

# Intro to APIs and AJAX

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The Coding Bootcamp

# Class Objectives

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- 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](https://github.com/cwoolcott)

# CustomerObject Parsing

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- 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



## JSON Formatter

offered by [callumlocke.co.uk](http://callumlocke.co.uk)

★★★★★ (892)

[Developer Tools](#)

387,885 users

+ ADD TO CHROME



OVERVIEW

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```
{
  "id": "40796308305",
  "name": "Coca-Cola",
  "picture": "http://profile.ak.fbcdn.net/hprofile-ak-ash2/174560_407963083",
  "link": "http://www.facebook.com/coca-cola",
  "likes": 46963810,
  "cover": {
    "cover_id": "10151829640053306",
    "source": "http://a8.sphotos.ak.fbcdn.net/hphotos-ak-ash3/s720x720/529413_10151829640053306_446360541_n.jpg",
    "offset_y": 0
  },
  "category": "Food/beverages",
  "is_published": true,
  "website": "http://www.coca-cola.com",
  "username": "coca-cola",
  "founded": "1886",
  "description": "Created in 1886 in Atlanta, Georgia, by Dr. John S. Peabody"
```



Compatible with your device

Makes JSON easy to read. Open source.

### FEATURES

- JSON & JSONP support
- Syntax highlighting
- Collapsible trees, with indent guides
- Clickable URLs
- Toggle between raw and parsed JSON
- Works on any valid JSON page – URL

doesn't matter

- Works on local files too (if you enable this in chrome://extensions)
- You can inspect the JSON by typing "json" in the console

[Website](#)

[Report Abuse](#)

### Additional Information

Version: 0.6.0

Updated: October 5, 2014

Size: 27.62 KB

Language: English

[illegible]

At least M-99 carries some political and moral weight in rating us the government is in satisfactory

In all my work in Parliament, including two successful Private Members Bills, I was amazed how hard it was to accomplish real progress, and how important it was to achieve common ground along the way.

**KUDOS TO MUNI PARKS STAFF**  
For adapting to an immediate replacement surgery and I walk Emerald Forest and Lost Lake Park trails daily. We sometimes fail to appreciate what a wonderful system of well-planned and beautifully constructed trails we have in our backyard.

## SAFE ACTION®

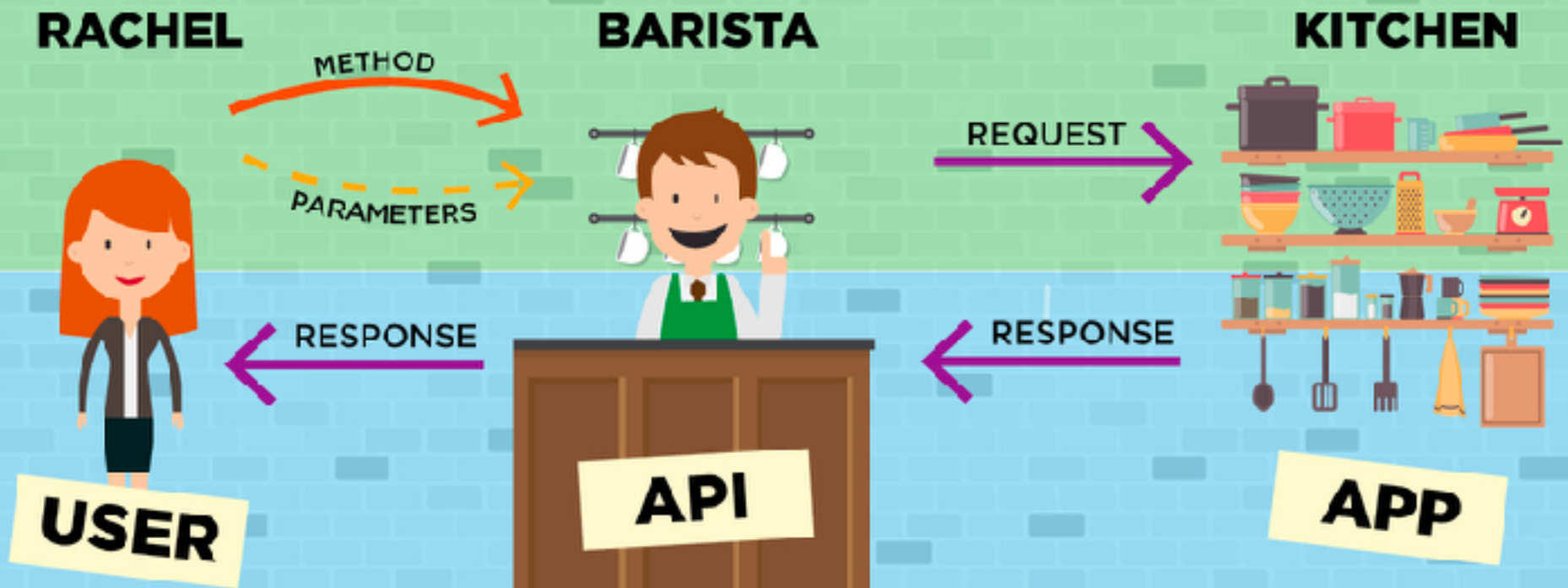
# What is an API?

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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 vs JSON

## 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

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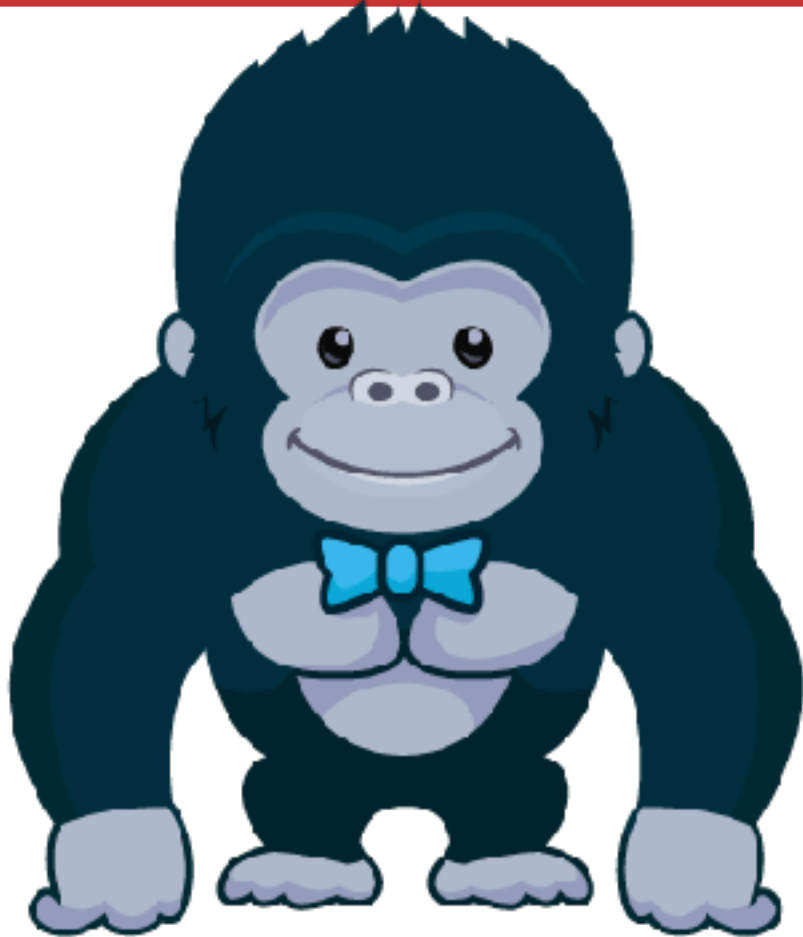
*Simple Object Access Protocol (SOAP) and Representational State Transfer (REST) are two answers to the same question: how to access Web services.*

## **It's a Random French Bulldog!**



# Mashape API

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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

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

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## 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

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## 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)

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- [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*

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