```
package algos;


import java.util.Scanner;
class SJF
{
public static void main(String args[])
{
int burst_time[],process[],waiting_time[],tat[],i,j,n,total=0,pp,temp;
float wait_avg,TAT_avg;
Scanner s = new Scanner(System.in);
System.out.print("Enter number of process: ");
n = s.nextInt();
process = new int[n];
burst_time = new int[n];
waiting_time = new int[n];
tat = new int[n];
System.out.println("\nEnter Burst time:");
for(i=0;i<n;i++)
{
System.out.print("\nProcess["+(i+1)+"]: ");
burst_time[i] = s.nextInt();;
process[i]=i+1;
}
System.out.println("\n \t \t*************** Shortest Job First Scheduling*********");

for(i=0;i<n;i++)
{
pp=i;

for(j=i+1;j<n;j++)
{
if(burst_time[j]<burst_time[pp])
pp=j;
}
temp=burst_time[i];
burst_time[i]=burst_time[pp];
burst_time[pp]=temp;
temp=process[i];
process[i]=process[pp];
process[pp]=temp;
}

waiting_time[0]=0;

for(i=1;i<n;i++)
{
waiting_time[i]=0;
for(j=0;j<i;j++)
waiting_time[i]+=burst_time[j];
total+=waiting_time[i];
}

wait_avg=(float)total/n;
total=0;
System.out.println("-----------------------------------------------------------");
System.out.println("\nProcess\t| Burst Time \t|Waiting Time\t|Turnaround Time |");
System.out.println("-----------------------------------------------------------");
for(i=0;i<n;i++)
{
tat[i]=burst_time[i]+waiting_time[i];
```

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total+=tat[i];
System.out.println("\n p"+process[i]+"\t|\t "+burst_time[i]+"\t|\t "+waiting_time[i]
+"\t|\t"+tat[i]+"\t|\t ");
System.out.println("-----------------------------------------------------------");
}

TAT_avg=(float)total/n;
System.out.println("\n\nAverage Waiting Time: "+wait_avg);
System.out.println("\nAverage Turnaround Time: "+TAT_avg);
}
}
```

OUTPUT:

```
Enter number of process: 4

Enter Burst time:

Process[1]: 4

Process[2]: 15

Process[3]: 12

Process[4]: 16

            ********** Shortest Job First Scheduling*********
-----------------------------------------------------------

Process      | Burst Time       |Waiting Time      |Turnaround Time |
-----------------------------------------------------------

 p1    |      4     |      0     |     4      |
-----------------------------------------------------------

 p3    |      12    |      4     |     16     |
-----------------------------------------------------------

 p2    |      15    |      16    |     31     |
-----------------------------------------------------------

 p4    |      16    |      31    |     47     |
-----------------------------------------------------------


Average Waiting Time: 12.75

Average Turnaround Time: 24.5
```