



You have successfully solved Multi Level Inheritance

Share

Tweet

[Try the Next Challenge](#) | [Try a Random Challenge](#)

Multi Level Inheritance

by [saikiran9194](#)

Problem

Submissions

Leaderboard

Discussions

Solve the problem Inheritance-Introduction before solving this problem.

In the previous problem we learned about Inheritance and how can a derived class object use the member functions of the base class.

In this we will see what multi-level inheritance is. Suppose we have a class A which is the base class and we have a class B which is derived from class A and we have a class C which is derived from class B, we can access the functions of both class A and class B by creating an object for class C. This is called Multi-Level inheritance. (B inherits A and C inherits B.)

Now create a class called Equilateral which inherits from Isosceles and should have a function such that the output is as given below.

Sample Output

```
I am an equilateral triangle
I am an isosceles triangle
I am a triangle
```

Easy

Submitted 19589 times
Max Score 25

Need Help?

[View Discussions](#)[View Top Submissions](#)**RATE THIS CHALLENGE**[Download problem statement](#)[Download sample test cases](#)[Suggest Edits](#)

Current Buffer (saved locally, editable)

C++14



```
23 #include <iostream>
24 #include <memory>
25
```

```
26 class Shape
27 {
28 public:
29     virtual const void triangle()const = 0;
30     virtual ~Shape(){ }
31 };
32
33 class Triangle: public Shape
34 {
35 public:
36     virtual const void triangle()const override
37     { std::cout<<"I am a triangle\n"; }
38     virtual ~Triangle(){ }
39 };
40
41 class Isosceles : public Triangle
42 {
43 public:
44     virtual const void triangle()const override
45     { std::cout<<"I am an isosceles triangle\n"; }
46     virtual ~Isosceles(){ }
47 };
48 class Equilateral: public Isosceles
49 {
50 public:
51     virtual const void triangle()const override
52     { std::cout<<"I am an equilateral triangle\n"; }
53     virtual ~Equilateral(){ }
54 };
55
56 int main()
57 {
58     std::shared_ptr<Shape> obj[3];
59
60     obj[0] = std::make_shared<Equilateral>();
61     obj[1] = std::make_shared<Isosceles>();
62     obj[2] = std::make_shared<Triangle>();
63
64     for(auto it: obj)
65         it->triangle();
66     return 0;
67 }
68
```

Line: 1 Col: 1

[Upload Code as File](#)☐ Test against custom input

Run Code

Submit Code

Congrats, you solved this challenge!Challenge your friends: [f](#) [t](#) [in](#)

✓ Test Case #0

Next Challenge

[Contest Calendar](#)[Blog](#)[Scoring](#)[Environment](#)[FAQ](#)[About Us](#)[Support](#)[Careers](#)[Terms Of Service](#)[Privacy Policy](#)[Request a Feature](#)