SJFNonPreem

```
import java.util.Scanner;
import java.util.*;
public class SJFNonPreemptive {
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:-

```
enter no. of processes:
3
Enter the process id:
1
Enter the Arrival time:
6
Enter the Burst time:
8
Enter the process id:
2
Enter the Arrival time:
8
Enter the Burst time:
4
Enter the process id:
3
Enter the Arrival time:
7
Enter the Burst time:
5
PID      AT      BT      CT      TAT     WT
1       6       8       14      8       0
2       8       4       18      10      6
3       7       5       23      16      11
Average TAT and WT are:
ATAT=11.333333  AWT5.6666665
```