

Advanced JavaScript

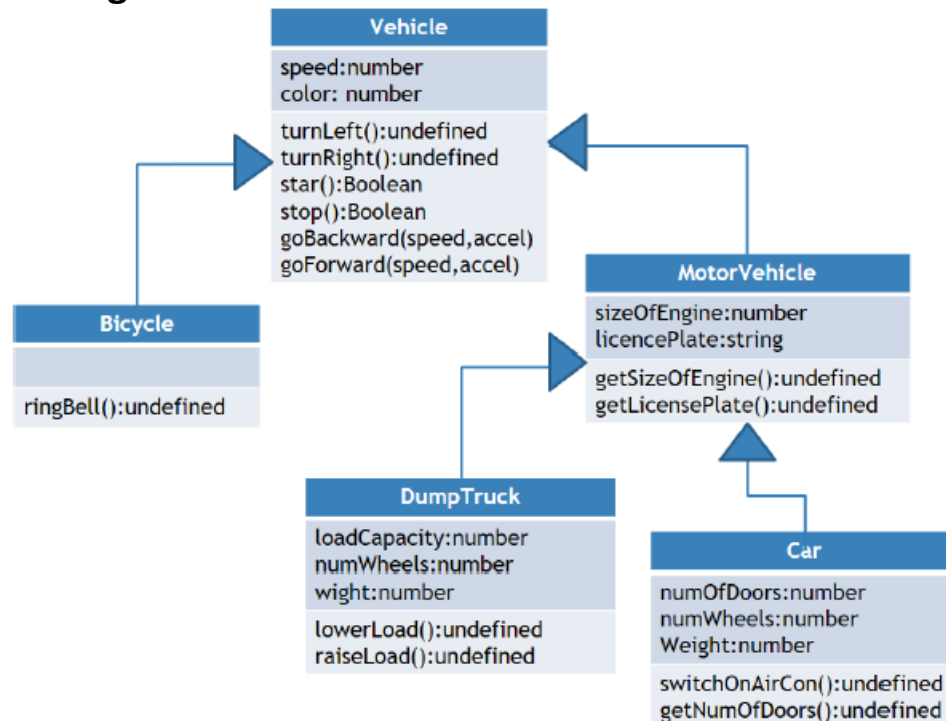
Lab 3

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.

1.b Bonus: allow creation of only one square and one rectangle

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**

- **Function currying**