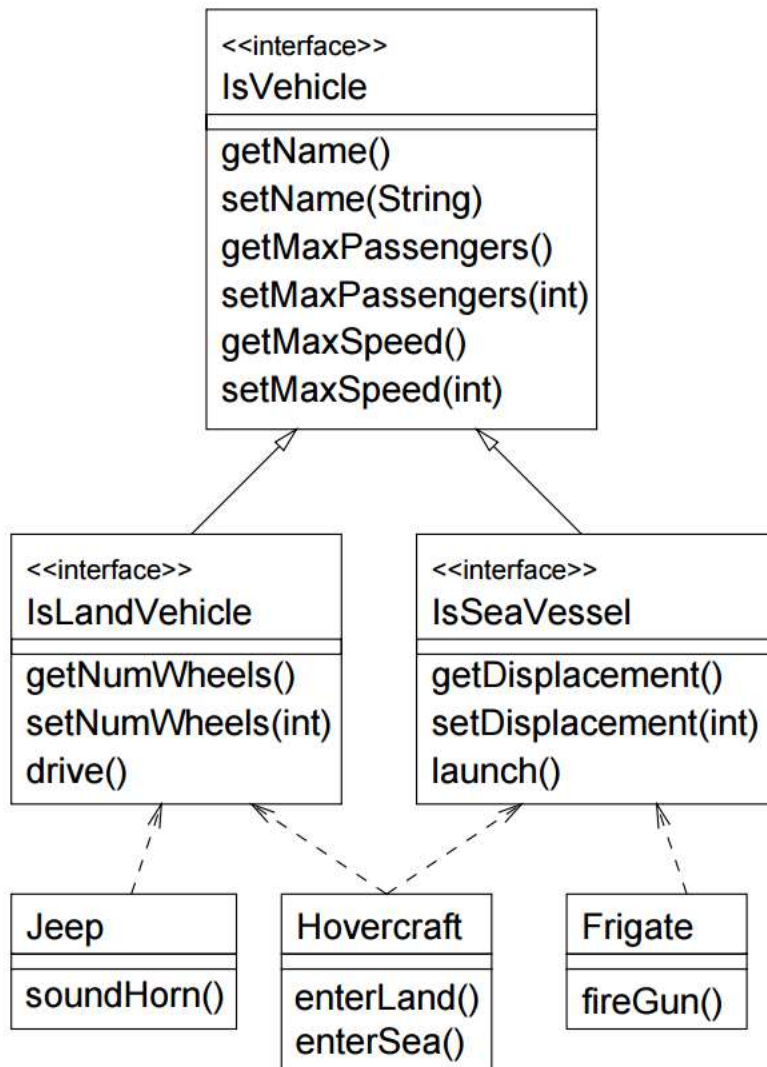


CMSC 123 Lab 5a

Goal: This lab will give you practice writing code that uses Java interfaces.



## Questions

1. Fetch the file **InterTest.java** which contains the program code for the UML diagram above.
2. By copying the pattern from the other interfaces in this file, write an interface **IsEmergency** which extends no other interface and contains just one method **soundSiren** which takes no arguments and returns no value.
3. Write a class **PoliceCar** that implements the **IsEmergency** and **IsLandVehicle** interfaces.
4. In addition to the methods you have written for the **PoliceCar** class, think of a new method or property that police cars have and add it to the class.
5. Add the **PoliceCar** class and the **IsEmergency** interface to the UML diagram. Show all methods and properties.
6. Construct a **PoliceCar** object and add it to the array **myArray** in the main method.
7. By copying the pattern for the existing code inside the for loop, add some code that tests the array elements to see if they are instances of classes that implement the **IsEmergency** interface and if so, calls the **soundSiren** method.

NOTE: In an expression like:

```
if (myArray[i] instanceof IsLandVehicle) {
```

we are testing whether or not the object referenced by **myArray[i]** is an instance of a class that implements the **IsLandVehicle** interface