Software Requirement Specification (SRS)

Project Title

Web-Based Online Service Management System

Company Name

SmartServe Solutions

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1. Introduction and Purpose

The Software Requirement Specification (SRS) document provides a **detailed description of the software requirements** for the Web-Based Online Service Management System proposed for SmartServe Solutions. This document translates the Business Requirement Specification (BRS) and User Requirement Specification (URS) into **technical and system-level requirements**.

The purpose of this SRS is to clearly define the functional and non-functional requirements of the system so that developers, testers, and stakeholders have a common understanding of what the system should do. This document serves as a reference throughout the system development life cycle.

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2. System Overview

The Web-Based Online Service Management System is a centralized web application designed to manage service requests, service tracking, technician assignment, and online payments. The system will be accessible through a web browser and will support three main user roles:

1. Customer
2. Service Manager (Admin)
3. Technician

The system will store all service-related data in a centralized database and provide real-time updates to users. It aims to replace manual service management processes with an automated and efficient digital solution.

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3. Functional Requirements

The functional requirements describe **what the system shall do**. Each requirement is uniquely identified for clarity and traceability.

FR-1: User Registration

The system shall allow customers to register by providing basic details such as name, email, contact number, and password.

FR-2: User Authentication

The system shall authenticate users using secure login credentials and provide role-based access (Customer, Admin, Technician).

FR-3: Customer Dashboard

The system shall provide a dashboard for customers to view service requests, status, and payment details.

FR-4: Service Request Submission

The system shall allow customers to submit service requests through an online form.

FR-5: Service Request Management

The system shall allow the admin to view, update, and manage all service requests.

FR-6: Technician Assignment

The system shall allow the admin to assign technicians to service requests.

FR-7: Technician Dashboard

The system shall provide technicians with a dashboard to view assigned service tasks.

FR-8: Service Status Update

The system shall allow technicians to update the service status as Pending, In Progress, or Completed.

FR-9: Service Tracking

The system shall allow customers and admin to track service status in real time.

FR-10: Notifications

The system shall send notifications to customers and technicians regarding service updates.

FR-11: Online Payment Processing

The system shall allow customers to make online payments using secure payment gateways.

FR-12: Payment Confirmation

The system shall generate payment confirmation and store payment details.

FR-13: Service History

The system shall maintain service history records for customers and technicians.

FR-14: Report Generation

The system shall allow admin to generate service and payment reports.

FR-15: User Management

The system shall allow admin to manage customer and technician accounts.

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4. Non-Functional Requirements

Non-functional requirements define **how the system should perform**.

4.1 Performance Requirements

- The system should load pages within 3 seconds.
- The system should support multiple users simultaneously.

4.2 Security Requirements

- The system shall use secure authentication mechanisms.
- User data shall be encrypted.
- Only authorized users shall access the system.

4.3 Usability Requirements

- The system shall have a user-friendly interface.
- The system shall be easy to navigate.

4.4 Reliability Requirements

- The system shall be available 24/7 with minimal downtime.
- Data should not be lost during system failures.

4.5 Compatibility Requirements

- The system shall work on major web browsers.
- The system shall be accessible on desktops and mobile devices.

4.6 Scalability Requirements

- The system shall support future expansion.

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5. System Constraints

The following constraints apply to the system:

1. The system requires an active internet connection.
2. Online payment depends on third-party payment gateways.
3. The system must be developed within limited budget and time.
4. The system must comply with data protection regulations.
5. Hosting server limitations may affect performance.

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6. Assumptions and Dependencies

6.1 Assumptions

1. Users have valid email addresses.
2. Users will provide accurate information.
3. Technicians will update service status regularly.
4. Admin will properly manage system data.

6.2 Dependencies

1. Payment gateway availability.
2. Email/SMS notification services.
3. Hosting and server infrastructure.
4. Internet connectivity for users.

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7. Future Enhancements

The system may be enhanced in the future with the following features:

1. Mobile application support.
2. Advanced analytics dashboard.
3. Customer feedback and rating system.
4. AI-based technician assignment.

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8. Conclusion

This Software Requirement Specification document provides a complete and detailed description of the software requirements for the Web-Based Online Service Management System. It ensures clarity, consistency, and completeness of system requirements, helping developers build a reliable, secure, and user-friendly system that meets business and user needs effectively.