

OS LAB MANUAL

(CS23431)

Roll No:230701234

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%d\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:

```

pranav@Pranav:~$ vi sixa.c
pranav@Pranav:~$ gcc sixa.c
pranav@Pranav:~$ ./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:

```
pranav@Pranav:~$ ./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
```