AGRO TECH E-COMMERCE

A MINI PROJECT REPORT

Submitted In partial fulfilment of requirements to

RGUKT SRIKAKULAM

For the award of the degree
B.Tech (AY 2020-2024)
In
COMPUTER SCIENCE AND ENGINEERING

Submitted by

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B. Tech 3rd year 2nd semester

Under the Esteemed Guidance of
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Mr. S. Sateesh Kumar Sir, Assistant Professor

Department of Computer Science and Engineering,

RGUKT-SRIKAKULAM, ETCHERLA.

CERTIFICATE

This is to certify that the mini project report titled **"AGRO TECH E-COMMERCE"** was successfully completed by **P LAVANYA (S180615), P BALARAJU (S180410), B RAM NIKHIL TEJA (S180422) under the guidance of Mr. Y. Ramesh Assistant Professor** In partial fulfilment of the requirements for the Mini Project in Computer Science and Engineering of **Rajiv Gandhi University of Knowledge Technologies** under my guidance and output of the work carried out is satisfactory.

Project Guide
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Assistant professor
Department of CSE

Head of the Department
Mr.N.Sesha Kumar
Assistant professor
Department of CSE

DECLARATION

We declared that this thesis work titled **"AGRO TECH E-COMMERCE"** is carried out by me during the year 2022-2023 in partial fulfilment of the requirements for the Mini Project in **Computer Science and Engineering.**

We further declare that this dissertation has not been submitted elsewhere for any Degree. The matter embodied in this dissertation report has not been submitted elsewhere for any other degree. Furthermore, the technical details furnished in various chapters of this thesis are purely relevant to the above project and there is no deviation from the theoretical point of view for design, development and implementation.

P. Lavanya (S180615)
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ACKNOWLEDGEMENT

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We wish to extend our sincere thanks to **Mr.N.Sesha Kumar Sir** Head of the Computer Science and Engineering Department, for his constant encouragement throughout the project.

We are also grateful to other members of the department without their support our work would have not been carried out so successfully.

I thank one and all who have rendered help to me directly or indirectly in the completion of my thesis work.

Project Associate

P. Lavanya (S180615)
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ABSTRACT

Technological importance has been a great support for making decisions in various fields especially in farming. The Vision of this project is to ensure fair price to the farming community by devising new techniques and by making use of online market. An application, that serves as a platform for movement of agricultural products from the farms directly to the consumers or retailers. This web application provides privilege for both farmers and consumers to buy and sell the required farm products without the involvement of a middleman at its right profitable. This will help to all those farmers who need to get exact value to their agricultural products and end users need good précised rate of each product. This app gives the detailed information about market rate, demand and supply of crops. By this app farmers can directly sell their products to customers. The aim of the project is to eliminate the intermediaries and farmers can directly sell their products to customers. Thus, the system can improve the end customers confidence on products and establish a trust relationship between farmers and consumers.

INDEX

CHAPTER-1
INTRODUCTION

1.1 Introduction

Agriculture is undoubtedly the backbone of our nation. India, which is the second-largest producer of agricultural products in the world, produces more than 280 million tons, contributing to more than 15% of India's GDP. Agricultural market is totally controlled by intermediaries. They have predominance in determining prices, buying and selling of agricultural products. So, neither the farmers can get reasonable prices of their products, nor the customers can get the products at cheap prices. Technological importance has been a great support for making decisions in various fields especially in farming. The Vision of this project is to ensure fair price to the farming community by devising new techniques and by making use of online market. An application, that serves as a platform for movement of agricultural products from the farms directly to the consumers or retailers. This mobile and web application provides privilege for both farmers and consumers to buy and sell the required farm products without the involvement of a middleman at its right profitable. This will help to all those farmers who need to get exact value to their agricultural products and end users need good précised rate of each product.

1.2 Statement of the problem

AgroTech Ecommerce is a website by this website farmers can directly sell their products to customers. The aim of the project is to eliminate the intermediaries and farmers can directly sell their products to customers. Customers have a feature to detect the quality of a product.

1.3 Objective

By using this website farmers directly sell their farm products. Online delivery of farm products is to create a mutually beneficial relationship between farmers and customers, supporting local agriculture, reducing the cost of products, and providing consumers with convenient access to high-quality, fresh produce.

1.4 Goal

The main objective of the website is to detect the quality of a product and user convenient interface and manage the user's data in a secure way.

1.5 Scope

"AgroTech Ecommerce websites" that perform the following actions:

- Language conversion
- Quality detection
- Searching for a product
- Booking of a selected product.
- Selecting multiple products.
- User friendly shopping experience.
- A good product quality and quantity with affordable price.
- A good service to customers.
- Confirmation message or call for their orders.
- Getting customers trust and fulfil their requirements.
- Proper marketing strategy.

1.6 Applications

What users can do in AgroTech Ecommerce?

Register/login

Users have to login with his/her credentials to access the website. If the user has not registered then register using mail id, name, and password.

Search for Products

Users can search products from the dashboard.

Quality Detection

User can check the quality of a product.

Language Conversation

User change the website into convenient language.

1.7 Limitations

- User got limited farm products in the website.
- Lack of product selection control.
- Delivery challenges for far distances.
- Seasonal availability limitation.
- Dependency on technology.
- Environmental impact.

CHAPTER-2
LITERATURE SURVEY

2.1 Collect Information

We have taken the information from the other sources like chrome, books and other online sources.

2.2 Study

AgroTech Ecommerce key features:

- Quality detection
- Language conversion of a website
- Data storage

2.3 Benefits

- Searching for products present in the website
- Check the quality of a product
- User convert website into different languages

2.4 Summary

By using this website farmers can directly sell their products to customers and to eliminate the intermediaries and farmers can directly sell their products to customers and check the quality of a product. The process of fruit quality recognition involves several stages. Initially, a dataset of fruit images with corresponding quality labels is collecting. Then, this dataset is used to train the deep learning model, where the model learns to extract relevant features and classify fruits based on their quality attributes. Once the model is trained, it can be deployed to recognize fruit quality in real-time. By input to an image of a fruit into the system, the model analyses the visual features and provides a quality of fruit, indicating whether the fruit is of Fresh or Rotten.

CHAPTER-3
ANALYSIS

3.1 Proposed System

Removing the drawbacks of existed systems, we proposed the new modules those are delivery tracking, payment option, information about the product, delivery handling, user friendly interface by using these modules we increase the accuracy of online delivery of farm products from farmers to customers.

3.2 Advantages

- Searching for products present in the website
- Check the quality of a product
- User convert website into different languages

3.3 System Requirements

3.3.1 Software Requirements

- Html
- CSS
- MySQL
- PHP
- Flask
- CNN

3.3.2 Hardware Requirements

- RAM: 4GB above
- Hard disk: 500 GB above

CHAPTER-4

SYSTEM DESIGN

4.1 Design of the System

The design of the AgroTech Ecommerce system involves establishing the architecture, layout and components necessary for its functionality.

This section outlines the key aspects of the system design:

User Interface Design

The user interface (UI) design focuses on creating a visually appealing and intuitive interface for farmers and customers. It involves designing the layout, navigation menus, buttons, forms and overall user interaction elements to ensure a user-friendly and engaging experience.

Database Design

The system requires a well-structured database to store and manage data efficiently. The database design involves determining the database schema, tables, relationships, and data fields necessary to store information such as customer, farmer details, product data, quality detection data and language conversion data.

Communication Module Design

The communication module enables direct communication and interaction between farmers and customers. It involves designing the login credentials and ensuring secure transmission of messages and data between users.

Quality module design

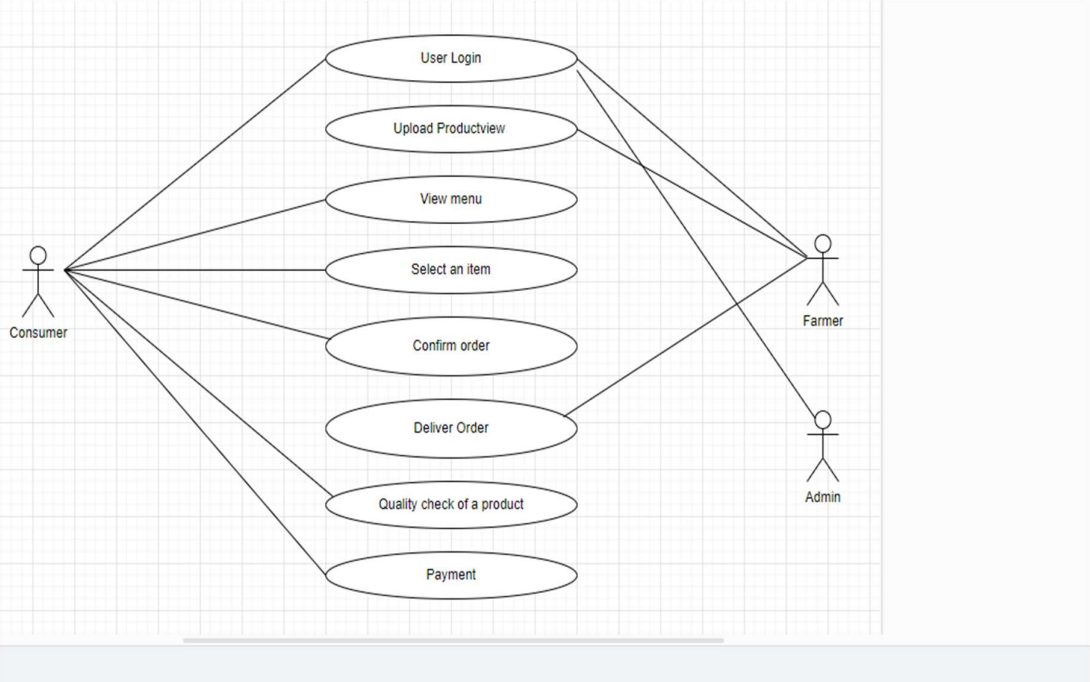
In this module the product quality information, checking information, verification information is designed and it is integrated with the flask module.

Language conversion module design

The module is designed for to convert the website into different languages according to user convenience.

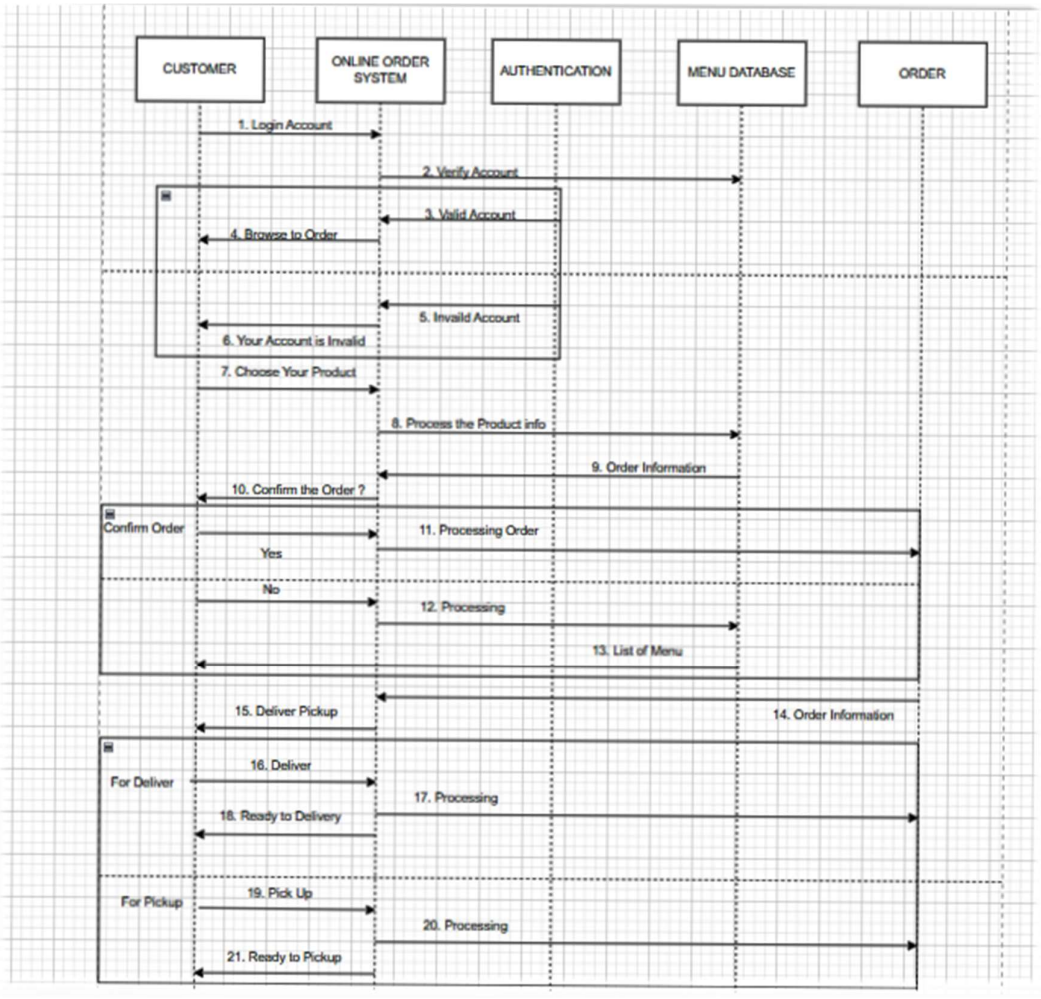
4.1.1 Use Case Diagram

The use case diagram for the AgroTech Ecommerce project showcases the primary interactions and functionalities of the system. It highlights the actions that farmers and customers can perform, such as logging in, Registration, language, upload the product, view menu, select an item, confirm order, deliver order, quality check of a product and payment. The diagram also represents the admin role, farmer role and customer roles. AgroTech Ecommerce accounts, facilitating communication, and ensuring smooth operation of the portal. It provides a concise visual representation of the core use cases and their relationships within the AgroTech Ecommerce system.



4.1.2 Sequence Diagram

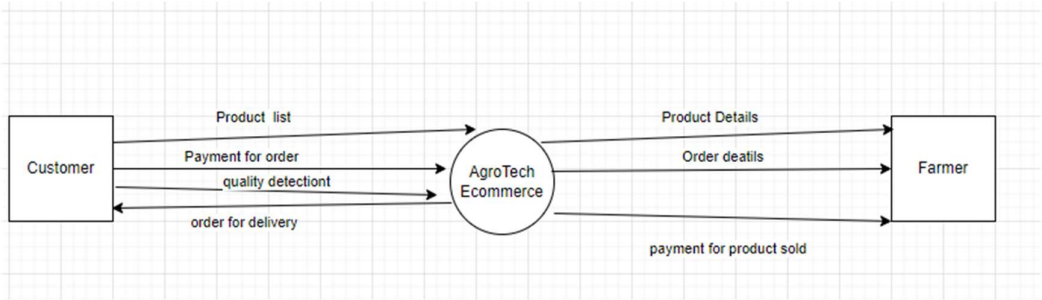
A sequence diagram for the AgroTech Ecommerce project visually represents the interactions and flow of events between farmers, customers, and the system. It illustrates the language conversion, showcasing the dynamic behaviour of the system. By providing a concise overview of the interaction sequences, the sequence diagram helps to analyse the system's behaviour, AgroTech Ecommerce Website identify potential issues, and ensure the smooth execution of actions within the website.



4.1.3 Data Flow Diagram

The Data Flow Diagram (DFD) for the AgroTech Ecommerce website provides a clear representation of the flow of data within the system. It depicts the processes involved, such as sending data, submitting details, managing language conversion and quality detection. It identifies the data stores, such as users records and product archives, and showcases the data flow between farmers, customers, and the system. By presenting a comprehensive view of data movement, the DFD helps identify areas for optimization, dependencies, and enhances the understanding of the system's data architecture. It serves as a valuable tool for system design, development, and improvement, ensuring efficient communication and effective data management in the AgroTech Ecommerce.

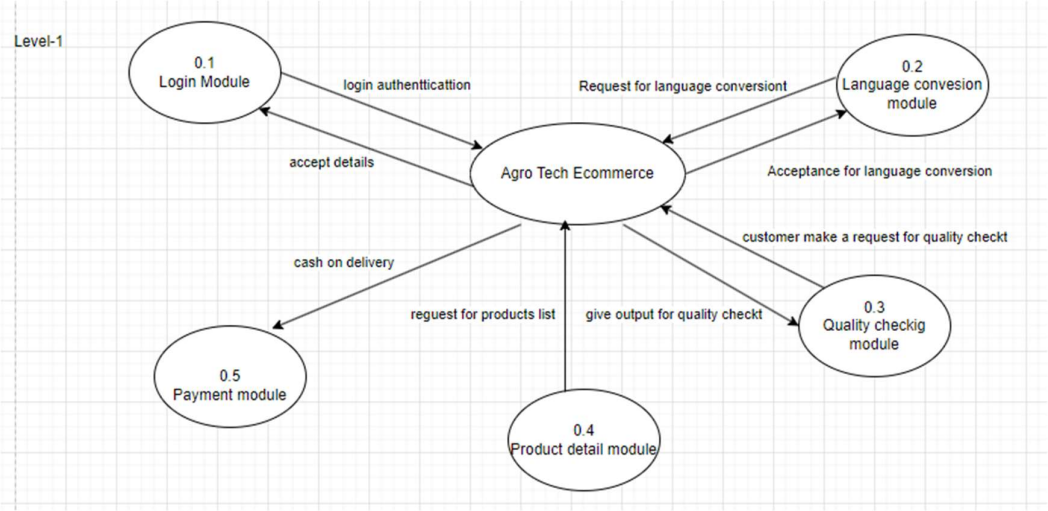
LEVEL - 0



In the Level 0 Data Flow Diagram (DFD) for online delivery of farm products:

Actors involved are farmers, an online platform, and customers. Processes include farmer listing (farmers list their products), customer ordering (customers place orders), order processing (orders are validated and confirmed), and delivery (products are physically delivered). Data flows from farmers to the online platform with product information, from the platform to customers with product listings, from customers to the platform with order requests, from the platform to customers with order confirmation, and from order processing to delivery with delivery information.

LEVEL - 1



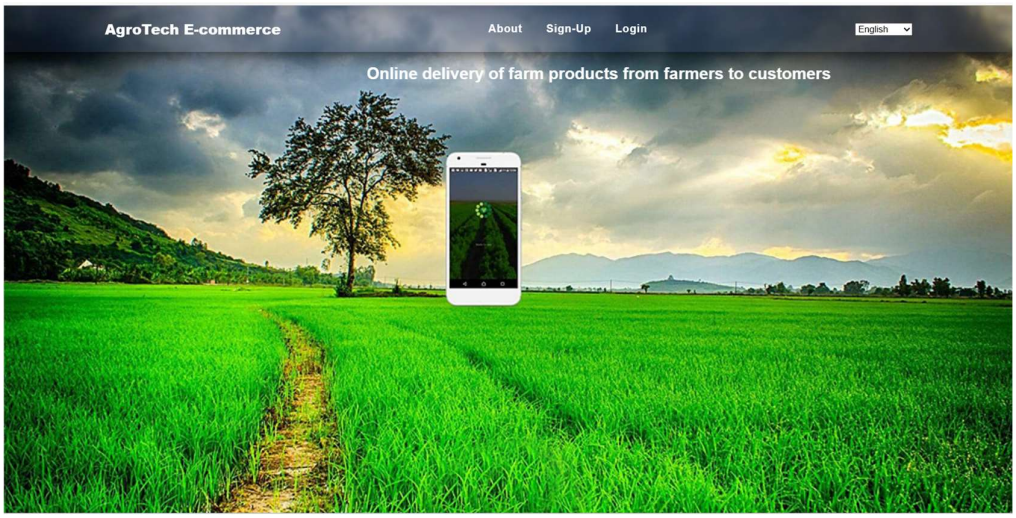
The online delivery platform for farm products includes the following functions:

- Language Conversion: Converts user queries in multiple languages into a standardized format for processing.
- Detection and Text Recognition: Identifies and extracts text from customer-uploaded images and documents, converting it into machine-readable data.
- Product Search: Searches for relevant farm products using the converted text data or user-provided text.
- Data Storage: Acts as a central repository for securely storing and retrieving product inventory information provided by farmers, including product names, descriptions, prices, and availability.

CHAPTER-5
SYSTEM IMPLEMENTATION

5.1 AgroTech Ecommerce

5.1.1 Output of Home Page



This is a home page it is an interface for website. From this page we go to further modules in a website.It contain modules like about module, sign up module,login module and language conversion modules.The home page is the main interface of a website, offering access to various modules.

These modules include

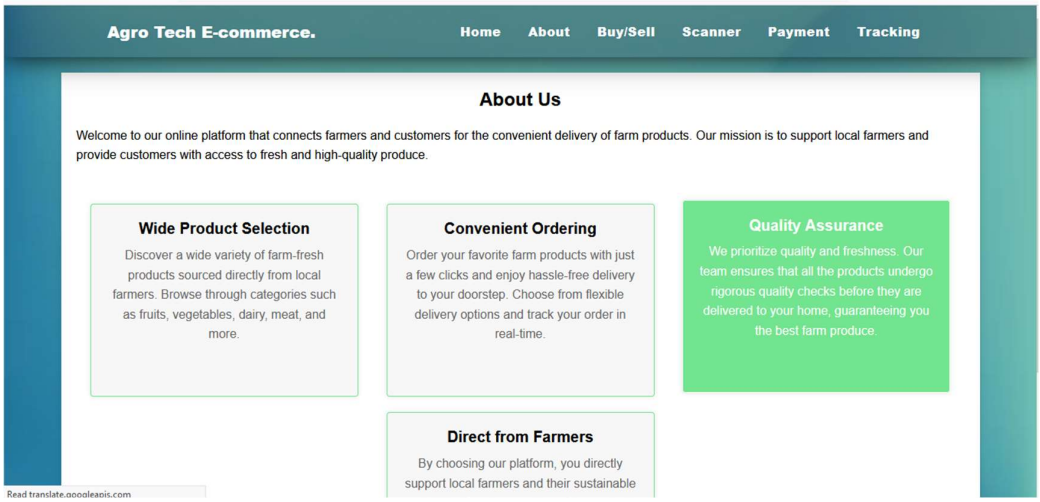
About: Provides information about the website or organization's background, mission, and team.

Sign Up: Allows users to register for an account by providing personal details.

Login: Enables users with registered accounts to access personalized content and features.

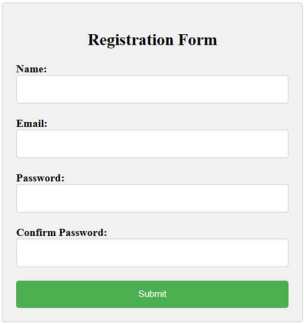
Language Conversion: Provides multilingual support, allowing users to view the website in different languages. Design considerations should focus on clear navigation, visual appeal, responsiveness, accessibility, and performance to enhance user experience and engagement.

5.1.2 Output of About Page



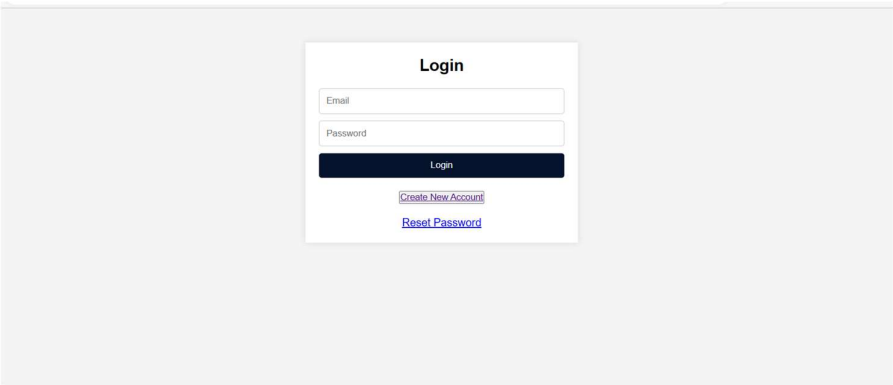
The "About" page on a website provides essential information about the site, including its purpose, background, founders/team, values, target audience, unique selling points, accomplishments, and contact details. It humanizes the brand, builds trust, and ensures transparency. It serves as a foundation for a positive user experience and a strong online presence. This page gives entire website details, working condition of a website and overall knowledge.

5.1.3 Output of Registration Page



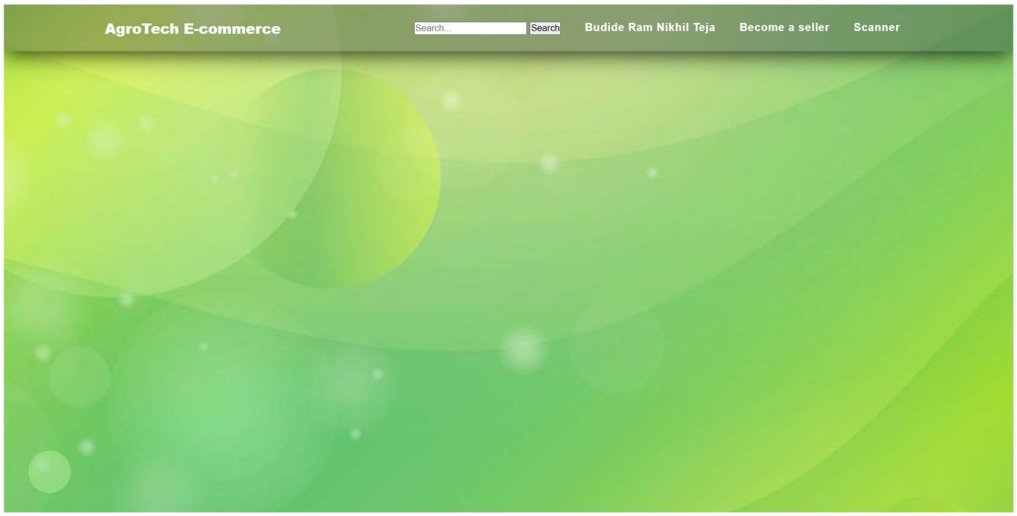
Website registration serves the purpose of authenticating users, personalizing content, enabling communication, and granting access to exclusive features, fostering community interaction, facilitating transactions, analysing user data, ensuring security and compliance, and allowing users to manage their accounts.

5.1.4 Output of login Page



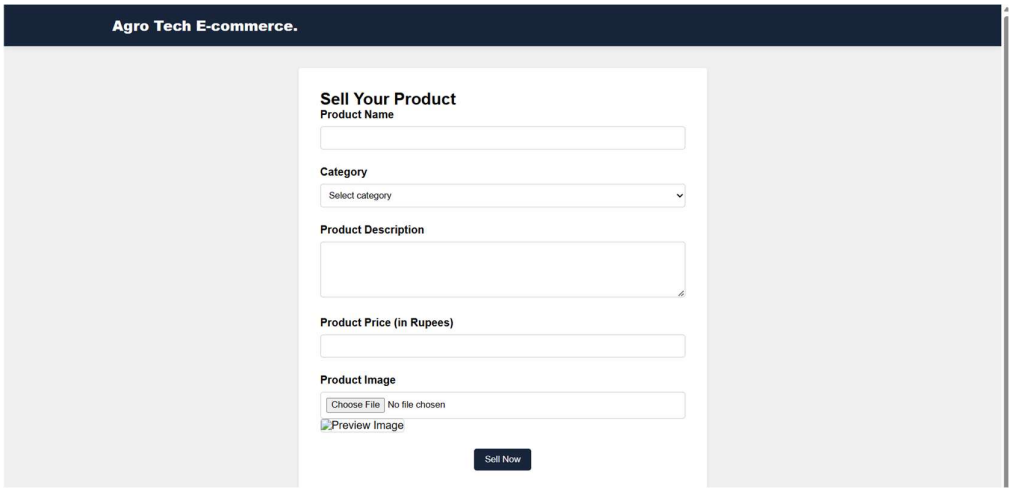
The purpose of a login module on a website is to allow registered users to securely access their personalized accounts, enabling them to interact with restricted content, utilize personalized features, and perform various actions specific to their user profile.

5.1.5 Output of Dash Board Page



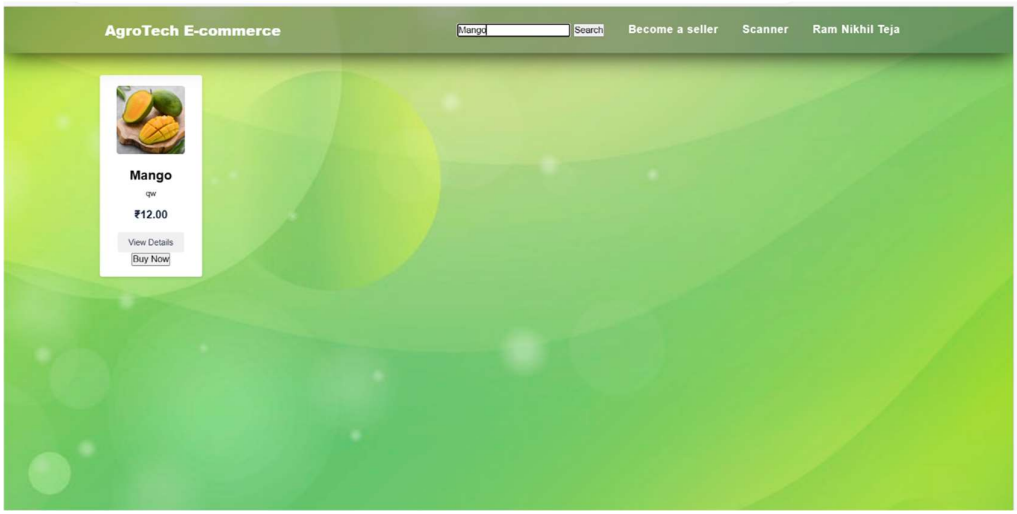
The purpose of a dashboard on a website is to provide users with a centralized and visually organized interface that offers a quick overview of relevant information, data, and key metrics, allowing them to monitor and manage various aspects of their account or activities efficiently.

5.1.6 Output of Became a Seller Page



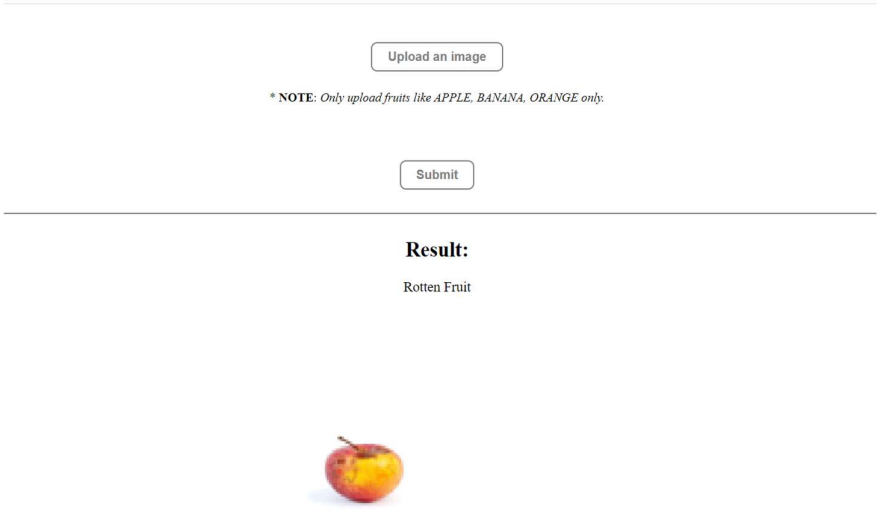
The purpose of this page is to provide users to upload the product detains in which they want sell to customers.

5.1.7 Output of a product list page:



The purpose of this page to show collection of products available for purchase or review. It is essential for e-commerce websites, online marketplaces, and product catalogues. The product list typically consists of multiple product items, each containing relevant information about the product, such as its name, image, price, description, and any other details that may be relevant to the user.

5.1.7 Output of Quality Checker Page



The purpose of this page to show output of detecting a fruit quality and it shows the output whether the fruit is rotten or fresh.

CHAPTER-6

SOURCE CODE

6.1 home.html

```
<!DOCTYPE html>
<html lang="en">

<head>
   <meta charset="UTF-8">
   <meta http-equiv="X-UA-Compatible" content="IE=edge">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Home Page</title>
   <style>
   * {
      margin: 0;
      padding: 0;
      box-sizing: border-box;
      font-family: 'Poppins', sans-serif;
   }
   body {
      background-image: url('/images/as.jpg');
      background-repeat: no-repeat;
      background-size: cover;
      background-position: center;
      height: 100dvh;

   }
   header {
      background-color: #19253b59;
      box-shadow: 0 0 36px 0;
      backdrop-filter: blur(3px);
   }
   nav {
      display: flex;
      justify-content: space-between;
      align-items: center;
      max-width: 80%;
      margin: auto;
      padding: 1.2rem 0rem;
   }
   .logo {
      font-size: 1.3rem;
```

```
    font-weight: 800;
}
.logo a {
    color: #fff;
    text-decoration: none;
}
ul {
    list-style-type: none;
    margin: 0;
    padding: 0;
    padding: 0;
    background-color: transparent;
    overflow: hidden;
}
li {
    padding: 0rem 1.1rem;
    float: left;
}
li a {
    color: #fff;
    text-decoration: none;
    font-family:'Poppins', sans-serif;
    font-size: 1rem;
    font-weight: 600;
    letter-spacing: .7px;
}
li a:hover {
    color: #91b2ff;
    transition: all .3s ease-in-out
}
.button {
    display: flex;
    gap: 1rem;
}
.button button {
    font-weight: 500;
    color: #fff;
    border: 1px solid #fff;
    background-color: transparent;
    padding: .5rem 1rem;
    border-radius: 20%;
    cursor: pointer;
}
.button button:hover {
    background-color: #fff;
    color: #152939;
    transition: all .3s ease-in-out;
```

```
    }
</style>
</head>
<body>
    <header>
        <nav>
            <div class="logo">
            <a href="#">AgroTech E-commerce</a>
            </div>
            <ul>
                <li><a href="about.html"><b>About</b></a></li>
                <li><a href="register.php"><b>Sign-Up</b></a></li>
                <li><a href="login.php"><b>Login</b></a></li>
            </ul>
            <div id="language-dropdown">
                <select id="language-select" onchange="changeLanguage()">
                    <option value="en">English</option>
                    <option value="te">Telugu</option>
                    <option value="hi">Hindi</option>
                    <option value="ta">Tamil</option>
                    <option value="ml">Malayalam</option>
                    <option value="or">Oriya</option>
                    <option value="kn">Kannada</option>
                    <option value="as">Assamese</option>
                    <option value="bn">Bengali</option>
                    <option value="ks">Kashmiri</option>
                    <option value="gu">Gujarati</option>
                    <option value="pa">Punjabi</option>
                    <option value="ur">Urdu</option>
                    <option value="ne">Nepali</option>
                </select>
            </div>
        </nav>
    </header>
    <section><left>
        <br>
        <h2 style="text-align: left; color:white"><b><marquee behavior="scroll"
direction="left" scrollamount="10">
Online delivery of farm products from farmers to customers</marquee></h2> 
    </section>
    <script>
        function gtElInit() {
            var lib = new google.translate.TranslateService();
            var languageSelect = document.getElementById('language-select');
            var selectedLanguage = localStorage.getItem('selectedLanguage');
            if (selectedLanguage) {
                languageSelect.value = selectedLanguage;
```

```
            lib.translatePage('en', selectedLanguage, function () {});
        } else {
            selectedLanguage = languageSelect.value;
            lib.translatePage('en', selectedLanguage, function () {});
        }
    }
    function changeLanguage() {
        var languageSelect = document.getElementById('language-select');
        var selectedLanguage = languageSelect.value;
        localStorage.setItem('selectedLanguage', selectedLanguage);
        var lib = new google.translate.TranslateService();
        lib.translatePage('en', selectedLanguage, function () {});
    }
  </script>
  <script
src="https://translate.google.com/translate_a/element.js?cb=gtElInit&amp;hl='te'&amp;client=wt" type="text/javascript"></script>
</body>
</html>
```

6.2 about.html

```
<html lang="en">
<head>
 <meta charset="UTF-8">
 <meta http-equiv="X-UA-Compatible" content="IE=edge">
 <meta name="viewport" content="width=device-width, initial-scale=1.0">
 <title>Online Farm Product Delivery</title>
 <style>
  * {
   margin: 0;
   padding: 0;
   box-sizing: border-box;
  }
  body {
   font-family: Arial, sans-serif;
   background-color: #f4f4f4;
   background-image: url("/images/m.jpg");
   background-position: center;
   background-repeat: no-repeat;
   background-size: cover;
   height: 100dvh;
  }
  header {
        background-color: #19253b59;
```

```
    box-shadow: 0 0 36px 0;
    backdrop-filter: blur(3px);
}

nav {
    display: flex;
    justify-content: space-between;
    align-items: center;
    max-width: 80%;
    margin: auto;
    padding: 1.2rem 0rem;
}

.logo {
    font-size: 1.3rem;
    font-weight: 800;
}

.logo a {
    color: #fff;
    text-decoration: none;
}

ul {
    list-style-type: none;
    margin: 0;
    padding: 0;
    padding: 0;
    background-color: transparent;
    overflow: hidden;
}

li {
    padding: 0rem 1.1rem;
    float: left;
}

li a {
    color: #fff;
    text-decoration: none;
    font-family:'Poppins', sans-serif;
    font-size: 1rem;
    font-weight: 600;
    letter-spacing: .7px;
}

li a:hover {
```

```
        color: #91b2ff;
        transition: all .3s ease-in-out
    }
main {
  max-width: 1200px;
  margin: 20px auto;
  padding: 20px;
  background-color: #fff;
  box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
}
main h2 {
  font-size: 24px;
  margin-bottom: 20px;
  text-align: center;
}
main p {
  line-height: 1.6;
  margin-bottom: 20px;
}
.animated-cards {
  display: flex;
  justify-content: space-around;
  flex-wrap: wrap;
  margin-top: 50px;
}
.animated-card {
  width: 350px;
  height: 250px;
  background-color: #f7f7f7;
  border: 1px solid #73e48f;
  border-radius: 4px;
  margin-bottom: 20px;
  padding: 20px;
  text-align: center;
  position: relative;
  overflow: hidden;
  box-shadow: 0 0 5px rgba(0, 0, 0, 0.1);
  transition: transform 0.3s ease;
  cursor: pointer;
}
.animated-card:hover {
  transform: translateY(-5px);
  background-color: #73e48f;
  border-color: #fff;
  color: #fff;
}
.animated-card:hover h3,
```

```
    .animated-card:hover p {
      color: #fff;
    }
    .animated-card h3 {
      font-size: 20px;
      margin-bottom: 10px;
    }
    .animated-card p {
      color: #666;
    }
  </style>
</head>
<body>
  <header>
    <nav>
      <div class="logo">
        <a href="home2.html">Agro Tech E-commerce.</a>
      </div>
      <ul>
        <li class="home.html"><a href="/"><b>Home</b></a></li>
        <li><a href="about.html"><b>About</b></a></li>
       <li><a href="register.php"><b>Sign-Up</b></a></li>
        <li><a href="login.php"><b>Login</b></a></li>
      </ul>
    </nav>
  </header>
  <main>
    <h2>About Us</h2>
    <p>Welcome to our online platform that connects farmers and customers for the convenient delivery of farm products. Our mission is to support local farmers and provide customers with access to fresh and high-quality produce.</p>
    <div class="animated-cards">
      <div class="animated-card">
        <h3>Wide Product Selection</h3>
        <p>Discover a wide variety of farm-fresh products sourced directly from local farmers. Browse through categories such as fruits, vegetables, dairy, meat, and more.</p>
      </div>
      <div class="animated-card">
        <h3>Convenient Ordering</h3>
        <p>Order your favorite farm products with just a few clicks and enjoy hassle-free delivery to your doorstep. Choose from flexible delivery options and track your order in real-time.</p>
      </div>
      <div class="animated-card">
        <h3>Quality Assurance</h3>
```

```
      <p>We prioritize quality and freshness. Our team ensures that all the products undergo rigorous quality checks before they are delivered to your home, guaranteeing you the best farm produce.</p>
    </div>
    <div class="animated-card">
      <h3>Direct from Farmers</h3>
      <p>By choosing our platform, you directly support local farmers and their sustainable and ethical farming practices. Connect with the farmers, learn about their stories, and contribute to a healthier food system.</p>
    </div>
  </div>
 </main>
 <script>
  function gtElInit() {
    var lib = new google.translate.TranslateService();
    var selectedLanguage = localStorage.getItem('selectedLanguage');
    if (selectedLanguage) {
      lib.translatePage('en', selectedLanguage, function(){});
    }
  }
</script>
<script
src="https://translate.google.com/translate_a/element.js?cb=gtElInit&amp;hl='te'&amp;client=wt" type="text/javascript"></script>
</body>

</html>
```

6.3 register.php

```
<?php
// Establish database connection
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "agriculture";

$conn = new mysqli($servername, $username, $password, $dbname);

if ($conn->connect_error) {
  die("Connection failed: " . $conn->connect_error);
}

session_start();

if ($_SERVER["REQUEST_METHOD"] === "POST") {
```

```
    $name = $_POST["name"];
    $email = $_POST["email"];
    $password = $_POST["password"];
    $confirmPassword = $_POST["confirm-password"];

    if ($password !== $confirmPassword) {
        $_SESSION['message'] = 'Password and confirm password do not match.';
        header("Location: register.php?error=password_mismatch");
        exit;
    }


    if (!isValidPassword($password)) {
        $_SESSION['message'] = 'Password must be at least 8 characters with one uppercase letter, one special symbol, and one number.';
        header("Location: register.php?error=invalid_password");
        exit;
    }

    $sql_check_user = "SELECT * FROM users WHERE email = ?";
    $stmt_check_user = $conn->prepare($sql_check_user);
    $stmt_check_user->bind_param("s", $email);
    $stmt_check_user->execute();
    $result_check_user = $stmt_check_user->get_result();

    if ($result_check_user->num_rows > 0) {
        $_SESSION['message'] = 'User already exists. Please log in with your credentials.';
        header("Location: login.php");
        exit;
    }

    // Hash the password before storing it in the database
    $hashed_password = password_hash($password, PASSWORD_DEFAULT);

    $sql = "INSERT INTO users (name, email, password) VALUES (?, ?, ?)";
    $stmt = $conn->prepare($sql);
    $stmt->bind_param("sss", $name, $email, $hashed_password);

    if ($stmt->execute()) {
        // Registration successful
        $_SESSION['success_message'] = 'Registration successful. You can now log in with your credentials.';
        header("Location: login.php");
        exit;
    } else {
        // Registration failed
        header("Location: register.php?error=registration_failed");
```

```
        exit;
    }
    $stmt->close();
}

$conn->close();

function isValidPassword($password)
{
    // Password must be at least 8 characters long
    if (strlen($password) < 8) {
        return false;
    }

    // Password must contain at least one uppercase letter, one special symbol, and one
number
    if (!preg_match('/[A-Z]/', $password) || !preg_match('/[!@#$%^&*()\-_=+{};:,<.>]/',
$password) || !preg_match('/[0-9]/', $password)) {
        return false;
    }

    return true;
}
?>

<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Registration Form</title>
    <link rel="stylesheet" type="text/css" href="style.css">
</head>

<body>
    <div class="container">
        <h2>Registration Form</h2>
        <?php
        if (isset($_SESSION["message"])) {
            echo '<p style="color: red;">' . $_SESSION["message"] . '</p>';
            unset($_SESSION["message"]);
        }
        ?>
        <form action="<?php echo htmlspecialchars($_SERVER["PHP_SELF"]); ?>"
method="POST">
```

```
        <label for="name">Name:</label>
        <input type="text" id="name" name="name" required>
        <label for="email">Email:</label>
        <input type="email" id="email" name="email" required>
        <label for="password">Password:</label>
        <input type="password" id="password" name="password" required>
        <label for="confirm-password">Confirm Password:</label>
        <input type="password" id="confirm-password" name="confirm-password" required>
        <input type="submit" value="Submit">
      </form>
    </div>
    <script>
      const passwordInput = document.getElementById("password");
      const confirmPasswordInput = document.getElementById("confirm-password");

      passwordInput.addEventListener("input", validatePassword);
      confirmPasswordInput.addEventListener("input", validatePassword);

      function validatePassword() {
        const password = passwordInput.value;
        const confirmPassword = confirmPasswordInput.value;

        // Check if the password meets the requirements
        const isValid = /^(?=.*[A-Z])(?=.*[!@#$%^&*()\-_=+{};:,<.>])(?=.*[0-9]).{8,}$/.test(password);

        if (isValid) {
          confirmPasswordInput.setCustomValidity("");
        } else {
          confirmPasswordInput.setCustomValidity("Password must be at least 8 characters with one uppercase letter, one special symbol, and one number.");
        }
      }
    </script>
</body>

</html>
```

6.4 login.php

```
<?php
$servername = "localhost";
$username = "root";
$password = "";
```

```
$dbname = "agriculture";

$conn = new mysqli($servername, $username, $password, $dbname);

if ($conn->connect_error) {
   die("Connection failed: " . $conn->connect_error);
}

session_start();

if ($_SERVER["REQUEST_METHOD"] === "POST") {
   $email = $_POST["email"];
   $password = $_POST["password"];

   $sql_check_user = "SELECT * FROM users WHERE email = ?";
   $stmt_check_user = $conn->prepare($sql_check_user);
   $stmt_check_user->bind_param("s", $email);
   $stmt_check_user->execute();
   $result_check_user = $stmt_check_user->get_result();

   if ($result_check_user->num_rows === 1) {
      // User found, verify the password
      $row = $result_check_user->fetch_assoc();
      if (password_verify($password, $row["password"])) {
         // Password is correct, login successful
         $_SESSION['username'] = $row["name"];

         header("Location: index.php");
         exit;
      } else {
         // Incorrect password
         $_SESSION['message'] = 'Invalid email or password. Please try again.';
         header("Location: login.php");
         exit;
      }
   } else {
      $_SESSION['message'] = 'User not found. Please create a new account or check
your email.';
      header("Location: login.php");
      exit;
   }

   $stmt_check_user->close();
}

$conn->close();
?>
```

```
<!DOCTYPE html>
<html lang="en">

<head>
   <meta charset="UTF-8">
   <meta http-equiv="X-UA-Compatible" content="IE=edge">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Login</title>
   <style>
    * {
     margin: 0;
     padding: 0;
     box-sizing: border-box;
   }
   body {
     font-family: Arial, sans-serif;
     background-color: #f4f4f4;
   }
   .login-section {
     max-width: 400px;
     margin: 50px auto;
     padding: 20px;
     background-color: #fff;
     box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
   }
   .login-section h2 {
     text-align: center;
     margin-bottom: 20px;
   }
   .login-form input[type="text"],
   .login-form input[type="password"] {
     width: 100%;
     padding: 10px;
     margin-bottom: 10px;
     border: 1px solid #ccc;
     border-radius: 4px;
   }
   .login-form button {
     width: 100%;
     padding: 10px;
     background-color: #06132c;
     color: #fff;
     border: none;
     border-radius: 4px;
     cursor: pointer;
   }
```

```
    .login-form button:hover {
      background-color: #053c84;
    }
    .login-form .create-account {
      background-color: #2e7d32;
    }
    .login-form .create-account:hover {
      background-color: #265c27;
    }
    .login-form .social-login {
      display: flex;
      justify-content: space-between;
      margin-top: 10px;
    }
    .login-form .social-login button {
      flex-basis: 48%;
    }
  </style>
</head>

<body>
    <div class="login-section">
        <h2>Login</h2>
        <form class="login-form" action="<?php echo
htmlspecialchars($_SERVER["PHP_SELF"]); ?>" method="POST">
            <input type="text" placeholder="Email" name="email">
            <input type="password" placeholder="Password" name="password">
            <button type="submit">Login</button>
        </form>
        <br>
        <div class="social-login">
            <center><button class="create-account"><a href="/register">Create New
Account</a></button></center>
        </div>
        <br>
        <center><a href="rp.html">Reset Password</a></center>
    </div>

    <?php
    if (isset($_SESSION['message'])) {
        echo '<p style="color: red;">' . $_SESSION['message'] . '</p>';
        unset($_SESSION['message']);
    }
    ?>
</body>

</html>
```

6.5 Dashboard-(index.php)

```
<?php
session_start();

$isLoggedIn = isset($_SESSION['username']);
$username = $_SESSION['username'] ?? '';

// If the user is not logged in, redirect to the login page
if (!$isLoggedIn) {
    header("Location: login.php");
    exit;
}

$servername = "localhost";
$username_db = "root";
$password_db = "";
$dbname = "agriculture";

$conn = new mysqli($servername, $username_db, $password_db, $dbname);

if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}

// Fetch products from the database based on the search query if provided
if (isset($_GET['query'])) {
    $searchQuery = trim($_GET['query']);
    $searchQuery = $conn->real_escape_string($searchQuery);

    $sql = "SELECT * FROM products WHERE product_name LIKE
'%$searchQuery%'";
    $result = $conn->query($sql);
} else {
    // If no search query is provided, fetch all products
    $sql = "SELECT * FROM products";
    $result = $conn->query($sql);
}
?>

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Dashboard</title>
```

```
<style>
    * {
        margin: 0;
        padding: 0;
        box-sizing: border-box;
        font-family: 'Poppins', sans-serif;
    }

    body {
        background-image: url('images/sdr.jpg');
        background-repeat: no-repeat;
        background-size: cover;
        background-position: center;
        height: 100vh;
    }

    header {
        background-color: #19253b59;
        box-shadow: 0 0 36px 0;
        backdrop-filter: blur(3px);
    }

    nav {
        display: flex;
        justify-content: space-between;
        align-items: center;
        max-width: 80%;
        margin: auto;
        padding: 1.2rem 0rem;
    }

    .logo {
        font-size: 1.3rem;
        font-weight: 800;
    }

    .logo a {
        color: #fff;
        text-decoration: none;
    }

    ul {
        list-style-type: none;
        margin: 0;
        padding: 0;
        padding: 0;
        background-color: transparent;
```

```
    overflow: hidden;
}

li {
    padding: 0rem 1.1rem;
    float: left;
}

li a {
    color: #fff;
    text-decoration: none;
    font-family: 'Poppins', sans-serif;
    font-size: 1rem;
    font-weight: 600;
    letter-spacing: .7px;
}

li a:hover {
    color: #91b2ff;
    transition: all .3s ease-in-out
}

.button {
    display: flex;
    gap: 1rem;
}

.button button {
    font-weight: 500;
    color: #fff;
    border: 1px solid #fff;
    background-color: transparent;
    padding: .5rem 1rem;
    border-radius: 20%;
    cursor: pointer;
}

.button button:hover {
    background-color: #fff;
    color: #152939;
    transition: all .3s ease-in-out;
}

.product-list {
max-width: 1200px;
margin: 2rem auto;
display: grid;
```

```
    grid-template-columns: repeat(auto-fit, minmax(150px, 1fr));
    gap: 5px;
    padding: 0;
}

.product-item {
    background-color: #fff;
    padding: 1rem;
    border-radius: 4px;
    box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1);
    text-align: center;
    width: 150px;
    display: inline-block;
}

.product-item img {
    max-width: 100%;
    height: auto;
    border-radius: 4px;
    margin-bottom: 1rem;
    width: 100px;
    height: 100px;
}

.product-item h2 {
    font-size: 1.2rem;
    font-weight: 600;
    margin-bottom: 0.5rem;
}

.product-item p {
    font-size: 12px;
    margin-bottom: 1rem;
}

.product-item .price {
    font-size: 1rem;
    font-weight: 600;
    color: #19253b;
    margin-bottom: 1rem;
    display: block;
}

.product-item a {
    font-size: 12px;
    text-decoration: none;
    color: #19253b;
```

```
    display: inline-block;
    background-color: #f0f0f0;
    padding: 0.5rem 1rem;
    border-radius: 4px;
}

.product-item a:hover {
    background-color: #19253b;
    color: #fff;
    transition: all 0.3s ease-in-out;
}
}
</style>
</head>
<body>
    <header>
        <nav>
            <div class="logo">
                <a href="#">AgroTech E-commerce</a>
            </div>
            <ul>
                <li>
                <form class="search-form" action="index.php" method="get">
                <input type="text" name="query" placeholder="Search by product name..."
/>
                <button type="submit">Search</button>
            </form>
                </li>
                <?php
                if ($isLoggedIn) {
                    echo '<li><a href=sell.php><b>Become a seller</b></a></li>';
                    echo '<li><a href="http://127.0.0.1:5000"><b>Scanner</b></a></li>';
                    echo '<li><a href="#"><b>' . htmlspecialchars($username) .
'</b></a></li>';
                    echo '<li><a href=cart.php><b>cart</b></a></li>';
                }
                ?>
            </ul>
        </nav>
    </header>

    <main>
        <section class="product-list">
            <?php
            if ($result->num_rows > 0) {
                while ($row = $result->fetch_assoc()) {
                    if (isset($row['product_id'], $row['product_name'],
$row['product_description'], $row['product_price'], $row['product_image'])) {
```

```
                $product_id = $row['product_id'];
                $product_name = $row['product_name'];
                $product_description = $row['product_description'];
                $product_price = $row['product_price'];
                $product_image = $row['product_image'];

                echo '<div class="product-item">';
                echo '<img src="product_images/' . $product_image . '" alt="' .
$product_name . '">';
                echo '<h2>' . $product_name . '</h2>';
                echo '<p>' . $product_description . '</p>';
                echo '<span class="price">₹' . $product_price . '</span>';
                echo '<a href="view_details.php?id=' . $product_id . '">View
Details</a>';
                echo '<form action="cart.php" method="post">';
                echo '<input type="hidden" name="product_id" value="' . $product_id .
'">';
                echo '<input type="hidden" name="product_name" value="' .
$product_name . '">';
                echo '<input type="hidden" name="product_price" value="' .
$product_price . '">';
                echo '<button type="submit">Buy Now</button>';
                echo '</form>';
                echo '</div>';
            } else {
                echo '<p>Product details are missing or invalid.</p>';
            }
        }
    } else {
        echo '<p>No products found.</p>';
    }
    ?>
  </section>
 </main>

</body>
</html>

<?php
$conn->close();
?>
```

6.6 sell.php

```
<?php
if ($_SERVER['REQUEST_METHOD'] === 'POST') {
```

```
    if (
        isset($_POST['product-name'], $_POST['category'], $_POST['product-description'], $_POST['product-price'], $_POST['stock-quantity'], $_POST['manufacturer'], $_FILES['image'])
        && !empty($_POST['product-name']) && !empty($_POST['category']) && !empty($_POST['product-description']) && !empty($_POST['product-price']) && !empty($_POST['stock-quantity']) && !empty($_POST['manufacturer'])
    ) {
        $product_name = $_POST['product-name'];
        $category = $_POST['category'];
        $product_description = $_POST['product-description'];
        $product_price = $_POST['product-price'];
        $stock_quantity = $_POST['stock-quantity'];
        $manufacturer = $_POST['manufacturer'];
        $is_discontinued = isset($_POST['is-discontinued']) ? 1 : 0;

        $image = $_FILES['image'];
        $image_name = $image['name'];
        $image_tmp = $image['tmp_name'];

        // Move the uploaded image to a desired location (You may want to store it in a proper directory)
        $upload_directory = 'product_images/';
        move_uploaded_file($image_tmp, $upload_directory . $image_name);

        $servername = "localhost";
        $username = "root";
        $password = "";
        $dbname = "agriculture";

        $conn = new mysqli($servername, $username, $password, $dbname);
        if ($conn->connect_error) {
            die("Connection failed: " . $conn->connect_error);
        }

    $current_date = date('Y-m-d H:i:s');

    $sql = "INSERT INTO products (product_name, category, product_description, product_price, stock_quantity, manufacturer, product_image, is_discontinued, date_added)
            VALUES ('$product_name', '$category', '$product_description', '$product_price', '$stock_quantity', '$manufacturer', '$image_name', '$is_discontinued', '$current_date')";

        if ($conn->query($sql) === TRUE) {
            echo "Product details have been successfully stored in the database.";
             header("Location: success.php");
```

```
        } else {
            echo "Error: " . $sql . "<br>" . $conn->error;
        }

        $conn->close();
    } else {
        echo "Please fill in all the required fields.";
    }
}
?>

<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>sell</title>
    <style>
        * {
            margin: 0;
            padding: 0;
            box-sizing: border-box;
            font-family: 'Poppins', sans-serif;
        }
        body {
            background-color: #f0f0f0;
        }
        header {
            background-color: #19253b;
            box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
            color: #fff;
            padding: 1rem;
        }
         nav {
            display: flex;
            justify-content: space-between;
            align-items: center;
            max-width: 80%;
            margin: auto;
        }
        .logo {
            font-size: 1.3rem;
            font-weight: 800;
        }
        .logo a {
```

```
    color: #fff;
    text-decoration: none;
}
ul {
    list-style-type: none;
    margin: 0;
    padding: 0;
    display: flex;
}
li {
    padding: 0rem 1.1rem;
}
li a {
    color: #fff;
    text-decoration: none;
    font-size: 1rem;
    font-weight: 600;
    letter-spacing: .7px;
}
li a:hover {
    color: #91b2ff;
    transition: all .3s ease-in-out
}
.sell-container {
    max-width: 600px;
    margin: 2rem auto;
    background-color: #fff;
    padding: 2rem;
    border-radius: 4px;
    box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1);
}
.form-group {
    margin-bottom: 1.5rem;
}
.form-group label {
    display: block;
    font-weight: 600;
    margin-bottom: 0.5rem;
}
.form-group input,
.form-group select,
.form-group textarea {
    width: 100%;
    padding: 0.5rem;
    border: 1px solid #ccc;
    border-radius: 4px;
}
```

```
        .image-upload-group {
            display: flex;
            align-items: center;
        }

        .image-upload-group label {
            margin-right: 1rem;
        }
        #preview-image {
            max-width: 100%;
            max-height: 300px;
            object-fit: contain;
            border: 1px solid #ccc;
            border-radius: 4px;
        }
        .button-container {
            display: flex;
            justify-content: center;
        }
        .button-container button {
            font-weight: 500;
            color: #fff;
            border: none;
            background-color: #19253b;
            padding: 0.5rem 1rem;
            border-radius: 4px;
            cursor: pointer;
        }
        .button-container button:hover {
            background-color: #152939;
            transition: all .3s ease-in-out;
        }
    </style>
</head>

<body>
    <header>
        <nav>
            <div class="logo">
                <a href="#">Agro Tech E-commerce.</a>
            </div>
        </nav>
    </header>
    <div class="sell-container">
        <h2>Sell Your Product</h2>
        <form action="" method="POST" enctype="multipart/form-data">
```

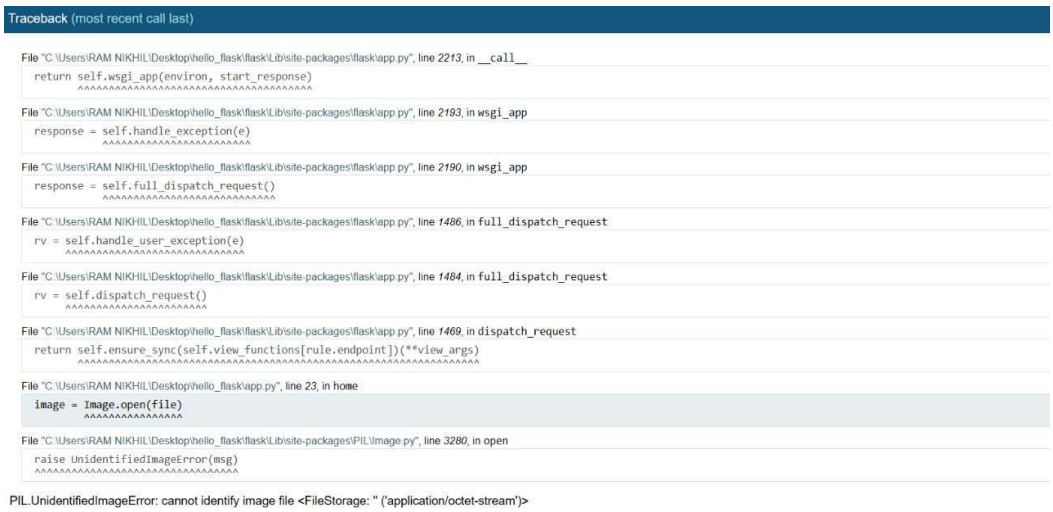
```
            <div class="form-group">
              <label for="product-name">Product Name</label>
              <input type="text" id="product-name" name="product-name" required>
            </div>
            <div class="form-group">
              <label for="category">Category</label>
              <select id="category" name="category" required>
                <option value="">Select category</option>
                <option value="vegetables">Vegetables</option>
                <option value="fruits">Fruits</option>
                <option value="grains">Grains</option>
                <option value="dairy">Dairy</option>
              </select>
            </div>
            <div class="form-group">
              <label for="product-description">Product Description</label>
              <textarea id="product-description" name="product-description" rows="4"
required></textarea>
            </div>
            <div class="form-group">
              <label for="product-price">Product Price (in Rupees)</label>
              <input type="number" id="product-price" name="product-price" required>
            </div>
            <div class="form-group">
              <label for="stock-quantity">Stock Quantity</label>
              <input type="number" id="stock-quantity" name="stock-quantity" required>
            </div>
            <div class="form-group">
              <label for="manufacturer">Manufacturer Name</label>
              <input type="text" id="manufacturer" name="manufacturer" required>
            </div>
            <div class="form-group">
              <label for="image">Product Image</label>
              <input type="file" id="image" name="image" accept="image/*" required>
            </div>
            <div class="form-group">
              <label for="is-discontinued">Is Discontinued?</label>
              <input type="checkbox" id="is-discontinued" name="is-discontinued">
            </div>

            <div class="button-container">
              <button type="submit">Sell Now</button>
            </div>
          </form>
        </div>
        <script>
        const imageInput = document.getElementById('image');
```

```
    const previewImage = document.getElementById('preview-image');

    imageInput.addEventListener('change', () => {
        const file = imageInput.files[0];
        const reader = new FileReader();

        reader.onload = () => {
            previewImage.src = reader.result;
        }
        if (file) {
            reader.readAsDataURL(file);
        } else {
            previewImage.src = "#";
        }
    });
</script>

</body>

</html>
```

CHAPTER-7
SYSTEM TESTING

7.1 Introduction

The testing phase of the AgroTech Ecommerce is a critical stage in the development process. It aims to validate the functionality, performance, and usability of the system. Testing ensures that the website meets the specified requirements, performs reliably, and delivers a seamless user experience. This chapter provides an overview of the testing activities involved in the development of the AgroTech Ecommerce, including unit testing, integration testing, system testing, and acceptance testing. The chapter also highlights the importance of thorough testing in ensuring the quality and effectiveness of the website.



7.2 Types of Tests

Unit testing

Unit testing is a crucial aspect of software development where individual components or units of code are tested in isolation to ensure their proper functionality. In your project, unit testing involves validating the login details, registration details, product upload details, quality detection, and language conversion and user interface components. By thoroughly testing each unit, you can identify and fix any defects or issues early on, ensuring that the project functions as intended and delivers a reliable and high-quality user experience.

Integration testing

Integration testing is a critical phase in the software development lifecycle where different components or modules of a system are tested together to ensure their proper integration and collaboration. In your project, integration testing involves testing the interaction between various features and functionalities, such as the communication between the farmers and customers, data exchange between different modules, and the integration of the backend systems. By conducting thorough integration testing, you can identify and resolve any issues or inconsistencies that may arise when different components interact, ensuring a smooth and seamless functioning of the overall system.

System testing

System testing is a comprehensive testing approach that verifies the behaviour and performance of a complete software system as a whole. In your project, system testing involves testing the AgroTech Ecommerce with all its integrated features, including login details submission, Registration details, quality detection, language conversion and user-friendly interface. This testing phase ensures that the entire system meets the specified requirements, functions as intended, and delivers the expected results to end-users. By conducting thorough system testing, you can identify any issues, validate the system's functionality, and ensure a high-quality and reliable user experience.

Acceptance testing

Acceptance testing is the final phase of testing where the software system is evaluated to determine whether it meets the requirements and expectations of the end-users and stakeholders. In your project, acceptance testing involves validating the AgroTech Ecommerce with real-world scenarios and user interactions. It ensures that the system meets the desired functionality, usability, and performance criteria. By conducting acceptance testing, you can gain confidence in the system's readiness for deployment, gather feedback from users, and make necessary refinements to ensure a successful adoption and satisfaction of the intended users.

7.3 Levels of Testing

Unit testing

This level focuses on testing individual components or units of code in isolation to verify their correctness and functionality. It ensures that each unit performs as expected and meets the specified requirements.

Integration testing

Integration testing verifies the interaction and collaboration between different modules or components of the system. It ensures that the integrated units work together seamlessly, exchange data correctly, and handle dependencies effectively.

System testing

System testing evaluates the behaviour and performance of the complete software system as a whole. It validates the system's compliance with the specified requirements, functionality, performance, and reliability. It covers end-to-end testing scenarios and ensures that all components work together smoothly.

Acceptance testing:

Acceptance testing is performed to determine whether the system meets the requirements and expectations of the end-users and stakeholders. It focuses on validating the system's functionality, usability, and performance in real world scenarios. It ensures that the system is ready for deployment and meets the intended users' needs.

CHAPTER-8

CONCLUSION

This web application provides privilege for both farmers and consumers to buy and sell the required farm products without the involvement of a middleman at its right profitable. This will help to all those farmers who need to get exact value to their agricultural products and end users need good précised rate of each product. This website gives the detailed information about market rate, demand and supply of farm products. By this website farmers can directly sell their products to customers. Thus, this website can improve the end customers confidence on products and establish a trust relationship between farmers and consumers.

CHAPTER-9

FUTURE ENHANCEMENT

The future enhancements for online delivery of farm products from farmers to customers include personalization, enhanced traceability, sustainable packaging, smart technology integration, alternative delivery methods, improved communication channels, integration with sustainable agriculture practices, and expansion into global markets. Improve more accurate quality of the products. Developing the mobile application app.

CHAPTER-10

REFERENCE

REFERENCE PAPERS

- " eMarket for Local Farmers" by Aina Marie Joseph, Nurfauza Jal, Amelia Jati Robert Jupit and Suriati Khartini Jali: This paper presents to design and implement a delivery system for local farmers to vend their fresh produce through a mobile.
- "S. Bobde, S. Jaiswal, P. Kulkarni, O. Patil, P. Khode and R. Jha, "Fruit Quality Recognition using Deep Learning Algorithm," 2021 International Conference on Smart Generation Computing, Communication and Networking.

REFERENCE VIDEOS

- https://www.youtube.com/watch?v=R4VjrtHf4Gw
- https://www.youtube.com/watch?v=fzjI11Y49Yk

REFERENCE SOURCE CODE

- https://www.kaggle.com/code/gasbaouiamine/fruit-freshness