**JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY**

**WAKNAGHAT**

**Operating Systems Lab**

**Experiment – 8**

**Task: WAP to implement the Priority Scheduling Policy.**

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**Batch -** CS 48

**//Code –**

#include<stdio.h>

void sort(int at[],int bt[],int prio[],int n)

{

int t1,t2,t3;

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

{

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

{

if(prio[i]>prio[j])

{

t1=prio[i];

prio[i]=prio[j];

prio[j]=t1;

t2=at[i];

at[i]=at[j];

at[j]=t2;

t3=bt[i];

bt[i]=bt[j];

bt[j]=t3;

}

}

}

}

int main()

{

int n;

printf("Enter the number of processes:");

scanf("%d",&n);

int at[n],bt[n],prio[n],ct[n],tat[n],wt[n];

printf("Enter the Arrival Time,Burst Time and Priority for all the processes:");

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

{

scanf("%d\t%d\t%d",&at[i],&bt[i],&prio[i]);

}

printf("The entered details are:\n");

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

printf("%d\t%d\t%d\n",at[i],bt[i],prio[i]);

sort(at,bt,prio,n);

printf("The sorted details are:\n");

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

printf("%d\t%d\t%d\n",at[i],bt[i],prio[i]);

ct[0]=bt[0]+at[0];

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

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

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

tat[i]=ct[i]-at[i];

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

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

printf("The final findings are:\n");

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

printf("%d\t%d\t%d\t%d\t%d\t%d\n",at[i],bt[i],prio[i],ct[i],tat[i],wt[i]);

float tat\_sum=0,avg\_tat,wt\_sum=0,avg\_wt;

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

{

tat\_sum+=tat[i];

wt\_sum+=wt[i];

}

avg\_tat=tat\_sum/n;

avg\_wt=wt\_sum/n;

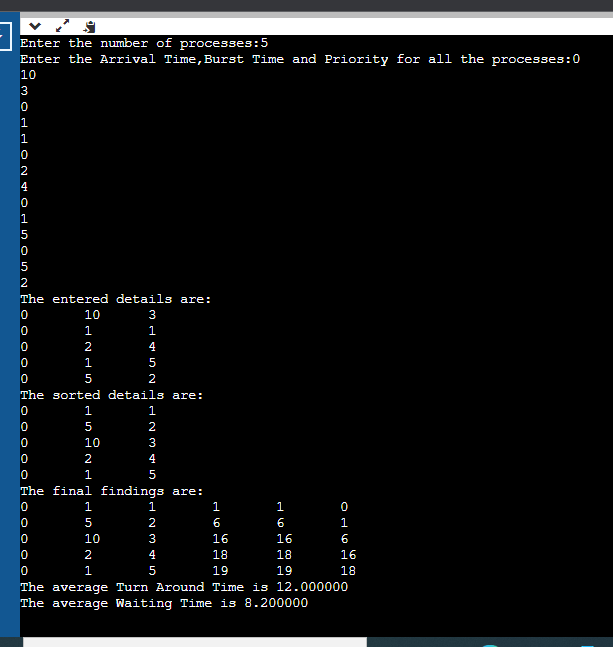
printf("The average Turn Around Time is %f\n",avg\_tat);

printf("The average Waiting Time is %f\n",avg\_wt);

return 0;

}

**//Output –**

****