Mawlana Bhashani Science and Technology University

Lab-Report

Report No: 07

Course code: ICT-3110

Course title: Operating Systems Lab

Date of Performance:

Date of Submission: 11/09/2020

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3th year 1ndsemester

Session: 2017-2018

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Name of the lab report : Implementation of FCFS Scheduling Algorithm.

Q.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.

Q.2 How to implemented in C?

Answer:

The code written in c are given below:

```
#include<stdio.h> using

namespace std; int main()

{

   int     n,bt[40],wt[30],tat[25],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;

for(i=1; i<n; i++)

   {

wt[i]=0;

for(j=0; j<i; j++)

wt[i]+=bt[j];

   }
```

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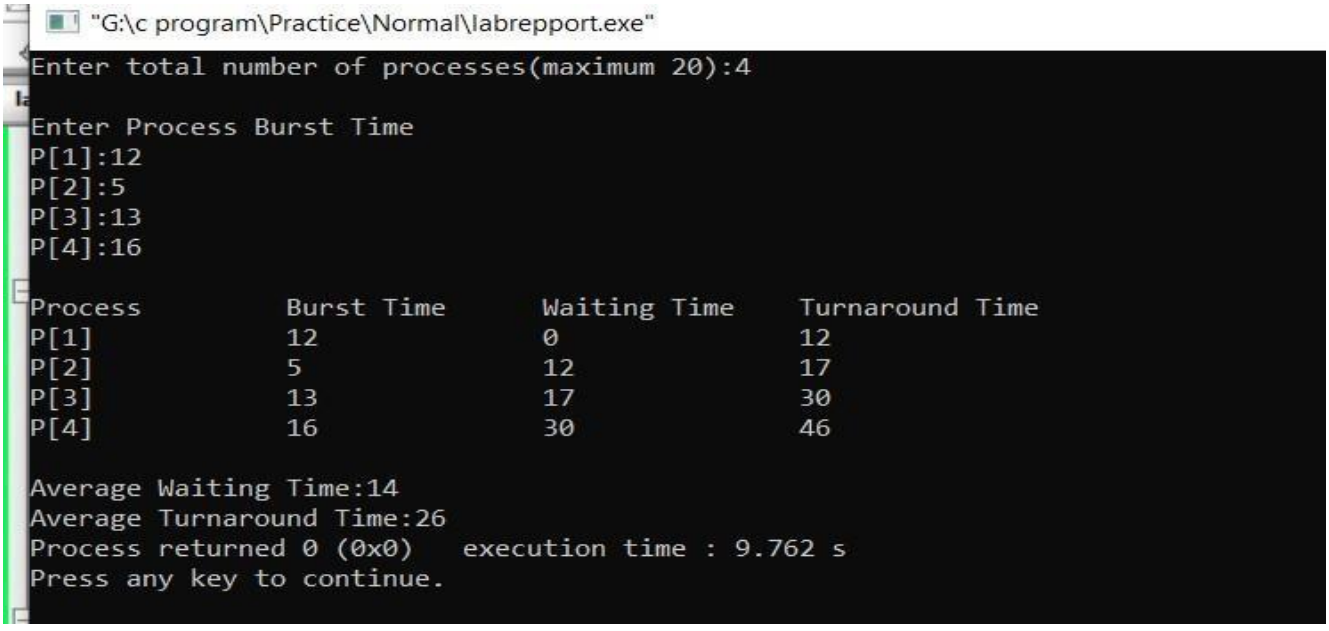
```
    printf("\nProcess\t\tBurst Time\tWaiting Time\tTurnaround
Time");



    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("\nAverage
Turnaround Time:%d",avtat);


    return 0;
}
```

Output:



Conclusion:

In the above code, the demonstration of the first come first serve scheduling algorithm is shown. The user is asked to enter the number of processes. On entering the number of processes, we have to enter the burst times for each of the processes. The waiting time is calculated first. First, the waiting time of the first process is zero. Calculation of the waiting

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time is done by adding the burst time of the previous process. Consider the previous process had a burst time of 10, then the waiting time of second will be 10. Similarly, for the third process, the waiting time will the sum of burst times of first and second processes. The next part we calculate the turn around time. The turn around time for each process is calculated by adding the burst time and the waiting time. Last, the average turn around time and the average waiting time is calculated.

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