#include<stdio.h>

#include<conio.h>

#include<string.h>

**void** main()

{

**int** et[20],at[10],n,i,j,temp,st[10],ft[10],wt[10],ta[10];

**int** totwt=0,totta=0;

**float** awt,ata;

**char** pn[10][10],t[10];

    clrscr();

**printf**("Enter the number of process:");

**scanf**("%d",&n);

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

    {

**printf**("Enter process name, arrival time & execution time:");

        flushall();

**scanf**("%s%d%d",pn[i],&at[i],&et[i]);

    }

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

**for**(j=0; j<n; j++)

        {

**if**(et[i]<et[j])

            {

                temp=at[i];

                at[i]=at[j];

                at[j]=temp;

                temp=et[i];

                et[i]=et[j];

                et[j]=temp;

**strcpy**(t,pn[i]);

**strcpy**(pn[i],pn[j]);

**strcpy**(pn[j],t);

            }

        }

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

    {

**if**(i==0)

            st[i]=at[i];

wt[i]=st[i]-at[i];

ft[i]=st[i]+et[i];

ta[i]=ft[i]-at[i];

**else**

        st[i]=ft[i-1];

        wt[i]=st[i]-at[i];

        ft[i]=st[i]+et[i];

        ta[i]=ft[i]-at[i];

        totwt+=wt[i];

        totta+=ta[i];

    }

    awt=(**float**)totwt/n;

    ata=(**float**)totta/n;

**printf**("\nPname\tarrivaltime\texecutiontime\twaitingtime\ttatime";

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

**printf**("\n%s\t%5d\t\t%5d\t\t%5d\t\t%5d",pn[i],at[i],et[i],wt[i],ta[i]);

**printf**("\nAverage waiting time is:%f",awt);

**printf**("\nAverage turnaroundtime is:%f",ata);

    getch();

}