Experiment – 8

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Branch: CSE-BCG **Section/Group:** 21BCG-1 B

Semester: 3rd **Date of Performance:**

Subject Name: Operating System

AIM:

Simulation of First come first serve CPU scheduling algorithm.

TASK TO BE DONE:

Simulation of First come first serve CPU scheduling algorithm.

PROGRAMMING CODE:

```
#include<bits/stdc++.h>
using namespace std;
int main(){
   int n, bt[20], wt[20], tat[20], avwt=0, avtat=0, i;
   cout<<"Enter Number of Processes: ";
   cin>>n;
```

```
    cout<<"Enter Process Burst Time:"<<endl;
    for(i=0;i<n;i++){
        cout<<"P["<<i+1<<"]: ";
        cin>>bt[i];
    }

    wt[0]=0;
    cout<<endl<<"Process\t\tBurst Time\tWaiting Time\tTurnaround Time"<<endl;
    for(i=0;i<n;i++){
        wt[i+1]= wt[i]+bt[i];
        tat[i]=  wt[i]+bt[i];
        avwt=avwt+wt[i];
        avtat=avtat+tat[i];
        cout<<"P["<<i+1<<"]\t\t"<<bt[i]<<"\t\t"<<wt[i]<<"\t\t"<<tat[i]<<endl;
    }
    cout<<"Average Waiting Time: "<<avwt/n<<endl;
    cout<<"Average Turnaround Time: "<<avtat/n<<endl;
    return 0;
}
```

SNAPSHOTS OF THE CODE AND THE OUTPUT CONSOLE:

```
Enter Number of Processes: 3
Enter Process Burst Time:
P[1]: 4
P[2]: 1
P[3]: 2

Process         Burst Time      Waiting Time    Turnaround Time
P[1]            4               0               4
P[2]            1               4               5
P[3]            2               5               7
Average Waiting Time: 3
Average Turnaround Time: 5
```

LEARNING OUTCOMES:

- Learned about the different types of CPU Scheduling
- Concept of FCFS and SJF

EVALUATION GRID (CREATED AS PER THE ASSESSMENT MODEL):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.	Worksheet completion		8
2.	Conduct of Experiment		12
3.	Quiz/Viva Voce		10
	Total		30