Unit 1: Introduction to Web Design

1.1 Simple Sample (1 hour)

Learning Objectives

- Students can create an HTML file.
- Students can type HTML code into a text editor.
- Students can save files
- Students can view HTML files in the browser.

This is the starting point for our exploration of HTML. Use this file to get a basic understanding of HTML. Discuss the difference between source code (the raw HTML) and the rendered page (the page as seen in the browser). Students should type the sample.html file into Visual Studio Code. They should open the saved file with Google Chrome or another web browser. Students that finish early should explore on their own by making modifications and seeing what happens.

1.2 Getting Started with HTML (5 Hours)

Learning Objectives:

- Students know what a markup language is.
- Students know what tags are
- Students understand HTML tag syntax
- Students can author a basic HTML page

What is a “markup language”

Review this section with students. Students should begin a vocabulary list. Vocabulary throughout the course will be shown in **bold** type.

Student documentation will include 3 observations about HTML as well as guesses about what different HTML tags do.

HTML Tags

Students will learn about HTML tags. Emphasize the starting and ending tags.

Student documentation will be completing a HTML Cheat Sheet in Google Docs. They can copy the form from the instructional materials and research tags at W3Schools HTML Reference.

Parts of an HTML document

Students should understand that an HTML document has parts that contain other parts. This is referred to as either a nested structure or a branching structure.

Student documentation will be a diagram (made on paper or in an online document) that shows the structure of an HTML document.

Tour of sample.html

This video is a supplemental explanation of the simple.html file.

Assignments

1. Modify the sample.html file
    - Students should turn in a file with different text, title and headings.
2. Debug exercises
    - debug_ex01.html -- Missing <!DOCTYPE html> tag
    - debug_ex02.html -- Missing <\a> and <\p> tags
    - debug_ex03.html -- Missing <\head> tag
3. Create "about the author" page with the following elements:
    - Title
    - Heading
    - Image
    - Biography

1.3 Lists and Tables (3 hours)

Learning Objectives

- Students can identify ordered and unordered lists.
- Students can create new HTML files.
- Students can use HTML to create ordered and unordered lists.
- Students can identify parts of a table including rows, columns. data, and headers.
- Students can use HTML to create a table.
- Students can view HTML files using a web browser.

Lists

Discuss ordered and unordered lists.

Student documentation will be a new file called *list.html*. Check to see that they are using the correct tags for an HTML file. See the resource folder for a sample *list.html* file.

Tables

Discuss with students the different parts of a table.

Student documentation will be a new file called *table.html* that shows a table they have authored. Check to see that they are using the correct tags for an HTML file. See the resource folder for a sample *table.html* file.

Assignments

1. Modify *sample_list.html* file
    - Student name in title and header
    - Add a paragraph tag a write a one sentence description of each type of list
    - Change the unordered list to an ordered list
2. Modify *sample_table.html*

1.4 Attributes, Empty Elements, and Forms (3 Hours)

Learning Objectives

- Students can identify attributes of elements.
- Students can apply attributes, including **src** and **href**.
- Students can identify empty elements.
- Students can use empty elements in HTML files.
- Students can identify form elements.
- Students can author web forms.

Assignments

1. Students will create a new file called *forms.html* and add 10 more input elements. Students should research forms at MDN. The features should include the following:
    - Good HTML
    - Name in header and title
    - 10 input elements