PARSHWANATH CHARITABLE TRUST'S
A.P. SHAH INSTITUTE OF TECHNOLOGY
Department of Computer Science and Engineering
Data Science

CAFEASE: CAFFETERIA MANAGEMENT SYSTEM

Priyom Ghosh(23107060)
Laxmikant Koli(23107028)
Dev Maru(23107054)
Suman Manik(23107056)

Project Guide
Mr. Praveen Shinde

1. Introduction

A Cafeteria Management System using Python and MySQL can be developed to manage orders, inventory, and customer interactions efficiently. Python handles the user interface, order processing, and inventory management, while MySQL stores and retrieves data such as menu items, prices, customer details, and order history.

- Problem Identified :

1. When multiple users place orders simultaneously, database inconsistencies can occur.
2. Users might enter invalid inputs, like negative quantities or non-numeric values when placing an order. This could lead to incorrect calculations or even system crashes

•Solution Proposed :

1. Implement **stock verification** before order confirmation to prevent overselling.
2. Implement **input validation** to check that:
   Quantity is a **positive integer**.
   Price is a **positive number**.
   Required fields are **not empty**.

2. Objectives

1.To facilitate cafe billing management by allowing users to input orders for various items, calculate totals, and display service charges and taxes.

2.Store Data: Save menu and order details in a database.

3.To automate bill generation and display

4.To maintain records of orders in database and saves bills

3. Scope

1. Can be applied in school cafeterias
2. Can be useful to cafeteria staff, restaurant owners and managers etc.
3. Can be expanded to support online orders and multiple cafeteria branches
4. Can generates bills and supports multiple payment methods.
5. Can be integrated with mobile apps for online ordering.
6. Can enhance security by restricting access to authorized users only.

4. Feature /Functionality

1. QR Generation: To automate bill generation and display.
2. Menu Display: Displays the available menu items with prices using PrettyTable.
3. Order Management: Handles order placement by accepting the customer's choice of dishes and generates a bill.
4. Order History: Enables viewing customer order details

5. Outcome of Project

1.User can place orders easily through an automated system.

2.User can view the menu with prices and availability.

3.User can save bills with accurate calculations, including taxes and discounts.

4.User can receive digital receipts for their orders.

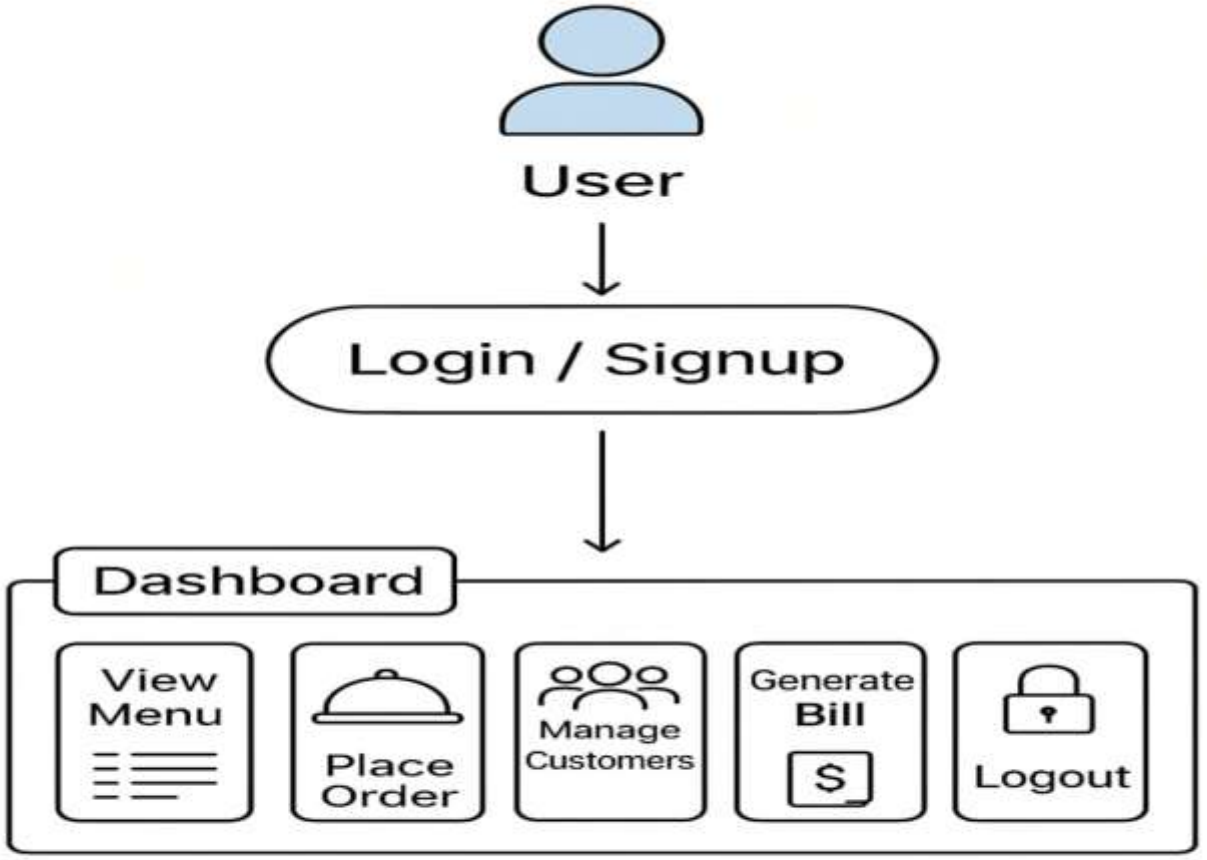
5.User can update the menu by modifying items.

6. Technology Stack

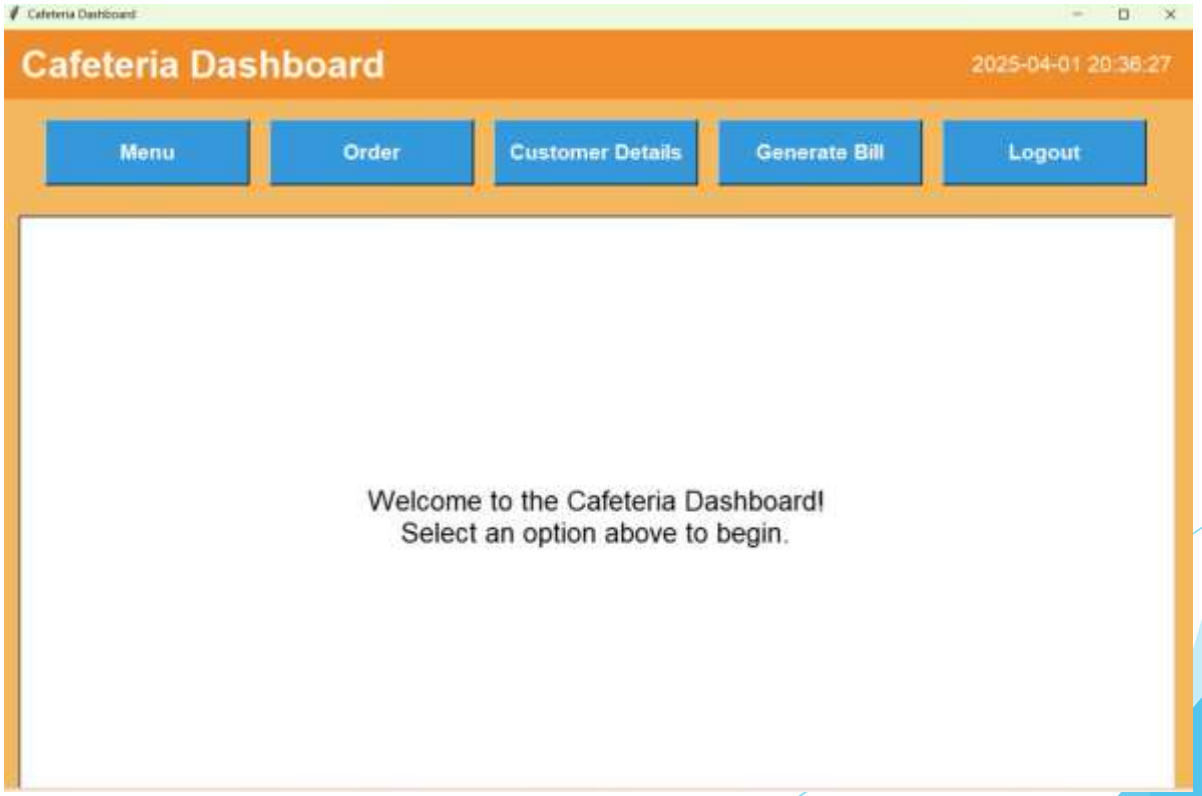
Frontend: Python

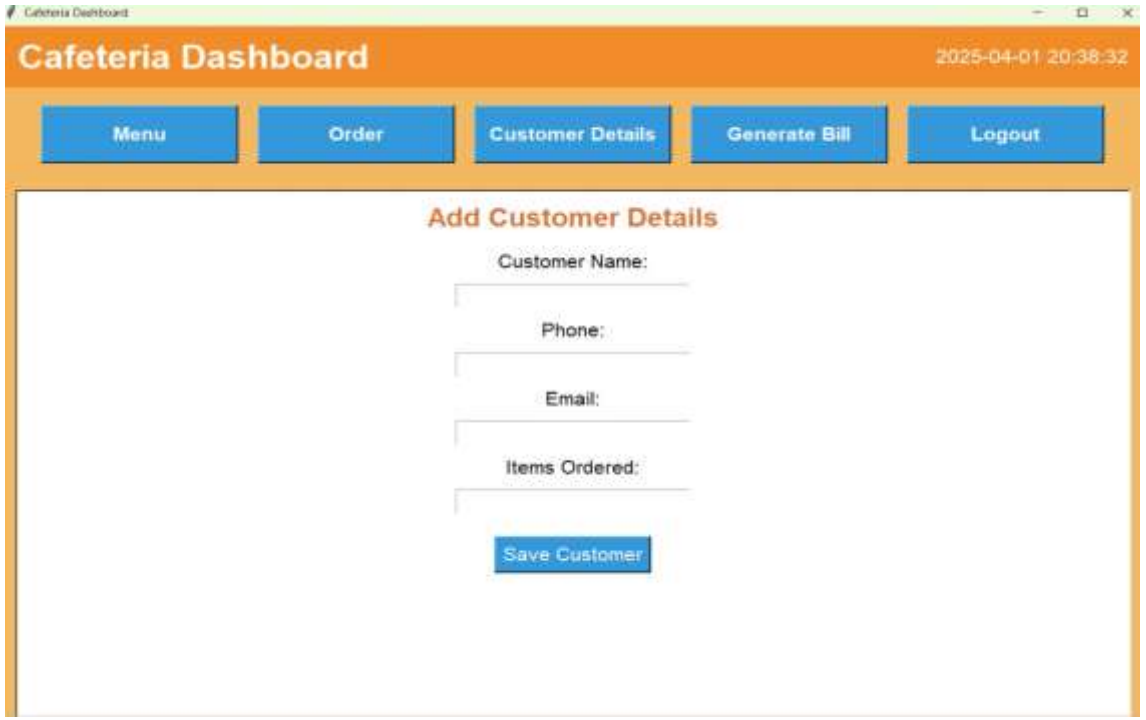
Backend: MySQL

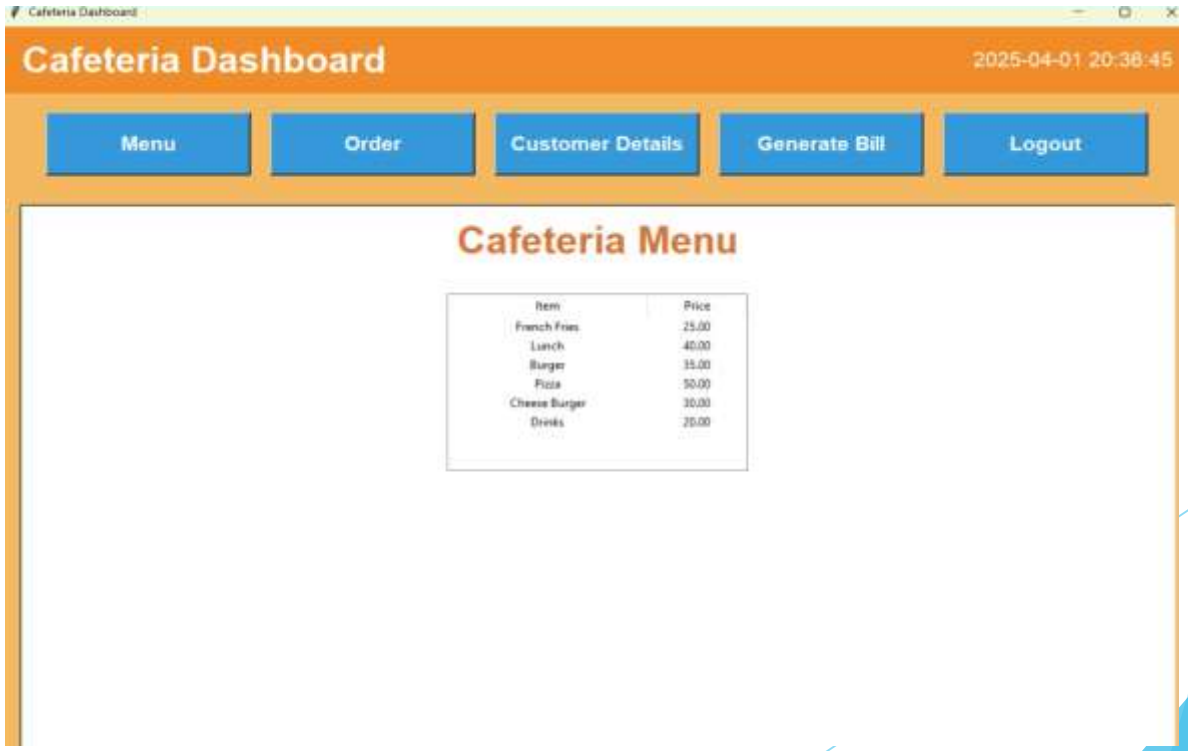
7. Block/Flow Diagram

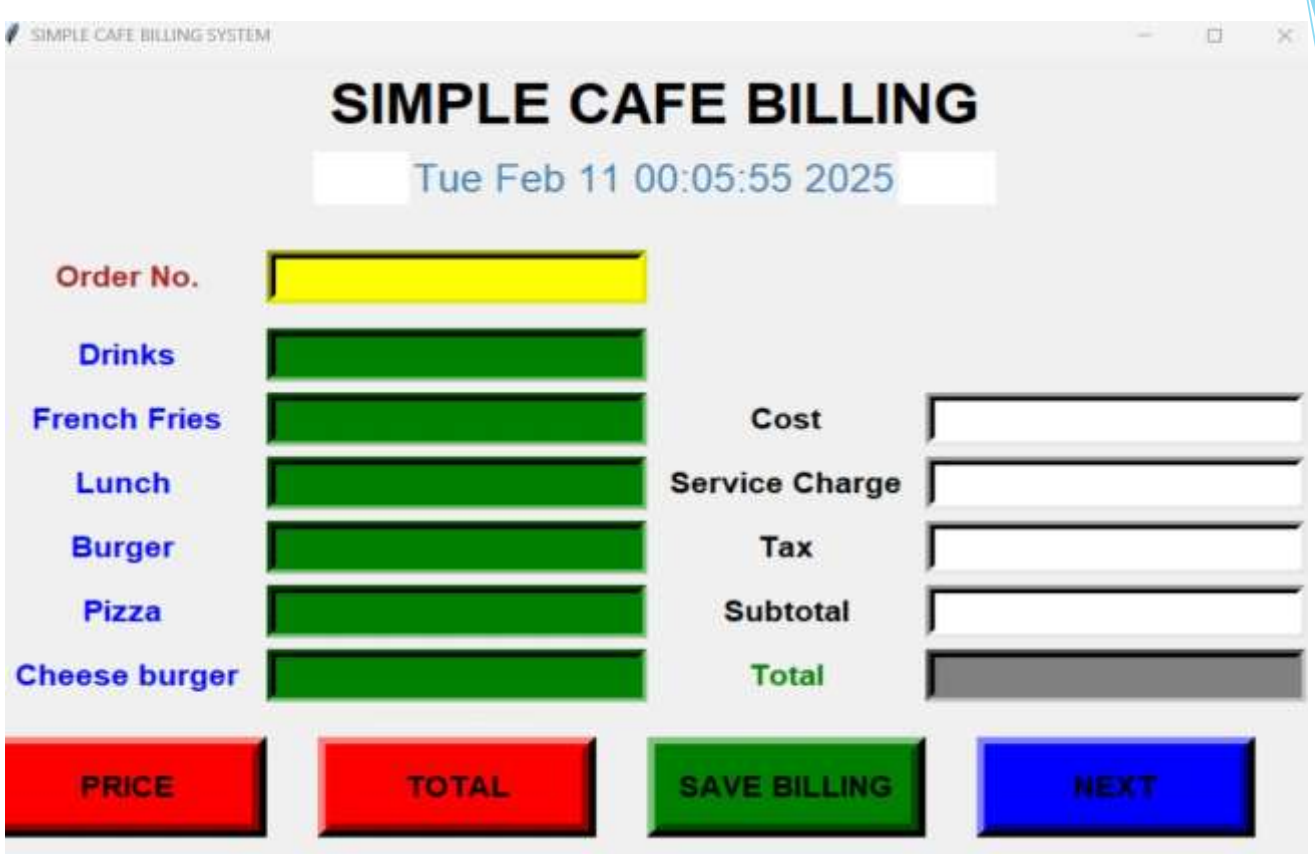


Login System
Login Here
Accountant User Login Area
Username
Password
Show Password
Forgot Password?
Login
Sign Up


Cafeteria Dashboard
Cafeteria Dashboard
2025-04-01 20:36:27
Menu
Order
Customer Details
Generate Bill
Logout
Welcome to the Cafeteria Dashboard!
Select an option above to begin.


Cafeteria Dashboard
Cafeteria Dashboard
2025-04-01 20:38:32
Menu
Order
Customer Details
Generate Bill
Logout
Add Customer Details
Customer Name:
Phone:
Email:
Items Ordered:
Save Customer


Cafeteria Dashboard
Cafeteria Dashboard
2025-04-01 20:38:45
Menu
Order
Customer Details
Generate Bill
Logout
Cafeteria Menu
Item
Price
French Fries
25.00
Lunch
40.00
Burger
35.00
Pizza
50.00
Cheese Burger
30.00
Drinks
20.00


SIMPLE CAFE BILLING SYSTEM
SIMPLE CAFE BILLING
Tue Feb 11 00:05:55 2025
Order No.
Drinks
French Fries
Lunch
Burger
Pizza
Cheese burger
Cost
Service Charge
Tax
Subtotal
Total
PRICE
TOTAL
SAVE BILLING
NEXT

Thank You...!!