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"AGrow-BAS-X" Mobile Application

Deepika Ajalkar

Assistant Professor
Department of Information Technology,GHRCEM
Pune, India

deepika.ajalkar@raisoni.net

Manisha Patil

Assistant professor
Department of Computer Science, GHRCEM
Pune, India

manisha.patil@raisoni.net

Saurabh Chavhan

Student
Department of Information Technology,GHRCEM
Pune, India
saurabh.chavhan.it@ghrcem.raisoni.net

Bhagyashri Joshi

Student
Department of Computer Science, GHRCEM
Pune, India

bhagyashri.joshi.cs@ghrcem.raisoni.net

Aditya Mishra

Student
Department of Computer Science, GHRCEM
Pune, India
aditya.mishra.cs@ghrcem.raisoni.net

ABSTRACT

Agriculture is the art and science of cultivating the soil, growing crops, and raising livestock. In the agriculture domain we will have lots of ideas to implement. Based on this we have "AGROW BAS X." In this we are creating a mobile application which specially for the user who do not have knowledge of farming and crops for them we come up with this idea. We are providing them training with animated videos, depending on the weather, soil and water sources that tell which crop suits this season and which crop is in demand.

We provide them level wise tasks to take good yield with proper guidance. In each level they have a specific task to complete. All the process needs for harvesting the crops will be provided in this application. If the user does not complete the task the next level will not open. So, the user must complete the task. We also add the fertilizers section in it which is best for the soil and crop. Model is work on weather forecasting, where we share data which will sanction all the details of weather. According to that, the user will take the crop. We are using the technology of mobile applications, ML algorithms, and weather forecasting. Also Providing marketplace for user to sell their crops on best prices.

Keywords— Agriculture, Season, Crop, ML, Forecasting, Fertilizers, marketplace

INTRODUCTION

The agriculture industry provides direct or indirect employment to 66% of Indians. Agribusiness is expected to contribute 19.9% to India's GDP in 2021-22. Growth of Indian socioeconomic sector is influenced by this factor. In terms of geographic area, it occupies nearly 43% of India. In the 11th five-year plan, there has been a great deal of investment in irrigation facilities and other facilities. Since India is agricultural country and its maximum revenue is from agriculture, most of the farmers are unaware of the good technology. Along with that they are also unaware of Application which helps them for farming. There is also not much research in terms of application for farmers use. Our application is going to help the farmers in every aspect. It will be helping them right from day one till the day they have made profit. Also, we will be providing them the marketplace which will be beneficial for them to make profits.

Based on this we have AGrow-BAS-X. In this we are creating mobile application which specially for the user who do not have knowledge of farming and crops for them we come up with this idea. We are providing them training with animated videos, depend on the weather, soil and water sources tell which crop suits for this season and which crop is in demand.

So, the conclusion comes that research in Application for farmers is minimal. It will be a great sustainability for the farmers. So, we are going with this title '***AGrow-BAS-X,'*** an application using Machine Learning for farmers.

FEATURES

I. Weather Forecasting

The prediction of the weather through application of the principles of physics, supplemented by a variety of statistical and empirical techniques.
In this area, users do not need to access another app to check weather information since we provide them with all relevant information in our app. The user must register for it here. They will now receive all weather updates via the application. We have attained sustainability because of this.

II. Image Capturing

Processing can be used to improve the quality of your image, or to help you extract useful information from it. It is useful in fields like medical imaging, and it can even be used to hide data inside an image.
So, in our application, we employ this technology to determine whether or not the images sent by the user are relevant to our application. We also compare images with our data set to forecast crop disease and then recommend which herbicide is best for them.

III. Message Notification

This provide mobile verification for the user based on the that we will check the user is authenticated or not. All the next process and schedule time are sending through messages on user phone number.

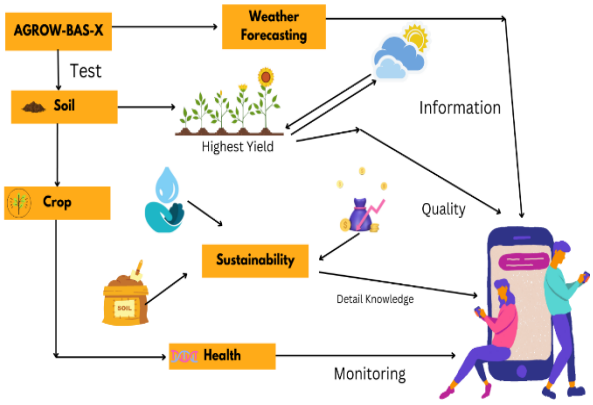

Fig. 1. Result of Agrow-BAS-X

RESULT AND DISCUSSION

Improve farmers' access to and utilization of agricultural information, technology, marketing systems, and infrastructure in order to boost production, profitability, and revenue. Through this application we will get the details of each process and it will we notify you through SMS. This application will also help you to sustain it. Through this user get more resources through our platform no need to go anywhere.

- To give knowledge to the user about farming.
- Predicting the weather and climate.
- Decision support for agriculture planning and policy making.
- Health Checkup, pesticide.
- To provide best marketplace for yield.

We also provide the calendar to user after selecting group and it is manual which can further be change. As a result, it will provide animated videos for farmer that how can they grow their crop. Based on that user will get all updated task related to next day through message.

UML DIAGRAM

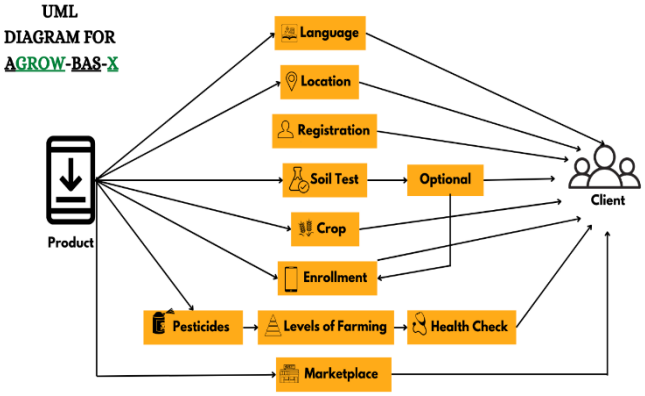

Fig. 2. Workflow of application

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CONCLUSION

“AGrow-BAS-X” is mobile application which is integrated platform for farmers to get all updates to there fingertips. Farmers are not thinking about experimental farming so, this is the best platform for them who want to do any crop farming. It also provides the heath check-up of plant, pesticide based on

these diseases, marketplace. The application is useful for farmers who do not have prior farming expertise and can farm according to the instructions supplied by the application. The application will notify you about the next step in the process. It is the most effective combination of all aspects.

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