

Intro to Web Development

Class 1: HTML

Languages of the Web

HTML ← Learning this today!

- HyperText Markup Language
- Adds *static content* (text, images, links) to a web page.
- Every website uses HTML! It's what makes the text appear on the page.

CSS

- Cascading Style Sheets
- Adds *styling* (color, fonts, spacing) to a web page.
- CSS will make your web page look pretty!

Javascript

- Adds *dynamic content* (drop-down, animation) to a web page.
- Modifies the HTML & CSS content on the fly.

HTML: The Structure of Pages

The HTML code (in blue) is made up of characters that live inside **angled brackets** — these are called **HTML elements**.

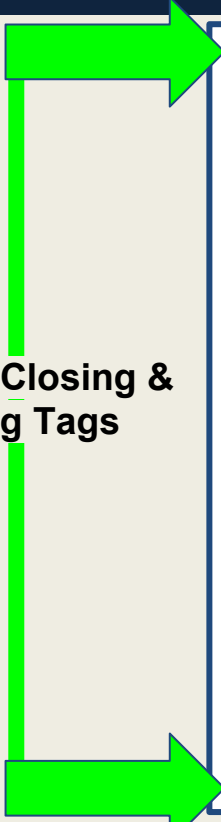
Elements are usually made up of two **tags**: an **opening tag** and a **closing tag**. (The closing tag has an extra forward slash in it.)

Each HTML element tells the browser something about the information that sits between its opening and closing tags.

```
<html>
  <body>
    <h1>This is the Main Heading</h1>
    <p>This text might be an introduction to the rest of
      the page. And if the page is a long one it might
      be split up into several sub-headings.</p>
    <h2>This is a Sub-Heading</h2>
    <p>Many long articles have sub-headings so to help
      you follow the structure of what is being written.
      There may even be sub-sub-headings (or lower-level
      headings).</p>
    <h2>Another Sub-Heading</h2>
    <p>Here you can see another sub-heading.</p>
  </body>
</html>
```

HTML: The Structure of Pages

<HTML> Closing & Ending Tags



```
<html>
  <body>
    <h1>This is the Main Heading</h1>
    <p>This text might be an introduction to the rest of
      the page. And if the page is a long one it might
      be split up into several sub-headings.<p>
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      you follow the structure of what is being written.
      There may even be sub-sub-headings (or lower-level
      headings).</p>
    <h2>Another Sub-Heading</h2>
    <p>Here you can see another sub-heading.</p>
  </body>
</html>
```

The diagram illustrates the structure of an HTML document. A green arrow points from the text '<HTML> Closing & Ending Tags' to the closing tags of the HTML document. The closing tags are highlighted in blue in the code snippet: </h1>, </p>, </h2>, </p>, </h2>, </p>, </body>, and </html>.

HTML: The Structure of Pages

<Body> Closing & Ending Tags

```
<html>
  <body>
    <h1>This is the Main Heading</h1>
    <p>This text might be an introduction to the rest of
      the page. And if the page is a long one it might
      be split up into several sub-headings.<p>
    <h2>This is a Sub-Heading</h2>
    <p>Many long articles have sub-headings so to help
      you follow the structure of what is being written.
      There may even be sub-sub-headings (or lower-level
      headings).</p>
    <h2>Another Sub-Heading</h2>
    <p>Here you can see another sub-heading.</p>
  </body>
</html>
```

HTML: The Structure of Pages

<h1> Closing & Ending Tags

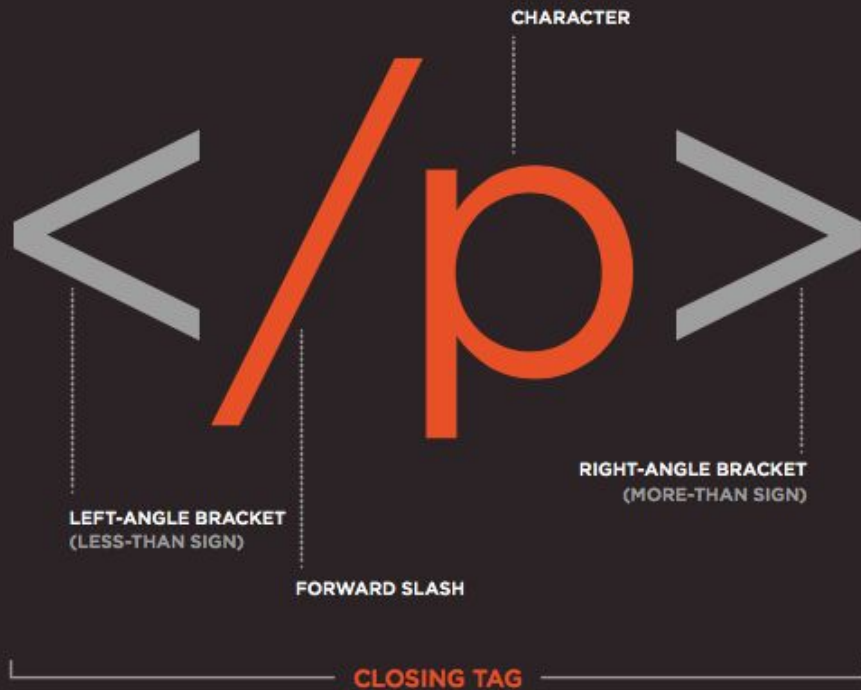
```
<html>
  <body>
    <h1>This is the Main Heading</h1>
    <p>This text might be an introduction to the rest of
      the page. And if the page is a long one it might
      be split up into several sub-headings.</p>
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      you follow the structure of what is being written.
      There may even be sub-sub-headings (or lower-level
      headings).</p>
    <h2>Another Sub-Heading</h2>
    <p>Here you can see another sub-heading.</p>
  </body>
</html>
```

HTML: The Structure of Pages

<p> Closing & Ending Tags

```
<html>
  <body>
    <h1>This is the Main Heading</h1>
    <p>This text might be an introduction to the rest of
      the page. And if the page is a long one it might
      be split up into several sub-headings.<p>
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      you follow the structure of what is being written.
      There may even be sub-sub-headings (or lower-level
      headings).</p>
    <h2>Another Sub-Heading</h2>
    <p>Here you can see another sub-heading.</p>
  </body>
</html>
```


Tags: Every open comes with a close



HTML: From Code to a Webpage

/chapter-01/body-head-title.html

HT

```
<html>
  <head>
    <title>This is the Title of the Page</title>
  </head>
  <body>
    <h1>This is the Body of the Page</h1>
    <p>Anything within the body of a web page is
    displayed in the main browser window.</p>
  </body>
</html>
```



RESULT

This is the Body of the Page

Anything within the body of a web page is displayed in the main browser window.

Headings: <h1> through <h6>

Make it your own!

Try in Brackets!



chapter-02/headings.html

HTML

```
<h1>This is a Main Heading</h1>
<h2>This is a Level 2 Heading</h2>
<h3>This is a Level 3 Heading</h3>
<h4>This is a Level 4 Heading</h4>
<h5>This is a Level 5 Heading</h5>
<h6>This is a Level 6 Heading</h6>
```



This is a Main Heading

This is a Level 2 Heading

This is a Level 3 Heading

This is a Level 4 Heading

This is a Level 5 Heading

This is a Level 6 Heading

Paragraphs: <p> tags

Make it your own!

Try in Brackets!



HTML

chapter-02/paragraphs.html

`<p>`A paragraph consists of one or more sentences that form a self-contained unit of discourse. The start of a paragraph is indicated by a new line.`</p>`

`<p>`Text is easier to understand when it is split up into units of text. For example, a book may have chapters. Chapters can have subheadings. Under each heading there will be one or more paragraphs.`</p>`

RESULT

A paragraph consists of one or more sentences that form a self-contained unit of discourse. The start of a paragraph is indicated by a new line.

Text is easier to understand when it is split up into units of text. For example, a book may have chapters. Chapters can have subheadings. Under each heading there will be one or more paragraphs.

: Make it Bold!

Make it your own!

Try in Brackets!



chapter-02/strong.html

HTML

```
<p><strong>Beware:</strong> Pickpockets operate in  
this area.</p>  
<p>This toy has many small pieces and is <strong>not  
suitable for children under five years old.  
</strong></p>
```



Beware: Pickpockets operate in this area.
This toy has many small pieces and is **not
suitable for children under five years old.**

 Emphasis: Make it Stand Out!

Make it your own!

Try in Brackets!



chapter-02/emphasis.html

HTML

```
<p>I <em>think</em> Ivy was the first.</p>  
<p>I think <em>Ivy</em> was the first.</p>  
<p>I think Ivy was the <em>first</em>.</p>
```



I think Ivy was the first.
I think *Ivy* was the first.
I think Ivy was the *first*.

 Ordered Lists: Provide some steps!

Make it your own!

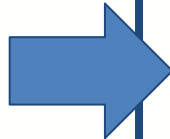
Try in Brackets!



chapter-03/ordered-lists.html

HTML

```
<ol>
  <li>Chop potatoes into quarters</li>
  <li>Simmer in salted water for 15-20
    minutes until tender</li>
  <li>Heat milk, butter and nutmeg</li>
  <li>Drain potatoes and mash</li>
  <li>Mix in the milk mixture</li>
</ol>
```



1. Chop potatoes into quarters
2. Simmer in salted water for 15-20 minutes until tender
3. Heat milk, butter and nutmeg
4. Drain potatoes and mash
5. Mix in the milk mixture

 unordered Lists: Provide some info!

Make it your own!

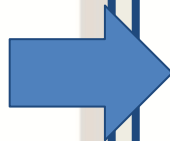
Try in Brackets!



HTML

chapter-03/unordered-lists.html

```
<ul>
  <li>1kg King Edward potatoes</li>
  <li>100ml milk</li>
  <li>50g salted butter</li>
  <li>Freshly grated nutmeg</li>
  <li>Salt and pepper to taste</li>
</ul>
```



- 1kg King Edward potatoes
- 100ml milk
- 50g salted butter
- Freshly grated nutmeg
- Salt and pepper to taste

Nested Lists: Provide Substeps!

Make it your own!


Try in Brackets!



HTML

chapter-05/nested-lists.html

```
<ul>
  <li>Mousses</li>
  <li>Pastries
    <ul>
      <li>Croissant</li>
      <li>Mille-feuille</li>
      <li>Palmier</li>
      <li>Profiterole</li>
    </ul>
  </li>
  <li>Tarts</li>
</ul>
```

- 
- Mousses
 - Pastries
 - Croissant
 - Mille-feuille
 - Palmier
 - Profiterole
 - Tarts

```
<html>
  <head>
    <title>Lists</title>
  </head>
  <body>
    <h1>Scrambled Eggs</h1>
    <p>Eggs are one of my favourite foods. Here
      recipe for deliciously rich scrambled eggs.</p>
    <h2>Ingredients</h2>
    <ul>
      <li>2 eggs</li>
      <li>1tbs butter</li>
      <li>2tbs cream</li>
    </ul>
    <h2>Method</h2>
    <ol>
      <li>Melt butter in a frying pan over a medium
        heat</li>
      <li>Gently mix the eggs and cream in a bowl</li>
      <li>Once butter has melted add cream and eggs</li>
      <li>Using a spatula fold the eggs from the edge of
        the pan to the center every 20 seconds (as if
        you are making an omelette)</li>
      <li>When the eggs are still moist remove from the
        heat (it will continue to cook on the plate
        until served)</li>
    </ol>
  </body>
</html>
```

Daily Project: Make it your own!

Try in Brackets!



Scrambled Eggs

Eggs are one of my favourite foods. Here is a recipe for deliciously rich scrambled eggs.

Ingredients

- 2 eggs
- 1tbs butter
- 2tbs cream

Method

1. Melt butter in a frying pan over a medium heat
2. Gently mix the eggs and cream in a bowl
3. Once butter has melted add cream and eggs
4. Using a spatula fold the eggs from the edge of the pan to the center every 20 seconds (as if you are making an omelette)
5. When the eggs are still moist remove from the heat (it will continue to cook on the plate until served)