



UE18CS305 – Operating Systems Laboratory

WEEK 5: Scheduling Algorithms

Due Date: 28/06/2021

OBJECTIVE:

Understanding the Scheduling Algorithms: Round Robin scheduling.

- CPU SCHEDULING CONCEPTS ARE ALREADY COVERED IN THEORY.
- STUDENTS ARE ADVISED TO REFER TO THE TEXT BOOK AND THE LECTURE MATERIAL SHARED IN THE CLASS TO IMPLEMENT THE GIVEN PROGRAMS.
- STUDENTS ARE REQUIRED TO PROVIDE PROOF OF CONDUCTION (AS PER SUBMISSION BELOW) FOR BOTH THE PROGRAMS.

SUBMISSION:

1. All the source code files for the actual programs should be uploaded to EDMODO separately in PDF FORMAT.
2. All the screenshots clearly showing the directory name as SRN_NAME_WEEK3, all the output, results for the actual programs and the answers to 5 QUESTIONS should be uploaded to EDMODO in a SEPARATE FILE (Word or PDF format only, Do NOT zip this file). So, even the answers to the questions asked at the end of this document should go into the same file.

Contact me for any questions or clarifications needed.

PROGRAMS FOR EXECUTION AND SUBMISSION:

1. Write a C program to implement Round Robin scheduling algorithm

Expected Output:

```
ubuntu@ubuntu-VirtualBox:~/os/Sample Programs$ ./a.out
Enter number of processes:5

Enter the name of process : P1
Enter the burst time: 20

Enter the name of process : P2
Enter the burst time: 5

Enter the name of process : P3
Enter the burst time: 17

Enter the name of process : P4
Enter the burst time: 10

Enter the name of process : P5
Enter the burst time: 13

Enter time quantum: 12

process name    burst time    waiting time    turn around time
P1              20           39              59
P2              5            12              17
P3              17           47              64
P4              10           29              39
P5              13           52              65

average Waiting time is 35.799999
average turn around time is 48.799999
```

Experiment the program by considering the time slice of 2,3 and 5. Result for the same to be there in the submissions

Deadline for Submission: 08/07/2021

NOTE:

Your programs can take input in the manner shown in the screenshots or in any other manner. Output should be printed in the same format as shown in the screenshots clearly showing Average Waiting time and Turnaround time values.