Software Requirements Specification

For

Online Food Ordering and Management System

Version 1.0

Prepared by Harshita Gupta
Anjasha Shri Singh
Ritunjaya Singh

Manipal Institute of Technology, Manipal

7th September 2023

Table of Contents

Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

This document presents a detailed explanation of the objectives, features, user interface and application of Online Food Ordering and Management System in real life. It will also describe how the system will perform and under which it must operate. In this document it will also be showing the user interface. Both the stakeholders and the developers of the system can benefit from this document.

1.2 Document Conventions

No special conventions have been used. All the information provided is given in general terms without use of any acronyms and abbreviations. Most of the provided details mark point out all the functions and features for the working of the system.

1.3 Intended Audience and Reading Suggestions

This document is intended for different types of readers such as interface user, system designer, system developer and tester. By reading this document a reader can learn about what the project is implemented for and how it will present its basic ideas.

1.4 Product Scope

This system will help to manage and run the restaurant business systematically. In this management system, the customers will be able to order food and the administrator will be able to look up all the analytical data. Customers can also make payment through the management software. Our online food ordering and management system is a digital platform designed to facilitate the seamless ordering of food through restaurants. Users can access the platform through web application. The system will encompass customer-facing interfaces for placing orders, browsing the menu and for the admin the logistics of orders placed.

1.5 References

www.google.com – world's information

www.wikipedia.com – free online portal of information

www.cnet.com – technology portal

2. Overall Description

2.1 Product Perspective

An Online Food Ordering System revolutionizes restaurant operations by automating various processes. Customers can conveniently place orders online, reducing manual order-taking and minimizing errors. Automated billing and payment processing enhance transaction efficiency, reducing waiting times and billing errors.

This system generates comprehensive reports from transaction data, offering valuable insights. The system's flexibility allows for easy menu updates, keeping offerings fresh and adaptable to changing customer tastes.

Whether it's a small café or an upscale fine-dining establishment, the system adapts to the restaurant's specific needs, ensuring effectiveness across various types of establishments. Additionally, some systems enable customer feedback, fostering engagement and connection. Reviews and feedback provide insights into food and service quality, driving improvements. In conclusion, an Online Food Ordering System enhances efficiency, empowers data-driven decision-making, and promotes customer engagement, making it an invaluable tool for modern restaurant management.

2.2 Product Functions

- *User Registration and Authentication.*
- *Restaurant Listing and Search.*
- *Menu Display with details and images.*
- *Food Ordering and customization.*
- *Secure Checkout and Payment.*
- *Order Confirmation and Real-time Tracking.*
- *User Reviews and Ratings.*
- *User Profiles and Order History.*
- *Restaurant Owner Interface for menu and orders.*
- *Admin Panel for platform management.*
- *Notifications for order updates and promotions.*
- *Customer Support Channels.*
- *Geolocation Services for location-based features.*
- *Advanced Search and Filtering.*
- *Recommendation Engine for personalized suggestions.*
- *Promotions and Loyalty Programs.*
- *Multi-Language and Multi-Currency Support.*
- *Accessibility for users with disabilities.*

2.3 User Classes and Characteristics

The Food Ordering System simplifies the process for customers to place orders conveniently through Wi-Fi. Administrators have control to edit menu prices and monitor overall restaurant performance, making it a streamlined solution for restaurant management.

2.4 Operating Environment

Operating System: Minimum Windows XP, Windows VISTA or MacOS.

Better environment Windows 7, 8, 8.1, 10, MacOS 11 and above

It is needed to use web browser to place food order in this system. Which will run on any operating system.

2.5 Design and Implementation Constraints

There are some constraints which cost more for the system. If those constraints can be overcome, then this whole system will perform best. They are-

- *Mac and Windows Web Browser*
- *Information flow or data flow can be controlled and more effective.*
- *Faster server system such as database server.*

2.6 User Documentation

It will provide specific guidelines to a user for using the Online food ordering system. Furthermore, a presentation will be provided which will represent the whole system function and how it works.

2.7 Assumptions and Dependencies

If this system has an IOS and Windows app then customers who use such a kind of smartphone (windows and iOS) will be more benefited. If there are more Tablets for each table, the whole system performance will be better. For a more secure system it is beneficial to use CC camera and TV.

3. External Interface Requirements

3.1 User Interfaces

The user interface will be implemented using any MacOS and Windows web browser. This interface will be user friendly. So that every kind of customer can place the food order easily. Customers can also give feedback through it easily with some demo comment or if they are keen to write their review by themselves, they can do it.

3.2 Hardware Interfaces

- *Customers: Our Online Food Ordering System offers flexibility in bill handling - customers can choose to print a hard copy or handle it manually. Payments from bill readers are entered manually for checkout, and order status is conveniently displayed on-screen for tracking.*
- *Administrator: Our system connects with hardware devices like bill printers for customer bill handling. It allows manual entry of bill reader payments and offers efficient on-screen order management, enhancing restaurant operational control.*

3.3 Software Interfaces

For Database services system shall use to Firebase latest version. System will run on android version above or equal to marshmallow 6.0 System shall use v4 support library Print Helper for connecting to the printer if necessary(optional) or it can be done manually.

3.4 Communications Interfaces

This is a web application, and it will communicate with Firebase (which is a storage server provided by Google for android developers). Firebase uses HTTP protocol for communication, so our device will follow HTTP protocol when connecting to Firebase.

4. System Features

4.1 User Management

4.1.1 Registration and Login

- Customer registration through the website.
- Customer login functionality for account access.

4.1.2 User Database

- Storage of customer data in a secure database.

- Ability for admin to manage and look up registered users.

4.2 Menu Management

4.2.1 Menu Updates

- Efficient addition, editing, and removal of menu items.
- Modifying food categories for organizational purposes.

4.2.2 Order Management

- Quick search functionality for orders by order IDs.
- Access to reports summarizing order data for decision making.

4.3 Customer Interaction and Convenience

4.3.1 Menu Browsing

- User-friendly interface for browsing menu items.
- Menu filtering by categories for easier selection.

4.3.2 Ordering Process

- Adding items to the cart for easy order placement.
- Secure online payment integration for convenient transactions.

4.3.3 Customer Feedback

- Built-in feedback mechanism for customer-admin communication.

4.3.4 Order History

- Access to a history of previous orders and payment records for tracking and reference.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

- *The product will be based on local server.*
- *The product will take initial load time.*
- *The performance will depend upon hardware components.*
- *Payment system will be fully secure through POS system.*
- *Different database for employee.*

5.2 Safety Requirements

- *The source code developed for this system shall be maintained in configuration.*
- *The whole system is secured. Only Admin can access all the data.*
- *This system will use HTTPS. Because of this protocol this is more secure.*
- *This system will use secured POS system.*

5.3 Software Quality Attributes

- *The system should be easy to use and navigate for both customers and staff. The interface should be intuitive and responsive, with clear instructions and error messages.*
- *The system should be dependable, with minimal downtime or errors. The system should be able to recover from failures quickly and ensure data integrity.*
- *The system should have proper authentication and authorization mechanisms to ensure that only authorized personnel can access the system.*
- *The system should be dependable, with minimal downtime or errors. The system should be able to recover from failures quickly and ensure data integrity.*

5.4 Business Rules

- *The online food order management system should have a standardized menu with fixed prices for each item. This helps in streamlining the ordering process and avoids confusion among customers.*
- *The online food order management system should have a standardized process for accepting payments, issuing bills, and tracking sales.*
- *Encourage user feedback and specify how customer suggestions and complaints will be addressed and incorporated for continuous improvement.*

Appendix A: Glossary

SRS: Software Requirements Specification

MySQL: My Structured Query Language

HTML: Hypertext markup language

CSS: Cascading Style Sheets

PHP: Hypertext Processor

RAM: Random Access Memory

DBS: Database System

DBMS: Database Management System

GUI: Graphical User Interface

.NET: Network Enabled Technologies

GHz: Gigahertz

GB: Gigabytes

ID: Identification