

```

import java.util.Scanner;

import java.util.*;
public class SJF {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.println("enter no. of processes:");
        int n = sc.nextInt();
        int pid[] = new int[n];
        int at[] = new int[n];
        int bt[] = new int[n];
        int ct[] = new int[n];
        int tat[] = new int[n];
        int wt[] = new int[n];
        float atat = 0;
        float awt = 0;

        for(int i = 0; i < n; i++)
        {
            System.out.println("Enter the process id:");
            pid[i] = sc.nextInt();

            System.out.println("Enter the Arrival time:");
            at[i] = sc.nextInt();

            System.out.println("Enter the Burst time:");
            bt[i] = sc.nextInt();
        }

        int F[] = new int[n];
        for(int i = 0; i < n; i++)
        {
            F[i] = 0;
        }
        int st = 0;
        int total = 0;

        while(true)
        {
            int min = 99;
            int c = n;
            if(total == n)
                break;

```

```

for(int i = 0;i <n;i++)
{
    if( at[i] <= st && F[i] == 0 && bt[i] < min)
    {
        c = i;
        min = bt[i];
    }
}

if(c == n)
{
    st = st + 1;
}
else
{
    ct[c] = st + bt[c];
    F[c] = 1;
    st = ct[c];
    total++;
}

}

for(int i = 0;i < n;i++)
{
    tat[i] = ct[i] - at[i];
    wt[i] = tat[i] - bt[i];
    atat = atat + tat[i];
    awt = awt + wt[i];
}
System.out.println("PID \t AT \t BT \t CT \t TAT\t WT");
for (int i = 0; i < n;i++)
{
    System.out.println(pid[i] + "\t" + at[i]+ "\t" + bt[i] +
"\t" + ct[i] + "\t" + tat[i] + "\t"+ wt[i]);
}
System.out.println("Average TAT and WT are: ");
System.out.println("ATAT="+atat/n +"\t" + "AWT"+awt/n);
}
}

```

OUTPUT-

5

Enter the process id:

1

Enter the Arrival time:

0

Enter the Burst time:

3

Enter the process id:

2

Enter the Arrival time:

3

Enter the Burst time:

6

Enter the process id:

3

Enter the Arrival time:

4

Enter the Burst time:

4

Enter the process id:

4

Enter the Arrival time:

6

Enter the Burst time:

5

Enter the process id:

5

Enter the Arrival time:

8

Enter the Burst time:

2

PID	AT	BT	CT	TAT	WT
-----	----	----	----	-----	----

1	0	3	3	3	0
---	---	---	---	---	---

2	3	6	9	6	0
---	---	---	---	---	---

3	4	4	15	11	7
---	---	---	----	----	---

4	6	5	20	14	9
---	---	---	----	----	---

5	8	2	11	3	1
---	---	---	----	---	---

Average TAT and WT are:

ATAT=7.4     AWT3.4