HTML5 is the latest standard of HTML

- 21 new semantic tags
- 2 new form tags
- 2 new graphics tags
- 5 new media tags

1. Video

The <video> tag allows you to embed video clips and movie streams into your HTML.

Example:

```
New School
<video width="320" height="240" controls>
  <source src="movie.mp4" type="video/mp4">
  <source src="movie.ogg" type="video/ogg">
Your browser does not support the video tag.
</video>
```

```
Old School
  <iframe width="560" height="315"
src="https://www.youtube.com/embed/WDZJPJV__bQ" frameborder="0"
allow="accelerometer; autoplay; encrypted-media; gyroscope;
picture-in-picture" allowfullscreen></iframe>
```

2. Audio

The `<audio>` tag allows you to embed music and other audio streams into your HTML.

Example:

```
<audio controls>
  <source src="sweetjams.ogg" type="audio/ogg">
  <source
src="https://media.blubrry.com/causeascene_podcast/b/content.blubrry.com/
causeascene_podcast/Vincent_J_Intondi.mp3" type="audio/mpeg">
  Oh no! You're browser doesn't support this audio so you can't hear the
latest Cause a Scene podcast!
</audio>
```

For more from Kim Crayton's podcast #causeascene click here

3. Main

The <main> tag specifies the main content of your file.

Example:

```
<main>
  <h1>Main Topic</h1>
  <p>Description of the main topic./p>
  <article>
    <h1>Article Title</h1>
    <p>Content for the article.</p>
  </article>
</main>
```

4. Section

The <section> tag devices the section of a document such as chapters, headers, or footers.

Example:

```
<section>
  <h1>My Hobbies</h1>
  <p>I like to crochet, read, and do yoga.</p>
</section>
```

5. Article

The `<article>` tag specifies independent, self-contained content that makes sense on its own and should be possible to distribute independently from the rest of the site. It is used for forum and blog posts, news stories, and comments.

Example:

```
<article>
  <h1>Article Title</h1>
  <p>Content for the article.</p>
</article>
```

6. Header

The <header> tag is for introductory content and navigational links.

Example:

```
<article>
  <header>
    <h1>My Trip to Russia</h1>
    <h3>Fall 2011</h3>
    <p>St. Petersburg, Russia</p>
  </header>
  <p>My time studying abroad in Russia was an incredible adventure…
  </p>
</article>
```

7. Footer

The <footer> tag defines the footer of a file or section.

Example:

```
<footer>
  <p>Written by: Jane Doe/p>
  <p>Email: <a href="mailto:janedoe@example.com">
  janedoe@example.com</a>.</p>
</footer>
```

8. Nav

The <nav> tag is used to contain navigation links.

Example:

```
<nav>
  <a href="/html/">My Hobbies</a> |
  <a href="/css/">My Recipes</a> |
  <a href="/js/">My Projects</a> |
  <a href="/jquery/">About Me</a>
</nav>
```
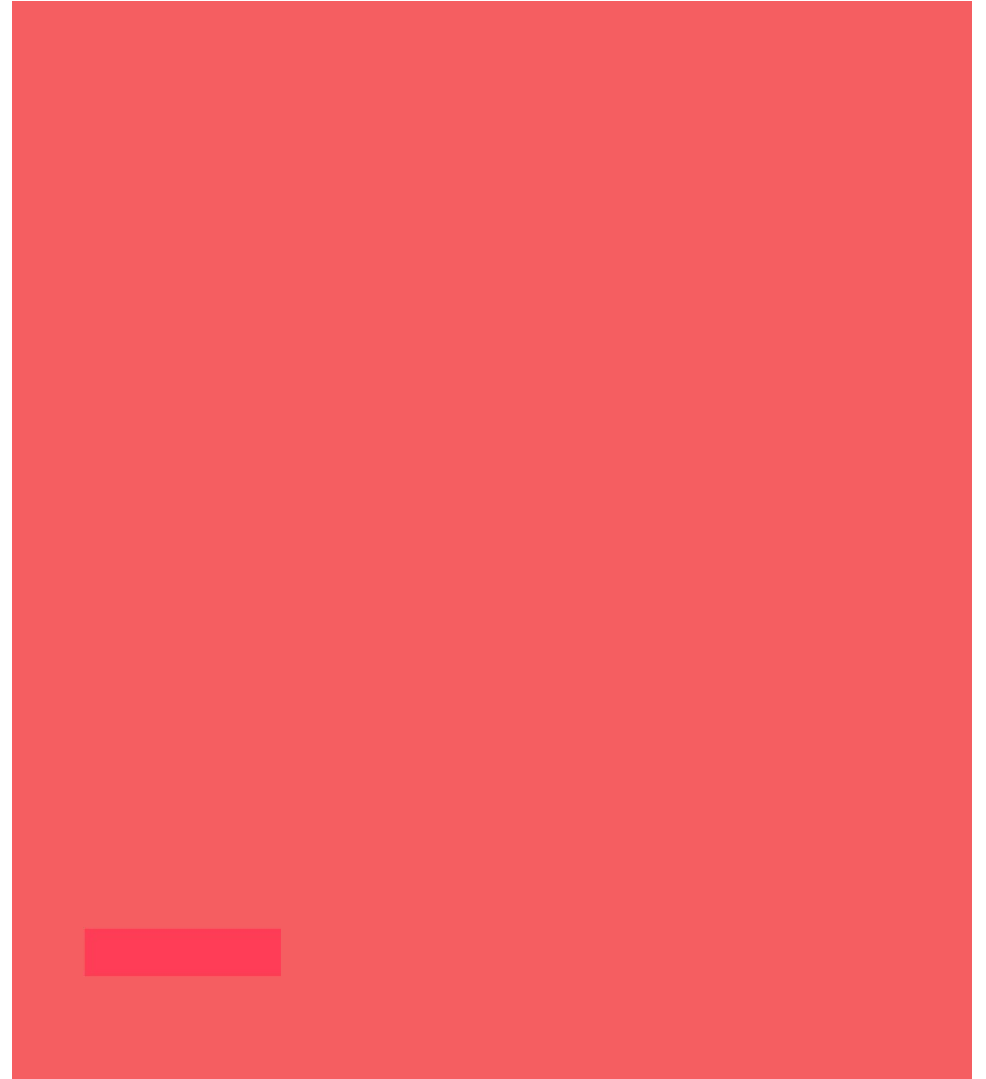
Group Exercise: Update Calendar Page

1. Add an H1 to the Header Tag
   - Add an anchor link inside the h1 tag
2. Put the table within a div, section or article tag
3. Add a footer tag
   - With a copyright date
4. Make certain the html outer tag has an english language attribute
   <html lang="en">

```
<html lang="en">
<body>
<header>
<h1><a name="aboutjane">Jane
White</a></h1>
<nav>
</nav>
</header>

<div id="aboutme">
<table></table>
</div>
<footer>Copyright 2021</footer>
</body>
</html>
```

<break />

CSS

Cascading
Style
Sheets

https://css-tricks.com/look-back-history-css/

FORMATTING

Want special formatting? Use the below tags individually or together via nesting!

Header Tags

<h1>Header</h1>

<h2>2nd Header</h2>

Formatting Tags

<b> or <strong>Bold<strong>

<i> or Italics

<u>underline</u>

Font Tags

Pink

Red

Nested Formatting

<h1>Silver Header</h1>

Exercise: Format calendar (Embed Tags)

Update the th tags, add a strong tag inside each one

Tags Embedded
```
<table style="width:100%">
 <tr>
  <th><strong>Mon</strong></th>
  <th><strong>Tue</strong></th>
  <th><strong>Wed</strong></th>
 </tr>
```

Tags Not Embedded
```
<table style="width:100%">
 <tr>
  <th>Mon</th>
  <th>Tue</th>
  <th>Wed</th>
 </tr>
```

Basic CSS

Cascading Style Sheets

<u>Example</u>:

Element name {

   style-type: style-setting;

}

```
body {
    font-family: arial; //Declare Font Type
     font-size: 12px; //Declare font size
}
p //inherits font-size from body
{ font-family: times; }

h1, th {
    font-size: 24px;
    font-weight: bold; //font-weight: 700
    font-family: cursive;
    color: deeppink; //Declare font color
}

th { background-color: grey;} //background

table {    //format tables
    width: 400px;
    border: 0px;    //Set borders
}

a { color: purple; }
```

Group Exercise: Update Table Page

1. Update style.css in your online IDE

2. Make certain
   <link rel="stylesheet" href="style.css">
   is inside <Head> tag

3. Remove the strongs

4. Create rules in styles.css to apply bold formatting to the table and p tags

```
body {
    font-family: arial;
     font-size: 12px;
}
p //inherits font-size from body
{ font-family: times; }

h1, th {
    font-size: 24px;
    font-weight: bold; //font-weight: 700
    font-family: cursive;
    color: deeppink;
}


th { background-color: grey;   }

table { width: 400px;   }

a { color: purple; }
```

CSS Selectors

IDs - Create a rule specific to one element

<h1 id="id1">My name</p>

Classname - Create a rule specific to a group

<p id="r1" class="red">Red font</p>

<p id="r2" class="red>More Red</p>

<p id="p1" class="pink">Pink font</ p >

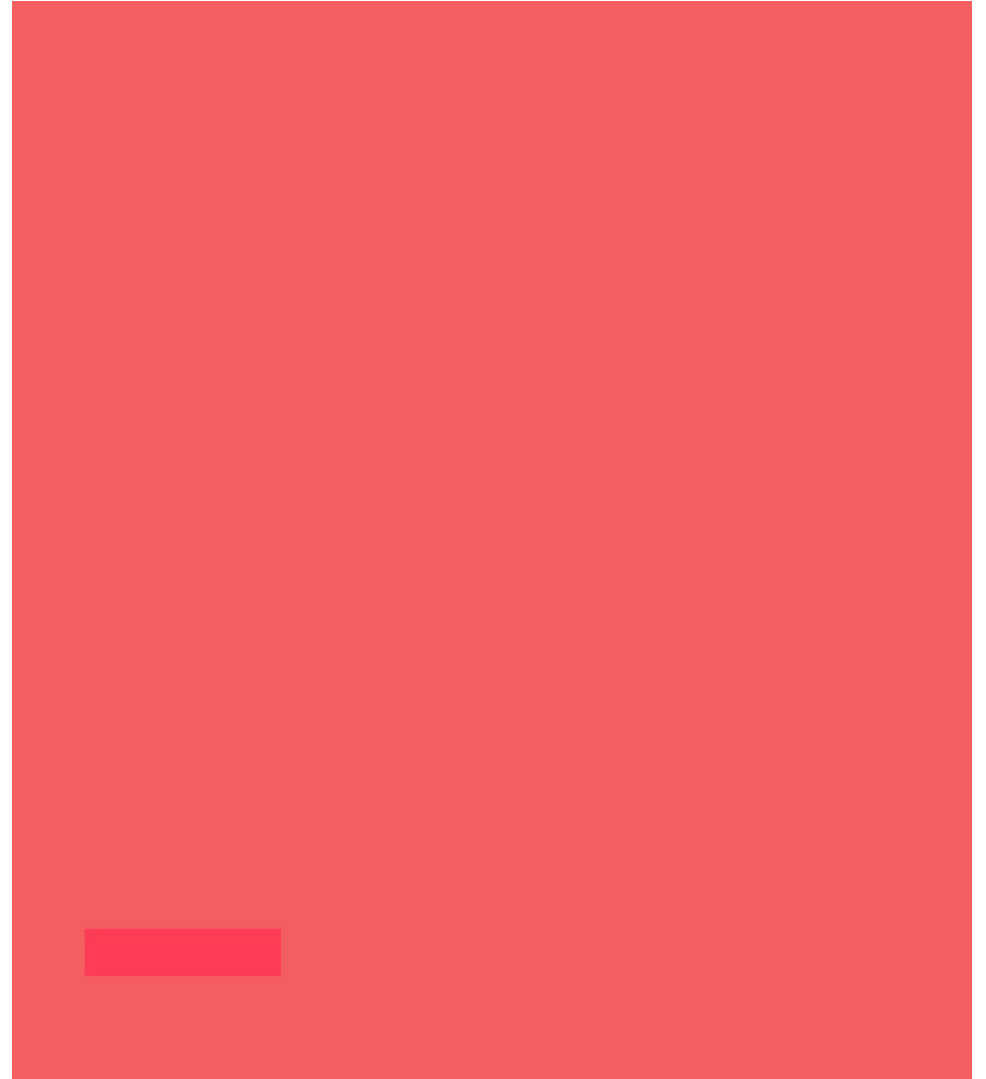<p id="p2" class="pink">More Pink</ p >

Example:
- #id   {   style-type: style-setting; }
- .classname {   style-type: style-setting; }
- element#id { ...}
- element.classname { ... }

```
body {
    font-family: arial;
     font-size: 12px;
}


p.red {
    color: red;
}


p.pink { color: pink; }
```

<break />

Web Accessibility

An introduction

Websites should be usable by everyone. We need to make conscious effort to remove barriers to interaction and access.

Specifically, we need to be mindful of our visitors':

- Vision
- Hearing
- Motor skills
- Cognitive abilities
- Medical conditions (such as epilepsy)

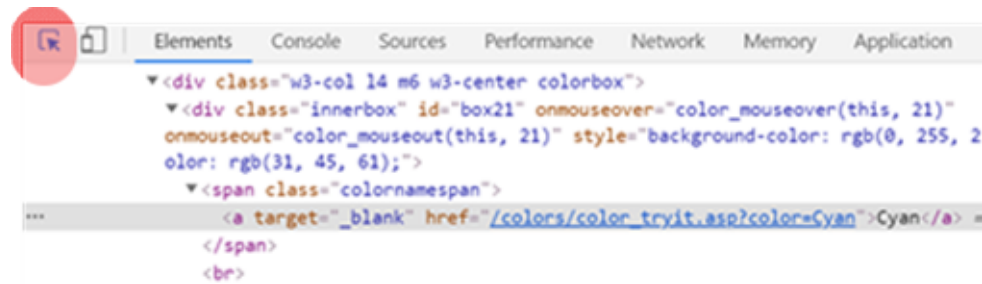https://www.webdevelopmentgroup.com/2017/09/508-compliance-making-websites-accessible-for-people-with-disabilities/

Tip 1: Aim for a high contrast ratio

Effective contrast   Ineffective Contrast

Tip 1: Use effective color contrast. → 6.0   **Tip 1:** Use effective color contrast. → 2.8

Tip 1: Use effective color contrast. → 14.7   **Tip 1:** Use effective color contrast. → 2.0

Tip 1: Use effective color contrast. → 8.7   **Tip 1:** Use effective color contrast. → 2.7

Tip 1: Use effective color contrast. → 10.5   **Tip 1:** Use effective color contrast. → 2.4

Tip 1: Use effective color contrast. → 9.2   **Tip 1:** Use effective color contrast. → 4.3

Exercise: Test color contrast in Browser

1. Right Click inspect element

2. Click the select icon

3. Hover over the <th> elements

Get inspired by high contrast color schemes.

Responsive Design

We can use responsive design to make elements and layouts automatically adjust in size or shape depending on the window size of the browser.
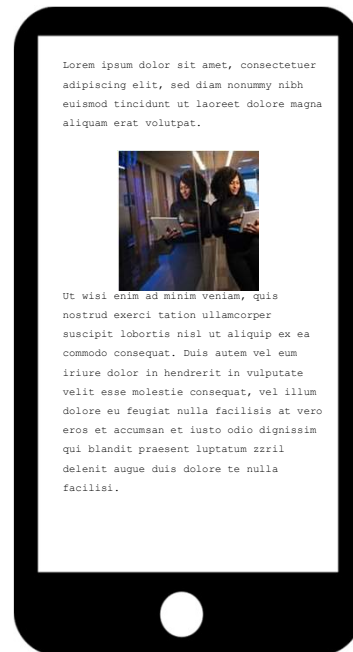
In this section we'll cover:

1. The Viewport
2. Media Queries

1. The Viewport

Handle page scaling across multiple mediums

Without Viewport meta tag

⇒

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With Viewport meta tag

⇐

How to set the Viewport

Use the *meta* tag to set the viewport!

```
<head>
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
<head>
```

2. CSS Media Queries: Responsive Images

We can use **CSS media queries** to display different images (or adjust the width) depending on the window size:

- If Window *greater than* 400px display the large logo
- If Window *less than* 400px display small logo

```css
img {
    content:'large_logo.jpg';
    width: 100%;
}


@media only screen and (min-width: 400px) {
    img {
        content:'small_logo.jpg'; //or width: 50%;
        //width: 50%;
    }
}
```

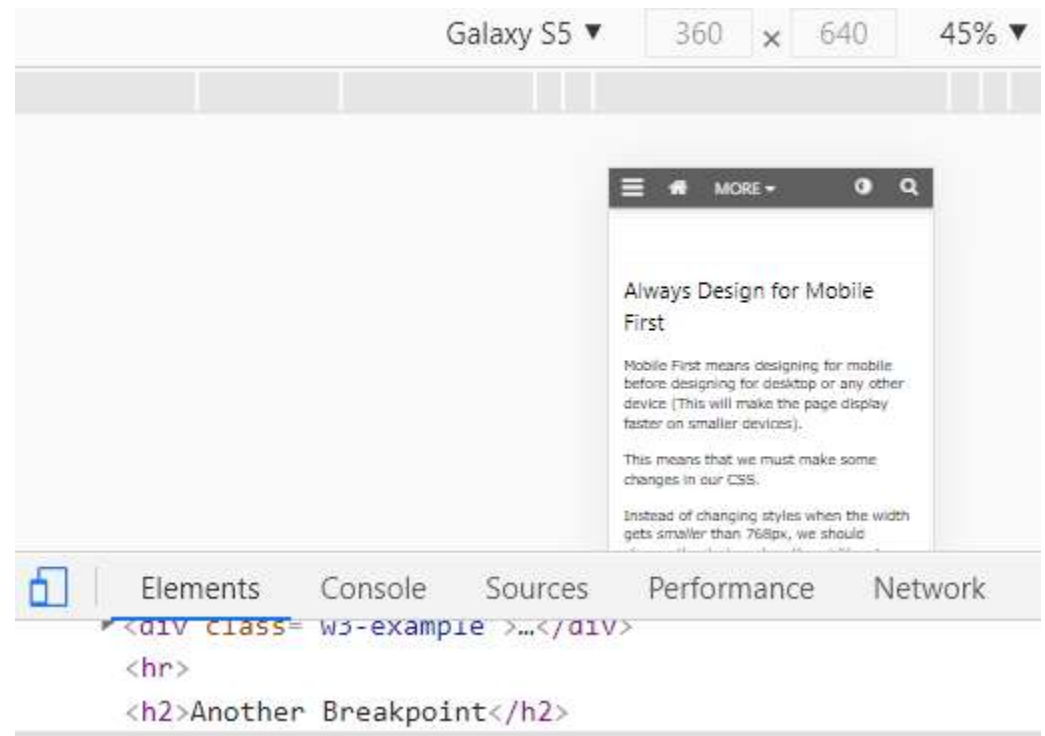# 2. CSS Media Queries: Hide Elements

We can use **CSS media queries** to hide elements depending on the window size. In this example, when the window size is less than 600px; the description is removed.

```
@media screen and (max-width: 600px) {
  p.item-description {
    display: none;
  }
}
```

```
<p>Aloe Vera Plant</p>
<p class=item-description> A low maintenance house plant whose
leaves can be used for medicinal and cosmetic purposes.</p>
```

Testing Media Queries in the Browser

- Click inspect element
- Click the double monitor icon

Can You Do it?

YES! You CAN!!

"I felt intense impostor syndrome. "

https://www.womenwhocode.com/blog/a-serial-entrepreneur-on-career-covid-and-the-future-of-work?utm_source=hootsuite&utm_medium=&utm_term=&utm_content=&utm_campaign=

Take Home Exercises

Create a Blog Website!
Create a blog post using HTML5
Update the Viewport
Add multiple blog pages
Add responsive CSS & Navigation

Exercise: Create blog posts

Create a new project called blog. Inside the main create multiple blog posts using the article tag

- Create a blog post with a youtube video using the HTML <video> tag
  - Give it a header and anchor tag of Youtube i.e.
    <h1>Youtube</h1>
- Blog about web accessibility
  - Give it a header and anchor tag of accessibility i.e. <h1>Accessibility</h1>
- Blog about your your goals
  - Give it a header and anchor tag of goals i.e. <h1>Goals</h1>
- Add a header tag up top
  - Add inside it an h1 tag and title your site
  - Add an empty nav tag

Sample Blog Content

```html
<div class="blog-post">
  <h2 class="blog-post-title">Post 1</h2>
  <p class="blog-post-meta">June 21, 2019 by <strong>Jane</strong></p>
  <p>This is an example blog post <a href="http://tabbycats.club/">and here is a
link</a>, where does it take you?</p>
  <blockquote>
    <p>A thought provoking quote.</p>
  </blockquote>
  <p>A sentence that includes <em>italics for emphasis</em>. Not terribly exciting...
I'm sure you can come up with something more creative than this!</p>
  <h2>Example Heading</h2>
  <p>Share your thoughts on a topic here.</p>
  <h3>Example Sub-heading</h3>
  <p>More thoughts.</p>
  <pre><code>An example code block</code></pre>
  <p>An explanation of the code block.</p>
</div>
```

Exercise: Set the Viewport

Step 1: Let's check out how your site currently looks on mobile. We can use the browser to simulate a mobile phone:

Chrome: Open inspector → Click mobile icon

Firefox: Open inspector → Click mobile icon

Step 2: Experiment by changing the width and orientation of the device. Not ideal, right?

Step 3: Let's fix this by adding the viewport to your index.html (inside the head tag):

```
<head>
  <meta name="viewport" content="width=device-width,initial-scale=1.0">
<head>
```

Step 4: Refresh the page and check out how your site looks on mobile now!

Exercise: Add styles

Update style.css with the below

The first rule will style any blog-post, div or article section

The second rule will   add responsive queries for mobile devices

```css
.blog-post, div, article {
    padding: 40px;
    background: silver;
}

@media only screen and (min-width: 400px)
{
    img {
        width: 35%;
    }
}
```

Exercise: Add Navigation

Update the html links in the nav tag by adding anchor links to the various sections

Id

```
<ul class="dropdown-menu">
  <li><a href="#youtube">Youtube</a></li>
  <li><a href="#accessibility">Accessibility</a></li>
  <li><a href="#goals">Goals</a></li>
</ul>
```

Bonus: Update your portfolio

1. Go to your portfolio project
2. Update the style.css
3. See where you can update your portfolio's appearance using CSS
4. Try to add styles for responsive design
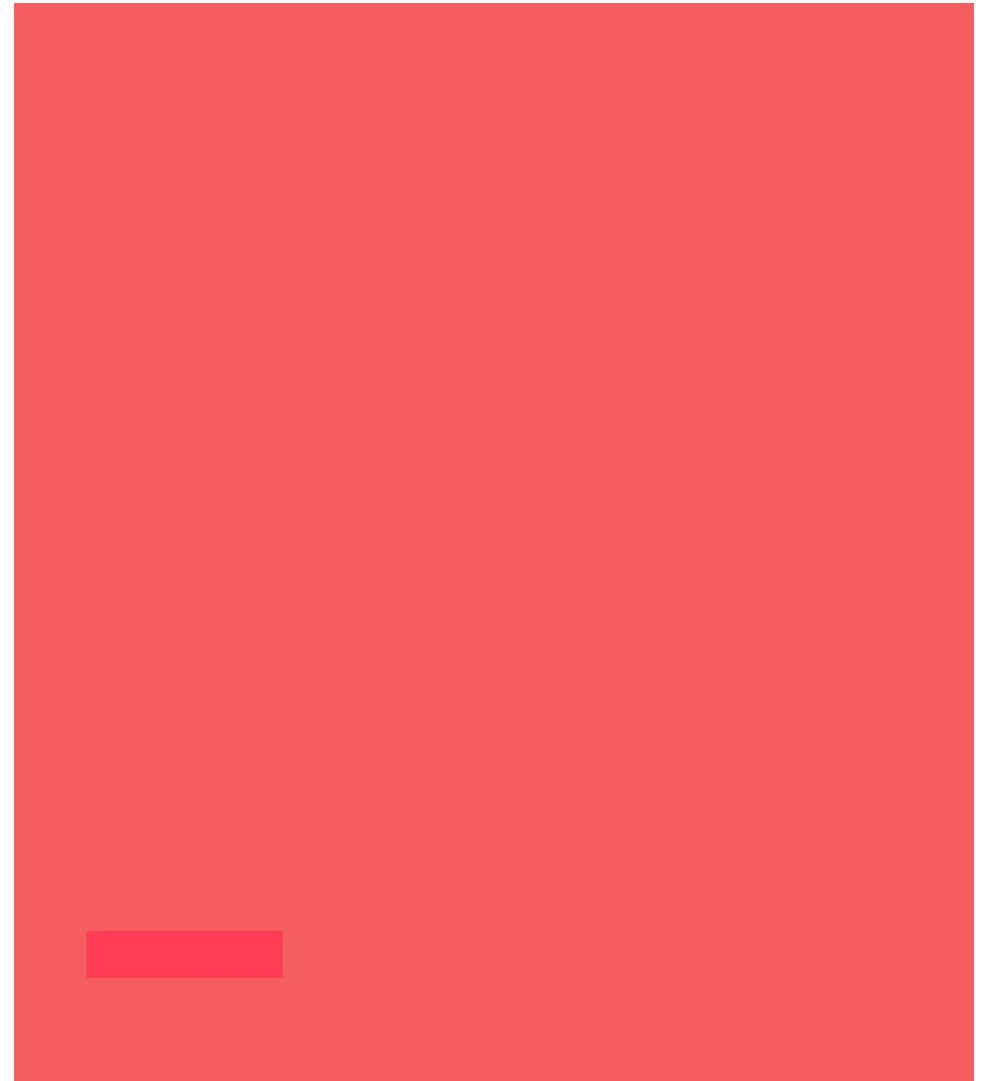5. Feel free to make other stylistic changes!

Bonus: Research

1. Review W3Schools for more on CSS.

CSS Rules: https://www.w3schools.com/css/default.asp

CSS Examples: https://www.w3schools.com/css/css_examples.asp

Learn More

Learn More

CSS: https://www.w3schools.com/css/default.asp

More HTML Elements: https://developer.mozilla.org/en-US/docs/Web/HTML/Element

Font Tags: https://www.geeksforgeeks.org/html-font-tag

W3Schools: https://www.w3schools.com/html/

HTML5: https://developer.mozilla.org/en-US/docs/Web/Guide/HTML/HTML5

Web accessibility: https://developer.mozilla.org/en-US/docs/Web/Accessibility

Web accessibility: https://developers.google.com/web/fundamentals/accessibility/