



## E-FARMER

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### ABSTRACT

The goal of the E-Agriculture System is to automate the current manual system with the aid of fully functional computer software and computerized equipment, meeting their needs and enabling the storage of their important data and information for an extended amount of time with simple manipulation and access. The necessary gear and software are readily available and simple to use. The e-agriculture system mentioned above has the potential to produce a rapid, safe, dependable, and error-free management system. Instead of focusing on maintaining records, it might help the user focus on other activities. As a result, it will aid organizations in making better use of their resources. Computerized records can be maintained by the organization without duplicate entries. This implies that irrelevant information need not divert attention. E-Agriculture System, as stated above, can lead to error free, secure, dependable and rapid management system. Instead of focusing on maintaining records, it might help the user focus on other activities. As a result, it will aid organizations in making better use of their resources. Computerized records can be maintained by the organization without duplicate entries. This implies that in order to access the knowledge, one need not be sidetracked by irrelevant information. The goal is to automate the company's current manual system with the use of fully functional computer software and computerized equipment, meeting their needs in the process, so that their important data and information may be easily accessed and manipulated for extended periods of time. In essence, the project explains effective management By using computerized equipment and sophisticated computer software to meet their needs, the Agriculture System aims to automate the current manual system and store valuable data and information for a longer amount of time that can be easily accessed and manipulated. It is simple to obtain and operate the necessary software.



## INTRODUCTION

**Problem Statement** The current globalization of generation and supply of rural items has emphasized the got to keep up security, effectiveness and competence all through the nourishment and rural supply chain. Compelling traceability arrangements are direly required to guarantee item security due to expanding nourishment security and debasement dangers. Our conventional method of recording information on papers and registers is the foundation of the outdated systems that currently power the agricultural web portal. It takes a lot of work to operate and administer a sizable web portal with paper records. The Agricultural Web Portal encountered the following issues.

- It was time-consuming and stressful.
- It was difficult to establish a secure database.
- It was difficult to maintain record books for its effective use.
- There were problems with the effective communication and interaction between a farmer and the shopkeeper.

### Scope of the project

The following are the opportunities for building an agricultural online portal:

- This approach assists in compiling the ideal management in the specifics. With the aid of this project, data collecting and storage will be easy, rational, and efficient. It also aids in carrying out the several tasks that the Agricultural Web Portal requires.
- The program is developed using Java technology. Both administrators and regular clients will be able to utilize the system efficiently.
- Through this platform, farmers can sell their food directly to consumers and obtain information on goods that are beneficial for their operations.



## LITERATURE SURVEY

### **The Role of Online Platforms in Agricultural Markets. - Marelli, L., & Whittaker, G. (2018).**

This paper highlights the potential of online platforms to revolutionize the process of selling farms through bidding mechanisms. This innovative approach introduces a level of transparency and competitiveness previously unseen in traditional farm transactions, leading to fair market values and empowering both sellers and buyers.

### **An Analysis of Online Auctions in the Agricultural Sector. - Marelli, L., & Whittaker, G. (2018).**

This paper emphasizes that the adoption of online auction platforms in the agricultural sector holds great promise for revolutionizing the way agricultural products and land are traded. These platforms contribute to reducing transaction costs, widening market access, and promoting equitable trade practices.

### **Online B2B auction system for agricultural products. -Nan, Y., & Ding, J. (2017).**

This article highlights the potential of online stages to revolutionize the cultivate deals handle through offering components. This imaginative approach brings straightforwardness and competitiveness not already seen in conventional rural businesses, coming about in reasonable showcase values and strengthening of both dealers and buyers.

### **Food and Agriculture Organization of the United Nations (FAO)- "Agriculture Strategy Guide".**

This direction recognizes the significance of adjusting e-agriculture methodologies to the oneof-a-kind needs and settings of person districts and nations. It energizes flexibility and advancement within the appropriation of computerized arrangements, reflecting FAO's commitment to advancing maintainable and context-specific rural hones.

**E-Agriculture in India: An Exploratory Study. - Kaur, J. and Kaur, M. (2020).**

Arrangements in India. In the event that utilized viably, these innovations can act as catalysts for rustic advancement, destitution diminishment and nourishment security. Creators and work emphasize the significance This paper. emphasizes the require for proceeded endeavours to advance and create e-agriculture of key arrangement and venture in advanced foundation to guarantee that the benefits of e-agriculture reach all corners of the nation, particularly in farther and underserved regions.

**PROPOSED METHODOLOGY**

Electronic Agrarian Administration Framework (EAMS) may be a arranged framework. This web-based program is outlined to supplant an error-prone and questionable manual cultivate information framework. Facilitated on Internet servers, the EAMS application can be gotten to from both computers and portable gadgets. The framework collects and forms data almost ranchers, agrarian items, buyers and providers, such as names, addresses, phone numbers and mail addresses.

**Data Collection Instrument**

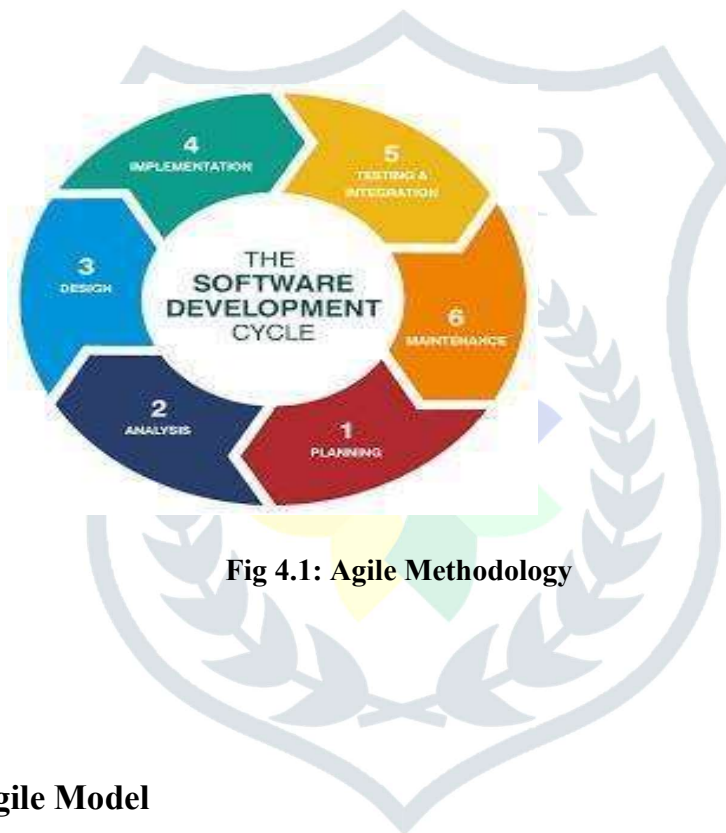
The device chosen for information collection could be a chat bar The reason of the Electronic Agribusiness Meet is to assemble data from different agriculturists and wholesalers of cultivate items. The arranged framework is called the Administration Framework (EAMS). This web-based application is implied to supplant the labor-intensive and error-prone manual framework utilized to handle cultivate information.

The EAMS application is accessible on both computers and portable gadgets because it is facilitated on an online server. The framework collects and forms data almost ranchers, agrarian items, buyers and providers, counting names, addresses, phone numbers and e-mail addresses. utilize inquire about strategy.. The EAMS application is accessible on both computers and versatile gadgets because it is facilitated on a web server. The framework collects and forms data around ranchers, rural items, buyers and providers, counting names, addresses, phone numbers and e-mail addresses. utilize investigate strategy.



## Agile Model

Agile is a software development life cycle model and is used in EAMS development due to its rapid and flexible response to change.



**Fig 4.1: Agile Methodology**

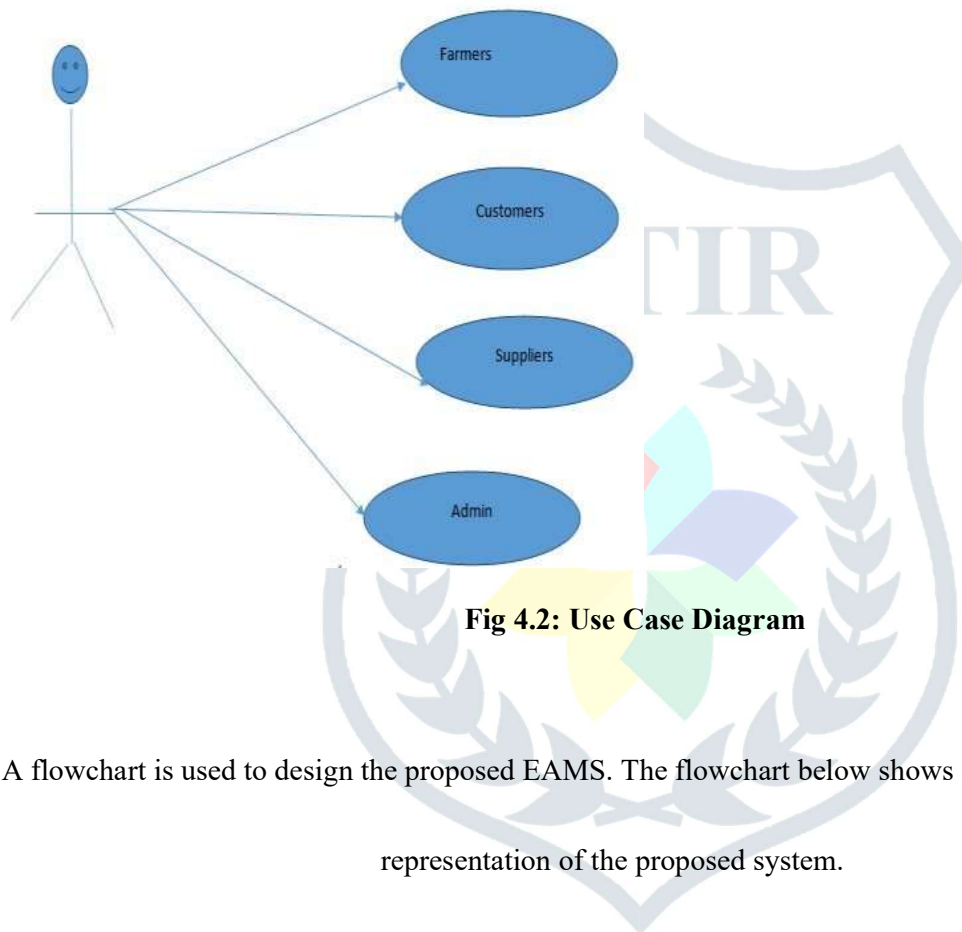
## Advantages of Agile Model

1. Requirements changes can be easily implemented in the system.
2. Compared to the waterfall model, starting software development requires only a few planning step

## Use Case Diagram

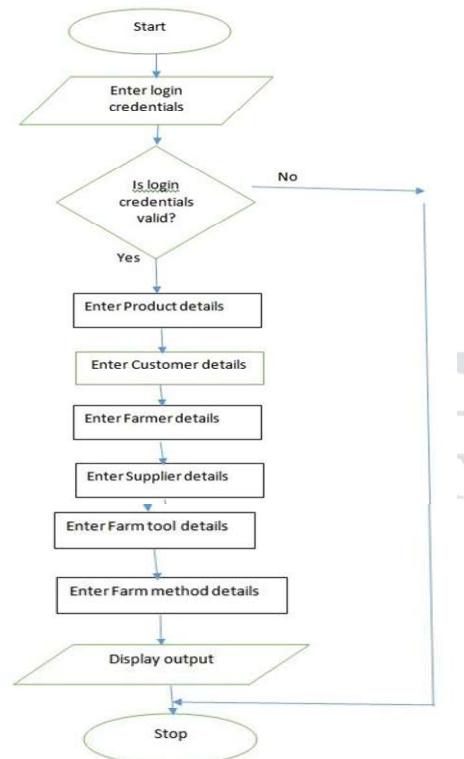
The use case diagram below illustrates the interaction between the proposed system and the users.





**Fig 4.2: Use Case Diagram**

A flowchart is used to design the proposed EAMS. The flowchart below shows a logical and pictorial representation of the proposed system.



**Fig 4.3: Flow Chart**

## OBJECTIVES

The aim of this project is to provide a technologically-based approach to augment transparency and strengthen the customer-farmer relationship. the capability for farmers to place orders for fertilizer and seeds. the flexibility to pay bills in any method, whether offline or online.

Workflow is continuously tracked via the site.

contacting farmers by phone and encrypted messaging.

Permit customers to ask or bid for the farm's produce.



Improving data security is essential, which emphasizes the necessity of putting strong security measures in place, especially when it comes to user authentication and authorization. The purpose of this strategic endeavor is to strengthen the protection of private data stored in the MySQL database so that it is not susceptible to hacking or other unwanted access.

There are several opportunities to create an online site for agriculture:

- Agriculture: This method helps to assemble the best management in the details. This project will make gathering and storing data simple, logical, and effective. It also helps with completing the various activities needed by the Agricultural Web Portal. In order to facilitate the maintenance of records, documentation, and the six inventories on the portal—all of which require proper record-keeping and management—this management system was developed.
- Java technology is utilized in the program's development.

The system will be effective for regular clients as well as administrators to use. Farmers can use this platform to sell their produce directly to customers and get information about products that can help them.

## REQUIREMENT ANALYSIS

In short, the scope and future of the project is focused on recording the following information:

- We can provide advanced farm management system software with additional capabilities.
- To make the platform accessible to everyone, we want to put it on web servers.
- Build a master-slave database structure to reduce database query overhead.
- Integrate multiple load balancers to distribute system load.
- Implement a backup system that regularly backs up the database and code base to different servers.





The improvements listed above can be made to make this project more workable and useful. We can track the catch and equipment here.

Our initiative is merely a modest attempt to meet their needs for project management. A lot of user-friendly coding has also been implemented. This bundle will show to be quite effective in meeting all of the school's requirements. The goal of software planning is to give the manager a framework that, at the start of the software project, allows them to produce realistic estimations in a constrained amount of time. This framework should be updated on a regular basis as the project moves forward.

## CONCLUSION

The goal of this project was to create a web application that allows users to buy products from farmers. Through this project, we gained useful knowledge and practical experience on various topics including creating web pages using JSP servlets, Bootstrap, CSS and HTML databases using MySQL. Every part of the system is secure. In addition, the project increased our awareness of the software development life cycle and its development phases.

Our initiative is only a modest attempt to fulfil their project management needs. A lot of user-friendly coding has also been implemented. This package seems to be effective enough to meet all the requirements of school. The purpose of software design is to provide managers with a framework within which they can make decisions.

An explanation of the project's history, setting, and relationship to previous work in the field.

made a declaration outlining the project's goals and objectives.

The description of Purpose, Scope, and applicability.

We specify the issue that the initiative is focusing on.

We outline the prerequisite, system specifications and the possible actions related to these items.

After gaining an understanding of the problem domain, we create a system model that outlines the operations that may be carried out on the system.

We went into great detail about the features and functionality, including screen layouts.



We created the system's user interface and addressed security concerns.

Ultimately, test cases are used to guide the implementation and testing of the system.

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