Common Elements

HTML5

Favicons

When visiting most any website, you may have noticed the icon that appears in tab, beside the page title. This is referred to as a favicon (favourite icon.)

These are handled by a link element and set of meta elements. To enhance the compatibility of your favicon with all devices and shortcuts to your page, it is recommend you look into a generator where you can upload a square image. Generators take in an image, and will resize it to all expected sizes for you as well as provide all expected elements to include within your page.

The most basic favicon integration looks as follows:

`<link rel="shortcut icon" href="favicon.ico">`

Favicons in most modern browsers can be ICO, PNG, SVG, or even JPEG, though other file-types may be supported.

Headings

Heading elements are used to describe the content that follows them, and are used to break up content by topic. They're important from an accessibility perspective, as screen-readers can skip between these to give context to the user. They're also incredibly useful for search engines when breaking down and discovering what a web page is really about.

H1, H2, H3, H4, H5, and H6 are all valid heading levels. Often you'll only see one H1 per page, as it is the highest level heading and is used to describe what the whole page is about in a very broad sense.

As they precede content, you'll see them at the same content level as the content they represent. See the following example…

```
<h1>Popular Animals</h1>
<p>There are many popular animals on Earth, we'd like to discuss a few.</p>
<h2>Zoo Animals</h2>
<p>Some popular Zoo animals in Canada include elephants, zebras, lions, and giraffe.</p>
<h2>Farm Animals</h2>
<p>On a farm, people love to see pigs, cows, and chickens!</p>
<h3>Rideable Farm Animals</h3>
<p>Some animals on farms, like horses, can be ridden. Children sometimes ride on ponies and miniature horse breeds!</p>
```

Notice that subtopics within the previous heading can be labeled via a heading one level down (see H3).

Images

To embed an image in your web page, use the img element. Popular file types for this type of media include: JPG, PNG, GIF, SVG, and WEBP.

Please be mindful of the file size for any images you upload to your website, as larger files take longer for the web browser to download. Consider using an image compression solution to decrease the size.

The most common place to add your images into your project would be an "img" folder. It is important to know where your images are, as we need to tell the img element where the file is located.

For that purpose, we are afforded the "src" attribute.

If we had an image called "autumn-leaves.jpg" inside of an "img" folder, our code might look something like…

<img src="img/autumn-leaves.jpg">

This path is relative to the current HTML document location unless we begin the value with a slash, or specify a protocol (http, for example.)

There are a couple more attributes we should have a look at for images!

Note that the image element is self-terminating, so there is no closing tag.

Image Attributes

The most important attribute of images is the src attribute—it is required as it is the path to the source image file.

Nearly as important is the alt attribute. Alt is utilized for three major purposes:

- If a user is using accessibility tools like a screen reader, the alt text may be read out to describe what is meant to be seen in that place.
- If the image fails to load, or images are disabled in the web browser (due to data constraints or personal preference), the alt text will appear in its place.

- Search engines use the file name and alt text to gain some level of context surrounding the image, to better serve accurate results based on user searches both image and otherwise.

For populating a tooltip that appears when hovering over the image, you can consider use of the title attribute.

An image loaded with these three attributes might look something like…

```
<img src="img/autumn-leaves.jpg"
    alt="Leaves in autumn, floating on the lake."
    title="An image featuring autumn leaves.">
```
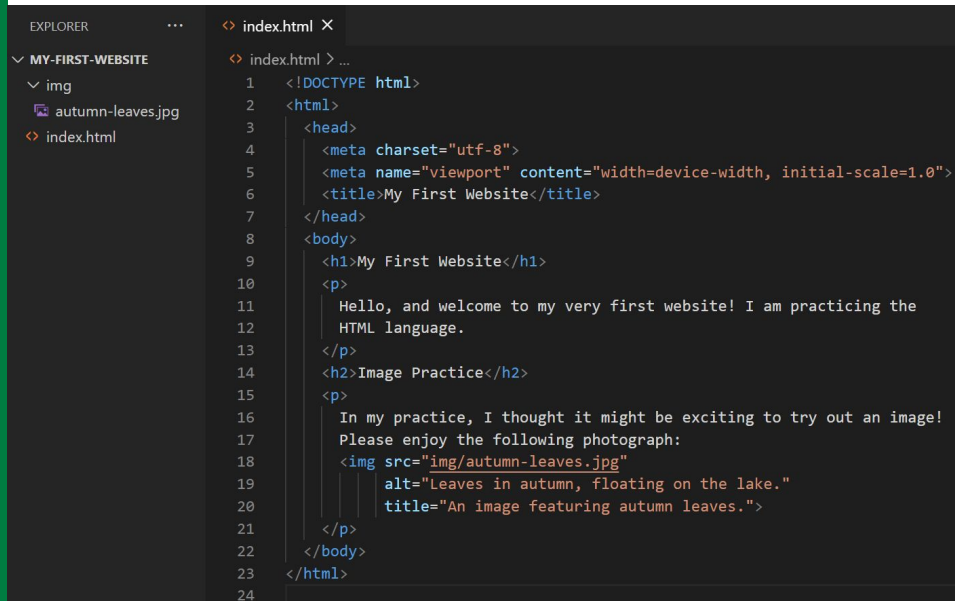
Try Adding an Image to a Web Page

Download and move an image into your project's img folder. Let's give it a shot!

If you don't have an image ready for your project, consider visiting a stock photography website like Pixabay or Pexels.

Always read the licence and usage rights before including a resource in your project(s).

EXPLORER ...

∨ MY-FIRST-WEBSITE
  ∨ img
    🖼 autumn-leaves.jpg
  <> index.html

<> index.html ✕

```html
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>My First Website</title>
  </head>
  <body>
    <h1>My First Website</h1>
    <p>
      Hello, and welcome to my very first website! I am practicing the
      HTML language.
    </p>
    <h2>Image Practice</h2>
    <p>
      In my practice, I thought it might be exciting to try out an image!
      Please enjoy the following photograph:
      <img src="img/autumn-leaves.jpg"
           alt="Leaves in autumn, floating on the lake."
           title="An image featuring autumn leaves.">
    </p>
  </body>
</html>
```

View the Page in your Browser

If done correctly, it should look something like what you see on the right! If you hover over the image, you should see the "title" attribute text.

My First Website

Hello, and welcome to my very first website! I am practicing the HTML language.

Image Practice

In my practice, I thought it might be exciting to try out an image! Please enjoy the following photograph:
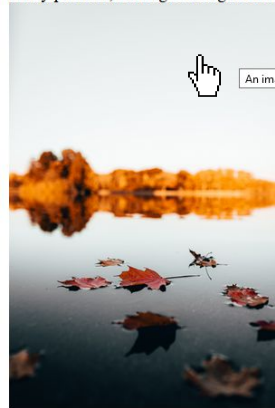
My First Website

Hello, and welcome to my very first website! I am practicing the HTML language.

Image Practice

In my practice, I thought it might be exciting to try out an image! Please enjoy the following photograph:

An image featuring autumn leaves.

Lists

When you think about a list of information (like those animals we talked about before), you may visualize it as a bulleted or numbered list. HTML affords us elements for both of these options:

- **
**
  Unordered lists (by default these appear as a standard bulleted list in most browsers) are used for lists where the order of the list is not important. An example might be a grocery list, where you have a list of items you need but which ones you put in the shopping cart first make little difference to your success.

- **
**
  Ordered lists (by default these appear as numbered lists in most browsers) are used for lists where the order of items is of great consequence. An example might be a recipe, wherein if you were to manipulate the order of the steps your meal would not turn out properly.

It is important to note that the only element allowed immediately inside either type of list is the (list item) element.

Other elements (and even entire lists) can be included inside of list items, if necessary—but never immediately inside of an unordered or ordered list element.

List Example

Don't forget, you can only place list items directly in a list!

An example of a list might looks something like...

<h2>To-Dos**</h2>**
<ul>
   **
Practice HTML
**
   <li>Make Scrambled Eggs
     <ol>
       **
Set Stove to Medium Heat
**
       **
Crack Open Eggs and add to Pan
**
       **
Stir Until Scrambled and Cooked
**
       **
Turn off Stove and Clean Up
**
     **
**
   **
**
**
**

To-Dos

- Practice HTML
- Make Scrambled Eggs
  1. Set Stove to Medium Heat
  2. Crack Open Eggs and add to Pan
  3. Stir Until Scrambled and Cooked
  4. Turn off Stove and Clean Up

Quotes

For mid-sentence / content quotes, we can slip in an inline q (quotation) element. This should be done inside a p (paragraph) or other block element.

An example may look something like…

```
<p>
    A stand-out quote from the movie Pirates of the Caribbean by Disney—as
    shared by the series' star character Jack Sparrow—is, <q>I'm dishonest,
    and a dishonest man you can always trust to be dishonest.</q>
</p>
```

Most browsers display the contents of the q element wrapped in double quotation marks.

A stand-out quote from the movie Pirates of the Caribbean by Disney—as shared by the series' star character Jack Sparrow—is, "I'm dishonest, and a dishonest man you can always trust to be dishonest."

Alternatively, for larger quotes that make up their own paragraph(s), consider the blockquote element.

Both q and blockquote may use the cite attribute, should you have a source URL for that content.

```
<blockquote
   cite="https://www.imdb.com/title/tt0479143/quotes/qt0349288">
   <p>
      It ain't about how hard ya hit. It's about how hard you can get it and
      keep moving forward. How much you can take and keep moving
      forward. That's how winning is done!
   </p>
</blockquote>
```

Blockquotes will be indented in most browsers.

It ain't about how hard ya hit. It's about how hard you can get it and keep moving forward. How much you can take and keep moving forward. That's how winning is done!

Removed and Added Content

If you realize you need to update content that has already been on the web for a time, or there were amendments / changes to content you are adding to a site, consider the del (deletion) element. This deletion element can be used to markup content that is no longer valid for the article or page.

Any additions to a page can, instead, be marked up using the ins (insertion) element.

Here is an example…

<h2>Additions and Removals**</h2>**
<p>
   Canada's confederation occurred in
   ~~1987**~~**
   <ins>1867**</ins>**.
 </p>

Additions and Removals

Canada's confederation occurred in ~~1987~~ 1867.

Time

If we're able to give additional context or detail regarding a date presented to the user, we can make use of the inline time element.

When using this element we enclose a human readable date in <time> tags, and add a datetime attribute with a valid date format. An example might look like the following…

```
<p>
    World War I finally came to a close in
    <time datetime="1918-11-11 11:00:00.000">
        November of 1918, at 11:00AM.
    </time>
</p>
```

Important Text

To communicate a true sense of urgency for a particular word, the strong element may be invoked.

By default, in most browsers, this text will be **bold**. Previously a style-only element called b (bold) was used, but this bares no meaning to accessibility tools and search engines so please avoid its use.

An example might look like so…

```
<p>
    <strong>Never</strong> drink and drive.
</p>
```

If a word, instead, should be stressed and emphasized, consider the em (emphasis) element.

By default, in most browsers, this text will be *italic*. Previously a style-only element called i (italic) was used, but this bares no meaning to accessibility tools and search engines so please avoid its use.

An example might look like so…

```
<p>
    Nunavut can get <em>very</em> cold in winter.
</p>
```

Tables

If you need to display detailed tabular data, HTML affords us various table elements.

A table's most outer element is <table> itself. Immediately inside of this element are often thead, tbody, and tfoot. These mark heading, body content, and footing areas respectively.

Inside of each of these, should be tr (table rows.)

Each <tr> element must contain table cells via either the td (table data) element or th (table heading) element. Each row can contain multiple cells, which will be represented as columns.

The th (table heading) element is used for describing what will appear in the rest of the column, or immediately beside in the row.

The td (table data) element is used for describing data that fits in the appropriate heading based on its position. Keep in mind where this appears in relation to its respective heading.

This may sound a bit complex, but tables are one of the oldest elements available in the HTML language. They make clearer sense when you unpack their code!

Example Table

Using the elements available for a table, student grading data may end up looking like the following…

```
<table>
  <thead>
    <tr>
      <th>Student Name</th>
      <th>Student Grade</th>
    </tr>
  </thead>
  <tbody>
    <td>Bob Anderson</td>
    <td>68</td>
    <tr>
      <td>Pablo Bernal</td>
      <td>90</td>
    </tr>
    <tr>
      <td>Ming Mou</td>
      <td>82</td>
    </tr>
  </tbody>
  <tfoot>
    <tr>
      <th>Average Grade</th>
      <td>80</td>
    </tr>
  </tfoot>
</table>
```

Student Name	Student Grade
Bob Anderson	68
Pablo Bernal	90
Ming Mou	82
Average Grade	80

Improving Page Structure

It is important to consider how to lay out the content in your page. There are a number of elements that help us break up the page into logical and meaningful pieces:

- **<header></header>**
  Introductory content for the page or a section thereof.
- **<main></main>**
  Marks the main content in a page, this is very important for screen readers and search engines. Only one main element is allowed per-page.
- **<article></article>**
  Self-contained content that would be acceptable for re-use elsewhere.

- **<section></section>**
  A "section" of content with less semantic meaning, used for breaking up content.
- **<footer></footer>**
  Supplementary information at the end of some content. Often an author or copyright data.

```
<header>
  <h1>My Web Page</h1>
</header>
<main>
  <article>
    <h2>Page Structure</h2>
    <p>Today I'm learning about structuring my web page!</p>
  </article>
</main>
<footer>
  <p>&copy; 2020; University of Alberta</p>
</footer>
```