



**BUBT**  
*Committed to Academic Excellence*

**BANGLADESH UNIVERSITY OF  
BUSINESS AND TECHNOLOGY**

## Lab Task

Course Code: CSE 310

Course Title: Operating Systems Lab

Submitted to:

Name: Suman Saha

Assistant Professor

Dept. of CSE

at Bangladesh University of Business  
and Technology.

Submitted by:

Name: Syeda Nowshin Ibnat

ID: 17183103020

Intake: 39

Section: 01

Program: B.Sc. in CSE

Semester: Fall 20-21

Date of Submission: 09/02/2021

**Solution program:**

```
#include<stdio.h>

int main() {
    int burst_time [30], waiting_time [30], turnaround_time [30];
    float average_waiting_time = 0.0, average_turnaround_time = 0.0;
    int count, j, n;
    printf("Enter The Number of Processes To Execute:\t");
    scanf("%d", &n);
    printf("\nEnter The Burst Time of Processes:\n\n");
    for(count = 0; count < n; count++) {
        printf("Process [%d]:", count + 1);
        scanf("%f", &burst_time[count]); }
    waiting_time [0] = 0;
    for(count = 1; count < n; count++) {
        waiting_time [count] = 0;
        for(j = 0; j < count; j++) {
            waiting_time[count] = waiting_time[count] + burst_time[j]; } }
    printf("\nProcess\t\tBurst Time\tWaiting Time\tTurnaround Time\n");
    for(count = 0; count < n; count++) {
        turnaround_time [count] = burst_time [count] + waiting_time [count];
        average_waiting_time = average_waiting_time + waiting_time [count];
        average_turnaround_time = average_turnaround_time + turnaround_time [count];
        printf("\nProcess [%d]\t\t%.2f\t\t%.2f\t\t%.2f", count + 1, burst_time [count], waiting_time [count], turnaround_time [count]); }
    printf("\n");
    average_waiting_time = average_waiting_time / count;
    average_turnaround_time = average_turnaround_time / count;
    printf("\nAverage Waiting Time = %f", average_waiting_time);
    printf("\nAverage Turnaround Time = %f", average_turnaround_time);
```

```
printf("\n");  
return 0; }
```

### Output:

```
nowshin@Lenovoip320:~$ ./FCFS  
Enter The Number of Processes To Execute:      4  
  
Enter The Burst Time of Processes:  
  
Process [1]:6  
Process [2]:8  
Process [3]:7  
Process [4]:3  
  
Process          Burst Time      Waiting Time      Turnaround Time  
Process [1]          0.00          0.00          0.00  
Process [2]          0.00          0.00          0.00  
Process [3]          0.00          0.00          0.00  
Process [4]          0.00          0.00          0.00  
  
Average Waiting Time = -515375104.000000  
Average Turnaround Time = -503316480.000000  
nowshin@Lenovoip320:~$ gcc FCFS.c -o FCFS  
nowshin@Lenovoip320:~$ ./FCFS  
Enter The Number of Processes To Execute:      3  
  
Enter The Burst Time of Processes:  
  
Process [1]:24  
Process [2]:3  
Process [3]:3  
  
Process          Burst Time      Waiting Time      Turnaround Time  
Process [1]          24.00          0.00          24.00  
Process [2]          3.00          24.00          27.00  
Process [3]          3.00          27.00          30.00  
  
Average Waiting Time = 17.00  
Average Turnaround Time = 27.00  
nowshin@Lenovoip320:~$
```