

10/10/2020V2

Assignment for W3D6 F.prototype and Object.create

Part I: Complete the following tasks from The JavaScript Language book. Try to answer them before looking at the solutions. You should work on each one for at least 10 – 20 minutes before looking at the solution. Write your own code for each of these in VSCode before looking at the answers. It is very helpful to have the ESLint checks running when you write your code. You can turn it off in a file if it is really trivial code that you do not need to debug with the following line at the top of that trivial file:

```
/* eslint-disable */
```

However, when writing any nontrivial code it finds a lot of bugs and although it takes a little extra time for the initial coding, it will save you a lot of time in the end. Equally important, it will develop good coding practices and make your code look much more professional and make you a better faster professional, faster!

In your github README file include a statement about whether you were able to complete all the exercises on your own and whether you have questions or would like to hear an explanation on any of the solutions from the book. Also comment on something that was interesting or that you learned from the lab. Finally please note whether you had sufficient time to complete the lab and about how long it took.

Chapter: Inheritance

Section: F.prototype

Tasks

Changing “prototype”

Section: Native prototypes

Tasks

Add method f.defer(ms) to functions

(EC) Add the decorating “defer()” to functions

Section: Prototype methods, objects without __proto__

Tasks

The difference between calls

The last exercise for today comes from: <https://www.learn-js.org/en/Inheritance>

Create an object called Teacher derived from the Person class, and implement a method called teach which receives a string called subject, and prints out:

[teacher's name] is now teaching [subject]

Here is code for Person and an example of a Student function constructor. Write Mocha tests that verify the describe, learn, and teach methods work as expected for students and teachers.

```
var Person = function() {};  
  
Person.prototype.initialize = function(name, age)  
{  
  this.name = name;  
  this.age = age;  
}  
  
Person.prototype.describe = function()  
{  
  return this.name + ", " + this.age + " years old.";  
}  
  
var Student = function() {};  
Student.prototype = new Person();  
  
Student.prototype.learn = function(subject)  
{  
  console.log(this.name + " just learned " + subject);  
}  
  
var me = new Student();  
  
me.initialize("John", 25);  
me.learn("Inheritance");
```

Extra Credit

If you are already done with the TicTacToe assignment (due Tuesday) you can try the following enhancements:

- highlight a winning TicTacToe sequence with some background color or other effect
 - have confirm popup to the user with some congratulatory message and identity of the winner, maybe also the selected id's. E.g., Congratulations Player 1 on your winning sequence in squares 1, 5, 9 . The winning sequence squares will be highlighted and then the game resets after they respond 'Ok' to the confirm dialog.
 - instead of a confirm popup make a text area or div with the message that disappears after 5 seconds (or when clicked on)
- make it work for $n \times n$, allow user to select size. Decide on whether a winning sequence should be n in a row or 3 in a row or some other value.