



Mini Project Report of
DBMS Lab on

Agroculture Database System

SUBMITTED BY

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Under the guidance of

Mrs.Sonal Mohite

In partial fulfillment of the requirements for

Bachelor's Degree in Computer Engineering

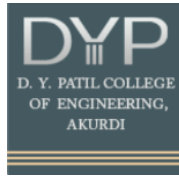
of

SAVITRIBAI PHULE PUNE UNIVERSITY

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Department of Computer Engineering

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CERTIFICATE

This is to certify that **Harsh Padishalwar, Sharvari Tele & Aditya Shinde** have satisfactorily completed the mini project work entitled **Agroculture Database System** which is a bonafide work carried out by them under the supervision of **Mrs. Sonal Mohite** for the partial fulfillment of requirements of Savitribai Phule Pune University, for the award of the degree of Bachelors of Engineering (Computer Engg.) for the academic year 2024-25.

Mrs. Sonal Mohite

(Mini Project Guide)

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Place: Pune

Date:

ACKNOWLEDGEMENT

With immense pleasure, we present the mini project report as part of the curriculum of the T.E. Computer Engineering. We wish to thank all the people who gave us an unending support right from when the idea was conceived.

We express sincere and profound thanks to Guide **Mrs. Sonal Mohite** and HOD, **Dr. Mrs. M.A. Potey**, who were ready to help with the most diverse problems that we encountered along the way. We express sincere thanks to all staff and colleagues who have helped directly or indirectly in completing this project work successfully.

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Table of Contents

S. No.	Chapters	Page No.
1.	Abstract	4
2.	Introduction	5
3.	Hardware and Software Requirements.	6
4.	ER Diagram	7
5.	GUI & Source Code	9
6.	Conclusion	11

1. Abstract:

The Agro-Culture Management System is designed to streamline farm operations by connecting farmers and buyers on a single platform. It enables farmers to efficiently plan, monitor, and manage their production activities while ensuring the delivery of fresh, high-quality goods to buyers. The system automates key processes like inventory management, production tracking, and order handling, reducing manual labor and improving productivity.

Using technologies like PHP and MySQL, the system provides a user-friendly interface for both farmers and buyers. It promotes eco-friendly farming by optimizing resource usage, helping farmers produce high-quality crops with less waste. This system not only increases efficiency but also fosters better relationships between growers and consumers, enhancing the overall agricultural supply chain.

2. Introduction:

The Agro-Culture Management System is a comprehensive solution for optimizing agricultural processes. It serves as a platform where farmers can plan, monitor, and analyze their production activities, bringing the entire agricultural workflow into a unified system. This project promotes smart farming by leveraging technology, improving the communication between farmers and buyers, and ensuring the delivery of high-quality, fresh agricultural products. Through better resource management, it enhances farm productivity while reducing the environmental footprint, aligning with sustainable farming goals.

2.1. Functional Overview

The system supports the automation of various farming operations, from planting to harvesting. It allows farmers to input and track data related to crop growth, resource usage, and weather conditions. The system helps buyers by giving them access to real-time information about available produce, facilitating timely transactions. This digital transformation in agriculture improves traceability, quality control, and market access, making farming operations more efficient and profitable.

2.2. Proposed System

The proposed system simplifies farm management by integrating various agricultural activities into a single platform. It enhances communication between farmers and buyers, standardizes processes, and ensures consistent quality control. The system includes modules for inventory management, production planning, resource allocation, and buyer management. By automating routine tasks, it reduces the need for manual labor and allows farmers to focus on increasing productivity and quality.

2.3. Advantages

- **Increased Efficiency:** Automating farm operations reduces manual effort and operational costs.
- **Enhanced Quality Control:** The system helps ensure that only high-quality produce reaches buyers, leading to better market reputation.
- **Better Resource Management:** Farmers can track and optimize resource usage such as water, fertilizers, and manpower.
- **Sustainability:** Encourages eco-friendly practices by optimizing the use of resources and reducing waste.
- **Market Access:** Improves the relationship between farmers and buyers, ensuring that produce reaches the market faster and in better condition

2.4. Working

The system consists of multiple interconnected modules that handle different aspects of farm management. Farmers input data related to crop type, growth stages, and expected yield. The system processes this data and provides actionable insights to optimize production. Buyers can access the platform to view available produce, place orders, and track deliveries.

2.5. Technologies Used

- XAMPP: A free and open-source cross-platform web server solution stack package, primarily used in this project for server management.
- PHP: A server scripting language used for backend development.
- MySQL: A database management system used for storing and retrieving the agricultural data.
- Sublime Text: A text editor used for writing and managing code.

3. Hardware & Software Requirements

Hardware Requirements

- Computer with a minimum of 8 GB RAM and 500 GB storage.
- Internet access for data synchronization and remote access.

Software Requirements

- Operating System: Windows/Linux
- Web Server: Apache (via XAMPP)
- Programming Language: PHP
- Database: MySQL
- Development Tools: Sublime Text, GitHub for version control.

4. ER- Diagram:

4.1. Entity-Relationship Model (Planning)

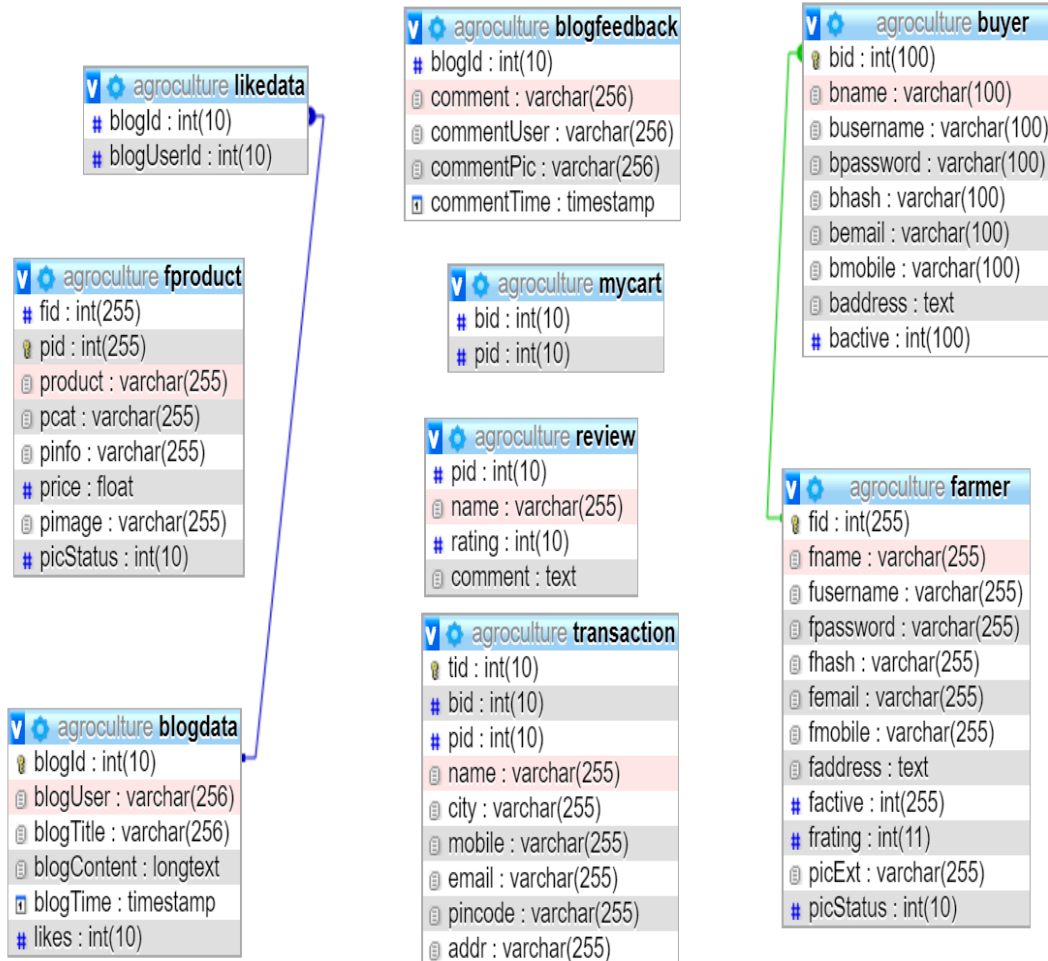
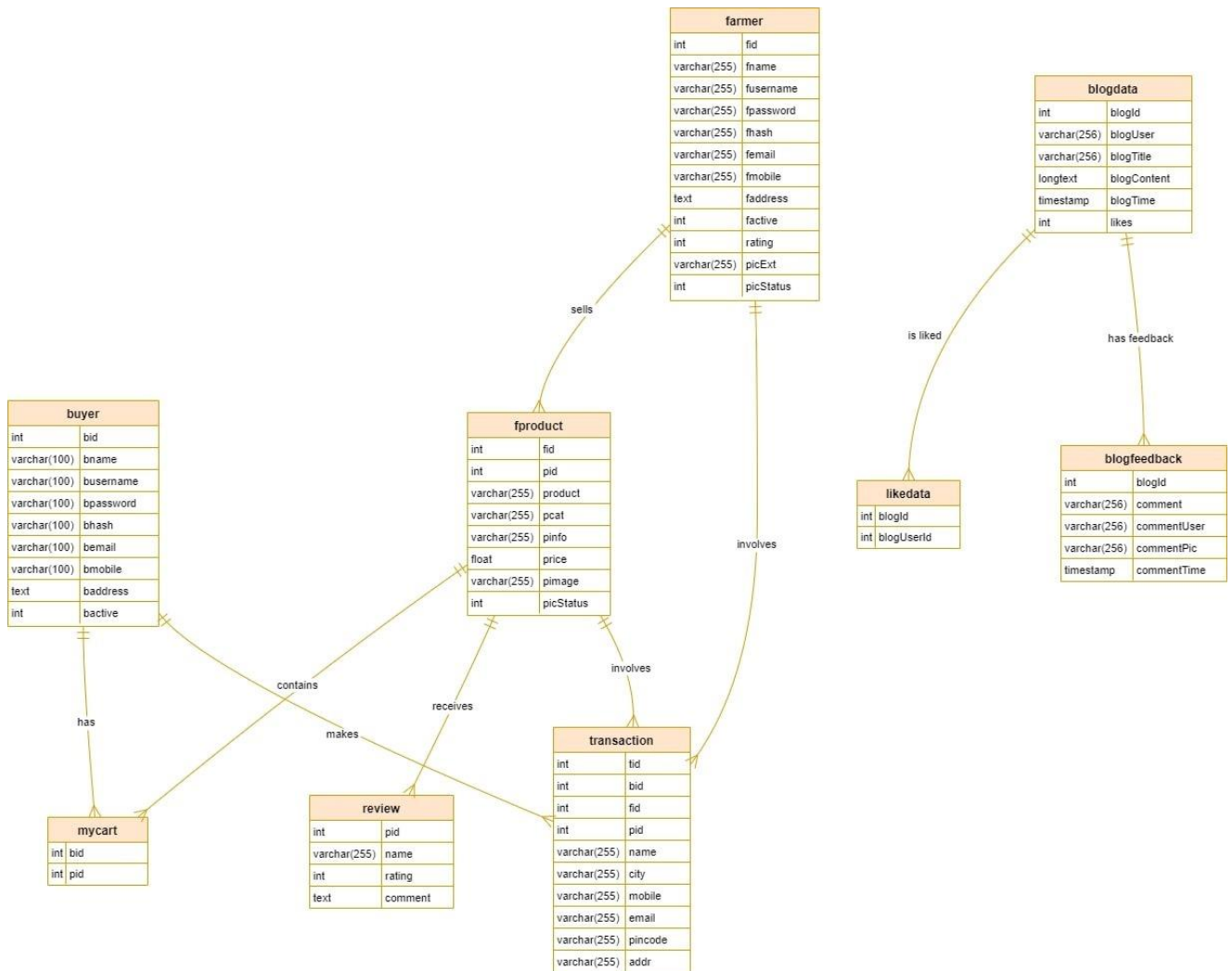


Figure 4: ER Diagram

ER diagram show all the relationships between entity sets stored in the database. It illustrates the logical structure of the database. It helps to visualize how data is connected in general ways.

4.2. Database Schema



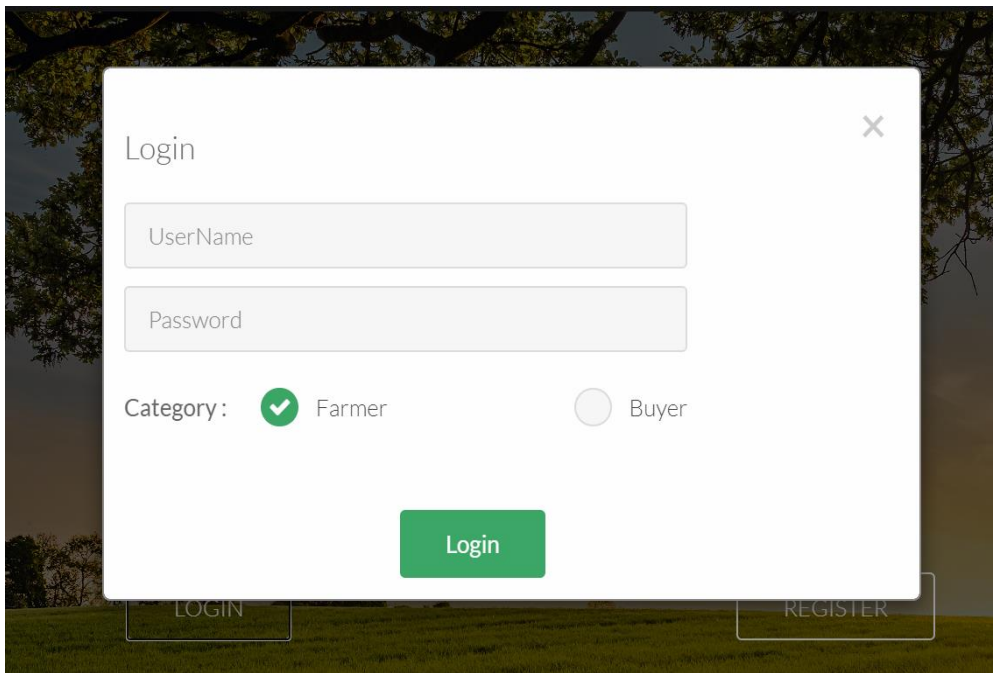
5. GUI & Source Code

The system features a user-friendly GUI that allows farmers and buyers to easily interact with the system. The GUI is designed with simplicity in mind, ensuring that users with basic computer knowledge can navigate the system without difficulty. The source code for the system is written in PHP, ensuring robust functionality and seamless integration with the MySQL database.

5.1 Backend

Figure1 : Farmer/ Buyer Login

5.2 Frontend



A login modal form titled "Login" with a close button (X) in the top right corner. The form contains two input fields: "UserName" and "Password". Below these fields is a "Category:" label with two radio button options: "Farmer" (selected with a green checkmark) and "Buyer". At the bottom of the form is a green "Login" button. The modal is overlaid on a background image of a green field and trees. Below the modal, the "LOGIN" and "REGISTER" buttons from the home page are visible.

Figure2 : Member Login

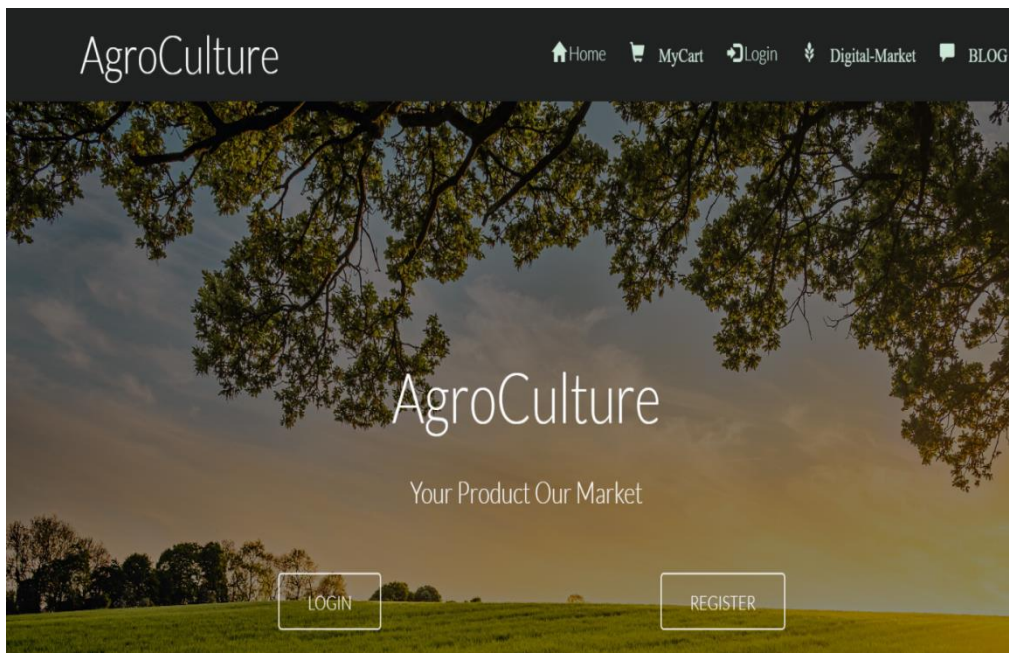


Figure3 : Home Page

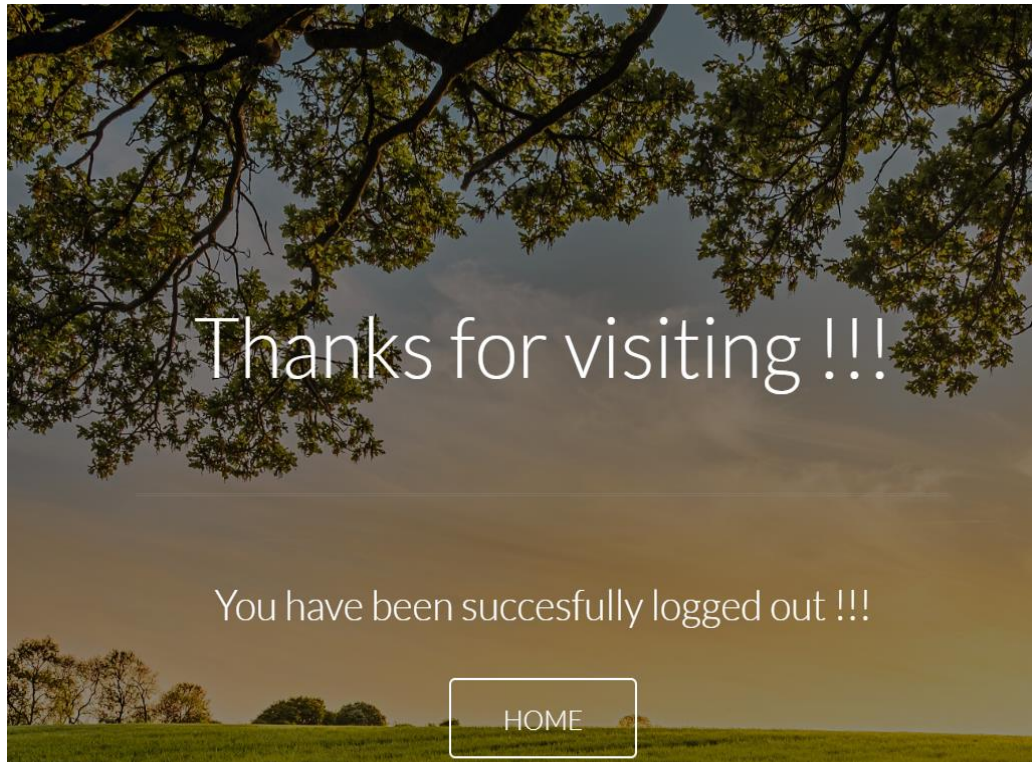


Figure4 : Member Log out

6. Conclusion:

The Agro-Culture Management System is a transformative solution for modern agriculture. By integrating various farm operations into a single platform, it improves efficiency, promotes sustainable practices, and ensures that farmers can deliver high-quality produce to buyers. This system stands as an example of how technology can positively impact the agricultural sector, benefiting both producers and consumers.