***//Assignment-11 Operating Systems Lab***

***//A program to implement SRJF scheduling algorithm***

#include <stdio.h>

int main()

{

int at[10],bt[10],temp[10];;

int time,n,i,smallest,count=0;

float wt=0,tat=0,awt,atat,end;

printf("\n Enter the number of process: ");

scanf("%d",&n);

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

{

printf("\n Enter the arrival time of process %d: ",i+1);

scanf("%d",&at[i]);

printf("\n Enter the burst time of process %d: ",i+1);

scanf("%d",&bt[i]);

temp[i]=bt[i];

}

bt[9]=9999;

for(time=0;count!=n;time++)

{

smallest=9;

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

{

if(at[i]<=time && bt[i]<bt[smallest] && bt[i]>0)

smallest=i;

}

bt[smallest]--;

if(bt[smallest]==0)

{

count++;

end=time+1;

wt=wt+end-at[smallest]-temp[smallest];

tat=tat+end-at[smallest];

}

}

awt=wt/n;

atat=tat/n;

printf("\n Average waiting time= %f",awt);

printf("\n Average turnaround time= %f",atat);

return(0);

}

**OUTPUT:**

Enter the number of process: 4

Enter the arrival time of process 1: 0

Enter the burst time of process 1: 8

Enter the arrival time of process 2: 1

Enter the burst time of process 2: 4

Enter the arrival time of process 3: 2

Enter the burst time of process 3: 9

Enter the arrival time of process 4: 3

Enter the burst time of process 4: 5

Average waiting time= 6.500000

Average turnaround time= 13.000000