

1. Simple Inheritance :-

```
class animal {  
    string name;  
    void makesound() {  
        system.out.println("Animal makes a sound");  
    }  
}  
class Dog extends Animal {  
    @Override  
    void makesound() {  
        system.out.println("The dog barks");  
    }  
}  
Public class main {  
    Public static void main(String[] args) {  
        Dog dog = new Dog();  
        dog.makesound();  
    }  
}
```

2. Constructor Inheritance

```
class Person {  
    String name;  
    int age;  
    Person(String name, int age) {  
        this.name = name;  
        this.age = age;  
    }  
}
```



```

class student extends person {
    String grade;
    student (String name, int age, String
    grade) {
        super (name, age);
        this.grade = grade;
    }
    void display() {
        student student = new student
        ("John", 20, "A");
        student.display();
    }
}

```

3. Multilevel Inheritance :-

```

class vehicle {
    int speed;
    String fuelType;
    vehicle (int speed, String fuelType) {
        this.speed = speed;
        this.fuelType = fuelType;
    }
}

```

```

class car extends vehicle {
    int numberOfDoors;
    car (int speed, String fuelType,
    int numberOfDoors) {
        super (speed, fuelType);
    }
}

```



```
3  
3 public Main {  
    public static void main (String[]  
args) {  
        ElectricCar electricCar = new  
electricCar (120, "Electric", 4, 85);  
        electricCar.displayProperties ();  
    }  
}
```

```
3  
3  
3 Method overriding in Inheritance  
class Shape {  
    void draw () {  
        System.out.println ("Drawing a shape");  
    }  
}
```

```
3  
3  
3 class Circle extends Shape {  
    @Override  
    void draw () {  
        System.out.println ("Drawing a circle");  
    }  
}
```

```
3  
3  
3 public class Main {  
    public static void main (String[] args) {  
        Shape circle = new Circle ();  
    }  
}
```



```
circle.draw();
```

```
}
```

```
}
```

5. Inheritance and Access Modifiers :-

```
class Employee {  
    private String privateField =  
    "private";
```

```
    protected String  
    protectedField = "protected";  
    public String publicField = "public";  
}
```

```
class Manager extends Employee  
{  
    void displayFields() {  
        System.out.println(privateField);  
    }  
}
```

```
public class Main {  
    public static void main  
(String[] args) {  
        Manager manager = new  
        Manager();  
        manager.displayFields();  
    }  
}
```