Learn HTML: Elements

HTML

HTML (HyperText Markup Language) is used to give content to a web page and instructs web browsers on how to structure that content.

Element Content

The content of an HTML element is the information between the opening and closing tags of an element.

```
<h1>Codecademy is awesome! 😊</h1>
```

`<li>` List Item Element

The `<li>` list item element create list items inside:

- Ordered lists `<ol>`
- Unordered lists `<ul>`

```
<ol>
  <li>Head east on Prince St</li>
  <li>Turn left on Elizabeth</li>
</ol>

<ul>
  <li>Cookies</li>
  <li>Milk</li>
</ul>
```

`<video>` Video Element

The `<video>` element embeds a media player for video playback. The `src` attribute will contain the URL to the video. Adding the `controls` attribute will display video controls in the media player.
Note: The content inside the opening and closing tag is shown as a fallback in browsers that don't support the element.

```
<video src="test-video.mp4" controls>
  Video not supported
</video>
```

`<em>` Emphasis Element

The `<em>` emphasis element emphasizes text and browsers will usually *italicize* the emphasized text by default.

```
<p>This <em>word</em> will be emphasized
in italics.</p>
```

`<ol>` Ordered List Element

The `<ol>` ordered list element creates a list of items in sequential order. Each list item appears numbered by default.

```html
<ol>
   <li>Preheat oven to 325 F 🏺</li>
   <li>Drop cookie dough 🍪</li>
   <li>Bake for 15 min ⏰</li>
</ol>
```

`<div>` Div Element

The `<div>` element is used as a container that divides an HTML document into sections and is short for "division". `<div>` elements can contain *flow content* such as headings, paragraphs, links, images, etc.

```html
<div>
   <h1>A section of grouped elements</h1>
   <p>Here's some text for the section</p>
</div>
<div>
   <h1>Second section of grouped
elements</h1>
   <p>Here's some text</p>
</div>
```

HTML Structure

HTML is organized into a family tree structure. HTML elements can have parents, grandparents, siblings, children, grandchildren, etc.

```html
<body>
   <div>
     <h1>It's div's child and body's
grandchild</h1>
     <h2>It's h1's sibling</h2>
   </div>
</body>
```

Closing Tag

An HTML closing tag is used to denote the end of an HTML element. The syntax for a closing tag is a left angle bracket `<` followed by a forward slash `/` then the element name and a right angle bracket to close `>`.

```html
<body>
   ...
</body>
```

Attribute Name and Values

HTML attributes consist of a name and a value using the following syntax: `name="value"` and can be added to the opening tag of an HTML element to configure or change the behavior of the element.

```html
<elementName name="value"></elementName>
```

`<br>` Line Break Element

The `<br>` line break element will create a line break in text and is especially useful where a division of text is required, like in a postal address. The line break element requires only an opening tag and must not have a closing tag.

```
A line break haiku.<br>
Poems are a great use case.<br>
Oh joy! A line break.
```

`<img>` Image Element

HTML image `<img>` elements embed images in documents. The `src` attribute contains the image URL and is mandatory. `<img>` is an *empty element* meaning it should not have a closing tag.

```
<img src="image.png">
```

`<h1>-<h6>` Heading Elements

HTML can use six different levels of heading elements. The heading elements are ordered from the highest level `<h1>` to the lowest level `<h6>`.

```
<h1>Breaking News</h1>
<h2>This is the 1st subheading</h2>
<h3>This is the 2nd subheading</h3>
...
<h6>This is the 5th subheading</h6>
```

`<p>` Paragraph Element

The `<p>` paragraph element contains and displays a block of text.

```
<p>This is a block of text! Lorem ipsum
dolor sit amet, consectetur adipisicing
elit.</p>
```

Unique ID Attributes

In HTML, specific and unique `id` attributes can be assigned to different elements in order to differentiate between them.
When needed, the `id` value can be called upon by CSS and JavaScript to manipulate, format, and perform specific instructions on that element and that element only. Valid `id` attributes should begin with a letter and should only contain letters (`a-z`), digits (`0-9`), hyphens (`-`), underscores (`_`), and periods (`.`).

```
<h1 id="A1">Hello World</h1>
```

HTML Attributes

HTML attributes are values added to the opening tag of an element to configure the element or change the element's default behavior. In the provided example, we are giving the `<p>` (paragraph) element a unique identifier using the `id` attribute and changing the color of the default text using the `style` attribute.

```
<p id="my-paragraph" style="color:
green;">Here's some text for a paragraph
that is being altered by HTML
attributes</p>
```

`<ul>` Unordered List Element

The `<ul>` unordered list element is used to create a list of items in no particular order. Each individual list item will have a bullet point by default.

```
<ul>
  <li>Play more music 🎸</li>
  <li>Read more books 📚</li>
</ul>
```

alt Attribute

An `<img>` element can have alternative text via the `alt` attribute. The alternative text will be displayed if an image fails to render due to an incorrect URL, if the image format is not supported by the browser, if the image is blocked from being displayed, or if the image has not been received from the URL.
The text will be read aloud if screen reading software is used and helps support visually impaired users by providing a text descriptor for the image content on a webpage.

```
<img src="path/to/image" alt="text describing image" />
```

`<body>` Body Element

The `<body>` element represents the content of an HTML document. Content inside `<body>` tags are rendered on the web browsers.
Note: There can be only one `<body>` element in a document.

```
<body>
  <h1>Learn to code with Codecademy :)
</h1>
</body>
```

`<span>` Span Element

The `<span>` element is an inline container for text and can be used to group text for styling purposes. However, as `<span>` is a generic container to separate pieces of text from a larger body of text, its use should be avoided if a more semantic element is available.

```
<p><span>This text</span> may be styled differently than the surrounding text.
</p>
```

`<strong>` Strong Element

The `<strong>` element highlights important, serious, or urgent text and browsers will normally render this highlighted text in **bold** by default.

```
<p>This is <strong>important</strong> text!</p>
```

HTML Element

An HTML element is a piece of content in an HTML document and uses the following syntax: opening tag + content + closing tag. In the code provided:

```
<p>Hello World!</p>
```

- `<p>` is the opening tag.

- `Hello World!` is the content.

- `</p>` is the closing tag.

HTML Tag

The syntax for a single HTML tag is an opening angle
bracket `<` followed by the element name and a closing
angle bracket `>` . Here is an example of an opening
`<div>` tag.

```
<div>
```