JavaScript

101 THE **PROGRAMMING** Language of the Web

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What is JavaScript?

Quick Review

javascript code looks like:

```javascript
var someVariable = function( a , b ) {
    return  a * 3 + b - 47 ;
};
```

JavaScript

IS:

- An **event-driven, object-oriented Scripting** language that interacts with the **BOM** and the **DOM**
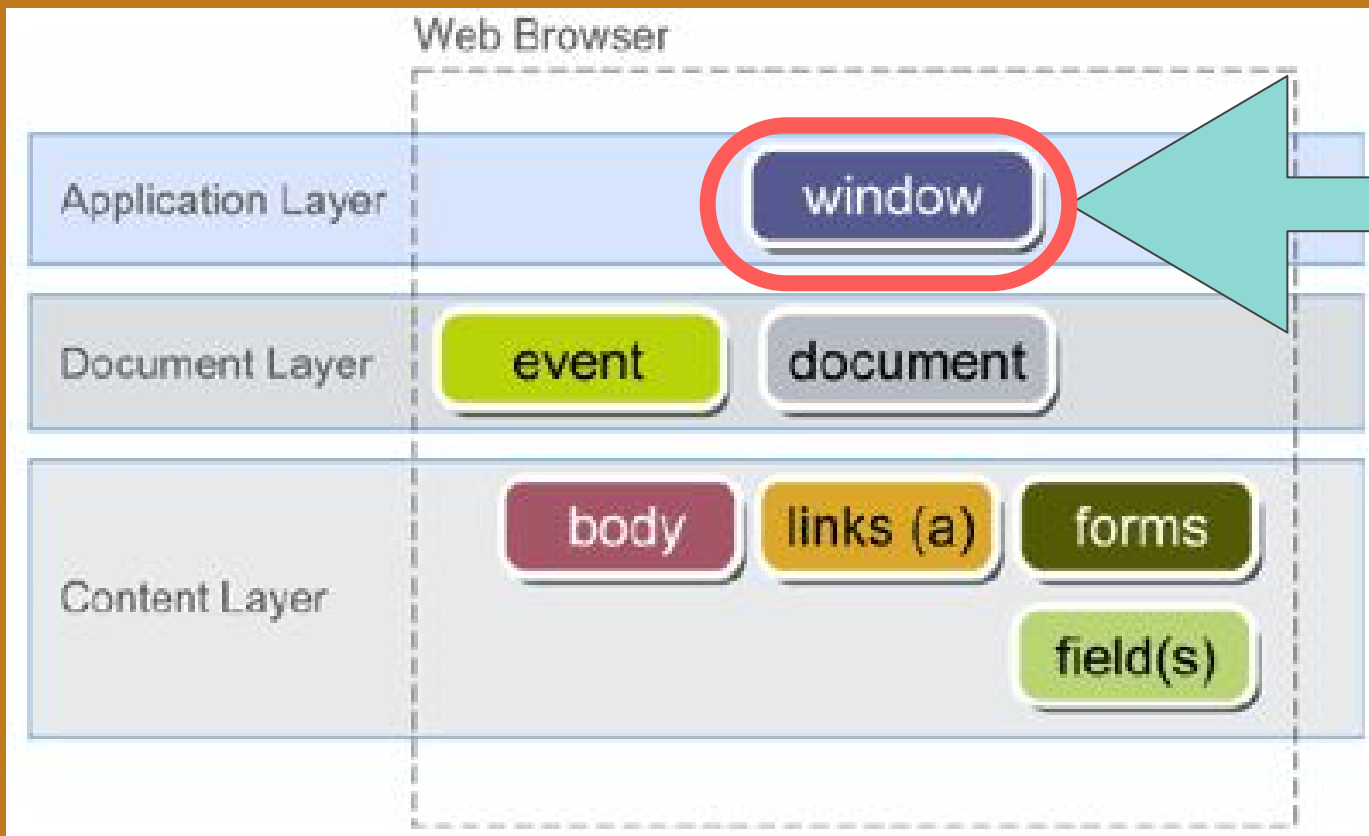- Asynchronous
- Powerful

ISN'T:

- Java
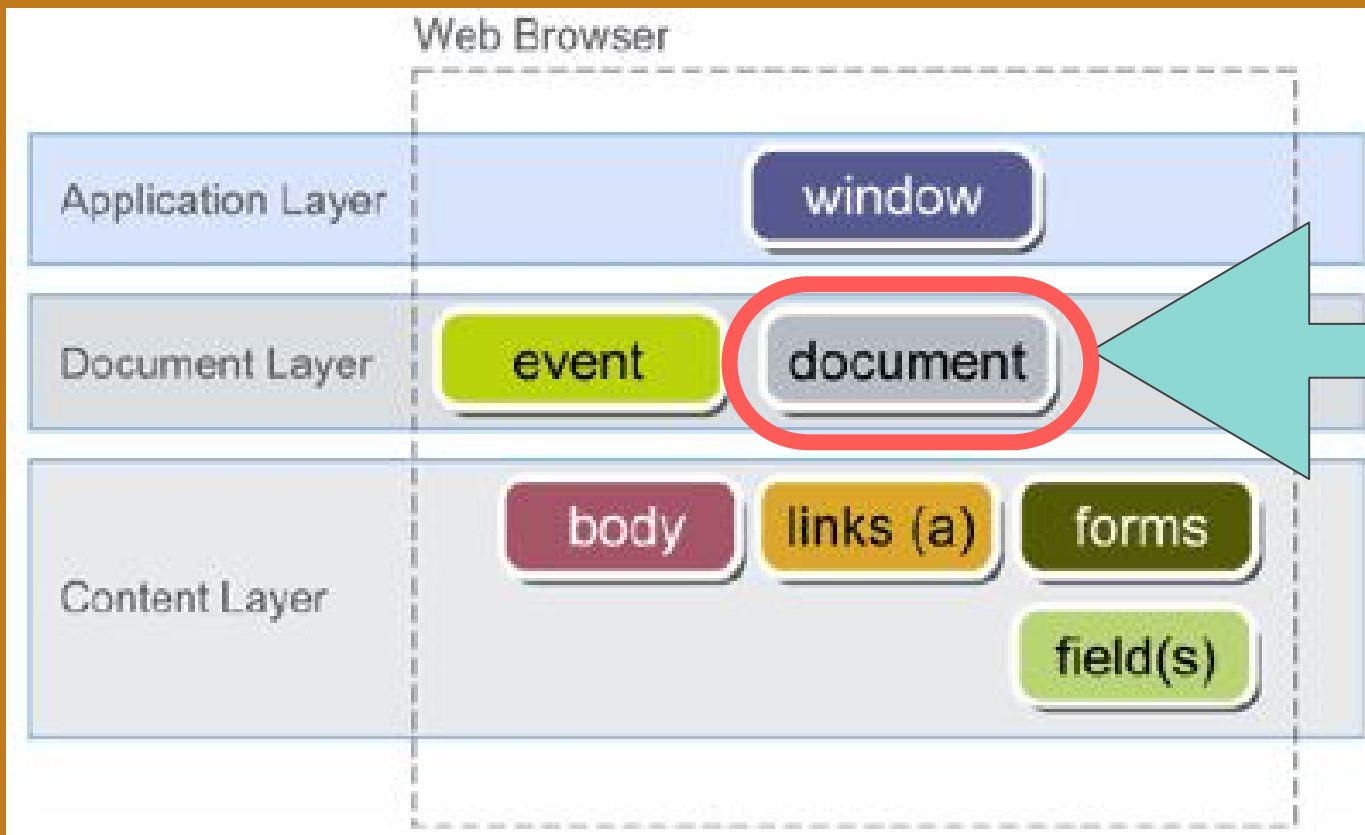- A Toy Language
- Going Anywhere.

Languages

- **Programming Language -** RUBY
- **Scripting Language -** **JavaScript,** BASH
- **Query Language -** SQL
- **Markup Language -** HTML
- **Style Language -** CSS

Web Browser

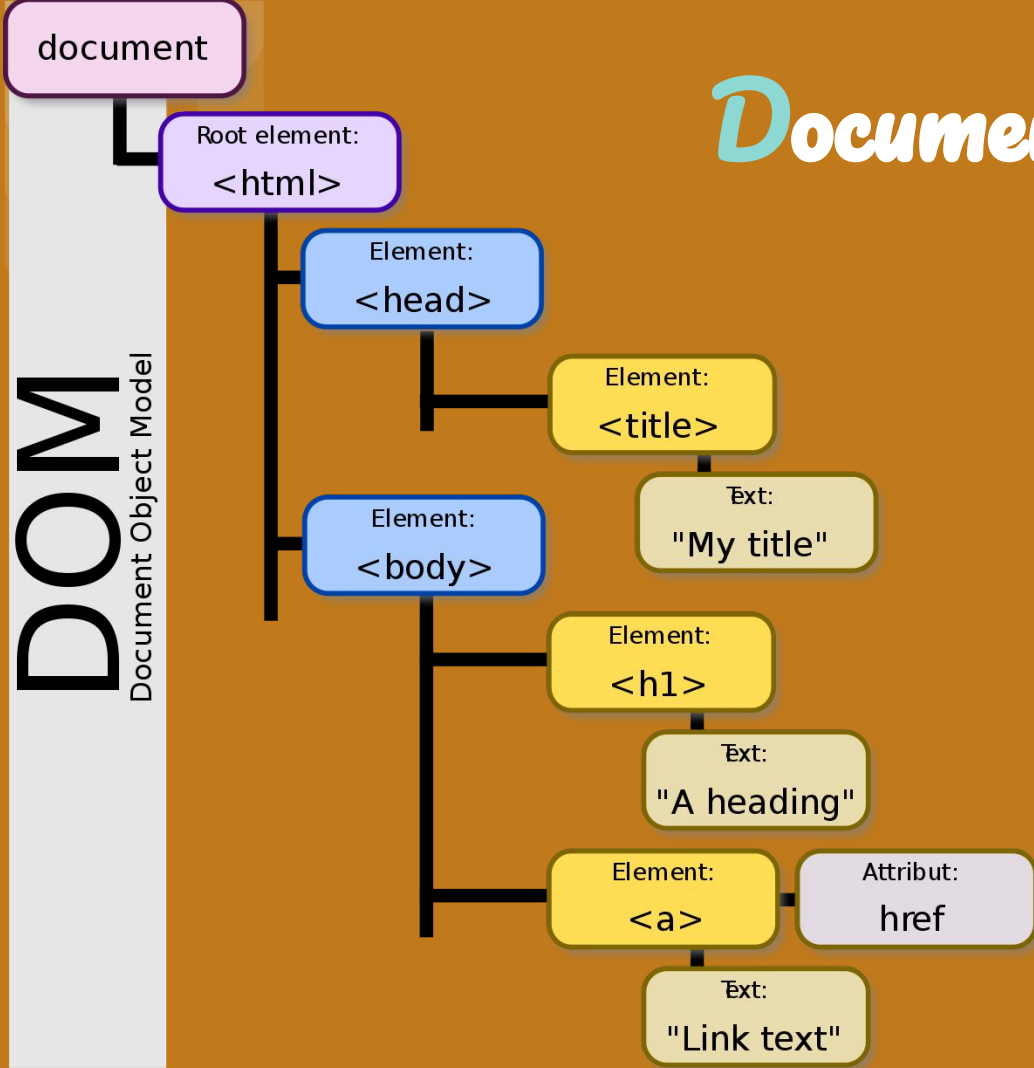|	
Application Layer	window
Document Layer	event document
Content Layer	body links (a) forms field(s)

Browser Object Model

Web Browser

Application Layer		window
Document Layer	event	document
Content Layer	body	links (a)	forms
		field(s)

Document Object Model

Javascript allows us to:

traverse

travel through the dom node tree

manipulate

change html

react

...to **events** created by us, or fired off from user actions

animate

using cool effects!

communicate

using **ajax** and the **fetch** web ap

persist

using **browser** & **session storage** apis

Functions you'll be using:

document.

getElementById(".id")

querySelector("selector")

querySelectorAll("selector")

createElement(element)

appendChild(element)

element.

innerHTML

attribute

style

animate

addEventListener('event', action)

But, How?

Implementation Steps

1. **SELECT** HTML ELEMENT(S)
   a. USING CSS SELECTORS

2. **MANIPULATE** HTML ELEMENT(S)...
   a. STYLE
   b. CONTENT
   c. DOM ORDER

OR...

1. **SELECT** HTML ELEMENT(S)

2. ADD **EVENT LISTENER**

3. BUILD FUNCTION THAT RUNS **WHEN EVENT OCCURS**

Events

Actions that happen during the runtime of a document

.onclick

.onhover

.onscroll

.onfocus

Usage Example:

HTML:

```html
<h1 onClick="doSomething()"> hello!</h1>
```

JS:

```js
var doSomething = function() {
    alert("I DID A THING!");
    return "thing done." ;
};
```

JavaScript +
Web APIs = ♥

browserstorage, sessionstorage,
navigator, console, fetch