

```

1 package ass4SJF;
2
3
4 import java.util.*;
5 class Process{
6     int pid;
7     int burst;
8     int waiting;
9     int tat;
10
11     Process(int pid,int burst){
12         this.pid=pid;
13         this.burst=burst;
14     }
15 }
16
17 public class SJF {
18     public static void main(String[] args) {
19         Scanner sc=new Scanner(System.in);
20
21         System.out.println("Enter number of processes:");
22         int n=sc.nextInt();
23         Process[] processes=new Process[n];
24
25         for(int i=0;i<n;i++) {
26             System.out.println("Enter burst time["+(i+1)+"]");
27             int bt=sc.nextInt();
28             processes[i]=new Process(i+1,bt);
29
30             Arrays.sort(processes,Comparator.comparingInt(p->p.burst));
31             int totalWT=0,totalTAT=0;
32             processes[0].waiting=0;
33             processes[0].tat=processes[0].burst;
34             for(i=1;i<n;i++) {
35                 processes[i].waiting=processes[i-1].waiting+processes[i-1].burst;
36                 processes[i].tat=processes[i].waiting+processes[i].burst;
37                 totalWT+=processes[i].waiting;
38                 totalTAT+=processes[i].tat;
39             }
40
41             totalWT+=processes[0].waiting;
42             totalTAT+=processes[0].tat;
43
44             System.out.println("\n Process\tBurst Time\tWaiting Time\tTurnaround Time");
45             for(Process p:processes)
46             {
47                 System.out.println("P"+p.pid+"\t\t"+p.burst+"\t\t"+p.waiting+"\t\t"+p.tat);
48             }
49             System.out.printf("\n Average waiting time:%.2f", (double)totalWT/n);
50
51             System.out.printf("\n Average turnaround time:%.2f\n", (double)totalTAT/n);
52         }
53
54
55     }
56 }
57

```