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**EXPERIMENT NO. 6**

**Aim:** To develop Software Requirement Specification (SRS) document in IEEE format for the selected case study

## **1. Introduction**

### 1.1 Purpose

The purpose of this document is to define the requirements for the development of an e-commerce farming website, which aims to connect farmers with consumers.

### 1.2 Scope

The website will provide a platform for farmers to showcase and sell their agricultural products directly to consumers. Consumers can browse, purchase, and have products delivered to their location.

### 1.3 Definitions, Acronyms, and Abbreviations

* SRS: Software Requirements Specification
* CMS: Content Management System

## **2. Overall Description**

### 2.1 Product Perspective

The e-commerce farming website will operate independently but may integrate with external payment gateways and shipping services. It will be a web-based platform accessible through standard web browsers.

### 2.2 User Classes and Characteristics

* Farmers: Registered users who list and manage their products.
* Consumers: Registered or guest users who browse, search, and purchase products.
* Administrators: Manage the website, users, and content.

### 2.3 Operating Environment

The system will operate on standard web servers, using modern web technologies and compatible with common web browsers.

### 2.4 Design and Implementation Constraints

* The website should be mobile-responsive.
* It should be developed using secure coding practices.
* Database management system: MySQL or equivalent.

## **3. System Features**

### 3.1 User Registration and Authentication

* Users can create accounts, providing necessary personal information.
* Email verification for user registration.
* User roles: farmer, consumer, and administrator.
* Users can log in and reset passwords.

### 3.2 Product Management

* Farmers can add, edit, and delete product listings.
* Product listings include images, descriptions, prices, and availability status.
* Products can be categorized by type, region, and season.

### 3.3 Search and Browse

* Consumers can search for products by keyword, category, or location.
* Product listings should be easily browsable.
* Filters and sorting options for search results.

### 3.4 Shopping Cart and Checkout

* Consumers can add products to their shopping carts.
* Cart should display itemized list, quantities, and total cost.
* Secure checkout process with various payment methods.
* Confirmation emails for orders.

### 3.5 Reviews and Ratings

* Consumers can leave reviews and ratings for products.
* Farmers can respond to consumer reviews.

### 3.6 Order Tracking and History

* Consumers can track the status of their orders.
* Order history and receipts for consumers.

### 3.7 Admin Panel

* Administrators can manage users, products, and content.
* Content Management System (CMS) for creating and editing static pages.

## **4. Non-Functional Requirements**

### 4.1 Performance

* Fast loading times for pages and images.
* Support for concurrent users (scalability).

### 4.2 Security

* Data encryption (SSL) for secure transactions.
* User data protection and privacy measures.

### 4.3 Usability

* Intuitive user interface and responsive design.
* Compatibility with various web browsers.

### 4.4 Reliability

* Backup and recovery procedures for data.
* Minimal downtime for maintenance.

**5. Constraints**

Constraints are limitations, conditions, or restrictions that can affect the development, deployment, or operation of a system. In the context of an e-commerce farming website that connects farmers with consumers, there are several constraints to consider. Here are some common constraints:

**5.1. Budget Constraints:** The project may have budget limitations that affect the choice of technologies, features, and the scale of development. It's essential to work within the allocated budget to ensure financial viability.

**5.2. Time Constraints:** There may be strict deadlines for launching the platform, which can limit the development time and may impact the scope and quality of the project.

**5.3. Technology Constraints:** The choice of technologies and development frameworks may be limited by factors like existing infrastructure, in-house expertise, or compatibility with other systems.

**5.4. Security and Compliance Constraints:** The website must adhere to security and compliance requirements, such as GDPR for data protection, PCI DSS for payment processing, and agricultural regulations. Compliance constraints can affect the design and operation of the platform.

**5.5. Scalability Constraints:** The platform needs to be designed to handle varying levels of traffic and users, which may require scalability measures like load balancing, server clusters, and distributed databases.

**6. Assumptions**

* Users have basic internet connectivity and modern web browsers.
* Farmers have access to devices capable of managing their profiles and listings.

**7. Dependencies**

* Integration with payment gateways.
* Hosting infrastructure.

**8. Appendix**

* Glossary of terms

**9. Conclusion**: Hence, we have made our SRS based on our Project.