## 2061 Treasure the new start, freshmen!

### 一、题目

#### 问题描述

background: A new semester comes , and the HDU also meets its 50th birthday. No matter what’s your major, the only thing I want to tell you is:“Treasure the college life and seize the time.” Most people thought that the college life should be colorful, less pressure. But in actual, the college life is also busy and rough. If you want to master the knowledge learned from the book, a great deal of leisure time should be spend on individual study and practise, especially on the latter one. I think the every one of you should take the learning attitude just as you have in senior school. “No pain, No Gain”, HDU also has scholarship, who can win it? That’s mainly rely on the GPA(grade-point average) of the student had got. Now, I gonna tell you the rule, and your task is to program to calculate the GPA. If there are K(K > 0) courses, the i-th course has the credit Ci, your score Si, then the result GPA is GPA = (C1 \* S1 + C2 \* S2 +……+Ci \* Si……) / (C1 + C2 + ……+ Ci……) (1 <= i <= K, Ci != 0) If there is a 0 <= Si < 60, The GPA is always not existed.

#### 输入数据

The first number N indicate that there are N test cases(N <= 50). In each case, there is a number K (the total courses number), then K lines followed, each line would obey the format: Course-Name (Length <= 30) , Credits(<= 10), Score(<= 100). Notice: There is no blank in the Course Name. All the Inputs are legal.

#### 输出数据

Output the GPA of each case as described above, if the GPA is not existed, output:“Sorry!”, else just output the GPA value which is rounded to the 2 digits after the decimal point. There is a blank line between two test cases.

#### 输入样例

2 3 Algorithm 3 97 DataStruct 3 90 softwareProject 4 85 2 Database 4 59 English 4 81

#### 输出样例

90.10

Sorry!

#### 题目来源

HDU 2061 http://acm.hdu.edu.cn/showproblem.php?pid=2061

### 二、题解

#### 解题思路

普通的计算题。当分数小于60时，无需计算GPA。其余情况根据公式计算即可。不需要开数组，输入数值并判断后直接计入分子和分母。输入的权重和分数可能是浮点数，所以要用double输入。输出时要注意格式，最后一种情况之后无需两次换行。

#### 参考程序

#include <stdio.h>  
  
struct lesson  
{  
 double credit;//输入的数据可能为浮点数。  
 double score;  
};  
  
int main()  
{  
 int T;  
 scanf("%d",&T);  
 while(T--)  
 {  
 struct lesson le;  
 int k,flag=0;  
 double mid1=0,mid2=0;  
 char temp[30];  
 scanf("%d",&k);  
 for(int i=0;i<k;i++)  
 {  
 scanf("%s",temp);//课程名称不需要处理，用一个字符串滤掉。  
 scanf("%lf%lf",&le.credit,&le.score);  
 if(le.score<60)  
 {  
 flag=1;//如果有一个成绩小于60分，设flag=1。  
 } //这个if里不能放break，因为之后仍然要输入数据。  
 if(flag==0)//当flag=0时需要继续计算。  
 {  
 mid1+=le.credit\*le.score;  
 mid2+=le.credit;  
 }  
 }  
 if(flag==0)  
 {  
 printf("%.2lf\n",mid1/mid2);//注意输出时要保留两位小数。  
 }  
 else  
 {  
 printf("Sorry!\n");  
 }  
 if(T!=0)//最后一组数据时不进行产生空白行的操作。  
 {  
 printf("\n");  
 }  
 }  
 return 0;  
}

#### 复杂度分析

无。

#### 编程技巧

题目中未说明输入数据的类型为整数时，要考虑输入为浮点数的情况。

注意输出格式，不要有多余的空格或空行。