MAWLANA BHASHANI SCIENCE AND TECHNOLOGY UNIVERSITY

Santosh,Tangail-1902

LAB REPORT

Department of : Information & Communication Technology

Lab Report No : 07

Lab Report On : **Implementation of FCFS scheduling algorithm**

Course Title : Operating Systems Lab

Course Code : ICT - 3110

Submitted by,

Name : Zahid Hasan Chowdhury

Student ID : IT-18017

Session : 2017-18

Year: 3rd Semester : 1st

Dept. of ICT
MBSTU

Submitted to,

Nazrul Islam

Assistant Professor

Dept. of ICT,
MBSTU

Experiment No : 7

Experiment Name : Implementation of FCFS scheduling algorithm.

Theory :

First Come First Serve (FCFS) is an operating system scheduling algorithm that automatically executes queued requests and processes in order of their arrival. It is the easiest and simplest CPU scheduling algorithm. In this type of algorithm, processes which requests the CPU first get the CPU allocation first. This is managed with a FIFO queue. The full form of FCFS is First Come First Serve.

As the process enters the ready queue, its PCB (Process Control Block) is linked with the tail of the queue and, when the CPU becomes free, it should be assigned to the process at the beginning of the queue.

- It supports non-preemptive and pre-emptive scheduling algorithm.
- Jobs are always executed on a first-come, first-serve basis.
- It is easy to implement and use.
- This method is poor in performance, and the general wait time is quite high.

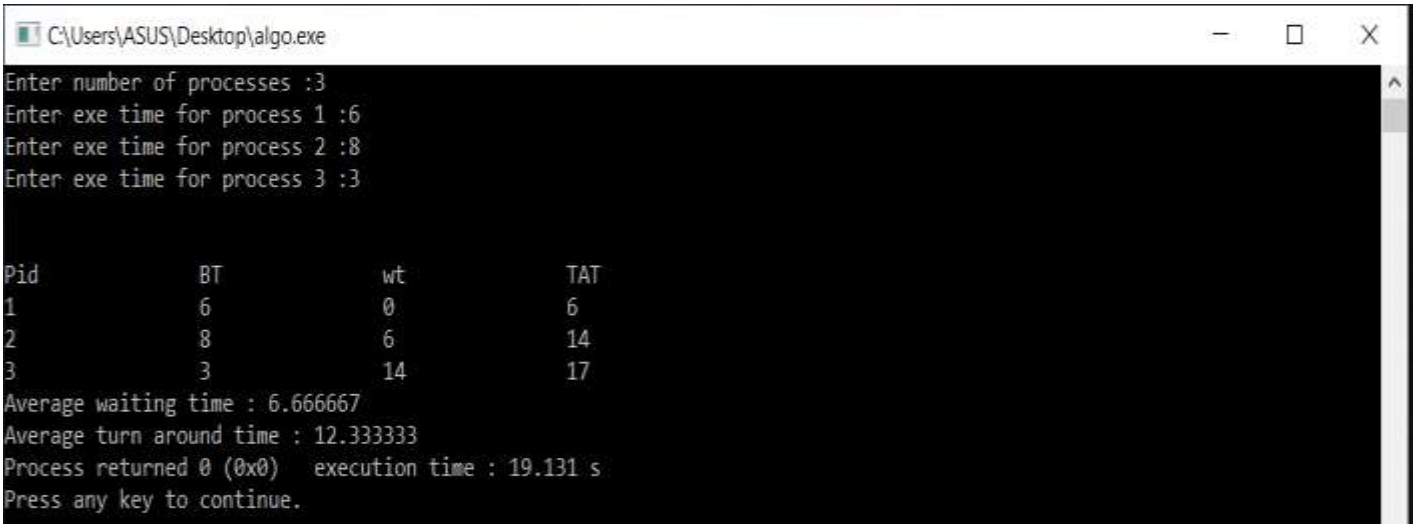
Working Process :

Implementation in C language

```
#include<stdio.h>
#include<conio.h>

int main()
{

   int n,exeTime[100],wTime=0,tAT=0;
   int i;
   float awt, atat, _awt=0, _atat=0;
   printf("Enter number of processes :");
   scanf("%d",&n);
   for(i=0; i<n; i++)
   {
      printf("Enter exe time for process %d :", i+1);
      scanf("%d",&exeTime[i]);
   }
   printf("\n\nPid \t\t BT \t\t wt \t\t TAT");
   for(i=0; i<n; i++)
   {tAT=exeTime[i] + wTime;
```

```
printf("\n%d \t\t %d \t\t %d \t\t %d",i+1,exeTime[i],wTime,tAT);
        _awt +=wTime;
        _atat +=tAT;
        wTime +=exeTime[i];
    }

    awt = _awt/n;
    atat = _atat/n;

    printf("\nAverage waiting time : %f",awt);
    printf("\nAverage turn around time : %f",atat);
    getch();
 }
```

Output :



Discussion :

This lab helps to learn FCFS (First Come First Serve) scheduling algorithm. We have implemented this algorithm using C language. In future we can solve any problem of this algorithm.