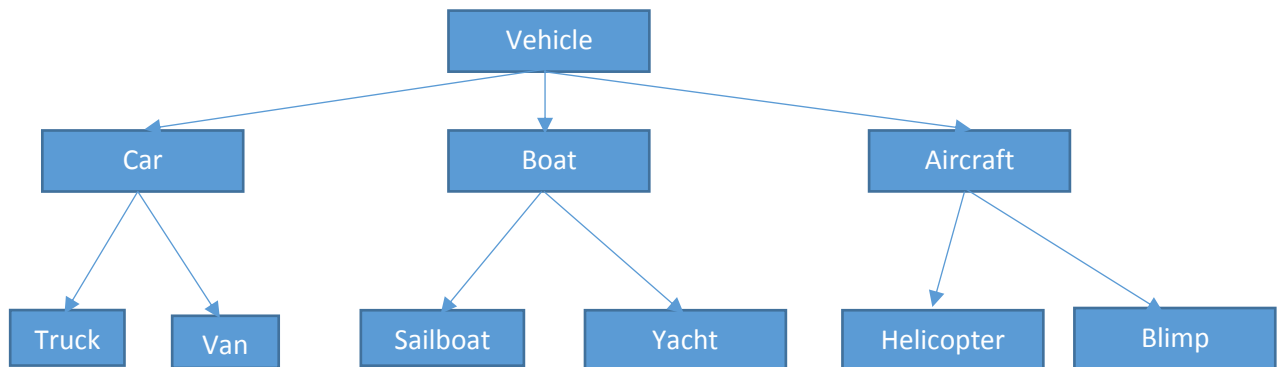Project3

Vehicle is an interface that declares **three methods** to:

Modify the gear number: sets the gear value to the new value passed as a parameter

Modify the speed: increments the Vehicle's speed by the value passed

Apply the break: will decrement Vehicle's speed by the value passed

Car, Boat, Aircraft are three classes that implement Vehicle (They also define the size and color)

Truck, Van, Sailboat, Yacht, Helicopter, and Blimp are classes that inherit the three previous classes as shown in the diagram. (They differ by the size –maximum number of passengers- and number of passengers each one has)

Write the java classes that is defined above. With the needed default constructor and at least one overloaded constructor for every class.

Please include all the setter, getter, toString methods

Write the tester class that instantiate 3 Objects of each of the **Truck, Van, Sailboat, Yacht, Helicopter, and Blimp** classes.

For example:

Truck C1 = new Truck()

Car C2 = new Truck()

Vehicle C3 = new Truck()

Invoke all the methods in all the classes, even if it will generate an error. Output the expected results, and the actual ones

For example

System.out.println("Testing getSize() " + "expected " + 2 + "passenger");

System.out.println("Testing getSize() " + "Actual " + C1.getSize() + "passenger");

If you will expect that invoking a method will give a syntax error, explain why in your out put statement and comment the statement that caused the error.

No need for the user's entry.

Document your code properly, don't forget @override.

Draw the UML diagram for your classes and one object of every class.

Save everything into a word document with a sample output and upload.