OS LAB MANUAL

(CS23431)

Lab:3

Roll No:230701246

EX.NO:6A

FIRST COME FIRST SERVE

Aim: FIRST COME FIRST SERVE To implement First-come First- serve (FCFS) scheduling technique

Program:

```
#include <stdio.h>
int main() {
    int n, i;
    int burst_time[10], waiting_time[10], turnaround_time[10];
    int total_waiting_time = 0, total_turnaround_time = 0;
    printf("Enter the number of processes: ");
    scanf("%d", &n);
    printf("Enter the burst time of the processes:\n");
    for (i = 0; i < n; i++) {
        printf("Process %d: ", i);
        scanf("%d", &burst_time[i]);
    }
    waiting_time[0] = 0;
    for (i = 1; i < n; i++) {
        waiting_time[i] = burst_time[i - 1] + waiting_time[i - 1];
    }
    for (i = 0; i < n; i++) {
        turnaround_time[i] = burst_time[i] + waiting_time[i];
```

```
    }
    printf("\nProcess\tBurst Time\tWaiting Time\tTurn Around Time\n");
    for (i = 0; i < n; i++) {
        printf("%d\t%d\t\t%d\t\t%d\n", i, burst_time[i], waiting_time[i], turnaround_time[i]);
    }
    for (i = 0; i < n; i++) {
        total_waiting_time += waiting_time[i];
        total_turnaround_time += turnaround_time[i];
    }
    printf("\nAverage waiting time is: %.2f", (float)total_waiting_time / n);
    printf("\nAverage Turnaround Time is: %.2f\n", (float)total_turnaround_time / n);

    return 0;
}
```

Input:

```
praveen@LAPTOP-Q0D8O6DB:~$ gcc fcfs.c
praveen@LAPTOP-Q0D8O6DB:~$ ./a.out
Enter the number of processes: 4
Enter the burst time of the processes:
Process 0: 5
Process 1: 7
Process 2: 9
Process 3: 7
```

OUTPUT:

```
praveen@LAPTOP-Q0D8O6DB:~$ gcc fcfs.c
praveen@LAPTOP-Q0D8O6DB:~$ ./a.out
Enter the number of processes: 4
Enter the burst time of the processes:
Process 0: 5
Process 1: 7
Process 2: 9
Process 3: 7

Process Burst Time      Waiting Time    Turn Around Time
0       5               0               5
1       7               5               12
2       9               12              21
3       7               21              28

Average waiting time is: 9.50
Average Turnaround Time is: 16.50
```