ASSIGNMENT
TASK 8

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A. Define and give some examples of inline and block level elements in HTML.

Ans:

In HTML, there are two types of elements:

- Inline elements.
- Block elements.

Inline elements are elements that do not start on a new line and only take up as much width as necessary. Inline elements are spaced together by default. Some examples of inline elements are:

- <a> (anchor)
- <b> (bold)
- <i> (italic)
- (emphasis)
- (strong emphasis)
- (generic inline container)

Block elements are elements that always start on a new line and take up the full width available. Block elements have a margin by default. Some examples of block elements are:

- <p> (paragraph)
- <h1>, <h2>, <h3>, ... (headings)
- (unordered list)
- (ordered list)
- (generic block container)

B. What do you mean by semantic tag in HTML? Give some examples of semantic and non-semantic tags.

Ans:

A semantic tag in HTML is a tag that conveys the meaning of the content it contains. For example, the <header> tag indicates that the content it contains is a header, while the <p> tag indicates that the content it contains is a paragraph.

Non-semantic tags are tags that do not convey any specific meaning. For example, the tag is a generic container tag that can be used to hold any type of content.

Here are some examples of semantic and non-semantic tags:

Semantic Tags

- <header>
- <footer>
- <article>
- <aside>
- <figure>
- <time>
- <nav>
- <main>
- <form>

Non-semantic Tags

-
-
-
- <img>
- <hr>

C. Discuss about HTML ordered and unordered list.

Ans:

HTML lists are used to present a list of information in a well-formed and semantic way. There are three different types of list in HTML:

Unordered list — Used to create a list of related items, in no particular order. The items are marked with bullets by default.

Ordered list — Used to create a list of related items, in a specific order. The items are marked with numbers by default, but they can also be marked with letters or Roman numerals.

Unordered lists are created using the <ul> tag. Each list item is created using the <li> tag. The <ul> tag must be closed with a tag. The <li> tag must be closed with a tag.

Example:

```
<ul>
  <li>Item 1</li>
  <li>Item 2</li>
  <li>Item 3</li>
</ul>
```

Ordered lists are created using the <ol> tag. Each list item is created using the <li> tag. The <ol> tag must be closed with a tag. The <li> tag must be closed with a tag.

Example:

```
<ol>
  <li>Item 1</li>
```

```
  <li>Item 2</li>

  <li>Item 3</li>

</ol>
```

D. How many ways are there for inserting stylesheet in HTML? Give some examples of all the ways.

Ans:

There are three ways to insert a stylesheet in HTML:

- Inline CSS
- Internal CSS
- External CSS

Inline CSS is the simplest way to insert a stylesheet. You can add CSS styles to an HTML element by using the style attribute. For example, the following code adds a CSS style to the <h1> element to make it red:

HTML

```
<h1 style="color: red;">This is a red heading</h1>
```

Internal CSS is a more efficient way to insert a stylesheet. You can add CSS styles to the <head> section of an HTML document by using the <style> element. For example, the following code adds a CSS style to the <h1> element to make it red:

HTML

```
<head>

  <style>
```

```
    h1 {
      color: red;
    }
  </style>
</head>
<body>
  <h1>This is a red heading</h1>
</body>
```

External CSS is the most flexible way to insert a stylesheet. You can create a separate CSS file and link to it from your HTML document. For example, the following code links to an external CSS file called style.css:

HTML

```
<link rel="stylesheet" href="style.css">
```

The style.css file would contain the CSS styles for your HTML document.

E. Discuss about CSS Box Model.

Consider the following example and find out the total width the div element will have.

```
div {
    width: 300px;
    border: 15px solid green;
    padding: 50px;
    margin: 20px;
  }
```

Ans:

The CSS box model is a way of representing HTML elements in CSS. It divides each element into four parts:

- ✓ Content — The actual content of the element, such as text, images, or other HTML elements.
- ✓ Padding — A space around the content.
- ✓ Border — A line around the padding and content.
- ✓ Margin — A space outside the border.

The total width of an element is calculated by adding the width of the content, padding, border, and margin.

In the example you provided, the total width of the div element would be:

Width: 300px + padding-left + padding-right + border-left + border-right + margin-left + margin-right

The padding-left and padding-right properties are the widths of the padding on the left and right sides of the div element. The border-left and border-right properties are the widths of the borders on the left and right sides of the div element. The margin-left and margin-right properties are the widths of the margins on the left and right sides of the div element.

If we assume that the padding and margin properties are both set to 20px, then the total width of the div element would be:

Width: 300px + 20px + 20px + 15px + 15px + 50px + 50px = 470px

Therefore, the total width of the div element would be 470px.

F. What are Pseudo-classes? Why do we use Pseudo-classes?
Ans:

In CSS, pseudo-classes are special selectors that allow you to style elements based on their state. For example, you can use the :hover pseudo-class to style an element when the user hovers over it.

Here are some of the most common pseudo-classes:

- :hover — The element is being hovered over by the mouse.
- :active — The element is being clicked on.
- :focus — The element has focus.
- :visited — The element has been visited before.
- :link — The element is a link that has not been visited yet.

Pseudo-classes are useful for styling elements based on their state because they allow you to apply different styles to the same element depending on how it is being interacted with. For example, you could use the :hover pseudo-class to change the color of a button when the user hovers over it.

G. Discuss the following CSS rule/style :
margin: 15px 70px;
Ans:

The CSS rule margin: 15px 70px; sets the margins for an element. The margin property is a shorthand property that sets the margins for all four sides of an element.

In the example you provided, the margin property has two values: 15px and 70px. The first value, 15px, is the margin for the top and bottom of the element. The second value, 70px, is the margin for the left and right sides of the element.

H. Discuss about CSS descendant selectors.
Ans:

In CSS, descendant selectors are used to select elements that are descendants of a specified element. A descendant selector is created by placing two selectors together, separated by a space. The first selector is the ancestor element, and the second selector is the descendant element.

For example, the following CSS selector selects all p elements that are descendants of div elements:

```
div p {
  color: red;
}
```

This selector will style all p elements that are inside of div elements with a red color.

Descendant selectors are useful for styling elements that are nested within other elements. For example, you could use a descendant selector to style all of the links that are inside of paragraphs.