

# Web Development & DOM Manipulations



# Quick Overview

## DOM & JavaScript

How JavaScript can add dynamic user interactions to websites through manipulating DOM.

## Theory of the DOM

1 What DOM is and is not, as well as why is it important to learn about it.

## Follow Along Coding

3 We'll get hands on experience of handling multiple events using JavaScript.



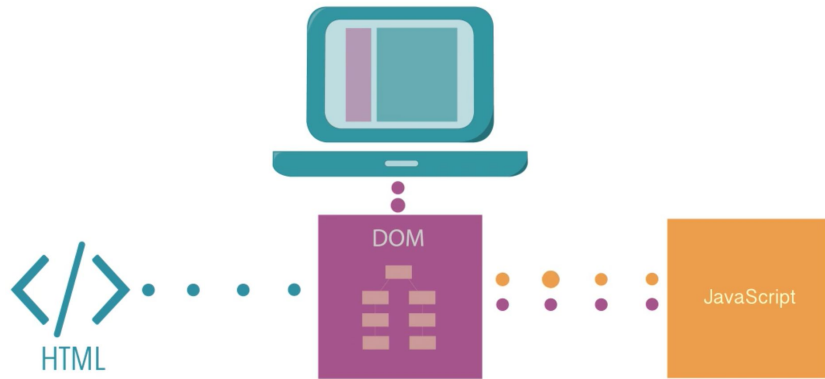
# Theory of the DOM

What it is and why learn about it

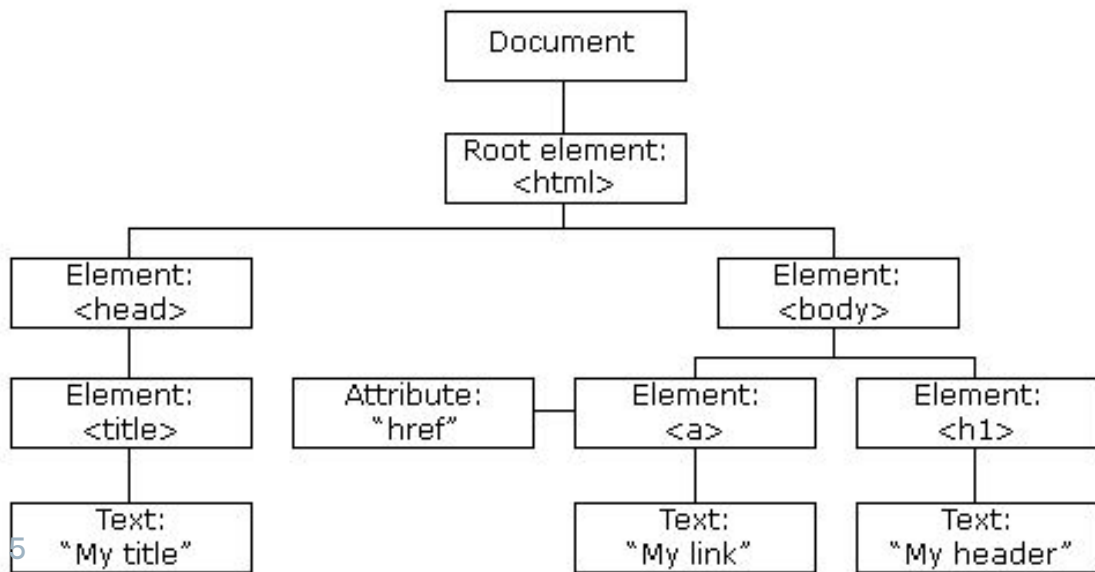


# Why you should know it?

- Infinite creative possibilities
- Create applications that update the data of the page without needing to refresh
- Understanding how it works might help you when learning other data structures



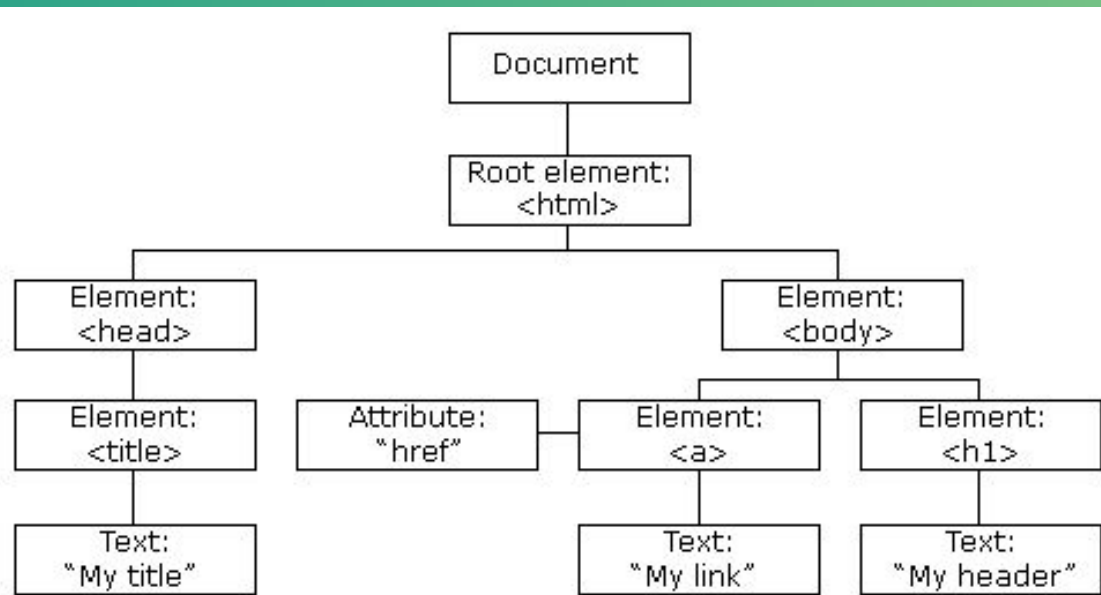
# What is DOM?



- Document Object Model
  - Structured representation of your HTML and CSS code
  - Essentially a tree structure with various node objects
  - Every element is an object like `<head></head>`
- Object Oriented
  - Meaning every node has its own properties (like classes)

# Here's a code example!

& using `console.dir(document)`



```
<!DOCTYPE html>
<html>
  <head>
    <title>My title</title>
  </head>

  <body>
    <a href="#">My link</a>
    <h1>My header</h1>
  </body>
</html>
```

# JavaScript and the DOM

Dynamically changing HTML & CSS



# How JS manipulates the DOM?

- Can **add**, **change**, and **remove** all of the HTML elements and attributes in the page
- Can **change** all of the **CSS** styles in the page
- Can react to all the **existing events** in the page

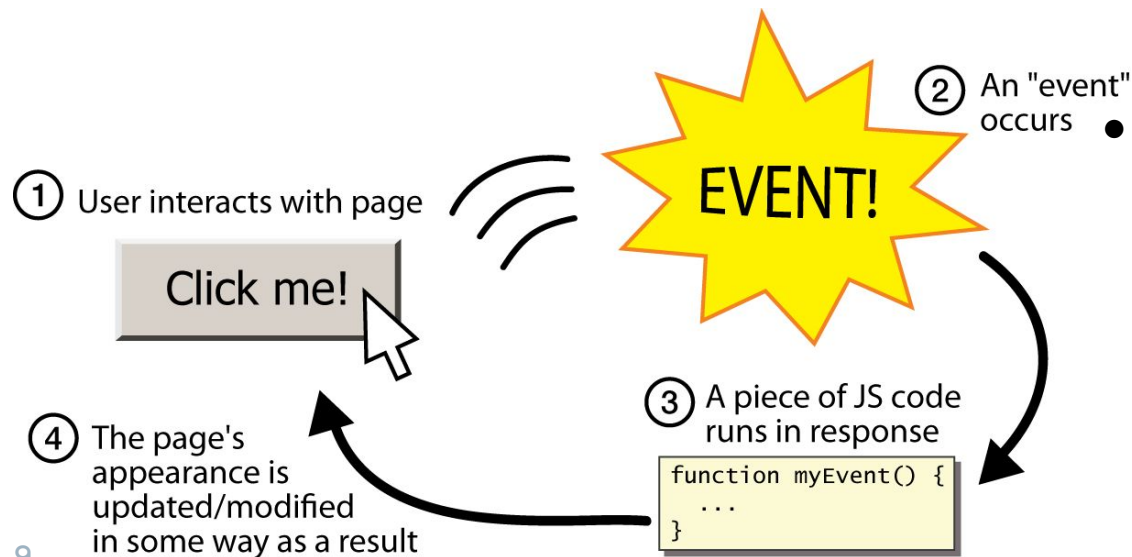
```
current.classList.remove('active')  
next.classList.add('active');
```

```
var aa = parseInt();
```

```
if (!isNaN(aa)) {  
    setTimeout(function () {
```



# Reacting to events



- A JavaScript code can be executed when an event occurs

- Like when a user clicks on an HTML element

## Examples of events

- When a web page has loaded
- When the mouse moves over an element
- When an input field is changed
- When an HTML form is submitted
- When a user strokes a key

# Real World Example

Explore connection to the real world



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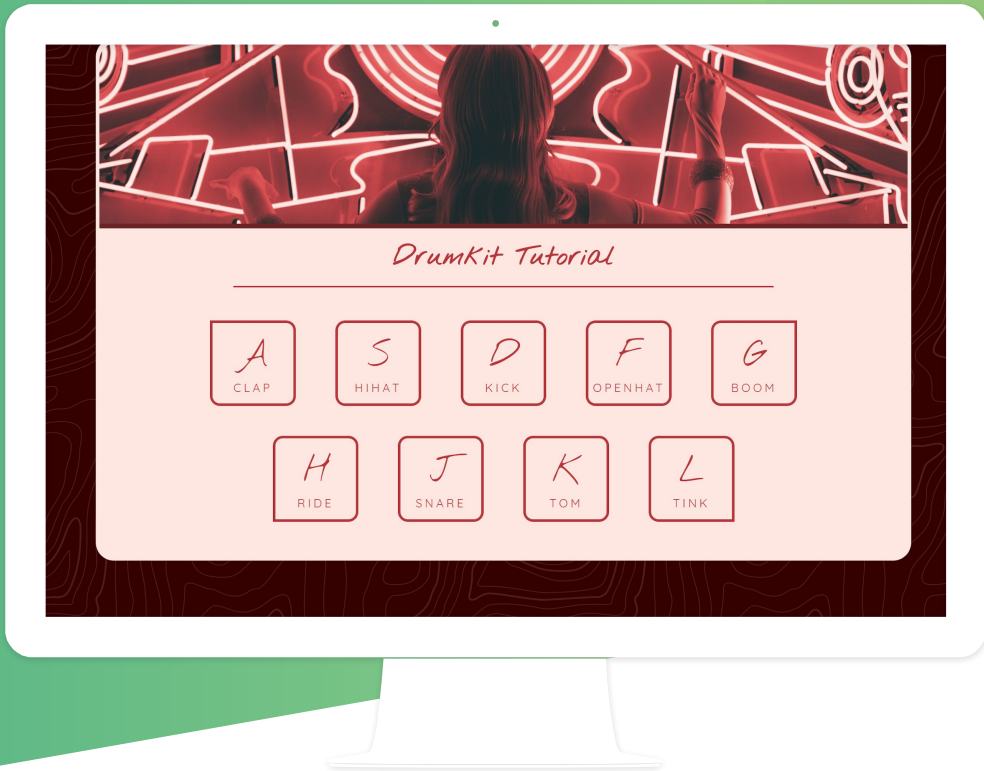
Time to set up

# C O D E P E N



# Live Coding!

We'll be building this  
together using multiple event  
handlers



# Thank you!

Please click the following [link](#) for a  
JS challenge :3

