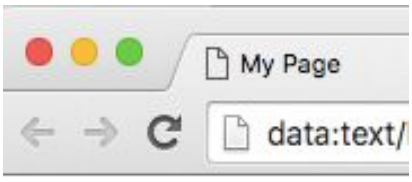
HTML Syntax and Documentation

Concept	Example	

Structure an HTML page (head & body)	`<!DOCTYPE html>`
	`<html>`
	`  <head>`
	`  <title>My Page</title>`
	`  </head>`
	`  <body>`
	`  <p>My first paragraph</p>`
	`  </body>`
	`</html>`
		
		My first paragraph

Paragraph tag	`<p>This is a paragraph.</p>`	This is a paragraph.

Create headings (adjust from 1 to 6)	`<h1>Heading level 1</h1>`
	`...`
	`<h6>Heading level 6</h6>`
		Heading level 1
		Heading level 6

Div tag	`<div>This is a div</div>`	This is a div
Add an image	`<img src="cats.png" alt="kittens">`	

Create a numbered list	`<ol>`
	`  <li>George Washington</li>`
	`  <li>John Adams</li>`
	`</ol>`
		1. George Washington
		2. John Adams

Add a link to another web page which opens in a separate window/tab	`<a href="https://www.google.com" target="_blank">This is a link to Google</a>`	This is a link to Google
Adding IDs	`<p id="oneID">text</p>`	text
Adding Classes	`<h1 class="aClass">text</h1>`	**text**
Add a comment, which is not visible to the user, within an HTML page	`<!-- These are instructions in the code. The user won't see them -->`	***Page is blank***
Add a link in the <head> of an HTML document to an external CSS file	`<link rel="stylesheet" type ="text/css" href= "style.css">`	***Page is blank***
Link to a JavaScript file	`<script src="index.js"></script>`	***Page is blank***

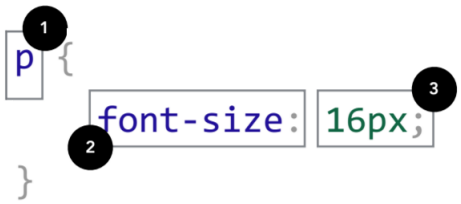
Syntax Reference

Symbol	Name	Example
/	Forward Slash	`<body></body>`
" "	Quotes	`<img src = "awesome.jpg">`
< >	Angle Brackets	`<head> </head>`
{ }	Curly Brackets	`p{color: blue;}`
[ ]	Square Brackets	`var colors = ["red", "blue", "yellow"];`
( )	Parenthesis	`$("h1").hide();`
;	Semicolon	`var word = "hello";`
:	Colon	`#two{font-size: 20px;}`

CSS Syntax and Documentation

Cascading Style Sheets (CSS) are used to change the way your HTML looks in a Web browser.

CSS Rules



1. **Selector:** Represents the parts of your HTML that will be affected by this CSS rule. Multiple selectors can be used, separated by commas.
2. **Property:** The thing you want to change for the HTML you've selected. Each property should be followed by a colon.
3. **Value:** What you want to set this property to. Each value should be followed by a semicolon.

A property and value together are called a **declaration**. A single CSS rule can contain multiple declarations.

CSS Value Types: Colors

Value Type	Definition	Examples

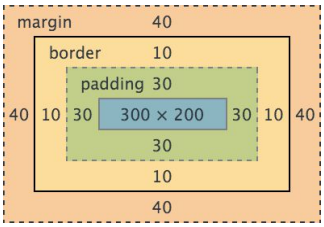
Color names	Some colors can be used by typing the color name.	`red`
		`yellow`
		`cornflowerblue`

Hex codes	Hex codes start with a pound sign/hashtag, then 6 numbers or letters, 0-9 and a-f.	`#000000` (black) `#ffffff` (white) `#9400d3` (a shade of purple)
Tip: Try Googling "HTML color picker" to figure out the hex code for any color.		

CSS Selectors

Selector Type	Definition	Example
HTML tag name	Selects all HTML elements with this tag name on the page.	`p{color:red;}`
ID	Selects the HTML element which has this value for its ID attribute. Use a hashtag/pound sign followed by the ID value.	`#myID{ color:blue; }`
Class	Selects the HTML element(s) with this value in its class attribute. Use a period followed by the class value.	`.myClass{ color:green; }`
HTML tag name + class	Selects the HTML element(s) with a certain name AND class. Use the tag name followed by a period, then the class.	`p.myClass{ color:blue; }`

CSS Box Model

Given this CSS...	...here's that `<div>` in Chrome Developer Tools:
`div { width: 300px; height: 200px; padding: 30px; border: 10px solid red; margin: 40px; }`	

- **width** and **height** apply only to the content box (the inner-most box, in blue).
- **padding** goes immediately outside the content box (as shown in green).
- **border** goes around the padding (as shown in yellow).
- **margin** goes around the border (as shown in orange).

CSS Documentation Reference

Concept	Description	Example
Font Styling	Changes the font and size of text on a webpage	`body{ font-family: "Comic Sans"; font-size: 22px; }`
Float	Allows an element to be placed on the left or right of a webpage	`h1{ float: right; }`
Position: `Fixed vs. Absolute`	A fixed element will not move while a page is scrolling. Absolute elements will move with the page.	`div{ position: fixed; }`
Background	Changes the background to a specified color or image.	`body{background: url("ex.png"); }`

CSS Value Types: Sizing

Value Type	Definition	Examples
Pixels	Use pixels when you want the element to be a certain size no matter the screen the user is viewing on.	`height: 1000px;` `border-width: 5px;`
Percentages	Use a percentage to change the size of the object based on the screen the user is viewing on.	`width: 25%;` `font-size: 150%;`

GitHub Tips and Tricks

Git: A version control system for keeping history of and sharing coding projects.
GitHub: The platform we use to use Git.

The four steps to pushing (saving) a change to GitHub

JavaScript Syntax and Documentation

Values/Types

Concept	Syntax/Description	Examples
Number		`var rank = 1;` `var price = 5.99;`
String	Must be inside single (' ') or double ("") quotes	`var name = "Kevin";`
Boolean	`true` or `false`	`var isTrue = true;`
Array	Values separated by commas inside square brackets ([ ]) `var anArray = [value1, value2, value3, ...];`	`var oddNumbers = [1,3,5,7,9];` `var places = ["Milan", "NYC", "Bangkok"];`

Object	`var objectName = {`
	`  key1: value1,`
	`  key2: value2`
	`  // etc.`
	`};`
		`var profile = {`
		`  name: "Ada",`
		`  rank: 10,`
		`  id: "1",`
		`  likesScriptEd: true`
		`};`

Undefined	Declared, but unassigned variables have a value of `undefined`.	`var undefinedVariable;` `undefinedVariable; //undefined`

Control Flow

Concept	Syntax/Description	Examples

If-else if -else	`if (condition1) {`
	`  // execute these lines if`
	`  // condition1 is true`
	`} else if (condition2) {`
	`  // execute these lines if`
	`  // condition2 is true`
	`} else {`
	`  // execute these lines`
	`}`
		`var num = 11;`
		`if (num < 5) {`
		`  console.log("Less than 5");`
		`} else if (num < 10)  {`
		`  console.log("Less than 10");`
		`} else {`
		`  console.log("Greater than 10");`
		`}`
		`// Greater than 10`

&& (and)	`if (conditionA && conditionB) {`
	`  // code 1`
	`} else {`
	`  // code 2`
	`}`
	
	'code 1' will happen only if BOTH conditionA and conditionB are true. Otherwise, code 2 happens.
		`if (age > 16 && passedTest) {`
		`  return "you can drive.";`
		`} else {`
		`  return "you can't drive.";`
		`}`

|| (or)	`if (conditionA || conditionB){`
	`  // code 1`
	`} else {`
	`  // code 2`
	`}`
	If ANY of the conditions are true, code 1 will execute.
		`if (grade > 65 || passedRegents) {`
		`  return "passed the class";`
		`} else {`
		`  return "failed the class";`
		`}`

! (not)	Returns the opposite Boolean of the expression.	`(3 > 5) // false` `!(3 > 5) // true`

For loop	`for (declare; condition; modify) {`
	`  does something;`
	`}`
		`for (var i = 0; i < 5; i=i+1) {`
		`  console.log(i);`
		`}`
		`// 0 1 2 3 4`

Variables

Concept	Syntax/Description	Examples
Variable assignment	`var variableName = "value"`	`var thisIsAVariable = 5;` `var fifthLetter = "e";`

Operators

Concept	Syntax/Description	Examples

Strict Equality (===)	`expressionA === expressionB`
	
	Checks to see if both expressions are the same type and value, and if so, return true.
		`var a = 1;`
		`var b = 1;`
		`var c = "1";`
		`var d = true;`
		
		`a === b // true`
		`a === c // false`
		`a === d // false`

Functions

Concept	Syntax/Description	Examples

Function declaration (creating a new function with a name/identifier)	`function functionName (parameters--optional) {`
	`  // function body`
	`}`
		`function add(a, b) {`
		`  return a + b;`
		`}`

Calling a function	`functionName(arguments)`	`add(1,5); // 6`

jQuery Syntax and Documentation

<script src="https://code.jquery.com/jquery-2.1.4.js"></script>

Concept	Syntax	Example

Prepares the document for jQuery	`$(document).ready(function(){`
	`  // Code to run goes here`
	`});`
		`$(document).ready(function(){`
		`  // Code to run goes here`
		`});`

Run code when the document structure is fully loaded	`$(function() {`
	`  // Code to run goes here`
	`});`
		`$(function() {`
		`  alert("There are " + $("p").length +`
		`" paragraphs on the page");`
		`});`

Append (attach) content to an element	`$(selector).append(content);`	`$("p").append("...more text");`
Change the content of an element	`$(selector).html(content);`	`$("#id1").html("This is a dynamic web page.");`
Change the style of an element	`$(selector).css(property, value);`	`$(".container").css("color", "red");`
Add or change an attribute	`$(selector).attr(name, value);`	`$("img").attr("src",` `"http://coolpics.com/rhinoceros.jpg");`
Show an element	`$(selector).show();`	`$(".class1").show();`
Hide an element	`$(selector).hide();`	`$("#quietID").hide();`

Do something when an element is clicked	`$(selector).click(function() {`
	`  // Code to run goes here`
	`});`
		`$("#one").click(function() {`
		`  alert("hello");`
		`});`

Get the value from another element on the page	`$(selector).val();`	`$("button").click(function() {`
		`  var name = $("#input").val();`
		`});`