README

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Classes and Features

1. FoodItem

The FoodItem class represents individual food items available for ordering.

Properties:

- id: Unique identifier for the food item.
- name: Name of the food item.
- category: Category (e.g., "Appetizer", "Main Course").
- price: Price of the item.
- available: Availability status of the item.

Methods:

- **Getters and Setters**: Access and update item properties.
- **toString**: Outputs a formatted string with item details.

2. Menu

The Menu class manages a collection of FoodItem instances and provides functionalities for adding, removing, updating, filtering, and sorting items.

Features:

- **Add Item**: Add a new food item to the menu.
- **Update Item**: Update an existing item's price and availability.
- **Remove Item**: Remove an item by its ID.
- **Display Menu**: Print the current menu, optionally filtered by specific criteria.
- **Filter and Sort**: Filter items by category or sort by price.

3. Order

The Order class represents an individual customer order and tracks the list of ordered items, order status, and total amount.

Properties:

- orderId: Unique identifier for each order.

- items: Map of FoodItem and its quantity.
- total: Total amount of the order.
- status: Order status (e.g., "Pending", "Delivered", "Cancelled").
- **Special Features**:
  - Process refunds.
  - Display order details.
  - Handle customer cancellations and refunds.

4. OrderHistory

The OrderHistory class manages a list of orders and provides options to view, cancel, and search orders.

Features:

- **Add Order**: Add an order to history.
- **Cancel Order**: Mark an order as cancelled.
- **Daily Sales Report**: Generate a report on sales for a specific date.
- **Search Orders**: Find orders by ID or status.

5. Cart

The Cart class handles items added by a customer for potential purchase and calculates the cart total.

Features:

- **Add Item**: Add an item to the cart with specified quantity.
- **Update Quantity**: Update quantity of an existing item.
- **Remove Item**: Remove an item from the cart.
- **Calculate Total**: Compute the total cost of items in the cart.
- **Display Cart**: Print the items and total cost in the cart.
- **Clear Cart**: Empty the cart.

Usage

1. **Adding Menu Items**: Use Menu.addItem() to add items to the menu.
2. **Updating Menu Items**: Use Menu.updateItem() to change item price or availability.
3. **Ordering**: Add items to a Cart, then convert to an Order.
4. **Viewing Orders**: Use OrderHistory.displayOrderHistory() to view all past orders.

5. **Generating Reports**: Use OrderHistory.generateDailySalesReport() to get sales data for a given day.