SIMATS SCHOOL OF ENGINEERING

SAVEETHA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCES

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Online Agri Shop

A CAPSTONE PROJECT REPORT

Submitted in the partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

Computer Science and Engineering

Submitted by

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Under the Supervision of

Dr.S K Saravanan

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DECLARATION

We, **Mamatha.G, Neha Reddy.M** students of **Bachelor of Engineering in CSE**, Department of Computer Science and Engineering, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, hereby declare that the work presented in this Capstone Project Work entitled **Online Agri Shop** is the outcome of our own bonafide work and is correct to the best of our knowledge and this work has been undertaken taking care of Engineering Ethics.

Mamatha.G (192211600)

Neha Reddy.M(192211599)

Date:

Place:

CERTIFICATE

This is to certify that the project entitled **"Agri Shop Application"** submitted by **Mamatha.G ,Neha Reddy.M, Dr.S K Saravanan** has been carried out under my supervision. The project has been submitted as per the requirements in the current semester of B.E. Computer Science Engineering.

Teacher-in-charge

Dr.S K.Saravanan

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1.ABSTRACT

"Online Agri Shop" is a dynamic web application designed to revolutionize agricultural shopping. Developed using Visual Studio for the front-end and powered by XAMPP with PHP for back-end operations, it offers a comprehensive solution for purchasing agricultural products online. Users can securely register and log in, explore an extensive product catalog, and use advanced search and filtering options. The intuitive shopping cart system and streamlined checkout process support various payment methods. Users can track orders with real-time updates and manage returns efficiently. Admin users have tools for managing products, user accounts, and sales monitoring. The platform ensures data security and user privacy. "Online Agri Shop" supports the agricultural community by enhancing productivity and sustainability in farming practices.

With a focus on user engagement and intuitive navigation, "Online Agri Shop" facilitates seamless interaction through a user-friendly interface. The platform presents agricultural products with detailed information to enhance the shopping experience, catering to both novice farmers and seasoned agricultural professionals. By integrating front-end technologies for a responsive design and back-end functionalities for robust data management, "Online Agri Shop" aims to foster a vibrant community of agricultural enthusiasts, promoting efficiency and knowledge sharing in the realm of farming.

2.INTRODUCTION

In an era marked by the proliferation of modern farming techniques and a growing interest in sustainable agriculture, effective agricultural product management systems have become indispensable tools for both small-scale farmers and large agribusinesses alike. Traditional methods of purchasing and managing agricultural supplies, such as physical stores or scattered digital records, often fall short in providing systematic storage, easy retrieval, and efficient transaction capabilities. Recognizing these challenges, the "Online Agri Shop" web application emerges as a comprehensive solution designed to streamline agricultural product management, enhance accessibility, and foster agricultural innovation.

"Online Agri Shop" addresses the inherent complexities of agricultural product management by leveraging modern web technologies to offer a user-centric platform. Developed using Visual Studio for frontend design and powered by the robust XAMPP stack (Apache, MySQL, PHP) for backend operations, the application aims to bridge the gap between traditional agricultural supply methods and contemporary digital needs. By integrating user authentication, intuitive product listing and purchasing functionalities, comprehensive search capabilities, and administrative controls, "Online Agri Shop" seeks to empower users with a seamless and efficient agricultural shopping experience.

This project not only aims to simplify agricultural product management but also strives to promote farming efficiency and community engagement. By providing users with a centralized platform for purchasing agricultural supplies, enhanced by interactive features and responsive design, "Online Agri Shop" aims to revolutionize how farmers manage, discover, and procure essential products. This introduction sets the stage for exploring the methodologies, functionalities, and outcomes of the "Online Agri Shop" web application, highlighting its potential impact in transforming agricultural supply management practices in the digital age.

"Online Agri Shop" is dedicated to enhancing the agricultural shopping experience by leveraging modern web technologies to create a user-friendly and efficient platform. The application integrates comprehensive product listings, secure user authentication, and advanced search capabilities, ensuring farmers can easily find and purchase the supplies they need. With robust back-end operations powered by XAMPP and an intuitive front-end developed in Visual Studio, the platform provides a seamless shopping experience. Additionally, administrative controls allow for effective product and user management, making "Online Agri Shop" a valuable tool for modernizing agricultural procurement and supporting sustainable farming practices.

3.Project Description

"Online Agri Shop" is a comprehensive web application developed to streamline agricultural product management. The application includes:

Proposed Method

- **Frontend Development**: Utilizing Visual Studio for designing responsive and intuitive user interfaces.
- **Backend Development**: Using XAMPP stack (Apache, MySQL, PHP) to handle server-side scripting, database management via phpMyAdmin, and ensuring secure data storage and retrieval.

3.1 About my project

Purpose and Scope

The primary objective of "Online Agri Shop" is to provide a user-friendly interface for farmers and agricultural enthusiasts to manage their product procurement efficiently. It aims to cater to both small-scale farmers seeking convenient access to essential supplies and large agribusinesses requiring a robust platform for comprehensive product management. The application facilitates seamless browsing, purchasing, and order management, supporting efficient agricultural operations and fostering a connected community of users.

Features and Functionality

- **Product Management**: Users can add new agricultural products, update existing listings, and delete products as needed. Each product entry includes details such as descriptions, pricing, availability, and an optional image.
- **Search and Filtering**: The application supports dynamic search functionality, allowing users to quickly locate products based on keywords, categories, or attributes. This feature enhances usability by reducing the time spent searching for specific agricultural supplies.
- **User Interaction:** Registered users can interact with products through functionalities like viewing detailed product information in a modal window, updating product details directly, and seamlessly navigating through categorized product listings.

4.Problem Description

Existing Method

Traditional methods of managing agricultural products face numerous limitations that result in inefficiencies and inconvenience for users. Physical stores or manual inventory records, while familiar, are prone to errors, are labor-intensive, and often lead to stock management issues. The manual process of tracking and ordering products can be time-consuming and may result in inventory discrepancies or missed orders. Additionally, using scattered digital documents or spreadsheets for managing product information presents challenges in centralized control. Users often struggle to quickly locate product details spread across multiple files or devices, and the lack of advanced search and filtering capabilities forces them to manually sift through data to find specific items. This method also lacks structured organization, leading to inconsistencies in product information and difficulty in managing large inventories efficiently.

Existing online platforms and mobile applications for agricultural products offer some improvements but still have notable shortcomings. Many of these platforms prioritize broad e-commerce features over specialized agricultural needs, leading to challenges in product management and procurement. Users often encounter excessive advertisements, irrelevant recommendations, and cluttered interfaces that detract from efficient product searching and ordering. While these platforms may provide basic search functionality, they frequently lack advanced organizational tools, detailed product specifications, and comprehensive inventory management. Additionally, users may face concerns over data privacy and security, as product information is stored on external servers, raising questions about data ownership and protection. The inconsistent user experience, varying levels of user interface design, and limited support for different devices further compound these issues. This project aims to address these gaps by providing a dedicated web application with robust functionality and a seamless user experience tailored to the needs of agricultural professionals.

5.TOOL DESCRIPTION

Hardware and Software Tools

To develop and deploy the agri shop management web application, the following hardware and software tools were utilized:

Hardware Specifications

- **Laptop Model**: ASUS ROG Strix
- **Graphics Card**: NVIDIA GeForce RTX 3060, 4GB
- **Storage**: 1TB SSD
- **RAM**: 16GB
- **Processor**: AMD Ryzen 7 6800H

The ASUS ROG Strix laptop with its high-performance specifications provided an excellent environment for developing and testing the online agricultural shop application. The NVIDIA GeForce RTX 3060 graphics card ensured smooth rendering of graphics and multimedia content, enhancing the development experience, especially when dealing with high-resolution product images and intricate user interface design. The 1TB SSD facilitated fast data read/write operations, significantly reducing load times for development tools and ensuring rapid access

to project files. With 16GB of RAM, the laptop efficiently handled multiple development tools running concurrently, supporting a seamless multitasking environment. The AMD Ryzen 7 6800H processor, known for its powerful performance and energy efficiency, enabled quick compilation and execution of code, speeding up the development cycle.

Software Tools

- **Visual Studio Code**: An integrated development environment (IDE) used for writing and debugging code. Its extensions and integrated terminal enhanced the coding experience.
- **XAMPP**: A free and open-source cross-platform web server solution stack package developed by Apache Friends. It provided the necessary Apache, MySQL, PHP, and Perl support for local development and testing.
- **phpMyAdmin**: A free software tool written in PHP, intended to handle the administration of MySQL over the web. phpMyAdmin was used for database management, allowing for easy handling of the MySQL database used in the application.
- **GitHub**: Used for version control and collaborative development. The repository hosted the project's source code, enabling team collaboration and version tracking.
- **Google Chrome**: The primary web browser used for testing and debugging the web application. Developer tools in Chrome facilitated real-time inspection and modification of the front-end code.

The combination of powerful hardware and a robust set of development tools provided a conducive environment for the efficient development, testing, and deployment of the Product Management Application.

6.Operations

The Online Agri Shop Application provides various operations for both administrators and users to manage agricultural products effectively and ensure a smooth user experience. Below are the detailed operations based on the application's functionalities:

6.1 Administrator Operations

Creating and Managing products

- **Product Management**: Admins can add new products, update existing listings, and delete products as needed.
- **User Management**: Admins can oversee user accounts, including managing permissions and resolving issues.
- **Sales Monitoring**: Admins can monitor sales data, generate reports, and analyze trends to optimize inventory and sales strategies.
- **Order Management**: Admins can manage and review all orders, handle customer inquiries, and ensure smooth order fulfillment.

Managing Categories

- **Add Categories:** Administrators can add new categories to organize products more effectively, allowing for better classification and easier navigation for users.
- **Edit Categories:** Administrators can update existing categories to correct errors or rename them for improved clarity and organization.
- **Delete Categories:** Administrators can remove categories that are no longer needed. This includes managing associated products, such as reassigning them to other categories or handling their removal from the system.

User Management

- **View Users:** Administrators can view a list of registered users.
- **Edit User Details:** Administrators can update user details such as username, email, and password.
- **Delete Users:** Administrators can remove users from the system.

Analyzing Product Usage for Online Agri Shop

- **Ratings and Reviews**: Collect and analyze ratings and reviews for each product.
- **Customer Questions**: Track frequently asked questions about products and their responses.
- **Analytic Platforms**: Use tools like Google Analytic s, Adobe Analytic s, or similar platforms to track product views, sales, and user interactions.
- **E-commerce Platforms**: Leverage built-in analytic s features of your e-commerce platform to gather sales and inventory data.

6.2 User Operations

Interacting with Products

- **Account Creation & Login**: Allow users to create accounts, log in, and manage their credentials securely.
- **Profile Management**: Enable users to update their personal information, such as contact details, address, and payment methods.
- **Search and Filter**: Provide robust search functionality and filters to help users find products easily based on categories, keywords, price range, etc.
- **Product Details**: Display detailed product descriptions, images, specifications, and pricing information.

User Authentication

- **Register:** New users can create an account by providing their username and password.
- **Login:** Registered users can log into their accounts using their credentials.
- **Logout:** Users can log out of their accounts to secure their sessions.

Managing User Profile

- **View Profile:** Users can view their profile information, including username, email, and liked recipes.
- **Edit Profile:** Users can update their profile information, such as username, email, and password.

Content Management

- **Website Content**: Update and manage website content, including blog posts, news, and promotions.
- **Marketing Campaigns**: Create and manage marketing campaigns, promotions, and discounts.

System Maintenance

- **Updates and Upgrades**: Perform regular updates and upgrades to the platform's software and features.
- **Security Management**: Ensure the platform's security by managing user data, access controls, and compliance with data protection regulations.

By structuring operations around these roles, Online Agri Shop delivers a well-organized and user centric platform, fostering a vibrant community of recipe contributors and ensuring high-quality content management.

7. Approach / Module Description / Functionalities

To develop the Online Agricultural Shop Application, we will divide the project into distinct modules, each responsible for specific functionalities. This approach ensures modularity, maintainability, and scalability by creating individual functions for every operation and unifying them.

Modules and Functionalities

7.1 User Account Management

Account Creation and Login

- **Sign Up/Login:** Users can create new accounts or log in to existing accounts.
- **Social Media Integration:** Option to sign up or log in using social media accounts.

Profile Management

- **Update Information:** Users can update personal details such as address, contact information, and payment methods.
- **Password Management:** Change or reset passwords.

Order History and Tracking

- **View Orders:** Users can view past orders and their statuses.
- **Track Shipments:** Real-time tracking of current orders.

7.2 Product Management

Product Listings

- **Add/Update Products:** Administrators can add new products or update existing product details.
- **Product Details:** Manage information such as product name, description, price, images, and specifications.
- **Categorization:** Assign products to relevant categories and subcategories.

Inventory Management

- **Stock Levels:** Monitor and manage inventory levels.
- **Reorder Points:** Set and adjust reorder points for automatic restocking.
- **Inventory Tracking:** Record inventory movement and adjustments.

Pricing and Promotions

- **Price Management:** Set and update regular and promotional prices.
- **Discounts and Offers:** Create and manage discount codes and special promotions.

7.3 Order Management

Order Processing

- **Order Fulfillment:** Manage order processing from placement to delivery.
- **Shipping and Delivery:** Coordinate shipping logistics and update delivery statuses.

Returns and Exchanges

- **Return Requests:** Process customer return and exchange requests.
- **Refunds:** Manage and issue refunds.

Order History and Reports

- **Order Reports:** Generate detailed reports on order history, sales performance, and customer activity.

7.4 Order Management

Submit Products

- **User Submissions:** Allow users to submit their own product listings, including details and images.
- **Approval Workflow:** Review and approve user-submitted products before publishing.

Edit and Delete Products

- **Product Management:** Users can edit or delete their own product listings through their dashboard.
- **Admin Edit:** Administrators can make direct changes to products if needed.

Product Analytics

- **Performance Tracking:** Monitor product views, likes, and comments.
- **User Feedback:** Collect and analyze user feedback on products.

7.5 Customer Support

Help Center

- **FAQs:** Provide answers to frequently asked questions.
- **Guides and Tutorials:** Offer guides and tutorials for using the site and managing orders.

Contact Support

- **Support Channels:** Provide options for contacting support via email, chat, or phone.
- **Ticket Management:** Track and manage support tickets and resolutions.

7.6 Analytics and Reporting

Sales Analytics

- **Sales Reports:** Track and analyze sales data, including revenue, top-selling products, and sales trends.
- **Performance Metrics:** Measure key performance indicators (KPIs) for sales and inventory.

User Behavior

- **Activity Reports:** Analyze user behavior, including browsing patterns and purchase history.
- **Engagement Metrics:** Track user engagement with products and site features.

Financial Reporting

- **Revenue Reports:** Generate financial reports on revenue, expenses, and profit margins.

7.7. Content Management

a. Website Content

- **Update Content**: Manage and update website content, including blog posts, news, and promotional materials.
- **Media Management**: Upload and manage images, videos, and other media content.

b. Marketing Campaigns

- **Campaign Management**: Create and manage marketing campaigns, including email marketing and social media promotions.
- **Promotions**: Set up and track special promotions and discounts.

7.8 System Maintenance and Security

a. System Updates

- **Software Maintenance**: Regular updates and upgrades to the platform's software.
- **Bug Fixes**: Address and resolve software bugs and issues.

b. Data Backup and Recovery

- **Backup Procedures**: Implement regular backups of data to prevent loss.
- **Recovery Plans**: Develop and test data recovery plans.

c. Security Management

- **Access Controls**: Manage user permissions and access levels.
- **Security Monitoring**: Monitor for security threats and vulnerabilities.

Integration of Functions:

By developing these modules and their respective functions independently, we can then unify them to form the complete software. Each module can interact with others through defined interfaces, ensuring smooth data flow and cohesive operation.

Example: Unifying Functions

✧ **User Login:**

- User logs in using the Login User function from the User Authentication Module.
- Based on the role (user/admin), the user is redirected to their respective dashboard.

✧ **Product Information**: Enter product details such as name, category, description, price, and specifications.

- **Upload Images**: Add high-quality images of the products.
- **Set Stock Levels**: Define initial inventory levels and reorder points.

✧ **Edit Existing Products**:

- **Update Details**: Modify product descriptions, prices, and specifications.
- **Manage Images**: Change or update product images.
- **Adjust Inventory**: Update stock levels and reorder points.

✧ **Profile Management:**

- Both administrators and users can manage their profiles using functions from the Profile Management Module.

By structuring the operations and functionalities around these modules, the Online Agri Shop Application ensures a seamless and efficient user experience for both administrators and users.

8. Implementation/Coding

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Login - Agri Shop</title>
    <style>
        * {
            margin: 0;
            padding: 0;
            box-sizing: border-box;
            font-family: Arial, sans-serif;
        }
        body {
            background-color: #f4f4f4;
            color: #333;
        }
        header {
            background-color: #4CAF50; /* Green background */
            color: #fff;
            padding: 10px 0;
        }
        header nav {
            display: flex;
            justify-content: space-between;
            align-items: center;
            max-width: 1200px;
            margin: 0 auto;
            padding: 0 20px;
        }
```

```
header nav ul {
    list-style: none;
    display: flex;
    align-items: center;
}
header nav ul li {
    margin-left: 20px;
}
header nav ul li a {
    color: #fff;
    text-decoration: none;
    font-weight: bold;
    font-size: 16px;
}
header nav ul li a:hover {
    text-decoration: underline;
}
main {
    padding: 20px;
    max-width: 600px;
    margin: 20px auto;
    background-color: #fff;
    border-radius: 8px;
    box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
}
form .form-group {
    margin-bottom: 15px;
}
form .form-group label {
    display: block;
```

```
    margin-bottom: 5px;
    font-weight: bold;
}
form .form-group input {
    width: 100%;
    padding: 8px;
    border: 1px solid #ccc;
    border-radius: 4px;
}
form button {
    display: inline-block;
    padding: 10px 20px;
    color: #fff;
    background-color: #4CAF50;
    border: none;
    border-radius: 4px;
    cursor: pointer;
    font-size: 16px;
}
form button:hover {
    background-color: #45a049;
}

footer {
    text-align: center;
    padding: 10px 0;
    background-color: #4CAF50;
    color: #fff;
    position: fixed;
    bottom: 0;
```

```
            width: 100%;
        }
    </style>
</head>
<body>
    <header>
        <nav>
            <div>
                <a href="index.html" style="color: #fff; text-decoration: none; font-size: 24px;">Agri Shop</a>
            </div>
            <ul>
                <li><a href="index.html">Home</a></li>
                <li><a href="aproduct.html">Product</a></li>
                <li><a href="acontact.html">Contact</a></li>
                <li><a href="acart.html">Cart</a></li>
                <li><a href="aabout.html">About Us</a></li>
                <li><a href="alogin.html">Login</a></li>
            </ul>
        </nav>
    </header>
    <main>
        <h1>Login to Your Account</h1>
        <form action="login-process.php" method="post">
            <div class="form-group">
                <label for="username">Username:</label>
                <input type="text" id="username" name="username" required>
            </div>
            <div class="form-group">
                <label for="password">Password:</label>
                <input type="password" id="password" name="password" required>
```

```
            </div>
            <button type="submit">Login</button>
        </form>
    </main>
    <footer>
        <p>&copy; 2024 Agri Shop. All rights reserved.</p>
    </footer>
</body>
</html>
```

9. Result

Creating a webpage for an online agricultural shop offers numerous achievements, benefiting both sellers and consumers. The project aims to establish an intuitive and user-friendly platform, connecting farmers, agricultural suppliers, and consumers seamlessly. A significant achievement of this project is the creation of a clean and easy-to-navigate interface. This design ensures users can effortlessly browse through various categories, view detailed product information, and make purchases. The responsive design enhances accessibility, allowing users to access the site comfortably from any device, whether it be a smartphone, tablet, or desktop.

Moreover, the project includes a specialized portal for farmers and suppliers, enabling them to list their products easily. This portal empowers them to reach a broader market, promoting fair trade and transparency in the agricultural sector. Overall, the project aims to revolutionize the way agricultural products are bought and sold, making the process more efficient, transparent, and accessible to all stakeholders involved.

10. Conclusion

The development of an online agricultural shop revolutionizes the agricultural sector by connecting farmers directly with consumers, thereby expanding market reach and increasing sales opportunities. This platform offers unparalleled convenience, enabling farmers to manage sales and consumers to purchase products effortlessly from their homes. By reducing the need for intermediaries, it ensures cost efficiency and better pricing for both parties. Transparency is enhanced through detailed product information and customer reviews, fostering trust. Additionally, the online shop supports sustainable practices by promoting direct and efficient transactions, ultimately benefiting the entire agricultural ecosystem.

11. Future Enhancements

Future enhancements for online agricultural shops offer substantial opportunities to revolutionize the sector. Integrating advanced analytics and artificial intelligence will enable personalized recommendations, optimize inventory management, and provide predictive insights into market trends. Blockchain technology can enhance transparency by ensuring the traceability and authenticity of agricultural products, fostering greater consumer trust. The development of user-friendly mobile applications will make the platform more accessible, particularly in remote areas. IoT integration will allow real-time monitoring of crop health and environmental conditions, further aiding farmers in optimizing their practices. Additionally, flexible payment solutions and access to microloans will facilitate secure transactions and provide financial support to farmers.

Sustainability will become increasingly integral to the platform, with initiatives to promote eco-friendly products and sustainable farming practices. Features like a carbon footprint tracker will help consumers and farmers make environmentally conscious decisions. Building a community platform will allow farmers to share knowledge, seek advice, and collaborate on best practices. Access to expert consultations, virtual workshops, and training sessions will support continuous learning and skill development. Enhancing logistics and delivery processes through advanced tracking and partnerships with delivery services will ensure faster and more reliable product shipments. These enhancements will collectively improve the efficiency, transparency, and user experience of the online agricultural marketplace.

11.Screen Shot

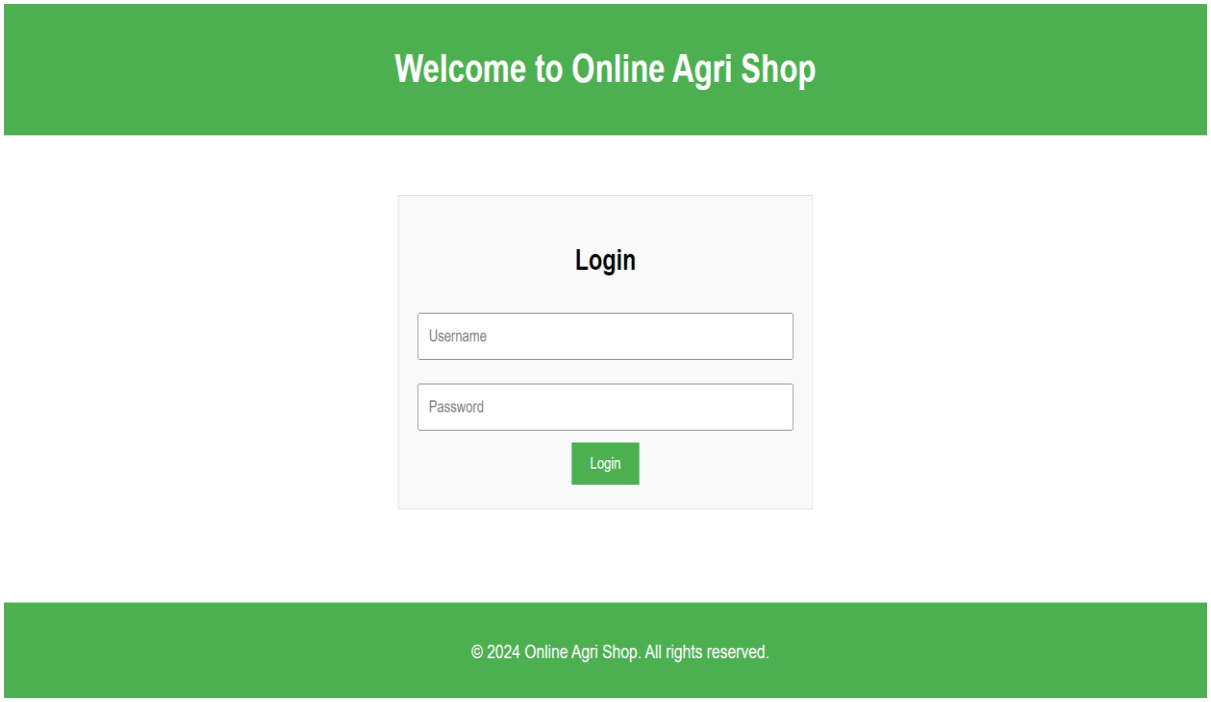

Fig.1:Login Page

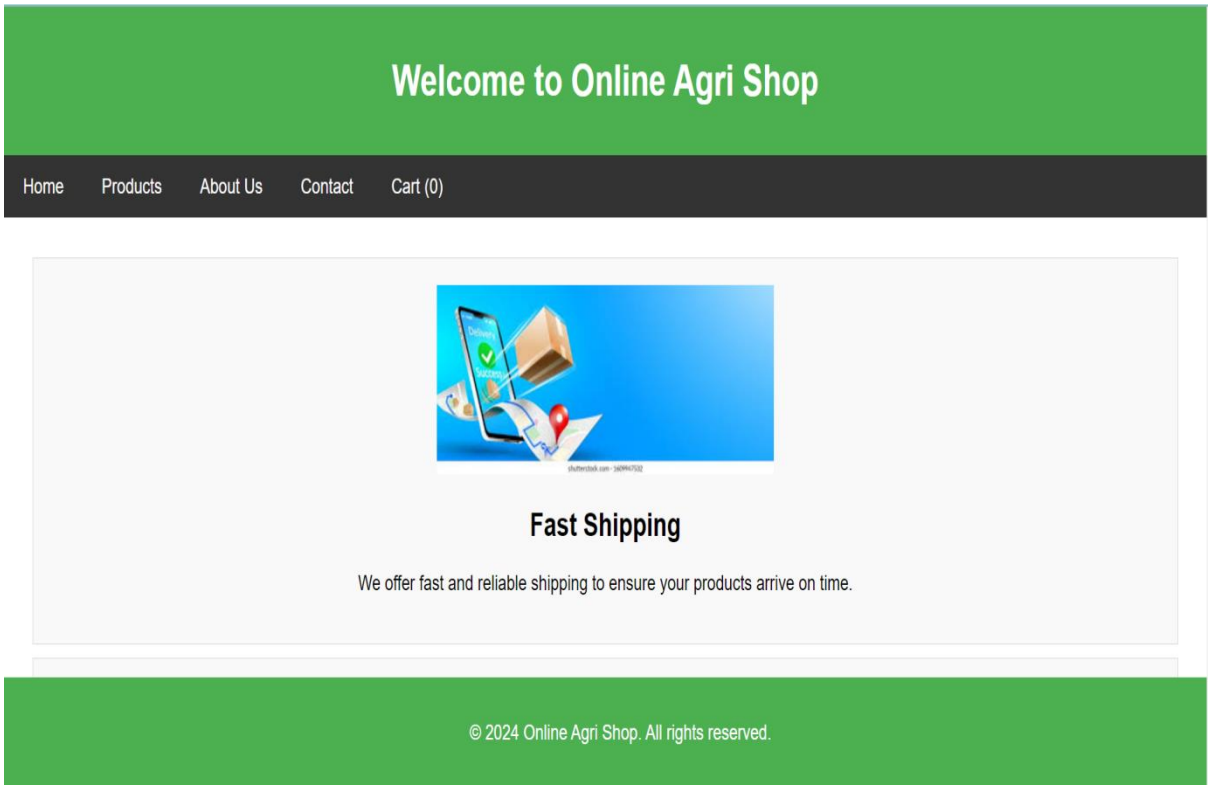

Fig.2:Home Page

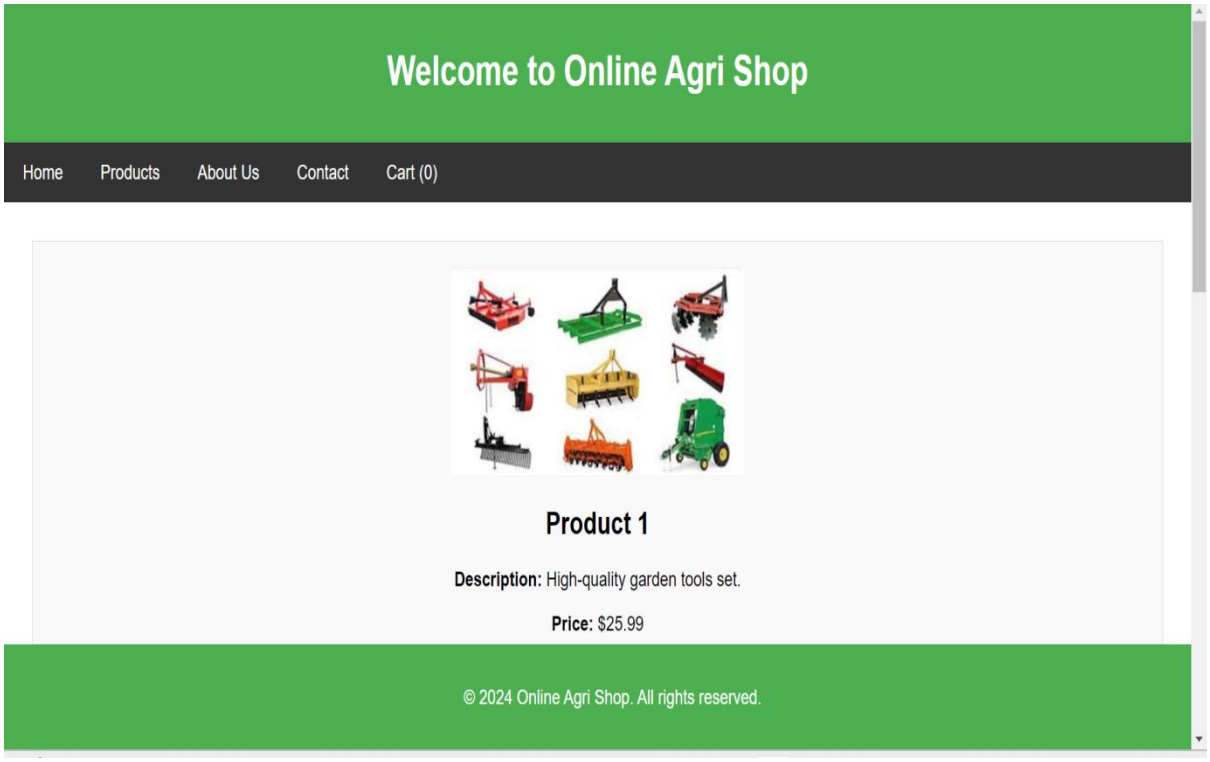

Fig.3:Product Page

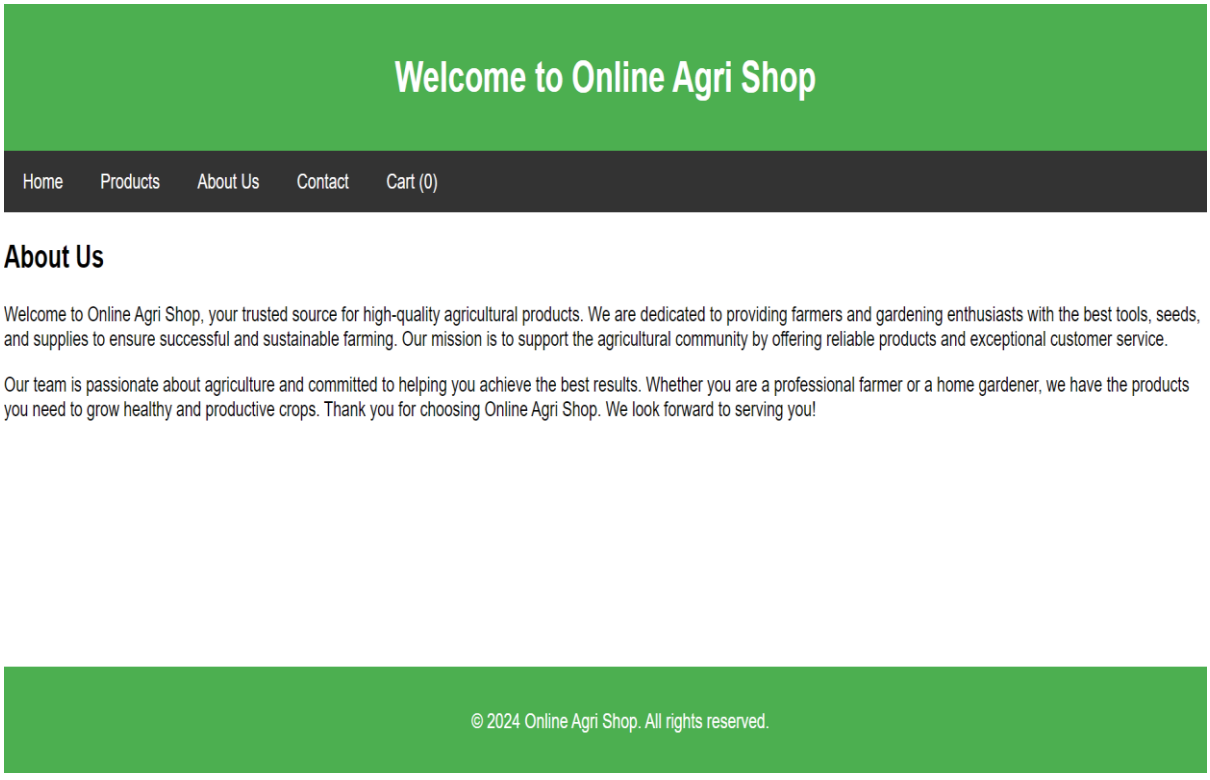

Fig.4:About page

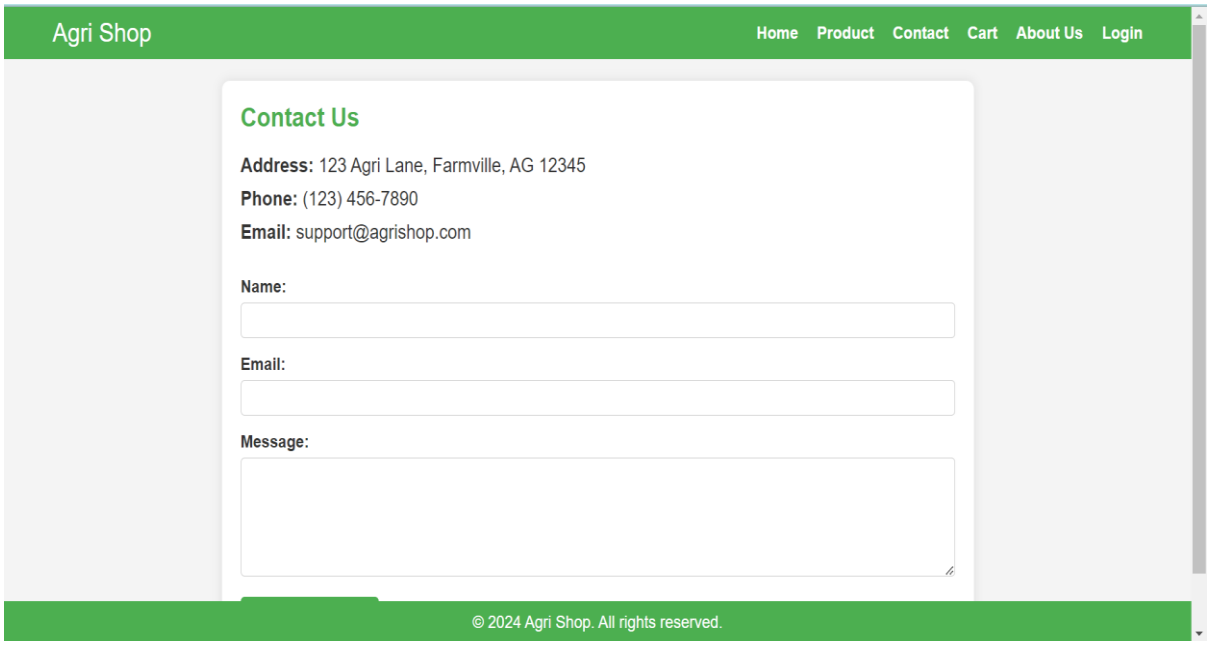

Fig.5:Contact Page

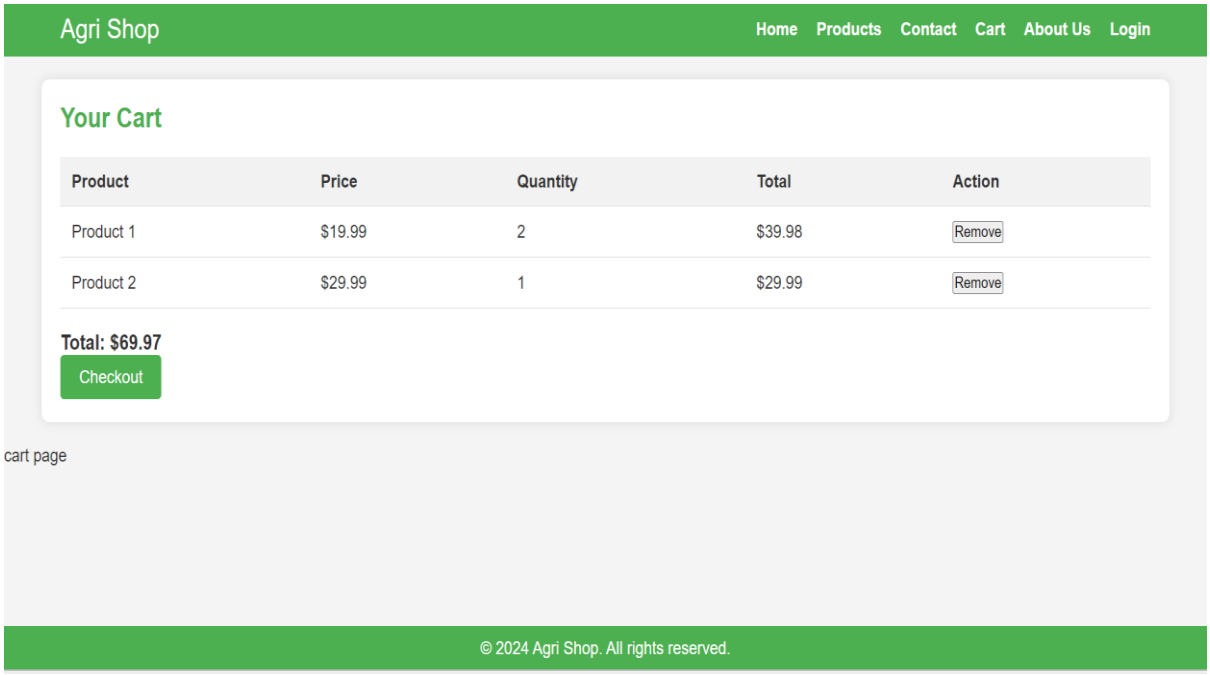

Fig.6:Cart Page

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