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Lab report no. : 07

Lab report name : Lab report on implementation of FCFS scheduling algorithm .

Aim and objectives: To learn about First Come First Serve also know as FCFS algorithm , implement it with a c program, to learn how to use this algorithm.

Explanation:

i) **FCFS Scheduling Algorithm:** First Come First Serve (FCFS) is an operating system scheduling algorithm that automatically executes queued requests and processes in order of their arrival. This scheduling algorithm simply schedules the jobs according to their arrival time. The job which comes first in the ready queue will get the CPU first. It is very easy ,simple and First come First serve algorithm.

ii) Implementation of FCFS in C Program: Given n processes with their burst times, the task is to find average waiting time and average turn around time using FCFS scheduling algorithm.

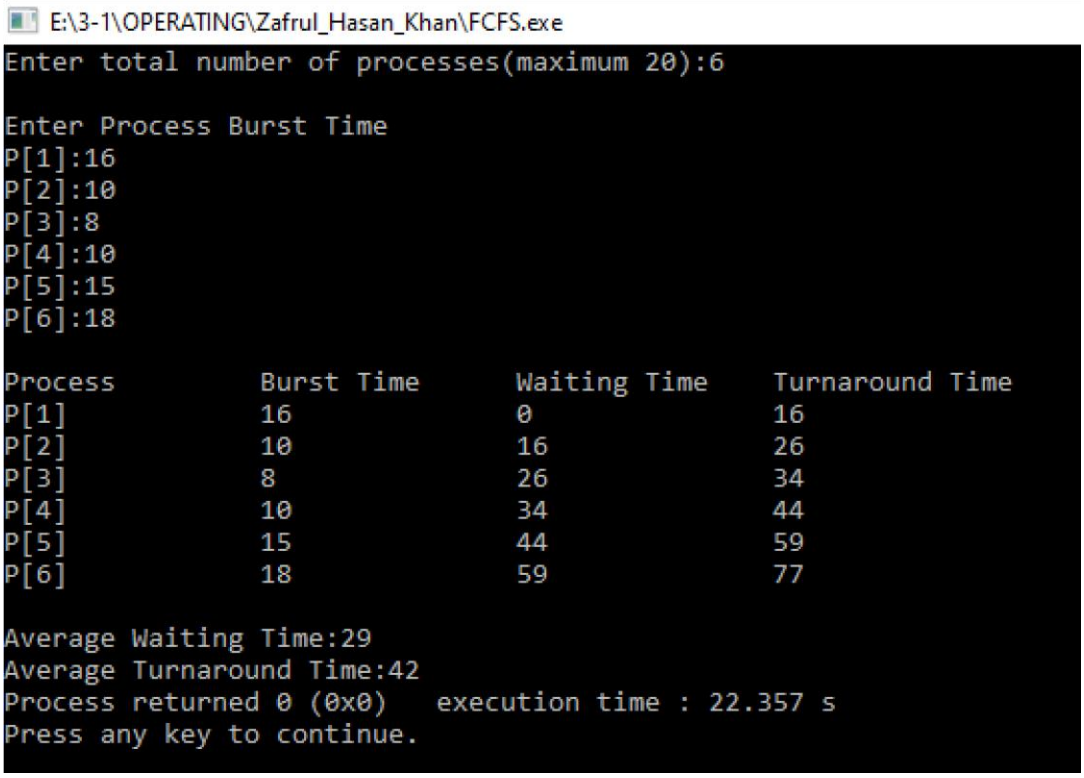
Code:

```
#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;

    //calculating waiting time
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("\nAverage Turnaround Time:%d",avtat);


return 0;

}
```

Output:



Conclusion: FCFS is Non-Preemptive ,Simple scheduling algorithm.I learnt about how to find easily average waiting time and average turn around time using FCFS scheduling algorithm. I have given burst time with their associated processes as input , this FCFS algorithm returns their average waiting time and average turn around time .Hopefully , this will be helpful for future work.