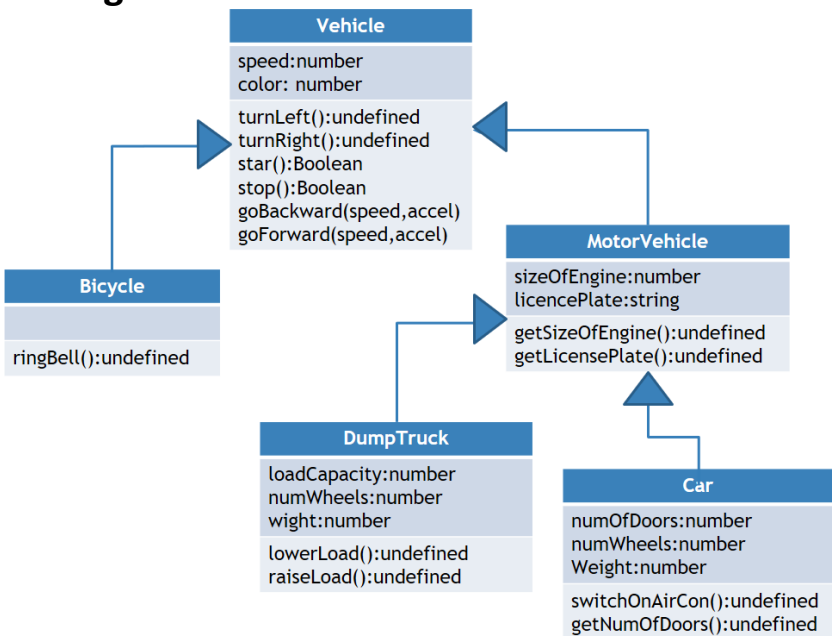
Advanced JavaScript
Lab 3

1.a. Make proper updates in (lab#1 task#5) your previous code 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**