**Software Requirements Specification (SRS) Document**

1. **Introduction**
   * Purpose

The purpose of the system is to implement a digital customer management system for a restaurant to enhance customer experience and retention. The system will store customer details, order history, and apply automatic discounts on special occasions.

* + Scope

The system will:

* Maintain a customer database with details such as name, contact information, birthday, and special occasions
* Log order details, including:

Items ordered

Date and time of the order

Total bill amount

Apply a 50% discount when a registered customer places an order on their birthday or special occasion

* + Definitions, Acronyms, and Abbreviations
* CMS-Customer Management System  
  SRS-Software Requirements Specification  
  DBMS-Database Management System
  + References
    - Scenario document (uploaded image)
    - Standard software engineering principles

1. **Overall Description**
   * **Product Perspective**

This system will be an independent web or mobile based application used by restaurant staff to manage customer orders and loyalty programs

* + User Classes and Characteristics

**Admin/Manager**-Can manage customer records, view order history, and set special occasion discounts.

**Cashier**-Places orders and checks applied discounts

**Customer (Registered)**-Can avail discounts on special occasions.

* + Operating Environment
    - Web based system running on Windows, macOS, and mobile browsers
    - Database: MYSQL/PostgreSQL
    - Backend: JavaPython/PHP
    - Frontend: React/angular/HTML-CSS-JS
  + Constraints
    - The system must ensure accurate discount application only on valid special occasions.
    - The database must securely store customer information following privacy policies.
    - Scalability should be ensured for handling multiple users simultaneously.
  + Assumptions and Dependencies
    - * Customers need to register with correct details.
      * Orders must be logged in real-time.
      * The system must integrate with the restaurant’s billing system

1. **Specific Requirements**
   * Functional Requirements

Customer Management

* + - The system shall allow restaurant staff to add, update, and delete customer records.
    - The system shall store name, contact details, birthday, and special occasions for each customer.

Order Processing

The system shall allow staff to log customer orders with:

* Items ordered
* Date and time
* Total bill amount

The system shall retrieve previous orders for a customer.

Discount Application

The system shall automatically apply a 50% discount on the total bill if:

* The customer is registered.
* The order date matches their birthday or a registered special occasion.
* The system shall ensure that discounts are applied only once per special occasion.

Security and Access Control

* Only authorized users (admin/cashier) can access customer and order details.
* Customer data must be encrypted to ensure privacy.
  + Non-functional Requirements
    - The system shall process orders in less than 2 seconds.
    - The system must support at least 1000 active customers.
    - The system must ensure data security using encryption (AES-256).
    - The system should provide a user-friendly interface.

1. **External Interface Requirements**

User Interfaces

* Web-based dashboard for restaurant staff.
* Mobile compatibility for easy access.

Hardware Interfaces

* The system will work on desktop, tablets, and mobile devices.

Software Interfaces

* Database: MySQL/PostgreSQL
* Backend API: RESTful API for integration

1. **Other Requirements**

* Regular backups to prevent data loss.
* Logging system for tracking discount application.