

```
        </div>
    </div>
</div>
</div>
<div class="wrap_2stroke">
    <div class="second">
        <div class="second_content">
            <div class="title">
                <h3>HTML 101</h3>
                <img alt="A small decorative icon or logo." data-bbox="458 518 508 628"/>
            </div>
        </div>
    </div>
```

# HTML 101

< QR Codes for interactive demos during presentation



Web Link



Email Link

# WHY ARE WE HERE?



Who am I?

Software Engineer

Cheyenne, WY  
(Currently Anchorage,  
AK)

The Crossing, EPC



What is this about?

What is HTML?

Why should I learn to  
use it?

Is it even used in Rock?

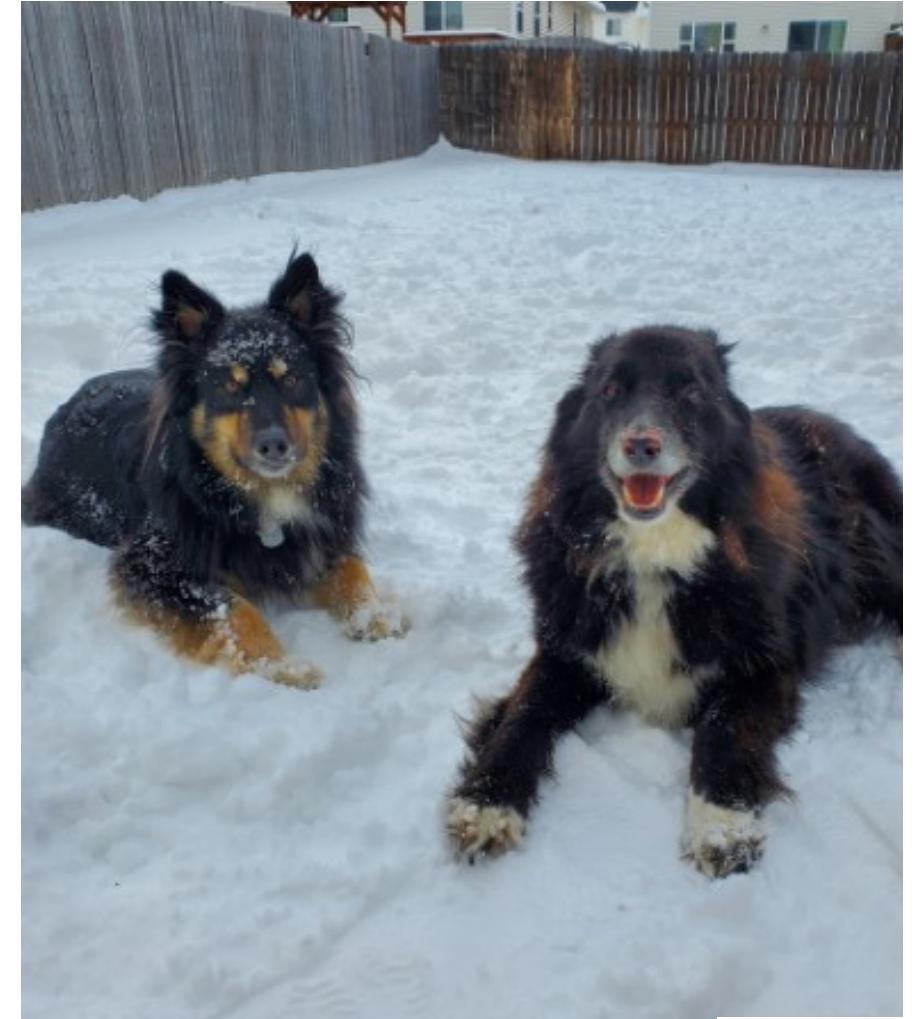


What will you walk  
away with?

A basic understanding  
of HTML

How and where it is  
used in Rock

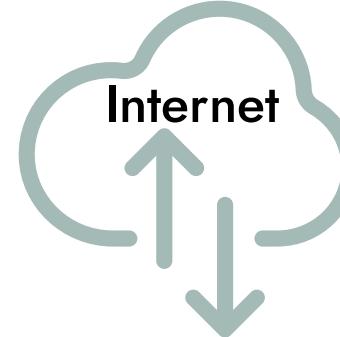
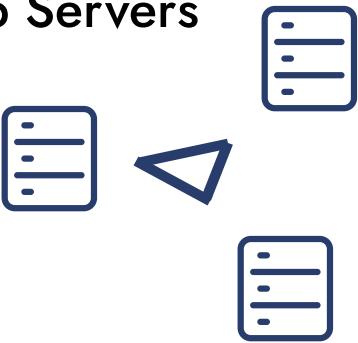
Tools to help you learn  
more



IS HTML REALLY IMPORTANT?

WHAT IS HTML AND WHERE  
DOES ROCK USE IT?

**Web Servers**



**Web Servers**



**Server-Side**

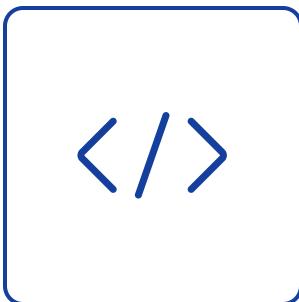
---

**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.

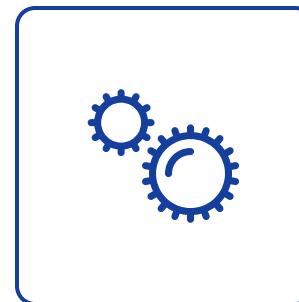
The Skeleton



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

The screenshot shows the 'Edit HTML' dialog box from a content management system. At the top, there's a 'Not Approved' button, an 'Approve' button, and a 'Deny' button. Below that is a 'Display from' section with two date pickers. To the right, there's a 'Version 7 | History' link. The main area contains a WYSIWYG editor toolbar and a code editor. The code editor shows the following HTML:

```
<h3 style="text-align: center;">Growing Faith Through Relationships</h3>
<br>
<p class="text--centered">We believe that God is on a mission to move the hearts and minds of more students to believe that Jesus is more. We want to be a part of that mission by connecting students to God, his word, and the community of the church. Our gatherings, classes, small groups, and events are meant to help students know Jesus and be known by others in the journey of faith.<br></p><p class="text--centered"><br></p><p class="text--centered"><a class="btn btn-primary" href="/Ministry/Students/Core-Values">Connect with a Small Group</a>|
```

Below the code editor are three sections: 'Pre-HTML', 'Post-HTML', and another code editor section.

**Pre-HTML**

```
1 <div class='row'>
 2   <div class='col-md-6'>
```

**Post-HTML**

```
1   </div>|
```

# 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

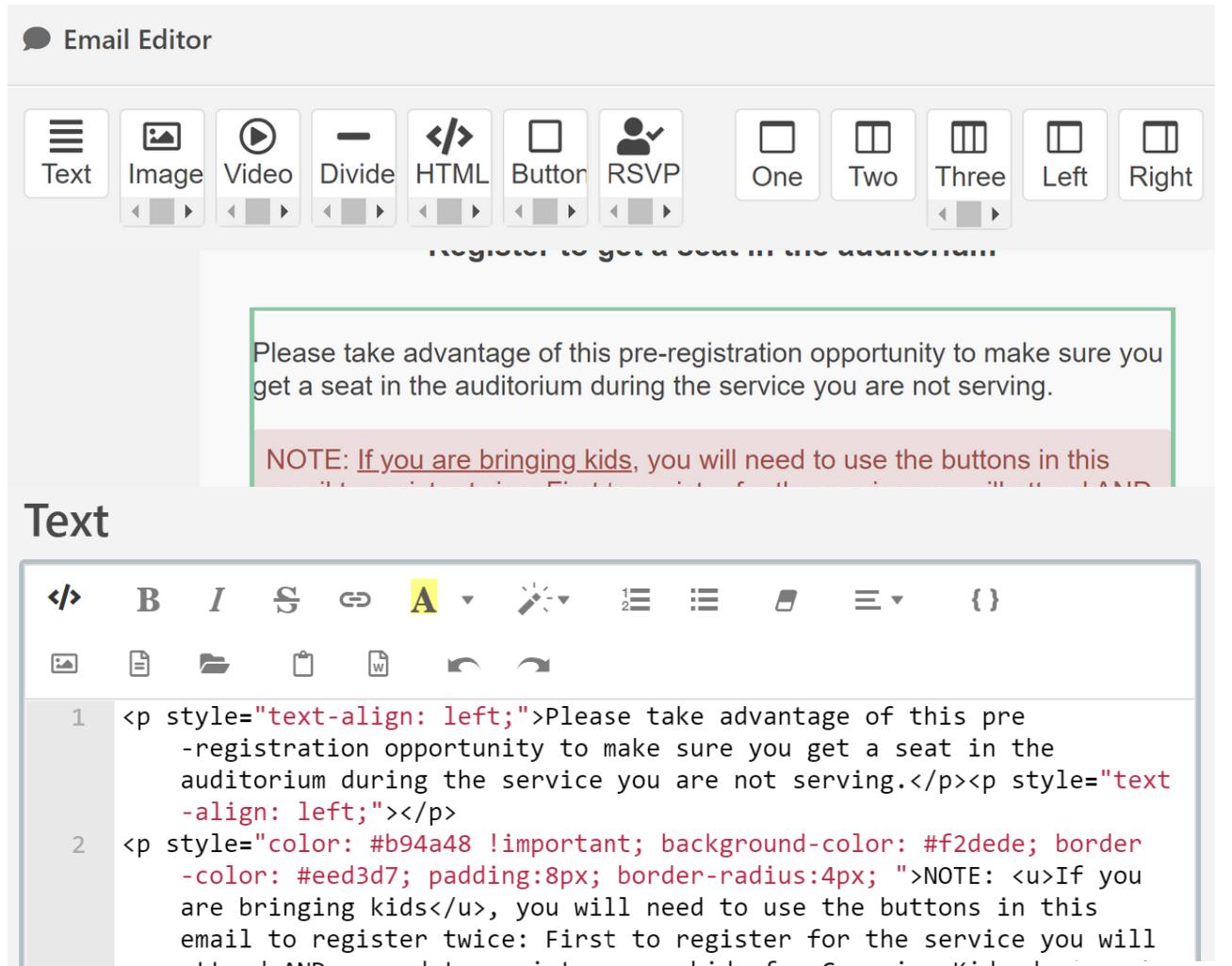
```
</> B I S A ▾ ⚡ 1 <p style="">We're not really having a pizza party (bummer right process!!! You will be asked to provide some feedback toward 2 3 <!-- For Childcare Link Auto-Hide Copy Everything Below This Line --> 4 <script src="https://cdnjs.cloudflare.com/ajax/libs/luxon/2.3.0/ 5 +kqrU2Oz234MrpyywZsQz1F50Gnfat7mOhjRr0oz5cpQ+YwwWB+hhDBSyxN 6 ></script> 7 <script> 8 // 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 DeeDee  
was able to love their enemies. As we look to Christ's example, we will explore  
identities as his beloved children. The study will be in person.  
5

# HTML USES IN ROCK

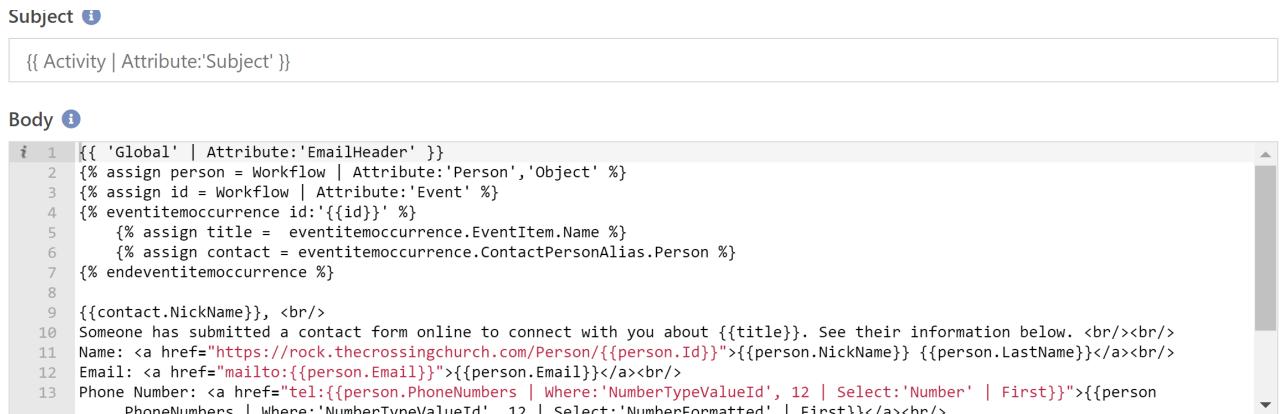
- Content Channel Items
    - Content (Not Structured Content)
  - Communications
    - Emails
    - Email Templates



# HTML USES IN ROCK

## • Workflows

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



The screenshot shows the 'Email' section of the Rock software interface. It displays the 'Subject' field containing the expression {{ Activity | Attribute:'Subject' }}. Below it is the 'Body' field, which contains a multi-line Lava script. The script includes logic to assign variables like 'person', 'id', 'title', 'contact', and 'eventitemoccurrence'. It then constructs an email message with HTML content, including links to a contact's profile and email, and a phone number.

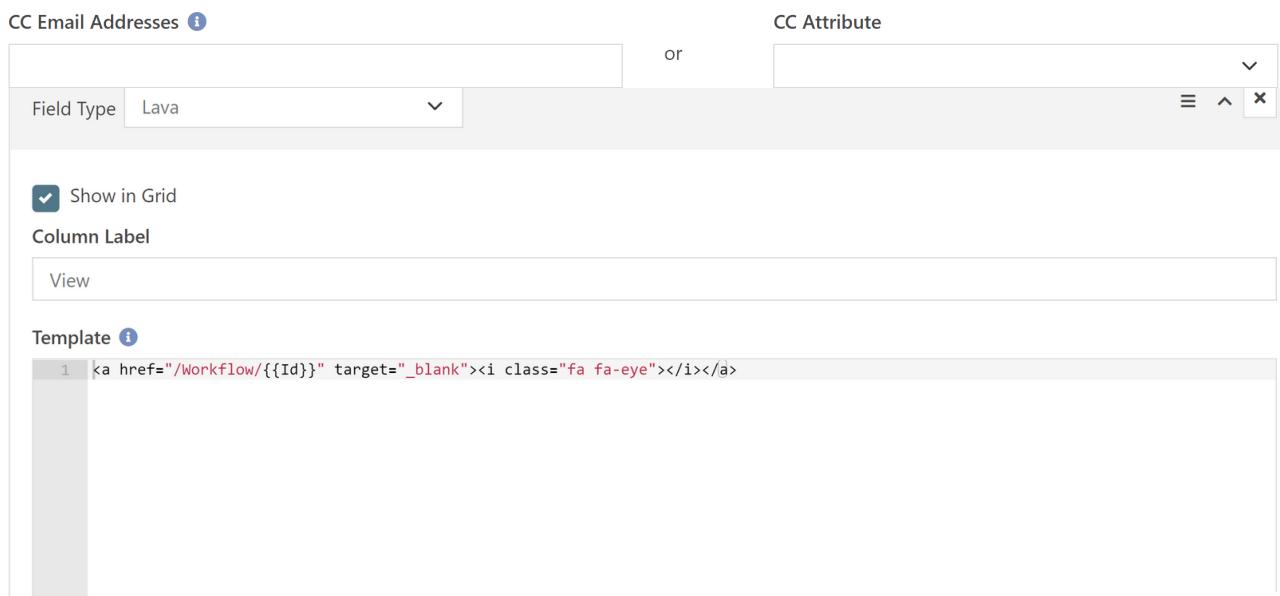
```
1  {{ 'Global' | Attribute:'EmailHeader' }}
2  {% assign person = Workflow | Attribute:'Person','Object' %}
3  {% assign id = Workflow | Attribute:'Event' %}
4  {% eventitemoccurrence id:'{{id}}' %}
5    {% assign title = eventitemoccurrence.EventItem.Name %}
6    {% assign contact = eventitemoccurrence.ContactPersonAlias.Person %}
7  {% endeventitemoccurrence %}
8
9  {{contact.NickName}}, <br/>
10 Someone has submitted a contact form online to connect with you about {{title}}. See their information below. <br/><br/>
11 Name: <a href="https://rock.thecrossingchurch.com/Person/{{person.Id}}">{{person.NickName}} {{person.LastName}}</a><br/>
12 Email: <a href="mailto:{{person.Email}}">{{person.Email}}</a><br/>
13 Phone Number: <a href="tel:{{person.PhoneNumbers | Where:'NumberTypeId', 12 | Select:'Number' | First}}">{{person
    .PhoneNumbers | Where:'NumberTypeId', 12 | Select:'NumberFormatted' | First}}</a><br/>
```

## • Reports

- Lava fields

## • Probably More

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



The screenshot shows the 'Report' section of the Rock software interface. It displays the 'CC Email Addresses' field, which is set to 'Lava' via a dropdown menu. Below it is the 'CC Attribute' field, which is currently empty. Underneath these fields are sections for 'Field Type' (set to 'Lava'), 'Show in Grid' (checkbox checked), 'Column Label' (set to 'View'), and 'Template' (containing a single line of Lava script for generating a link to a workflow detail page).

CC Email Addresses i CC Attribute

Field Type Lava or

Show in Grid

Column Label View

Template i

```
1 <a href="/Workflow/{{Id}}" target="_blank"><i class="fa fa-eye"></i></a>
```

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 beginning 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.

```
<p>Hello world! I am a paragraph.</p>

```

Hello world! I am a paragraph.



# 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>  

```



# 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**

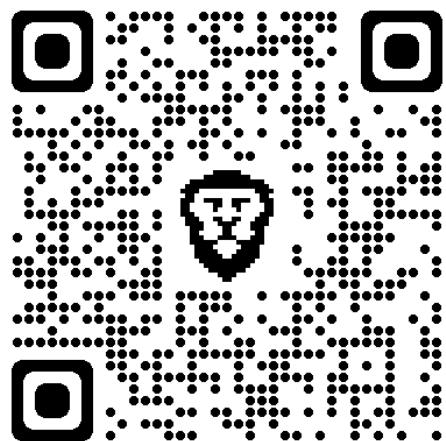
Data in column one Data in column two

```
<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

```
<h1>Cat Facts</h1>

<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**

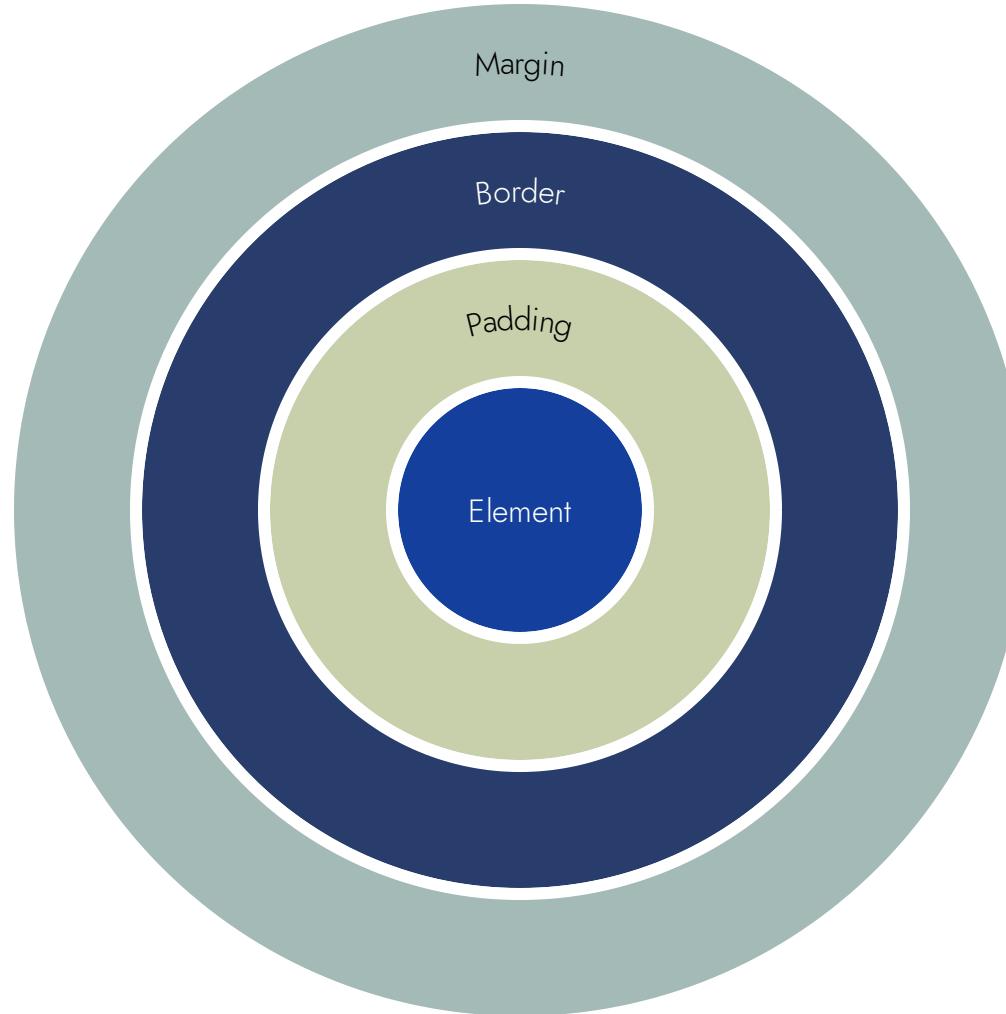
White space between the  
border of the element and the  
content

- **Border**

The border around the element

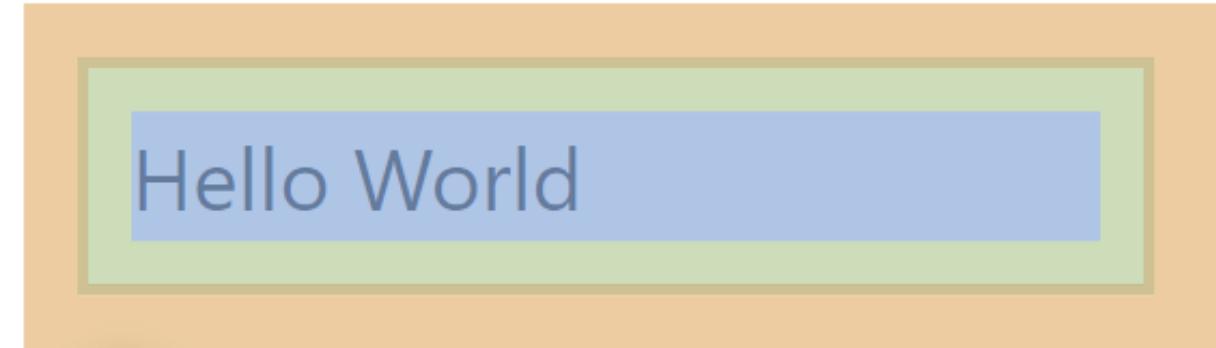
- **Margin**

White space around the  
element to separate it from  
other elements



# ELEMENT SIZING

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



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

$$200 + (8 \times 2) + (2 \times 2) + (10 \times 2) = 240$$

# 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>

```

# 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

```
<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

```
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 System

Allows you to easily create a Bootstrap accordion control.

```
<div class="accordion">
  <div class="panel">
    <a role="button"></a>
    <div class="collapse">
      Some placeholder content for the first accordion panel. This panel is shown by default, thanks to the .show class.
    </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.

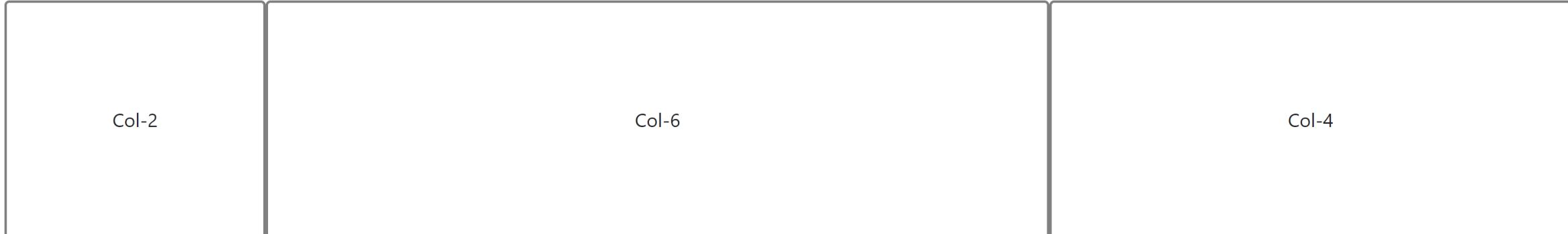
Collapsible Group Item #2

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>
```



# GRID BREAKPOINTS

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

# BREAK POINT TEST

```
<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

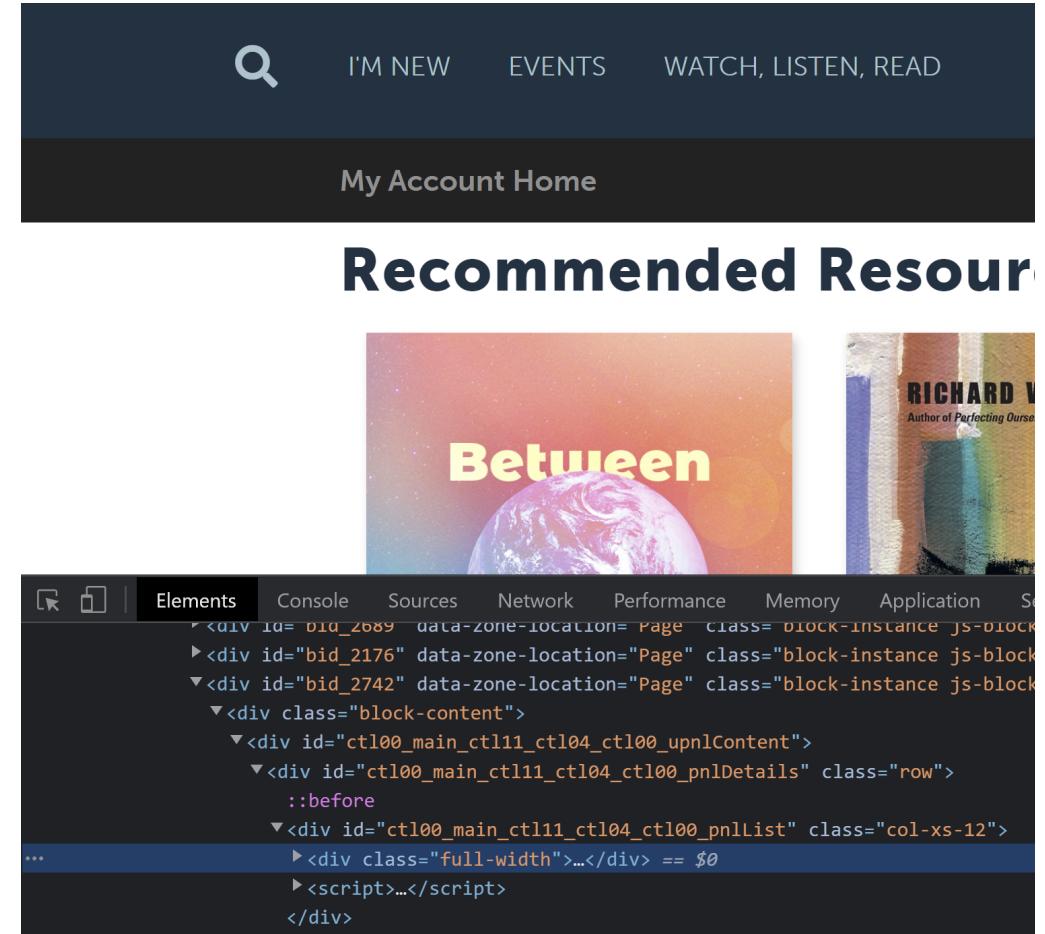
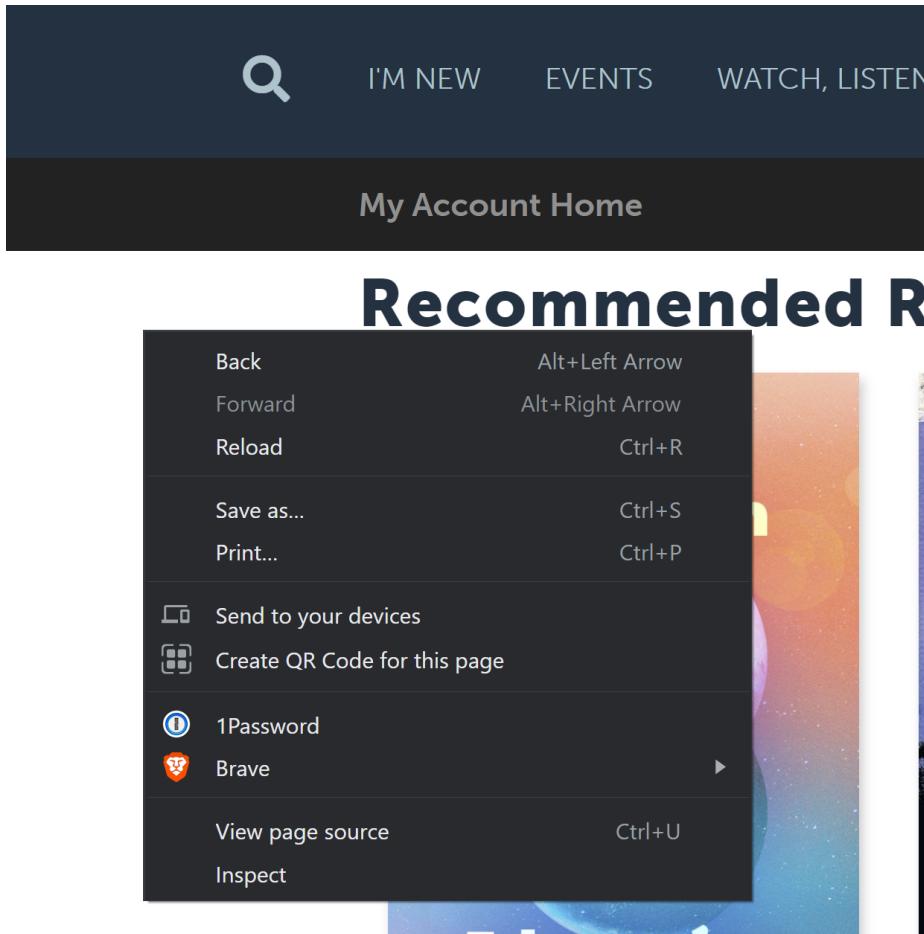
Ends with hyphen and a number to denote the amount of space to add

```
<h2 class="py-2">Hello World</h2>
<p class="mb-3">...</p>
<p>...</p>
```

THIS HAS BEEN A LOT  
PRACTICAL APPLICATION

# THE DEVELOPER CONSOLE

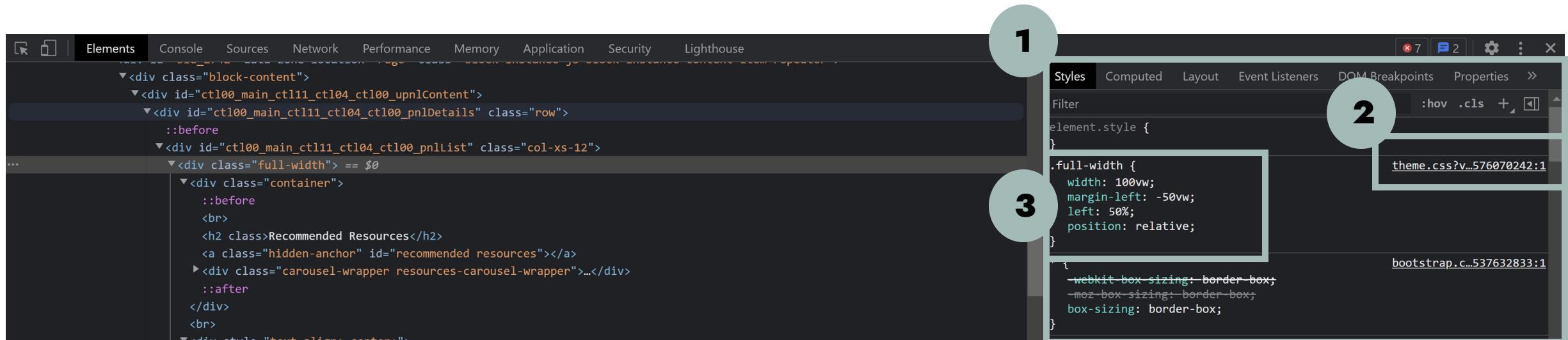
Right click > Inspect



# 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>