package Karan;

import java.util.\*;

public class fsfc

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

System.out.print("Enter the number of processes: "); //Entering the number of processes

int n = sc.nextInt();

int bt[] = new int[20]; //Initializing an array for storing Burst Time

System.out.println("\nEnter the Burst Time for each process.");

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

{

System.out.print("\nFor Process " + (i + 1) + ":");

bt[i] = sc.nextInt();

}

avg\_wt\_tt(n, bt); //Invoking the function to calculate the average waiting and turnaround times.

}

//function to calculate Waiting Time for each process

private static void waiting\_time(int n, int[] bt, int[] wt)

{

wt[0] = 0;

// calculating waiting time

for (int i = 1; i < n; i++)

{

wt[i] = bt[i - 1] + wt[i - 1];

}

}

//function to calculate Turn Around Time

private static void turnaround\_time(int n, int[] bt, int[] wt, int[] tt)

{

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

{

tt[i] = bt[i] + wt[i]; //Calculating turn around time

}

}

//function to calculate average waiting time and average turn around time.

private static void avg\_wt\_tt(int n, int[] bt)

{

int wt[] = new int[n];

int tt[] = new int[n];

// Invoking the function for waiting time

waiting\_time(n, bt, wt);

// Invoking the function for turn around time

turnaround\_time(n, bt, wt, tt);

//Displaying the headings

System.out.println("\nProcesses ||" + " Burst Time ||" + " Arrival Time ||" + " Waiting Time ||" + " Turn-Around Time ");

float awt = 0;

float att = 0;

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

{

awt = awt + wt[i]; //Calculating the total waiting time for all processes

att = att + tt[i]; //Calculating the total turn around time for all processes

//Displaying all the details

System.out.println(i + 1 + "\t ||\t" + bt[i] + "\t||\t" + "\t||\t" + wt[i] + "\t||\t " + tt[i]);

}

awt = awt / n; //Calculating average waiting time

att = att / n; //Calculating average turn around time

System.out.println("\nAverage waiting time = " + awt);

System.out.println("\nAverage turn around time = " + att);

    }

}

package Karan;

import java.util.\*;

public class rr

{

public static void main(String args[])

{

int n,i,qt,count=0,temp,sq=0,bt[],wt[],tat[],rem\_bt[];

float awt=0,atat=0;

bt = new int[10];

wt = new int[10];

tat = new int[10];

rem\_bt = new int[10];

Scanner sc=new Scanner(System.in);

System.out.print("Enter the number of process (maximum 10) = ");

n = sc.nextInt();

System.out.print("Enter the burst time of the process\n");

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

{

System.out.print("P"+i+" = ");

bt[i] = sc.nextInt();

rem\_bt[i] = bt[i];

}

System.out.print("Enter the quantum time: ");

qt = sc.nextInt();

while(true)

{

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

{

temp = qt;

if(rem\_bt[i] == 0)

{

count++;

continue;

}

if(rem\_bt[i]>qt)

rem\_bt[i]= rem\_bt[i] - qt;

else

if(rem\_bt[i]>=0)

{

temp = rem\_bt[i];

rem\_bt[i] = 0;

}

sq = sq + temp;

tat[i] = sq;

}

if(n == count)

break;

}

System.out.print("--------------------------------------------------------------------------------");

System.out.print("\nProcess\t Burst Time\t Turnaround Time\t Waiting Time\n");

System.out.print("--------------------------------------------------------------------------------");

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

{

wt[i]=tat[i]-bt[i];

awt=awt+wt[i];

atat=atat+tat[i];

System.out.print("\n "+(i+1)+"\t "+bt[i]+"\t\t "+tat[i]+"\t\t "+wt[i]+"\n");

}

awt=awt/n;

atat=atat/n;

System.out.println("\nAverage waiting Time = "+awt+"\n");

System.out.println("Average turnaround time = "+atat);

}

}