S.No: 5	Exp. Name: ***Implement CPU Scheduling Algorithms***	Date:

Aim:

Write a program to implement the FCFS process scheduling algorithm.

Source Code:

os.c

```
#include<stdio.h>
#include<conio.h>
#define max 30
int main()
{
   int n,i,pn[max],at[max],bt[max],wt[max],tat[max],start[max],finish[max];
   float awt=0,atat=0;
   printf("Enter the number of processes: ");
   scanf("%d",&n);
   for(i=0;i<n;i++)
   {
      printf("Enter the Process Name, Arrival Time & Burst Time:");
      scanf("%d%d%d",&pn[i],&at[i],&bt[i]);
   }
   printf("Process Name\tArrival Time\tBurst Time\n");
   for(i=0;i<n;i++)
   {
      printf("    %d\t        %d\t        %d\n",pn[i],at[i],bt[i]);
   }
   printf("PName     Arrtime     Bursttime    Start     WT\t    TAT   Finish\n");
   start[0]=at[0];
   finish[0]=start[0]+bt[0];
   for(i=0;i<n;i++)
   {
      if(i>0){
         start[i]=finish[i-1];
      }
      finish[i]=start[i]+bt[i];
      wt[i]=start[i]-at[i];
      tat[i]=bt[i]+wt[i];
      if(i==0)
      printf("%d\t  %d\t\t  %d\t  %d\t   %d\t  %d\t  %d\n",pn[i],at[i],bt[i],start[i],w
t[i],tat[i],finish[i]);
   }
   for(i=1;i<n;i++)
   {
      printf("%d\t  %d\t\t  %d\t  %d\t  %d\t  %d\t  %d\n",pn[i],at[i],bt[i],start[i],wt
[i],tat[i],finish[i]);
   }
for(i=0;i<n;i++)
{
   awt+=wt[i];
   atat+=tat[i];
}
awt=awt/n;
atat=atat/n;
printf("Average Waiting time:%f",awt);
```

```
printf("\nAverage Turn Around Time:%f",atat);
return 0;
}
```


Execution Results - All test cases have succeeded!

Test Case - 1						
User Output						
Enter the number of processes: 2						
Enter the Process Name, Arrival Time & Burst Time: 1 24 27						
Enter the Process Name, Arrival Time & Burst Time: 1 26 27						
Process Name	Arrival Time	Burst Time				
1	24	27				
1	26	27				
PName	Arrtime	Bursttime	Start	WT	TAT	Finish
1	24	27	24	0	27	51
1	26	27	51	25	52	78
Average Waiting time:12.500000						
Average Turn Around Time:39.500000						