



Mawlana Bhashani Science And Technology University

Lab-Report

Lab Report No: 07

Lab Report Name: Implementation of FCFS Scheduling Algorithm.

Course code: ICT-3110

Course title: Operating System Lab

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Experiment Name : Implementation of FCFS Scheduling Algorithm

Objects:

- i) What is FCFS Scheduling Algorithm?
- ii) How to implementation in C?

To learn about First Come First Server also know as FCFS algorithm , and implement it with a c programm

Code :

```
#include<stdio.h>
int main()
{
    int n,bt[20],wt[20],tat[20],avwt=0,avtat=0,i,j;
    printf("Enter total number of processes(maximum 20):");
    scanf("%d",&n);
    printf("\nEnter Process Burst Time\n");
    for(i=0; i<n; i++)
    {
        printf("P[%d]:",i+1);
        scanf("%d",&bt[i]);
    }
    wt[0]=0; //waiting time for first process is 0
    for(i=1; i<n; i++)
    {
        wt[i]=0;
        for(j=0; j<i; j++)
            wt[i]+=bt[j];
        printf("\nProcess\t\tBurst Time\tWaiting Time\tTurnaround Time");
        for(i=0; i<n; i++)
        {
            tat[i]=bt[i]+wt[i];
            avwt+=wt[i];
            avtat+=tat[i];
            printf("\nP[%d]\t\t%d\t\t%d\t\t%d",i+1,bt[i],wt[i],tat[i]);
        }
    }
```

```

avwt/=i;
avtat/=i;
printf("\n\nAverage Waiting Time:%d",avwt);
printf("\n\nAverage Turnaround Time:%d",avtat);
return 0;
}

```

Output:

```

Enter total number of processes(maximum 20):4
Enter Process Burst Time
P[1]:15
P[2]:10
P[3]:5
P[4]:20

Process          Burst Time      Waiting Time    Turnaround Time
P[1]             15             0              15
P[2]             10             15             25
P[3]              5             25             30
P[4]             20             30             50

Average Waiting Time:17
Average Turnaround Time:30
Process returned 0 (0x0)   execution time : 29.223 s
Press any key to continue.

```

Conclusion :

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.

FCFS is the simplest scheduling algorithm. FIFO simply queues processes in the order that they arrive in the ready queue. Hope this will be of great help in future work.