Document Object Model

Preliminary

```
window.onload = function () {
  (your code here)
};
```

Objects and functions

document the main object that connects JavaScript to the web page

document.createElement function that takes a tag name and returns an object

document.findElementById function that retrieves an element by ID

document.createTextNode function that creates text from strings

e.appendChild function that attaches one element to another

e.style object that contains CSS style properties

e.addClass function that adds a CSS class to an element

Handout for Code Your Own Site

Getting Started

Welcome to the class!

The first step is to download the slides so you can follow along with the lectures: http://bit.ly/2amZB8z

Then, navigate to `https://github.com/clarissalittler/websites-for-beginners` and click on the "download" button and then the "download zip" option. Alternately, just use following link to download the zip directly `https://github.com/clarissalittler/websites-for-beginners/archive/master.zip` (or `http://bit.ly/2anatmW`)

> By default, the zip file will be downloaded into your `Downloads` directory. Navigate to your downloads directory then /right/ click on the file `websites-for-beginners-master.zip` and select the option "extract here". Then navigate into the directory and you will find yourself in the right directory for this course.

Links to resources

- General JavaScript notes: `http://bit.ly/2ahKOZc`
- Tutorial on HTML and CSS: `http://bit.ly/2af3ifd`
- Tutorial on JavaScript and the Document Object Model: `http://bit.ly/2abXKFa`
- Neocities: `https://neocities.org/`

Glossary of Terms

HTML HyperText Markup Language, the content of a web page

CSS Cascading Style Sheets, how pages look

JavaScript A programming language that runs in the browser and provides interaction

DOM Document Object Model, which connects the JavaScript code to the page

Common Tags

h1 heading tag, for headlines, section headings, chapter titles

p paragraph tag, holds basic text

ol ordered list tag, for numbered or enumerated lists

ul unordered list tag, for bulleted—unnumbered—lists

li list items, go inside ol or li tags

style CSS code goes between the style tags

script JavaScript code goes between the script tags

a anchor tag is used to make links

HTML Template

```
<!doctype html>
<html>
  <head>
  </head>
  <body>
  </body>
</html>
```

HTML Example

```
<!doctype html>
<html>
  <body>
    <h1>This is a heading</h1>
    <p>This is a paragraph</p>
  </body>
</html>
```

Basic Selectors

.name selection by class

#name selection by ID

name selection by tag name

Common CSS Properties

width the width of the element

height the height of the element

color the color of the text

background-color the color of the background of the element

display how the element is displayed: block and none are two possible values

CSS Example

```
<!doctype html>
<html>
  <head>
    <style>
      p {
        color: red;
      }
    </style>
  </head>
  <body>
    <h1>This is a heading</h1>
    <p>This is a paragraph</p>
  </body>
</html>
```

Basic JavaScript Syntax

Creating Variables

```
var variableName = 20;
variableName;
variableName = 30;
```

Arithmetic

```
10 + 10;
20 - 5;
30 * 3;
30 / 10;
```

Strings

```
"this is a string";
'as is this';
"as is 'this'";
'and is "this"';
```

> You can mix quotation types for typesetting purposes, but otherwise they're the same.

Functions

Creating functions

```
function functionName (x) {
  console.log(x);
  return x + 10;
}
```

Using functions

```
functionName(10);
console.log("thing");
```

Objects

```
var myObject = {property1 : value1,
                property2 : value2};
myObject.property1;
myObject.property2 = 100;
```