source; using it we will design and develop a software having functionality is just like agriculture kiosk. After developing android application we will deploy it in an android market so, everyone can download it freely. [3]

III. OUR SYSTEM MODEL

There are a number of android application for agriculture which makes helpful for the farmers. Some applications will test the soil quality and what are all the crops that can be cultivated in that particular field. Some of them will give the market rates and farmer to merchant interaction. Some of the applications will give the effects of the plants by using the single snapshot. Thus, all the applications are obtained in different Apps that make them difficult while installing. There will be huge tests while installing application. When working for the Government, the application should be obtaining the original data that read by the users in the system. The above all modules are not obtained in one android system, it is somewhat difficult while gathering all together.

Our work presents the some modules will be obtained in the single application that makes the user to easily understands and deal with the system. First, the user who are

all new to the application has to register to the system. After that, they will log in by giving the particulars in the system.

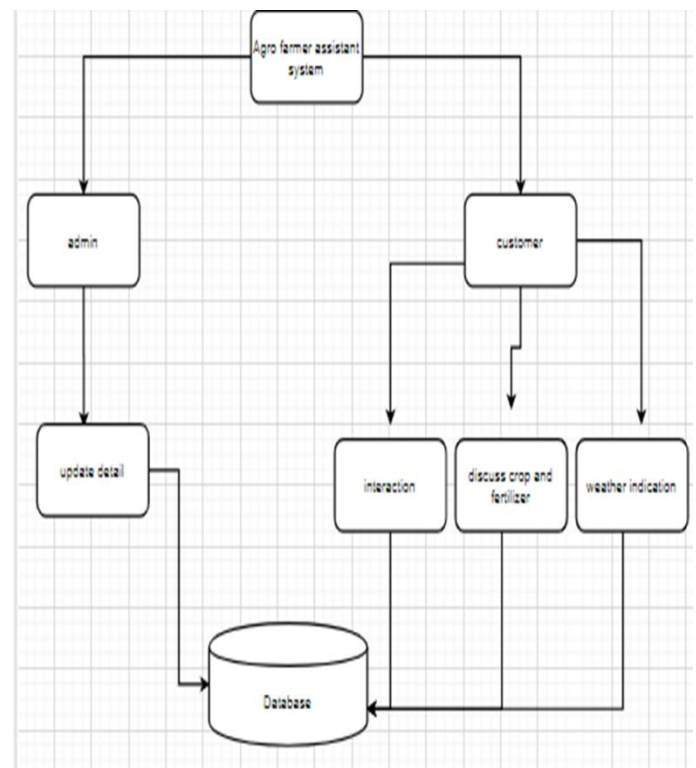


Fig. 1: System Architecture for Proposed Model

Before login, we can also see the details of the agriculture related details through just a click on the Agro details in the system. In that details, the farmers can learn how to cultivate, when to cultivate and what are the organic fertilizers used to make the crops to grow that can't affect the crops. Our system delivers by not using the chemical fertilizers and encourages the organic cultivation. The Agro details will be uploaded by the Admin. He will check each and every details from the agricultural specialists and the old farmers. After collecting that, he will upload in the system.

After the login process, there are some modules that used in the system. The capturing the affected plants will be implemented in the future side. In the system, it developed but not gathered to it. Another module is Farmer interaction. The Farmers can interact to the other farmers for asking any doubts, just asking the details for their purposes. When the farmer give a message. The other farmer will reply to that message. It will be obtained below the message process. The other module is weather notification. It used to make the farmers to know more about the weather of the particular place. It makes him a remainder of the particular place's condition. It will be active when we ON the location and it will deliver the weather. The data will be stored in the database and it will retrieve from that.

IV. IMPLEMENTATION

A. Registration

To get the online details or conversation with the farmers, first we need to fill registration structure. In registration, the user have to fill their name, email id, password, location and some details. After filling each field, they have to submit it. If they have already registered to the application, they are not supposed to register. If they want to do so, they have to give another email-id.

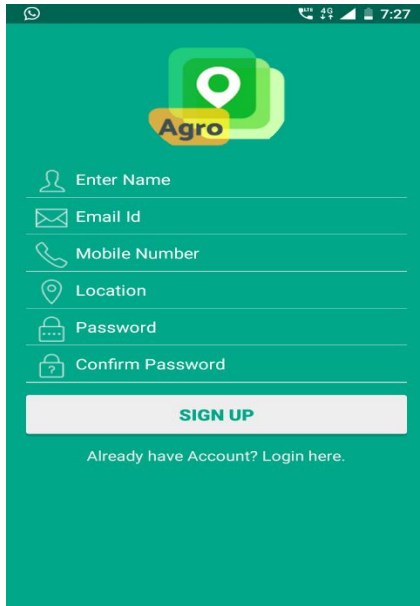


Fig. 2: Registration to the application

B. Login

This system provides protection of information through the mechanism of unique id (valid email address) and password therefore, only authorized people can access the database. After successfully registration, user login to the system by using their unique id (email address) and password. If id and password is correcter that only he/she will be able to access the system.

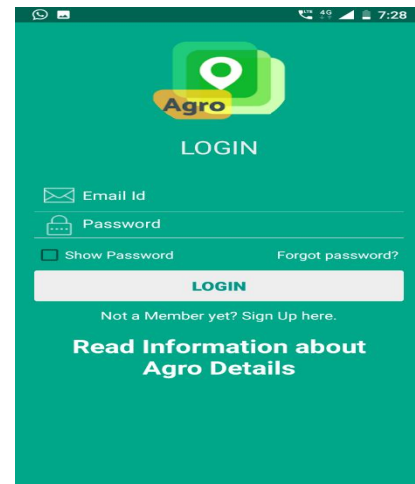


Fig. 3: Login to the application

C. Agro Details

In this system, the details of the agricultural facts will be obtained. It will be filled out by the Admin. There are different fields will be obtained, they are trees, vegetables, fertilizers, crops and greens. The important thing is that, the details will be obtained in the both language like Tamil and English. The static format obtained in the Tamil language and the dynamic format obtained in the English language. The details obtained in this system will be in the original and organized way to make the plants to grow in the nutrition process.

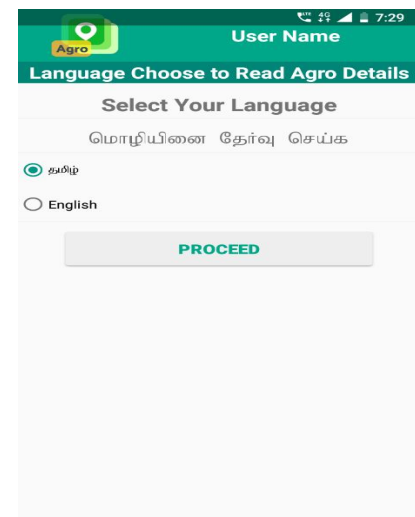


Fig. 4: Choosing the language

For Agro Details.

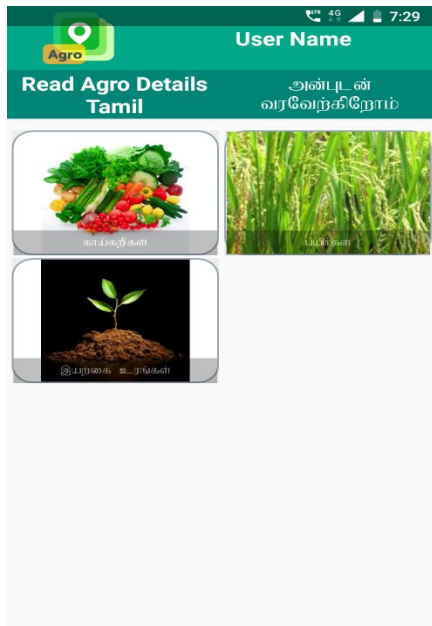


Fig. 5: The fields for the chosen language obtained



Fig. 7: The product details obtained in one of the field

Like this, the language English also obtained by choosing the fields and their products. It will be chosen by the farmers who are comfortable to the required language.



Fig. 6: The different products obtained in the particular field

D. Farmer Interaction

In the farmer interaction, the farmer will interact to the other farmers or the agricultural specialists for their purpose. It will help the farmers, if they have any doubts in the agricultural field or using the application. They will also ask the specialists if the plants are affected by the disease. The message will be viewed by many farmers who are all log onto the system. They will also give the reply message to the farmers. It will be similar to the social media applications for chatting purpose.

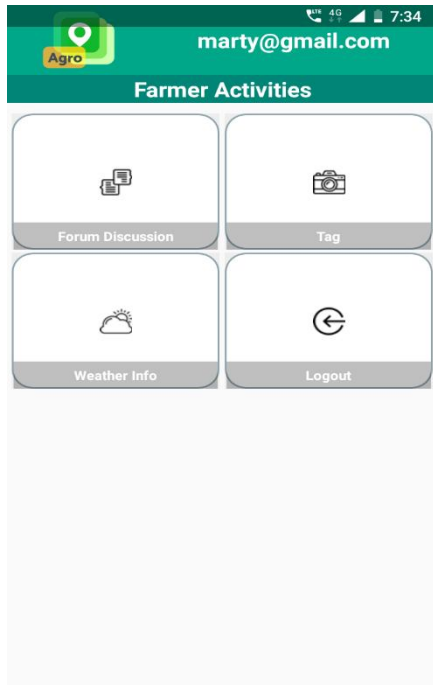


Fig. 8: After Login

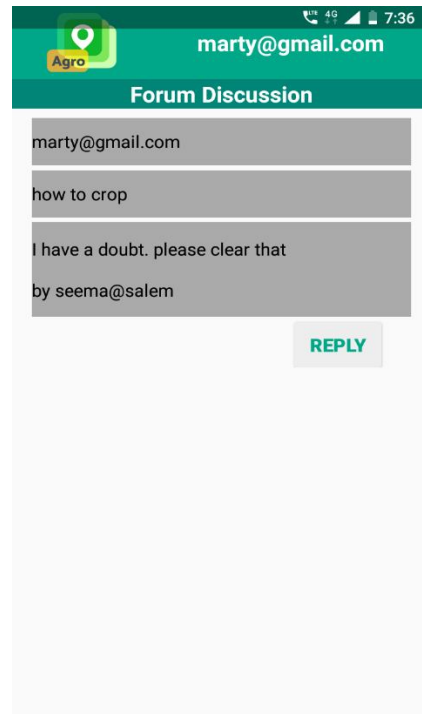


Fig. 10: User Reply field

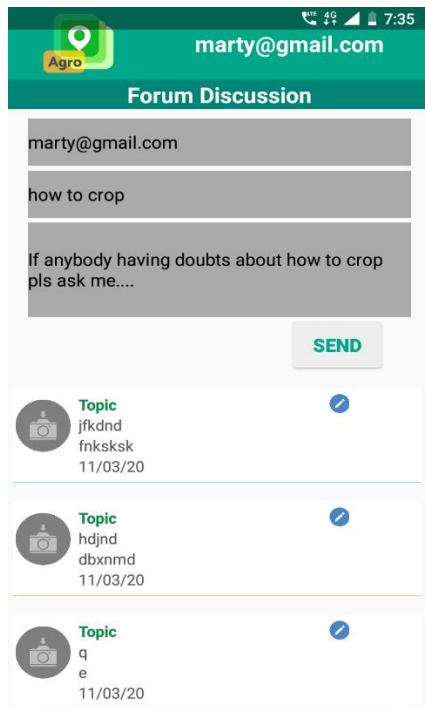


Fig. 9: Farmer Interaction field

Thus, the farmers can interact through this system that obtained in the respective module. It develops the relationship over the one farmer to the other. It also clears the doubts between the each of the farmers about the agriculture who are all new to this field.

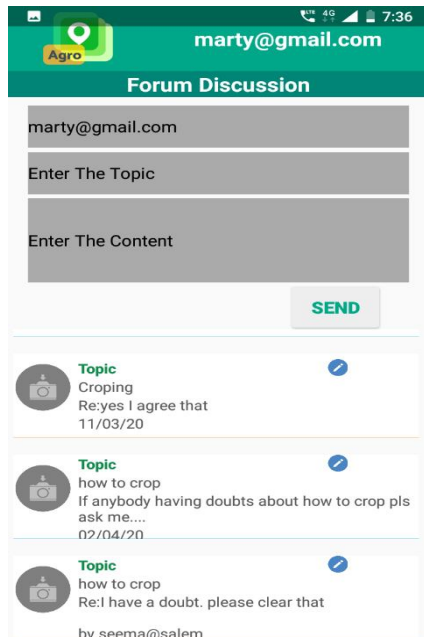


Fig. 11: The conversation retrieved in the bottom of the page.

E. Weather Notification

In the weather notification module, the weather for the particular location will be obtained by the system, when the location is logged on in the application. It will display the city, temperature, humidity and location in the system. It will notify to the farmers about the particular place’s weather condition.

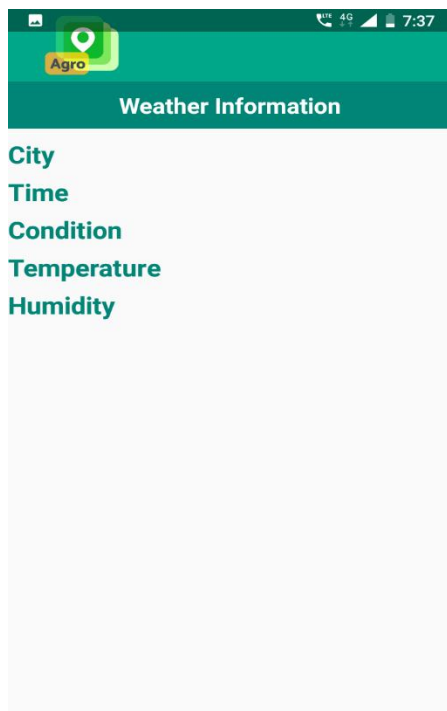


Fig. 12: Weather notification details

F. Capturing the effected plants

For the effected plants, the farmers have to take the sample of the effected parts in the plants and check the plants to the agricultural specialists. It will take huge amount of time and also makes the treatment slower. To save the time, we can capture the effected plants and sent to the agricultural specialists for the treatment process. It will be implemented in the future.



Fig. 13: Camera used to capture the plants

Thus, the different modules will be obtained in the different applications in the existing system. This application gathers the same modules and in the future it will be a complete application for the farmers that they can easily access. The youngsters who are all choosing the agriculture field for the future can easily access the system and also understands the details to how to operate. They will also teach the other farmers who are all not known about the application.

V. DISCUSSION

The proposed framework will give the small print for the farmers that the way to cultivate and what are all the organic fertilizers are going to be wont to make the plants within the healthy way. A number of the applications obtained the fake details of the agriculture and also the fertilizers they recommended using that’s filled with chemicals. This application mainly used for the upcoming farmers who are all unaccustomed to this field.

VI. CONCLUSION

From this application, the farmers can interact to the other farmers and there will be obtaining the weather indication process. It is low cost compared to the other applications. It helps the farmers and the other persons who want to know more about the crops. It mainly used for the farmers to when to cultivate, how to cultivate, and what are the fertilizers that can be used for each and every crop. In this application, they recommended the organic fertilizers for the crops which gives nutrition to the plants.

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