



# **Mawlana Bhashani Science and Technology University**

## **Lab-Report**

Lab Report No: 05

Lab Report Name: Implementation of FCFS Scheduling Algorithm.

Course code: ICT-3110

Course title: Operating System Lab

Date of Performance:

Date of Submission: 10/09/2020

### **Submitted By**

Name: Ali Ashadullah Arif  
ID:IT-18031  
3<sup>rd</sup> Year 1<sup>st</sup> Semester  
Session: 2017-2018  
Dept. of ICT  
MBSTU.

### **Submitted To**

Nazrul Islam  
Assistant Professor  
Dept. of ICT  
MBSTU.

## Lab Report No : 07

### Name of the Lab Report : Implementation of FCFS Scheduling Algorithm.

**Objective:** FCFS algorithm Definition and executable code in c are followed in this report.

#### 1. What is FCFS Scheduling algorithm?

**Answer:** First come, first served (FCFS) is an operating system process scheduling algorithm and a network routing management mechanism that automatically executes queued requests and processes by the order of their arrival. With first come, first served, what comes first is handled first; the next request in line will be executed once the one before it is complete.

#### 2. How to implemented in C?

**Answer:**

The code written in c are given below:

```
#include<stdio.h>
int main()
{
    int n,BuT[31],WaT[31],TuT[31],Avwt=0,Avtat=0,i,j;
    printf("Enter total number of processes(maximum 30):");
    scanf("%d",&n);

    printf("\nEnter Process Burst Time\n");
    for(i=0; i<n; i++) {
        printf("P[%d]:",i+1);
        scanf("%d",&BuT[i]);
    }

    WaT[0]=0;
    for(i=1; i<n; i++) {
        WaT[i]=0;
        for(j=0; j<i; j++)
            WaT[i] += BuT[j];
    }

    printf("\nProcess\t\tBurst Time\tWaiting Time\tTurnaround Time");

    for(i=0; i<n; i++) {
        TuT[i]=BuT[i]+WaT[i];
        Avwt+=WaT[i];
    }
}
```

```

        Avtat+=TuT[i];
        printf("\nP[%d]\t\t%d\t\t%d\t\t%d",i+1,BuT[i],WaT[i],TuT[i]);
    }

    Avwt/=i;
    Avtat/=i;
    printf("\n\nAverage Waiting Time:%d",Avwt);
    printf("\n\nAverage Turnaround Time:%d\n\n",Avtat);

    return 0;
}

```

### Output:

```

/home/arif/Documents/fcfs
Enter total number of processes(maximum 30):3
Enter Process Burst Time
P[1]:12
P[2]:6
P[3]:13

Process      Burst Time    Waiting Time    Turnaround Time
P[1]         12            0              12
P[2]         6            12             18
P[3]         13           18             31

Average Waiting Time:10
Average Turnaround Time:20

Process returned 0 (0x0)  execution time : 13,911 s
Press ENTER to continue.

```

**Conclusion:** In this algorithm, we learnt about FCFS algorithm details. Here if we can input a specific number of burst time then we get the output of average waiting time and average Turnaround time.