



# Web Dev Lecture 1

Code Girls 2021-22



# Helpful Resources

- W3schools:  
<https://www.w3schools.com/html/default.asp>
- MDN web docs:  
<https://developer.mozilla.org/en-US/docs/Glossary/HTML5>



# Source File

Home History Explore

## Monuments and Memorials

A trip to Washington, D.C. is incomplete without visiting the numerous monuments and memorials that **honor** the nation's history and those who have shaped it. Many of these attractions are located around the National Mall.

## Museums

Popular museums include:

- Smithsonian National Museum of Natural History
- National Museum of African American History and Culture
- National Gallery of Art
- United States Holocaust Memorial Museum
- National Air and Space Museum

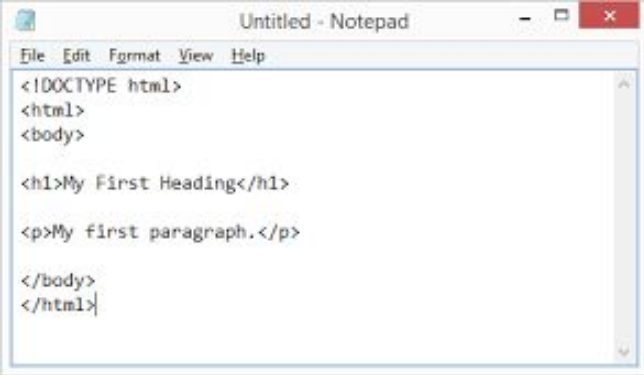
## Food and Drink

Explore the restaurant scene in D.C. with this guide here.



# What is HTML?

- Stands for Hyper Text Markup Language
- HTML is the standard markup language for creating Web pages
- Describes the structure of a Web page and tells the browser how to display the content
- Helps identify what is what. For example:
  - This is a link
  - This is a picture
  - This is a title



```
File Edit Format View Help
<!DOCTYPE html>
<html>
<body>

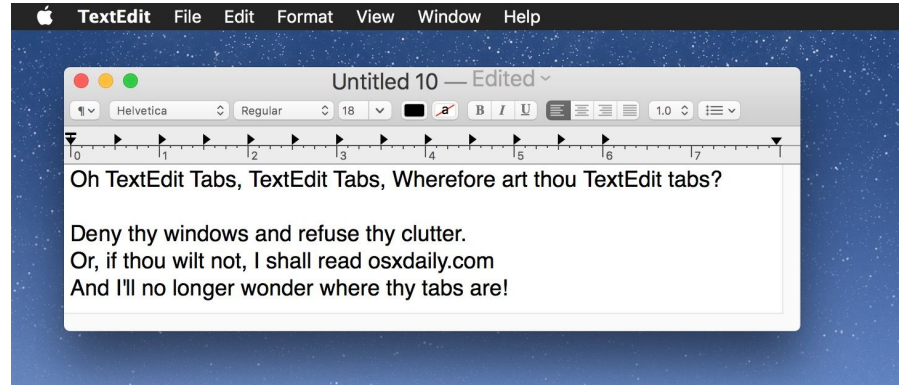
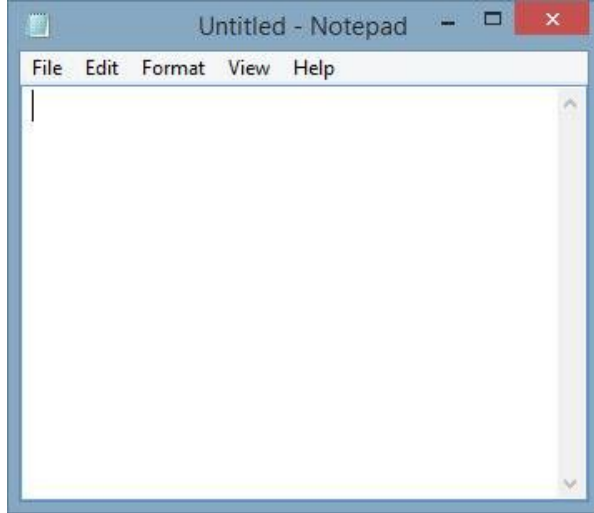
<h1>My First Heading</h1>

<p>My first paragraph.</p>

</body>
</html>
```

# Writing in HTML: HTML Editors

- Web pages can be created and modified by using professional HTML editors.
- However, for learning HTML, we can start with a simple text editor like Notepad (PC) or TextEdit (Mac).





## Getting our HTML editors set up

1. Find Notepad or TextEdit or Repl.it based on whether you have Mac or PC or chromebook
2. Write the following code in your text file

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

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

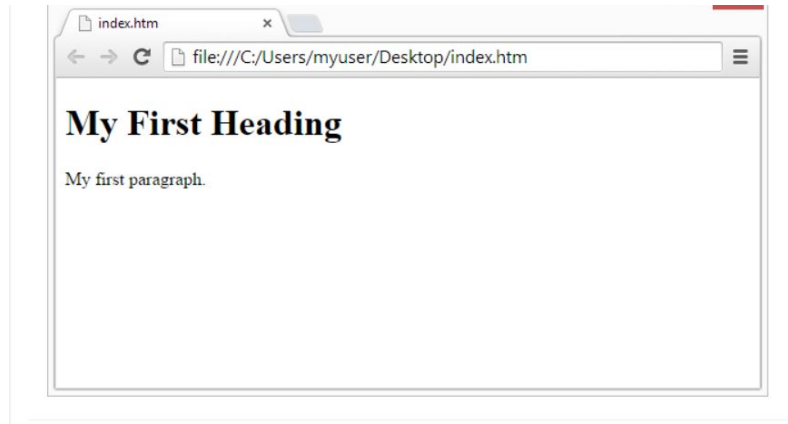
```
<p>My first paragraph.</p>
```

```
</body>
```

```
</html>
```

## Getting our HTML editors set up (Cont.)

- Save the file on your computer. Select File > Save as in the Notepad menu.
- Name the file "index.htm" and set the encoding to UTF-8 (which is the preferred encoding for HTML files).
- Open the file with a browser (like Chrome)





# The Basics of HTML

- 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>`.



This is a  
paragraph with a line break.



## HTML Elements

- HTML elements are defined by a start tag, some content, and an end tag:
  - `<tagname>Content goes here... </tagname>`
- HTML elements can be nested
- When writing elements, case doesn't matter but lower case is preferable since other editors may be more strict
- Some elements only have a single tag:
  - Break in a line is just `<br>`
  - Example: `<p>This is a <br> paragraph with a line break.</p>`



# Block and Inline Elements

- Block-level Elements
  - Always starts on a new line
  - Takes up full width available
- Inline Elements
  - Does not start on a new line
  - Only takes up as much width as necessary

<address> <article> <aside> <blockquote> <canvas>  
<dd> <div> <dl> <dt> <fieldset>  
<figcaption> <figure> <footer> <form> <h1>-<h6>  
<header> <hr> <li> <main> <nav>  
<noscript> <ol> <p> <pre> <section>  
<table> <tfoot> <ul> <video>

Block-level Elements

<a> <abbr> <acronym> <b> <bdo>  
<big> <br> <button> <cite> <code>  
<dfn> <em> <i> <img> <input>  
<kbd> <label> <map> <object> <output>  
<q> <samp> <script> <select> <small>  
<span> <strong> <sub> <sup> <textarea>  
<time> <tt> <var>

Inline Elements



# HTML Attributes

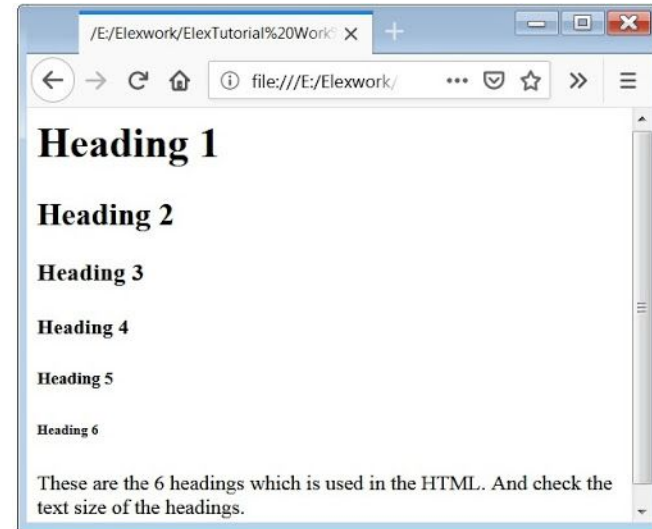
- All HTML elements can have attributes
- Attributes provide additional information about elements
- Attributes are always specified in the start tag
- Attributes usually come in name/value pairs like: name="value"





# Headings, Paragraphs

- HTML headings are defined with the `<h1>` to `<h6>` tags.
- `<h1>` defines the most important heading.  
`<h6>` defines the least important heading.
- Heading sizes are default. You can custom set the size
  - `<h1 style="font-size:60px;">Heading 1</h1>`
- HTML paragraphs are defined with the `<p>` tag





# Text Formatting

- `<b>` - Bold text
- `<strong>` - Important text
- `<i>` - Italic text
- `<em>` - Emphasized text
- `<mark>` - Marked text (Highlighted)
- `<small>` - Smaller text
- `<del>` - Deleted text (Strike through)
- `<ins>` - Inserted text (Underlined)
- `<sub>` - Subscript text
- `<sup>` - Superscript text
- `<q>` - Add quotation marks



# Style Attribute

- The HTML style attribute is used to add color, font, size, and more.
  - `<tagname style="property:value;">`
- Background color:
  - `background-color:[color name]`
- Text color:
  - `color:[color name]`
- Border color:
  - `border:[number]px [solid/dotted] [color name]`
- Text fonts:
  - `font-family:[font name]`
- Text size:
  - `font-size:[percent value]`
- Text alignment:
  - `text-align:[right/left/center]`

## Example of Inline Style

First paragraph

Second paragraph

---



# Colors

LavenderBlush #FFF0F5	LightSalmon #FFB6C1	OliveDrab #808000	DarkSalmon #E9967A
LightPink #FFB6C1	DarkCyan #008B8B	DarkCyan #008B8B	DarkCyan #008B8B
Pink #FFC0CB	DarkSlateGray #2F4F4F	ForestGreen #228B22	DarkKhaki #A0D9B0
DeepPink #FF1493	DarkBlue #000080	Green #008000	SandyBrown #F4A460
HotPink #FF1493	SteelBlue #4682B4	DarkGreen #006400	Coral #FF7F50
Thistle #D8BFD8	LightCyan #ADD8E6	LightGreen #90EE90	Tomato #FF6347
Pink #FFC0CB	LightBlue #ADD8E6	LightGreen #90EE90	Gold #FFD700
Violet #EE82EE	RoyalBlue #4169E1	Chartreuse #7FFF00	IndianRed #CD5C5C
Orchid #DA70D3	MediumBlue #0000CD	Snow #FFFAFA	Peach #FFDAB9
DarkVioletRed #800000	Blue #0000FF	Tron #FF00FF	Iron #852A2A
MediumVioletRed #C71585	DarkBlue #000080	PanWhite #FFFFFF	Red #FF0000
Gold #FFD700	Red #FF0000	SeaShell #FFF5EE	Gold #FFD700
Plum #DDA0DD	MidnightBlue #191970	OldLace #F5F5DC	Chocolate #D2691E
DarkMagenta #800080	DeepSkyBlue #00BFFF	Linen #F0F8FF	SaddleBrown #8B4513
MediumSlateBlue #483D8B	DarkTurquoise #00CED1	MediumRose #FF69B4	DarkOrchid #800080
DarkOrchid #800080	LightCyan #ADD8E6	LightYellow #FFFFE0	Yellow #FFFF00
SlateBlue #6A5ACD	DarkCyan #008B8B	Comet #FFEE58	Olive #808000
MediumSlateBlue #483D8B	Teal #008080	Beige #F5F5DC	Gold #FFD700
DarkSlateBlue #284B8F	MintCream #90EE90	AntiqueWhite #F0E68C	Orange #FFA500
MediumSlateBlue #483D8B	MediumSlateBlue #483D8B	MediumSlateBlue #483D8B	DarkOrange #FF8C00
Purple #800080	MediumAquamarine #7FFFD4	LightGoldenrodYellow #FFD700	OrangeRed #FF4500
BlueViolet #6A5ACD	MediumTurquoise #483D8B	LemonChiffon #FFFACD	Red #FF0000
DarkViolet #800080	Turquoise #40E0D0	BlanchedAlmond #FFDAB9	DarkRed #8B0000
Indigo #4B0082	MediumSeaGreen #3CB371	DarkCyan #008B8B	Magenta #FF00FF
CherryBlossom #FFB6C1	White #FFFFFF	White #FFFFFF	White #FFFFFF
AliceBlue #F0F8FF	LightSeaGreen #4682B4	Moccasin #F5DEB3	WhiteSmoke #F5F5F5
Azure #6495ED	MediumSpringGreen #48FFC0	White #FFFFFF	SandBrown #D2B48C
LightCyan #ADD8E6	SpringGreen #48FFC0	RapeseedGreen #B0E066	LightGrey #D3D3D3
DarkTurquoise #00CED1	HotYellow #FFD700	DarkGreen #006400	DarkGrey #696969
ForestGreen #228B22	LightGreen #90EE90	Khaki #F0E68C	Gray #808080
LightBlue #ADD8E6	DarkSeaGreen #2E8B57	Tan #D2B48C	DimGray #696969
LightSeaBlue #4682B4	SeaGreen #2E8B57	BurlyWood #DEB887	Black #000000
LightBlue #ADD8E6	LightGreen #90EE90	LightCoral #F08080	
DarkBlue #000080	GreenYellow #9ACD32	LightSalmon #FFB6C1	
DarkBlue #000080	LightYellow #FFFFE0	LightSalmon #FFB6C1	

- In addition to using color names, you can use different methods of specifying colors:

- RGB values
  - rgb(red, green, blue)
  - value between 0 and 255.
- HEX values
  - #rrggbb
  - Value between 00 and ff
- HSL values
  - hsl(hue, saturation, lightness)
  - Hue: 0 to 360. Saturation: 0-100%. Lightness: 0=100%
- And others



# Lists

- Unordered lists - `<ul>`, default bullet points
- Ordered Lists - `<ol>`, default numbers
- For both unordered and ordered lists, each list item - `<li>`
- Description Lists - `<dl>`
  - `<dt>` for each term
  - `<dd>` to describe each term

## An unordered HTML list

- Coffee
- Tea
- Milk

## An ordered HTML list

1. Coffee
2. Tea
3. Milk

## A Description List

Coffee

- black hot drink

Milk

- white cold drink





# Links

- Basic syntax:

`<a href="url">link text</a>`

- By default, this makes the link:
  - Underlined and blue
  - Underlined and purple after being clicked
- The “target” attribute
  - Where the link will be opened
  - `_self` - default (same tab)
  - `_blank` - new tab
  - `_parent` - in parent frame
  - `_top` - in full body of window



# Tables

- Tags
  - whole table - `<table>`
  - Row - `<tr>`
  - table header - `<th>`, default bold and centered
  - data/cell `<td>`, default left aligned
- colspan/rowspan
  - to have a cell span multiple rows or columns (like merging cells in Excel)
  - inside a `<td>` or `<th>` tag
- Captions → acts as a title for the table
  - `<caption>`
  - must come right after the `<table>` tag
- Can customize a lot more with CSS!

```
<table style="width:50%">
  <caption>Monthly savings</caption>
  <tr>
    <th>Month</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>January</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>February</td>
    <td>$50</td>
  </tr>
  <tr>
    <td colspan="2">Total: $150</td>
  </tr>
</table>

</body>
</html>
```

Monthly savings

Month	Savings
January	\$100
February	\$50
Total: \$150	



# Commenting!

- Comment your code!!!
  - Helps identify errors
  - When you return to your project or share it with others, they know what you have done
- Syntax `<!-- [Comment goes here] -->`



# Acknowledgments

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