Food Ordering System

December 1, 2024

1. Introduction

Background

Restaurant management systems are crucial in modern dining establishments, streamlining menu updates and customer ordering processes. This project aims to design a simple, user-friendly application for restaurant operations.

Objectives

The main goals are:

- To provide a menu management system for restaurant administrators.
- To enable seamless order placement and payment confirmation for customers.

Scope

The project focuses on a application suitable for small to medium-sized restaurants. The system allows administrators to manage the menu and customers to place and pay for orders efficiently.

2. Methodology

The project was developed using C++ programming language with the following steps:

1. Design and implementation of menu management features (add, update, remove items).
2. Implementation of order placement and receipt generation functionality.
3. Integration of a payment confirmation system.
4. checking of invalid inputs

3. Project Implementation

Overview

The system was implemented as a application using arrays and functions for modularity. The code supports dynamic updates to the menu and tracking of orders.

Challenges Faced and Solutions

- **Dynamic Data Management:** Firstly, small-size arrays limited number of items selected and choice of food. This was resolved by making array of large size.
- **Input Validation:** Handling invalid user inputs required implementing input validation mechanisms to ensure smooth operations.
- **Formatting Issues:** Ensuring consistent display of menu and receipts was achieved using C++ `iomanip`.

4. Results

Presentation of Code

The code effectively meets the project objectives by:

- Allowing administrators to manage the menu dynamically.
- Enabling customers to place orders and view receipts.
- Providing a seamless payment confirmation mechanism.

Analysis and Comparison with Objectives

The implemented system aligns with the objectives by delivering an efficient and user-friendly solution. All functionalities, including menu management, order processing, and payment confirmation, operate as needed.

5. Summary of Key Points

- Developed a menu management and ordering system using C++.
- Addressed challenges input validation.
- The final product meets the objectives and provides a desired solution for restaurant operations.

6. References

- `https://youtu.be/`$_{PZ}DLFJHO3E?si = lDE2E3A11SCvDZRb - foroverleafunderstanding$