

(1.) Why CSS selectors used in HTML?

- Ans. CSS selectors are used in HTML to select specific HTML elements and apply styles to them.
- => This allows for separation of the presentation (CSS) from the structure (HTML) of a web page, making it easier to maintain and update the design.
 - => Selectors can be used to target elements based on their tag name, class, id, or other attributes.
 - => CSS styles can then be applied to these selected elements, such as changing their color, font, layout, and more.

(2.) What are the different types of selectors in CSS?

Ans. We can divide CSS selectors into five categories:

- **Simple selectors** (select elements based on name, id, class)
- **Combinator selectors** (select elements based on a specific relationship between them)
- **Pseudo-class selectors** (select elements based on a certain state)
- **Pseudo-elements selectors** (select and style a part of an element)
- **Attribute selectors** (select elements based on an attribute or attribute value)

- (i) **Element selectors:** Selects elements based on their tag name, such as p or h1.
- (ii) **Class selectors:** Selects elements based on their class attribute, such as .my-class.
- (iii) **ID selectors:** Selects elements based on their id attribute, such as #my-id.
- (iv) **Attribute selectors:** Selects elements based on their attributes, such as [type="text"].
- (v) **Pseudo-class selectors:** Selects elements based on their state, such as :hover or :active.
- (vi) **Pseudo-element selectors:** Selects a part of an element, such as ::before or ::after.
- (vii) **Combinator selectors:** Selects elements based on their relationship to other elements, such as p > span (selects all span elements that are children of p elements).
- (viii) **Universal selector:** Selects all elements on the page, represented by *.

(3.) Fonts in CSS : In CSS, fonts are specified using the font-family property.

- => The font-family property is used to set the font for an element.
- => The value of the font-family property can be a specific font name (such as "Arial" or "Times New Roman"), or a generic font family (such as "serif" or "sans-serif").

Example:

```
body {  
    font-family: Arial, sans-serif;  
}
```

In this example, the text in the body element will be displayed in Arial font, if it's available. If Arial is not available, the browser will use a similar sans-serif font.

(4.) How do you include external fonts and apply them?

Ans. There are a few ways to include and apply external fonts in your CSS:

- (i) **@font-face Rule:** You can use the @font-face rule to specify a custom font and link to the font file on a web server. This allows you to use fonts that are not installed on the user's computer.
- => The @font-face rule should be placed at the top of your CSS file, before any other styles.

Example:

```
@font-face {  
    font-family: 'MyWebFont';  
    src: url('mywebfont.woff2') format('woff2'),  
        url('mywebfont.woff') format('woff');  
    font-weight: normal;  
    font-style: normal;  
}
```

=> You can then apply the font to your elements by setting the font-family property to the name of the font specified in the @font-face rule.

Example:

```
body {  
    font-family: 'MyWebFont', Arial, sans-serif;  
}
```

(ii) Google Fonts: Google Fonts is a library of over 900 free web fonts that you can use in your web pages.

=> You can include the font by adding a link element to the head of your HTML file, and then apply the font to your elements using the font-family property.

Example:

```
<link href='https://fonts.googleapis.com/css?family=Open+Sans' rel='stylesheet'>
```

Then in your css file:

```
body {  
    font-family: 'Open Sans', Arial, sans-serif;  
}
```

(iii) CSS @import Rule: you can use the @import rule to include an external CSS file in your stylesheet.

=> This method is similar to using a link element in the head of your HTML file, but the @import rule is placed directly in your CSS file.

Example:

```
@import url('https://fonts.googleapis.com/css?family=Open+Sans');
```

Then in your css file:

```
body {  
    font-family: 'Open Sans', Arial, sans-serif;  
}
```

It's important to note that including external fonts may slow down the loading time of your web pages, so you should use them judiciously. Also, note that not all fonts are available on all devices and not all browsers support the same font formats, so it's important to specify multiple font formats and have fallback options.