International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 08 Issue: 05 | May - 2024 SJIF Rating: 8.448 ISSN: 2582-3930

E-Farming Management System

Ajeet Kumar, Shreya Tiwari, Omprakash Patel
[Department of Computer Science & Engineering]

Abstract

The main objective of this project is building a website which will help farmers from Indian villages too sell their products to different cities. Here if suppose some village farmers want to use this facility and want to learn how is it possible and how they can use e-farming to sell their products. If they have knowledge of computer then they can directly register in the site and sell their agricultural products otherwise they can contact company's computer professional who will schedule classes to teach them basics of computers and internet like how they can open this site and register with it and sell their products online etc. On the other side, wholesaler from town can also register and buy products as per their needs.

E-farming means not whole farming done electronically instead whole transaction is managed electronically through web-site. Farmer did not do anything only he had to register on website. The main objective of this project is building a website which will help farmers from Indian villages too sell their products in different cities to different customers.

The purpose of this paper is to help farmers optimize their product sales for profit. The project is developed using Visual Studio Code for the front end, and the back end is implemented using SQL Server configuration. Farmers will get all the new ideas to improve their productivity and they can buy and sell their products online.

Keywords: E-Farming, Agricultural Products, Costumer, Information, Farmer

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[1]Professor, SAGE University, Indore, MP, India,**Email**: [3]dineshjain25210@gmail.com

1. INTRODUCTION

Electronic Farming (also known as e-farming) is a term encompassing several different types of farming activities like weather details, price details and buying/selling different products. Remote e-Farming where Farmer or Customer are directly communicate with each other. Internet Farming systems have gained popularity and have been popularly used in other countries. Electronic Farming systems may offer advantages compared to conventional farming technique. The main objective of this project is building a website which will help farmers from Indian villages too sell their products in different cities to different customers. The term e-Agriculture can be described as the use of information technology to enhance or improve agriculture with emphasis on innovations to achieve higher productivity. The e-Agriculture is a farm management system that uses IT technologies to facilitate the production of crops.

In this E-Farming System, wholesaler from town can also register and buy products as per their needs.

In India. 30% of fruit and vegetable production goes to waste because of a lack of time to pick up. Agriculture is the backbone of Indian economy and 68% of Indian population is mainly depend on the agriculture for their livelihood. E-commers web sites like Big-Basket and Farm2Kitechen are in business but they take lots of brokerage charge. As the Farmer gets the very low price for the vegetables and fruits.

Buyer also buys the products at a high price. So, by this project, we want to solve the Farmer and buyer problem and maintain a good relationship between farmer and buyer. Agriculture Management System is farmer management website application which helps farmers to give best practice farming processes. It helps farmers to improve their productivity and profitability.

Objectives of the Project

The specific objectives of the project include:

- To provide qualitative foods to the buyers.
- Implementing an automated/online agro culture system.
- To inspire farmer to produce quality goods and supply to the buyers.

Scope of the Project

- It is focused on studying the existing system of agro-culture in and to make sure that the peoples are getting quality fresh goods.
- Less effort and less labour intensive, as the primary cost and focus primarily on creating, managing, and running a secure quality food supply.

The organization of this document is as follows:
In section 2, Literature Review is discussed. In section 3, Proposed System is described, In section 4, design and methodology is described, section 4 is related to the results & DFD diagrams, in the last conclusion is mentioned.

2. LITERATURE REVIEW

The Macro Management of Agriculture Scheme is one of the centrally-sponsored schemes formulated with the objective to ensure that central assistance is spent on focused and specific interventions for the development of agriculture in states. It became operational in 2000-01 in all states and UTs. The scheme provides sufficient flexibility to the states to develop and pursue the programs on the basis of their regional priorities. Thus, the states have been given a free hand to finalize their sector-wise allocation as per requirements of their developmental priorities. Furthermore, in efficient farming (Australia) out on the tractor one day, the concept of building a one stop shop for the farming community was born. The aim: to provide a rich source of customizable news and information. With the onset of drought in the Northern Agricultural regions of Western Australia there were the normally unattainable resources of time and energy available for research to be conducted into whether a project such as this could come to fruition. The people behind Efficient Farming are young and successful farmers who are similar in their proactive approach to sustainable agriculture and advancing the Agricultural Industry and together they could see the endless possibilities for expansion and enhancement that would guarantee the success of Efficient Farming in the Agricultural Industry. The Agriculture Marketing Information Network is a central website which contains all the statistics of the food products in the country. The site contains all the latest prices of the food grains and the crops grown in the country. Above mention two projects based on E-farming system. Both projects having common features like providing price details, information about different products (Corps). But none of the above projects allows us to do Transaction between Farmer and Customer. Also both are not directly communicate with each other. Since 1970-71, Agricultural Censuses have been conducted in India regularly at five yearly intervals to meet demands of data for planning of agricultural sector and also to meet the requirements of World Census of Agriculture organized decennially by Food & Agriculture Organization of the United Nations. Prior to 1970-71, National Sample Survey Organization, Ministry of Planning in 1950-51 and 1960-61, conducted sample surveys. Though, the information collected through these surveys were broadly the same as that in the present Agricultural Census, these surveys were not able to provide estimates at lower administrative levels such as districts or tehsils due to inadequate sampling proportions. Keeping in view the importance of data on structural aspects of agriculture and the periodicity of five year Plans, National Commission on Agriculture recommended conducting of Agricultural Censuses at five yearly intervals.

3. PROPOSED SYSTEM & IMPLEMENTATION

In this project we are describing the Farmer/Customer as an entity that‘s attributed will be stored and maintained by a Data-store. When the Farmer/Customer registers for an account he will be provided by a user id and password with which he can access the account any time anywhere. At the time of the registration the Customer/Farmer will have to provide details such as: Name (First, Middle, Last), Age, Date of Birth, Income, State/Dist./City and Regional Address These entire fields will be validated and then only they will be recorded by the Datastore. Similar maintenance will be done by the Datastore Administrator. At the time of registration the values in the Datastore will be checked for whether a similar account is being created. found then the registration process will be suspended. Datastore Administrator can also be able to look into the various records entered into the Datastore. Traditionally, the transaction part of farming was carried out by the farmer himself where he had to face losses. The manufacturers and the traders of the village would purchase the raw food grains and food products at a lower rate from the farmers. And in turn would sell it at a higher price in the market. Hence, the farmer was the lone sufferer. By taking all the features on the internet,

the farmers would be better aware of the prices of the seeds and commodities. In turn, the manufacturers and traders would also be able to make transactions online to their clients in any part of the country.

the Online Student Counselling System demonstrated effective functionality and positive user experiences. The system's performance metrics, including response times and transaction success rates, met expectations. Users provided valuable feedback, contributing to ongoing improvements. Data accuracy and security measures were robust, with identified vulnerabilities promptly addressed. A comparative analysis highlighted the system's advantages over existing methods. Considerations for scalability and future enhancements were discussed. Despite challenges, the overall evaluation indicates a successful implementation, meeting project objectives with potential for further optimization.

4.DESIGN & IMPLEMENTATION

Qualitative research approach will be adopted in this study and is basically an open-ended approach that does not involve hypothesis but gives in depth insight into problems. Interview as a research instrument will be used in this study to collect data.

4.1 Data Collection Instrument

Interview will be used to collect data from different farmers and farm products wholesalers. The instrument is chosen to collect data because is a conversation base research method.

4.2 Agile Model

Agile is a software development life cycle model and it will be used in developing the EAMS because of its speedy and elastic response to changes.

Figure 1: Agile model phases Agile Model comprises of 6 phases as indicated in the above figure 1.

4.3 Benefits of Agile Model

1. Changes in requirements can easily be executed in the system
2. Comparing it with waterfall model, only few planning activities are needed in order to start development of the software.

4.4 Use Case Diagram

The use case diagram below illustrates the interaction between the proposed system and the users.

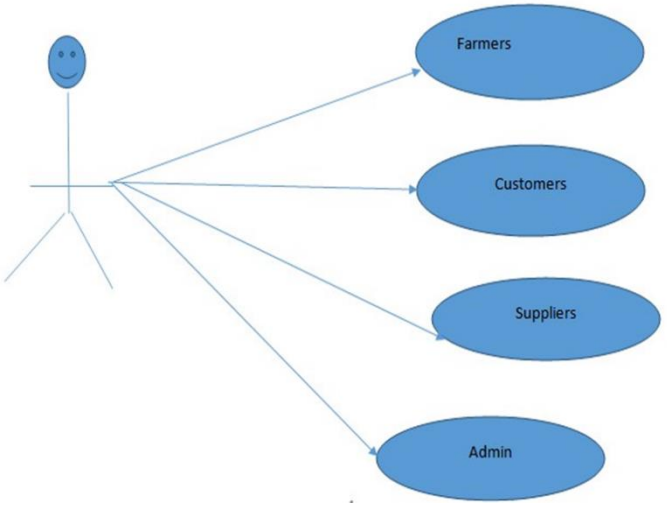

Figure 2. Use case Diagram

4.5 Software Design Tool

Flow chart tool will be used in the design of the proposed EFMS. The below flowchart shows the logical and pictorial representation of the proposed system.

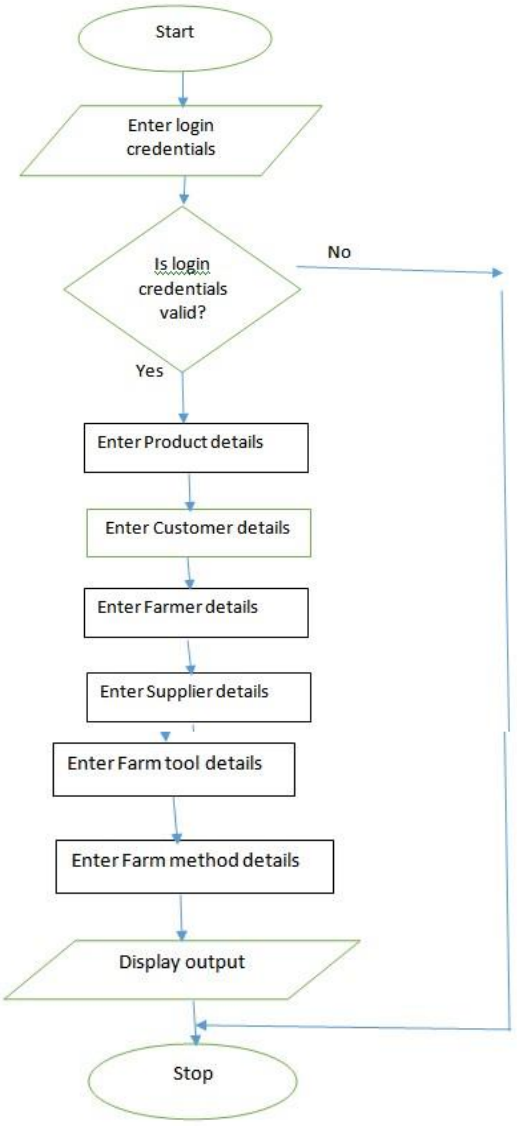

Figure 3. Flow Chart

4.6 Programming Tools

The programming language tools in developing the proposed system are: HTML, CSS, and JavaScript.
For Backend: Python
For DBMS: MySQL

5. CONCLUSION

This Project will thus pave the way for an efficient means to carry out the buying and selling of the products. Farmers will earn money as per the work they have done and will not suffer losses. This system is proposed to replace the existing system where the farmer has to suffer between the manufacturers and the traders. Also the main advantage of this project is that it uses Information Technology. The User only needs basic products like a Computer and an internet connection. The Future Scope of this Project is that it will incorporate Contract Farming. Contract farming is agricultural production carried out according to an agreement between a buyer and farmers, which establishes conditions for the production and marketing of a farm product or products. Typically, the farmer agrees to provide established quantities of a specific agricultural product, meeting the quality standards and delivery schedule set by the purchaser. In turn, the buyer commits to purchase the product, often at a pre-determined price. In some cases the buyer also commits to support production through, for example, supplying farm inputs, land preparation, providing technical advice and arranging transport of produce to the buyer‘s premises. Another term often used to refer to contract farming operations is _out-grower schemesǁ, whereby farmers are linked with a large farm or processing plant which supports production planning, input supply, extension advice and transport. Contract farming is used for a wide variety of agricultural products. This Project will thus pave the way for an efficient means to carry out the buying and selling of the products. Farmers will earn money as per the work they have done and will not suffer losses..

6. REFERENCES

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- https://www.google.com/
- https://developer.mozilla.org/en-US/
- https://www.ijert.org/