Student: Daniel Darsamo

4th year Computer Science

University Of Saint Thomas Mozambique

Lecturer : Lars Albino Lemos

School canteen Website

Advanced Web design Technologies

Contents

[Requirements Document for the School Canteen Ordering Website 2](#_Toc194013849)

[Introduction 2](#_Toc194013850)

[User Journey and Experience 2](#_Toc194013851)

[Key Features and Functional Requirements 3](#_Toc194013852)

[User Notification and Engagement Features 3](#_Toc194013853)

[Administrative Capabilities and System Management 3](#_Toc194013854)

[Testing and Accessibility Considerations 4](#_Toc194013855)

[Conclusion 4](#_Toc194013856)

# Requirements for the School Canteen Ordering Website

# Introduction

The school canteen requires a modern and efficient digital ordering system to streamline meal purchases. This web-based platform will allow students and staff to browse the available menu, place orders, and receive notifications when their food is ready for pickup. The goal is to reduce waiting times, improve order accuracy, and enhance the overall user experience. The system will be accessible via a QR code that directs users to the website, ensuring ease of use without the need for downloading an app. Additionally, to enhance user engagement, a notification system with optional vibration feedback will inform users when their order is ready for collection.

# User Journey and Experience

Users will begin by scanning a QR code placed around the school canteen, which will automatically open the website on their mobile browser. Once on the website, they will be presented with a visually appealing and intuitive menu that categorizes food and beverage options into sections such as Meals, Drinks, and Sweets & Extras. Each item will be displayed with a high-quality image, a brief description, and pricing details. Users will have the ability to select items by tapping on them, adjusting quantities as needed. The total cost of the order will be dynamically updated in the shopping cart to ensure transparency before checkout.

Once the user finalizes their selection, they will proceed to the order confirmation page. Here, they will review their order summary and confirm their purchase. Upon placing the order, a confirmation message will appear on the screen, reassuring the user that their request has been received and is being processed. The system will then notify the canteen staff, who will prepare the meal accordingly.

When the order is ready for pickup, the system will send an instant notification to the user’s device. If the device supports web push notifications, a message will pop up indicating that the order is ready. Additionally, for users on supported mobile devices, the system will trigger a brief vibration as a subtle but effective alert, ensuring they do not miss the notification.

# Key Features and Functional Requirements

The system must be **visually appealing and designed with a mobile-first approach**. The interface should be clean, modern, and easy to navigate, featuring large, touch-friendly buttons and clear typography to ensure accessibility for all users. The menu should be well-organized, with different food categories clearly displayed, allowing users to quickly find and select their desired items. A **search function** may be integrated to further enhance the ease of navigation.

To improve operational efficiency, the platform will include a **real-time order management system for canteen staff**. This will enable them to view incoming orders, track their preparation status, and mark them as “Ready for Pickup” once completed. The system will automatically trigger a **notification to the user** at this stage, informing them that they can collect their meal from the counter.

**Security and performance** are essential considerations in the development of this system. The platform must operate over a **secure HTTPS connection** to protect user data and transactions. Additionally, it should be **optimized for fast performance**, ensuring that images and other content load quickly, even on slower network connections.

# User Notification and Engagement Features

One of the most critical aspects of the system is the **notification process**, ensuring that users receive real-time updates when their order is ready. The system will implement **web push notifications**, which allow messages to appear directly on the user's device screen. This ensures that even if the website is not actively open, users will still receive an alert.

To further enhance the notification experience, the system will also support **haptic feedback (vibration notification)** on compatible devices. When an order is ready, the user’s phone will vibrate briefly to catch their attention. This feature is particularly useful in noisy environments where users may not hear a standard notification sound. If a user’s device does not support this functionality, they will still receive a **visual notification** as a fallback.

# Administrative Capabilities and System Management

The platform will include an **administrative interface for canteen staff** to manage menu items, pricing, and stock availability. Staff will be able to **update the menu in real time**, ensuring that only available items are displayed to users. This prevents issues where users attempt to order items that are out of stock.

Additionally, the system should provide **analytics and reporting tools** to help the canteen monitor sales, track peak ordering times, and understand customer preferences. This data will be valuable in **optimizing food preparation schedules** and **minimizing waste**.

# Testing and Accessibility Considerations

To ensure the platform delivers a seamless experience, it must be **tested across various mobile devices and web browsers**. Since the primary audience consists of students and school staff, the platform should work smoothly on commonly used mobile operating systems such as **Android and iOS**. Special attention must be given to testing **web push notifications and vibration alerts** to confirm they function as expected.

**Accessibility** is also a priority, ensuring that the website can be used by individuals with disabilities. The design should include **high-contrast color options**, **properly labeled buttons for screen readers**, and **alternative text for all images**. The ordering process should be straightforward and require minimal steps to complete.

# Conclusion

This **web-based ordering platform** will revolutionize the school canteen experience by making food ordering faster, more efficient, and user-friendly. By eliminating long queues and integrating **real-time notifications**, it will create a **more convenient and enjoyable experience** for students and staff alike. With an **intuitive design, secure transactions, and advanced notification features such as vibration alerts**, the system is set to become an **essential tool in improving the overall efficiency** of the school’s food service operations.