Basic Web Design

HTML

LECTURE - 04

Recap

- HTML Text Formatting
- HTML Lists, Quotation & Citation, Comments, Attributes, Styles, Colors
- *Class work:*

Course Contents

- Color
- Images
- Tables
- Block & Inline Elements
- HTML Div
- Id & Classes

HTML Colors

- HTML colors are used to set the color of **text, backgrounds, borders**, and other elements on a web page.

- Colors can be defined using various formats, such as color names, **HEX values, RGB values**, and more.

Color Formats in HTML

Color Names:

Use predefined color names like red, blue, green, etc.

Example: **<p style="color: red;">This is red text.</p>**

HEX Color Values:

A HEX color is specified with a # symbol followed by a six-digit hexadecimal number.

Example: **<p style="color: #ff5733;">This is text with HEX color #ff5733.</p>**

RGB Color Values:

The rgb() function defines colors using the Red, Green, and Blue components.

Example: **<p style="color: rgb(255, 99, 71);">The text with RGB color rgb(255, 99, 71).</p>**

RGBA Color Values:

The rgba() function includes an alpha channel (opacity) in addition to RGB components.

Example: **<p style="color: rgba(255, 99, 71, 0.5);">This is semi-transparent text with RGBA color.</p>**

Resources of Color

You can use the following two sites to choose your preferred color.

W3schools Color Picker: https://www.w3schools.com/colors/colors_picker.asp

Flat Ui Colors: https://flatuicolors.com/

HTML Images

- The HTML <img> tag is used to embed an image in a web page.

- *Images are not technically inserted into a web page; images are linked to web pages*. The <img> tag creates a holding space for the referenced image.

- The <img> tag is empty, it contains attributes only, and does not have a closing tag.

- The <img> tag has two required attributes:
  - src - Specifies the path to the image
  - alt - Specifies an alternate text for the image

HTML Images (Example)

HTML Image


```html
<h2>HTML Image</h2>
<img src="pic_trulli.jpg" alt="Trulli" width="500" height="333">
```

HTML File Paths

- A file path describes the location of a file in a web site's folder structure.

- File paths are used when linking to external files, like:
  - Web pages
  - Images
  - Style sheets
  - JavaScripts

Path	Description
`<img src="picture.jpg">`	The "picture.jpg" file is located in the same folder as the current page
`<img src="images/picture.jpg">`	The "picture.jpg" file is located in the images folder in the current folder
`<img src="/images/picture.jpg">`	The "picture.jpg" file is located in the images folder at the root of the current web
`<img src="../picture.jpg">`	The "picture.jpg" file is located in the folder one level up from the current folder

HTML Tables

HTML tables are used to display data in a structured format, using rows and columns.

Each table consists of one or more rows (<tr>), and each row contains one or more cells (<td> for data cells, <th> for header cells).

Key Elements:

<table>: Defines the table.

<tr>: Defines a row in the table.

<td>: Defines a cell in the table (data cell).

<th>: Defines a header cell in the table.

HTML Tables (Example)

```
1   <table>
2       <tr>
3           <th>First Name</th>
4           <th>Last Name</th>
5           <th>Age</th>
6       </tr>
7       <tr>
8           <td>John</td>
9           <td>Doe</td>
10          <td>30</td>
11      </tr>
12      <tr>
13          <td>Jane</td>
14          <td>Smith</td>
15          <td>25</td>
16      </tr>
17  </table>
```

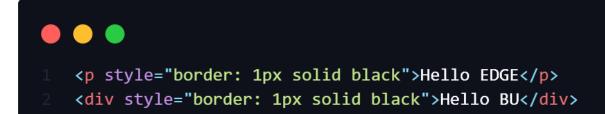| First Name	Last Name	Age
John	Doe	30
Jane	Smith	25

HTML Block Elements

- Block-level elements create a "block" of content that takes up the full width of the parent container.

- They always start on a new line.

- **Common Block Elements:**
  - <div>: Generic container for content.
  - <p>: Paragraph of text.
  - <h1> to <h6>: Headings.
  - : Unordered list.
  - <blockquote>: Block quotation.

HTML Block Elements (Example)

```
1  <p style="border: 1px solid black">Hello EDGE</p>
2  <div style="border: 1px solid black">Hello BU</div>
```

Hello EDGE

Hello BU

The P and the DIV elements are both block elements, and they will always start on a new line and take up the full width available (stretches out to the left and right as far as it can).

HTML Inline Elements

- Inline elements flow along with the text, only taking up as much width as needed.

- They do not start on a new line and can be nested within block elements.

- **Common Inline Elements:**

  - <span>: Generic inline container for text.
  - <a>: Hyperlink.
  - <img>: Image.
  - <em>: Emphasized text (italic).
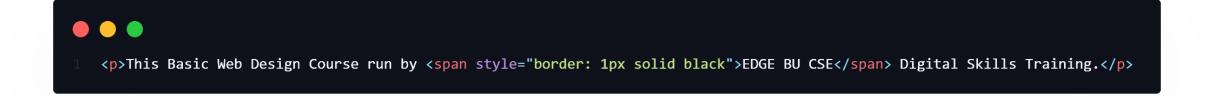 - <strong>: Strongly emphasized text (bold).

HTML Inline Elements (Example)

```
1  <p>This Basic Web Design Course run by <span style="border: 1px solid black">EDGE BU CSE</span> Digital Skills Training.</p>
```

This Basic Web Design Course run by EDGE BU CSE Digital Skills Training.

The SPAN element is an inline element, and will not start on a new line and only takes up as much width as necessary.

HTML Div

- The <div> element is a block-level container that is used to group content together for styling or layout purposes.

- It does not inherently represent anything on the page but is commonly used to organize and structure HTML content.

- The <div> element can wrap any block of content, including text, images, other HTML elements, etc.

```html
<div>
    <h1>Heading Inside a Div</h1>
    <p>This is a paragraph inside a div container.</p>
</div>
```

Styling HTML Div

- **Applying CSS Styles:**
  - You can apply styles such as background-color, padding, margin, and border to a <div> element.

```html
<h1>HTML DIV Example</h1>

<div style="background-color: #FFF4A3;border:2px
solid black">
  <h2>London</h2>
  <p>London is the capital city of England.</p>
  <p>London has over 13 million inhabitants.</p>
</div>

<p>The yellow background is added to demonstrate
the footprint of the DIV element.</p>

</body>
</html>
```

HTML DIV Example

London

London is the capital city of England.

London has over 13 million inhabitants.

The yellow background is added to demonstrate the footprint of the DIV element.

HTML id

- The id attribute is used to assign a unique identifier to an HTML element.

- Each id value must be unique within the HTML document.

- **Syntax:**
  - The id attribute is added to an HTML element with its value being the unique identifier.
    - **<div id="unique-id">Hello Students</div>**

Styling HTML using id

- To create a id; write a (#) character, followed by a unique id name. Then, define the CSS properties within curly braces {}:

```html
<!DOCTYPE html>
<html>
<head>
<style>
#myHeader {
  background-color: lightblue;
  color: black;
  padding: 40px;
  text-align: center;
}
</style>
</head>
<body>

<h2>The id Attribute</h2>
<p>Use CSS to style an element with the id
"myHeader":</p>

<h1 id="myHeader">My Header</h1>

</body>
</html>
```

The id Attribute

Use CSS to style an element with the id "myHeader":

My Header

HTML Classes

- A class is an attribute used in HTML to apply the same styles or behavior to multiple elements.

- Classes are reusable and can be assigned to multiple elements.

- **Syntax:**
  - The class attribute is added to an HTML element, with its value being the class name.

    - **<div class="classname">Hello Students</div>**

Styling HTML using Class

- To create a class; write a period (.) character, followed by a class name. Then, define the CSS properties within curly braces {}:

```html
<!DOCTYPE html>
<html>
<head>
<style>
.city {
  background-color: tomato;
  color: white;
  padding: 10px;
}
</style>
</head>
<body>

<h2>Different Elements Can Share Same Class</h2>

<p>Even if the two elements do not have the same tag name,
they can both point to the same class, and get the same
CSS styling:</p>

<h2 class="city">Paris</h2>
<p class="city">Paris is the capital of France.</p>

</body>
</html>
```

Different Elements Can Share Same Class

Even if the two elements do not have the same tag name, they can both point to the same class, and get the same CSS styling:

Paris

Paris is the capital of France.

Difference Between Class and ID

- **id:** Must be unique within the HTML document; only one element can have a specific id. Targeted in CSS with the **(#)** symbol.

- **class:** Can be reused across multiple elements; many elements can share the same class. Targeted in CSS with the **(.)** symbol.

```css
<style>
/* Style the element with the id "myHeader" */
#myHeader {
  background-color: lightblue;
  color: black;
  padding: 40px;
  text-align: center;
}

/* Style all elements with the class name "city" */
.city {
  background-color: tomato;
  color: white;
  padding: 10px;
}
```

Homework

Design a simple CV webpage using HTML. Include the following sections: Personal Information including photo, Education, Skills, and Work Experience. Use appropriate HTML elements (such as headings, paragraphs, and lists) to structure each section clearly.

End of Lecture

THANK YOU