

Friend function (meter to feet conversion) program c++

Que. Create two classes DM and DB which stores values of distances. DM stores distance in m and cm, and DB in feet and inches.

Write a program that can read values for the class objects and add one object of DM with another object of DB.

Use friend function to carry out the addition operation.

The object that stores the results may be a DM or DB object depending on units in which the results are required.

The display should be in the format of feet and inches or m and cm depending on the objects on display.

```
#include <iostream>
using namespace std;
class DM;
class DB;

class DM
{
private:
    float a;
    float result = 00.00;

public:
    void fun1 ()
    {
        cout << "Enter Distance in m and cm (Float): ";
        cin >> a;

        cout << "\n1st Value in meters"<<a;
        cout << "\n\n";
```

```

    }

    friend void add (DM obj1, DB obj2);
};

class DB
{
private:
    float b;
    float cnvt_c;

public:
    void fun2 ()
    {
        cout << "Enter Distance in feet and inches (Float):";
        cin >> b;
        cout << "\n2nd Value in meters"<<b;
        cout << "\n\n";

        cnvt_c = b*0.3048;
        cout << "Feets & inches Converted into m & cms= "<<cnvt_c <<" meters\n\n";
    }
    friend void add (DM obj1, DB obj2);
};

void add (DM obj1, DB obj2)
{
    obj1.result = obj1.a + obj2.cnvt_c;

    cout << "Addition in Meters:" <<obj1.result <<"\n\n";
}

```

```
    cout << "Addition in Centimeters:" << obj1.result*100 ;  
}  
  
Int main ()  
{  
    DM obj1;  
    DB obj2;  
    obj1.fun1 ();  
    obj2.fun2 ();  
    add (obj1, obj2);  
    return 0;  
}
```

Output:

```
Enter Distance in m and cm (Float): 20.75  
1st Value in meters20.75  
Enter Distance in feet and inches (Float):20.75  
2nd Value in meters20.75  
Feets & inches Converted into m & cms= 6.3246 meters  
Addition in Meters:27.0746  
Addition in Centimeters:2707.46  
...Program finished with exit code 0  
Press ENTER to exit console.□
```