Software Requirement Specification Document for Restaurant Reservation Web Application

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Table 1: Document version history

Version	Date	Reason for Change
1.0	17-April-2023	SRS First version's specifications are defined.
2.0	20-May-2023	Added missing tables and fixed layout
3.0	3-June-2023	Added Team Number

GitHub: https://github.com/Mark-S2004/Maestro-food-truck-website

Contents

Abstract

The specifications for creating a website for online food ordering are laid forth in this paper. Users will be able to browse, order, and pay for food from a variety of eateries via the website. Restaurant owners will be able to modify their menus, follow orders, and handle payments through the website. The technology will be made to be both safe and simple to use. It will have the capacity to manage several users and orders. Also, the system will be expandable to handle future expansion.

1 Introduction

The Food Website is an online tool that lets people search for, order, and review food products. Restaurants and food enterprises can display their items, take orders, and maintain their menus on the website. The website promises to give users a smooth experience when ordering food.

1.1 Purpose of this document

This document's goal is to give readers a high-level overview of the Food Ordering website project, along with a full breakdown of the project's functional and non-functional requirements, as well as the design and limitations that this system must adhere to. The internal (developers, supervisors) and external (end users) stakeholders of the project are the focus of this document. This document is only available on the grounds of ASUFE CESS. The project is carried out under the direction of the instructors for the CSE334 course.

1.2 Scope of this document

This SRS document

- Outlines the essential features that must be developed for the CSE334 website project.
- Provides instructions for using the linked procedures and functional and non-functional requirements.
- Describes the project's final deliverables.
- Identifies the stakeholders who are involved.
- Outlines a schedule for the project's timeline.

1.3 Business Context

1.3.1 Project Overview

Customers will be able to explore and order food from a variety of restaurants and food enterprises using our food ordering website. The website will have facilities for menu browsing, food selection, order placement, and safe online payments. It will also be user-friendly.

1.3.2 Stakeholders

- Customers: Individuals or groups who want to order food online for delivery or pickup.
- Restaurants and Food Establishments: Partners who will provide their menus and food offerings on the website.
- Delivery Personnel: Individuals who will deliver orders to customers.
- Website Administrators: Individuals who will manage the website's operations, maintain restaurant partnerships, and ensure customer satisfaction.

1.3.3 Business Goals and Objectives

Our business goals and objectives are to:

- Provide customers a platform that is simple to use and intuitive so they can browse menus, choose foods, and place orders with ease.
- By collaborating with a variety of eateries and food businesses, we can increase the number of our customers.
- Simplify the administration of restaurant orders to ensure prompt client delivery.
- Boost customer satisfaction with effective and trustworthy delivery services.

1.3.4 Project Success Criteria

The success of this project will be measured by the following criteria:

- Improved customer retention and user engagement.
- Positive reviews from clients and affiliated restaurants.
- An increase in the volume of orders processed and the amount of money made.
- Minimum errors or delays in the order handling and delivery operations.

2 Similar Systems

2.1 Academic

The development of web applications and online ordering platforms additionally has had an effect on the food business. McDonald's Online Ordering, which enables customers to make orders for pickup or delivery through the McDonald's website or mobile app , is an example of a comparable system. Customers can personalize their orders and make payments online, which streamlines and expedites the ordering process. Burger King's Mobile Ordering, which enables consumers to place orders and pay through the Burger King app [1], is another comparable approach. To improve the client experience, the app also includes features like order customization and location-based offers. Another system that lets clients place orders for pickup or delivery using their website or mobile app is Five Guys Online Ordering [2]. Customers can check nutritional information, edit their orders, and make payments online. In conclusion, there are a number of comparable online ordering platforms for fast food that provide clients with quick and easy ordering options. To improve the consumer experience, these systems include functions including customization, online payment, and order tracking.
To identify the features that are most important to users: A study by Sanandra and Balakrishnan Nair [3] found that the most important features for users of food ordering websites are the ability to easily browse menus, the ability to quickly and easily place orders, and the ability to track the status of their orders.

2.2 Business Applications

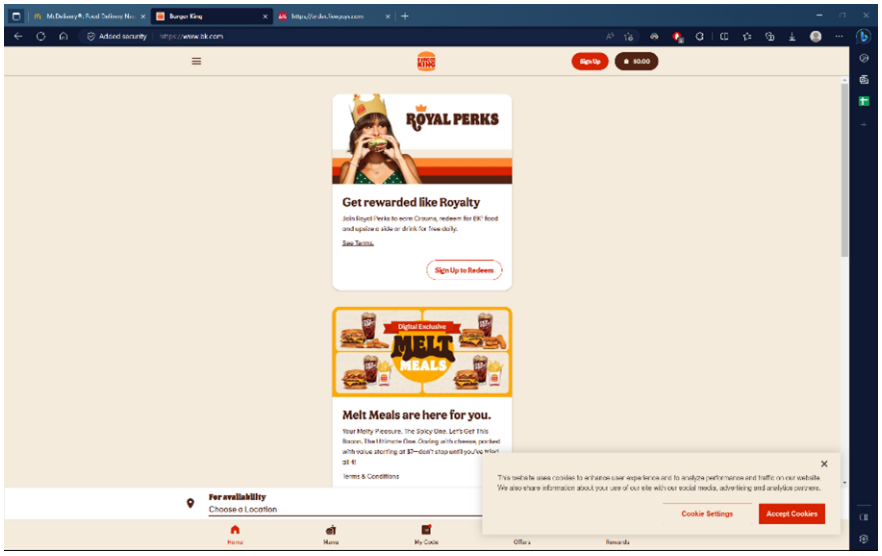

Figure 1: Burger King's Website

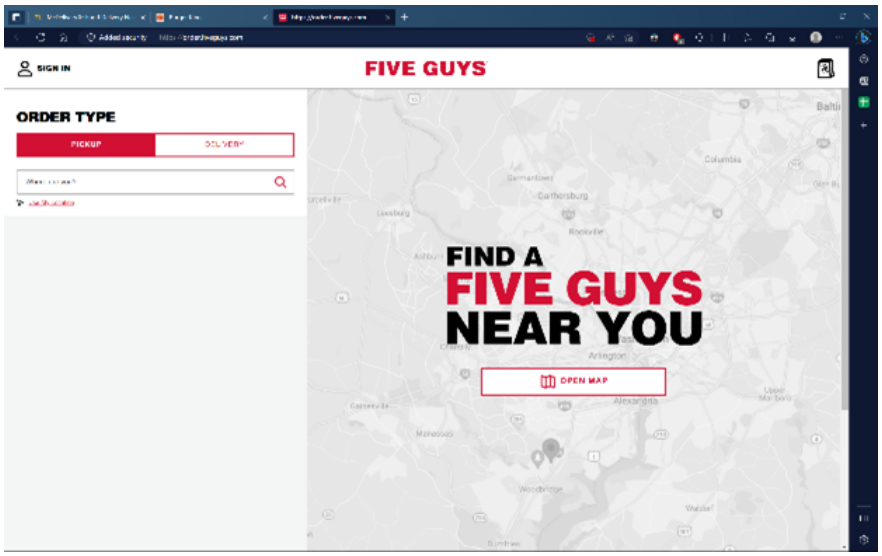

Figure 2: Five Guys' Website

3 System Description

3.1 Problem Statement

Burger trucks face a number of challenges, including long wait times, difficulty collecting feedback, and high marketing costs. A user-friendly website can help to address these challenges. By allowing customers to pre-order food and rate their experiences, a website can improve the customer experience and make it easier to collect feedback. Additionally, a website can be used to promote the burger truck's business and reach a wider audience, which can help to reduce marketing costs.

3.2 System Overview

Our Maestro burger website offers customers the technology they need to connect with the workers on the burger truck easily.

3.3 System Scope

- Easy communication between the customer and the burger truck workers
- Fast delivery
- Choosing from the whole menu easily with the click of a button
- A smart shopping cart to store all the customer's order

3.4 Objectives

- To reduce the number of clicks it takes for a user to reach the highest traffic page that the majority of our website users regularly visit (the member directory) from any point on the site to 2 clicks or less by the end of our design phase.
- Make the website user-friendly, intuitive and easy to use for all users, especially teens and youth. The web application should minimize the user's memory load by, for example, using the appropriate menu bar and showing a breadcrumb navigation bar when an appropriate
- Design a visually appealing and aesthetic hero page, that grabs the user's attention and attracts the user to the call-to-action button (Order button)
- Add a help feature where the client can chat or call customer service to resolve any issues
- Make website system status visible on any web page by adding micro-interactions like animations to buttons, links,...etc. to show feedback on user actions
- Use a design system to maintain consistency across the web application
- Make the web application responsive for any screen size
- Comply the web design to Jakob Nielsen's 10 Usability Heuristics for UI design
- Write the SDD document
- To write the SRS document to meet with IEEE 830-1998 standard. SRS document will be delivered.

3.5 User Characteristics

This website targets customers who have problems communicating with phone or annoyed with poor communication services and slow delivery. With the new website all these problems will be solved cause everything will be executed with just the click of a button.

4 Functional Requirements

4.1 System Functions

4.2 User Registration and Login

User registration and login capabilities will be available on the website. To explore and order food, users will be able to login and create an account on the website.

4.3 Menu Management

Restaurants and food businesses will be able to add and manage their menu items. They will be able to add new items, update existing items, and remove items from the menu.

4.4 Order Management

The website will allow users to place orders for food items. Restaurants and food businesses will receive order notifications and manage the status of the orders. Users will be able to view the status of their orders and receive updates on their order status.

4.5 Reviews and Ratings

Users will be able to leave reviews and ratings for food items. Reviews and ratings will be visible to other users and will help in the decision-making process for ordering food items.

4.6 Payment Gateway Integration

The website will integrate with a payment gateway to allow users to make payments for their orders.

5 Design Constraints

5.1 Technology Constraints

The website will be developed using HTML, CSS, and JavaScript for the front-end and Node.js for the back-end. The website will use a MySQL database to store data.

5.2 Time Constraints

The website should be developed and deployed within a timeframe of 6 months.

5.3 Design for Responsiveness

The website should be responsive on devices with various screen sizes.

5.4 Easy Navigation

The website should have menus that are simple to understand and have well-defined page structures.

5.5 Accessibility

The website must be created so that individuals with disabilities, such as those who are deaf, hard of hearing, or have mobility issues, can use it.

5.6 Consistent Colour Scheme, Fonts, and Visual Elements

The website should adhere to the branding standards of the burger truck.

5.7 Mobile Optimisation

The website needs to have quick load times, less scrolling, and big fonts in order to be accessed on mobile devices.

5.8 Search engine optimisation

The website should be search engine optimised, using keywords, meta descriptions, and alt tags, among other techniques.

5.9 Social Media Integration:

The website ought to offer social media integration features so that users may share content, like pages, and follow people on various social media networks.

5.10 Security

For online orders, the website should have a secure payment channel and sufficient SSL encryption.

5.11 Customer Reviews

Customers should be able to easily write reviews or feedback on the website.

5.12 Scalability

The website needs to be scalable in order to support the expanding clientele and prospective growth into new areas or cities.

6 Non-functional Requirements

The design, structure, content, and technological stack used for the website, as well as the hosting environment and the amount of visitors visiting the website concurrently, all affect how well our burger truck's website performs. The website will ideally load quickly, have an effortless user interface, and have a responsive design that functions well on many devices. In order to safeguard user data and guard against cyberattacks, it should also have strong security mechanisms in place. In terms of the number of users and concurrent requests that the website should handle, it largely depends on the size of the burger truck, its marketing strategy, and the level of online traffic it expects to generate. As a general guideline, the website will be able to handle at least a few hundred concurrent users and requests. Furthermore, The success of your website can be made or ruined by its usability. Visitors are not likely to return if their experience is negative. Therefore our website will be aware of the best practices for website usability like navigation, the website will have an easy-to-navigate menu. The menu should be self-explanatory and not require users to guess what they are ordering. Also, in terms of usability the website will be user and mobile friendly. Also making the order replacement process simple and easy to follow for the users. Of course the speed and how long the website will load for the users is important to be quickly as possible as the customer may lose interest if it takes too long for the website to load. Compatibility of a website has two aspects firstly, browser compatibility which is defined that the website must be compatible with various web browsers such as Chrome, Firefox, Internet Explorer, and Safari. Secondly, device compatibility which is defined that the website must be compatible with different devices such as laptops,desktops, tablets, and smartphones.

7 Operational Scenarios

7.1 Initial assumption

The user login or registers on to the site, searches for the desired sandwich in a specific place in the menu, adds it to the shopping cart, and wants to inquire about it via chat.

7.2 Normal

The user searches for the the desired sandwich or what he wants to eat in general from the menu he has, and after finding it, he must order it via phone and wait for the truck workers to answer him and he will also deal with poor and slow delivery and poor communication with the workers.

7.3 What can go wrong

When the user orders via phone the worker might mishear the order leading to delivering the wrong order. Also the workers due to high traffic on phone they might not respond to all customers leading to poor communication with the customers and bad rating to the truck.

7.4 System state on completion

The user enters without any problems and searches for what he wants, and adds it to the shopping cart. After reviewing his order online without the need to call the truck, he communicates with the customer service to inquire about it if he has any questions, Then he confirms and orders his food.

8 Future enhancements

8.1 Integration with Delivery Services

The website can be integrated with delivery services to provide users with delivery options.

8.2 Loyalty Program

A wonderful strategy to promote repeat business is to reward loyal clients with a loyalty program. Customers can use a point system to accumulate points for each purchase they make, which they can then exchange for food or other prizes.

8.3 Integration of social media

Keeping consumers informed about the most recent menu items, location changes, and promotions would be made easier by integrating the truck's social network profiles into the website. Additionally, this would enable the vehicle to reach a larger audience and improve its internet visibility.

8.4 Mobile Optimization

Given that the majority of people visit websites through smartphones, it is imperative to make sure the website is optimized for mobile usage. The truck can enhance the user experience and raise client engagement by making the site mobile-friendly.

8.5 User Recommendations

The website can provide users with personalized recommendations based on their order history and preferences.

8.6 Customization

If the website had a customization tool, users may create their own burger or sandwich. Customers would have greater control over their meals and would have a distinctive experience as a result.

9 Conclusion

The Food Website will provide users with a seamless food ordering experience and will help restaurants and food businesses to manage their menu and orders. The website will be developed using modern web technologies and will provide a secure and user-friendly interface. The website will be scalable and can be enhanced with additional features in the future.

10 Project Plan

Table 2: Task Distribution for the Restaurant Reservation Web Application

ID	Task name	Description	Start date	Duration	Assigned team member
1	Define project requirements	Gather and document the requirements for the restaurant reservation web application.	2023-03-01	2 days	Mohamed Hossam
2	Proposal document	Prepare a document outlining the project scope, goals, and major features.	2023-03-03	3 days	All Team
3	Cart Page	Develop a web page to manage items added to the cart.	2023-03-06	3 days	Mark Saleh
4	Homepage	Design and create the main landing page of the website.	2023-03-08	3 days	Mohamed Hossam
5	Menu page	Build a page displaying the restaurant's menu and options.	2023-03-14	4 days	Youssef Hany Emil Ayad
6	Checkout page	Create a page for users to review and complete their order.	2023-03-27	6 days	Youssef Ahmed Khatab

Table 3: Task Distribution for the Restaurant Reservation Web Application part 2

7	SRS document	Prepare a Software Requirements Specification document.	2023-04-04	5 days	All Team
8	Sign in page	Design and implement a page for user login/authentication.	2023-04-17	3 days	Ahmed Tarek
9	Sign up page	Create a page for new users to create an account.	2023-04-20	4 days	Ahmed Tarek
10	Backend	Develop the server-side functionality of the application.	2023-05-13	6 days	Mark Saleh
11	Backend	Continue development of server-side features and logic.	2023-05-15	4 days	Ahmed Tarek
12	SDD document	Develop a Software Design Document detailing the system.	2023-05-15	5 days	Youssef Ahmed Mohamed Hossam
13	SRS document	Enhancements to SRS document.	2023-05-19	1 day	Mohamed Hossam

References

[1] *Burger King's Mobile Ordering*. URL: `https://www.bk.com/mobile-app`.

[2] *Five Guys Online Ordering*. URL: `https://www.fiveguys.com/order`.

[3] R. F. Sanandra and P. Balakrishnan Nair. "E-loyalty towards mobile applications in online food ordering business model". In: *Impact of Globalization and Advanced Technologies on Online Business Models*. 2021, pp. 264–278.