

MODULE FOUR – CLIENT-SIDE APIS

API INTRO & WORKING WITH BROWSER APIS


```
readyStatechange  
String Function A  
F(e){var t=_[e]=  
stopOnFalse){r=!1  
&(s=t,c(r))}retur  
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return p.fireWith  
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e><a href='/a'>a  
t")[0],r.style.cs  
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TODAY'S SCHEDULE

1. Cool Things
2. API Intro - What, Why, How?
3. Let's Talk Browser APIs
4. Example One: DOM API
5. Example Two: XMLHttpRequest API
6. Example Three Geolocation API
7. Recap, Lab 9 Surprise & Next Week

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LEARNING OBJECTIVES

1. describe the most common functions and methods used with current client-side scripting techniques
2. gain familiarity with APIs, what they can do, and how you can use them in your code.

COOL THINGS

RESOURCES, LINKS TUTORIALS AND OTHER COOL THINGS...

- ▶ <https://www.swyx.io/writing/webperf-tests/>
- ▶ <https://brainhub.eu/blog/top-tools-for-javascript-development/>
- ▶ <https://medium.com/better-programming/10-things-front-end-developers-should-learn-in-2020-61b448e75483>
- ▶ https://frontendmasters.com/courses/javascript-hard-parts-v2/?utm_source=newsletter&utm_medium=email&utm_campaign=jsweekly_hardpartsv2
- ▶ <https://www.youtube.com/watch?v=8SlpMztZhwg&t=588s>
- ▶ <https://www.youtube.com/watch?v=xFIDb-nDnxE>
- ▶ <https://www.jensonusa.com/>



APIS

WHAT, WHY & HOW?

WHAT IS AN API?

What is an API? What does the acronym stand for?

Have you worked with APIs before?

How would you explain what an API is to a five year old?



WHAT IS AN API?



AN API IS ...

1. something that is made available in programming languages that help developers create complex functionality more easily
2. a way to abstract more complex code & provide easier code
3. not part of the JavaScript language, built on top of the core Javascript language

THINK OF APIS AS
EXTRA SUPER POWERS
TO SUPERCHARGE
YOUR JAVASCRIPT



APIS



Browser APIS

(i.e. Web Audio API)

- built into your web browser
- can grab data from the browser & surrounding computer environment

Third Party APIs

(i.e. Twitter API)

- not built into your web browser
- need to retrieve their information from somewhere on the web

WHAT CAN APIS DO?

- ▶ manipulating docs loaded in the browser
- ▶ fetching data from server
- ▶ drawing & manipulating graphics
- ▶ audio and video
- ▶ store data on the client-side
- ▶ retrieve data from modern device hardware

HOW DO APIS WORK?

- ▶ based on objects
- ▶ have recognizable entry points
- ▶ use events to handle changes in state
- ▶ additional security mechanisms where appropriate

BROWSER APIS

[https://developer.mozilla.org/en-](https://developer.mozilla.org/en-US/docs/Web/API)
[US/docs/Web/API](https://developer.mozilla.org/en-US/docs/Web/API)

DOM API

Make An Interactive Grocery List With The **DOM API**

XMLHttpRequest API

Displaying the Daily Deals with **XMLHttpRequest API**

GEOLOCATION API

Finding Location with **GeoLocation API**

API RECAP

KEY POINTS

- ▶ APIs let developers easily add complex functionality
- ▶ APIs are not part of Javascript, they are built on top of the core JavaScript language
- ▶ APIs usually fall into two categories: Browser APIs and Third Party APIs

KEY POINTS

- ▶ APIs are based on objects
- ▶ APIs have recognizable entry points
- ▶ APIs use events to handle changes in state
- ▶ APIs may have additional security measures

SOURCES

- ▶ https://developer.mozilla.org/en-US/docs/Learn/JavaScript/Client-side_web_APIs
- ▶ https://developer.mozilla.org/en-US/docs/Learn/JavaScript/Client-side_web_APIs/Introduction

NEXT WEEK - THIRD PARTY APIS