

A restaurant management system for Bandera café

Description:

This program is designed to handle all operations and aspects of a breakfast cafe called Bandera Cafe.

- **Restaurant Management (Class: Restaurant):**
 - **Manage Core System Components:** The Restaurant class oversees and manages the entire system. It coordinates components like Menu, Order, Reservation, and Staff. It serves as the main entry point for initializing and managing the restaurant's operations.
- **Menu Management (Class: Menu):**
 - **Add, Update, Remove Menu Items:** The system must allow adding new menu items, updating existing ones, and removing items.
 - **Categorize Menu Items:** Menu items should be organized into categories (e.g., appetizers, main courses, desserts, beverages).
- **Order Management (Class: Order):**
 - **Create and Manage Orders:** Staff should be able to create new orders, add items to orders, update existing orders, and cancel orders.
 - **Order Status Tracking:** Orders should have statuses such as PENDING, IN_PROGRESS, COMPLETED, and CANCELED.
 - **Calculate Order Total:** The system must calculate the total price for each order based on the selected menu items.
- **Customer Management (Class: Customer):**
 - **Store Customer Information:** The system should store basic customer information (e.g., name, contact details).

- **Staff Management (Class: Staff):**
 - **Role-Based Access Control:** The system must restrict access to certain features based on the staff member's role by a login with stored passwords (e.g., Manager, Crew Member).
 - **Manage Staff Information:** The system should store staff information such as name, role, and contact details.
- **Payment Processing (Class: Payment):**
 - **Process Payments:** The system should handle multiple payment methods (e.g., cash, credit card, mobile payments).
 - **Split Bills:** The system should allow customers to split bills between multiple payment methods or individuals.

Extra features:

- **Reservation Management (Class: Reservation):**
 - **Create and Manage Reservations:** The system should allow creating, updating, and canceling reservations for customers.
 - **Assign Table to Reservation:** Reservations should be assigned to available tables automatically or manually, ensuring tables are efficiently managed.
- **Table Management (Class: Table):**
 - **Track Table Availability:** The system should track which tables are available or reserved at any given time.
 - **Manage Table Information:** Each table should have attributes such as table number, seating capacity, and availability status.