

## Mini Project OS II

### Simulation of Memory Manager and Job Scheduler

Write a program that can simulate

1. Virtual memory: Demand Paging Memory Allocation with at least 2-page replacement policies: FIFO, LRU.  
The input of program should be a sequence of pages. i.e. abcfgde.  
The output of program should be the number of page faults and success ratio.
2. Process Scheduler: with these scheduling algorithms: First-Come, First Served, Shortest Job Next, Shortest Remaining Time, Round Robin and Earliest Deadline First.  
The input of program should be: number of jobs, arrival time of each job, CPU cycle time or execution time, **deadlines only for EDF.**  
The output of program should be: the average turnaround time of each algorithm.

This project should be done as a team with maximum of **3 members** only.

Submit a source code and a short report about the project by **24<sup>th</sup> June 2022**.

#### Report Contents

1. Introduction
  - Objective of project
2. Implementation
  - Coding structure (Choice of programming language, data structure, number of functions, classes.. etc )
3. Result
  - a. Responsibility of each member (Group)
  - b. Successful function
  - c. Unsuccessful function (if any)
4. Conclusion
  - a. Difficulty and Experience