## Intro to APIs and AJAX

**The Coding Bootcamp** 

### **Class Objectives**

- Introduce the concept and utility of APIs and JSON in web applications
- To be exposed to a variety of APIs and the process for building endpoint URLs to utilize them
- To work with the OMDb and Giphy APIs to build data-rich applications

Lessons (sometimes in advance!) github.com/cwoolcott

### **CustomerObject Parsing**

- Object Warm-up!
- Using the instructions shown in the comments, create console.log statements that parse out the requested information.
- Help those around you if you finish early.

### **Install JSON Formatter**



"id": "40796308305",

"name": "Coca-Cola",

"likes": 46963810,

"offset\_y": 0

"is published": true,

"founded": "1886",

"username": 'coca-cola",

"category": "Food/beverages",

" "cover": {

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Developer Tools 387.885 Users **含含含含素 (892)** 

C https://graph.facebook.com/cocacola

"link": "http://www.facebook.com/coca-cola",

"cover\_id": "10151829640053306",

"website": "http://www.coca-cola.com",

| https://graph.facebook.com ×

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Language: English

### Mongo Scraper

Mongo Scraper

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Mongo Scraper

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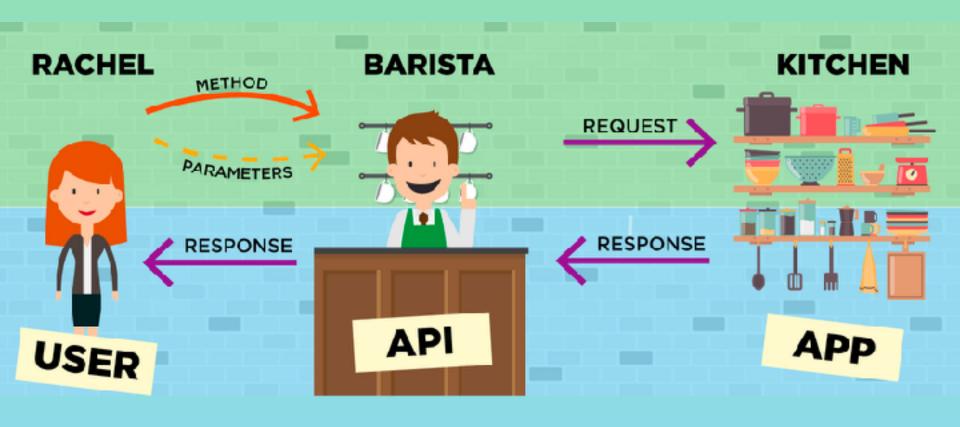
SAVE ARTICLE

### What is an API?

For the next few moments, research amongst yourselves the answers to the following questions:

- a. What is an API?
- b. What does **API** stand for?
- c. What are some examples of **APIs**? (Find links to specific **APIs**)
- d. What do these specific APIs allow you as a developer to do?

### **API Definitions**



### XML

```
<empinfo>
  <employees>
     <employee>
       <name>James Kirk</name>
       <age>40></age>
     </employee>
     <employee>
       <name>Jean-Luc Picard</name>
       <age>45</age>
     </employee>
    <employee>
       <name>Wesley Crusher</name>
       <age>27</age>
     </employee>
  </employees>
</empinfo>
```

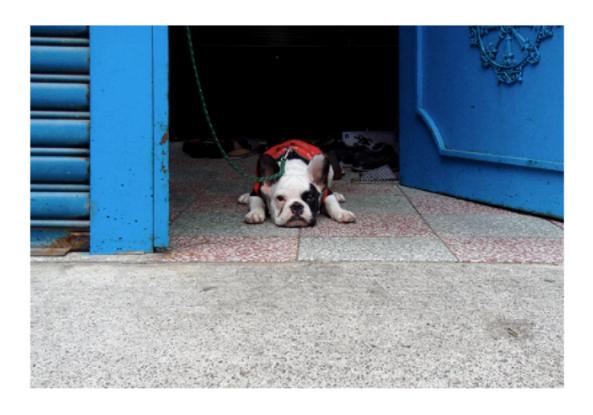
### JSON

```
"empinfo":
        "employees": [
            "name": "James Kirk",
            "age": 40,
        },
            "name": "Jean-Luc Picard",
            "age": 45,
        },
            "name": "Wesley Crusher",
            "age" : 27,
```

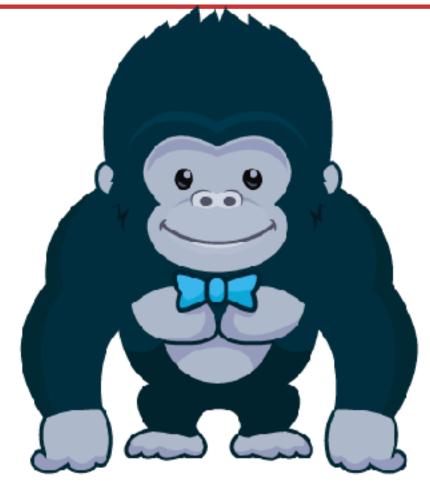
### **REST vs SOAP**

Simple Object Access Protocol (SOAP) and Representational State Transfer (REST) are two answers to the same question: how to access Web services.

## It's a Random French Bulldog!



### Mashape API



Using the Mashape API library as a starting point experiment with a few APIs of your own.

Note: You will need to create an account on Mashape first.

Note: Not all of the APIs are easy to use, just keep experimenting!

# mashape

### **OMDb**

Go to the OMDb API then use the documentation to try to answer the following:

- Without using the user interface, how would I query the OMDB API to get all of the information related to the movie: Frozen?
- Hint: you will have to build a URL of your own with the search parameters listed.
- Note: The OMDb API now requires an API key. Here is your key: trilogy

### **Break**



Time to Take a Break?

## AJAX Query Demo - OMDb Logging JSON

### **AJAX Query Activity**

### **AJAX Query Activity (15 mins)**

- Instructions:
- Now it's your turn! Using the example AJAX code given to you, create an AJAX call to the OMDb API of your own.
- Then try logging any property about the movie to your console.

### **AJAX to HTML Activity**

### **Instructions:**

- Using 04ajax-to-html as a starting point, fill up the HTML table with information about your own favorite movies.
- HINT: You will need multiple AJAX Calls
- BONUS: Once you've completed the basic activity, refactor your solution to be more DRY by placing repetitive logic inside of functions to be called when needed.

### Partners Do: Giphy Documentation (10 mins)

Giphy API Documentation.

### Instructions:

- As partners, using the Giphy API Documentation, try to research answers to the following questions:
  - How would you return back a single gif tied to a search term?
  - How would you return five gifs tied to a search term?
  - How would you return the trending gifs back from this API?
- Homework will use the Giphy API Documentation

## Questions