

Assignment

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- Write a Java program to create a class called Vehicle with a method called drive().
- Vehicle should have attributes such as make (String), model (String) ,year (int) and maximumSpeed (int).
- Create a constructor in Vehicle with all fields as constructor parameters.
- Create a subclass called Car and override constructor. Call super().
- Write a function that overrides the drive() method to print (make + " " +model + " Car is driving".)
- Also create another subclass Bike extending the vehicle class.
- Override the drive() method to print (make + " " + model + " Bike is driving".)
- Instantiate both Bike and Car class. Print their attributes.
- Write a Java program to create a class called Vehicle with a method called drive().
- Vehicle should have attributes such as make (String), model (String) ,year (int) and maximumSpeed (int).
- Create a constructor in Vehicle with all fields as constructor parameters.

- Create a subclass called Car and override constructor. Call super().
- Write a function that overrides the drive() method to print (make + " " + model + " Car is driving".)
- Also create another subclass Bike extending the vehicle class.
- Override the drive() method to print (make + " " + model + " Bike is driving".)
- Instantiate both Bike and Car class. Print their attributes.

// lab program...

```
class Vehicle {  
    String make;  
    String model;  
    int year;  
    int maximumSpeed;  
  
    public Vehicle(String make, String model, int year, int  
maximumSpeed) {
```

```
    this.make = make;

    this.model = model;

    this.year = year;

    this.maximumSpeed = maximumSpeed;
}
```

```
public void drive() {
    System.out.println(make + " " + model + " is driving.");
}
}
```

```
class Car extends Vehicle {

    public Car(String make, String model, int year, int
maximumSpeed) {

        super(make, model, year, maximumSpeed);

    }

    public void drive() {

        System.out.println(make + " " + model + " Car is driving.");

    }
}
```

```
}
```

```
class Bike extends Vehicle {
```

```
    public Bike(String make, String model, int year, int  
maximumSpeed) {
```

```
        super(make, model, year, maximumSpeed);
```

```
    }
```

```
    public void drive() {
```

```
        System.out.println(make + " " + model + " Bike is driving.");
```

```
    }
```

```
}
```

```
public class Main {
```

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

```
        Car car = new Car("Toyota", "Camry", 2022, 150);
```

```
        Bike bike = new Bike("Honda", "CBR", 2023, 200);
```

```
        System.out.println("Car attributes:");
```

```
        System.out.println("Make: " + car.make);
```

```
        System.out.println("Model: " + car.model);  
        System.out.println("Year: " + car.year);  
        System.out.println("Maximum Speed: " +  
car.maximumSpeed);  
        car.drive();
```

```
        System.out.println("\nBike attributes:");  
        System.out.println("Make: " + bike.make);  
        System.out.println("Model: " + bike.model);  
        System.out.println("Year: " + bike.year);  
        System.out.println("Maximum Speed: " +  
bike.maximumSpeed);  
        bike.drive();  
    }  
}
```

Output:

```
D:\Lab>javac Main.java

D:\Lab>java Main
Car attributes:
Make: Toyota
Model: Camry
Year: 2022
Maximum Speed: 150
Toyota Camry Car is driving.

Bike attributes:
Make: Honda
Model: CBR
Year: 2023
Maximum Speed: 200
Honda CBR Bike is driving.

D:\Lab>
```