

Aim:

Write Java program on use of Inheritance.

Create a class Vehicle

- contains the data members **color** of String type and **speed** and **size** of integer data type.
- write a method **setVehicleAttributes()** to initialize the data members

Create another class Car which is derived from the class Vehicle

- contains the data members **cc** and **gears** of **integer** data type
- write a method **setCarAttributes()** to initialize the data members
- write a method **displayCarAttributes()** which will display all the attributes.

Write another class InheritanceDemo with **main()** it receives five arguments **color**, **speed**, **size**, **cc** and **gears**.

Source Code:

InheritanceDemo.java

```
class Vehicle{
    String color;
    int speed,size;
    public void setVehicleAttributes(String s,int spd,int sz){
        color=s;
        speed=spd;
        size=sz;
        System.out.println("Color of Car : "+color);
        System.out.println("Speed of Car : "+speed);
        System.out.println("Size of Car : "+size);
    }
}
class Car extends Vehicle{
    int cc,gears;
    public void setCarAttributes(int c,int gear){
        cc = c;
        gears = gear;
    }
    public void displayCarAttributes(){
        System.out.println("CC of Car : "+cc);
        System.out.println("No of gears of Car : "+gears);
    }
}
class InheritanceDemo{
    public static void main(String args[]){
        Vehicle obj = new Vehicle();
        int speed = Integer.parseInt(args[1]);
        int size = Integer.parseInt(args[2]);
        int cc = Integer.parseInt(args[3]);
        int gears = Integer.parseInt(args[4]);
        obj.setVehicleAttributes(args[0],speed,size);
        Car obj1=new Car();
        obj1.setCarAttributes(cc,gears);
    }
}
```

```
    obj1.displayCarAttributes();  
  }  
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Color of Car : Blue
Speed of Car : 100
Size of Car : 20
CC of Car : 1000
No of gears of Car : 5

Test Case - 2
User Output
Color of Car : Orange
Speed of Car : 120
Size of Car : 25
CC of Car : 900
No of gears of Car : 5