Section 1.1: Introduction to HTML

Introduction

HTML (Hypertext Markup Language) uses a markup system composed of elements that represent specific content. It declares what is presented to a viewer, not how it is presented. Visual representations are defined by Cascading Style Sheets (CSS) and realized by browsers. Some elements that allow for visual styling, like the <font> element, "are entirely obsolete, and must not be used by authors." HTML is sometimes called a programming language, but it has no logic, so it is a markup language. HTML tags provide semantic meaning and machine-readability to the content on the page.

Basic Structure

An HTML element usually consists of an opening tag, a closing tag, and the content in between:

Markup

<element_name>...content...</element_name>

Some HTML elements don't have a closing tag or any content; these are called void elements. Examples of void elements include <img>, <meta>, <link>, and <input>.

Elements vs. Tags

- Elements: video, audio, table, footer - Tags: <video>, <audio>, <table>, <footer>, </html>, </body>

Tag Breakdown

The <p> tag represents a common paragraph. Elements commonly have an opening tag and a closing tag. The opening tag contains the element's name in angle brackets (<p>). The closing tag is identical to the opening tag with the addition of a forward slash (/) between the opening bracket and the element's name (</p>). Content can go between these two tags: <p>This is a simple paragraph.</p>.

Creating a Simple Page

The following HTML example creates a simple "Hello World" web page. HTML files can be created using any text editor and must be saved with a .html or .htm extension to be recognized as HTML files. Once created, this file can be opened in any web browser.

Markup⬚⬚

<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <title>Hello!</title>

</head>

<body>

  <h1>Hello World!</h1>

<p>This is a simple paragraph.</p>

</body>

</html>

Tag Breakdown

- <!DOCTYPE>: Defines the HTML version used in the document (HTML5 in this case). - <html>: Opens the page; the lang attribute declares the primary language of the <head><head>: Opens the head section, which contains information about the HTML document (metadata) and can include imports from external stylesheets and scr<meta><meta>: Provides metadata about the document; the charset attribute declares the character encoding (UTF-8 is reco<title> <title>: Sets the title of the page, displayed on the tab or in the title bar of<body>- <body>: Contains all the visible or audible content of a page.