INTERFACE

OUTPUT

```
JetSki engine starts - vroosh...vroosh...
Bicycle has 2 wheels
Motobike engine starts - vroom...vroom...
Motobike has 2 wheels
Aircraft engine starts - viuuuuu.
Aircraft has 3 wheels
Aircraft altitude is 15000m
```

Super class - Vehicle

```
public class Vehicle {

   private String type;
   private int speed;

   public Vehicle(String t, int s) {
      type = t;
      speed = s;
   }

   public String getType() {
      return type;
   }

   public int getSpeed() {
      return speed;
   }
}
```

Interface 1 – Wheel system

```
public interface WheelSystem {

   public void displayTotWheel();
}
```

Interface 2 – Flight system

```
public interface FlightSystem {

   public void displayMaxAltitude();
}
```

Interface 3 – Engine system

```
public interface Engine {

   public void startEngine();
}
```

Sub class 1 – Jet Ski

```
public class JetSki extends Vehicle implements Engine{

   public JetSki(String t, int s) {
      super(t, s);
   }

   public void startEngine() {
      System.out.println("JetSki engine starts - vroosh...vroosh...");
   }
}
```

Sub class 2 – Bicycle

```
public class Bicycle extends Vehicle implements WheelSystem{

   public Bicycle(String t, int s){
      super(t, s);
   }
```

```
   public void displayTotWheel() {
      System.out.println("Bicycle has 2 wheels");
   }
}
```

Sub class 3 – Motobike

```
public class Motobike extends Vehicle implements Engine, WheelSystem {

   public Motobike(String t, int s) {
      super(t, s);
   }

   public void startEngine() {
      System.out.println("Motobike engine starts - vroom...vroom...");
   }

   public void displayTotWheel() {
      System.out.println("Motobike has 2 wheels");
   }
}
```

Sub class 3 – Aircraft

```
public class Aircraft extends Vehicle implements Engine, WheelSystem, FlightSystem {

   public Aircraft(String t, int s) {
      super(t, s);
   }

   public void startEngine() {
      System.out.println("Aircraft engine starts - viuuuuu.");
   }

   public void displayTotWheel() {
      System.out.println("Aircraft has 3 wheels");
   }

   public void displayMaxAltitude() {
      System.out.println("Aircraft altitude is 15000m");
   }
}
```

Super Class

```
public class MyTransport {

   public static void main(String args[]) {

      JetSki js = new JetSki("water", 40);
      Bicycle b = new Bicycle("land", 20);
      Motobike mb = new Motobike("land", 200);
      Aircraft a = new Aircraft("air", 1000);

      js.startEngine();
      b.displayTotWheel();
      mb.startEngine();
      mb.displayTotWheel();
      a.startEngine();
      a.displayTotWheel();
      a.displayMaxAltitude();
   }
}
```

EXERCISE

1. Add Glider class to the program. A Glider has no engine.
It has 3 wheels and maximum altitude of 3000m. Create a glider object and display all necessary details.

2. Add interface Registration to the vehicles that require compulsory registration. All aircrafts and motorbikes require registration number.