HTML:
- Hypertext Markup Langugae
- Used to display content on a web page
- Uses <>
- 2 Major Sections
    - Head
        - **Metadata Container:** The <head> tag is a container for various types of metadata and information about the web page. It doesn't display content on the web page itself but provides crucial information to browsers and search engines.
        - **Document Information:** Inside the <head> element, you typically include elements like <title>, which defines the title of the web page displayed on the browser's title bar and in search engine results.
        - **Linking to External Resources:** The <head> section is where you link to external resources, such as CSS stylesheets and JavaScript files, using <link> and <script> elements. These resources help style and enhance the functionality of the web page.
        - **Defining Keywords and Description:** You can provide meta tags like <meta name="keywords"> and <meta name="description"> to inform search engines about the content of the page and improve search engine optimization (SEO).
        - **Favicons:** The <head> is where you define the favicon for your website using the <link> tag with the rel="icon" attribute. This small icon appears in the browser tab and bookmarks.
        - **External Resources:** Import fonts from external sources using the <link> tag with rel="stylesheet" to control the typography on your page.
        - **Analytics and Tracking Codes:** Web analytics and tracking scripts like Google Analytics are often included in the <head> to collect data about visitor behavior.
        - **CSS and JavaScript Preloading:** You can use the <link> element to preload CSS stylesheets and JavaScript files, improving page load performance.
    - Body
        - All content that is seen on a page. Everything seen by the user should be here
        - **Content Container:** The <body> tag is the container for all visible content on a web page. It encloses the elements that users see and interact with in their web browsers.
        - **Text, Images, and Multimedia:** Inside the <body>, you include text, images, videos, and other multimedia content that make up the main content of your web page.
        - **Structured Layout:** The content within the <body> is structured using HTML elements such as headings (<h1>, <h2>, etc.), paragraphs (<p>),

lists (<ul>, <ol>, <li>), and more to create a well-organized and readable layout.
- **Interactive Elements:** JavaScript code and event handlers can be used to add interactivity to the content within the <body. For example, you can create interactive forms, image sliders, or dynamic content that responds to user actions.
- **Script Loading:** JavaScript code is often placed at the bottom of the <body> to ensure it doesn't block the rendering of the page and to improve page load performance.
- **SEO Considerations:** Incorporate keywords and structured data into your content to improve search engine ranking and visibility.
- **HTML Tags**
  - Each tag does something different
  - Most have an opening and closing tag Ex. <h1>Content</h1>
  - **<!DOCTYPE>**: Specifies the HTML version and document type declaration.
  - **<html>**: The root element that encloses all the content on the web page.
  - **<head>**: Contains metadata about the document, such as the title, character encoding, and links to external resources.
  - **<meta>**: Provides metadata, including the character encoding and page description.
  - **<title>**: Sets the title of the web page displayed in the browser's title bar or tab.
  - **<link>**: Links to external resources, such as stylesheets or icons.
  - **<style>**: Contains CSS rules for styling the web page.
  - **<script>**: Embeds or references JavaScript code for adding interactivity.
  - **<body>**: The container for visible content on the web page, including text, images, links, and interactive elements.
  - **<h1>**, <h2>, ..., <h6>: Headings for structuring content with <h1> being the highest (most important) and <h6> being the lowest.
  - **<p>**: Defines paragraphs of text.
  - **<a>**: Creates hyperlinks to other web pages or resources.
  - **<img>**: Embeds images in the page.
  - **<ul>, <ol>, **: Used for creating unordered lists (bulleted), ordered lists (numbered), and list items.
  - **<div>**: A generic container for grouping and styling elements.
  - **<span>**: Inline container used for styling or scripting a specific portion of text.
  - **
**: Inserts a line break within text.
  - **<hr>**: Creates a horizontal rule or line for separating content.
  - **<em>**: Emphasizes text (usually displayed in italics).
  - **<strong>**: Indicates strong importance (usually displayed in bold).
  - **<a>**: Defines links to other pages or resources.

- **<input>**: Provides input elements for forms, such as text fields, checkboxes, and radio buttons.
- **<form>**: Wraps form elements and specifies how form data is sent.
- **<textarea>**: Defines a multi-line text input area within a form.
- **<button>**: Creates a clickable button, often used for form submission.
- **<table>**: Sets up a table with rows (<tr>), table headers (<th>), and data cells (<td>).
- **<iframe>**: Embeds another web page or content within the current page.
- **<audio>**: Embeds audio content with controls for playback.
- **<video>**: Embeds video content with controls for playback.
- **<meta>**: Provides information about the character encoding and viewport settings for responsive design.
- HTML Tag Attributes
    - For example some tags need attributes
        - <img src = "URL"> - doesn't need a closing tag
    - **id** Attribute:
        - The id attribute provides a unique identifier for an HTML element.
        - It's often used in CSS and JavaScript to target specific elements for styling or manipulation.
    - **class** Attribute: The class attribute is used to group elements with similar styles or behaviors.
        - Multiple elements can share the same class, making it useful for CSS and JavaScript.
    - **src** Attribute:
        - The src attribute specifies the source (e.g., file or URL) for external resources, such as images, scripts, or iframes.
    - **href** Attribute:
        - The href attribute is commonly used with anchor (<a>) and link (<link>) elements to specify the target URL.
        - It points to the linked page or resource.
    - **alt** Attribute:
        - The alt attribute is used with images (<img>).
        - It provides alternative text that's displayed if the image can't be loaded or for accessibility purposes.

    - **width** and height Attributes:
        - These attributes (e.g., <img width="100" height="100">) set the dimensions of an image in pixels.
    - **value** Attribute:
        - Commonly found in form elements (e.g., <input> and <button>).
        - The value attribute defines the initial or default value for the element.

- **placeholder** Attribute:
    - Used with form input elements (e.g., <input> and <textarea>).
    - It provides a temporary hint or example text within the input field to guide users.
- **type** Attribute:
    - Often used in form elements.
    - The type attribute defines the type of input expected (e.g., text, password, radio, checkbox, etc.).
- **disabled** Attribute:
    - Applied to form elements (e.g., <input>, <button>).
    - When present, it disables the element and prevents user interaction.
- **required** Attribute:
    - Used in form elements.
    - It specifies that a form field must be filled out before the form can be submitted.
- **checked** Attribute:
    - Associated with checkboxes and radio buttons.
    - When included, it preselects the checkbox or radio button by default.
- **style** Attribute:
    - The style attribute defines inline CSS styles for an individual element.
    - It can be used for quick styling but is often recommended to use an external stylesheet (CSS) for consistency.
- **target** Attribute:
    - Commonly used with anchor elements (<a>).
    - It determines where the linked content will be displayed, such as in the same tab or a new tab/window.
- **alt** Attribute:
    - Used with the <area> element in image maps.
    - Provides alternative text describing the clickable area for accessibility.