```
#include<stdio.h>
int main()
{
   int bt[10]={0},at[10]={0},tat[10]={0},wt[10]={0},ct[10]={0};
   int n,sum=0;
   float total_TAT=0,total_WT=0;
   printf("Enter No.of process:");
   scanf ("%d",&n);
    for(int i=0;i<n;i++)
   {
      printf("Arrival time of P%d=",i+1);
      scanf("%d",&at[i]);
      printf("Burst time of P%d  =",i+1);
      scanf("%d",&bt[i]);
   }
   for(int j=0;j<n;j++)
      {
      sum+=bt[j];
      ct[j]+=sum;
      }
   for(int k=0;k<n;k++)
      {
         tat[k]=ct[k]-at[k];
         total_TAT+=tat[k];
      }
   for (int k=0;k<n;k++)
      {
         wt[k]=tat[k]-bt[k];
         total_WT+=wt[k];
      }
printf("\nProcess\t Arrival time\t Brust time\t Completing time\t Turn around time\t Waiting
time\n");

for (int i=0;i<n;i++)
   {
      printf("P%d\t\t %d\t %d\t\t %d\t\t\t %d\t\t\t %d\n",i+1,at[i],bt[i],ct[i],tat[i],wt[i]);
   }
   printf("\n\nAverage Turn around time:\n%f", total_TAT/n) ;
   printf("\nAverage waiting time :\n%f\n",total_WT/n);
   return 0;
}
```

"D:\study software\test\SJN\bin\Debug\SJN.exe"

```
Enter No.of process:5
Arrival time of P1=2
Burst time of P1  =8
Arrival time of P2=7
Burst time of P2  =1
Arrival time of P3=6
Burst time of P3  =2
Arrival time of P4=3
Burst time of P4  =6
Arrival time of P5=5
Burst time of P5  =4

Process  Arrival time    Brust time      Completing time         Turn around time        Waiting time
P1              2       8               8                       6                       -2
P2              7       1               9                       2                       1
P3              6       2               11                      5                       3
P4              3       6               17                      14                      8
P5              5       4               21                      16                      12


Average Turn around time:
8.600000
Average waiting time :
4.400000

Process returned 0 (0x0)   execution time : 21.092 s
Press any key to continue.
```

```
#include<stdio.h>
int main()
{
   int i,n,p[10]={0,1,2,3,4,5,6,7,8,9},min,k=1,btime=0;
   int bt[10],temp,j,at[10],wt[10],tt[10],ta=0,sum=0;
   float wavg=0,tavg=0,tsum=0,wsum=0;
   printf("Enter the No.of process =");
   scanf("%d",&n);
   for(i=0;i<n;i++)
   {
      printf("Enter the arrival time %d)process =",i+1);
      scanf("%d",&at[i]);
      printf("Enter the burst time %d)process   =",i+1);
      scanf(" %d",&bt [i]);
   }
   for(i=0;i<n;i++)
   {
   for(j=0;j<n; j++)
      {
         if(at[i]<at[j])
         {
         temp=p[j];
         p[j]=p[i];
         p[i]=temp;
         temp=at[j];
         at[j]=at[i];
```

```
        at[i]=temp;
        temp=bt[j];
        bt[j]=bt[i];
        bt[i]=temp;
        }
    }
}
for (j=0;j<n;j++)
{
btime=btime+bt[j];
min=bt[k];
for (i=k;i<n;i++)
{
    if (btime>=at[i] && bt[i]<min)
    {
    temp=p[k];
    p[k]=p[i];
    p[i]=temp;
    temp=at[k];
    at[k]=at[i];
    at[i]=temp;
    temp=bt[k];
    bt[k]=bt[i];
    bt[i]=temp;
    }
    }
```

```
    k++;
  }
  wt[0]=0;
  for(i=1;i<n;i++)
  {
  sum=sum+bt[i-1];
  wt[i]=sum-at[i];
  wsum=wsum+wt[i];
  }
  wavg=(wsum/n);
  for(i=0;i<n;i++)
  {
  ta=ta+bt [i];
  tt[i]=ta-at[i];
  tsum=tsum+tt[i];
  }
  tavg=(tsum/n);
  printf("\nProcess\t Arrival time\t Brust time\t waiting time\t Turn around time");
  for(i=0;i<n;i++)
  {
    printf ("\n p%d\t\t %d\t\t %d\t\t %d\t\t%d",p[i],at[i],bt[i],wt[i],tt[i]);
  }
  printf("\n\nAverage waiting time:\n:%f",wavg);
  printf("\nAverage Turn around time:\n%f",tavg);
  return 0;
}
```

"D:\study software\test\FCFS\bin\Debug\FCFS.exe"

```
Enter the No.of process =4
Enter the arrival time 1)process =0
Enter the burst time 1)process   =5
Enter the arrival time 2)process =1
Enter the burst time 2)process   =3
Enter the arrival time 3)process =2
Enter the burst time 3)process   =8
Enter the arrival time 4)process =3
Enter the burst time 4)process   =6

Process  Arrival time    Brust time      waiting time    Turn around time
 p0              0               5               0               5
 p1              1               3               4               7
 p3              3               6               5               11
 p2              2               8               12              20

Average waiting time:
:5.250000
Average Turn around time:
10.750000
Process returned 0 (0x0)   execution time : 21.255 s
Press any key to continue.
```