

SSN COLLEGE OF ENGINEERING, KALAVAKKAM
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
CS6413 - OPERATING SYSTEM LAB

Lab Exercise 5 Implementation of Priority and Round robin Scheduling Policies

Aim:

Develop a menu driven C program to implement the CPU Scheduling Algorithms Priority and Round Robin

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 Priority and Round robin options
3. Upon selection of menu option, get the additional inputs and 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. PRIORITY
2. ROUND ROBIN
3. EXIT

Enter your option: 1

PRIORITY CPU SCHEDULER

Number of Processes: 5

Process ID: P1

Arrival Time: 0

Burst Time: 4

-
-
-
-

Process ID: P5

Arrival Time: 6

Burst Time: 3

OUTPUT:

Gantt Chart:

| | | | | |
|----|----|---|---|---|
| P1 | P2 | * | * | * |
| 0 | 2 | * | * | * |

| Process ID | Arrival Time | Burst Time | Turnaround Time | Waiting Time |
|------------|--------------|------------|-----------------|--------------|
| P1 | 0 | 4 | ***** | ***** |
| P2 | 1 | 3 | ***** | ***** |
| * | | | | |
| * | | | | |
| Average: | | | ***** | ***** |

Do the same for ROUND ROBIN Scheduling