#include<stdio.h>

struct process

{

int waiting\_time,arrival\_time,Brust\_time,Tarrival,Proirty;

};

struct process a[10];

int main()

{

int n,temp[10],t,count=0,short\_p;

float total\_arrival\_time,total\_waiting\_time=0,total\_Tarrival=0,Avg\_waiting\_time,Avg\_Tarrival;

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

scanf("%d",&n);

printf("Enter the arrival time , burst time and priority of the process\n");

printf("Arrival Time : Brust\_time : Proirty\n");

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

{

scanf("%d%d%d",&a[i].arrival\_time,&a[i].Brust\_time,&a[i].Proirty);

temp[i]=a[i].Brust\_time;

}

a[9].Proirty=10000;

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

{

short\_p=9;

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

{

if(a[short\_p].Proirty>a[i].Proirty && a[i].arrival\_time<=t && a[i].Brust\_time>0)

{

short\_p=i;

}

}

a[short\_p].Brust\_time=a[short\_p].Brust\_time-1;

if(a[short\_p].Brust\_time==0)

{

count++;

a[short\_p].waiting\_time=t+1-a[short\_p].arrival\_time-temp[short\_p];

a[short\_p].Tarrival=t+1-a[short\_p].arrival\_time;

total\_waiting\_time=total\_waiting\_time+a[short\_p].waiting\_time;

total\_Tarrival=total\_Tarrival+a[short\_p].Tarrival;

}

}

Avg\_waiting\_time=total\_waiting\_time/n;

Avg\_Tarrival=total\_Tarrival/n;

printf("Process\_ID : waiting\_time : arrival\_time\n");

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

{

printf("%d\t\t\t%d\t\t\t%d\n",i+1,a[i].waiting\_time,a[i].Tarrival);

}

printf("Avg waiting time of the process is %f\n",Avg\_waiting\_time);

printf("Avg turn around time of the process is %f\n",Avg\_Tarrival);

    return 0;

}