HTML 101

< QR Codes for interactive demos during presentation

Web Link   Email Link

WHY ARE WE HERE?

?

Who am I?

Software Engineer
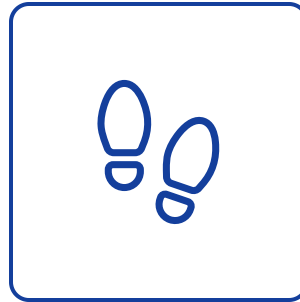
Anchorage, AK

The Crossing, EPC

i

What is this about?

What is HTML?

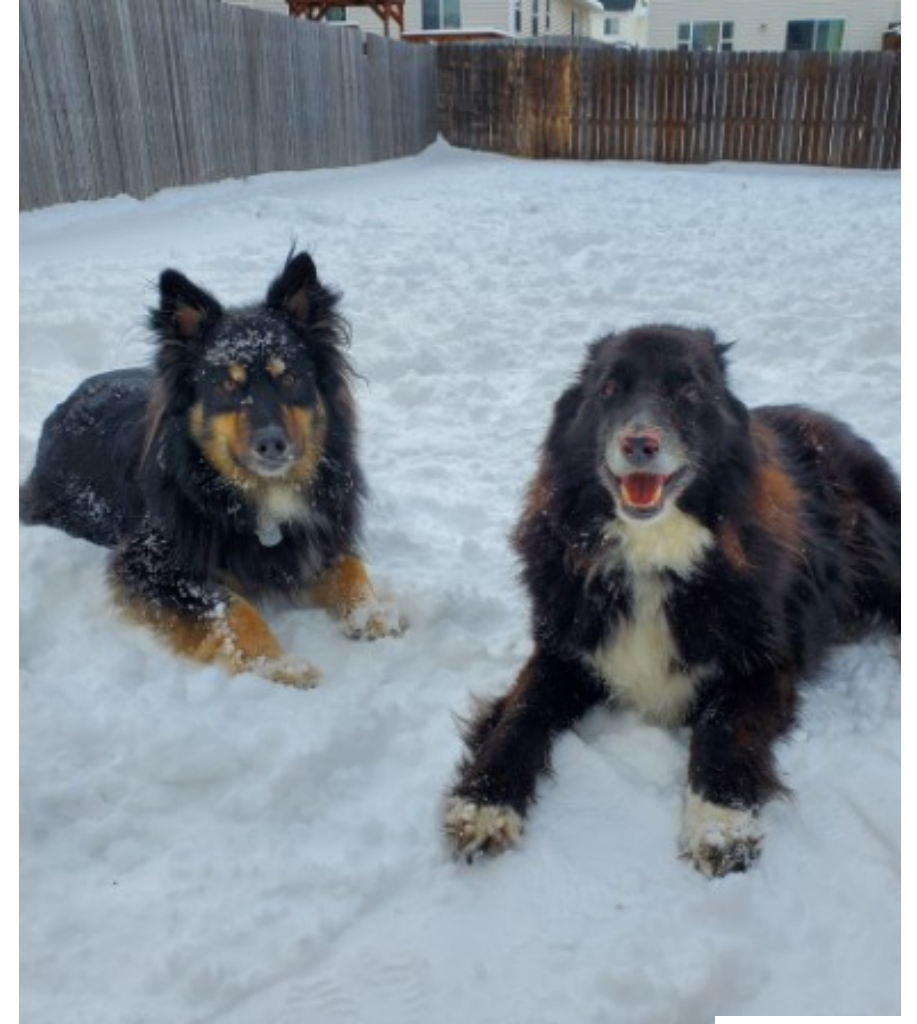Why should I learn to use it?

Is it even used in Rock?

👣

What will you walk away with?
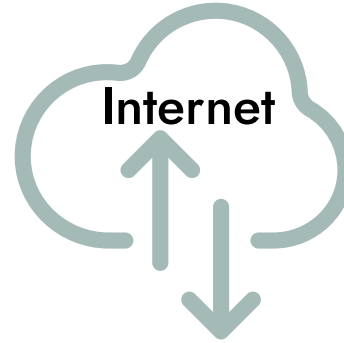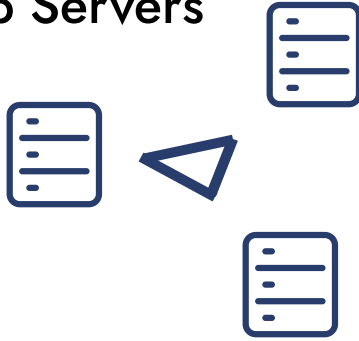
A basic understanding of HTML

How and where it is used in Rock

Tools to help you learn more

IS HTML REALLY IMPORTANT?

WHAT IS HTML AND WHERE DOES ROCK USE IT?

Web Servers
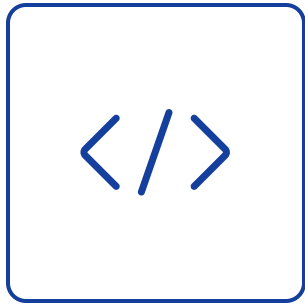
Internet

Web Servers

Server-Side

Client-Side

Clients
Browsers

WHAT'S IN A WEB PAGE?

HTML

Hypertext Markup Language is a markup language defined by sets of matching tags that determine the structure and format of webpages as we view them.
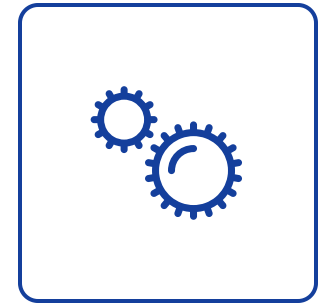
The Skeleton

CSS

Cascading Style Sheets is a style sheet language that gives the browser information about how the HTML elements on the page should be presented.

The Skin

JavaScript

(JS) A programming language that executes code directly in the user's browser. It allows your site to be interactive.

The Muscles
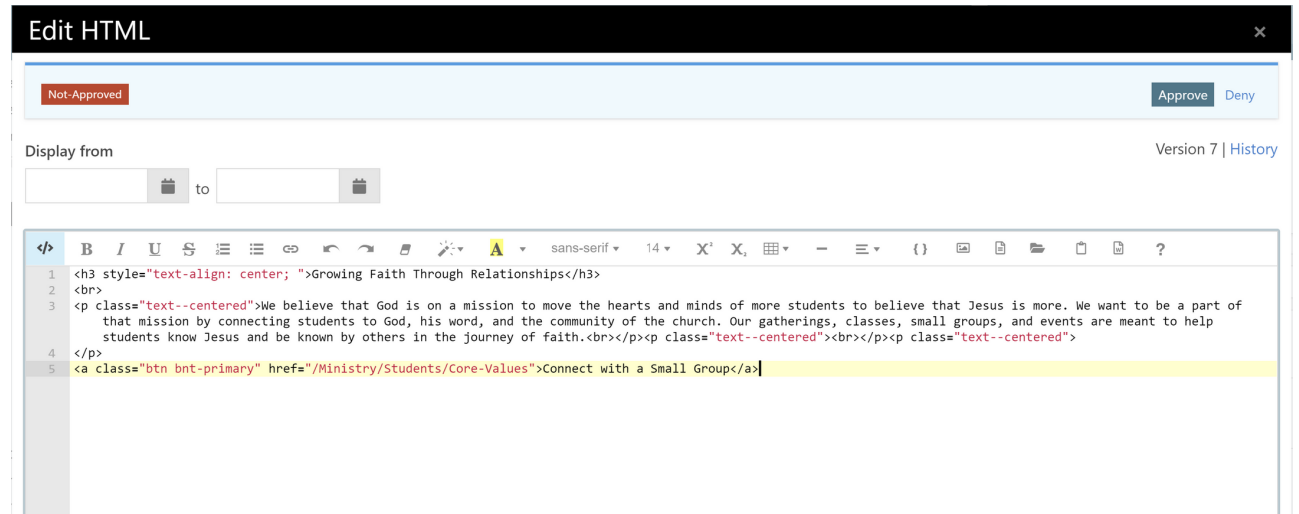
HTML USES IN ROCK

- **CMS**
  - HTML Content Block
  - Content Channel Item View
  - Content Channel View
  - Pre and Post HTML

- **Attributes**
  - Pre and Post HTML
  - Static HTML
  - HTML
  - Code Editor
  - Lava
  - Memo with allow HTML

HTML USES IN ROCK

- **Event Registrations**
  - Attribute Pre and Post HTML
  - Registration Instructions
  - Registration Confirmation Text
  - Confirmation Email
  - Reminder Email
  - Payment Reminder Email
  - Wait List Transition Email

- **Calendars**
  - Event Item Descriptions
  - Event Item Occurrence Notes
  - Calendar Event Item Occurrence Lava (Block)

Registration Instructions ℹ

```
1   <p style="">We're not really having a pizza party (bummer right
        process!!! You will be asked to provide some feedback toward
2
3   <!-- For Childcare Link Auto-Hide Copy Everything Below This Li
4   <script src="https://cdnjs.cloudflare.com/ajax/libs/luxon/2.3.0
        +kqrU2Oz234MrpyywZsQz1F5OGnfat7mOhjRr0oz5cpQ+YwwWB+hhDBSyxN
        ></script>
5   <script>
6   // DO NOT CHANGE (Starting here)
```

Description

```
1   <p>
2       <b>Led by DeeDee Crosby</b>
3   </p>
4   <p>How do we live well in a world where we don't fit in? Join Dee
        was able to love their enemies. As we look to Christ's exampl
        identities as his beloved children. The study will be in per:
5   |
```

HTML USES IN ROCK

- ● **Content Channel Items**
  - • Content (Not Structured Content)

- ● **Communications**
  - • Emails
  - • Email Templates
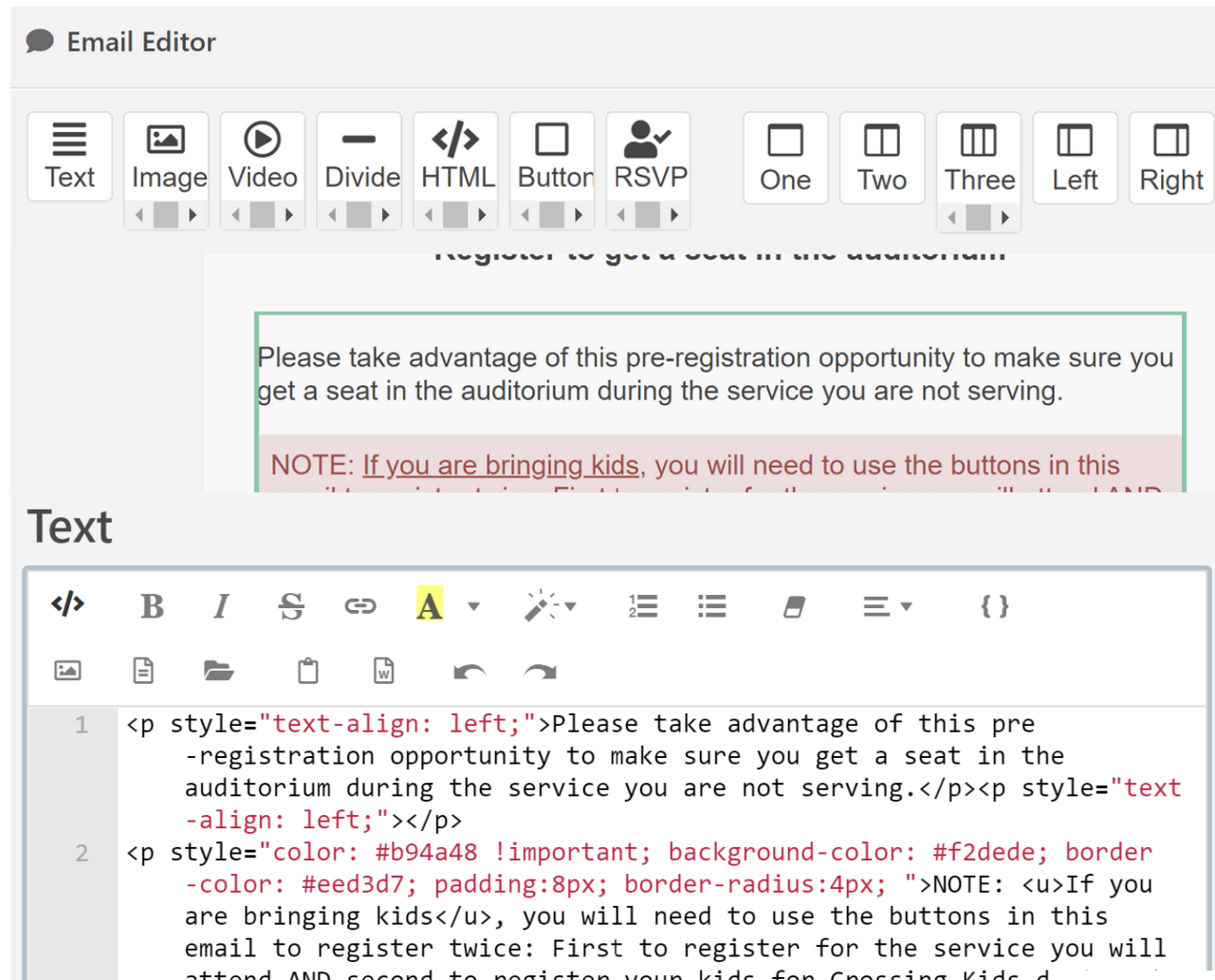
HTML USES IN ROCK

- ## Workflows
  - Send Email Action
  - Form Header/Footer
  - Form Pre and Post HTML

- ## Reports
  - Lava fields

- ## Probably More
  - Let's be real, Rock is massive, I'm probably missing something/a lot of things.

THE TECHNICAL STUFF

HOW DO I WRITE HTML?

HTML TAGS

HTML is a document defined by **tags**.
That can either mean a **matching set of tags** to define the begging and end of their content.
or
A self-closing tag.

All opening and self-closing tags can contain attributes that hold other information about the element. Closing tags cannot.

Hello world! I am a paragraph.

```
<p>Hello world! I am a paragraph.</p>
<img
src="https://placekitten.com/g/200/200" />
```

COMMON HTML TAGS

There are a lot of different HTML tags, we are going to focus on a few of the most commonly used ones

Anchor

A link to another page, image, pdf, etc.
href: the path (typically url) to the new item
target: how the path should be opened (same or new tab)

Division

A section or block of content

```
<a
href="https://google.com">
    I am a link.
</a>
<div>Hello World.</div>
```

I am a link.
Hello World.

COMMON HTML TAGS

There are a lot of different HTML tags, we are going to focus on a few of the most commonly used ones

Inline Frame

An embedded page, i.e. YouTube video embed

src: the path to the content that should be embed

Typically other attributes like height, width, allowfullscreen

Image (Self-closing)

An image

src: the path (typically url) to the image that should be displayed

```
<iframe
src="https://www.youtube.com/embed/1prweT95Mo0">
</iframe>
<img
src="https://placekitten.com/g/200/200"/>
```

COMMON HTML TAGS

There are a lot of different HTML tags, we are going to focus on a few of the most commonly used ones

Table

Not recommended for using to make regular layouts on webpages, however they are great for helping to format emails.
Consists of multiple tags: table, thead, tbody, tr, th, td

Column One   **Column Two**
Data in column one Data in column two

```
<table>
    <thead>
        <tr>
            <th>Column One</th>
            <th>Column Two</th>
        </tr>
    </thead>
    <tbody>
        <tr>
            <td>Data in column one</td>
            <td>Data in column two</td>
        </tr>
    </tbody>
</table>
```

HTML ONLY DEMO

```html
<h1>Cat Facts</h1>
<img src="https://placekitten.com/g/300/200" />
<p>
    Here are some facts about cats:
</p>
<ul>
    <li>Cats are believed to be the only mammals who don't taste sweetness, probably
the reason
    they are so salty!</li>
    <li>Cats have the largest eyes relative to their head size of any mammal, this is
so they can
    see your mistakes</li>
</ul>
```

https://jsfiddle.net/courtneycooksey/qwckexo2/11/
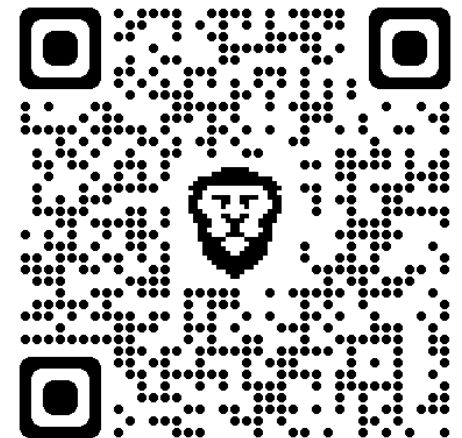
EVEN MORE TECHNICAL STUFF

HOW DO YOU MAKE IT LOOK GOOD?

COMPONENTS OF AN HTML ELEMENT

● Element
The content of the element: text, image, etc.

● Padding
White space between the border of the element and the content

● Border
The border around the element

● Margin
White space around the element to separate it from other elements

Margin

Border
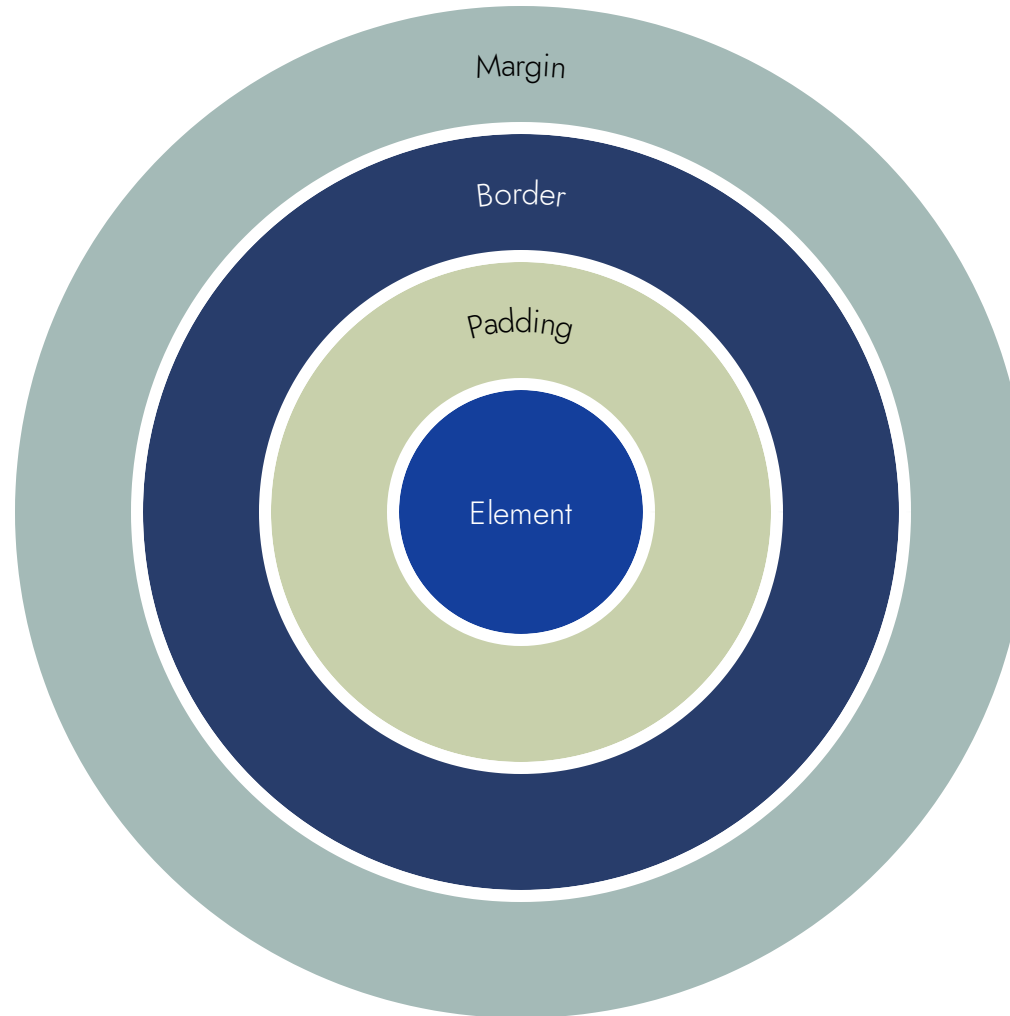
Padding

Element

ELEMENT SIZING

```
<div class="test">
  Hello World
</div>
<style>
  .test {
    width: 200px;
    padding: 8px;
    border: 2px solid grey;
    margin: 10px;
  }
</style>
```

Hello World
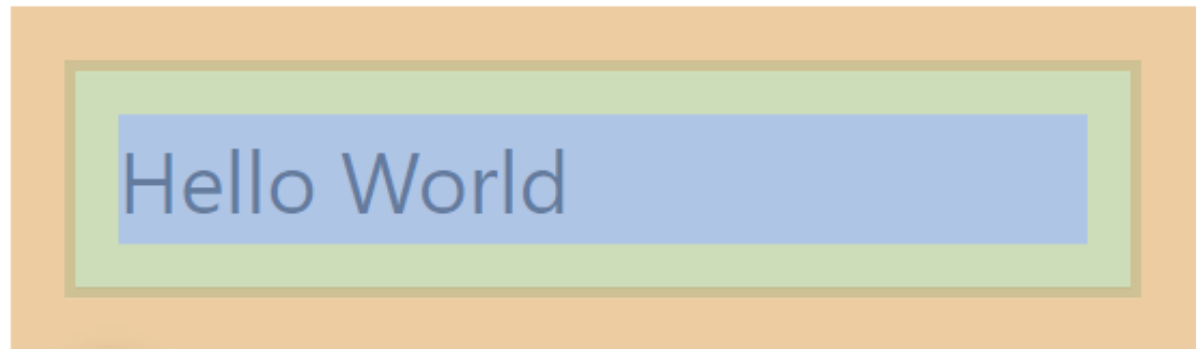
Total width of element: width + padding + border + margin

200 + (8x2) + (2x2) + (10x2) = 240

TERMINOLOGY REFRESHER

- **tag**

  defines what type of HTML element to be rendered

  <p></p>

- **element**

  the rendered item on the page

- **attribute**

  information about the HTML element provided in the opening tag

  <p attribute-name="value"></p>

ELEMENT ATTRIBUTES

Every HTML element can have attributes within the opening tag declaration or in a self-closing tag.
attribute-name="attribute-value"

- **id**

  a unique identifier for that element

- **class**

  css class names that should be applied to the element (separate class names with a space)

- **style**

  inline styling for the element

  css-property-name: property-value;

- **src**

  source of content for iframe and image tags (url, filepath)

- **href**

  hypertext reference for anchor tags (url to another place)

- **custom**

  you can add your own attributes

  name="value"

CSS SELECTORS

id selector: select an element by id (# before id)

class selector: select elements by class name (. before class)

element selector: select elements by tag name (tag name)

Chain selectors (no space between selectors)

Select any level child elements (space between selectors)

```
#foo { ... }           <div id="foo"></div>
.bar { ... }           <div class="bar foo">
div { ... }            </div>
                       <div></div>

div.foo.bar { ... }
.parent .child { ...   <div class="parent">
}                        <div class="child">
                       </div>
                       </div>
```

Full Reference: https://www.w3schools.com/cssref/css_selectors.asp

SPECIFICITY WITH STYLES

Specificity matters in CSS, the order of importance being:

1. **Inline styles**
2. **IDs**
3. **Classes, pseudo-classes, attribute selectors**
4. **Elements and pseudo-elements**

There is also the !important rule that increases the value of specificity calculated for the CSS it is applied to

```html
<div style="color: blue;"></div>
<div id="foo" fizz="buzz"></div>
<div class="test"></div>
<h1>Hello World</h1>

<style>
    #foo {
        color: grey;
    }
    .test, div:hover, div[fizz="buzz"] {
        background-color: lightblue;
    }
    h1, div:before{
        color: green !important;
    }
</style>
```

CLASSES AND INLINE STYLES

```html
1   <div class="container">
2     <div id="foo" class="bar">Hello Green</div>
3     <div class="bar">Hello Blue</div>
4     <div value="red">Hello Red</div>
5   </div>
6
7   <style>
8     .bar {
9       color: #3969a6;
10      background-color: #cdcdcd;
11    }
12    div:not(.container) {
13      font-family: Arial;
14      padding: 8px;
15      border-radius: 4px;
16      margin: 4px;
17      background-color: #bce0ff;
18      font-weight: bold;
19    }
20    .container {
21      display: flex;
22      justify-content: center;
23    }
24    .container div {
25      width: 16.5%;
26    }
27    #foo {
28      color: #286428;
29    }
30    div[value=red] {
31      color: #9d0d0d;
32    }
33  </style>
```

Hello Green   Hello Blue   Hello Red

Not what you expected right?

div:not(.container) = 1 + 10

.bar = 10

https://jsfiddle.net/courtneycooksey/vnf67tyb/4/
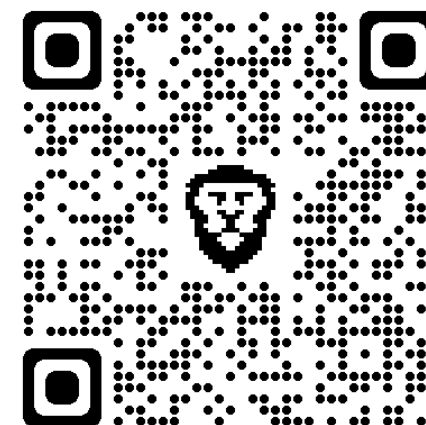
LETTING OTHER PEOPLE DO THE HARD STUFF

DO I REALLY HAVE TO REMEMBER ALL THESE RULES?

DAY 1 OF WEB DEVELOPMENT

how to center a div in css

Google Search   I'm Feeling Lucky

10 YEARS OF WEB DEVELOPMENT

how to center a div in css

Google Search   I'm Feeling Lucky

BOOTSTRAP

Bootstrap is an online library of CSS classes and JS functions that can help make your site responsive and have some interactive elements like accordions and sliders.

Lava Shortcodes   [Inactive | Active] [+]

Accordion   ○ Show Details
Allows you to easily create a Bootstrap accordion control.
                                                         System

```
<div class="accordion">
    <div class="panel">
        <a role="button"></a>
        <div class="collapse">
</div>
    </div>
</div>
*pseudo code, not functional
```

Collapsible Group Item #1

Some placeholder content for the first accordion panel. This panel is shown by default, thanks to the `.show` class.

Collapsible Group Item #2

Collapsible Group Item #3

THE BOOTSTRAP GRID SYSTEM

The width of any row is 12 columns

```
<div class='row'>
    <div class='col-xs-2'>Col-2</div>
    <div class='col-xs-6'>Col-6</div>
    <div class='col-xs-4'>Col-4</div>
</div>
```

| Col-2 | Col-6 | Col-4 |

GRID BREAKPOINTS

	Extra small devices Phones (<768px)	Small devices Tablets (≥768px)	Medium devices Desktops (≥992px)	Large devices Desktops (≥1200px)
Grid behavior	Horizontal at all times	Collapsed to start, horizontal above breakpoints		
Container width	None (auto)	750px	970px	1170px
Class prefix	`.col-xs-`	`.col-sm-`	`.col-md-`	`.col-lg-`
# of columns	12			
Column width	Auto	~62px	~81px	~97px
Gutter width	30px (15px on each side of a column)			
Nestable	Yes			
Offsets	Yes			
Column ordering	Yes			

BREAK POINT TEST

```html
<div class="row">
  <div class="col-xs-12 col-md-6">
    <label for="firstname">First Name</label>
    <input type="text" class="form-control" name="firstname"/>
  </div>
  <div class="col-xs-12 col-md-6">
    <label for="lastname">Last Name</label>
    <input type="text" class="form-control" name="lastname"/>
  </div>
</div>
```

First Name

Last Name

First Name

Last Name

PADDING/MARGIN HELPERS

Bootstrap has helper classes for adding padding and margin to your elements as well.

Class names start with m or p to determine if margin or padding should be added.
Then an optional letter if it should not be applied to every side:

- x: left and right only
- y: top and bottom only
- t: top only
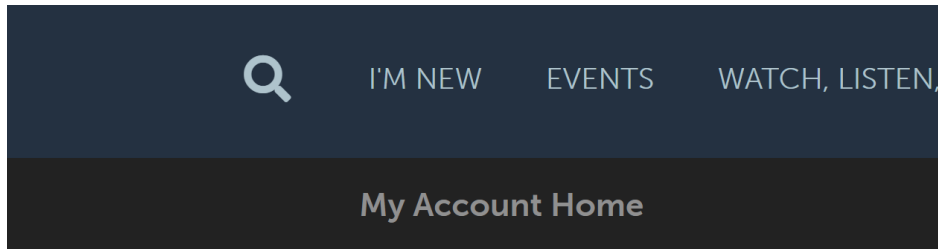- b: bottom only
- l: left only
- r: right only

Ends with hyphen and a number to denote the amount of space to add

```html
<h2 class="py-2">Hello World</h2>
<p class="mb-3">...</p>
<p>...</p>
```
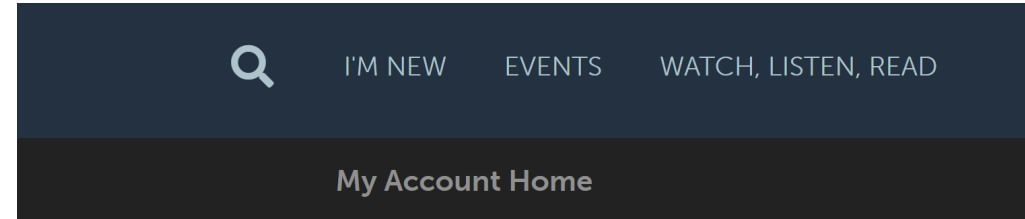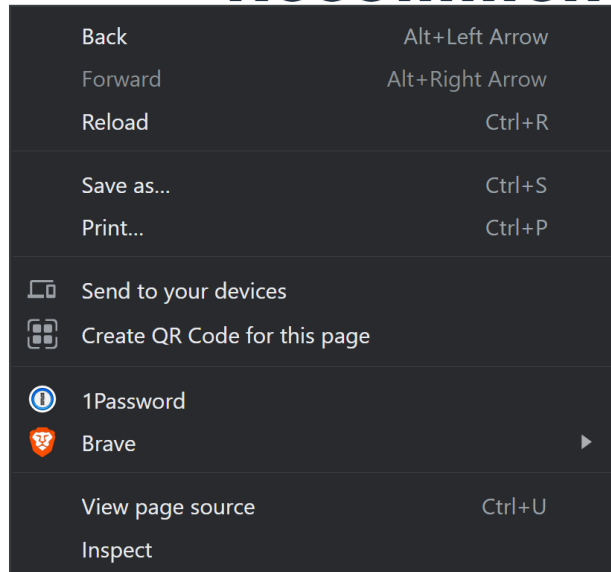
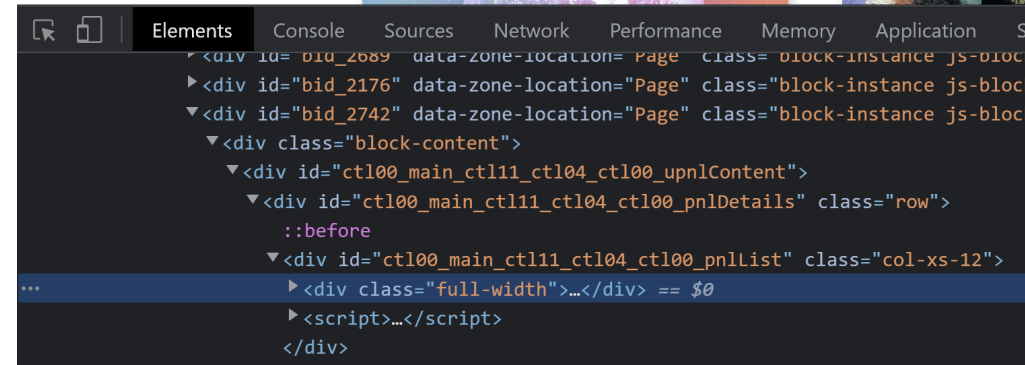THIS HAS BEEN A LOT

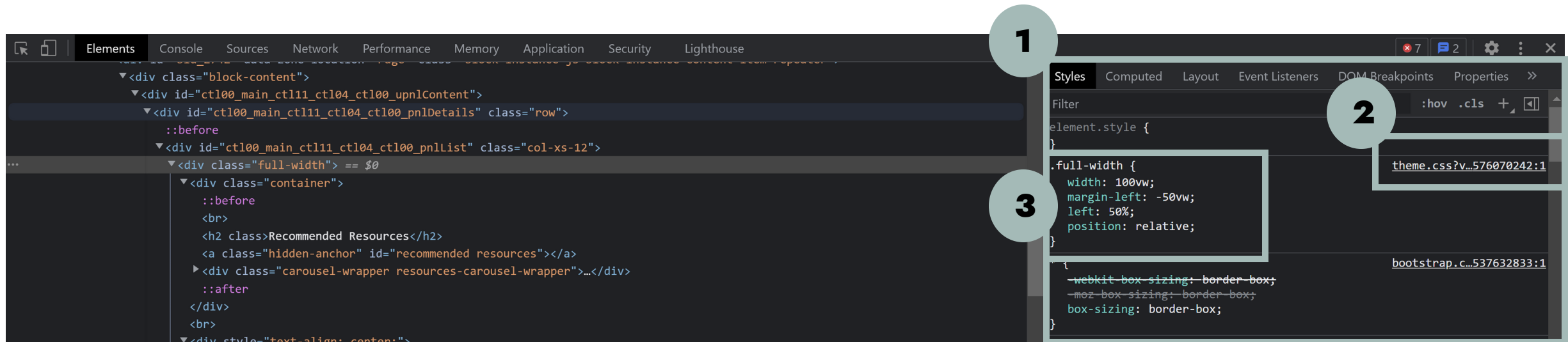# PRACTICAL APPLICATION

THE DEVELOPER CONSOLE

Right click > Inspect

THE DEVELOPER CONSOLE

Selecting an element will open the styles for the element.

1. The CSS being applied to the element

2. A link to open the source code where that CSS rule is

3. Here you can manipulate the CSS and see live changes (only for you in your browser, until you refresh)

DIY

I know my theme has links (anchor tags) that look like buttons. How can I figure out how to replicate it somewhere else on the site?

1. Go to a page with the desired element
2. Open the developer console
3. Find the element
4. Look at what css classes or styles are applied to it
5. Create your new element replacing the inner text and href but using the same css class names

DEBUGGING

One section of my website uses a lava template written by a developer. I also have an html block on the page and the headers look different from each other.

1. Open the developer console

2. Select each header

3. Compare differences

4. Apply necessary changes to the header in your HTML block or request an updated lava template

HTML AND TEMPLATING

WHAT ABOUT LAVA?

LAVA IN YOUR HTML

```
<h2>
    Hi {{CurrentPerson.NickName}}
</h2>
<p>Check out our latest blog posts!
</p>
```

Hi Courtney

Check out our latest blog posts!

```
<h2>Hi Courtney</h2>
<p>Check out our latest blog posts!</p>
```

LAVA IN YOUR HTML

```
<ul>
  {% for i in Items %}
    <li>
      <a href="{{i | Attribute:'Link'}}">{{i.Title}}
</a>
    </li>
  {% endfor %}
</ul>
```

- [Knowing God vs. Knowing About God (And How to Know Him Better)](#)
- [Trusting God's Timing (Even When Life Feels Out of Control)](#)
- [Top 10 Going There Podcast Episodes](#)

```
▼<ul>
  ▼<li>
      ::marker
      <a href="https://info.thecrossingchurch.com/blog/knowing-god-vs.-knowing-about-god-and-how-to-know-him-better"> Knowing
      God vs. Knowing About God (And How to Know Him Better) </a>
  </li>
  ▶<li>…</li>
  ▶<li>…</li>
</ul>
```

RESOURCES

1 MDN
https://developer.mozilla.org/en-US/docs/Web/HTML

2 W3 Schools
https://www.w3schools.com/html/default.asp

3 Stack Overflow
https://stackoverflow.com/

4 Bootstrap Docs
https://getbootstrap.com/docs/4.6/layout/grid/

5 Lava Docs
https://community.rockrms.com/Lava