# Instructions – Midterm Practice – Burger Orders

**Overview:**
This assignment is more of an open-ended practice assignment. The point is to practice making a program that mimics the queue of orders of a burger fast-food restaurant like In N' Out. This practice assignment is (in my opinion) significantly longer than the midterm, but thinking through how to do something like this is great practice in thinking through how to use classes/objects to keep track of things.

**Libraries Suggested:**
- random
    - Might help in making order numbers, but you could do something else.

**Classes Suggested:**
- *MenuItem*
    - Something you can order, like a Double-Double combo
- *Order*
    - Represents the request from a customer. Probably has an order number so you can keep track of it and would include some way of tracking what menu items were included in the order.
- Feel free to add any others if you'd like, or any other functions. Whatever you'd like. You could even add extensions like having an *Entrée* class and a *Side* class that inherit from *MenuItem* if you can think of a reasonable reason to do so.

**Requirements:**

Pretend you were hired to create a prototype system for tracking customer orders in a queue. You were told that the program you write should:
1. Allow the user to see a summary of all current orders in the queue, including the total price of the order.
2. Allow the user to add in a new order to the queue. Orders often have multiple menu items (e.g. you might order a Double-Double meal and a regular hamburger meal in one order).
3. Allow the user to remove an order from the queue once it has been given to the customer.
4. Let the user quit out of the program
5. Not crash when incorrect inputs are provided.

Come up with your own classes and logical flow to solve the problem and fulfill the requirements. To practice for the midterm, make it so none of your methods/functions reference global variables.

**Example Output:**

Below is just an example of how I wrote the program. For some error handling, I used a mix of defensive and exception handling. There are lots of ways to do this, so don't feel locked in to how I wrote it. Write it however you want, but make sure to use classes as part of your solution to make your practice actually useful for the midterm.

```
Currently there are 0 active orders:

Your options are:
1: Add order to queue
2: Remove order from queue
3: Quit program
Please enter a number: 1

Menu Items:
1. Double-Double w/ French Fries and Medium Drink: 8.35
2. Cheeseburger w/ French Fries and Medium Drink: 7.0
3. Hamburger w/ French Fries and Medium Drink: 6.65
Choose a menu item by number: 1
Do you want to add another menu item to the order? Enter y or n: y

Menu Items:
1. Double-Double w/ French Fries and Medium Drink: 8.35
2. Cheeseburger w/ French Fries and Medium Drink: 7.0
3. Hamburger w/ French Fries and Medium Drink: 6.65
Choose a menu item by number: 1
Do you want to add another menu item to the order? Enter y or n: y

Menu Items:
1. Double-Double w/ French Fries and Medium Drink: 8.35
2. Cheeseburger w/ French Fries and Medium Drink: 7.0
3. Hamburger w/ French Fries and Medium Drink: 6.65
Choose a menu item by number: 2
Do you want to add another menu item to the order? Enter y or n: n
Added Order 3634: 3 item(s) for a total of 23.7

Currently there are 1 active orders:
      Order 3634: 3 item(s) for a total of 23.7

Your options are:
1: Add order to queue
2: Remove order from queue
3: Quit program
Please enter a number: 1

Menu Items:
1. Double-Double w/ French Fries and Medium Drink: 8.35
2. Cheeseburger w/ French Fries and Medium Drink: 7.0
3. Hamburger w/ French Fries and Medium Drink: 6.65
Choose a menu item by number: 3
Do you want to add another menu item to the order? Enter y or n: n
Added Order 6472: 1 item(s) for a total of 6.65

Currently there are 2 active orders:
      Order 3634: 3 item(s) for a total of 23.7
```

```
    Order 6472: 1 item(s) for a total of 6.65

Your options are:
1: Add order to queue
2: Remove order from queue
3: Quit program
Please enter a number: 1

Menu Items:
1. Double-Double w/ French Fries and Medium Drink: 8.35
2. Cheeseburger w/ French Fries and Medium Drink: 7.0
3. Hamburger w/ French Fries and Medium Drink: 6.65
Choose a menu item by number: 2
Do you want to add another menu item to the order? Enter y or n: y

Menu Items:
1. Double-Double w/ French Fries and Medium Drink: 8.35
2. Cheeseburger w/ French Fries and Medium Drink: 7.0
3. Hamburger w/ French Fries and Medium Drink: 6.65
Choose a menu item by number: 3
Do you want to add another menu item to the order? Enter y or n: n
Added Order 2646: 2 item(s) for a total of 13.65

Currently there are 3 active orders:
    Order 3634: 3 item(s) for a total of 23.7
    Order 6472: 1 item(s) for a total of 6.65
    Order 2646: 2 item(s) for a total of 13.65

Your options are:
1: Add order to queue
2: Remove order from queue
3: Quit program
Please enter a number: 2
Enter the order number to remove: 3634
Order #3634 has been removed.

Currently there are 2 active orders:
    Order 6472: 1 item(s) for a total of 6.65
    Order 2646: 2 item(s) for a total of 13.65

Your options are:
1: Add order to queue
2: Remove order from queue
3: Quit program
Please enter a number: 3
Exiting program.
```

**Rubric:**

Since this is a practice problem, I didn't create a grading rubric, but you can check your work against the example solution in the repository. You could also paste the instructions and your code into an AI and ask it if you did anything wrong.