

Report on Lab-12  
**OBJECT ORIENTED CONCEPTS II**

Submitted by

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## Introduction:

The following task was to create a Restaurant simulation system. Where I have to create Customer, Chef, Waiter, Receptionist class to simultaneously run functions to implement the works for the following personalities. I have implemented Thread in all the classes so that I can run those in concurrent.

**Customer:** I have made a customer class where I am implementing the id number starting from 101. Also, I have made blocking queue to ensure conciseness in queue. In the class there is a run method which implements the placing order function. In placeOrder an order is placed using random dishes.

**Chef:** In this class the chef takes an order from the orderQueue and then takes a random time to execute it, after that, the order is passed to cookedFoodQueue from where the waiter would retrieve data.

**Waiter:** The waiter would take input from cookedFoodQueue and that would be removed from queue as well.

**Receptionist:** A receptionist hold the responsibility to assign table to the customers. This class's run method is called when a customer enters the restaurant.

**Main:** In the main class all of the classes are implemented until all the customers leave the restaurant. All classes follow thread, so all of the tasks are happening concurrently. Every instruction takes a random time to be waited or executed. Actually, this is the goal of multithreading to ensure concurrent execution.

## **Difficulty:**

The difficulty I'm facing is an error is showing in the receptionist class which I'm unable to identify yet. I'd make my code to run when I can.