Code for Program to illustrate friend function in C++ Programming

Create two classes DM and DB which stores the value of distances. DM stores distances in metres and centimetres and DB in feet and inches. Write a program that can read values for the class objects and add one object DM with another object of DB. Use friend function.

#include <iostream.h>

#include <conio.h>

class db;

class dm

{

float mt;

int cm;

public:

void getdata(void);

void display(void);

friend dm add(dm,db);

};

class db

{

int feet;

float inches;

public:

void getdata(void);

void display(void);

friend dm add(dm,db);

};

void dm :: getdata(void)

{

clrscr();

cout<<"\t\tDM GETDATA FUNCTION\n\n";

cout<<"\n\nEnter Values for metres :-";

cin>>mt;

cout<<"Enter Values for centimetres:-";

cin>>cm;

}

void dm :: display(void)

{

cout<<"\n\nThe value of distance in metres is "<<mt;

cout<<"\nThe value of distance in Centimetres is "<<cm;

}

void db :: getdata(void)

{

clrscr();

cout<<"\t\tDB GETDATA FUNCTION\n\n";

cout<<"\n\nEnter Values for feet :-";

cin>>feet;

cout<<"Enter Values for inches :-";

cin>>inches;

}

void db :: display(void)

{

cout<<"\n\nThe value of distance in feet is "<<feet;

cout<<"\nThe value of distance in inches is "<<inches;

}

dm add(dm a,db b)

{

dm temp;

temp.cm=a.cm+(b.feet\*30)+((b.inches\*30)/12.0);

temp.mt=a.mt+(temp.cm % 100);

temp.cm=temp.cm-((temp.cm % 100)\*100);

return(temp);

}

void main()

{

dm a;

a.getdata();

db b;

b.getdata();

clrscr();

cout<<"\n\t\tAFTER CONVERSION AND THEIR ADDITION IS PERFORMED\n";

//extra variable of type dm to display result of adding two different types of distance

dm extra;

extra=add(a,b);

extra.display();

getch();

}