Week 8 codify academy

**Week 8**

**In Class Quiz**

1. In plain English, explain what document.getElementById() means.
2. In simple terms, what does a ‘for loop’ do?
3. What is a variable? Explain in your own words.
4. What is an object? Explain in your own words.
5. What is a function? Explain in your own words.

**Group Discussion Questions**

1. How would you print to the console 0 - 100 in increments of 5?
2. How would you save a user's name? (not using prompt)
3. What are the 5 variable data types?
4. How would you store 3 sets of data all with the same properties but have different values?
5. How would you display all of the info from #4 in existing HTML?

**Exercises**

***Important: Make sure to add comments to your code to help your future self.***

1. Create a copy of your template folder and rename it to week8exercise.
2. Drag this new folder into your 'week8' folder inside your 'codify' folder.
3. When working through these exercises, there are bits and pieces of the instructions that are deliberately left out. You should start thinking about what you THINK you will need in order to accomplish the request.
4. In HTML: Make a div and give it an ID. Using JavaScript, put some text into that element.
5. In JS: Create a variable and store a string inside it. Using that variable, put that text into the above div.
6. In JS: Create a function that takes a user's input (value) and then logs it to the console. Invoke the function (make it start) when you click a button.
7. In JS: Create an array with five entries. Using a for loop, log each entry to the console.
8. In JS: Create an object that has at least three properties. Log each property value to the console.
9. In JS: Create an array with multiple objects. Each object should have multiple properties. Using a for loop, log the property values of each object to the console. (ie: if you have an object with a "name", "age," and "gender" - the goal is to log the value of "name," "age," and "gender" to the console.)

***Once you have completed these exercises add them to Github.***

[Download Completed Week 8 Exercises](http://codifyacademy.com/wk8/week8exercises.zip)

**Project**

Today we will build a Zodiac Application together, we will get user inputs and check if it matches any "existing signs". If they match an existing sign, we will display an image of the zodiac sign, as well as some information about that sign.

**Steps For Making a JavaScript Project**

1. Paper Prototype the layout of the project (draw out how you want the app to look).
2. Create the HTML needed to accept user data and a place to display the results (you will usually create a form with input elements to get user data and a div with some id to select to display results).
3. Write pseudocode for the JavaScript Logic (this is a halfway point between plain english and pure JavaScript).Example of pseudocode:   
   select an input element by id and store it in a variable
4. Write the JavaScript to capture user data and compare it to existing data, if they typed a zodiac sign out you can display that info to them.Example of JavaScript:   
   var userHairColor = document.getElementById("userColor");   
   console.log(userColor);
5. Style the finished product with some CSS.

**Working Project Examples**

[Zodiac Example 1](http://codifyacademy.com/litmos/wk08/zodiac" \t "_blank) [Zodiac Example 2](http://codifyacademy.com/litmos/wk08/zodiac2" \t "_blank)