All Contests > CSE-g-week1 > Advantageous Ratio 1

Advantageous Ratio 1   🔒 locked

Problem	Submissions	Leaderboard	Discussions

Hotel structure accepts the name of a room, its price per night and the area of the room in square feet. Write a code to initialise an array of 'n' hotel rooms from input. Pass the array to a function Ratio_Order. Calculate the squarefeet/price ratio for each of the rooms. Larger the ratio , the better it is for a customer. So sort the array in Descending order based on the ratios calculated and display. The displayed ratio must have two decimal values. Note that the price for a room is never 0. In case of a tie, maintain the order same as in input.

Input Format

size
room1_name room1_price room1_squarefeet
room2_name room2_price room2_squarefeet

Constraints

Price should never be zero

Output Format

room1_name room1_price room1_squarefeet room1_ratio
room2_name room2_price room2_squarefeet room2_ratio

Sample Input 0

```
3
green 1000 1000
red 1000 2000
blue 1000 100
```

Sample Output 0

```
red 1000 2000 2.00
green 1000 1000 1.00
blue 1000 100 0.10
```

Sample Input 1

```
4
garden 10000 200
ocean 15000 500
skyline 12000 600
pool 11000 300
```

Sample Output 1

```
skyline 12000 600 0.05
ocean 15000 500 0.03
pool 11000 300 0.03
garden 10000 200 0.02
```

Submissions: 57
Max Score: 10
Difficulty: Medium

Rate This Challenge:
☆ ☆ ☆ ☆ ☆

More

```c
#include <stdio.h>
#include <string.h>

typedef struct hotel {
    char name[50];
    int price;
    int squarefeet;
    double ratio;
} HOTEL;

void Ratio_Order(HOTEL *h, int n);

int main() {
    int n;
    scanf("%d", &n);
    HOTEL h[n];

    for(int i=0;i<n;i++){
        scanf("%s %d %d",h[i].name,&h[i].price,&h[i].squarefeet);
    }

    Ratio_Order(h,n);
    for(int i=0;i<n;i++){
        printf("%s %d %d %.2f\n",h[i].name,h[i].price,h[i].squarefeet,h[i].ratio);
    }

    return 0;
}

void Ratio_Order(HOTEL *h, int n) {
        for(int i=0;i<n;i++){
            h[i].ratio=(h[i].squarefeet/(float)h[i].price);
        }
        for(int i=0;i<n-1;i++){
            for(int j=0;j<n-i-1;j++){
                if(h[j].ratio<h[j+1].ratio){
                    HOTEL temp=h[j];
                    h[j]=h[j+1];
                    h[j+1]=temp;
                }
            }
        }
}
```

Line: 43 Col: 2

⬆ Upload Code as File   ☐ Test against custom input   Run Code   Submit Code

Interview Prep | Blog | Scoring | Environment | FAQ | About Us | Support | Careers | Terms Of Service | Privacy Policy |

https://www.hackerrank.com/contests/cse-g-w1/challenges/advantageous-ratio-1/problem   2/2