

Day 69 coding Statement : 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.

Hence, this mechanism is called multi-level inheritance. (B inherits A and C inherits B.)

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

Program :

```
package com.talentbattle.codingchallenge;

class Isosceles{
    void display1()
    {
        System.out.println("I am Isosceles triangle");
    }
}

class Equilateral extends Isosceles{
    void display2() {
        System.out.println("I am equilateral triangle");
    }
}

class C extends Equilateral{
    void display3() {
        System.out.println("I am Triangle");
    }
}

public class Inheritance {
    public static void main(String[] args)
    {
        C c = new C();
        c.display2();
        c.display1();
        c.display3();
    }
}
```

}

The screenshot shows the Eclipse IDE interface. The main editor displays a Java file named `Inheritance.java` with the following code:

```
1 package com.talentbattle.codingchallenge;
2
3 class Isosceles{
4     void display1()
5     {
6         System.out.println("I am Isosceles triangle");
7     }
8 }
9
10 class Equilateral extends Isosceles{
11     void display2() {
12         System.out.println("I am equilateral triangle");
13     }
14 }
15
16 class C extends Equilateral{
17     void display3() {
18         System.out.println("I am Triangle");
19     }
20 }
21
22 public class Inheritance {
23     public static void main(String[] args)
24     {
25         C c = new C();
26         c.display2();
27         c.display1();
28         c.display3();
29     }
30 }
31
```

The Project Explorer on the left shows the project structure with the following packages:

- Sudeep
 - JRE System Library [jdk-19]
 - src
 - (default package)
 - com.kodnest.programs
 - com.leetcode.programs
 - com.talentbattle.codingchallenge

The Console on the right shows the output of the program:

```
<terminated> Inheritance [Java Application] C:\Program
I am equilateral triangle
I am Isosceles triangle
I am Triangle
```

The status bar at the bottom indicates the file is writable, smart insert is enabled, and the cursor is at line 31, column 511. The system clock shows 6:29 PM on 1/27/2023.