**Scheduling**:

package algorithms;

import java.util.Scanner;

public class Schedule {

Scanner sc = new Scanner(System.in);

public static void main(String args[])

{

Schedule A =new Schedule();

//A.FCFS();

//A.SJF();

A.Priority();

}

private void Priority() {

System.out.println("Enter No. Of process :");

int nop = sc.nextInt();

String pname[]=new String[]{"p1","p2","p3","p4","p5"};

int arr\_time[]=new int[]{0,1,2,3,4};

int burst\_time[]=new int[]{4,3,1,5,2};

int priority[]=new int[]{2,3,4,5,5};

int[] completion\_time = new int[nop];

int[] turn\_around\_time = new int[nop];

int[] waiting\_time = new int[nop];

/\*for(int i=0;i<nop;i++)

{

System.out.println("Enter Process | Enter Arrival Time | Enter Burst Time ");

pname[i]=sc.next();

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

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

}

\*/

for(int i=0;i<nop-1;i++)

{

for(int j=i+1;j<nop;j++)

{

if(arr\_time[i] > arr\_time[j])

{

int temp = arr\_time[i];

arr\_time[i]=arr\_time[j];

arr\_time[j]=temp;

temp = burst\_time[i];

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

burst\_time[j]=temp;

temp = priority[i];

priority[i]=priority[j];

priority[j]=temp;

String tem = pname[i];

pname[i]=pname[j];

pname[j]=tem;

}

}

}

for(int i=1;i<nop-1;i++)

{

for(int j=i+1;j<nop;j++)

{

if(priority[i] < priority[j])

{

int temp = arr\_time[i];

arr\_time[i]=arr\_time[j];

arr\_time[j]=temp;

temp = burst\_time[i];

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

burst\_time[j]=temp;

temp = priority[i];

priority[i]=priority[j];

priority[j]=temp;

String tem = pname[i];

pname[i]=pname[j];

pname[j]=tem;

}

}

}

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

{

if(i==0)

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

else {

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

}

turn\_around\_time[i]=completion\_time[i]-arr\_time[i];

waiting\_time[i]=turn\_around\_time[i]-burst\_time[i];

}

System.out.println("Process "+"Arrival Time "+"Burst Time "+"turn\_around\_time "+"waiting\_time");

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

{

System.out.println(pname[i]+"\t"+arr\_time[i]+"\t"+burst\_time[i]+"\t"+completion\_time[i]+"\t"+turn\_around\_time[i]+"\t"+waiting\_time[i]);

}

}

private void SJF() {

System.out.println("Enter No. Of process :");

int nop = sc.nextInt();

String pname[]=new String[]{"p1","p2","p3","p4","p5"};

int arr\_time[]=new int[]{3,1,4,0,2};

int burst\_time[]=new int[]{1,4,2,6,3};

int[] completion\_time = new int[nop];

int[] turn\_around\_time = new int[nop];

int[] waiting\_time = new int[nop];

/\*for(int i=0;i<nop;i++)

{

System.out.println("Enter Process | Enter Arrival Time | Enter Burst Time ");

pname[i]=sc.next();

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

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

}

\*/

for(int i=0;i<nop-1;i++)

{

for(int j=i+1;j<nop;j++)

{

if(arr\_time[i] > arr\_time[j])

{

int temp = arr\_time[i];

arr\_time[i]=arr\_time[j];

arr\_time[j]=temp;

temp = burst\_time[i];

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

burst\_time[j]=temp;

String tem = pname[i];

pname[i]=pname[j];

pname[j]=tem;

}

}

}

for(int i=1;i<nop-1;i++)

{

for(int j=i+1;j<nop;j++)

{

if(burst\_time[i] > burst\_time[j])

{

int temp = arr\_time[i];

arr\_time[i]=arr\_time[j];

arr\_time[j]=temp;

temp = burst\_time[i];

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

burst\_time[j]=temp;

String tem = pname[i];

pname[i]=pname[j];

pname[j]=tem;

}

}

}

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

{

if(i==0)

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

else {

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

}

turn\_around\_time[i]=completion\_time[i]-arr\_time[i];

waiting\_time[i]=turn\_around\_time[i]-burst\_time[i];

}

System.out.println("Process "+"Arrival Time "+"Burst Time "+"turn\_around\_time "+"waiting\_time");

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

{

System.out.println(pname[i]+"\t"+arr\_time[i]+"\t"+burst\_time[i]+"\t"+completion\_time[i]+"\t"+turn\_around\_time[i]+"\t"+waiting\_time[i]);

}

}

private void FCFS() {

System.out.println("Enter No. Of process :");

int nop = sc.nextInt();

String pname[]=new String[nop];

int arr\_time[]=new int[nop];

int burst\_time[]=new int[nop];

int[] completion\_time = new int[nop];

int[] turn\_around\_time = new int[nop];

int[] waiting\_time = new int[nop];

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

{

System.out.println("Enter Process | Enter Arrival Time | Enter Burst Time ");

pname[i]=sc.next();

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

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

}

for(int i=0;i<nop-1;i++)

{

for(int j=i+1;j<nop;j++)

{

if(arr\_time[i] > arr\_time[j])

{

int temp = arr\_time[i];

arr\_time[i]=arr\_time[j];

arr\_time[j]=temp;

temp = burst\_time[i];

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

burst\_time[j]=temp;

String tem = pname[i];

pname[i]=pname[j];

pname[j]=tem;

}

}

}

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

{

if(i==0)

{

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

turn\_around\_time[i]=completion\_time[i]-arr\_time[i];

waiting\_time[i]=turn\_around\_time[i]-burst\_time[i];

}

else {

if(arr\_time[i] > completion\_time[i])

{

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

}

else

{

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

}

}

turn\_around\_time[i]=completion\_time[i]-arr\_time[i];

waiting\_time[i]=turn\_around\_time[i]-burst\_time[i];

}

System.out.println("Process "+"Arrival Time "+"Burst Time "+"turn\_around\_time "+"waiting\_time");

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

{

System.out.println(pname[i]+"\t"+arr\_time[i]+"\t"+burst\_time[i]+"\t"+turn\_around\_time[i]+"\t"+waiting\_time[i]);

}

}

}