A Comprehensive Website formulated for Farmer's to Nurture crops to their Brimming Potential.

Loukik Naik, Raghav Gupta, Om Aryan, Ankit Upadhyay

Under Guidance of Prof. Aabha Patil

Computer Engineering, Shree LR Tiwari College of Engineering

ABSTRACT - The agricultural information system provides its users and research to get online information about, the crop, statistical details and new tendencies. The trends of the crops act so that these will be pretty important to the users who access these via the Internet. The main features of the information system include information retrieval facilities for users from anywhere in the form of obtaining statistical information about fertilizer, research institutes and research, land availability, diseases, suitable soil concentration for the corresponding crops, statistical information about exports and etc. In addition, this provides individual information about Intercrops related to main crops. The system allows the retrieving facilities but also the updating facilities to the authorized persons in the corresponding institutes. HTML, CSS, and Bootstrap was used to create the front end for the system and Node JS Server was used for the back end. We have used MYSQL for accessing Database. The front end and back-end is connected using a XAMPP Server Users will be given login name and password so that they can log-in to the database.

Index Terms- Bootstrap, Crop, CSS, HTML, JavaScript, XAMPP

I. INTRODUCTION

Developed countries are using Management Information System to assist different task for their end users or clients. Other than that, developing countries have to provide Information for their peoples who interested in Economy. For that we need Information System to cater them for various ways. This agricultural system assists different users as Planters, Importers Exporters Prospective investors, and Researchers. India despite having an agriculturally based economy does not have an information system of this nature. The main objective of this proposal is to introduce an agricultural information system for the main crops of India, like rice, wheat and various spices etc.

Remote access to this system to be provided through the internet. This Information System provides the external users the ability to obtain summarized Information in a preferred format. It also provide facility to the main Agricultural Research Institutes in India to update the database though the internet. This system provide facility to updating database by computing proficient as well as non-computing proficient. This provide easy access to the database for all type of data manipulation. Security of the database is ensured by the use of a password for updating purposes. India is an agricultural country. So far agriculture is the main industry in India.

Information required by people who formed a new Agricultural factory in India and by those who export this crop as finished products have no online system to get most of the required details. As a Information system this technology performs commanding roles in that blank area. Now a days, people do not like to read of books, which are very hard to find and time consuming. So, this Information System is a very urgent requirement to make and Information System available online. Definitely this will be helpful to the people who does higher studies on crops, investors scientists, research student, planters, importers, exporters etc. This agricultural system fulfills above requirements.

II. PRODUCED SYSTEM

The current application can be accessed by two types of users (buyers and sellers). As farmer is illiterate,

he accesses this application with the help of another trusted party. Buyers can demand their desired crops using this application. Buyers can submit their feedback regarding the crops which they won in auction. It provides the farming equipment either new or second hand. Also, we can buy the tools on rent. Information about schemes given by government for farmers can be uploaded in this application.

- Current system provides different access levels for security.
- Rich's user interface is provided in order to interact with application.
- A lot of farmers are committing suicide because of insufficient knowledge and lack of resources for farming.
- To give proper guidance about farming and how to make maximum profit out of it.
- To create a Farming community where everyone can help each other by sharing their knowledge about farming.

III. PROBLEM STATEMENT

This is a web-based project which is useful for farmers and agricultural students. This is an open discussion portal providing solutions to small farmers and agricultural student. Information about major crop markets and their current price for the crop. Also provides information about crops, fertilizers, and market details. Information pages should be dynamic so that agricultural officers and administrator can change it.

IV. PROJECT IMPORTANCE

- It is an open discussion portal used for agricultural students and farmers. Any general public can use this system for knowing the information about various crops, and the usage of fertilizers to those crops.
- Training is requested by the students, general public. These trainings are scheduled by agricultural officer. Information about major crop markets and their current price for the crop will be published daily.

V. SCOPE OF PROJECT WORK

- The main aim of this project is to contribute to the farming community in all the ways that we can.
- The community will get a platform to share and solve each other's problems and this flow of knowledge will in turn cause a flourishing agricultural growth.

VI. ORGANIZATION OF THE REPORT

This project is useful for farmers and agricultural student to obtain information regarding various crops, tools used by the farmers, also provide one of the platforms for online selling and buying of the different types of grains and the tools. Also provide the desire cost to the user or farmer. The cost is decided by the expert system. By using this application, the tools can be available on second hand also. One expert system is organized to decide the proper cost of the grains that are selling by the farmer. Due to this, desire cost will be provided by the farmer. Also, the application will help in transportation.

VII. LITERATURE REVIEW

- Survey of Existing System

A lot of websites are currently hosted by the government for the benefit and welfare of farmers after surveying them we realized:
1. They provide a lot of useful information for the benefit of farmers
2. Most of these websites don't have easy and understandable user interface.
3. These websites have information curated from many experts in agricultural fields and hence are very useful.
These websites are not well maintained and hence are out of service on numerous occasions.

- Problems with Present System

1. In managing the data related to agricultural products, soils, fertilizers, and market details.
2. Lack of security.
3. This system doesn't provide category wise classification of products.

4. Inefficiency in querying details.
5. Periodic report generation takes lot of time.

VIII. LIMITATION EXISTING SYSTEM

Complexity in managing the data related to the agriculture products, soils, fertilizers, mandi/market details.
   1. Lack of security.
   2. This system does not provide category wise classifications of products.
   3. Inefficiency in querying details.
   4. Periodic Report generation takes lot of time.
   5. There is no platform for asking and answering queries.

IX. ALGORITHM AND PROCESS DESIGN
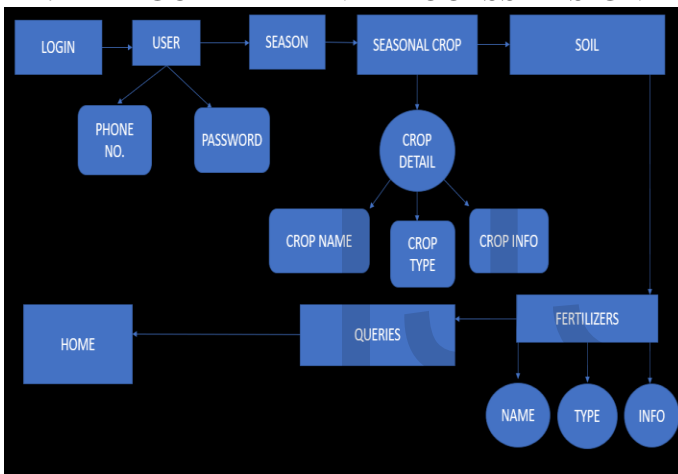
X. DETAIL OF SOFTWARE REQUIREMENT

- FRONTEND - HTML5, CSS3, JavaScript.
- BACKEND - PHP, NodeJS, MYSQL.
- Software – VSCODE, Sublime, ATOM, NOTEPAD++, Git Bash, XAMPP.

XI. IMPLEMENTATION

- For building the frontend part of our website we have used HTML, CSS, Bootstrap and tachyons library.
- For the Backend part we have used PHP and for storing the database of the users we have used MySQL.

- On the landing page of the website, there's a navbar with different links to access the different part of our website.
- We have proper classification of crops based on different seasons like Summer, Winter and rainy season.
- At the bottom we have CONTACT US page where user can ask all his queries by entering his name and email id and the answers for those queries will be added in FAQ page.
- Farm Buddy website is fully responsive, we have added different size of media queries so that it can support all device properly.

XII. RESULT AND DISCUSSION

- The real benefit of this type of information system to agriculturally based country can be seen when it became operational as planters, importers, exporters, researchers, will have access to up-to-date information.
- The real benefit of this type of information system to agriculturally based country can be seen when it became operational as planters, importers, exporters, researchers, will have access to up-to-date information.
- By this project, we provide various information required for farmers and agricultural students and also providing solutions to them about queries posted by them.

XIII. CONCLUSION AND FUTURE WORK

- This makes agriculture more eco-friendly, and this portal is very useful to farmers and agricultural students.
- The contents of all crops are static HTML pages. In future, we can use database to dynamically upload all the contents.
- Also, we can build integrated live chat app on the website only, where all the farmers those who are online can interact with the other farmers and can share their experiences and thereby build a better farming community.

XIV.   ACKNOWLEDGMENT

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