

## CHAPTER I:

# INTRODUCTION

### 1.1 Introduction

Agro Culture is the farmer system where they can plan, monitor and analyze the activity of the farmers production system. It manages farmer operation with one system and organizes data in one place. It helps smart farmers become even smarter. This creates in partnership with growers and buyers. It inspire farmer to produce and buyers to consume fresh goods. Agro Culture System will make better connection among Farmers and Buyers ensure quality food. Standardize and increase efficiency of agro culture process.

### 1.2 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.
- Eco-friendly farming system.

### 1.3 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. This is also will produce:

- Less effort and less labor intensive, as the primary cost and focus primary on creating, managing, and running a secure quality food supply.
- Increasing number of buyers as individuals will find it easier and more convenient to buy goods.
- Easy management.

### 1.4 Project Framework

A framework is a standardized set of concepts, practices, and criteria for dealing with a common type of problem, which can be used as a reference to help us approach and resolve new problems of a similar nature.

The aim of framework is to provide a common structure so that developers don't have to redo it from scratch and can reuse the code provided. In this way, frameworks allows us to cut out much of the work and save a lot of time

### 1.5 Data and Information

Data collection plays an important role in a projects succession and also it plays an inevitable role in the timely completion of the project. The data in the project includes contact information of the clients and their respective feedbacks/complaints which is stored in a database. To assure safety, only the admin has proper access to the information provided by the clients.

## 1.6 Primary Source of Data

Primary data are the first hand data. The necessary information was collected from day to day observation, problems, instructions of supervisor. Queries and personal discussion with the staff of the organization.

- Observation of working environment
- Informal discussion and interaction with the staff of the library department

## 1.7 Secondary Source of Data

The Secondary sources of data were collected in order to achieve the real and fact data as far as available. The major sources of secondary data are as follows:

- Annual reports of the concerned organization
- Related websites

## 1.8 Tools Used

- ❖ **Xampp:**
  - **Apache:**
    - (Application Server) Apache , often referred to as Server, is an open-source Java Servlet Container developed by the Apache Software Foundation.
  - **MySQLServer:**
    - It handles large databases much faster than existing solutions.
    - It consists of multi-threaded SQL server that supports different back ends, several different client programs and libraries, administrative tools, and application programming interfaces (APIs)
    - Its connectivity, speed, and security make MySQL Server highly suited for accessing databases on the Internet.
- ❖ **Sublime Text 3.1.1-** Sublime Text is a sophisticated text editor for code, markup and prose. You'll love the slick user interface, extraordinary features and amazing performance.
- ❖ **Web browsers:** Google Chrome, Mozilla Firefox, Opera and Internet Explorer.
- ❖ **Git Hub:** GitHub Inc. is a web-based hosting service for version control using Git. It is mostly used for computer code. It offers all the distributed version control and source code management functionality of Git as well as adding its own features.

## CHAPTER II:

# SYSTEM ANALYSIS

System Analysis is a detailed study of the various operations performed by a system and their relationships within and outside of the system. Here the key question is- why all problems exist in the present system? What must be done to solve the problem? Analysis begins when a user or manager begins a study of the program using existing system. During analysis, data collected on the various files, decision points and transactions handled by the present system. The commonly used tools in the system are Data Flow Diagram etc. Training, experience and common sense are required for collection of relevant information needed to develop the system. The success of the system depends largely on how clearly the problem is defined, thoroughly investigated and properly carried out through the choice of solution. A good analysis model should provide not only the mechanisms of problem understanding but also the frame work of the solution. Thus it should be studied thoroughly by collecting data about the system. Then the proposed system should be analyzed thoroughly in accordance with the needs. System analysis can be categorized into four parts.

- System planning and initial investigation
- Information Gathering
- Applying analysis tools for structured analysis
- Feasibility study
- Cost/ Benefit analysis.

In our existing system the recording of user's information is done manually, So taking more time for searching the information of the users. Another major disadvantage is that preparing the list of members that viewed any user's information takes more time. So, after conducting the feasibility study I decided to make the agro culture System to be computerized.

### 2.1 Problem Analysis

It is related with the accessing the detailed information of a user and a candidate. So, I have initiated this project with simple requirements regarding the user and candidate information. Some of the problems for designing and developing this project are discussed below:

#### 2.1.1 Design and Development Problem

- Problem in running XAMPP.
- To debug the error during the development.
- To show a relationship between entity.
- Minor error with database table.

### 2.2 Feasibility Analysis

A feasibility analysis is conducted once the problem is clearly understood. The purpose of the study is to determine whether the problem is worth solving. It is an analysis and evaluation of a proposed project to determine if it is technically feasible, feasible with the estimated cost and profitable.

#### 2.2.1 Economical Analysis

The economic feasibility of a system is used to evaluate the benefits achieved from and the costs incurred for the project or system. This is done by a process called cost benefit analysis. It provides tangible and intangible benefits like reduction in cost, more flexibility, faster activities, proper database management, etc.

The application is medium scale application and is economically feasible for us to accomplish it. This involves cost benefits analysis. Thus there is no problem of high cost and cost benefits analysis.

### **2.2.2 Software Analysis**

- Consumes a long-time for development of web application.
- Research and analysis cost to determine the actual need in real world.
- Implementation of application in the server and cost associated with the space in server.

### **2.2.3 Data Conversion**

Another cost associated while implementing this web application is the data conversion. The previously used software database must be stored and backup such that there will be no loss in implementing a new web application which consumes time as well as money.

### **2.2.4 Operational Feasibility**

The system is operational feasible as the system can be operate by normal users with basic computer skills without any additional trainings. We have developed this system with the willingness and ability to create, manage and operate the system which is easy for the end users to operate it.

### **2.3 Findings**

After a series of testing and debugging, the project was ready for projection and is believed that it will achieve the goals that it is designed to get, which is to vote in ease.

## **3.1 Hardware and Software Requirements:**

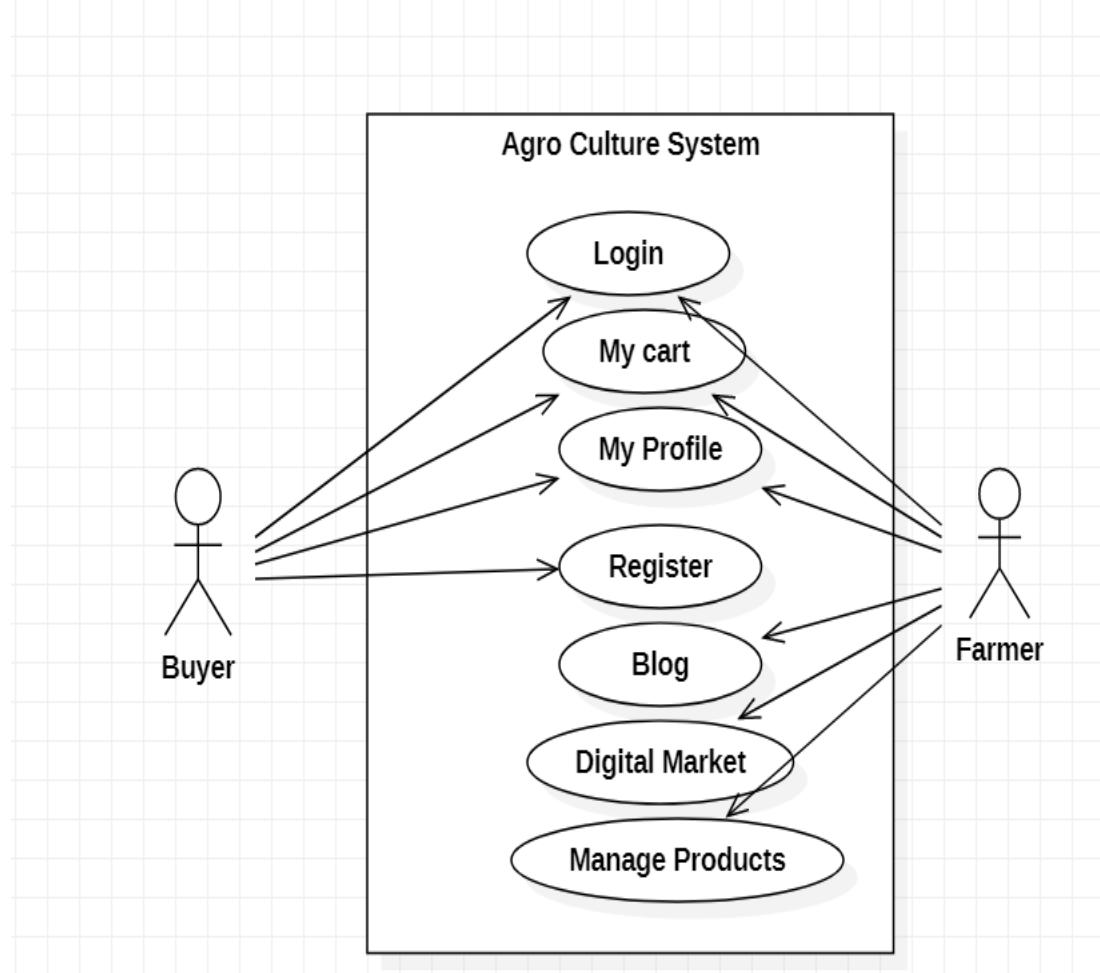
- Software: Xamp server, CSS, HTML, PHP, MYSQL, SQL connector, IntelliJ IDE.
- Hardware:      RAM : Minimum of 2GB,

CPU : Intel Core i3  
Storage : 256 GB

## CHAPTER IV:

# SYSTEM DESIGN

### 4.1 Use case Diagram

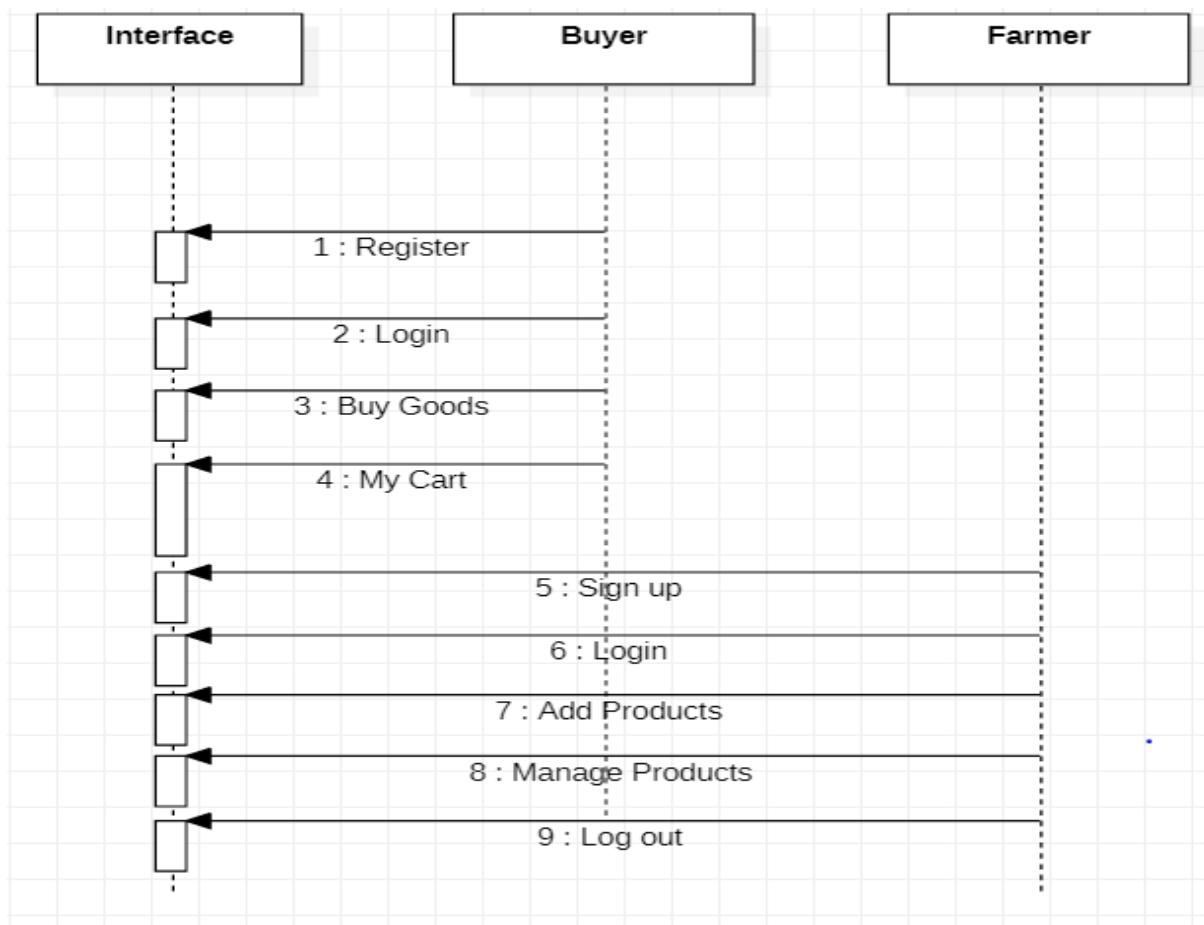


*Figure 4.1: Use Case Diagram*

Above figure represents Use Case Diagram of the project and is a useful technique for identifying, clarifying, and organizing system requirements. It describes how a user uses a system to accomplish a particular goal. Use cases help ensure that the correct system is developed by capturing the requirements from the user's point of view.

### 4.2 Sequence Diagram

A sequence diagram is a type of interaction diagram because it describes how—and in what order—a group of objects works together. A sequence diagram specifically focuses on lifelines, or the processes and objects that live simultaneously, and the messages exchanged between them to perform a function before the lifeline ends.



*Figure 4.2: Sequence Diagram*

Above diagram represents Sequence Diagram of the project which is a type of interaction diagram because it describes how—and in what order—a group of objects works together. A sequence diagram specifically focuses on lifelines, or the processes and objects that live simultaneously, and the messages exchanged between them to perform a function before the lifeline ends.

### 4.3 Activity Diagram

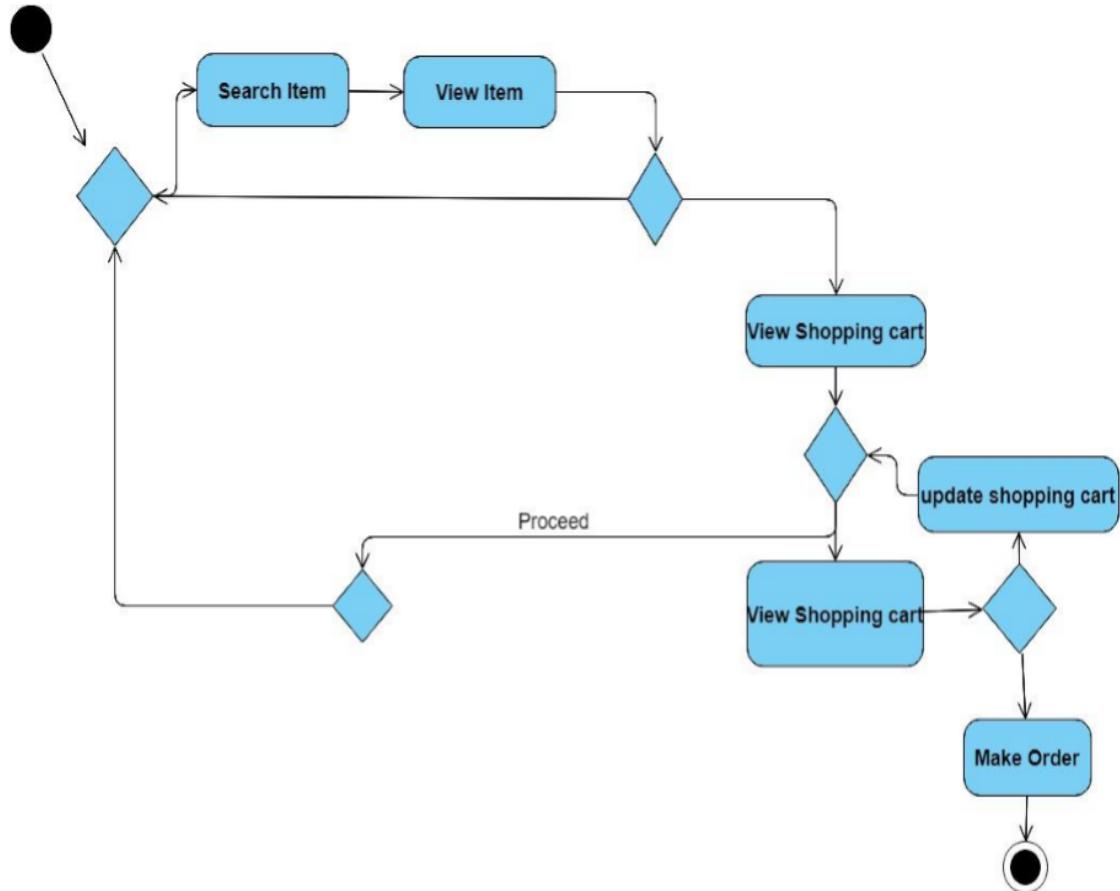


Figure 4.3: Activity Diagram

Above diagram describes the flow of control of a system. The flow can be sequential, concurrent or branched showing the overall functions of the system.

## 4.4 ER Diagram

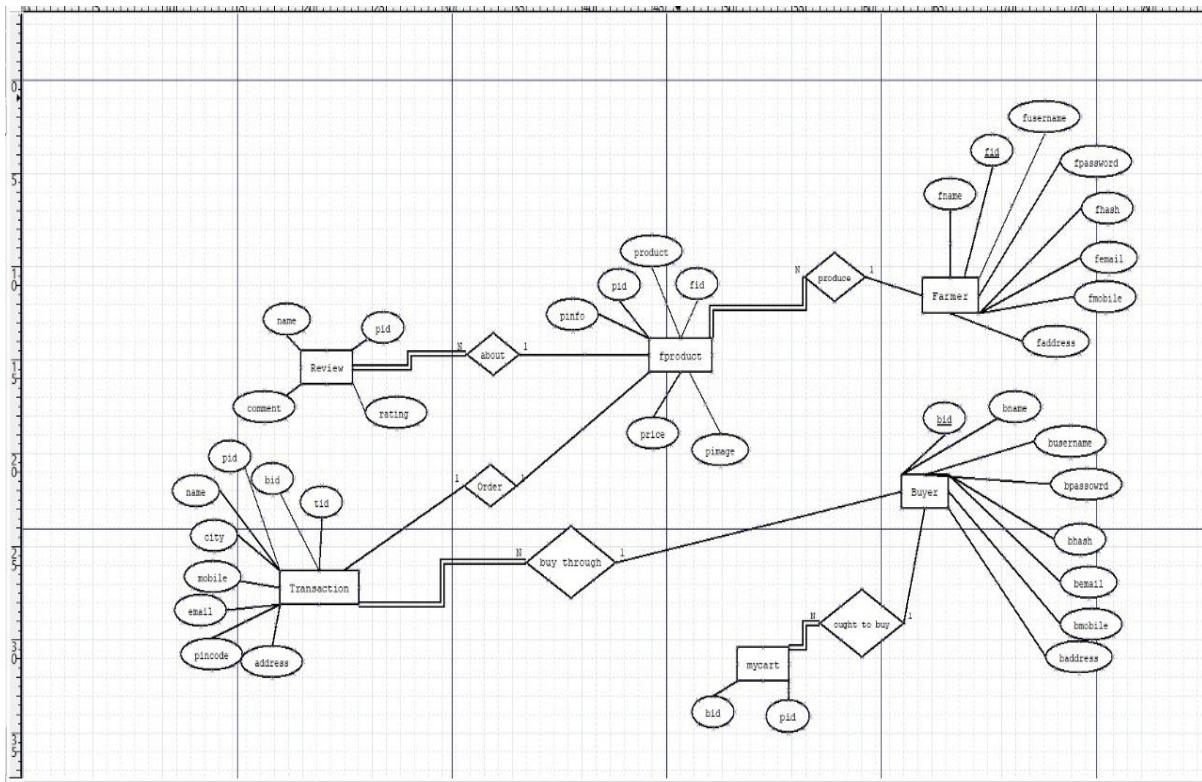
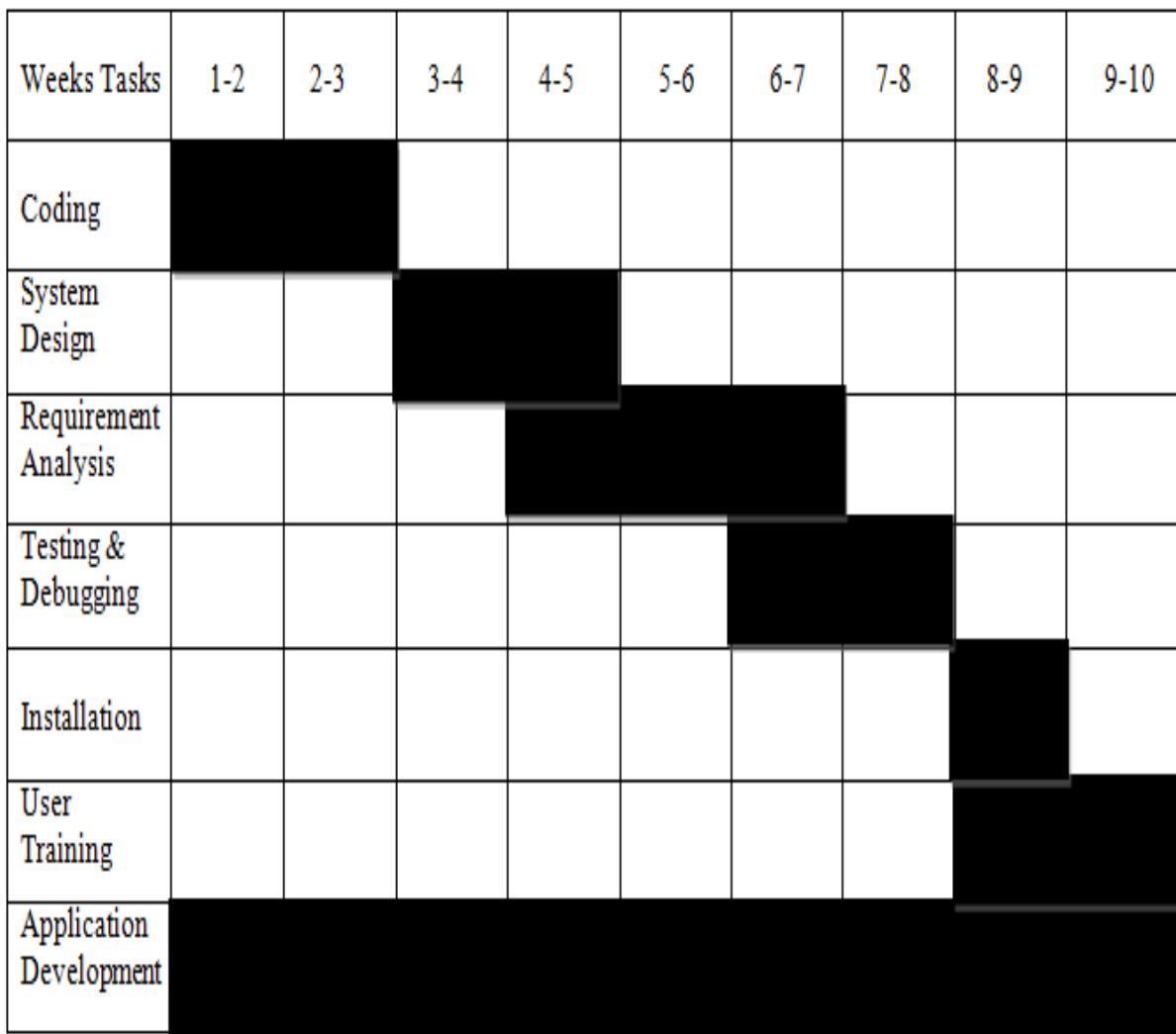


Figure 4.4: ER Diagram

ER model is a conceptual data model that views the real world as entities and relationships. A basic component of the model is the Entity-Relationship diagram which is used to visually represent data objects. Since Che wrote his paper the model has been extended and today it is commonly used for database design for the database designer, the utility of the ER model.

## 4.5 Gantt Chart



*Figure 4.5: Gantt Chart*

A Gantt chart illustrates how the project will run. It communicates with the client and shows them the expected date of project completion. It helps you assess how long a project should take, determine the resources needed, and plan the order in which you'll complete task.

## 4.6 IMPLEMENTATION

### 4.6.1 Methodology/Procedure

- ❑ For the development of project the designing of database was done on PHPMYADMIN, back end was coded in basic PHP and for frontend we used the same basic PHP codes.
- ❑ Software methodologies are concerned with the process of creating software – not so much the technical side but the organizational aspects. Several software development approaches have been used since the origin of information technology.

#### 4.6.2 Back End

Database:

A Database Management System (DBMS) is computer software designed for the purpose of managing databases, a large set of structured data, and run operations on the data requested by numerous users. Typical examples of DBMS's include Oracle, DB2, Microsoft Access, Microsoft SQL Server, Firebird, PostgreSQL, MySQL, SQLite, FileMaker and Sybase Adaptive Server Enterprise. DBMS's are typically used by Database administrators in the creation of Database systems. Typical examples of DBMS use include accounting, human resources and customer support systems. Originally found only in large companies with the computer hardware needed to support large data sets, DBMSs have more recently emerged as a standard part of any company back office. A DBMS is a complex set of software programs that controls the organization, storage, management, and retrieval of data in a database.

**SQL:**

Structured Query Language (SQL) is the language used to manipulate relational databases. SQL is tied very closely with the relational model.

- In the relational model, data is stored in structures called relations or tables. SQL statements are issued for the purpose of:
  - Data definition: Defining tables and structures in the database (DDL used to create, alter and drop schema objects such as tables and indexes).
  - Data manipulation: Used to manipulate the data within those schema objects (DML Inserting, Updating, Deleting the data, and Querying the Database).

#### 4.6.3 FRONT END

PHP, which stands for “PHP: Hypertext Pre-processor” is a widely used Open Source general purpose scripting language that is especially suited for Web development and can be embedded into HTML. Its syntax draws upon C, Java, and Perl, and is very to lean. The main goal of language is to allow web developers to write dynamically generated web pages quickly, but you can do much more with PHP.

##### **Technology used for Implementation (PHP)**

PHP is a powerful language and the interpreter, whether included in a web server as a module or executed as a separate CGI binary, is able to access files, execute commands and open network connections on the server. These properties make anything run on a web server insecure by default. PHP is designed specifically to be a more secure language for writing CGI programs than Perl or C, and with correct selection of compile-time and runtime configuration options, and proper coding practices, it can give you exactly the combination of freedom and security you need. As there are many ways of utilizing PHP, there are many configuration options controlling its behaviour. A large selection of options guarantees you can use PHP for a lot of purpose, but it also means there are combinations of these options and server configurations that result in an insecure setup. The configuration flexibility of PHP is equally rivalled by the code flexibility. PHP can be used to build complete server applications, with all the power of a shell user, or it can be used for simple server-side includes with little risk in a tightly controlled environment. How you build that environment, and how secure it is, is largely up to the PHP developer.

## CHAPTER V:

# TESTING

### **5.1 Testing**

Testing is evaluation of the software against requirements gathered from users and system specifications. Testing identifies important defects, flaws, or an error in the application code that must be fixed .It also assesses the feature of a system. Testing assesses the quality of the product.

#### **5.1.1 Unit Testing**

Unit testing refers to the testing certain functions and areas of the code. It gives the ability to verify that all the functions work as expected. Eventually, it helps to identify failures in the algorithms as well as logic to help improve the quality of the code that composes a certain function.

#### **5.1.2 Integration Testing**

Integration testing is basically a logical extension of unit testing. In simple words, two tested units are combined into a component and the interface between them is tested. It identifies problems that occur when different units are combined The different modules of this project have undergone integration testing while being merged.

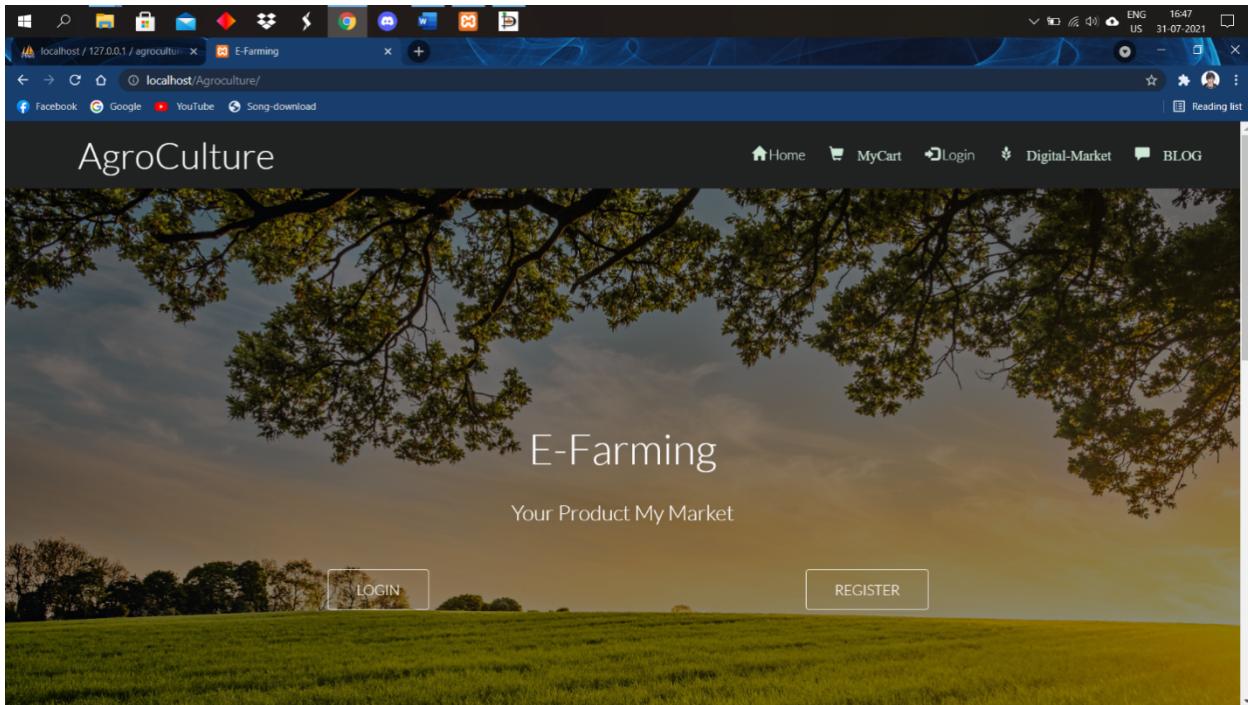
#### **5.1.3 System Testing**

System testing tests the behavior of whole system as defined by the scope of the development project. It might include tests based on risks as well as requirement specifications, business process, use cases or other high level descriptions of system behavior, interactions with the operating systems and system resources. It is most often the final test performed to verify that the system meets the specification and its objectives. System testing has been performed at the completion of each feature and is still taking place to make improvements on the existing system.

## CHAPTER VI:

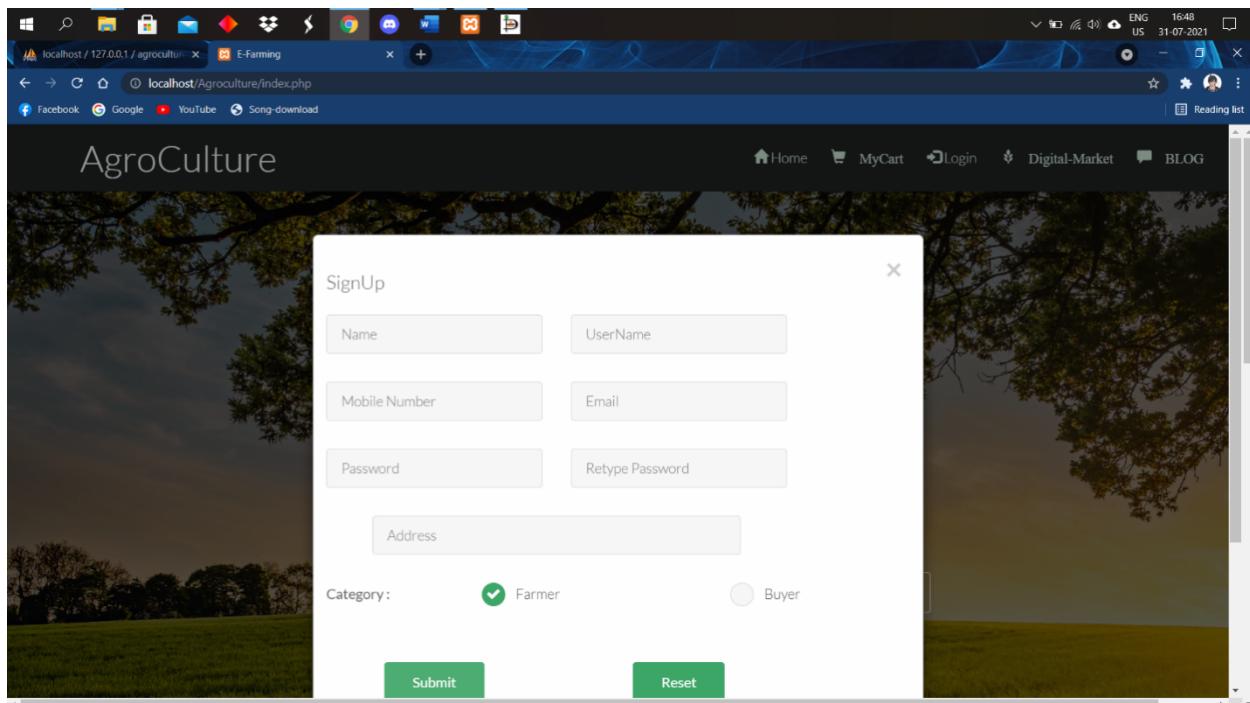
### SCREEN SHOTS

#### Welcome page:



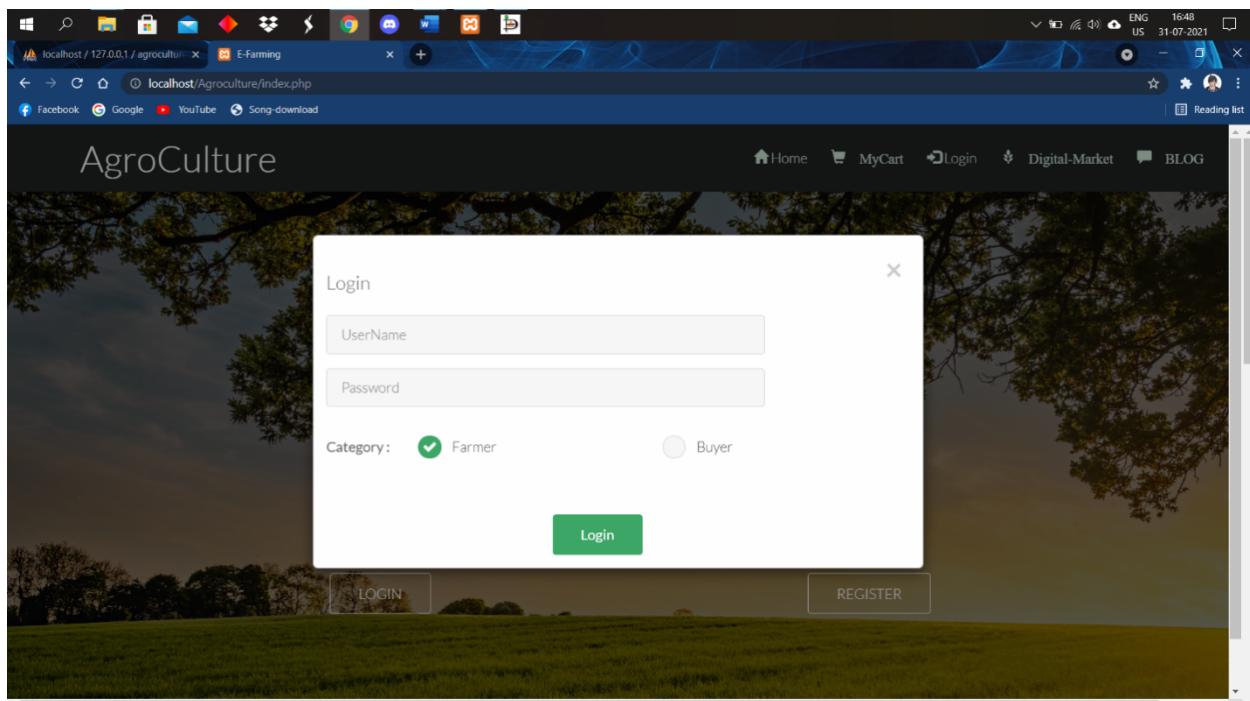
Frontend login is the page that your registered site users use to login when you require authentication for your site. For example, you may want all users who can leave comments to be logged in; or you can require everybody who checks out products to be registered and logged in

#### Register component:



## Login component:

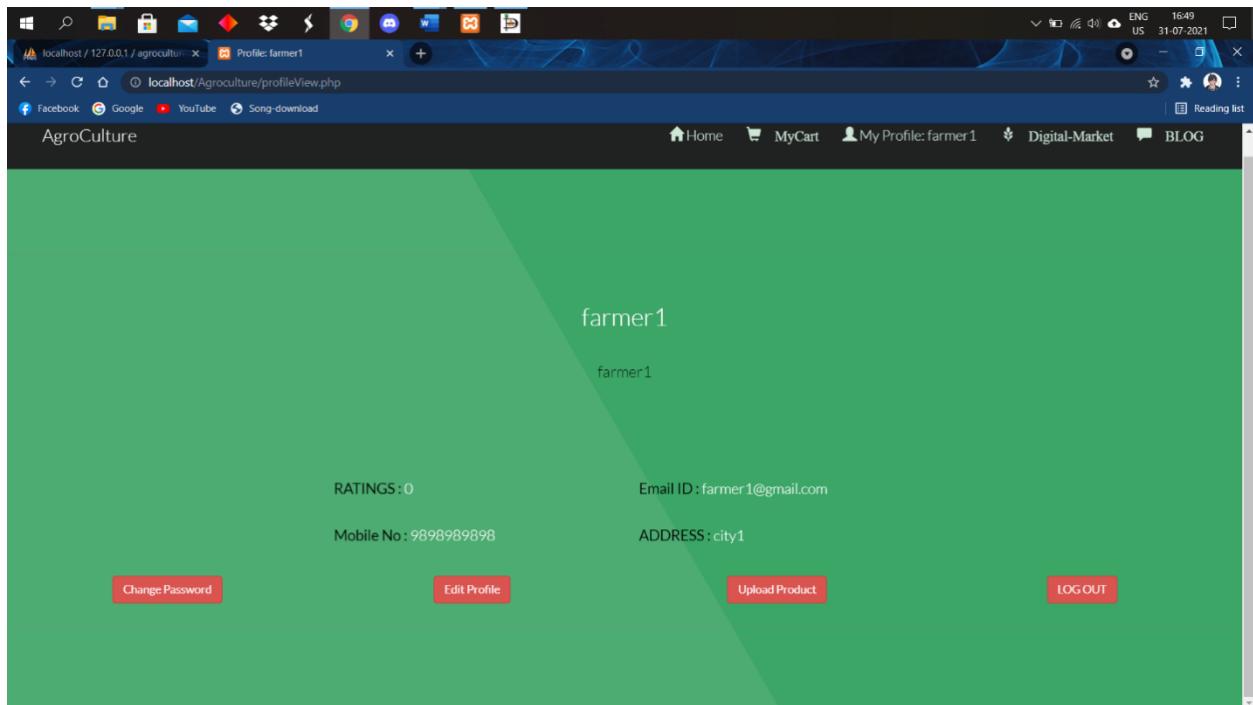
the login page allows users to login into the project. The user needs to enter admin name and password to login, If the credentials are valid user successfully logs into the project.



## Profile component:

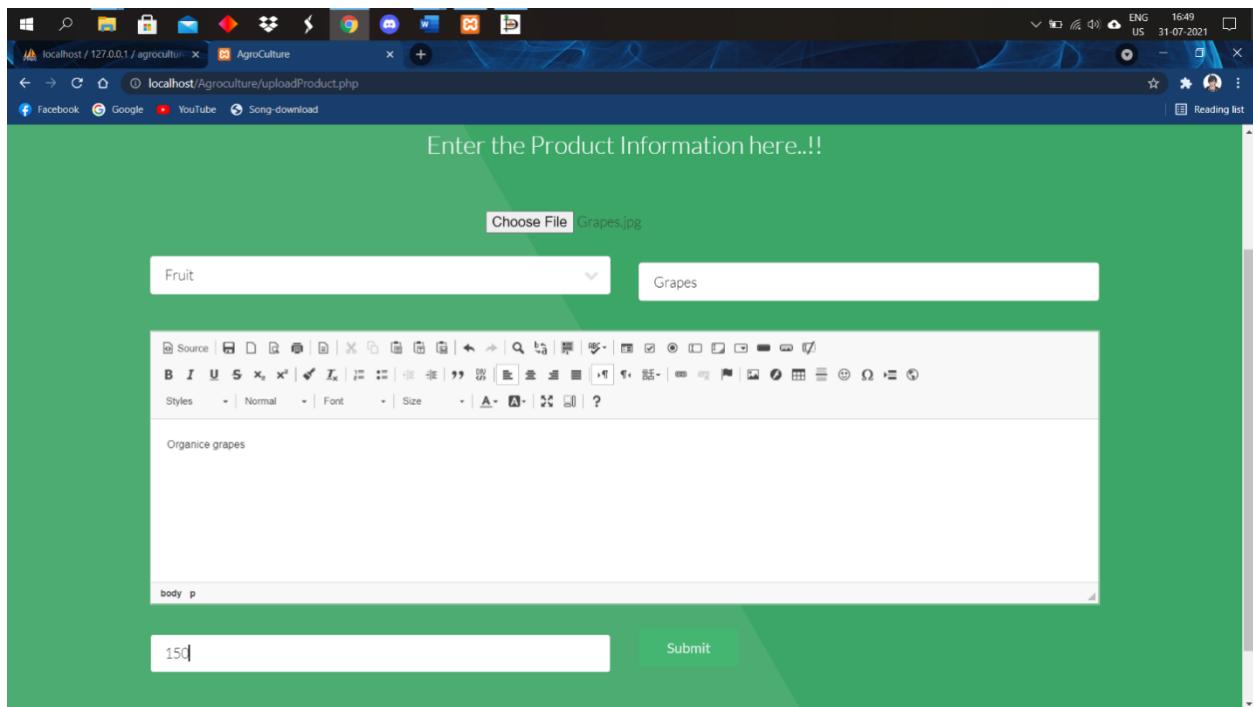
shows the profile of the user and main menu of the project. The main menu contains the

various options displayed to the users. Here user can choose any option to perform various operations

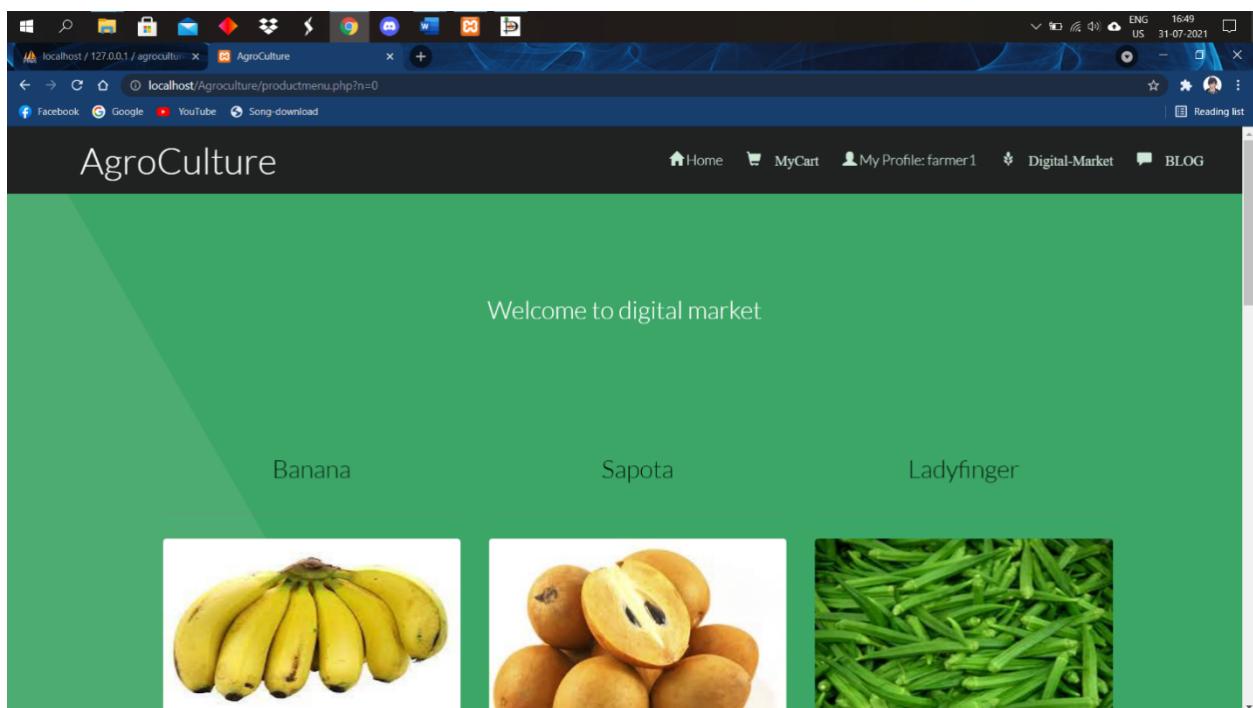


## Uploading product component for the farmers:

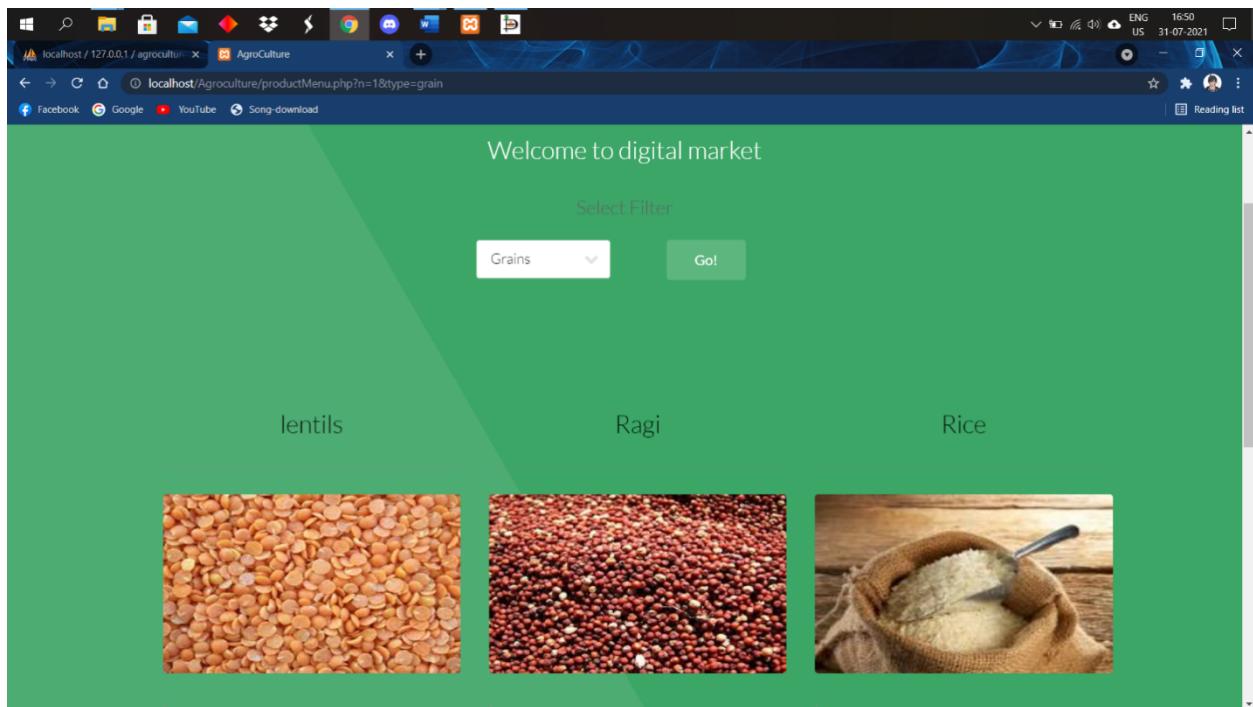
allows the user to update the record which is already inserted in the project. Here users can update name, address, dob or father name. The updated record will be stored in the text file



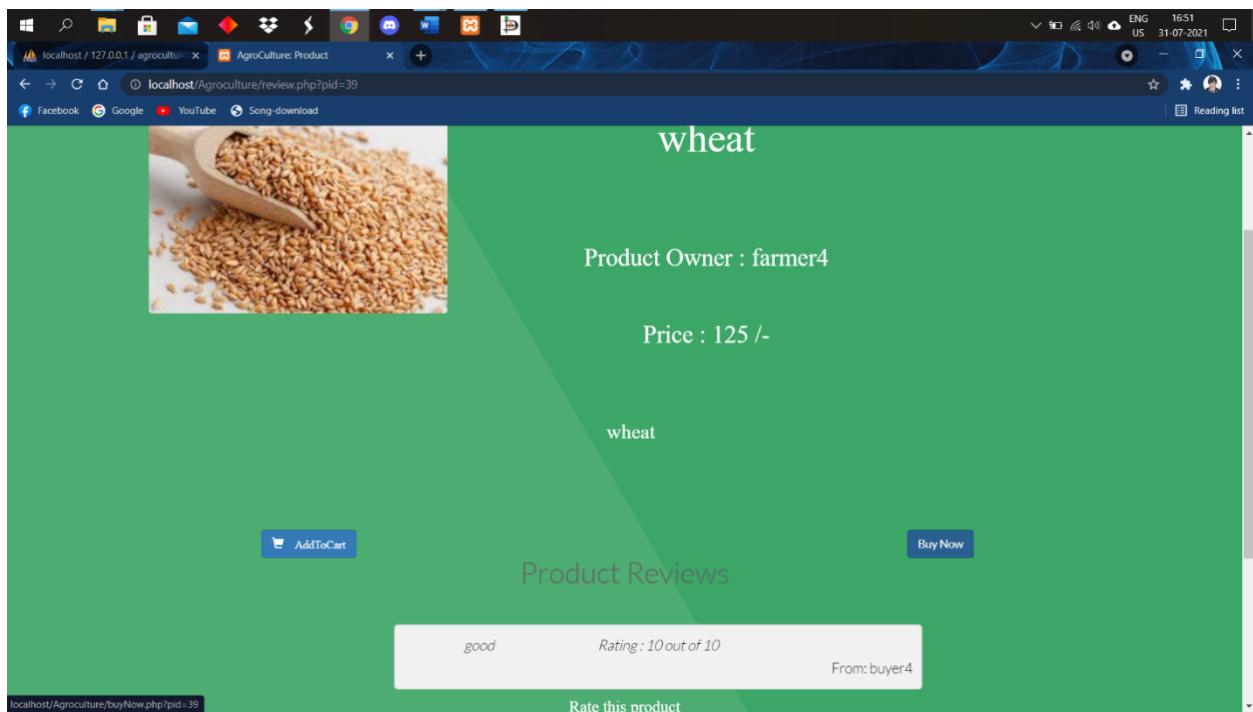
**Digital market:** consists of products uploaded by the farmers



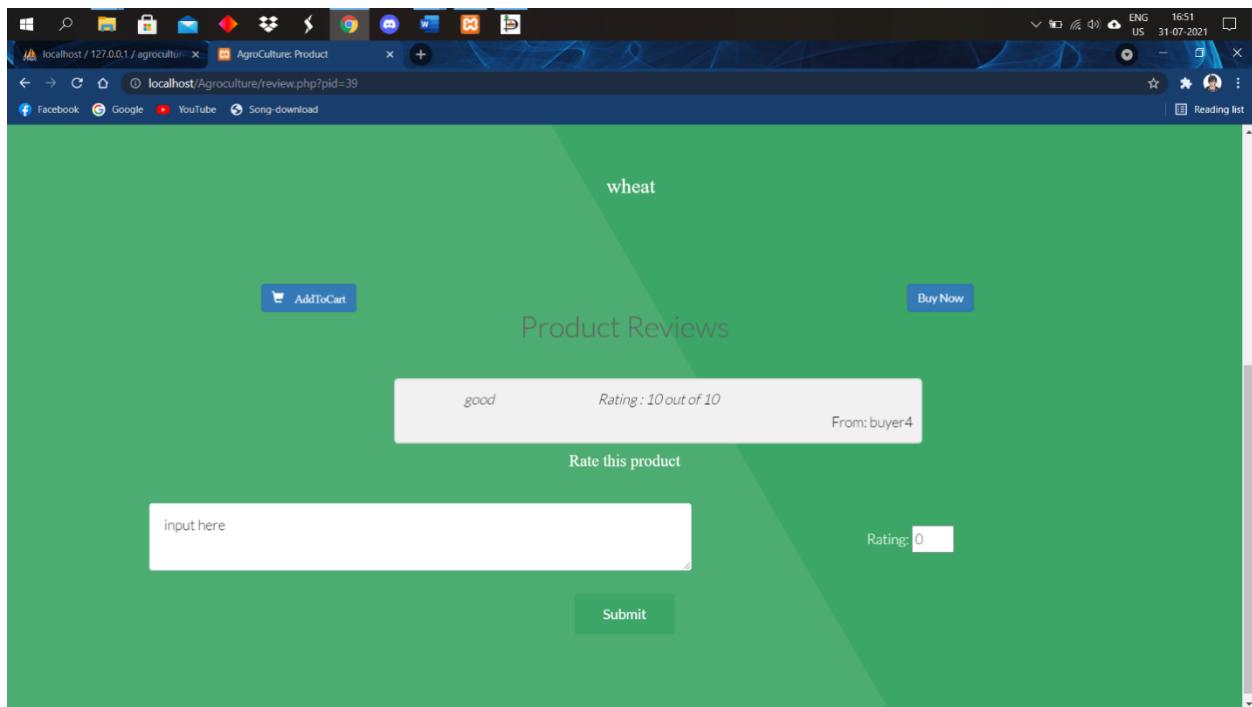
**Filtering the product for the customers:**



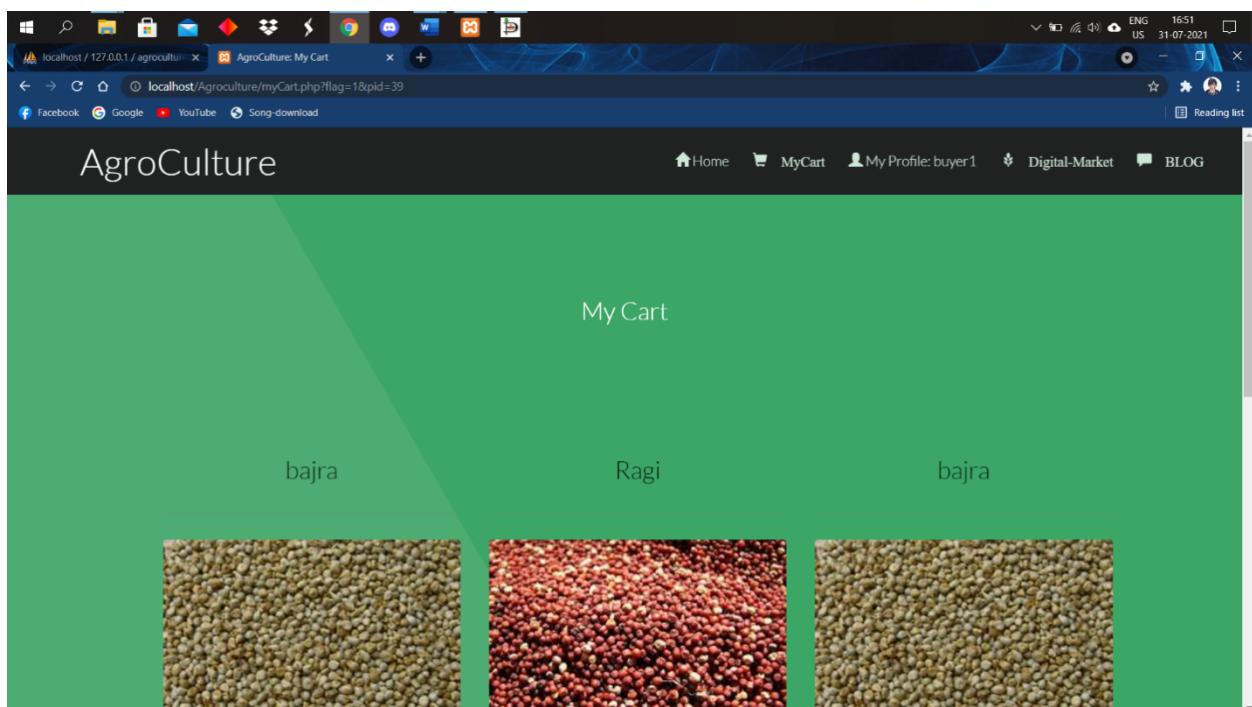
## Viewing the products:



## Review component:



## My cart component for the customers:



## CONCLUSION

As demonstrated and explained before, the program works as explained and according to its requirements. It stores product information and the transactions between the farmer and the customer in the database. The User Interface is quite minimal and there is no software level problems in execution of the program. The database connectivity also works normally. This project will be helpful for farmers to be able to get in with the online marketing.

## REFERENCES

The books and materials to be referred during the development of this project include

- [www.w3schools.com](http://www.w3schools.com)
- [www.tutorialspoint.com](http://www.tutorialspoint.com)
- [www.stackoverflow.com](http://www.stackoverflow.com)
- [www.highcharts.com](http://www.highcharts.com)
- <https://stackoverflow.com>
- An integrated approach to Software Engineering by Pankaj Jalote
- Web Database Applications with PHP and MySQL By Hugh E. Williams, David Lane
- Udemy course – HTML and CSS
- Udemy course – PHP and MYSQL