

FRONTEND DEVELOPMENT

Part I: HTML - CSS Basics

HTML

- Text Content: What you see
- Markup: What it looks like and arranged
- References to other documents: eg. Images, videos
- Links to other pages

HTML (TRY ONLINE)

https://www.w3schools.com/html/tryit.asp?filename=tryhtml_default

HTML STRUCTURE

- All HTML documents must start with a document type declaration: `<!DOCTYPE html>`.
- The HTML document itself begins with `<html>` and ends with `</html>`.
- The visible part of the HTML document is between `<body>` and `</body>`.

EXAMPLE

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h1>My First Heading</h1>
```

```
<p>My first paragraph.</p>
```

```
</body>
```

```
</html>
```

HTML ELEMENTS

`<tagname>`Content goes here...`</tagname>`

NESTED HTML ELEMENTS

- HTML elements can be nested (this means that elements can contain other elements).
- All HTML documents consist of nested HTML elements.

WHAT WILL HAPPEN IF YOU FORGET THE END TAG?

- Some HTML elements will display correctly, even if you forget the end tag:

`<p>`This is a paragraph

- However, never rely on this! Unexpected results and errors may occur if you forget the end tag!

EMPTY HTML ELEMENTS

- HTML elements with no content are called empty elements.
- The `
` tag defines a line break, and is an empty element without a closing tag:

`<p>`This is a `
` paragraph with a line break.`</p>`

HTML IS NOT CASE SENSITIVE

- HTML tags are not case sensitive: `<P>` means the same as `<p>`.
- The HTML standard does not require lowercase tags, but it's recommended to use lowercase in HTML, and demands lowercase for stricter document types like XHTML.

HTML HEADING

`<h1>`This is heading 1`</h1>`

`<h2>`This is heading 2`</h2>`

`<h3>`This is heading 3`</h3>`

HTML PARAGRAPHS

<p>This is a paragraph.</p>

<p>This is another paragraph.</p>

HTML ATTRIBUTES

- All HTML elements can have attributes
- Attributes provide additional information about elements
- Attributes are always specified in the start tag
- Attributes usually come in name/value pairs like:
name="value"

LINKS

The <a> tag defines a hyperlink. The href attribute specifies the URL of the page the link goes to:

`Visit Google`

HTML DISPLAY

- You cannot be sure how HTML will be displayed.
- Large or small screens, and resized windows will create different results.
- With HTML, you cannot change the display by adding extra spaces or extra lines in your HTML code.
- The browser will automatically remove any extra spaces and lines when the page is displayed:

<p>

This paragraph
contains a lot of lines
in the source code,
but the browser
ignores it.

</p>

<p>

This paragraph
contains a lot of spaces
in the source code,
but the browser
ignores it.

</p>

HTML HORIZONTAL RULES

The `<hr>` element is used to separate content (or define a change) in an HTML page:

`<h1>`This is heading 1`</h1>`

`<p>`This is some text.`</p>`

`<hr>`

`<h2>`This is heading 2`</h2>`

`<p>`This is some other text.`</p>`

`<hr>`

HTML LINE BREAKS

Use `
` if you want a line break (a new line) without starting a new paragraph:

`<p>`This is`
`a paragraph`
`with line breaks.`</p>`

WHAT IS CSS?

- Cascading Style Sheets (CSS) is used to format the layout of a webpage.
- With CSS, you can control the color, font, the size of text, the spacing between elements, how elements are positioned and laid out, what background images or background colors are to be used, different displays for different devices and screen sizes, and much more!

USING CSS

CSS can be added to HTML documents in 3 ways:

- Inline - by using the style attribute inside HTML elements
- Internal - by using a <style> element in the <head> section
- External - by using a <link> element to link to an external CSS file

INLINE CSS EXAMPLES



BACKGROUND COLOR

<body style="background-color:powderblue;">

<h1>This is a heading</h1>

<p>This is a paragraph.</p>

</body>

SET BACKGROUND COLOR FOR TWO DIFFERENT ELEMENTS

<body>

<h1 style="background-color:powderblue;">This is a heading</h1>

<p style="background-color:tomato;">This is a paragraph.</p>

</body>

TEXT COLOR

`<h1 style="color:blue;">This is a heading</h1>`

`<p style="color:red;">This is a paragraph.</p>`

HTML COLOR NAMES

https://www.w3schools.com/colors/colors_names.asp

FONTS

`<h1 style="font-family:verdana;">This is a heading</h1>`

`<p style="font-family:courier;">This is a paragraph.</p>`

TEXT SIZE

`<h1 style="font-size:300%;">`This is a heading`</h1>`

`<p style="font-size:160%;">`This is a paragraph.`</p>`

TEXT ALIGNMENT

`<h1 style="text-align:center;">Centered Heading</h1>`

`<p style="text-align:center;">Centered paragraph.</p>`

HTML TEXT FORMATTING

- `` - Bold text
- `` - Important text
- `<i>` - Italic text
- `` - Emphasized text
- `<mark>` - Marked text
- `<small>` - Smaller text
- `` - Deleted text
- `<ins>` - Inserted text
- `<sub>` - Subscript text
- `<sup>` - Superscript text

HTML <BLOCKQUOTE> FOR QUOTATIONS

<p>Here is a quote from WWF's website:</p>

<blockquote cite="http://www.worldwildlife.org/who/index.html">

For 60 years, WWF has worked to help people and nature thrive. As the world's leading conservation organization, WWF works in nearly 100 countries. At every level, we collaborate with people around the world to develop and deliver innovative solutions that protect communities, wildlife, and the places in which they live.

</blockquote>

HTML <Q> FOR SHORT QUOTATIONS

<p>WWF's goal is to: <q>Build a future where people live in harmony with nature.</q></p>

HTML COMMENT TAG

<!-- Write your comments here -->

HTML IMAGES

```

```

IMAGE WIDTH AND HEIGHT

```

```

HTML PAGE TITLE

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <title>HTML Tutorial</title>
```

```
  </head>
```

```
  <body>
```

```
    The content of the document.....
```

```
  </body>
```

```
</html>
```

HTML FAVICON

<head>

<title>My Page Title</title>

<link rel="icon" type="image/x-icon" href="/images/favicon.ico">

</head>

TABLES

```
<table>
```

```
<tr>
```

```
<th>Company</th>
```

```
<th>Contact</th>
```

```
</tr>
```

```
<tr>
```

```
<td>Centro comercial Moctezuma</td>
```

```
<td>Francisco Chang</td>
```

```
</tr>
```

```
</table>
```

TABLE STYLE SAMPLE (INTERNAL)

```
table, th, td {  
    border: 1px solid white;  
    border-collapse: collapse;  
}  
  
th, td {  
    background-color: #96D4D4;  
}
```


HTML LISTS

Tag	Description
<u></u>	Defines an unordered list
<u></u>	Defines an ordered list
<u></u>	Defines a list item
<u><dl></u>	Defines a description list
<u><dt></u>	Defines a term in a description list
<u><dd></u>	Describes the term in a description list

https://www.w3schools.com/html/html_lists.asp

EXAMPLE

Coffee

Tea

Milk

HTML BLOCK AND INLINE ELEMENTS

- A block-level element always starts on a new line, and the browsers automatically add some space (a margin) before and after the element.
- A block-level element always takes up the full width available (stretches out to the left and right as far as it can).
- Two commonly used block elements are: `<p>` and `<div>`.

INLINE ELEMENTS

- An inline element does not start on a new line.
- An inline element only takes up as much width as necessary.
- This is a `` element inside a paragraph.

HTML FORMS

The HTML <form> element can contain one or more of the following form elements:

<input>

<label>

<select>

<textarea>

<button>

<option>

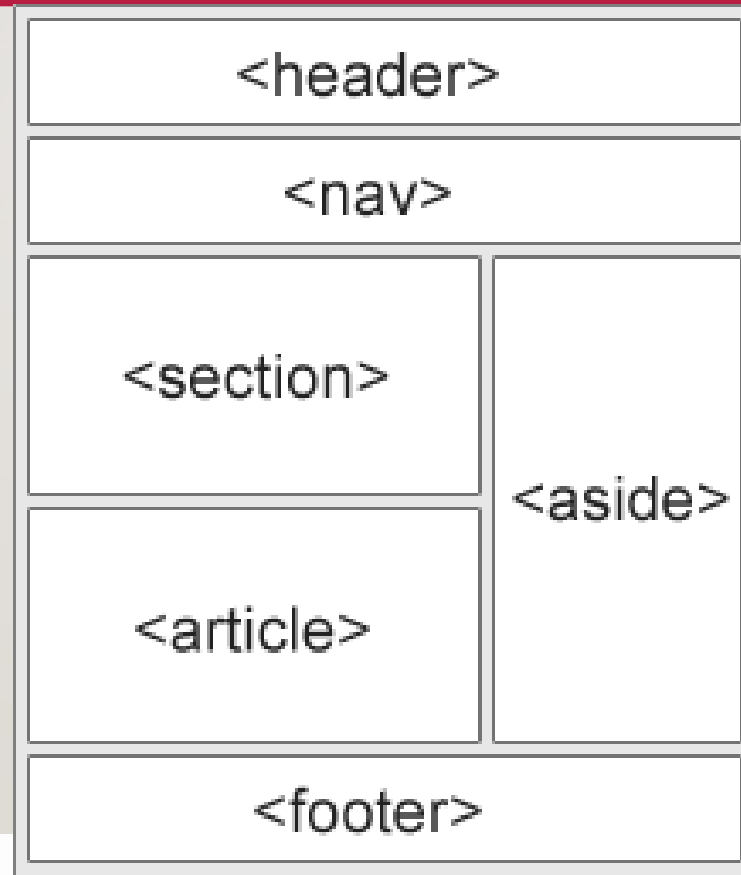
https://www.w3schools.com/html/html_forms.asp

HTML <DIV> TAG

- A <div> section in a document that is styled with CSS:

```
<div class="myDiv">  
  <h2>This is a heading in a div element</h2>  
  <p>This is some text in a div element.</p>  
</div>
```


HTML LAYOUT ELEMENTS



- <header> - Defines a header for a document or a section
- <nav> - Defines a set of navigation links
- <section> - Defines a section in a document
- <article> - Defines an independent, self-contained content
- <aside> - Defines content aside from the content (like a sidebar)
- <footer> - Defines a footer for a document or a section
- <details> - Defines additional details that the user can open and close on demand
- <summary> - Defines a heading for the <details> element

Thank you

