TEAM NAME
805_808
SECTION:B

Software Requirements Specification (SRS) for Restaurant Management System

1. Introduction

1.1 **Purpose**
The purpose of this document is to provide a detailed Software Requirements Specification (SRS) for the Restaurant Management System (RMS). The system aims to improve the efficiency of restaurant operations, including order management, inventory tracking, table reservations, and billing.

1.2 **Scope**
The RMS will be used by restaurant staff such as managers, wait staff, and kitchen staff to streamline various operations. It will enable order processing, inventory management, employee management, and customer service, and will support both desktop and mobile access.

1.3 **Definitions, Acronyms, and Abbreviations**

- **RMS:** Restaurant Management System
- **POS:** Point of Sale
- **UI:** User Interface
- **API:** Application Programming Interface

1.4 **References**
Reference documents, standards, or systems relevant to this SRS, such as IEEE Std. 830-1998, payment gateway APIs, and data privacy regulations.

1.5 **Overview**
This SRS provides a comprehensive outline of the RMS, including its overall description, specific functional and non-functional requirements, and external interface specifications.

2. Overall Description

2.1 **Product Perspective**
The RMS is a stand-alone system that integrates with payment gateways, inventory systems, and customer feedback modules. It is designed to replace manual processes and enhance restaurant efficiency through automation.

2.2 **Product Functions**

- Order Management: Place and track customer orders.
- Table Reservation: Manage table bookings.
- Menu Management: Update and manage the restaurant menu.
- Billing: Process payments and generate bills.
- Inventory Management: Monitor stock levels and manage supply orders.
- Employee Management: Handle employee schedules and roles.
- Reporting: Generate reports on sales, inventory, and employee performance.

2.3 **User Characteristics**

- **Managers:** Manage operations, inventory, and access reports.
- **Wait staff:** Take orders, manage tables, and process payments.
- **Kitchen Staff:** Receive and prepare orders.
- **Customers:** Make reservations, place orders, and provide feedback.

2.4 **Constraints**

- The system must comply with data protection laws.
- It must support multiple payment methods and currencies.
- Compatibility with various hardware (e.g., POS devices, tablets).

2.5 **Assumptions and Dependencies**

- A reliable internet connection is required for cloud-based functionalities.
- The system relies on third-party payment gateways for transactions.

3. Specific Requirements

3.1 **External Interface Requirements**

- **User Interfaces:** Intuitive and accessible UI for both staff and customers.
- **Hardware Interfaces:** Integration with printers, POS devices, and kitchen display screens.
- **Software Interfaces:** APIs for payment gateways, inventory management systems, and customer feedback platforms.

3.2 **Functional Requirements**

- **Order Management:** Allow orders to be taken, modified, and sent to the kitchen in real-time.
- **Table Reservation:** Enable customers to reserve tables online or via an app.
- **Menu Management:** Update menu items, descriptions, and prices.
- **Billing and Payments:** Handle billing, receipts, and support multiple payment options.
- **Inventory Management:** Track stock levels, generate alerts for low stock, and automate reordering.
- **Employee Management:** Manage staff schedules, roles, and track performance.
- **Reporting and Analytics:** Provide insights through sales reports, inventory tracking, and performance analytics.
- **Customer Feedback:** Collect and analyze customer feedback for service improvements.

3.3 **Non-Functional Requirements**

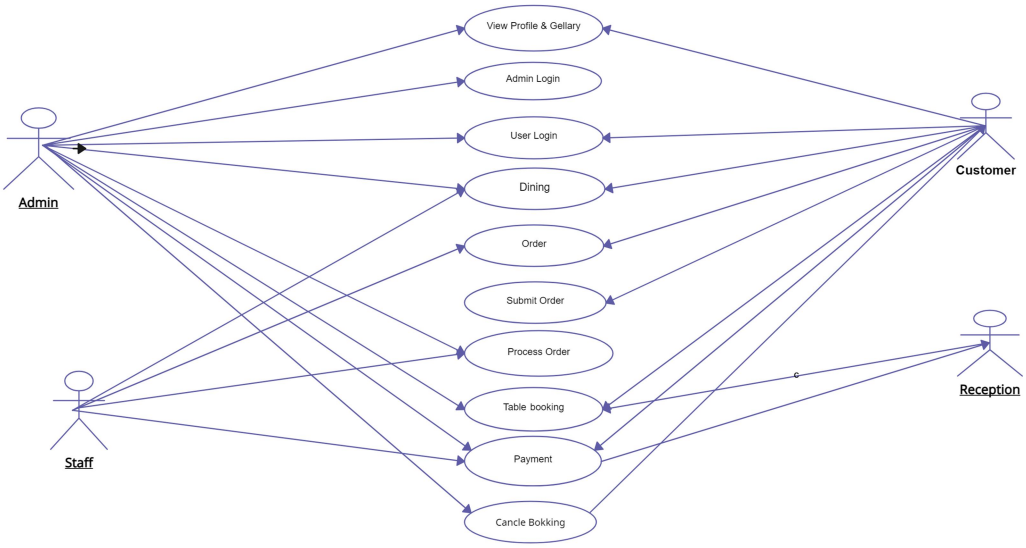
- **Performance:** Must handle up to 100 concurrent users with minimal response times.
- **Security:** Must include secure login, data encryption, and comply with PCI-DSS standards for payment security.
- **Usability:** Designed for ease of use by all staff roles with minimal training.
- **Reliability:** Expected uptime of 99.9% and robust backup procedures.
- **Scalability:** System should be scalable to accommodate business growth.

3.4 **Design Constraints**

- Adherence to industry standards for UI/UX design.
- Compliance with relevant food service regulations and standards.

4. System Architecture

- Overview of the system architecture, including data flow diagrams, system components, and their interactions.



Appendices

- Sample user interfaces, data models, and detailed process flow diagrams.
- Glossary of terms and detailed descriptions of system components.