

TEAM NO – 5

PROJECT TITLE – Canteen Ordering System [Dynamic Pricing Based on Demand]

Member Details

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Software Requirement Specification (SRS) Document

Canteen Ordering System [Dynamic Pricing Based on Demand]



1.PROJECT DESCRIPTION

This project is a food ordering system for the PES canteen, combining a **C-based console application** for placing and managing orders with a **visually styled HTML menu** for browsing items. The system allows users to select items after scanning a **QR Code** that leads them to a menu where they select items and the quantity .Finally they receive the order summary and bill which they have to pay to confirm the order. It provides an integrated, user-friendly experience for both digital reference and interactive ordering.

2.PROJECT PURPOSE

The purpose of this project is to make food ordering in the PES canteen easier and faster for students and staff.

The goal is to create a digital system where users can:

- View the canteen menu online by simply scanning a QR Code
- Place and edit orders using a simple program
- Get the final bill automatically

3.PROJECT USEFULNESS/BENEFITS

- **Time-saving:** Speeds up the ordering process and reduces queues.
- **User-friendly:** Easy to use for both students and staff with a clear interface.
- **Accuracy:** Minimizes human error in taking orders and calculating bills.
- **Accessibility:** QR code allows quick access to the system or menu anytime.
- **Flexibility:** Users can review and edit orders before final confirmation.

4.HARDWARE/SOFTWARE INVOLVED

Hardware

- Standard PC/Laptop
- Minimum 2GB RAM
- 500MB disk space

Software Requirements

- Programming Language: C,Python
- Compiler: GCC / Turbo C / Code:Blocks
- Operating System: Windows/Linux/MacOS

5.DETAILED FEATURE LIST

User Module:

- User Detail Register
Users input their name to start the session.
- Browse Menu
Users can view a well-organized, styled HTML menu with item names, types (VEG/NON-VEG), and prices.
- Place Orders
Users can select items using order IDs and specify quantities through the C program.

- Edit Orders
Before confirming, users can modify their order quantities.
 - Final Bill Generation
The system calculates the total bill dynamically based on quantities and any applicable surcharges.
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Admin/Support Module :

- QR Code Generation
A Python script generates a QR code linking to a downloadable version of the menu or ordering system.
 - Menu Display Management (Static)
Menu is designed using HTML/CSS for easy viewing and can be updated manually when needed.
 - Dynamic Pricing System
Prices are adjusted based on quantities ordered.
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6.Test/Demonstration Plan

- **Unit Testing:** Test individual features like name input, order placement, and bill calculation.
- **Integration Testing:** Ensure smooth interaction between user order processing, menu display, and QR code generation.
- **System Testing:** Validate the complete flow from menu browsing to final bill generation.
- **User Acceptance Testing:** Test with sample users to evaluate usability, performance, and QR code access.

7. Expected Interaction Interface and Sample Use Cases

Interaction Interface:

- Console-based UI for the order placement process using simple text commands.
 - Menu-driven navigation allowing users to select items and modify orders.
 - Clear and structured outputs with order details, pricing, and status updates.
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Sample Use Cases:

1. Customer Orders Food

- o User scans QR Code → User enters their name → Browses the menu → Selects items and places the order → Views order summary → Edits order if needed → Confirms the order → Receives final bill.

2. Customer Edits an Existing Order

- o User views the order summary → Chooses to modify quantity of an item → Selects the item to change → Updates the quantity → Confirms the updated order → Receives the updated bill.

3. Customer Views Final Bill

- o User confirms the order → System generates the final bill based on selected items and quantities → Displays the total amount to be paid.

4. Customer Views Menu Using QR Code

- o User scans the QR code → Opens the menu link → Browses the items and prices → Places an order through the console system.

Individual member contribution:

Viren James Fernandes- orderdetails.c, menuqrcode.py, userdetails.c

Vishnu Narayanan A- userdetails.c,menuqrcode.py

Pranav Y V-menu.html, userdetails.c

Varun C H-orderdetails.c,userdetails.c