

ASSIGNMENT # 02

Topic:

OPP

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**Food Ordering System Documentation**

**1. Introduction**

The "Food Ordering System" project is a Java class project designed to simulate the online ordering of food items from a restaurant. It provides a Gui-based interface for customers to browse through the menu, select their desired items, specify quantity and additional options, and place their orders. The system also calculates the total bill amount and generates an order summary for the customer. Additionally, it includes an admin page for restaurant staff to manage menu items and view orders.

**2. Features:**

**Customer Interface**:

* **Menu Display**: Customers can view the menu categorized into different food categories such as burgers, sandwiches, pizza, and side dishes.
* **Order Placement**: Customers can select items from the menu, specify quantity, and choose additional options such as cold drinks.
* **Order Summary**: After selecting items and confirming the order, the system generates an order summary displaying the selected items, quantity, total bill amount, and additional options.

**Admin Interface**:

* **Menu Management**: Admins can add, update, or remove menu items, specify prices, and categorize items into different food categories.
* **Order Management**: Admins can view a list of orders and update order status (e.g., processing, ready for delivery).
* **Input Validation**: Input data is validated to ensure accuracy and completeness, providing feedback to the customer or admin for any errors or missing information.
* **Continuity**: After completing an order, customers have the option to continue browsing the menu and place additional orders. Admins can efficiently manage menu items and view orders from the admin interface.

**3. Implementation:**

* **Console-Based Interface**: The user interface is implemented using console-based input and output, providing a text-based interface for customers and admins to interact with the system.
* **Data Model**: The application utilizes arrays and ArrayLists to store menu items, ordered items, quantities, and total bill amount.
* **Controller Logic**: Controller classes handle user interactions and application logic, including menu display, item selection, quantity input, order calculation, and order summary generation.
* **Input Validation**: Input data is validated to ensure that only valid options and quantities are accepted, preventing errors and ensuring accurate order processing.

**4. Usage:**

* **Customer Interface**:

Customers can browse through different food categories, select items, specify quantity, and place orders using the text-based interface.

* **Admin Interface**:

Admins can access the admin page to manage menu items and view orders.

They can add, update, or remove menu items, view a list of orders, and update order status efficiently.

**5. Future Enhancements**

* **User Authentication**:

Enhance user authentication mechanisms to include login credentials and user roles for admin access.

* **Database Integration**: Integrate with a database management system (e.g., MySQL) to store and manage menu items, orders, and admin credentials securely.
* **GUI Enhancement**: Develop a GUI interface using JavaFX or Swing for a more visually appealing and interactive user experience.
* **Error Handling**: Improve error handling and user feedback mechanisms to provide clear instructions for resolving issues and completing orders.

**6. Conclusion:**

The "Food Ordering System" project provides a simple and efficient solution for simulating the online ordering of food items from a restaurant. With its console-based interface, robust backend logic, and comprehensive features for customers and admins, the system offers a convenient way to manage menu items, place orders, and view order details.