



University of Jeddah (UJ)

College of Computer Science and Engineering (CCSE)

Department of CS & AI

Lab Group Project Trimester 2023-2

CCCS 225 Operating Systems

5 Marks Project + 5 Marks Presentation = 10 Marks

PLO V1 CLO 3

Time Duration to complete the lab project: At least 1 week.

The date of submission and date of presentation will be set by the Lab Instructor of each section

Design and implement a small kernel that uses a Multilevel-feedback-queue scheduler with the following functionality:

1. The system consists of three queues
 - a. Q_0 – RR with time quantum 8 milliseconds
 - b. Q_1 – RR time quantum 16 milliseconds
 - c. Q_2 – FCFS
2. All the new jobs enter queue Q_0
3. The system defines the PCB as a struct containing the process information.
4. The system is capable of displaying the response time, throughput, and average waiting time.
5. The system takes the number of processes and information of each process as an input.

Submission Instructions:

Step 1: Team Formation

Form your team consisting of any 2 or 3 students. As this is group project so at least 2 students are required.

You have to submit your team members' names and student numbers to your Lab Instructor.

Step 2: Project Submission

To submit your project, one team member should upload a project report containing the following items through the assignment created on Blackboard:

1. Project report in Power Point (.PPT file) format that includes the following:
 - a. Project title

- b. Names and Student IDs of team members
- c. A breakup of tasks across team members (who did what?)
- d. Project code
- e. Features and capabilities of your project
- f. A simple user manual instructing a new user on how to use your program

Step 3: Project Presentation

You have to present your project (program execution) and the project report (power point presentation) at a date provided by the lab instructor.