**CODE:-(SJF)**

import java.util.\*;

public class SJF\_Preemptive

{

public static void main (String args[])

{

Scanner sc=new Scanner(System.in);

System.out.println ("enter no of process:");

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 ta[] = new int[n];

int wt[] = new int[n];

int f[] = new int[n];

int k[]= new int[n];

int i, st=0, tot=0;

float avgwt=0, avgta=0;

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

{

pid[i]= i+1;

System.out.println ("enter process " +(i+1)+ " arrival time:");

at[i]= sc.nextInt();

System.out.println("enter process " +(i+1)+ " burst time:");

bt[i]= sc.nextInt();

k[i]= bt[i];

f[i]= 0;

}

while(true)

{

int min=99,c=n;

if (tot==n)

break;

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

{

if ((at[i]<=st) && (f[i]==0) && (bt[i]<min))

{

min=bt[i];

c=i;

}

}

if (c==n)

st++;

else

{

bt[c]--;

st++;

if (bt[c]==0)

{

ct[c]= st;

f[c]=1;

tot++;

}

}

}

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

{

ta[i] = ct[i] - at[i];

wt[i] = ta[i] - k[i];

avgwt+= wt[i];

avgta+= ta[i];

}

System.out.println("pid\tAT\tBT\tCT\tTAT\tWT");

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

{

System.out.println(pid[i] +"\t"+ at[i]+"\t"+ k[i] +"\t"+ ct[i] +"\t"+ ta[i] +"\t"+ wt[i]);

}

System.out.println("\nAverage TAT ="+ (float)(avgta/n));

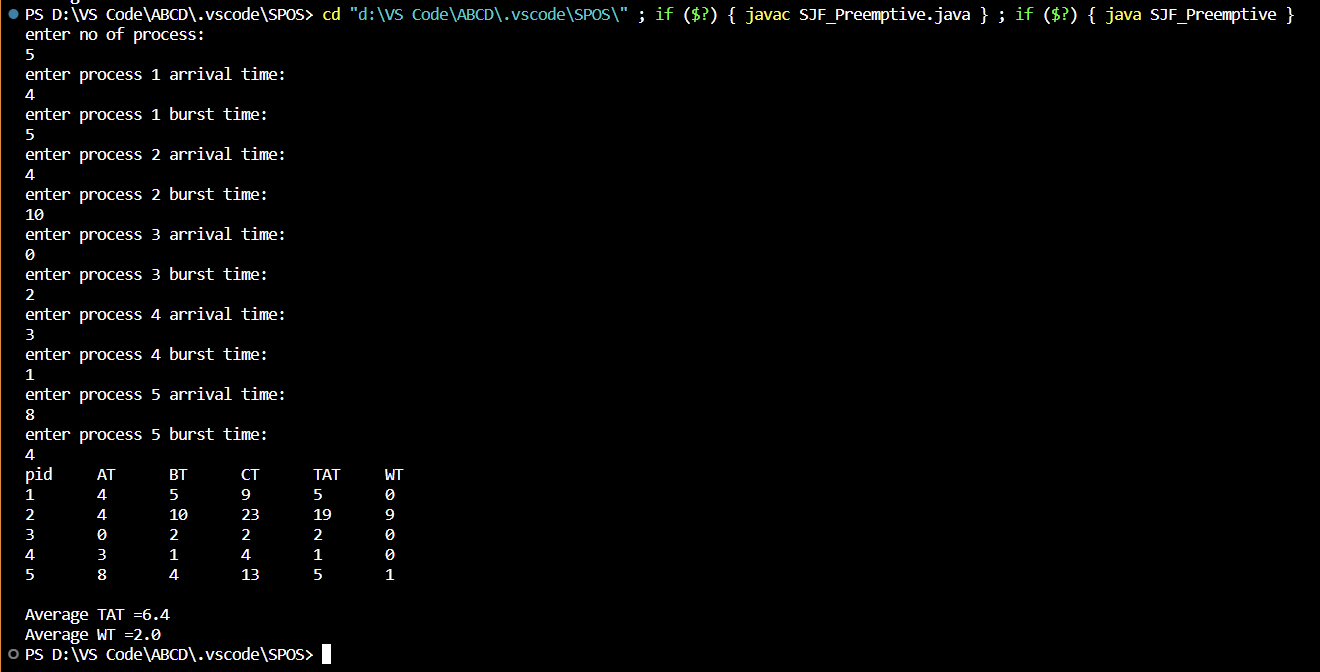
System.out.println("Average WT ="+ (float)(avgwt/n));

sc.close();

}

}

**OUTPUT:-**

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