#include<stdio.h>

#include<conio.h>

#include<string.h>

void main()

{

char p[10][5],temp[5];

int i,j,pt[10],wt[10],totwt=0,pr[10],temp1,n;

float avgwt;

printf("Enter number of Process:");

scanf("%d",&n);

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

{

printf("Enter process %d :",i+1);

scanf("%s",&p[i]);

printf("Enter time required for process :");

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

printf("Enter Priority for given Process :");

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

}

for(i=0;i<n-1;i++)

{

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

{

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

{

temp1=pr[i];

pr[i]=pr[j];

pr[j]=temp1;

temp1=pt[i];

pt[i]=pt[j];

pt[j]=temp1;

strcpy(temp,p[i]);

strcpy(p[i],p[j]);

strcpy(p[j],temp);

}

}

}

wt[0]=0;

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

{

wt[i]=wt[i-1]+pt[i-1];

totwt=totwt+wt[i];

}

avgwt=(float)totwt/n;

printf("p\_name\t p\_time\t priority\t w\_time\n");

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

{

printf(" %s\t %d\t %d\t %d\n" ,p[i],pt[i],pr[i],wt[i]);

}

printf("total waiting time=%d\n avg waiting time=%f",totwt,avgwt);

getch();

}