

WEB PROGRAMMING - HTML, CSS, JS - 3

**TEXAS SKILLS DEVELOPMENT FUND
TRAINING PARTNERSHIP**



Day – 3 Objectives

01 | Introduction

02 | Input Elements

03 | Form Elements

04 | Text and Semantic
Markup

05 | css

06 | Lab





HTML Input

- The `<input>` tag specifies an input field where the user can enter data.
- The `<input>` element can be displayed in several ways, depending on the `type` attribute.



Input Types

- The different input types

```
<input type="button">  
<input type="checkbox">  
<input type="color">  
<input type="date">
```

Input Types

Type	Description
<code><input type="text"></code>	Displays a single-line text input field
<code><input type="radio"></code>	Displays a radio button (for selecting one of many choices)
<code><input type="checkbox"></code>	Displays a checkbox (for selecting zero or more of many choices)
<code><input type="submit"></code>	Displays a submit button (for submitting the form)
<code><input type="button"></code>	Displays a clickable button

Input Type	Description
<u>Button</u>	The button is generally a push button, which is pushed to activate.
<u>checkbox</u>	The checkbox must be ticked to activate it.
<u>color</u>	Interface used to choose the color of our choice.
<u>Password</u>	Interface defines a password field (characters are masked for security).
<u>Radio</u>	Collection of radio buttons inputting a set of options).
<u>Submit</u>	Interface for submitting all form values to a form-handler.
<u>Text</u>	Interface to input single-line text field.



Forms and Input Elements

- First, we will watch a video and then come to the details

https://www.youtube.com/watch?v=vj78j_Sy3uM



HTML Form

- An HTML form is used to collect user input.
- The HTML <form> element can contain one or more of the following form elements:
 - <input>
 - <label>
 - <select>
 - <textarea>
 - <button>



Syntax

- <form>
 - *form elements*
 -
- </form>



HTML Form

- The HTML <input> element is the most used form element.
- An <input> element can be displayed in many ways, depending on the type attribute.
- The <input> element is used to capture various types of input data such as text, password, email etc
- Different types of data from users are collected by changing the type attribute.

Sample Form

- <form>
 <label for="fname">First name:</label>

 <input type="text" id="fname" name="fname">

 <label for="lname">Last name:</label>

 <input type="text" id="lname" name="lname">
 </form>



Assignment 1

- <https://www.youtube.com/watch?v=2O8pkybH6po>



Lab 4

- Please practice an HTML form with an input field and a submit button.

<https://labex.io/tutorials/html-html-input-form-70763>



Text and Semantic Elements

- Text and Semantic Markup is the practice of adding meaning and structure to text by using specific tags or elements that describe the content's role and purpose,
- In web development, this is commonly achieved using semantic HTML tags like `<header>`, `<article>`, `<nav>`, and `<footer>`



Semantic Elements

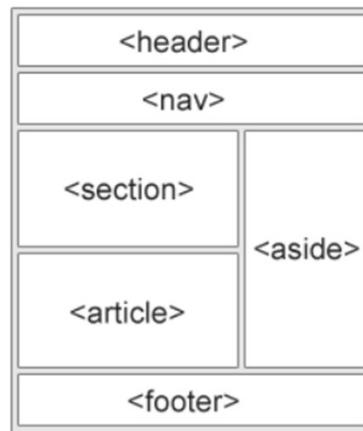
- A semantic element clearly describes its meaning to both the browser and the developer.
- Examples of non-semantic elements: `<div>` and `` - Tells nothing about its content.
- Examples of semantic elements: `<form>`, `<table>`, and `<article>`
- Clearly defines its content.

Semantic Elements

Tags	Description
Heading tags	<ul style="list-style-type: none">•Indicate different levels of headings within a document.
<article>	<ul style="list-style-type: none">•Represents a self-contained piece of content like a blog post or news article.
<section>	<ul style="list-style-type: none">•Defines a distinct section within a page
<nav>	<ul style="list-style-type: none">•Marks the navigation area of a webpage
<aside>	<ul style="list-style-type: none">•Content related to the main content but set aside (like a sidebar)
<footer>	<ul style="list-style-type: none">•Represents the footer section at the end of a page

Text and Semantic Markup

Some semantic elements that can be used to define different parts of a web page.



Semantic Elements

HTML Tag	Description
<u><aside></u>	Describes content related to the main object of the web page but not its main intent.
<u><audio></u>	Used to insert audio into an HTML webpage.
<u><canvas></u>	Used to draw graphics on a web page using JavaScript.
<u><header></u>	Contains information related to the title and heading of the content.
<u><hgroup></u>	Groups heading elements (h1-h6) to provide structured heading information.
<u><keygen></u>	Specifies a key-pair generator field in a form for secure user authentication.
<u><mark></u>	Defines marked text to highlight a part of the paragraph.

Semantic Elements

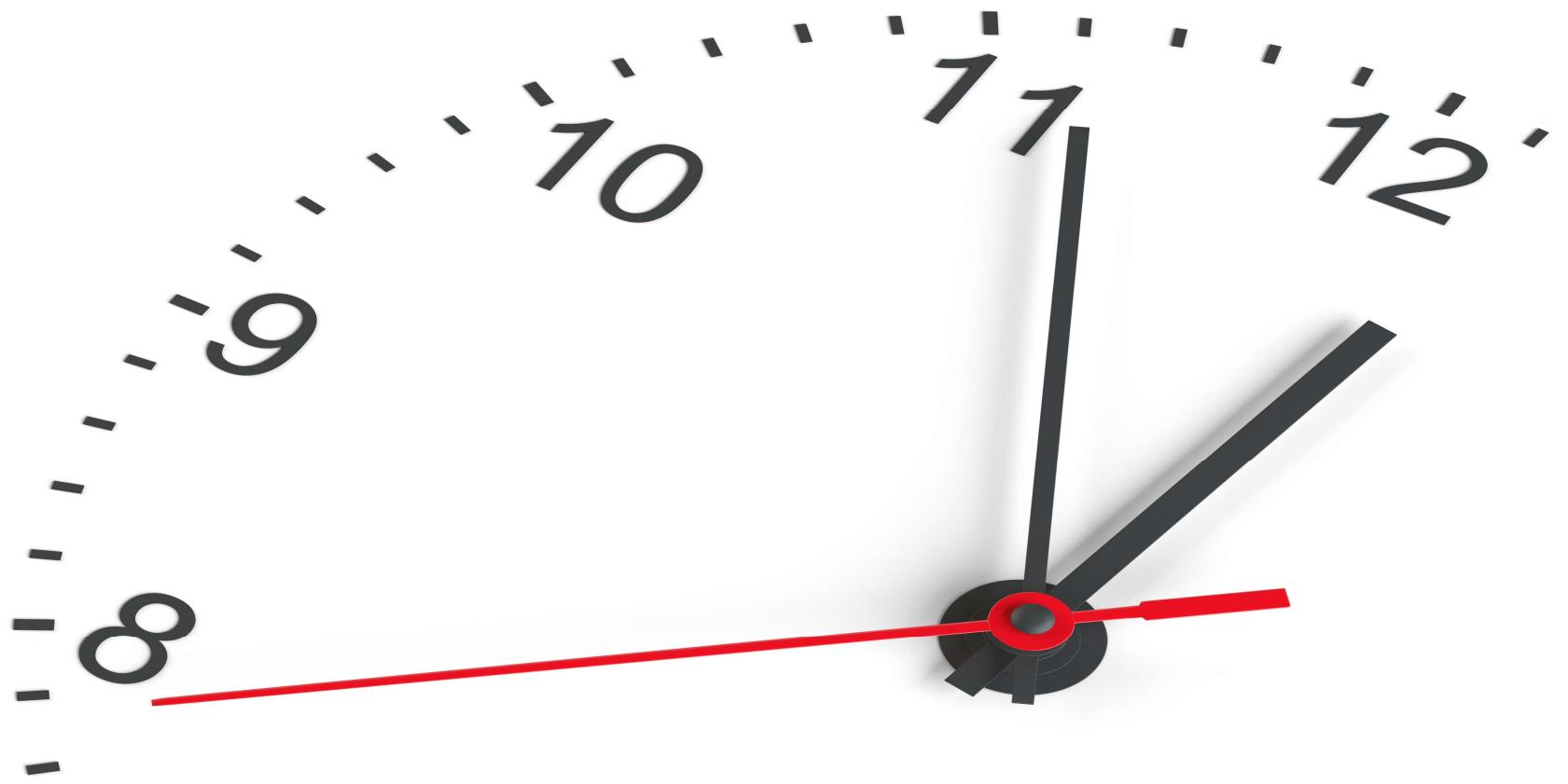
<u><meter></u>	Defines a scale for measurement with a well-defined range, used as a gauge.
<u><nav></u>	Declares the navigational section of HTML documents.
<u><output></u>	Represents the result of a client-side script calculation.
<u><progress></u>	Represents the progress of a task or download.
<u><ruby></u>	Specifies ruby annotations used in Japanese publications.
<u><details></u>	Used for initially hidden content that can be displayed interactively.
<u><embed></u>	Embeds external multimedia content like audio or video into an HTML document.

Semantic Elements

<u><section></u>	Defines a section of documents, dividing content into sections and subsections.
<u><time></u>	Displays human-readable date/time and encodes dates/times in a machine-readable form.
<u><wbr></u>	Defines a word break opportunity, used for line breaks in long words.
<u><video></u>	Embeds video content such as movie clips in a document.
<u><command></u>	Defines a command button for special operations (supported only by Internet Explorer).
<u><datalist></u>	Provides autocomplete feature for input elements.
<u><figure></u>	Adds self-contained content like illustrations, diagrams, or photos.



Break





Lab 6

- Convert an HTML template which is written in non-semantic HTML to semantic HTML.



HTML vs. CSS

- HTML intended to show what the text is being used for
 - Defines its semantic meaning
 - Designed to say things like “This is a paragraph” not “This is a paragraph that is centered with a font color of blue”
- CSS used for presentation only
 - Defines how the HTML should be displayed



CSS

What is CSS?

- CSS stands for Cascading Style Sheets
- CSS describes how HTML elements are to be displayed on screen, paper, or in other media
- CSS saves a lot of work. It can control the layout of multiple web pages all at once
- External stylesheets are stored in CSS files



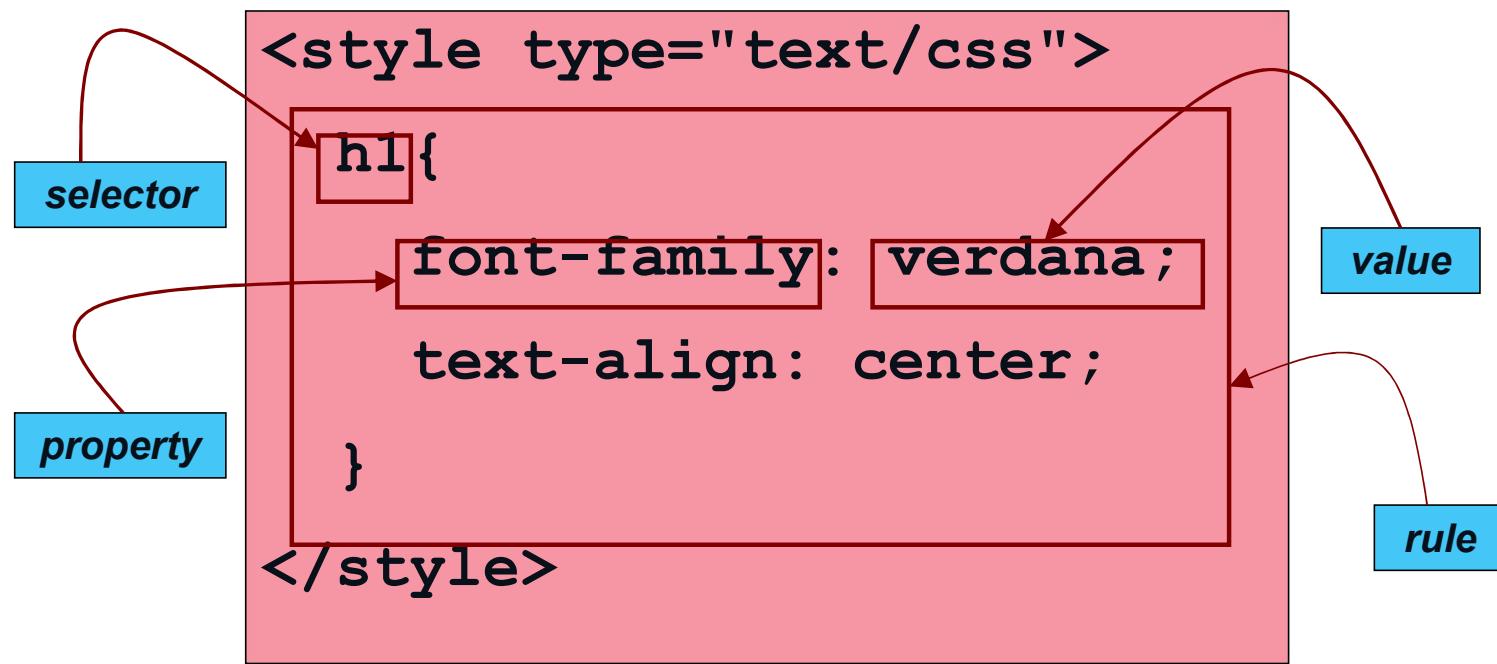
Internal Style

- Placed in the header of the page between the `<head>...</head>` tags.
- Contains styles that are used throughout the whole page rather than on a single tag.
- Enclose each “rule” in the `<style>...</style>` tag.

Internal Style Example

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML Template to Test CSS</title>
    <style type="text/css">
      h1{
        font-style: italic;
        color: brown;
      }
    </style>
  </head>
  <body>
    <h1>This is a heading</h1>
  </body>
</html>
```

A Closer Look at the Style





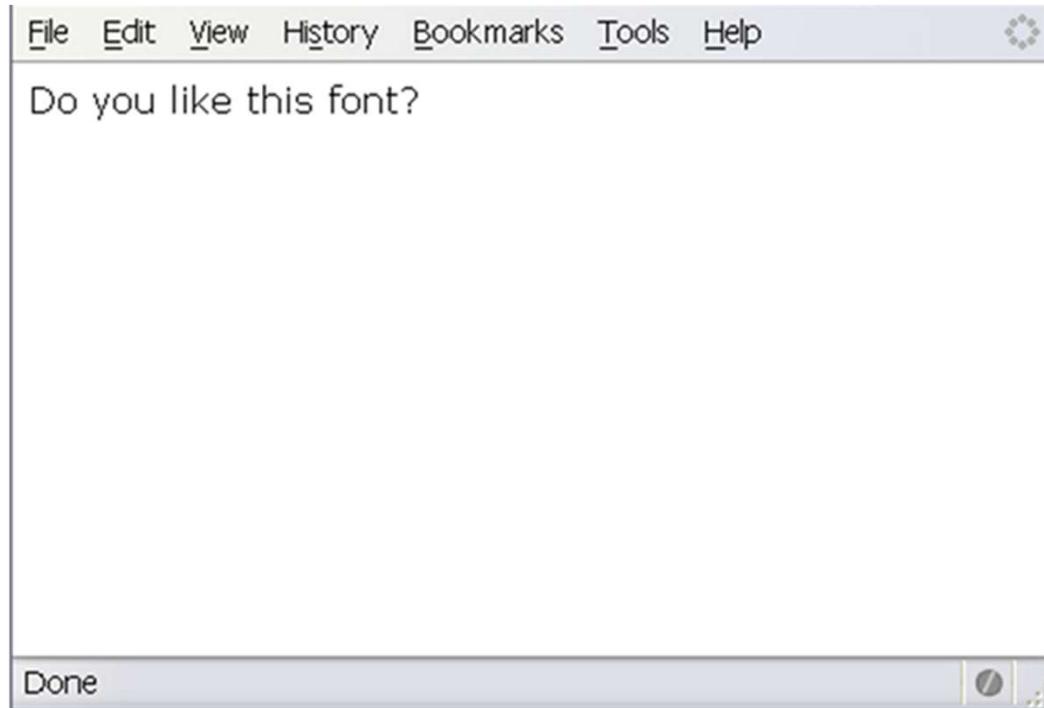
Changing the Font Face

- Use the font-family property
- Will only display fonts already installed on the end user's computer
- If a font-family is not specified, displays the browser's default font, usually Times New Roman.
- Can give more than one value in the CSS, just in case
- To see a list of Web fonts:
<http://www.angelfire.com/al4/rcollins/style/fonts.html>
- More information than you ever wanted to know about fonts: <http://www.w3.org/TR/REC-CSS2/fonts.html>

Font Example

```
<html>
  <head>
    <title>HTML With CSS</title>
    <style type="text/css">
      body{
        font-family: verdana, helvetica, arial, sans-serif;
      }
    </style>
  </head>
  <body>
    Do you like this font?
  </body>
</html>
```

Font Example Screenshot



Working with Color

- background-color -- changes the background color
- color -- changes the text color
- Can be applied to most selectors. ie: body, p, etc...

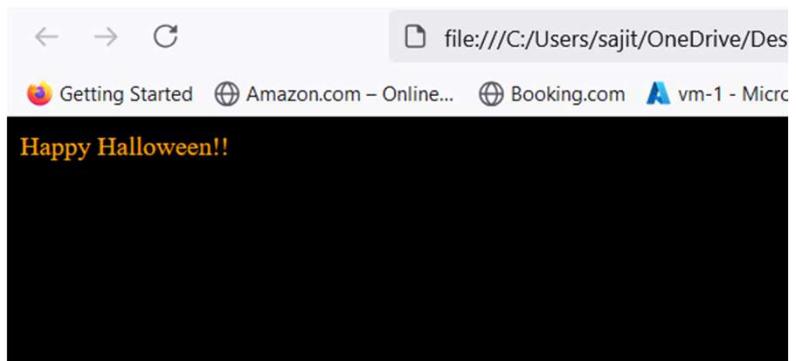
black	lime	maroon	purple
white	olive	navy	teal
silver	green	red	fuchsia
gray	yellow	blue	aqua
orange			

Chart of possible CSS color values

Color Example

```
<html>
  <head>
    <title>HTML Template With CSS</title>
    <style type="text/css">
      body{
        background-color: black;
        color: orange;
      }
    </style>
  </head>
  <body>
    Happy Halloween!!
  </body>
</html>
```

Color Example





Changing the Font Size

Sample Usage	Possible values
font-size: 14pt;	Can use number and unit (as in 12pt) or keywords: xx-small, x-small, small, medium, large, x-large, xx-large. (There are other possibilities, but we won't be discussing them now.)

Changing the Font Size

Sample Usage	Possible values
<code>text-align: center;</code>	left, right, center, justify

CSS for Emphasis

Sample Usage	Possible values
<code>font-style: italic;</code>	normal, italic, oblique
<code>font-weight: bold;</code>	normal, bold, bolder, lighter

CSS for Emphasis

Sample Usage	Possible values
<code>font-style: italic;</code>	normal, italic, oblique
<code>font-weight: bold;</code>	normal, bold, bolder, lighter



CSS Comments

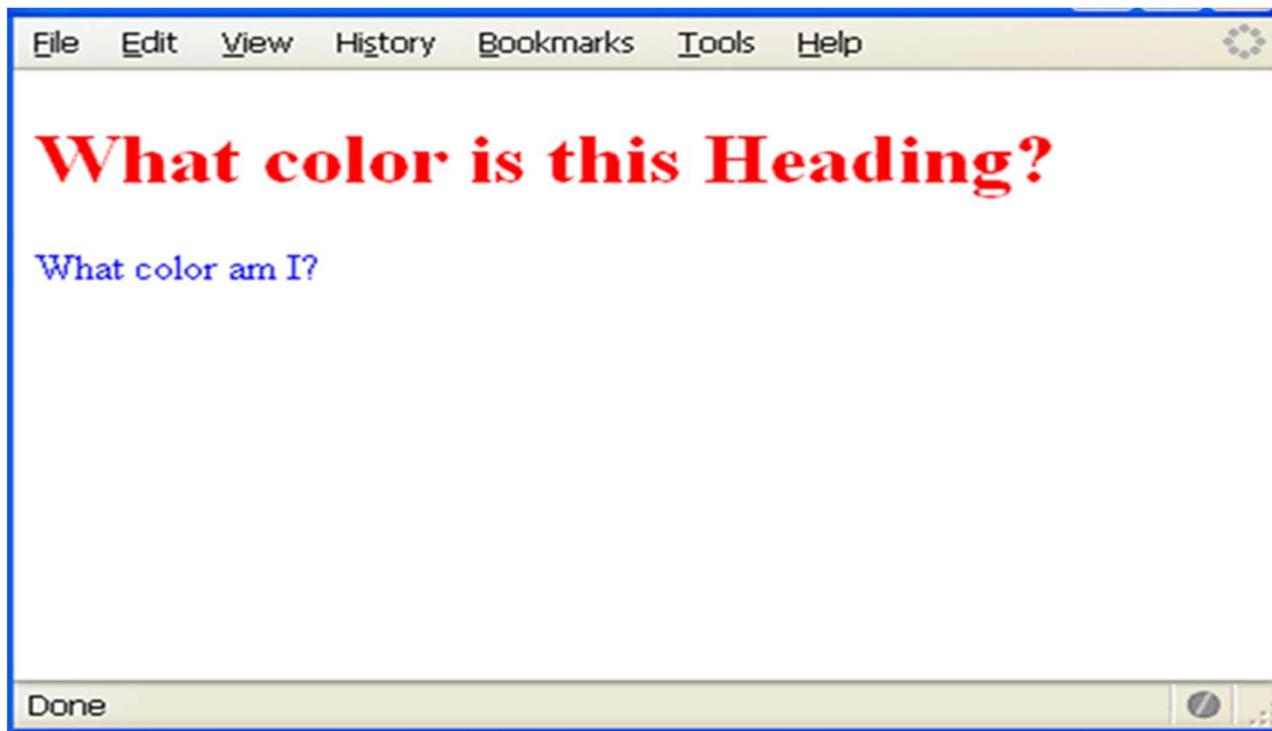
- You can place a comment in CSS by using the following syntax:

```
<style type="text/css">
    •      /* body layout */
    •      body{
    •          background-color: black;
    •          color: orange;
    •      }
    •  </style>
```

Example with Multiple Rules

```
<html>
  <head>
    <title>CMSC104 CSS Example</title>
    <style type="text/css">
      body{
        color: blue;
      }
      h1{
        color: red;
      }
    </style>
  </head>
  <body>
    <h1>What color is this Heading?</h1>
    What color am I?
  </body>
</html>
```

Multiple Rule Screenshot





Adding CSS

There are three ways of inserting a style sheet:

- External CSS
- Internal CSS
- Inline CSS

- External CSS

```
<html>
<head>
<link rel="stylesheet" href="mystyle.css">
</head>
```

"mystyle.css"

- ```
body {
 background-color: lightblue;
}

h1 {
 color: navy;
 margin-left: 20px;
}
```

# Internal CSS

## Internal styles

- ```
<!DOCTYPE html>
<html>
<head>
<style>
body {
    background-color: linen;
}

h1 {
    color: maroon;
    margin-left: 40px;
}
</style>
</head>
<body>
```



Inline Style

Inline styles are defined within the "style" attribute of the relevant element:

- ```
<!DOCTYPE html>
<html>
<body>

<h1 style="color:blue;text-align:center;">This is a
heading</h1>
<p style="color:red;">This is a paragraph.</p>

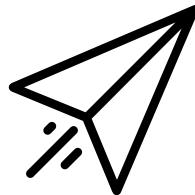
</body>
</html>
```



# **Lab 5**

- Styling a html page with css.

# End of Day 3



For any questions or clarifications  
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