

Object Oriented Programming in JAVA

Practical No. :- 7

Q.7] A vehicle has engine no and chassis number. It can be locked, unlocked. Every vehicle is movable (interface). It can be started, stopped, turned, accelerated, turned, and decelerated. A car is a vehicle. It has steering. An airplane is a vehicle. It has wings. A boat is a vehicle. It has propeller.

Code :-

```
package com.Mars.abhishek;
//*****
interface VehicleProperties{
    void start();
    void stop();
    void accelerate();
    void decelerate();
    void turn();
}
//*****
class Vehicle implements VehicleProperties {
    int engineNo , chassisNo ;

    public void start(){
        System.out.println("It can be started.");
    }

    public void stop() {
        System.out.println("It can be stopped.");
    }

    public void accelerate(){
        System.out.println("It can be accelerated.");
    }

    public void decelerate() {
        System.out.println("It can be decelerated.");
    }

    public void turn() {
        System.out.println("It can be turned.");
    }
}
//*****
class Car extends Vehicle{
    Car(int en,int cn) {
        engineNo = en;
        chassisNo = cn;
    }
    public void steering(){
        System.out.println("-----Car-----"+'\n'+"It has steering.");
    }
}
//*****
class Boat extends Vehicle{
    Boat(int en,int cn) {
        engineNo = en;
        chassisNo = cn;
    }
    public void propeller(){
        System.out.println("-----Boat-----"+'\n'+"It has propeller.");
    }
}
```

```

    }
}

//*****
class Airplane extends Vehicle{
    Airplane(int en,int cn) {
        engineNo = en;
        chassisNo = cn;
    }
    public void wings(){
        System.out.println("-----Airplane-----"+'\n'+"It has wings.");
    }
}

//*****
public class Main{
    public static void main(String[] args) {
        Car c = new Car(1234,56789);
        Boat b = new Boat(2345,67890);
        Airplane a = new Airplane(3456,78901);
        c.steering();
        c.start();
        c.turn();
        c.accelerate();
        c.decelerate();
        c.stop();

        b.propeller();
        b.start();
        b.turn();
        b.accelerate();
        b.decelerate();
        b.stop();

        a.wings();
        a.start();
        a.turn();
        a.accelerate();
        a.decelerate();
        a.stop();
    }
}

```

Output:-

```
"C:\Program Files\Java\jdk1.8.0_212\bin\java" ...
```

```
-----Car-----
```

```
It has steering.
```

```
It can be started.
```

```
It can be turned.
```

```
It can be accelerated.
```

```
It can be decelerated.
```

```
It can be stopped.
```

```
-----Boat-----
```

```
It has propeller.
```

```
It can be started.
```

```
It can be turned.
```

```
It can be accelerated.
```

```
It can be decelerated.
```

```
It can be stopped.
```

```
-----Airplane-----
```

```
It has wings.
```

```
It can be started.
```

```
It can be turned.
```

```
It can be accelerated.
```

```
It can be decelerated.
```

```
It can be stopped.
```

```
Process finished with exit code 0
```