

SSN COLLEGE OF ENGINEERING, KALAVAKKAM
(An Autonomous Institution, Affiliated to Anna University, Chennai)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

UCS1411 - OPERATING SYSTEMS LAB

Lab Exercise 3 Implementation of CPU Scheduling Policies: FCFS and SJF (Non-preemptive and Preemptive)

Aim:

Develop a menu driven C program to implement the CPU Scheduling Algorithms
FCFS and SJF

Algorithm:

1. Read the following
 - a. Number of processes
 - b. Process IDs
 - c. Arrival time for each process
 - d. Burst Time for each process
2. Design a menu with FCFS and SJF options
3. Upon selection of menu option apply the corresponding algorithm.
4. Compute the Turnaround Time, Average waiting Time for each of the algorithm.
5. Tabularize the results.
6. Display the Gantt Chart.

Sample Input & Output:

CPU SCHEDULING ALGORITHMS

1. FCFS
2. SJF

3. EXIT

Enter your option: 1

FCFS CPU SCHEDULER

Number of Processes: 5

Process ID: P1

Arrival Time: 0

Burst Time: 4

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Process ID: P5

Arrival Time: 6

Burst Time: 3

Output:

Process ID	Arrival Time	Burst Time	Turnaround Time	Waiting Time
P1	0	4	***	***
***	***	***	***	***

Average			***	***

Want to Continue (Y/N): Y

CPU SCHEDULING ALGORITHMS

1. FCFS

2. SJF

3. EXIT

Enter your option: 2

SJF CPU SCHEDULER

a. Non preemptive SJF

b. Pre emptive SJF

Enter your option: a

Number of Processes: 5

Process ID: P1

Arrival Time: 0

Burst Time: 4

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Process ID: P5

Arrival Time: 6

Burst Time: 3

Output:

Process ID	Arrival Time	Burst Time	Turnaround Time	Waiting Time
***	***	***	***	***
***	***	***	***	***

Average			***	***