FCFS

import java.io.\*;

import java.util.Scanner;

public class FCFS

{

public static void main(String args[])

{

int i,no\_p,burst\_time[],TT[],WT[];

float avg\_wait=0,avg\_TT=0;

burst\_time=new int[50];

TT=new int[50];

WT=new int[50];

WT[0]=0;

Scanner s=new Scanner(System.***in***);

System.***out***.println("Enter the number of process: ");

no\_p=s.nextInt();

System.***out***.println("\nEnter Burst Time for processes:");

for(i=0;i<no\_p;i++)

{

System.***out***.print("\tP"+(i+1)+": ");

burst\_time[i]=s.nextInt();

}

for(i=1;i<no\_p;i++)

{

WT[i]=WT[i-1]+burst\_time[i-1];

avg\_wait+=WT[i];

}

avg\_wait/=no\_p;

for(i=0;i<no\_p;i++)

{

TT[i]=WT[i]+burst\_time[i];

avg\_TT+=TT[i];

}

avg\_TT/=no\_p;

System.***out***.println("\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

System.***out***.println("\tProcesses:");

System.***out***.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

System.***out***.println(" Process\tBurst Time\tWaiting Time\tTurn Around Time");

for(i=0;i<no\_p;i++)

{

System.***out***.println("\tP"+(i+1)+"\t "+burst\_time[i]+"\t\t "+WT[i]+"\t\t "+TT[i]);

}

System.***out***.println("\n----------------------------------------------------------------");

System.***out***.println("\nAverage waiting time : "+avg\_wait);

System.***out***.println("\nAverage Turn Around time : "+avg\_TT+"\n");

}

}

Robin

/\*Round Robin(Preemptive)\*/

import java.util.\*;

import java.io.\*;

class Spos4

{

public static void main(String args[])

{

int Process[]=new int[10];

int a[]=new int[10];

int Arrival\_time[]=new int[10];

int Burst\_time[]=new int[10];

int WT[]=new int[10];

int TAT[]=new int[10];

int Pno,sum=0;;

int TimeQuantum;

System.***out***.println("\nEnter the no. of Process::");

Scanner sc=new Scanner(System.***in***);

Pno=sc.nextInt();

System.***out***.println("\nEnter each process::");

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

{

Process[i]=sc.nextInt();

}

System.***out***.println("\nEnter the Burst Time of each process::");

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

{

Burst\_time[i]=sc.nextInt();

}

System.***out***.println("\nEnter the Time Quantum::");

TimeQuantum=sc.nextInt();

do{

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

{

if(Burst\_time[i]>TimeQuantum)

{

Burst\_time[i]-=TimeQuantum;

for(int j=0;j<Pno;j++)

{

if((j!=i)&&(Burst\_time[j]!=0))

WT[j]+=TimeQuantum;

}

}

else

{

for(int j=0;j<Pno;j++)

{

if((j!=i)&&(Burst\_time[j]!=0))

WT[j]+=Burst\_time[i];

}

Burst\_time[i]=0;

}

}

sum=0;

for(int k=0;k<Pno;k++)

sum=sum+Burst\_time[k];

} while(sum!=0);

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

TAT[i]=WT[i]+a[i];

System.***out***.println("process\t\tBT\tWT\tTAT");

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

{

System.***out***.println("process"+(i+1)+"\t"+a[i]+"\t"+WT[i]+"\t"+TAT[i]);

}

float avg\_wt=0;

float avg\_tat=0;

for(int j=0;j<Pno;j++)

{

avg\_wt+=WT[j];

}

for(int j=0;j<Pno;j++)

{

avg\_tat+=TAT[j];

}

System.***out***.println("average waiting time "+(avg\_wt/Pno)+"\n Average turn aroundtime"+(avg\_tat/Pno));

}

}

SJF (NON PRE)

/\* 2. SJF(Non-Preemptive) \*/

import java.util.Scanner;

class Spos4

{

public static void main(String args[]){

int burst\_time[],process[],waiting\_time[],tat[],i,j,n,total=0,pos,temp;

float wait\_avg,TAT\_avg;

Scanner s = new Scanner(System.***in***);

System.***out***.print("Enter number of process: ");

n = s.nextInt();

process = new int[n];

burst\_time = new int[n];

waiting\_time = new int[n];

tat = new int[n];

System.***out***.println("\nEnter Burst time:");

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

{

System.***out***.print("\nProcess["+(i+1)+"]: ");

burst\_time[i] = s.nextInt();;

process[i]=i+1; //Process Number

}

//Sorting

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

{

pos=i;

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

{

if(burst\_time[j]<burst\_time[pos])

pos=j;

}

temp=burst\_time[i];

burst\_time[i]=burst\_time[pos];

burst\_time[pos]=temp;

temp=process[i];

process[i]=process[pos];

process[pos]=temp;

}

//First process has 0 waiting time

waiting\_time[0]=0;

//calculate waiting time

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

{

waiting\_time[i]=0;

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

waiting\_time[i]+=burst\_time[j];

total+=waiting\_time[i];

}

//Calculating Average waiting time

wait\_avg=(float)total/n;

total=0;

System.***out***.println("\nProcess\t Burst Time \tWaiting Time\tTurnaround Time");

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

{

tat[i]=burst\_time[i]+waiting\_time[i]; //Calculating Turnaround Time

total+=tat[i];

System.***out***.println("\n p"+process[i]+"\t\t "+burst\_time[i]+"\t\t "+waiting\_time[i]+"\t\t "+tat[i]);

}

//Calculation of Average Turnaround Time

TAT\_avg=(float)total/n;

System.***out***.println("\n\nAverage Waiting Time: "+wait\_avg);

System.***out***.println("\nAverage Turnaround Time: "+TAT\_avg);

}

}

SJF (Preem)

/\* 2. SJF(Preemptive)\*/

import java.util.Scanner;

class Spos4

{

public static void main(String args[])

{

int

burst\_time[],process[],waiting\_time[],tat[],arr\_time[],completion\_time[],i,j,n,total=0,total\_comp=0,pos,

temp;

float wait\_avg,TAT\_avg;

Scanner s = new Scanner(System.***in***);

System.***out***.print("Enter number of process: ");

n = s.nextInt();

process = new int[n];

burst\_time = new int[n];

waiting\_time = new int[n];

arr\_time=new int[n];

tat = new int[n];

completion\_time=new int[n];

//burst time

System.***out***.println("\nEnter Burst time:");

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

{

System.***out***.print("\nProcess["+(i+1)+"]: ");

burst\_time[i] = s.nextInt();;

process[i]=i+1; //Process Number

}

//arrival time

System.***out***.println("\nEnter arrival time:");

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

{

System.***out***.print("\nProcess["+(i+1)+"]: ");

arr\_time[i] = s.nextInt();;

process[i]=i+1; //Process Number

}

//Sorting

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

{

pos=i;

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

{

if(burst\_time[j]<burst\_time[pos])

pos=j;

}

temp=burst\_time[i];

burst\_time[i]=burst\_time[pos];

burst\_time[pos]=temp;

temp=process[i];

process[i]=process[pos];

process[pos]=temp;

System.***out***.println("process"+process[i]);

}

//completiontime new

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

{

completion\_time[i]=0;

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

completion\_time[i]+=burst\_time[j];

total\_comp+=completion\_time[i];

}

//First process has 0 waitingtime

waiting\_time[0]=0;

//calculatewaiting time

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

{

waiting\_time[i]=0;

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

waiting\_time[i]+=burst\_time[j];

total+=waiting\_time[i];

}

//Calculating Average waiting time

wait\_avg=(float)total/n;

total=0;

System.***out***.println("\nPro\_number\t Burst Time \tcompletion\_time\tWaiting Time\tTurnaround Time");

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

{

tat[i]=burst\_time[i]+waiting\_time[i];

//Calculating Turnaround Time

total+=tat[i];

System.***out***.println("\n"+process[i]+"\t\t "+burst\_time[i]+"\t\t"+completion\_time[i]+"\t\t"+waiting\_time[i]+"\t\t "+tat[i]);

}

//Calculation of Average Turnaround Time

TAT\_avg=(float)total/n;

System.***out***.println("\n\nAWT: "+wait\_avg);

System.***out***.println("\nATAT: "+TAT\_avg);

}

}