INTRO TO HTML & CSS

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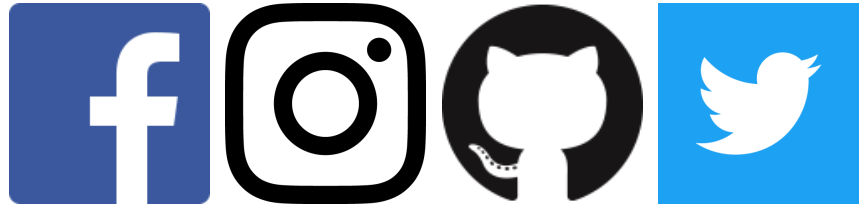

WHAT WE'LL COVER

- HTML
- CSS

TOOLS THAT ALLOW US TO CODE QUICKER AND EASIER

- Chrome Dev Inspector
- Implementing in WordPress
- Bootstrap
- Code editors
- Emmet
- SASS/LESS
- Other Tools

HTML

HTML IS STRUCTURE

```
<html>
        <head>
                <title>My Web Site!</title>
        </head>
        <body>
                <h1>Hello World</h1>
                <p>Welcome to my web page!</p>
        </body>
</html>
```

TAGS HELP STRUCTURE

- nav
- header
- section
- aside
- p
- div
- table thead th tbody tr td
- ul li, ol li
- img
- hr
- ... and many more

TAGS CAN HAVE ATTRIBUTES

```
<a href="..."></a>
<img src="" alt="...">
```

TAGS CAN HAVE A CLASS AND/OR AN ID

```
<a href="..." class="call-to-action"></a>
<img id="hero" class="header" src="" alt="...">
```

CSS

WHAT IS CSS?

CSS is Style

Cascading style sheets (CSS) are a way to add style to your web page.

SYNTAX

```
selector {
        property : value;
}
```

STYLING A TAG

```
p {
        color : #333333;
        font-size : 12px;
}
```

STYLING A TAG

Styling a tag can be a good way to cover a lot of your site, but it will limit the amount of detail you can apply to the site.

MAKE A CLASS INSTEAD

Classes allow you to reuse the styling on multiple elements.

```
.call-to-action {
        background-color : #ff0000; /* red */
        color : #ffffff; /* white */
        font-weight : bold;
        font-size : 14px;
}
```

And then in the html

```
<a class="call-to-action">This is attention getting!</a>
<p class="call-to-action">This might be a bit harsh on the eyes i
```

CLASS EXAMPLE

JS Bin Save | HTML | CSS | JavaScript | Console | Output | Help

HTML

```
<a class="call-to-action">
  This is attention getting!
</a>
<p class="call-to-action">
  Lorem ipsum dolor sit amet consecte
</p>
```

CSS

```
.call-to-action {
    background-color : #ff0000; /* re
    color : #ffffff; /* white */
    font-weight : bold;
    font-size : 14px;
}
```

This is attention getting!

Lorem ipsum dolor sit amet consectetur adipisicing elit. Sed qui velit dicta commodi nostrum consequuntur, fugiat asperiores excepturi quidem soluta, odit incidunt corporis amet ipsam, quos illum saepe. Laboriosam, quis.

Auto-run JS Run with JS

MULTI-CLASS EXAMPLE

You can string multiple classes together to obtain the style you want

JS Bin Save | HTML | CSS | JavaScript | Console | Output | Help

HTML

```
<script src="https://code.jquery.com/jquery.min.js"></s
<link href="https://maxcdn.bootstrapcdn.com/bootstrap/3
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/

<table class="table">
  <thead>
    <tr>
      <th>ID</th>
      <th>Name</th>
      <th>Email</th>
      <th>Phone</th>
    </tr>
  </thead>
  <tbody>
```

ID	Name	Email	Phone
1	Jason Lawton	jason@jasonlawton.com	201-873-0168
2	John Smit	john@smith.com	212-555-1234
3	Jane Doe	jane@doe.com	212-555-0099

ID	Name	Email	Phone
1	Jason Lawton	jason@jasonlawton.com	201-873-0168
2	John Smit	john@smith.com	212-555-1234

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ID'S ARE AN OPTION

BUT USUALLY NOT A GOOD IDEA

- IDs start with a #
- You can only use them once per page

```
#call-to-action {
        color : #ff00ff;
        font-size : 20px;
}
```

Then in the HTML

```
<div id="call-to-action">
        This will be fuchsia, but we can only use the ID once
```

```
</div>
```

ID EXAMPLE

JS Bin
Save
HTML
CSS
JavaScript
Console
Output
Help
HTML

This will be fuchsia, but we can

CSS
#call-to-action{
color : #ff00ff;
font-size : 20px;
}
This will be fuchsia, but we can only use the ID once
Auto-run JS
Run with JS

OTHER CSS SELECTORS

X Y - Descendant

X > Y - Direct Descendant

X:hover - Pseudo Class

X + Y - Adjacent

X ~ Y - Sibling

X Y - DESCENDANT

```
p {
        color : red;
}
a {
        color : green;
}
p a {
        color : blue;
}
```

```
<a>A link by itself</a>
<p>
        This is a paragraph <a href="">and this link will be blue
</p>
<p>
        <strong>this is bold text <a href="">and another blue lin
</p>
```

DESCENDANT EXAMPLE

JS Bin Save | HTML | CSS | JavaScript | Console | Output | Help

HTML

```
<a>A link by itself</a>
<p>
    This is a paragraph <a href="">ano
</p>
<p>
    <strong>this is bold text <a href=
</p>
```

CSS

```
p {
    color : red;
}
a {
    color : green;
}
p a {
    color : blue;
}
```

A link by itself

This is a paragraph and this link will be blue

this is bold text and another blue link

Auto-run JS Run with JS

X > Y - DIRECT DESCENDANT

```
p > a {
        color : blue;
}
a {
        color : green;
}
```

```
<p>
        This is a paragraph <a href="">and this link will be blue
        <strong>this is bold text <a href="">and a green link</a>
</p>
```

DIRECT DESCENDANT EXAMPLE

JS Bin Save | HTML | CSS | JavaScript | Console | Output | Help

HTML

```
<p>
    This is a paragraph <a href="">and
</p>
<p>
    <strong>this is bold text <a href=
</p>
```

CSS

```
p > a {
    color : blue;
}
a {
    color : green;
}
```

This is a paragraph and this link will be blue

this is bold text and a gree link

Auto-run JS Run with JS

X:HOVER - PSEUDO CLASS

```
a {
        color : blue;
}
a:hover {
        color : red;
}
```

```
<a href="#">This will turn red when the user hovers over it</a>
```

PSEUDO CLASS EXAMPLE

X + Y - ADJACENT

```
ul {
        color : red;
}
ul + p {
        color : blue;
}
```

```
<p>I'll be the default color</p>
<ul>
        <li>I will be red</li>
</ul>
<p>I will be blue</p>
<p>I'll be the default color</p>
```

ADJACENT EXAMPLE

JS Bin Save | HTML | CSS | JavaScript | Console | Output | Help

HTML

```
<p>I'll be the default color</p>
<ul>
    <li>I will be red</li>
</ul>
<p>I will be blue</p>
<p>I'll be the default color</p>
```

CSS

```
ul {
    color : red;
}
ul + p {
    color : blue;
}
```

I'll be the default color

- I will be red

I will be blue

I'll be the default color

Auto-run JS Run with JS

X ~ Y - SIBLING

```
ul {
        color : red;
}
ul ~ p {
        color : blue;
}
```

```
<p>I'll be the default color</p>
<ul>
        <li>I will be red</li>
</ul>
<p>I will be blue</p>
<div>Some text</div>
<p>I will be blue too</p>
```

SIBLING EXAMPLE

JS Bin Save | HTML | CSS | JavaScript | Console | Output | Help

HTML

```
<p>I'll be the default color</p>
<ul>
    <li>I will be red</li>
</ul>
<p>I will be blue</p>
<div>Some text</div>
<p>I will be blue too</p>
```

CSS

```
ul {
    color : red;
}
ul ~ p {
    color : blue;
}
```

I'll be the default color

- I will be red

I will be blue

Some text

I will be blue too

Auto-run JS Run with JS

SPECIFICITY

These selectors have the same specificity, so they are applied in the order they are listed,
so all p tags will be blue

```
p { color : red; }
p { color : blue; }
```

JS Bin Save | HTML | CSS | JavaScript | Console | Output | Help

HTML

```
<p>This is a paragraph</p>

<p>This is another paragraph</p>

<p>And a final paragraph</p>
```

CSS

```
p { color : red; }
p { color : blue; }
```

This is a paragraph

This is another paragraph

And a final paragraph

Auto-run JS Run with JS

SPECIFICITY...

While the blue rule comes last, the first rule is more specific, so both rules will be applied appropriately

```
div p { color : red; }
p { color : blue; }
```

SPECIFICITY ¯_(ツ)_/¯

Specificity can get complicated, and that complication is not really in the scope of this presentation

ADDITIONAL CSS LINKS

- Articles on Selectors
  TutsPlus - Additional examples of Selectors
  CSS Diner - A CSS game to teach you selectors
- Articles on Specificity
  W3.org
  Smashing Magazine

CHROME DEVTOOLS

A Developers Best Friend!

Or just someone who's curious

WHAT IS CHROME DEVTOOLS?

Chrome DevTools is a set of authoring, debugging, and profiling tools built into Google Chrome.

Similar tools are available in FireFox and Safari, and a crappy version in IE, that allow the developer insight into how a page is created.

DEVTOOLS

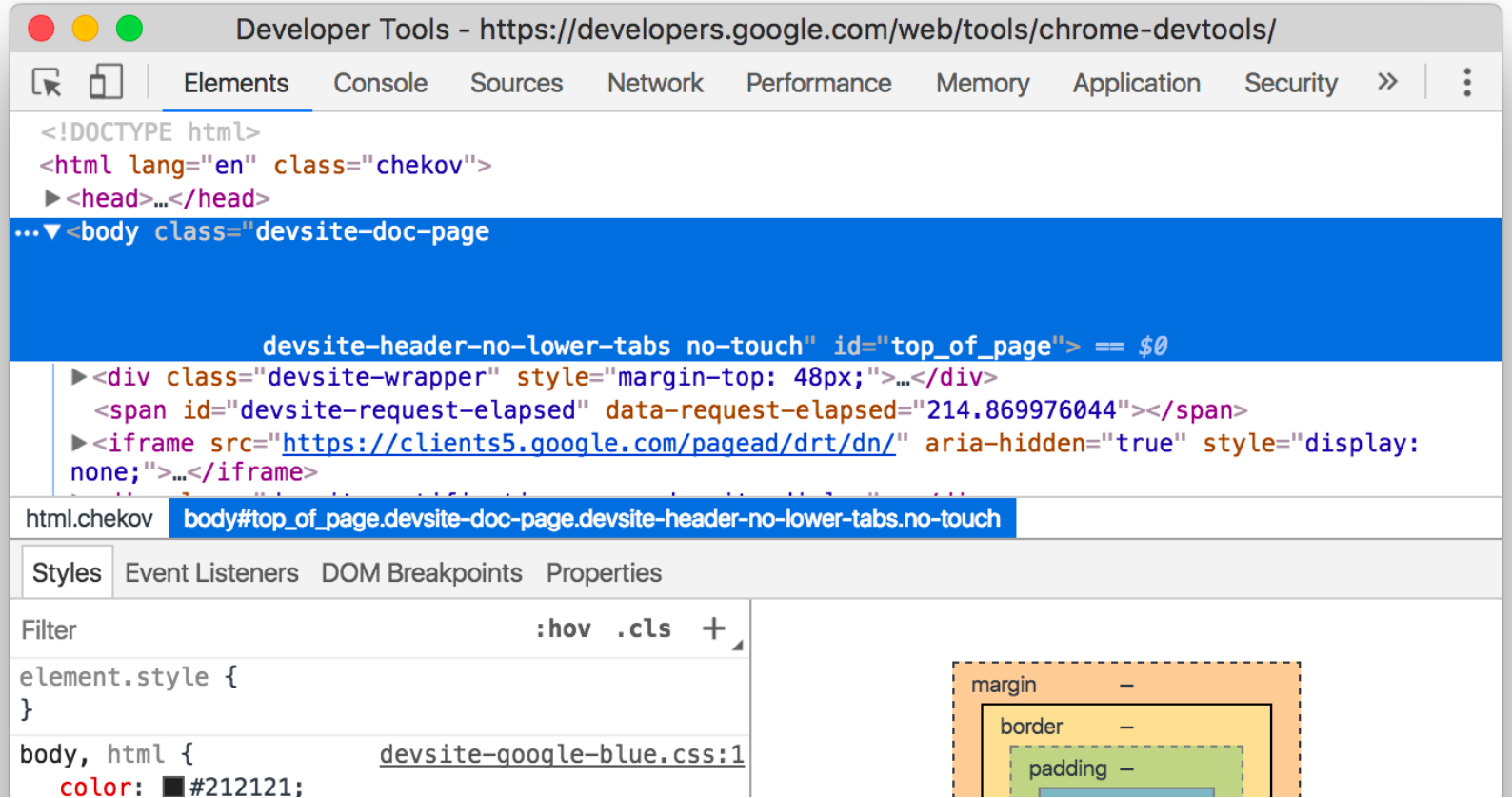
The main set of tools that we will focus on are:

- Elements - The rendered source code of the page
- Console - An interactive console where you use to debug the site
- Sources - A list of files that the page is calling
- Network - Allows you to view what information is passing over the network

More Information

ELEMENTS

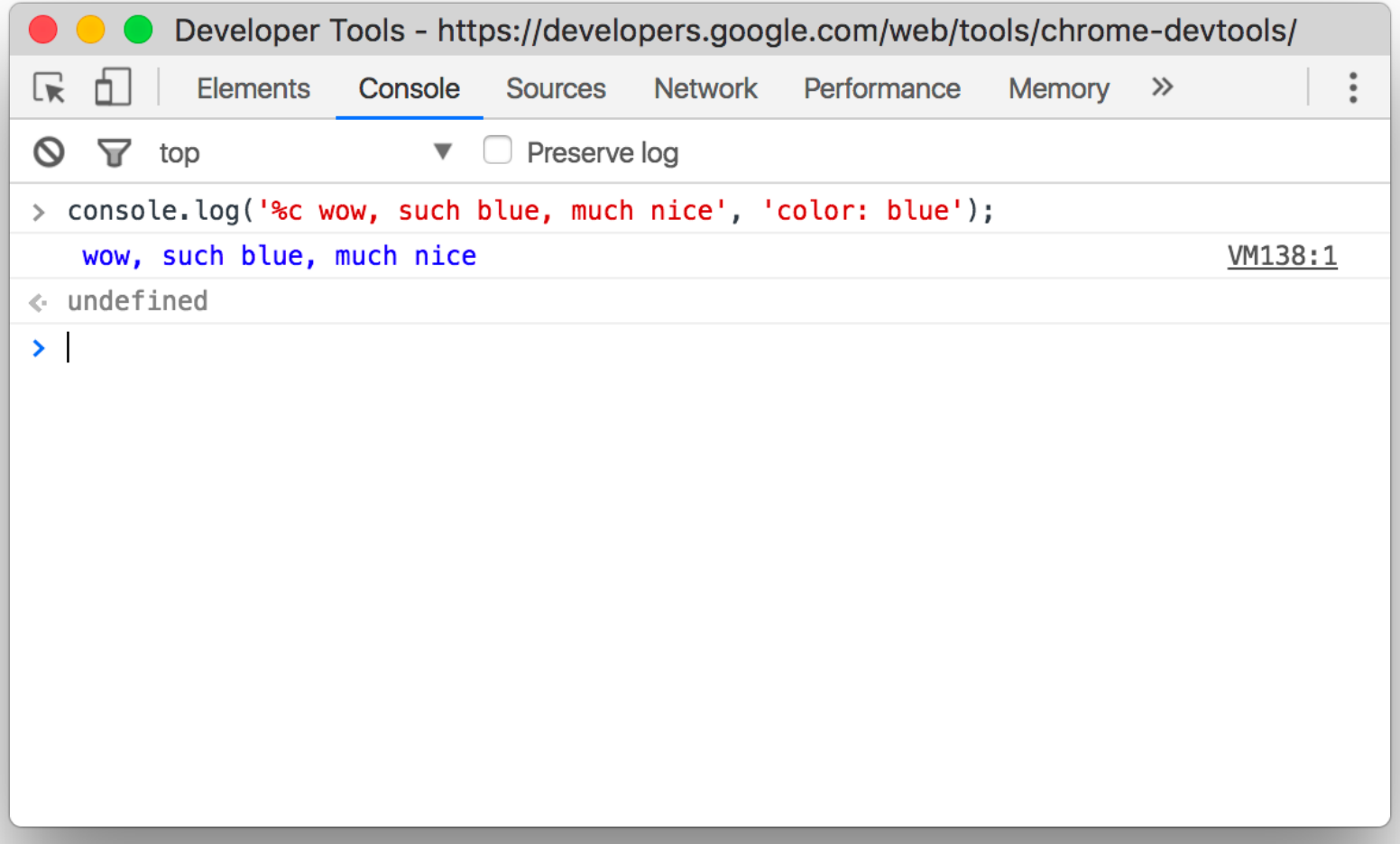
Tweak the layout and design of your site by freely manipulating the DOM and CSS.



font: ▶ 400 16px/24px Roboto,sans-serif;
-moz-osx-font-smoothing: grayscale;
-webkit-font-smoothing: antialiased;
margin: ▶ 0;
-webkit-text-size-adjust: 100%;
-ms-text-size-adjust: 100%;
text-size-adjust: 100%;
}
body div dl dd devsite-google-blue.css:1
660 × 7294.200
Filter
Show all

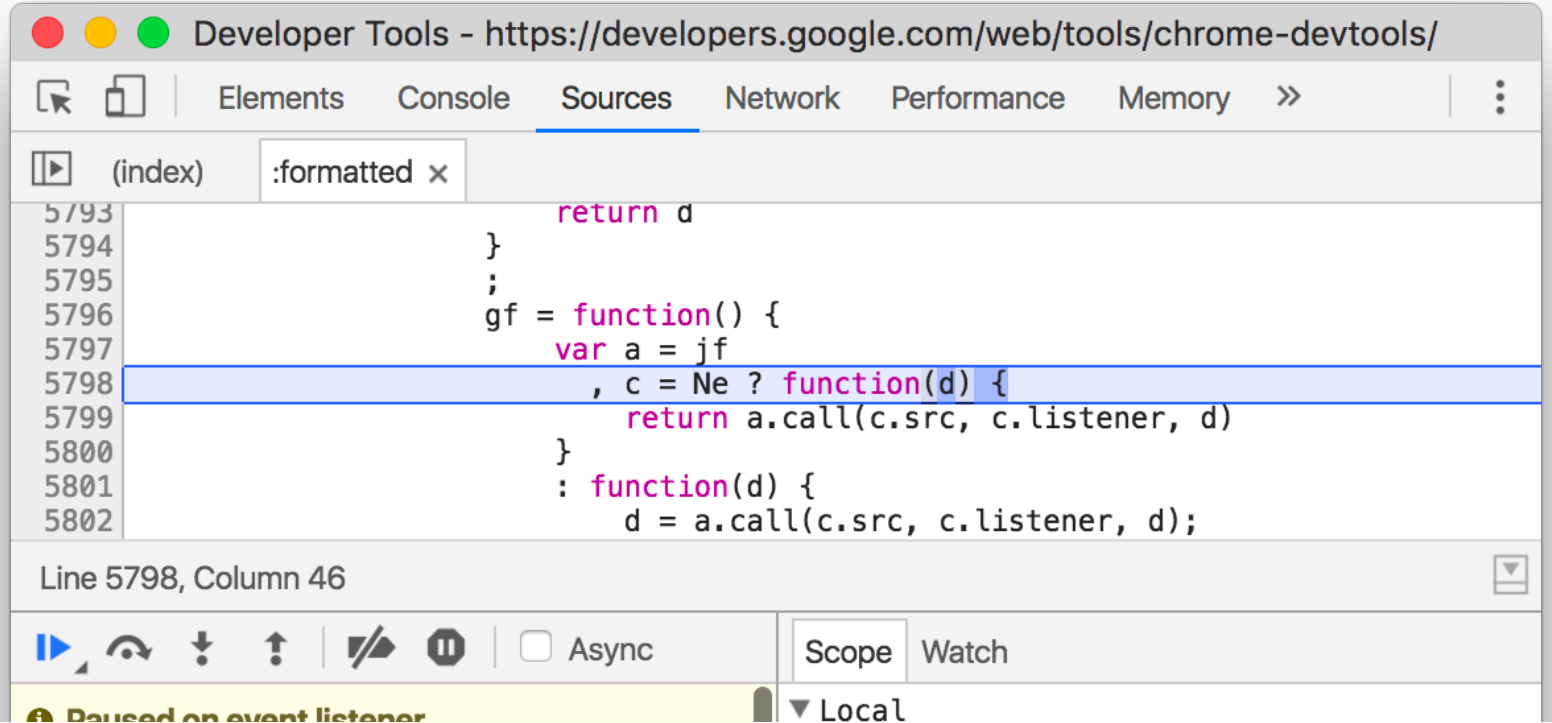
CONSOLE

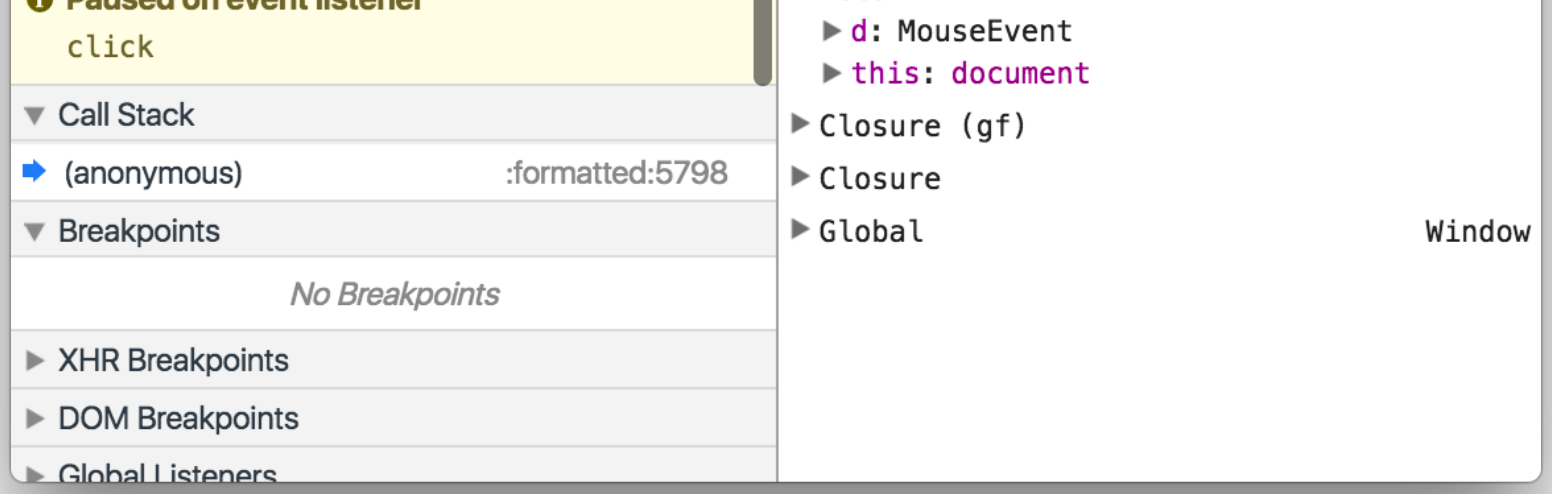
Log diagnostic information during development or interact with the JavaScript on the page.


Developer Tools - https://developers.google.com/web/tools/chrome-devtools/
Elements
Console
Sources
Network
Performance
Memory
top
Preserve log
> console.log('%c wow, such blue, much nice', 'color: blue');
wow, such blue, much nice
VM138:1
undefined
>

SOURCES

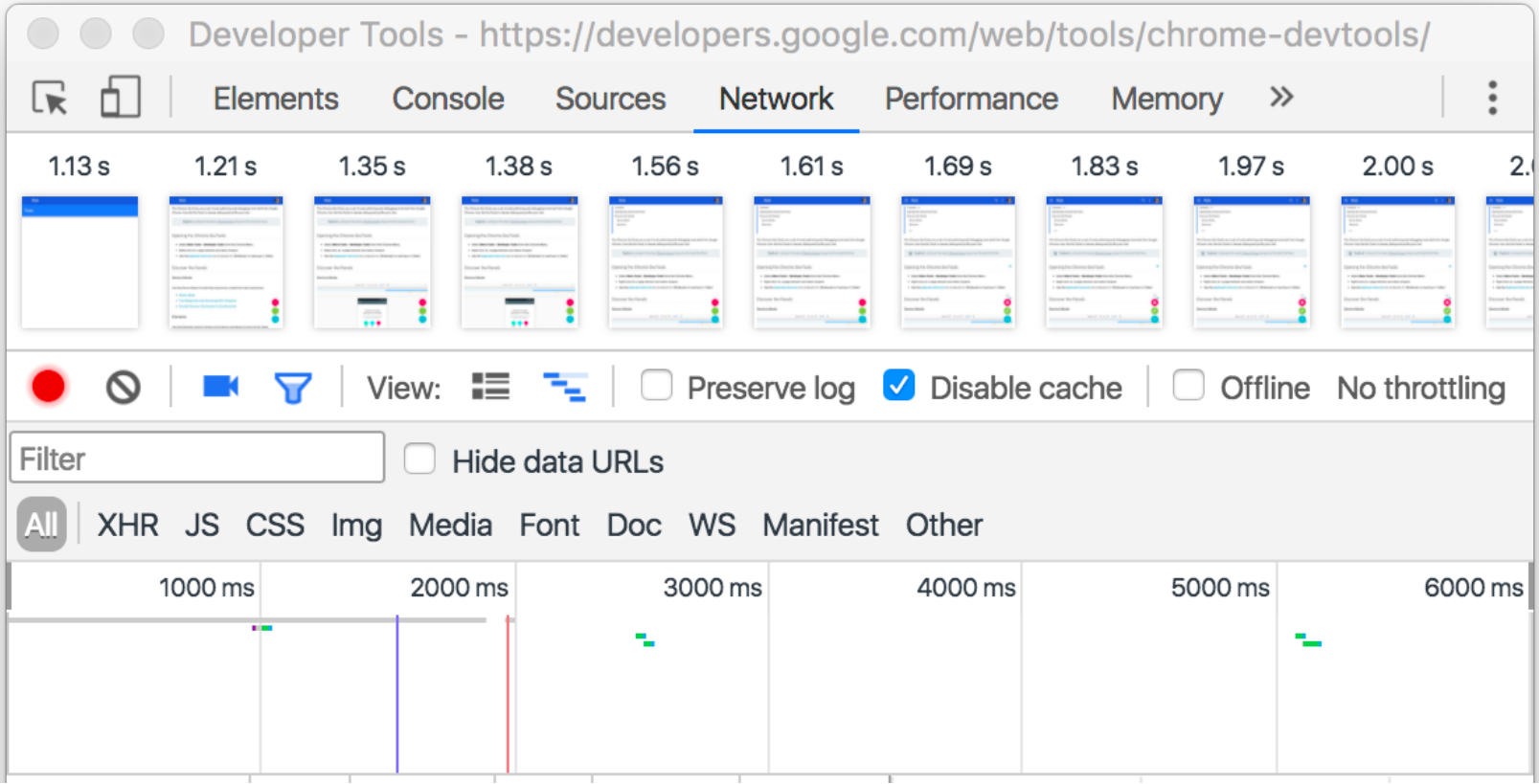
Debug your JavaScript using breakpoints or connect your local files via Workspaces to use DevTools as a code editor.

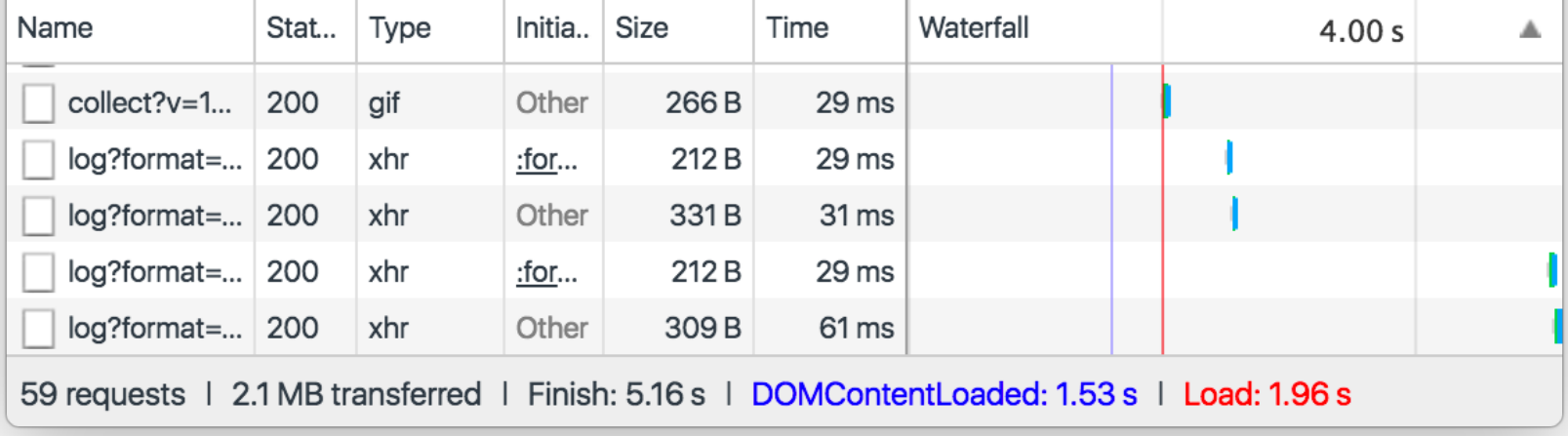



Paused on event listener
click
Call Stack
(anonymous) :formatted:5798
Breakpoints
No Breakpoints
XHR Breakpoints
DOM Breakpoints
Global Listeners
d: MouseEvent
this: document
Closure (gf)
Closure
Global Window

NETWORK

Optimize page load performance and debug request issues.




Name
Stat..
Type
Initia..
Size
Time
Waterfall
4.00 s
collect?v=1...
200
gif
Other
266 B
29 ms
log?format=...
200
xhr
:for...
212 B
29 ms
log?format=...
200
xhr
Other
331 B
31 ms
log?format=...
200
xhr
:for...
212 B
29 ms
log?format=...
200
xhr
Other
309 B
61 ms
59 requests | 2.1 MB transferred | Finish: 5.16 s | DOMContentLoaded: 1.53 s | Load: 1.96 s

USING CSS IN WORDPRESS

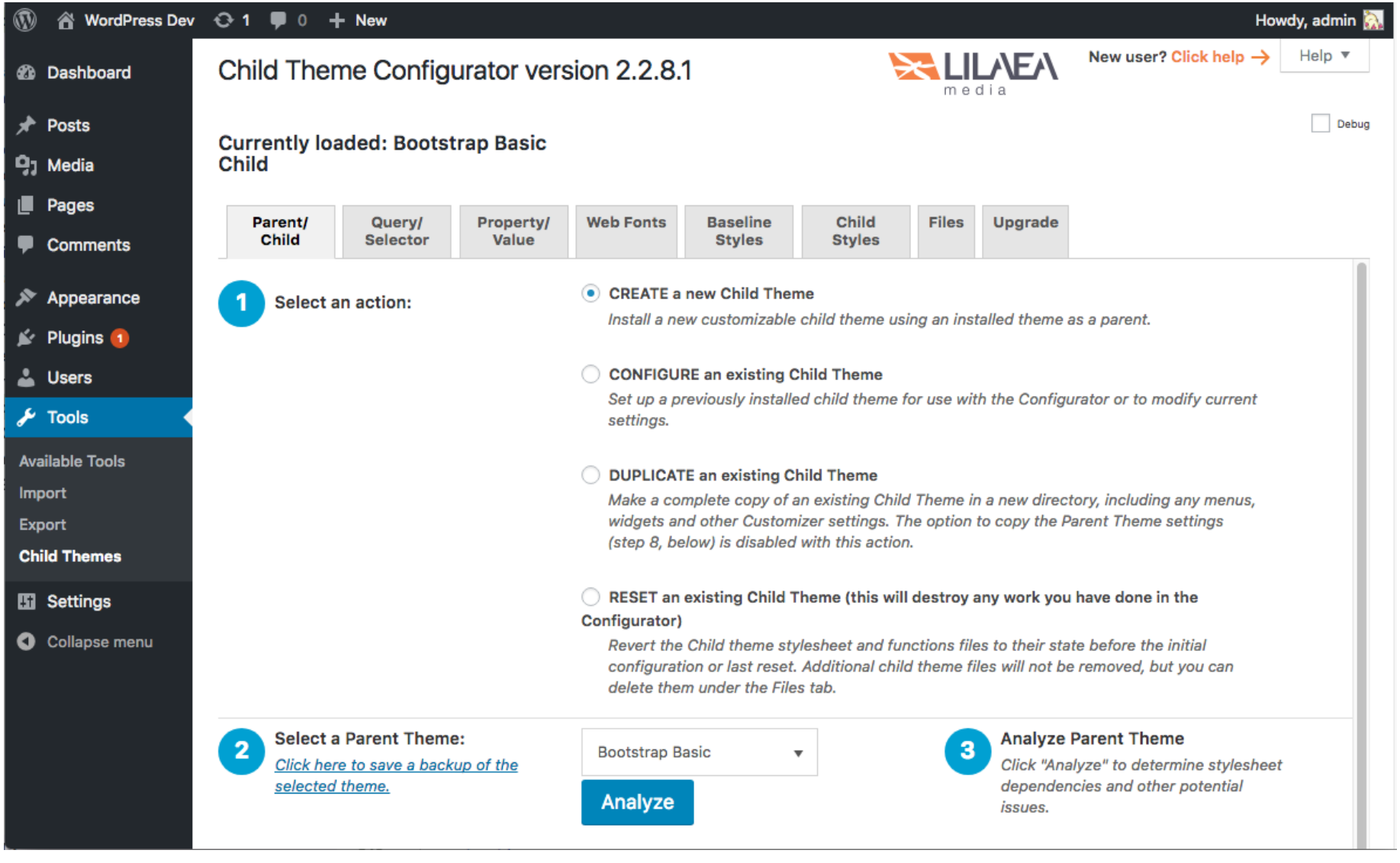
CREATE A CHILD THEME

Creating a child theme allows you to make modifications without having to worry that they will get wiped out if the parent theme receives an update.

CREATE A CHILD THEME

There are a few different ways to do it, I use a plugin.

Child Theme Configurator


WordPress Dev
1
0
New
Howdy, admin
Dashboard
Posts
Media
Pages
Comments
Appearance
Plugins
1
Users
Tools
Available Tools
Import
Export
Child Themes
Settings
Collapse menu
Child Theme Configurator version 2.2.8.1
LILAEA media
New user? Click help
Help
Debug
Currently loaded: Bootstrap Basic Child
Parent/ Child
Query/ Selector
Property/ Value
Web Fonts
Baseline Styles
Child Styles
Files
Upgrade
1
Select an action:
CREATE a new Child Theme
Install a new customizable child theme using an installed theme as a parent.
CONFIGURE an existing Child Theme
Set up a previously installed child theme for use with the Configurator or to modify current settings.
DUPLICATE an existing Child Theme
Make a complete copy of an existing Child Theme in a new directory, including any menus, widgets and other Customizer settings. The option to copy the Parent Theme settings (step 8, below) is disabled with this action.
RESET an existing Child Theme (this will destroy any work you have done in the Configurator)
Revert the Child theme stylesheet and functions files to their state before the initial configuration or last reset. Additional child theme files will not be removed, but you can delete them under the Files tab.
2
Select a Parent Theme:
Click here to save a backup of the selected theme.
Bootstrap Basic
Analyze
3
Analyze Parent Theme
Click "Analyze" to determine stylesheet dependencies and other potential issues.

EDIT STYLE.CSS

When you create the child theme, it will create a style.css file for you to add your custom CSS to.

BOOTSTRAP (V3.3)

WHAT IS BOOTSTRAP?

Bootstrap is an HMTL, CSS, and Javascript framework for developing websites quickly and easily.

Out of the box, bootstrap gives you:

- Mobile Ready Design
- Responsive Pages
- Grid System
- Typography
- Glyphicons
- Components

PROS AND CONS

The pros of Bootstrap is that it has done a lot of the heavy lifting for you, and can get you up and running relatively quickly.

This leads into the main con of bootstrap, which is that a lot of bootstrap themed sites can look the same if you don't apply the proper level of design polish to them.

GRID SYSTEM

.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1	.col-md-1
.col-md-8								.col-md-4			
.col-md-4				.col-md-4				.col-md-4			
.col-md-6						.col-md-6					

TYPOGRAPHY

EXAMPLE

h1. Bootstrap heading Secondary text

h2. Bootstrap heading Secondary text

h3. Bootstrap heading Secondary text

h4. Bootstrap heading Secondary text

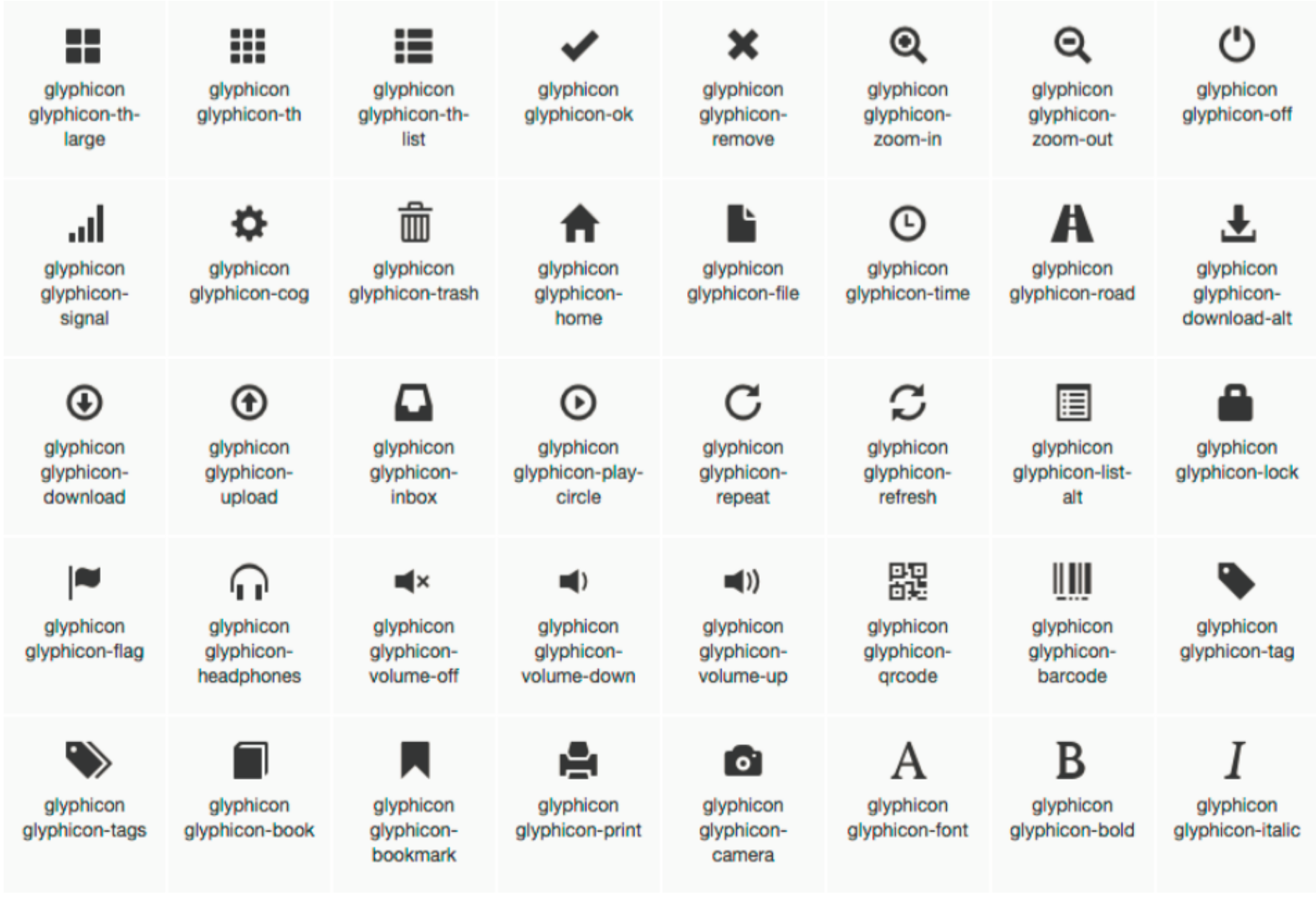
h5. Bootstrap heading Secondary text

h6. Bootstrap heading Secondary text

Copy

```
<h1>h1. Bootstrap heading <small>Secondary text</small></h1>
<h2>h2. Bootstrap heading <small>Secondary text</small></h2>
<h3>h3. Bootstrap heading <small>Secondary text</small></h3>
<h4>h4. Bootstrap heading <small>Secondary text</small></h4>
<h5>h5. Bootstrap heading <small>Secondary text</small></h5>
<h6>h6. Bootstrap heading <small>Secondary text</small></h6>
```

GLYPHICONS


glyphicon glyphicon-th-large
glyphicon glyphicon-th
glyphicon glyphicon-th-list
glyphicon glyphicon-ok
glyphicon glyphicon-remove
glyphicon glyphicon-zoom-in
glyphicon glyphicon-zoom-out
glyphicon glyphicon-off
glyphicon glyphicon-signal
glyphicon glyphicon-cog
glyphicon glyphicon-trash
glyphicon glyphicon-home
glyphicon glyphicon-file
glyphicon glyphicon-time
glyphicon glyphicon-road
glyphicon glyphicon-download-alt
glyphicon glyphicon-download
glyphicon glyphicon-upload
glyphicon glyphicon-inbox
glyphicon glyphicon-play-circle
glyphicon glyphicon-repeat
glyphicon glyphicon-refresh
glyphicon glyphicon-list-alt
glyphicon glyphicon-lock
glyphicon glyphicon-flag
glyphicon glyphicon-headphones
glyphicon glyphicon-volume-off
glyphicon glyphicon-volume-down
glyphicon glyphicon-volume-up
glyphicon glyphicon-qrcode
glyphicon glyphicon-barcode
glyphicon glyphicon-tag
glyphicon glyphicon-tags
glyphicon glyphicon-book
glyphicon glyphicon-bookmark
glyphicon glyphicon-print
glyphicon glyphicon-camera
glyphicon glyphicon-font
glyphicon glyphicon-bold
glyphicon glyphicon-italic

COMPONENTS

- Navbar
- Buttons and button groups
- Breadcrumbs
- Pagination
- Alert Areas
- Panels
- Modal popups

EXAMPLES

Starter template

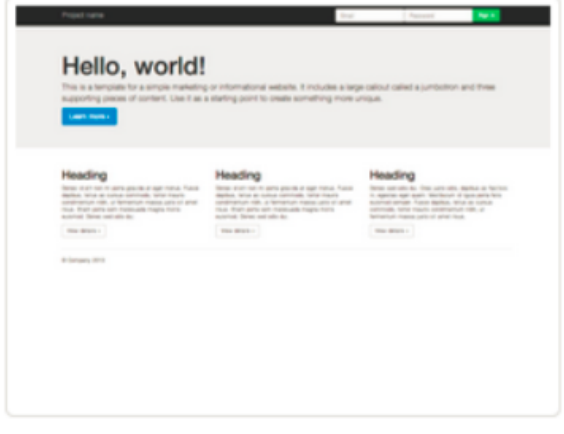
Nothing but the basics: compiled CSS and JavaScript along with a container.

Bootstrap theme

Load the optional Bootstrap theme for a visually enhanced experience.

Grids

Multiple examples of grid layouts with all four tiers, nesting, and more.



Jumbotron

Build around the jumbotron with a navbar and some basic grid columns.

Narrow jumbotron

Build a more custom page by narrowing the default container and jumbotron.

IN SUMMARY

Bootstrap helps you write a good looking web site fairly easily and quickly.

By using well documented HTML formatting and well defined CSS classes, it allows others to be able to understand and assist with coding.

More information

CODE EDITORS

This is obviously a personal decision and each developer could be producing great code using entirely different editors.

A SHORT LIST

- Atom
- Dreamweaver
- Emacs/VI/Vim
- Netbeans
- Sublime Text
- Visual Studio Code *
- Webstorm/PHPStorm

FEATURES

- Multi-carat editing
- Plugin architecture and ecosystem
- Lightweight
- Code completion

EMMET

EMMET IS...

Emmet is a plugin for many popular text editors which greatly improves HTML & CSS workflow.

At it's most basic, emmet allows you to write shorthand code that gets expanded to full blown html, which you can then tab through and fill out as necessary.

Emmet.io

SYNTAX

- Elements - like p, div, h2, ul, etc
- Nesting operators
  - > Child - This will nest elements
  - + Sibling - This will put elements adjacent to each other
  - ^ Climb up - Go up a level, break out of the nesting

SYNTAX

- * Multiplication - Repeat the element X times
- () Grouping
- . or # Class or ID - Give an element a class or ID
- [] Attributes - Set attributes in an element
- {} Content - Set content in an element
- $ Numbering - Set a number in a multiplication loop

EXAMPLE

This is a bit of a contrived example, but it shows a bunch of examples from the previous slides:

```
html>head>title{My Site}^body>h1{Welcome!}+ul>li*3>a{Item
```

EXAMPLE

Emmet will expant that to:

```
<html>
<head>
        <title>My Site</title>
</head>
<body>
        <h1>Welcome!</h1>
        <ul>
                <li><a href="">Item 1</a></li>
                <li><a href="">Item 2</a></li>
                <li><a href="">Item 3</a></li>
        </ul>
        <button class="call-to-action" data-foo="bar">Cli
</body>
</html>
```

MORE INFORMATION

- Emmet.io
- Syntax Examples

SASS

SASS IS CSS (AND MORE)

SASS is an extension of CSS3 which adds nested rules, variables, mixins, selector inheritance, and more.

SASS generates well formatted CSS and makes your stylesheets easier to organize and maintain.

More information

HOW IS SCSS LIKE CSS?

CSS

```
.call-to-action {
        background-color : red;
        color : white;
        font-weight : bold;
}
```

SCSS

```
.call-to-action {
        background-color : red;
        color : white;
        font-weight : bold;
}
```

ADVANTAGES

- Variables
- Nesting
- Mixins
- Functions
- Compiling

ADVANTAGES - VARIABLES

SCSS

```
$alert-color : #ffffff;
$alert-background-color : #ff0000;
$font-size : 13px;

.call-to-action {
        background-color : $alert-background-color;
        color : $alert-color;
        font-size : $font-size;
}
```

ADVANTAGES - VARIABLES

CONVERTS TO CSS

```
.call-to-action {
        background-color : #ff0000;
        color : #ffffff;
        font-size : 13px;
}
```

ADVANTAGES - NESTING

In CSS, you have to explictly write out each selector, even if they share the same base tag.

```
nav ul {
        margin : 0;
        list-style : none;
}
nav ul li {
        display : inline-block;
}
nav a {
        display : block;
        padding : 6px 12px;
        text-decoration : none;
}
```

ADVANTAGES - NESTING

In SASS you can nest your CSS selectors.

```
nav {
        ul {
                margin : 0;
                list-style : none;
                li {
                        display : inline-block;
                }
        }

        a {
                display : block;
                padding : 6px 12px;
                text-decoration : none;
        }
}
```

ADVANTAGES - MIXINS

Mixins are methods that you can call to help you write less code

SCSS

```
@mixin border-radius ($radius) {
        -webkit-border-radius: $radius;
        -moz-border-radius:    $radius;
        -ms-border-radius:     $radius;
        border-radius:         $radius;
}

.box {
        @include border-radius(10px);
}
```

ADVANTAGES - MIXINS

COMPILES TO CSS

```
.box {
        -webkit-border-radius: 10px;
        -moz-border-radius:    10px;
        -ms-border-radius:     10px;
        border-radius:         10px;
}
```

ADVANTAGES - FUNCTIONS

Many built in functions, but you can also write your own

```
p {
        color : hsl(0, 100%, 50%);
}
```

```
p {
        color : #ff0000;
}
```

ADVANTAGES - COMPILING

SASS can compile to different levels of compression

- Nested
- Expanded
- Compact
- Compressed

COMPASS

Compass is an open-source CSS authoring framework which uses the SASS stylesheet language as a foundation to make writing stylesheets powerful and easy.

- Mixins
- Functions
- Variables
- Typography

MORE INFORMATION

- Compass-Style.org
- Compass Examples

TOOLS

TOOLS

This is a short list of additional tools you use outside of your editor to assist with your development workflow.

- SASS Compiling
  - Codekit (Commercial, Mac only)
  - Koala (Free, Mac, Windows, Linux)
  - Prepros (Commercial, Mac, Windows, Linux)
- Playgrounds
  - JSBin
  - Codepen
  - JSFiddle

LINKS

CSS SELECTORS

- TutsPlus - Additional examples of Selectors
- CSS Diner - A CSS game to teach you selectors

CSS SPECIFICITY

- W3.org
- Smashing Magazine

CSS NAMING

- BEM
- OOCSS
- Semantic Class Names
- SMACSS

BOOTSTRAP

Bootstrap (v3.3)

TOOLS

- Chrome DevTools Documentation
- Child Theme Configurator

CODE EDITORS

- Atom
- Dreamweaver
- Emacs/VI/Vim
- Netbeans
- Sublime Text
- Visual Studio Code
- Webstorm/PHPStorm

EMMET

- Emmet.io
- Emmet Documentation
- Syntax Examples

SASS

- SASS
- SASS Guide
- Compass-Style.org
- Compass Examples

TOOLS

- SASS/JS/HTML Compiling/Minification
  - Codekit (Commercial, Mac only)
  - Koala (Free, Mac, Windows, Linux)
  - Prepros (Commercial, Mac, Windows, Linux)
- Playgrounds
  - JSBin
  - Codepen
  - JSFiddle

THANKS!

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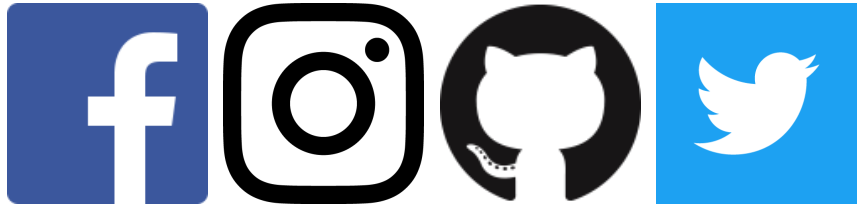
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