```java
//package projectInheritance;


/*
class Employee
{
        private int id;
        private String name;
        private double salary;

        void input()
        {
                id=101;
                name="Ajay";
                salary = 20000;
        }


        public void display()
        {
                System.out.println(id+" "+name+" "+salary);
        }
}

class Manager extends Employee
{
        int bonus;

        void access()
        {
                bonus=2000;
```

```java
        }

        public void display()
        {
                //System.out.println(id+" "+name+" "+salary + "  "+bonus);
                super.display();
                System.out.println(bonus);
        }
}

public class TestInheritance {

        public static void main(String[] args) {

                Manager m=new Manager();
                m.input();
                m.access();
                m.display();


        }

}
*/




/*
class Employee
{
        protected int id;
```

```java
        String name;

        int salary=5000;

        void input()

        {

                id=101;

                name="Ajay";

        }


        void display()

        {

                System.out.println(id+" "+name);

        }

}


class Manager extends Employee

{

        int bonus;

        void access()

        {

                bonus=2000;

        }


        void show()

        {

                System.out.println("bonus = "+bonus + " id ="+id);

        }

}


class AreaManager extends Manager
```

```java
{
	String dept;

	void enter()
	{
		dept="IT";
	}

	void show1()
	{
		System.out.println("Department  "+dept+ "  id= "+id);
	}
}

public class TestInheritance {

	public static void main(String[] args) {

		AreaManager m=new AreaManager();
		m.input();
		m.access();
		m.display();
		m.show();
		m.enter();
		m.show1();

	}

}

*/
```

```java
//Hierarichical Inheritance

/*
class Father
{
        float height;
        String color;


        void m()
        {
                height=5.6f;
                color="yellow";


                System.out.println(height+"  "+color);
        }

}



class Son extends Father
{
        int bacc;

        void s()
        {
                bacc=200000;


                System.out.println(bacc);
        }

}
```

```java
class Daughter extends Father
{
        int bacc1;

        void d()
        {
                bacc1=300000;
                System.out.println(bacc1);
        }
}



public class TestInheritance {

        public static void main(String[] args) {

                Son s=new Son();
                Daughter d=new Daughter();

                s.m();
                s.s();
                d.m();
                d.d();

        }

}
*/
```

// Multiple inheritance is not allowed in java

/*

```java
class A
{
        void m()
        {
                System.out.println("In class A");
        }
}


class B
{
        void m()
        {
                System.out.println("In class B");
        }
        }



class T extends A,B
{

}
```
*/

// super keyword: is used immediate parent class variable,method,and constructor

```java
/*
class Vehicle
{
        String vehicletype;

        void show()
        {
                vehicletype="4 wheeler";
                System.out.println(vehicletype);

        }

}


class Car extends Vehicle
{
        String vehicletype;

        void display()
        {
                super.vehicletype="4 wheeler";
                vehicletype="Sudan";
                System.out.println(vehicletype);
                System.out.println(super.vehicletype);
        }
}
```

```java
public class TestInheritance {

	public static void main(String[] args) {

		Car c=new Car();

		c.display();

	}

}
*/

/*

class Vehicle
{
	String vehicletype;

	void show()
	{
		vehicletype="4 wheeler";
		System.out.println(vehicletype);

	}

}

class Car extends Vehicle
{
	String vehicletype;
```

```java
        void show()
        {
                super.show();
                vehicletype="Sudan";
                System.out.println(vehicletype);


        }
}



public class TestInheritance {

        public static void main(String[] args) {


                Car c=new Car();


                c.show();


        }

}

*/

/*

class Vehicle
{
        String vehicletype;
```

```java
        String vehiclemodel;

        public Vehicle(String vehicletype, String vehiclemodel) {

                this.vehicletype = vehicletype;
                this.vehiclemodel = vehiclemodel;
        }



}

class Car extends Vehicle
{
        int vehicleno;

        public Car(String vehicletype, String vehiclemodel, int vehicleno) {

                super(vehicletype,vehiclemodel);

                this.vehicleno=vehicleno;

        }

        void display()
        {
                System.out.println(vehicletype+"  "+ vehiclemodel+" "+vehicleno);
        }

}
```

```java
public class TestInheritance {

        public static void main(String[] args) {

                Car c=new Car("4 wheeler","Kia",5648);

                c.display();

        }

}

*/

// instance initializer block

// is used to initialize the instance variable.

/*

class Vehicle
{
        String vehicletype;

        Vehicle()
```

```java
	{

		System.out.println("Constructor called");

	}



	{

		vehicletype="4 wheeler";

		System.out.println("INstance block is called"+vehicletype);

	}

}




public class TestInheritance {

	public static void main(String[] args) {

		Vehicle v=new Vehicle();

	}

}




*/
```

```
/*
class Address
{
        int lanno;
        String city;

        Address(int lanno,String city)
        {
                this.lanno=lanno;
                this.city=city;
        }

        public String toString()
        {
                return lanno+" "+city;
        }
}


class Employee
{
        int id;
        String name;

        Address address;

        public Employee(int id, String name, Address address) {

                this.id = id;
                this.name = name;
                this.address = address;
```

```java
        }

        public void display()
        {
                System.out.println(id+" "+name);
                System.out.println(address);
        }

}




public class TestInheritance {

        public static void main(String[] args) {

                Address ob=new Address(1064,"pune");

                Employee e=new Employee(101,"Ajay",ob);

                e.display();

        }

}


*/
```