

JavaScript Introduction

Coder Dojo Larne

<http://twitter.com/coderdojolarne>

<http://facebook.com/coderdojolarne>

<http://github.com/larnecoderdojo>

What is JavaScript?

- JavaScript is a programming language that can be inserted into HTML pages
- JavaScript code can be executed by all modern web browsers
- JavaScript is easy to learn

The script tag

- To insert JavaScript into an HTML page, use the `<script>` tag
- The `<script>` and `</script>` tags tell the browser where the JavaScript starts and ends
- The `<script>` tag can be placed in the head or body of the HTML document or in a separate file

Writing JavaScript

- JavaScript statements are "commands" to the browser
- Semicolons tell the browser where a statement ends
- JavaScript is case sensitive so watch your capitalization closely when you write JavaScript statements
 - `getElementByld` is not the same as `getElementbyID`

Creating HTML from JavaScript

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<script>
```

```
document.write("<h1>This is a heading</h1>");
```

```
document.write("<p>This is a paragraph.</p>");
```

```
</script>
```

```
</body>
```

```
</html>
```

Reacting to events

```
<!DOCTYPE html>

<html>

<body>

<script>

document.write("<h1>This is a heading</h1>");
document.write("<p>This is a paragraph.</p>");

</script>


<button type="button" onclick="alert('Welcome!') ">Click Me!</button>


</body>

</html>
```

Changing HTML content

- To access an HTML element from JavaScript, you can use the `document.getElementById(id)` method
- The `innerHTML` attribute can be used to update the HTML inside an element

Changing HTML content

```
<script>
document.write("<h1>This is a heading</h1>");
document.write("<p>This is a paragraph.</p>");
function sayHello() {
    var x=document.getElementById("demo");
    x.innerHTML="Hello JavaScript!";
}
</script>

<button type="button" onclick="alert('Welcome!')">Click Me!
</button>

<p id="demo">Coder Dojo Larne</p>

<button type="button" onclick="sayHello()">Say hello!
</button>
```


Changing HTML styles

```
function sayHello() {  
    x=document.getElementById("demo");  
    x.innerHTML="Hello JavaScript!";  
}  
  
function changeColour() {  
    var x=document.getElementById("demo");  
    x.style.color="red";  
}  
  
</script>  
  
<p id="demo" style="color:blue">Coder Dojo Larne</p>  
<button type="button" onclick="sayHello()">Say Hello!</button>  
<button type="button" onclick="changeColour()">Change Colour!  
</button>
```

Handling user input

```
<script>
var number = Math.floor((Math.random()*5)+1);
function guessNumber() {
    var guess = document.getElementById("guess").value;
    var output = document.getElementById("output");
    if (guess == number) {
        output.innerHTML = "Correct, you win!!!";
    } else {
        output.innerHTML = "You guessed " + guess + ", guess again";
    }
}
</script>
```

```
<p>Guess the number between 1 and 5</p>
<input id="guess" type="text">
<button type="button" onclick="guessNumber()">Guess</button>
<p id="output"></p>
```