MAKE SCHOOL

HTML Attributes

WEB 1.0

Agenda

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- Learning Outcomes
- Review: What is HTML?
- Semantic HTML Elements
- Attributes
- **BREAK**
- Forms & Input
- Lab Time

Learning Outcomes

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By the end of today, you should be able to...

1. **Identify** the most common block & inline HTML elements and **use** them appropriately to create a web page.
2. **Explain** the purpose of HTML attributes and **use** them to enhance the elements we've learned so far.
3. **Identify & use** the most common input elements.

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What is HTML?

Warm-Up (5 minutes)

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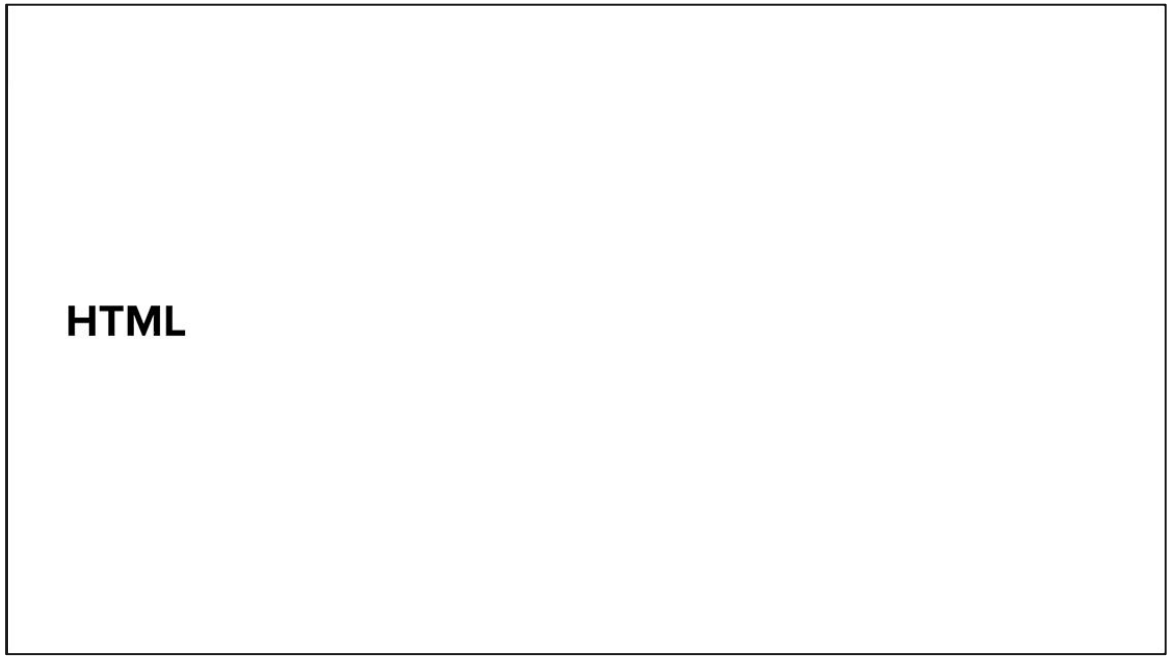
In a group of 3, discuss:

- What is semantic HTML?
- How can we make our web pages **more semantically meaningful**?
- Why would we want to do that?

Then, have a few groups share out.

HTML is Structure

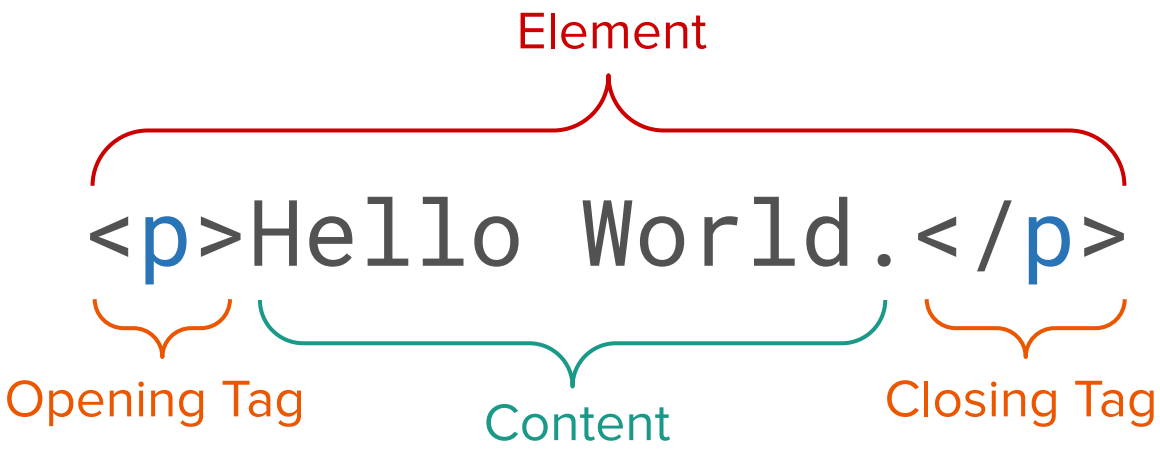
HTML forms the **structure** of the house - what rooms are placed where. CSS and JavaScript form the “interior design” of the house, or how each room looks.



How do I use HTML?

HTML uses tags to “markup” a document. Tags describe and provide context to content.

Below the p, or paragraph, tag describes the text Hello World as a paragraph.



Combining Tags

Many different tags can be combined and nested one within another.

```
<article>
  <h1>HTML</h1>
  <p>
    <abbr>HTML</abbr> is the best!
  </p>
</article>
```

“Semantic”

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Syntax, *noun*: the arrangement of words and phrases to create *well-formed* sentences in a language.

Semantics, *noun*: the branch of linguistics and logic concerned with *meaning*.

“Colorless green ideas sleep furiously.”

(This sentence is *syntactically* correct, but *semantically* wrong.)

Semantic HTML

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Semantic HTML means ***using HTML elments for their intended purpose*** - and not just choosing a particular element because it looks the way you want.

Semantic HTML

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Which one of these has more *semantic* meaning?

Page 1:

```
<div>
  <span class="header">HTML
</span>
  <p>
    <u>HTML</u> is the best!
  </p>
</div>
```

Page 2:

```
<article>
  <h1>HTML</h1>
  <p>
    <abbr>HTML</abbr> is the
best!
  </p>
</article>
```

Semantic HTML

Which one of these has more *semantic* meaning?

Page 1:

```
<img src="/img/cute-dog.png">
<span>
  Photo taken by Dani
Roxberry
</span>
```

Page 2:

```
<figure>
  <img src="/img/cute-dog.png"
alt="My Dog">
  <figcaption>
    Photo taken by Dani Roxberry
  </figcaption>
</figure>
```

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Semantic HTML Elements

“Boilerplate”

The doctype, html, head, and body tags need to be present for an HTML page to be considered “correct”.

```
<!DOCTYPE html>
<html>
    <head>
        <title>My Portfolio</title>
    </head>
    <body>

        <!-- Actual page content goes here -->
    </body>
</html>
```

The “doctype” tells your browser what type of file this is.

The “title” tag denotes what you’ll see in the browser tab.

Section

The “section” tag denotes a section of the page.

```
<section>
    <header>
        <h1>My Portfolio</h1>
    </header>
    <nav>
        <ul>
            <li>About Me</li>
            <li>My Projects</li>
            <li>Contact</li>
        </ul>
    </nav>
</section>
```

Header & H1-6

The “header” tag denotes a header section of the page.

The “h1” tag denotes a top-level header. We can also use “h2” (sub-header), “h3” (sub-sub-header), etc.

```
<section>
    <header>
        <h1>My Portfolio</h1>
        <p>Web Developer & Freelancer</p>
    </header>
    <nav>
        <ul>
            <li>About Me</li>
            <li>My Projects</li>
            <li>Contact</li>
        </ul>
    </nav>
</section>
```

Nav, ul, li

The “nav” tag denotes a navigation menu.

The “ul” (unordered list) and “li” (list item) tags create a bulleted list.

```
<section>
    <header>
        <h1>My Portfolio</h1>
        <p>Web Developer & Freelancer</p>
    </header>
    <nav>
        <ul>
            <li>About Me</li>
            <li>My Projects</li>
            <li>Contact</li>
        </ul>
    </nav>
</section>
```

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Inline vs. Block Elements

Block Elements

Block elements take up the entire width of their parent element. Here are some examples:

```
<p>This is a paragraph of text. This is some
<strong>inline</strong> text <img></p>
```

```
<article>
  <h1>This is a title.</h1>
  <p>This is the article body.</p>
</article>
```

Inline Elements

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Inline elements flow with the text in a block.

`em` and `strong` are inline tags that control the voice of what you are saying.

```
<p>
  How would <em>you</em> mark this up?
  <strong>(seriously)</strong>
</p>
```

Always use **inline** tags inside a **block**!

HTML Exploration Worksheet (15 minutes)

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In a group of 4, fill out 1 section of the HTML Elements Exploration worksheet.

Then, each group will share out the most interesting tag they researched.

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Break - 10 min

“Take a 10 minute break and wrap a tag around everything you see.”

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Attributes

What are attributes?

We use attributes to add meaning to elements marked up with tags.

```
<time datetime="2020-08-05">
    Next Wednesday
</time>
```

An attribute goes in the **opening tag** and is always in the form `name="value"`.

Values are **always in quotation marks “ ”**.

Multiple Attributes

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Tags can have as many attributes as you care to include.

```
<img src="alien.png" width="64" height="64">

<input type="text" name="first-name" id="input-name">
```

- Values are **always quoted** even if they are numbers!
- The **order doesn't matter**.
- Many tags have attributes **specific to them**.

Images

The `img` tag displays an image.

Semantically by using the `img` tag, you saying there is a picture of something.

This is different from images that are part of the design.

```
<img
  src="apples.png"
  width="400"
  height="200"
  alt="Apple Tree">
```

Anchors

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Anchors are text links that load new documents. These are also called **hyperlinks**. The href attribute sets the URL that is loaded.

```
<a href="http://google.com">Google</a>
```

Anchors/hyperlinks can also link to elements in the same document.

```
<a href="#weather-report">Today's Weather</a>

...

<article id="weather-report">...</article>
```

Semantic Markup Practice

Semantic Markup Practice (25 minutes)

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Clone the Learn Semantic Markup repository to your computer. This will be your second homework assignment.

In breakout groups of 2, practice **Pair Programming** as you work through the exercises:

- The **Driver** shares their screen & types in the code.
- The **Navigator** tells the driver what to type.
- Switch roles after each exercise.

How to Clone a GitHub Repository

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1. Open a terminal, and navigate to the folder where you'd like to place your new project. (You can also right-click on the folder in VSCode and select "Open in Integrated Terminal".)
2. Type in the following code:

   ```
   $ git clone git@github.com:soggybag/learn-semantic-markup.git
   ```

3. Go to GitHub.com and create a new repository. *(NOTE: Make sure that the checkbox for "Initialize this repository with a README" is NOT checked.)*
4. Type in the following to update your repository's destination:

   ```
   $ git remote set-url origin git@github.com:YOUR_USERNAME/YOUR_REPO_NAME.git
   $ git push -u origin master
   ```

5. Refresh the page in your newly-created GitHub repo to make sure your changes were successfully pushed.

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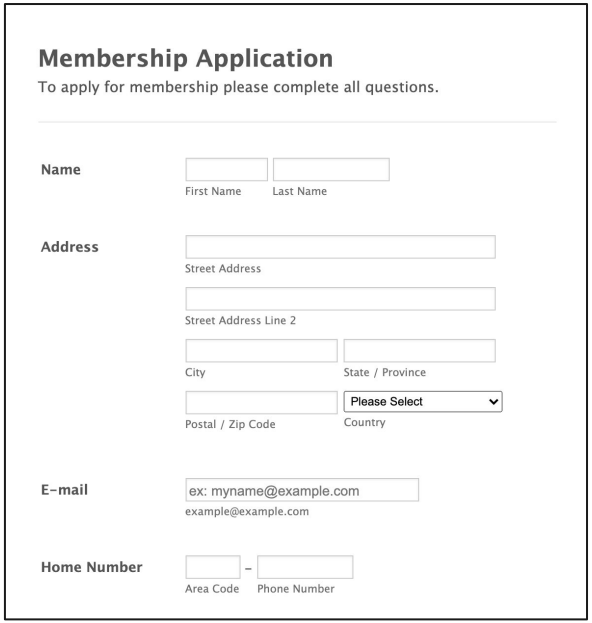
Forms & Input

Forms

Forms are used to **collect user information**. If you've ever signed up for an online account or ordered takeout online, you've used a form!

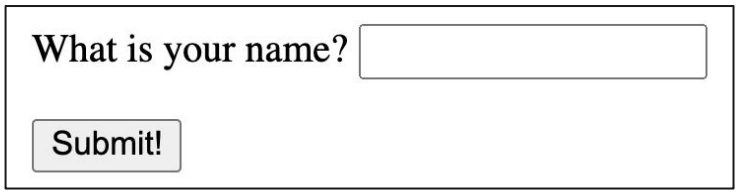


Forms

To create a form in HTML, we use the `form` tag to surround all of the inputs.

Usually, a form will have at least one input element and a submit button.

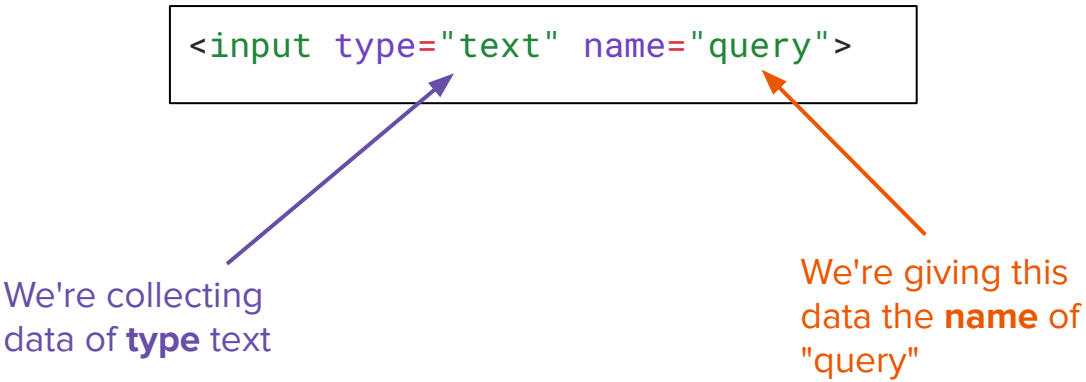
```
<form>
   <p>
       <label>What is your name?
         <input type="text" name="firstname">
       </label>
   </p>
   <input type="submit" value="Submit!">
 </form>
```



What it looks like

Input

The **input tag** is used to create a form input. The attributes we need to specify are the **type** (what kind of data are we collecting?) and the **name** (what label are we giving that data?).



Activity

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HTML Validation

Validation (15 minutes)

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It's important to verify that our HTML is also **syntactically correct** so that it will render correctly in every web browser.

In pairs, have one person share their screen. Use the validator.w3.org tool to validate the HTML for your portfolio homework.

Then, switch partners.

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Lab Time

Homework

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Homework 1 & 2: Due Thursday night

Stay in the main Zoom room if you'd like to stay for more Q&A, homework help, etc.

Go to your individual breakout room if you'd prefer to work with a partner or have quiet time!