

Write a simple program that convert the temperature in degree Celsius to degree Fahrenheit and vice versa using the basic concept of class and object. Make separate class for Centigrade and Fahrenheit which will have the private member to hold the temperature value and make conversion functions in each class for conversion from one to other. For example you will have function toFahrenheit() in class Celsius that converts to Fahrenheit scale and returns the value.

```
// header file for input and output operation
#include <iostream>
// using standard namespace
using namespace std;
#define SUCCESS 0
/**
 * Centigrade class that store centigrade values and convert it into ferhenhiet
 */
class Centigrade
{
private:
    float temperature;
public:
    Centigrade(float t){temperature = t;}
    float toFarhenheit()
    {
        return (temperature)/100*180+32;
    }
};

/**
 * Farhenheit class that store farhenheit values and convert it into celcius
 */
class Farhenheit
{
private:
    float temperature;
public:
    Farhenheit(float t){temperature = t;}
    float toCelcius()
    {
        return (temperature-32)/180*100+0;
    }
}
```

```

};
int main()
{
    float temp;
    int choice;
    cout << "Select temperature unit to change into another"<< endl;
    cout << "1. Celcius" << endl;
    cout << "2. Farhenheit" << endl;
    cin >> choice;
    if (choice == 1)
    {
        cout << "Enter temperature in celcius" << endl;
        cin >> temp;
        Centigrade C(temp);
        cout << "temperature in Farhenheit " << C.toFarhenheit();

    }
    else if (choice == 2)
    {
        cout << "Enter temperature in Farhenheit " << endl;
        cin >> temp;
        Farhenheit F(temp);
        cout << "temperature in Celcius " << F.toCelcius();

    }
    return SUCCESS;
}

```

```

#include<iostream>//or
using namespace std;
class Centigrade
{
    private:
        int c;
    public:
        void celcius_data(void)
        {
            cout<<"Enter the value of celcius: ";
            cin>>c;
        }
}

```

```

    float toFahrenheit()
    {
        return (1.8*c+32);
    }
};
class Fahrenheit
{
    private:
        int f;
    public:
        void fahrenheit_data(void)
        {
            cout<<endl<<"Enter the value of fahrenheit: ";
            cin>>f;
        }
        float toCelcius()
        {
            return ((f-32)/1.8);
        }
};
int main()
{
    Centigrade c;
    Fahrenheit f;
    c.celcius_data();
    cout<<"fahrenheit equivalent = "<<c.toFahrenheit();
    f.fahrenheit_data();
    cout<<"celcius equivalent = "<<f.toCelcius();
    return 0;
}

```