**C++ Program to Add Two Distances (in inch-feet) System Using Structures**

This program takes two distances (in inch-feet system), adds them and displays the result on the screen.

To understand this example, you should have the knowledge of the following [C++ programming](https://www.programiz.com/cpp-programming) topics:

* [C++ Structures](https://www.programiz.com/cpp-programming/structure)
* [C++ if, if...else and Nested if...else](https://www.programiz.com/cpp-programming/if-else)

**Example: Add Distances Using Structures**

#include <iostream>

using namespace std;

struct Distance{

int feet;

float inch;

}d1 , d2, sum;

int main()

{

cout << "Enter 1st distance," << endl;

cout << "Enter feet: ";

cin >> d1.feet;

cout << "Enter inch: ";

cin >> d1.inch;

cout << "\nEnter information for 2nd distance" << endl;

cout << "Enter feet: ";

cin >> d2.feet;

cout << "Enter inch: ";

cin >> d2.inch;

sum.feet = d1.feet+d2.feet;

sum.inch = d1.inch+d2.inch;

// changing to feet if inch is greater than 12

if(sum.inch > 12)

{

++ sum.feet;

sum.inch -= 12;

}

cout << endl << "Sum of distances = " << sum.feet << " feet " << sum.inch << " inches";

return 0;

}

**Output**

Enter 1st distance,

Enter feet: 6

Enter inch: 3.4

Enter information for 2nd distance

Enter feet: 5

Enter inch: 10.2

Sum of distances = 12 feet 1.6 inches

In this program, a structure Distance containing two data members (inch and feet) is declared to store the distance in inch-feet system.

Here, two structure variables d1 and d2 are created to store the distance entered by the user. And, the sum variables stores the sum of the distances.

The if..else statement is used to convert inches to feet if the value of inch of sum variable is greater than 12.