Inheritance -Single level Inheritance:

**Super class:**

**package** oopsInheritance;

**public** **class** father { //This is super class and it has complete method

**public** **void** F1() //non static method -- method declaration

{

System.***out***.println("Father money"); //method definition

}

**public** **void** F2()

{

System.***out***.println("Father car");

}

}

Sub class:

**package** oopsInheritance;

**public** **class** son **extends** father {

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

son s=**new** son();

s.F1();

s.F2();

}

}

Output: Father Money

Father Car

Description: In the above program, there is one super class which is father, it has F1,F2 methods. Which are complete methods ( complete methods means it has both method declaration and method definition ), and there is one sub class which is son, which is inheriting the properties of father, so we will create main method in the sub class and create object for the sub class, with the help of reference variable of object, we are calling the father class methods to inherit into son class.

Inheritance -Multi level Inheritance:

**class** Animal

{

**void** eat()

{

System.out.println("eating...");

}

}

**class** Dog **extends** Animal

{

**void** bark()

{

System.out.println("barking...");

}

}

**class** BabyDog **extends** Dog

{

**void** weep()

{

System.out.println("weeping...");}

}

**class** TestInheritance2

{

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

{

BabyDog d=**new** BabyDog();

d.weep();

d.bark();

d.eat();

}

}

Output: weeping

Barking

eating

Description: In the above program, there is one super class which is Animal, its continuation class is Dog and Dog continuation class is Baby Dog, Dog will inherit the Animal properties and Baby Dog will inherit the Dog properties.

Inheritance -Hierarchical Inheritance:

**class** Animal

{

**void** eat()

{

System.out.println("eating...");

}

}

**class** Dog **extends** Animal

{

**void** bark()

{

System.out.println("barking...");

}

}

**class** Cat **extends** Animal

{

**void** meow()

{

System.out.println("meowing...");

}

}

**class** TestInheritance3

{

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

{

Cat c=**new** Cat();

c.meow();

c.eat();

c.bark();

}

}

Output: meowing Eating barking

Description: In the above program, there is one super class which is Animal, two sub classes, one is Dog and other is cat, both the sub classes dog and cat are inheriting the animal class properties.