VIT - Vellore

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BCSE102P_Structured and Object Oriented Programming Lab_VL2024250502365

VIT V_Structured and OOP_Lab 4_COD_Medium_Structure Variables

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : Coding

1. Problem Statement

Ezhil wants to create a program to add N distances given in the inch-feet system using typedef in a structure. He needs to develop a program that allows the user to input N distances, each consisting of inches and feet ensuring that if the inch sum is greater than or equal to 12 it is appropriately converted to feet and then calculate the total sum of these distances.

Can you help Ezhil by developing the required program to fulfill these requirements?

Example

Input:

3

10 3.7

10 5.5

6 8.0

Output:

27

5.20

Explanation:

The sum of the feet is 10+10+6 = 26

The sum of the inch is 3.7+5.5+8.0 = 17.2

1 feet = 12 inches.

17.2 is greater than 12.

So 17.2 - 12 = 5.2.

The result is 27 feet and 5.20 inches.

Answer

```
// You are using GCC
#include<stdio.h>

typedef struct{
    int feet;
    float inch;
}Distance;
int main(){

    int n;
    int total_feet = 0;
    float total_inch = 0.0;

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

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```
    Distance d[n];

    for(int i = 0; i < n; i++){
        scanf("%d  %f",&d[i].feet, &d[i].inch);
        total_feet += d[i].feet;
        total_inch += d[i].inch;
    }

    while(total_inch >=12){
        total_feet++;
        total_inch -= 12;
    }
    printf("%d\n",total_feet);
    printf("%.2f\n",total_inch);
    return 0;
}
```

Status : Correct **Marks : 10/10**

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