**1. Single Level Inheritance :**

**class** Single1{

**int** a=10;

**int** b=20;

**public** **void** addition()

{

**int** c=a+b;

System.***out***.println("Addition is : "+c);

}

**public** **void** substraction()

{

**int** c=a-b;

System.***out***.println("substraction is : "+c);

}

}

**class** Single2 **extends** Single1{

**int** x=10,y=10;

**int** z=x\*y;

**public** **void** addition()

{

Single1 s1 = **new** Single1();

s1.addition();

System.***out***.println("Multiplication is : "+z);

}

}

**public** **class** SingleLevel {

**public** **static** **void** main(String[] args)

{

Single2 s2 = **new** Single2();

s2.addition();

s2.substraction();

}

}

**OUTPUT :**

Addition is : 30

Multiplication is : 100

substraction is : -10

**2. MultiLevel Inheritance :**

**class** Multi1 {

**int** a=10;

**public** **void** add()

{

System.***out***.println("Addition is 10");

}

}

**class** Multi2 **extends** Multi1{

**int** b=20;

**public** **void** Sub()

{

System.***out***.println("Substartiob is 20");

}

}

**class** Multi3 **extends** Multi2{

**public** **void** Mul()

{

System.***out***.println("Multiplication is 30");

}

}

**public** **class** MultiLevel {

**public** **static** **void** main(String[] args) {

Multi3 m3 = **new** Multi3();

m3.add();

m3.Sub();

m3.Mul();

System.***out***.println(m3.a);

System.***out***.println(m3.b);

}

}

**OUTPUT :**

Addition is 10

Substartion is 20

Multiplication is 30

10

20

**2. MultiLevel Inheritance :**

**class** Hierarchi1

{

**public** **void** print\_parent()

{

System.***out***.println("In ::Parent class");

}

}

**class** Hierarchi2 **extends** Hierarchi1

{

**public** **void** print\_child1()

{

System.***out***.println("In ::Child1 class");

}

}

**class** Hierarchi3 **extends** Hierarchi1

{

**public** **void** print\_child2()

{

System.***out***.println("In ::Child2 class");

}

}

**class** Hierarchi4 **extends** Hierarchi1

{

**public** **void** print\_child3()

{

System.***out***.println("In ::Child3 class");

}

}

**public** **class** Hierarchical {

**public** **static** **void** main(String[] args)

{

Hierarchi2 ch1 = **new** Hierarchi2();

ch1.print\_child1();

Hierarchi3 ch2 = **new** Hierarchi3();

ch2.print\_child2();

Hierarchi4 ch3 = **new** Hierarchi4();

ch3.print\_child3();

ch3.print\_parent();

}

}

**OUTPUT :**

In ::Child1 class

In ::Child2 class

In ::Child3 class

In ::Parent class