| S.No: 11 | Exp. Name: ***A program to illustrate Inheritance*** | Date: |
|---|---|---|



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## 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

```
import java.util.Scanner;
class Vehicle{
   String color;
   int speed;
   int size;
   void setVehicleAttributes(String c,String s,String sp)   {
      color=c;
      speed=Integer.parseInt(s);
      size=Integer.parseInt(sp);
      }
   }
class Car extends Vehicle{
   int CC;  int gears;
   void setCarAttributes(String c,String s,String sp,String cce,String gear)
      {  setVehicleAttributes(c,s,sp);
         CC=Integer.parseInt(cce);
         gears=Integer.parseInt(gear);
         displayCarAttributes(); }
         void displayCarAttributes()
         {     System.out.println("Color of Car : "+color);
            System.out.println("Speed of Car : "+speed);
            System.out.println("Size of Car : "+size);
            System.out.println("CC of Car : "+CC);
            System.out.println("No of gears of Car : "+gears);
         }
   }
public class InheritanceDemo{
   public static void main(String args[]) {
      Car b1=new Car();
      b1.setCarAttributes(args[0],args[1],args[2],args[3],args[4]);
      }
}
```

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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 |



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