Module 4 Day 1

HTML & CSS

HTML Basics

- Declarative Language
- Document hierarchy (Tree)
- Tags / Elements
- html / head / body elements
- Attributes

```html
<!DOCTYPE html>
<html>
<head>
    <title>Basic HTML Sample Document</title>
</head>
<body>
    <h1>A Major Heading</h1>
    <p>
        A paragraph with <a href="/home.htm">a hyperlink</a>.
    </p>
</body>
</html>
```

Demo

Visual Studio Code (VS-Code)

- Open the *folder* "With Code"
- Install Live Server extension
- Running Live Server
- Updating code
- Stopping Live Server

Let's Code

Common HTML Tags

- Headings: <h1> – <h6>
  - Creates an outline or TOC
- Paragraph: <p>
- Article: <article> <section>
- Emphasis / importance: <em> / <strong> (<i> / <b> non-semantic)
- Hyperlink: <a href="">
- Image:
- Lists: <ul>
- Table: <table>
- Quote: <blockquote>
- Non-semantic elements: <div> <span>

Semantic HTML

- Semantics == meaning
- Semantic elements – imply some meaning to parts of a page
  - main, article, section, aside, header, footer, nav
- Non-semantic elements
  - div, span, b, i
- Semantic HTML is preferred
- HTML applies *content and semantics*
- CSS applies *style*
- HTML5 Semantic Elements

Let's Code

HTML Forms Tutorial

Element	Attribute	Value	Notes
Form	Action	A url	Submitted form is "sent" to this URL
	Method	GET	Http GET
		POST	Http POST
Label	For	Id of input field	Associates label text with an input field
Input	Name	someName	Name of the field. If omitted, data for this field will not be sent
	Value	Some value	Initial value for the field
	Type	Text	A text box
		Radio	A radio button (select one of a group). All buttons in the group have the same name
		Hidden	Not shown to the user, but comes back to the server on submit
		Submit	A button which submits the form when pressed
Select			Dropdown list. Filled with Option sub-elements
Option	Selected		Dropdown values
TextArea	Name, rows, cols		A multi-line text box
Button	onClick		A button to run client logic (more later)

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

- https://developer.mozilla.org/en-US/docs/Learn/HTML/Forms/Your_first_HTML_form

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GET vs. POST (table – when to use)

GET	POST
Form data sent in QueryString (URL)	Form data sent in Request Body
Can be bookmarked	Cannot be bookmarked
Visible as clear text in address line and history	Not visible in address line or history
Length of URL limited ~3000 characters	Unlimited Body size
Use when the user may want to execute it again. Should not modify data on the server.	When same form data should not be submitted twice (data changes on the server)

Demo

Styles / Cascading Stylesheets (CSS)

- Settings that *change the look* of an element

- May be applied directly to an element using the *style* attribute

- May be added as an element in the HTML document *<style></style>*

- May be included in a <u>stylesheet</u>
  - A separate file linked to from the HTML doc
  - Usually *.css* file extension

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