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ACTIVITY #3: EMBEDDED

How can CSS be integrated into an html page?

- There are three methods that CSS can be inserted into HTML. Use Inline CSS in the style attribute to style a single HTML element on the page. We can embed an internal stylesheet in our HTML document by including CSS in the head section. We may also link to an outside stylesheet to keep our CSS and HTML distinct.
    - Inline CSS: An embedded stylesheet, also known as inline CSS, resides "inside" the HTML. Use a style property inside the opening tag of an HTML element to include inline CSS. Any additional CSS that targets the same element will be superseded by inline CSS. Browsers decide that inline CSS declarations are the most pertinent to the HTML element and should be used because they are the "closest" to the HTML. Inline CSS works well for focusing on a single element with specific style characteristics because of this. However, since inline CSS is challenging to maintain and it's generally seen to be a preferable practice to keep your HTML and CSS separate, it should be avoided if it's possible to utilize internal or external CSS.
        - SYNTAX: <element style="CSS property: value">
    - Internal CSS: An HTML document's style tags, located in the document's "head" section, include internal CSS. A CSS property and value are still set, but now they are enclosed in brackets and defined by a CSS selector rather than being contained within a style attribute. Because it is simpler to manage and generates less code, using internal CSS is thought to be a better practice than using inline CSS. Instead of repeatedly adding the same style attributes to elements, internal CSS enables you to style groups of elements at once. Internal CSS is also perfect for straightforward, one-page websites because it divides the CSS and HTML into distinct sections while keeping them in the same document. Your code is all contained in one file, making it simple to retrieve.
        - Syntax:

```
<head>
  <style>
    selector { CSS property: value; }
  </style>
</head>
```

    - External CSS: While external CSS is formatted similarly to internal CSS, it isn't included in your HTML file or enclosed in style> tags. Instead, it is stored in an external stylesheet, which is a different file. You only need to use the link> Element to connect to this external stylesheet in the head> section of your HTML text. This file's extension is ".css." It's the fastest option because you may alter the CSS in this external file and apply it to your entire website. It's the one with the best SEO. Your HTML page will be simpler for search engines to read if CSS is stored in a separate file. It enables a visitor's browser to save the CSS file in order to speed up loading of your website on subsequent visits.
        - Syntax:

<link rel="stylesheet" type="text/css" rel="noopener" target="_blank" href="mystyles.css">

Define CSS and its functions.

- CSS is a design language that enhances a website's look by making plain or uninteresting text more aesthetically pleasing. HTML is largely in charge of textual information, whereas CSS is in charge of graphic structure and layout. HTML is a markup language, whereas CSS is a language for creating style sheets. It is in charge of describing how an HTML or XML document (including XML dialects like SVG, MathML, or XHTML) is presented. CSS describes how elements should appear in various media, including speech, print, and screens.

    - 1. Function: attr()
        - Description: Returns the value of an attribute of the selected element
    - 2. Function: calc()
        - Description: Allows you to perform calculations to determine CSS property values
    - 3. Function: conic-gradient()
        - Description: Creates a conic gradient
    - 4. Function: counter()
        - Description: Returns the current value of the named counter
    - 5. Function: cubic-bezier()
        - Description: Defines a Cubic Bezier curve
    - 6. Function: hsl()
        - Description: Defines colors using the Hue-Saturation-Lightness model (HSL)
    - 7. Function: hsla()
        - Description: Defines colors using the Hue-Saturation-Lightness-Alpha model (HSLA)
    - 8. Function: linear-gradient()
        - Description: Creates a linear gradient
    - 9. Function: max()
        - Description: Uses the largest value, from a comma-separated list of values, as the property value
    - 10. Function: min()
        - Description: Uses the smallest value, from a comma-separated list of values, as the property value
    - 11. Function: radial-gradient()
        - Description: Creates a radial gradient
    - 12. Function: repeating-conic-gradient()
        - Description: Repeats a conic gradient
    - 13. Function: repeating-linear-gradient()
        - Description: Repeats a linear gradient
    - 14. Function: repeating-radial-gradient()
        - Description: Repeats a radial gradient
    - 15. Function: rgb()
        - Description: Defines colors using the Red-Green-Blue model (RGB)
    - 16. Function: rgba()
        - Description: Defines colors using the Red-Green-Blue-Alpha model (RGBA)
    - 17. Function: var()
        - Description: Inserts the value of a custom property

Mame some CSS frameworks.

- A CSS framework is essentially a collection of CSS stylesheets that are ready for usage by web designers and developers. The stylesheets are put up for common web design tasks, such as determining colors, layout, fonts, and navbars. In general, scripting languages like SASS and JavaScript support and enhance stylesheets. With a CSS framework, the user simply needs to code the HTML with precise classes, structures, and IDs to put up a website because the CSS stylesheet is already complete. For typical website components like a footer, slider, navigation bar, hamburger menu, column-based layouts, etc., the framework already includes classes.
    - Bootstrap : Bootstrap is an open-source framework with CSS and JavaScript-based templates for interface components that was created by Jacob Thornton and Mark Otto at Twitter to encourage consistency across internal tools.The emphasis on responsive design among web developers is credited to Bootstrap. It advocated the now-ubiquitous idea of "mobile-first" and gave the necessary resources for its simple application. It achieved this by adding a grid and dividing the screen into unseen (to the user) columns. With Bootstrap, developers can adapt a site for smaller screen sizes without having to create different projects just for that purpose. The design must be adjusted, and they must include the appropriate Bootstrap classes.
    - Tailwind CSS: According to its own documentation, Tailwind CSS is a "utility-first CSS framework" with classes that can create unique UI designs right in the markup of users. Without creating any CSS, it is convenient to use inline styling to create a beautiful user interface. Tailwind CSS, one of the most well-liked utility CSS frameworks, has several advantages for web design. Oddly enough, it took Adam Wathan, the man of Tailwind, to persuade everyone that utility-based CSS is superior to semantic CSS. But soon, enough programmers took his word for it and began use Tailwind; as a result, it is now utilized frequently enough to be included on lists like these.
    - Foundation: This responsive front-end framework offers a grid, HTML, SASS, and CSS UI elements, templates, and code that cover navigation, buttons, typography, forms, etc. The foundation bills itself as "The most advanced responsive front-end framework in the world." It also includes extra features provided via JavaScript extensions. Foundation is an open-source project that volunteers have managed since 2019. It was formerly administered by ZURB. It also uses a mobile-first strategy and is especially helpful for creating big web applications that need a design host.
    - Bulma: Bulma is a responsive, open-source CSS framework built on the Flexbox layout system. It provides an outstanding selection of built-in capabilities that enable quicker turnaround and need little manual CSS coding. It uses tiles to construct grids in the Metro style, producing slick page layouts. Users can also import only the components they intend to use, significantly streamlining the procedure. Users can modify Bulma's functionality as they see fit because its source code is available for free download. It offers a straightforward, CSS-only methodology (with no JavaScript components) and aesthetically pleasing defaults as a place to start. Bulma has received a lot of support from the Laravel community, which has contributed to its rising fame.
    - Skeleton: Skeleton has barely 400 lines of source code and doesn't even refer to itself as a CSS framework, merely as a "dead simple, responsive boilerplate." This simple tool is designed to produce CSS elements that work on both desktop computers and mobile devices. The page is divided into multiple 12-column grids with a maximum width of 960px, which accommodates small, medium, and big screens. It includes all

required responsive design components. Of course, the max-width can be modified with a single line of CSS code if necessary. The syntax is easy to use, quick to implement, and makes it reasonably straightforward to put together responsive design.

What is the difference between ID and Class?

- ID: Developers can assign a specific style to a certain element in the HTML code by using an ID to identify that element. IDs are targeted and precise, much like a proper noun. A page may include numerous elements, but the ID identifies one particular piece. There can only be one ID for each element, and there can only be one element with that particular ID per page.
  - Syntax
    - ```
      div{
      background-color: #008000;
      height: 60px;
      }
      ```
- Class: If you need to use the same selector more than once on a page or website, you should use a class. Unlike classes, which can be applied to multiple items on a page or throughout the website, an ID is unique to a particular element. They are not particular. Additionally, while an element can only have one ID, it can have many classes. The name of the class is followed by a period to indicate a class. In the following illustration, all components with the class "center" will be centered and colored green:
  - Syntax:
    - ```
      .center {
      text-align: center;
      color: green;
      }
      ```

Name media types allowed by CSS.

- Specifying a document's presentation on various media, such as the screen, paper, using a voice synthesizer, a braille device, etc., is one of style sheets' most significant capabilities. Currently, there are two ways to establish media dependencies for style sheets.
  - Use the @media or @import at-rules to specify the target medium from a style sheet.
  - Include a target medium specification in the document's language.
- The target devices for which the pertinent properties make sense are reflected in the names of the CSS media types. They convey an idea of the media type's intended target device. A list of several media kinds is provided below.

Sr.No.	Value & Description
1	**all** Suitable for all devices.
2	**aural** Intended for speech synthesizers.
3	**braille** Intended for braille tactile feedback devices.
4	**embossed**

	Intended for paged braille printers.
5	**handheld** Intended for handheld devices (typically small screen, monochrome, limited bandwidth).
6	**print** Intended for paged, opaque material and for documents viewed on screen in print preview mode. Please consult the section on paged media.
7	**projection** Intended for projected presentations, for example projectors or print to transparencies. Please consult the section on paged media.
8	**screen** Intended primarily for color computer screens.
9	**tty** Intended for media using a fixed-pitch character grid, such as teletypes, terminals, or portable devices with limited display capabilities.
10	**tv** Intended for television-type devices.

Name some font-related CSS attributes.

- Text appearance can be adjusted using the CSS Font attribute. You can alter the text's size, color, style, and more by using the CSS font property. You've previously learned how to bold or underline text. You will also learn how to use percentages to resize your font here.
- Below are a few of the many font properties in CSS that are referenced and quickly covered:
  - The font-family attribute in CSS identifies the typeface used by an element.
  - CSS font-style property: If we want to give any form of text design, we may do it by using this property.
  - CSS font-weight property: The CSS font-weight property is used to specify the thickness or weight of the font used with HTML text.
  - CSS font-variant property: Uppercase letters are created by changing all lowercase letters to this property's value.
  - In an HTML document, the font-size property of CSS is used to control the font size of the text.
  - The font-stretch property in CSS is used to make text broader or narrower.
  - CSS font-kerning Property: This property is used to regulate how the font's kerneling information is used.
- Below few examples are given from CSS Font Collection :
  - CSS Font color: This attribute is used to alter the text's color. (Separate Attribute)
  - CSS Font family: This attribute is used to alter the font's face.
  - CSS Font size: This attribute is used to change the font's size.

- CSS Font style: This attribute is used to obliquely, boldly, or italicize the font.
- CSS Font weight: This attribute is used to modify the font's boldness and lightness.
- CSS Font variant: This characteristic produces the small-caps effect.

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