**APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES**

Semester Project

SELF ORDERING FOOD SERVICE

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**Introduction**

"Welcome to our semester project! This interactive project will involve building a simplified version of a self-ordering software inspired by McDonald's. It's designed to offer practical exposure to essential tools and technologies used in web development. Throughout this project, we'll be employing Figma for planning purposes, implementing software engineering principles, and working with HTML, CSS, JavaScript, and GitHub."

**Purpose**

The purpose of a restaurant self-ordering software is to streamline the process of ordering food by allowing customers to place orders using digital interfaces such as kiosks, tablets, or mobile apps instead of interacting directly with restaurant staff. It aims to enhance the customer experience, improve order accuracy, reduce waiting times, and increase operational efficiency for the restaurant.

**Defining the Target Audience:**

* **Customer:** Self-ordering software primarily caters to restaurant patrons who prefer the convenience and autonomy of placing orders independently without having to wait for a server. This technology is appealing to customers who are tech-savvy, value speed and convenience, and may feel more comfortable using digital interfaces.
* **Restaurants and Food Service Businesses**: The software serves as a tool for restaurants, cafes, fast-food chains, and other food service businesses seeking to modernize their operations. It helps streamline order processing, reduce human error in order taking, improve order accuracy, and potentially increase overall sales by making the ordering process more efficient.
* **Owners and Managers**: Restaurant owners and managers benefit from self-ordering software by optimizing staff resources, reducing labour costs, and gaining insights into customer preferences and ordering patterns through the data collected by the software. They can analyze this data to make informed decisions about menu offerings, pricing, and operational improvements.
* **Technologically-Enabled Consumers**: Those who are comfortable with technology and prefer self-service options in various aspects of their lives are likely to be the primary audience for this software. This includes younger generations and individuals accustomed to using digital devices for everyday tasks.

By catering to these target audiences, restaurant self-ordering software aims to improve overall customer satisfaction, operational efficiency, and profitability for food service establishments.

**Project Requirements for Project**

The requirements for restaurant self-ordering software can vary based on the specific needs of the restaurant and the type of self-ordering system being implemented. However, some general requirements and functionalities commonly associated with this software include:

* **Intuitive User Interface**: A user-friendly interface is crucial for customers to navigate the menu, select items, customize orders, and complete transactions easily. It should be accessible and intuitive for users of varying technical abilities.
* **Menu Customization and Display**: The software should efficiently display the menu items, including descriptions, prices, images, and options for customization (e.g., add-ons, modifications, dietary preferences).
* **Order Processing:** The system must accurately process orders, confirm selections, and relay them to the kitchen or serving staff promptly.
* **Payment Integration**: It should support various payment methods, including credit/debit cards, mobile wallets, and cash payments, ensuring secure transactions and seamless payment processing.
* **Compatibility and Accessibility**: The software should be compatible with different devices (e.g., kiosks, tablets, smartphones) and accessible to customers with disabilities, complying with accessibility standards.
* **Real-time Updates**: Customers should receive real-time updates on their orders, estimated wait times, and order status.
* **Back-End Management**: Administrative capabilities for restaurant owners/managers to update menu items, prices, descriptions, and manage inventory. It should also provide analytics and reporting features to track sales, popular items, and customer behaviour
* **Integration with Existing Systems**: Seamless integration with other restaurant systems, such as POS (Point of Sale) systems, inventory management, and kitchen management systems.
* **Scalability and Support:** The software should be scalable to accommodate the restaurant's growth and offer reliable technical support for troubleshooting issues or system maintenance.
* **Data Security and Compliance**: Ensuring compliance with data protection laws, encryption of sensitive information, and implementing security measures to protect customer data and payment details.
* **Customer Support and Feedback**: Provision of customer support channels and options for feedback to address any issues, concerns, or improvements customers may have regarding their orders or the system itself.

These requirements collectively aim to create an efficient, user-friendly, and secure self-ordering system that enhances the customer experience while improving operational efficiency and management capabilities for the restaurant.