National University of Computer & Emerging Sciences, Karachi
School of Computing

THEORY PROGRAMMING - Spring -2023

ASSIGNMENT- III

Course Code: CS2006	Course Name: Operating Systems
Open Date: Tuesday 28th of March 2023 **Due Date:** Tuesday 4th of April 2023	

Instruction:

1. This is a programming-based assignment
2. **Submit it in your GCR.**
3. **Source code file must be named as rollnumber#.c**
4. **Include Readme.docx (not text) containing screenshots of successful running programs and specified compilation criteria if any.**

In a busy restaurant, there are two types of employees: cooks and servers. The cooks are responsible for preparing the food, and the servers are responsible for delivering the food to the tables. There are a limited number of cooking stations and serving trays available. Only one cook can use a cooking station at a time, and only one server can carry a serving tray at a time. Create a program with proper synchronization as per   provided scenario to ensure that the cooks and servers do not interfere with each other, and that no cooking station or serving tray is used by more than one employee at a time.

Course Supervisor: Dr. Ghufran Ahmed