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import java.util.*;

public class Main {
    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]; // at means arrival time
        int bt[] = new int[n]; // bt means burst time
        int ct[] = new int[n]; // ct means complete time
        int ta[] = new int[n]; // ta means turn around time
        int wt[] = new int[n]; //wt means waiting time
        int f[] = new int[n]; // f means it is flag it checks process is completed or not
        int st=0, tot=0;
        float avgwt=0, avgta=0;

        for(int i=0;i<n;i++)
        {
            System.out.println ("enter process " + (i+1) + " arrival time:");
            at[i] = sc.nextInt();
            System.out.println ("enter process " + (i+1) + " brust time:");
            bt[i] = sc.nextInt();
            pid[i] = i+1;
            f[i] = 0;
        }
        boolean a = true;
        while(true)
        {

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int c=n, min=999;

if (tot == n) // total no of process = completed process loop will be terminated
    break;

for (int i=0; i<n; i++)
{
    /*
    * If i'th process arrival time <= system time and its flag=0 and burst<min
    * That process will be executed first
    */
    if ((at[i] <= st) && (f[i] == 0) && (bt[i]<min))
    {
        min=bt[i];
        c=i;
    }
}

if (c==n)
    st++;
else
{
    ct[c]=st+bt[c];
    st+=bt[c];
    ta[c]=ct[c]-at[c];
    wt[c]=ta[c]-bt[c];
    f[c]=1;
    tot++;
}
}

System.out.println("\npid  arrival burst  complete turn waiting");

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

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        avgwt+= wt[i];  
        avgta+= ta[i];  
        System.out.println(pid[i]+"\\t"+at[i]+"\\t"+bt[i]+"\\t"+ct[i]+"\\t"+ta[i]+"\\t"+wt[i]);  
    }  
    System.out.println ("\\naverage tat is "+ (float)(avgta/n));  
    System.out.println ("average wt is "+ (float)(avgwt/n));  
    sc.close();  
}  
}
```