Lab10-Assignment

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1) 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.

```
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.");
```

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

```java
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>
```