JS Background & History

What is JavaScript?

What is JavaScript?

- The most popular programming language [in the world]
    - According to [GitHub], [GitHut] and [Stack Overflow]
- A very flexible language
    - In browsers
    - On the back end - `Node.js`
    - Lots of other places
- A "weird, poorly designed" language...
    - ...That is everywhere

What is JavaScript?

There are two main types of language:

- **Synchronous** (waits for the previous line to complete - this is blocking)
- **Asynchronous** (doesn't wait for the previous line to complete - this is non-blocking)

What type of language is JS?

History of JavaScript

History of JavaScript

- Built in 10 days by Brendan Eich
    - Twitter
    - Github
    - Released in May 1995
- Named Mocha -> LiveScript -> JavaScript
    - Just a marketing move!
    - Current Version: ES2018
- It's based on something called ECMAScript

A Quick Glossary

- Ecma International
    - Creates standards (e.g. CD-ROMs)
- ECMA-262
    - A standard for a general purpose scripting language (the name from Ecma)
- ECMAScript
    - The actual specification of the scripting language
- JavaScript
    - A general purpose scripting language that conforms to the ECMAScript specification

Versioning

```
ES1     -  1997
ES2     -  1998
ES3     -  1999
ES3.1   -  2009 (renamed to ES5)
ES2015  -  2015 (also called ES6)
ES2016  -  2016
ES2017  -  2017
ES2018  -  Soon!
```

What can it do?

Where does it fit in the web?

HTML: The content

CSS: The style

JS: The behaviour

What can it do?

- Validating information
- Autocomplete
- Live updating pages
- Adding interactivity (Location, Speech, etc.)
- Adding animations (e.g. TweenMax)
- Internet of Things and Hardware
- Visualise data (e.g. D3.js, DeckGL)
- Can be used for art (e.g. P5.js, PaperJS)
- 3D (e.g. ThreeJS), Games (e.g. Phaser), AI, Augmented/Virtual Reality (e.g. Aframe, AR.js, MozVR)
- Plus more!

How does it do it?

How does it do it?

- JS gives us a/an:
    - Syntax
    - Data Types
    - Way to save, access and manipulate data
    - Way to use APIs (e.g. Web APIs such as Geolocation)