Experiment No # 06
Experiment Name # First Come First Serve (FCFS) Scheduling Algorithm.

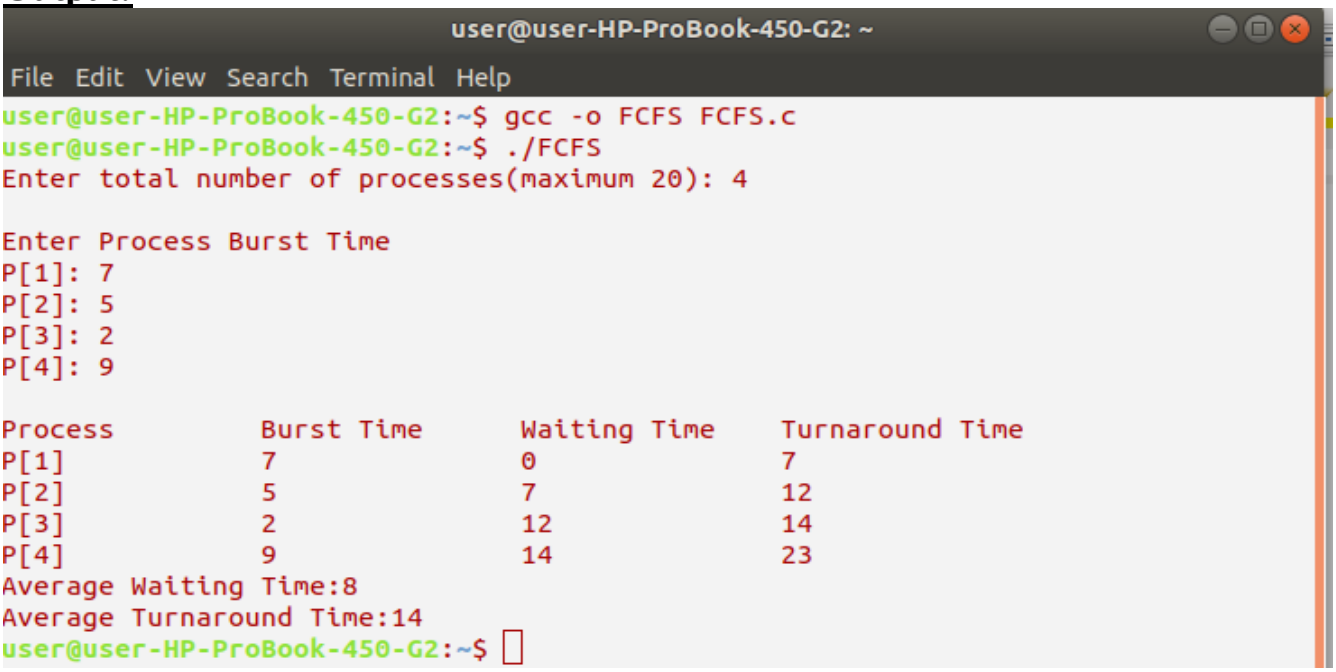
Aim and Objectives :
From this lab we will be able to implement First Come First Serve Scheduling Algorithm. In this process which process comes first that process serve at first.

FCFS:
First Come First Served (FCFS) is a Non-Preemptive scheduling algorithm. FIFO (First In First Out) strategy assigns priority to process in the order in which they request the processor. The process that requests the CPU first is allocated the CPU first. This is easily implemented with a FIFO queue for managing the tasks. As the process come in, they are put at the end of the queue. As the CPU finishes each task, it removes it from the start of the queue and heads on to the next task.

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

Output:


user@user-HP-ProBook-450-G2: ~
File Edit View Search Terminal Help
user@user-HP-ProBook-450-G2:~$ gcc -o FCFS FCFS.c
user@user-HP-ProBook-450-G2:~$ ./FCFS
Enter total number of processes(maximum 20): 4
Enter Process Burst Time
P[1]: 7
P[2]: 5
P[3]: 2
P[4]: 9
Process Burst Time Waiting Time Turnaround Time
P[1] 7 0 7
P[2] 5 7 12
P[3] 2 12 14
P[4] 9 14 23
Average Waiting Time:8
Average Turnaround Time:14
user@user-HP-ProBook-450-G2:~$