

Module 4 Week 8

Client Side JavaScript & jQuery

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Lecture outline

Browser Object Model (BOM)

Document Object Model (DOM)

Manipulating The DOM With JavaScript

Manipulating The DOM With jQuery



Hands on Demos

All Demo Starter Files

<https://bit.ly/3ELWDF9>

X-Mas Todo list: DOM Manipulation using JavaScript

CryptoWallet: Adding HTML Elements using jQuery

SpaceX Rocket List: Creating HTML Elements using jQuery

We will be using Live Server Extension: **<https://bit.ly/3yftRdH>**

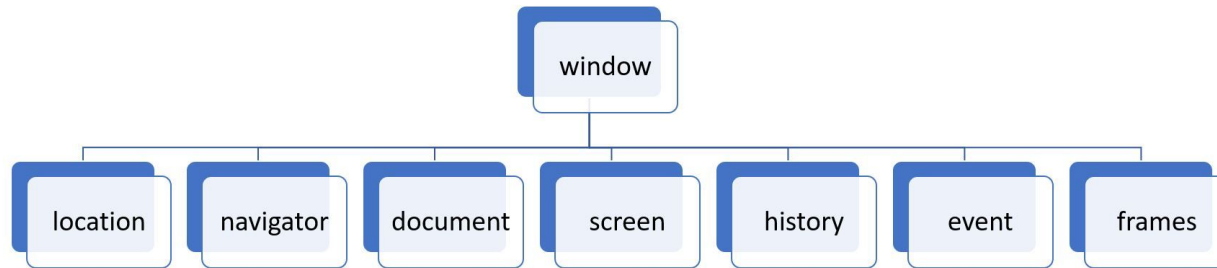
JavaScript is everywhere!

Up until now you have been using JavaScript on Terminal!

- JavaScript was originally a browser based (client) language
 - ◆ Created by Brendan Eich in December 1995 @ Netscape
- NodeJS: Created by Ryan Dahl in 2009 to run server based applications
- Other places where JavaScript can run:
 - ◆ Mobile (react-native)
 - ◆ Desktop (ElectronJS)
 - ◆ DenoJS (next version of NodeJS)
- Fun Fact: JavaScript runs in the space also! HINT: SpaceX

Browser Object Model (BOM)

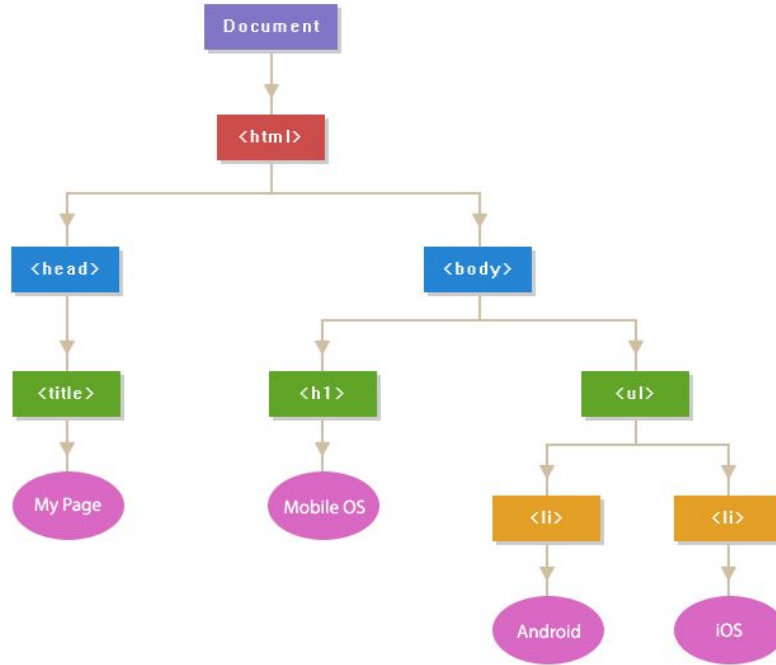
- The browser object model (BOM) is a hierarchy of browser objects that are used to manipulate methods and properties associated with the Web browser itself.





Document Object Model (DOM)

- ➔ Whenever a page is loaded into a browser, it creates a Document Object Model where each HTML element is an object with properties that can be accessed and manipulated with a programming language such as JavaScript.

DOM Tree



Manipulating The DOM With JavaScript

- `document.getElementById(idSelector);`
- `document.getElementsByTagName(tagName);`
- `document.getElementsByName(name);`
- `document.getElementsByClassName(classSelector);`
- `document.querySelector(selector);` 
- `document.querySelectorAll(selector);` 

Manipulating The DOM With jQuery

jQuery is a fast, small, and feature-rich JavaScript library.

- HTML document traversal and manipulation
- Event handling
- Animation
- Ajax much simpler
- Works across a multitude of browsers



Questions?

PS: my office hours are 3 to 5 pm EST