Week 14 codify academy

**Week 14**

**Group Discussion Questions**

1. What does API stand for and why are APIs useful to developers?
2. When choosing an API, what is one of the most important things to look for?
3. What is the method we use when making an API request?
4. What is the function we run when we get the data we requested from an API?
5. What is the prefered datatype that is returned from an API?
6. What does JSON stand for and how do we access the properties in JSON Objects?

**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 week14exercise.
2. Drag this new folder into your 'week14' 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. Visit [W3Schools Google Maps Basics](https://www.w3schools.com/graphics/google_maps_basic.asp" \t "_blank)
5. In HTML and CSS: Create an element to display the map. Make sure to your element has some width and height so there is 'space' for the map.
6. In HTML: Add a script tag to include the Google Maps API.
7. In JS: Create a function to add the map, with one variable for map properties. Update the location to your favorite place on Earth.
8. In JS: Using the google.maps.event.addDomListener method, select the window and when it loads, run the function to add the map.
9. In JS: Add the map to the screen using the google.maps.Map method.
10. In W3Schools: Move to the next section Maps Overlays.
11. In JS: Create a marker and set the position to mapProp.center. Add the marker to the map using the Google setMap method.
12. In W3Schools: Move to the next section Maps Events.
13. In JS: Using the google.maps.event.addListener method, add an event so when you click on the marker it zooms in on the map marker.
14. In W3Schools: Move to the next section Maps Controls.
15. In JS: Disable the default controls on the map.

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

[Download Completed Week 14 Exercises](http://codifyacademy.com/wk14/week14exercises.zip)

**Project**

Today we will start creating a project using the Google Books API.

Using the google books api, we will request data based on the user input (either title or author of a book) and display the data returned from the API, to the user.

We want to display the  author's name, the published date, an image of the book, and a link to learn more about the book. All of this info is included in the JSON data.

**Steps For Making this JavaScript Project - Remember to break this project into manageable steps:**

1. Paper Prototype the layout of the project (draw out how you want the app to look) we will include each author's name, the published date, an image of each book, and a link to learn more about each book.
2. Create the HTML needed to accept user data, a button to run the search function and a place to display the results.
3. Style the project with flat design CSS, ideally something from codepen you modify to make your own.
4. Write pseudocode for the JavaScript Logic (this is a halfway point between plain English and JavaScript).
5. Write the JavaScript to capture user data, adding the answers to an array and displaying the results in the console.

**Working Project Examples**

[Book Finder Example](http://codifyacademy.com/litmos/wk14/googlebooks" \t "_blank) [FDA Search Example](http://codifyacademy.com/litmos/wk14/fdaapi" \t "_blank)