

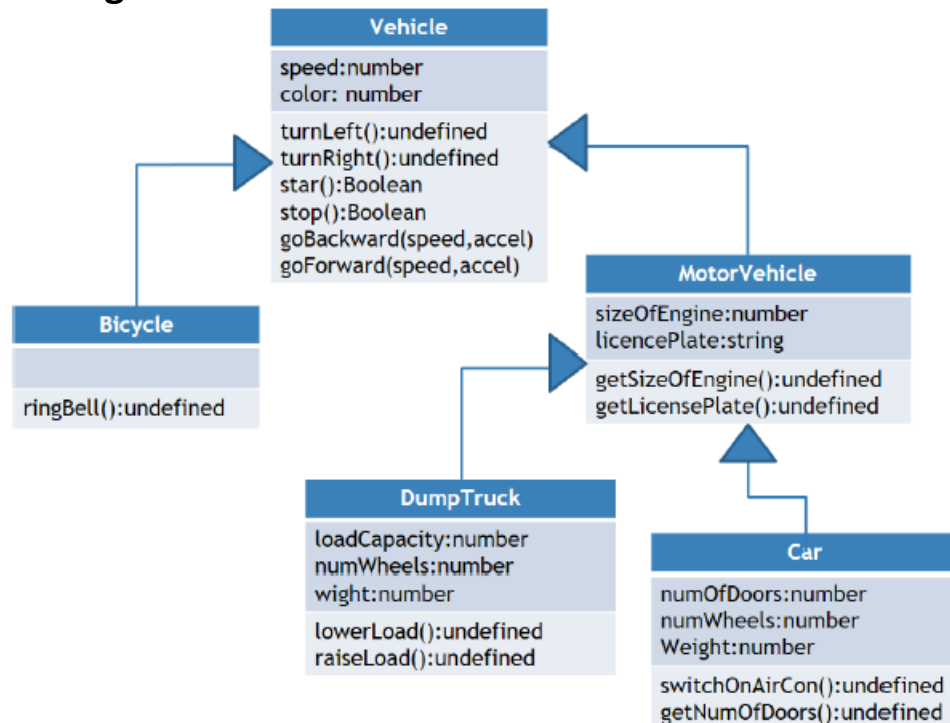
Advanced JavaScript

Lab 4

1.a. Make proper updates in previous of generating Rectangle objects,

- **Rectangle Constructor should inherit from Shape Constructor**
- **Create your Square constructor that inherits from Rectangle.**
- **Create a Class Property that counts number of generated Square objects.**
- **Prevent creating any object from shape, allow creation of only rectangles and square (make shape abstract class)**
- **All of the properties should be defined using accessor and/or data descriptor, prevent them from being deleted, iterated or being modified.**
- **Use .toString() to display each instance's dimensions, its area and perimeter.**
- **Implement .valueOf() so that if there is more than one rectangle object we can run arithmetic operation as follows : if we have rectangle1 of area 60m² and rectangle2 of 37m² then rectangle1 + rectangle2 should return 97 and rectangle1 - rectangle2 should return 23.**
- **you can add any property you need.**

2. Build your own custom constructors that implement the given simple class diagram



- each class should have the following
 - public and private properties and method;
 - You should ensure that properties are set with the required data type state in the above diagram otherwise throw an exception.
 - All of the properties should be defined using accessor and/or data descriptor, prevent them from being deleted, iterated or being modified.
 - Override both `.toString()` and `valueOf()`
 - Make sure you are implementing inheritance properly.
 - You can add any property you need.

Self-Study:

- `Object.create()`
- `Object.freeze()`
- `Object.seal()`
- Find out how to make an object immutable