**Assignment Tasks -2**

**1.What is DOM?**

**1.**When a web page is loaded, the browser creates a **D**ocument **O**bject **M**odel of the page. The **HTML DOM** model is constructed as a tree of **Objects.** The DOM defines a standard for accessing documents:

"The DOM is a platform and language-neutral interface that allows programs and scripts to dynamically access and update the content, structure, and style of a document."

The DOM standard is separated into 3 different parts:

* Core DOM - standard model for all document types
* XML DOM - standard model for XML documents
* HTML DOM - standard model for HTML documents

HTML DOM

The HTML DOM is a standard object model and programming interface for HTML. It defines:

* The HTML elements as objects
* The properties of all HTML elements
* The methods to access all HTML elements
* The events for all HTML elements

In other words:The HTML DOM is a standard for how to get, change, add, or delete HTML elements.

**2.What is Box Model?**

**2.** All HTML elements can be considered as boxes. In CSS, the term "box model" is used when talking about design and layout.

The CSS box model is essentially a box that wraps around every HTML element. It consists of: margins, borders, padding, and the actual content.

Content - The content of the box, where text and images appear

Padding - Clears an area around the content. The padding is transparent

Border - A border that goes around the padding and content

Margin - Clears an area outside the border. The margin is transparent

Ex:-

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

**3.What happens when we type in a URL?**

**3.**These are the steps occurred when we type the URL

* You enter a URL into a web browser
* The browser looks up the IP address for the domain name via DNS

ex:-When you type “https://wsvincent.com” into your browser the first thing that happens is a Domain Name Server (DNS) matches “wsvincent.com” to an IP address.

* The browser sends a HTTP request to the server
* The server sends back a HTTP response
* The browser begins rendering the HTML
* The browser sends requests for additional objects embedded in HTML (images, css, JavaScript) and repeats steps 3-5.
* Once the page is loaded, the browser sends further async requests as needed.

**4.Why html is used?**

**4.** We use theHTML because of following reasons

* Better Interactions
* Smarter Storage
* Cleaner Code
* Doctype
* Video and Audio Support
* Accessibility
* Cross Browser Support
* It allows JavaScript to run on background

**5.What is only HTML5, why not HTML1 OR HTML2?**

**5.**HTML 1.0

The basic version of HTML has support for basic elements like text controls and images. It is less support for a wide range of HTML elements. It does not provide support for tables, font support, etc. Therefore, HTML 2 is originated.

#### HTML 2.0

#### It has improved a lot in terms of the mark-up tags. In HTML 2.0 version concept of form came into force.

#### HTML 3.2

#### With version 3.2 of HTML, HTML tags were further improved. It has better support for new form elements. Another important feature what HTML 3.2 implemented was support for CSS. With upgradation of browsers to HTML 3.2, the browser also supported for frame tags although HTML specifications still do not support frame mark-up tags.

HTML 4.01

It extended the support of cascading styling sheets. In version 4.01 concept of external styling sheet emerged. Under this concept, an external CSS file could be developed and this external styling file could be included in HTML itself.

HTML5

It came up with lots of HTML tags support.  [HTML5 provided support for new form elements](https://www.educba.com/html5-elements/) like input elements of different types. It also supports for password, audio tag, Semantic tags, etc.

**6.What are the different ways to define a grid?**

**6.** There are two ways to define a grid.

* Explicit grid: defined with 'grid-columns', 'grid-rows' properties.

### Implicit grids

6.1. Explicit grid

* Outer edges of padding box always define grid lines. In LTR layout, left and top edges define lines that we refer as horizontal and vertical line zero. The opposite edges also define grid lines.

6.2. Implicit grids

* If there are more grid items than cells in the grid or when a grid item is placed outside of the explicit grid, the grid container automatically generates grid tracks by adding grid lines to the grid. The explicit grid together with these additional implicit tracks and lines forms the so called implicit grid.

**7.What is meaning of Semantics in HTML?**

**7.** Semantics refers to the meaning of a piece of code. In HTML, for example, the [<h1>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/h1) element is a semantic element. HTML should be coded to represent the data that will be populated and not based on its default presentation styling.Semantic elements are large in number.

Ex:

* [<article>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/article)
* [<aside>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/aside)
* [<details>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/details)
* [<figure>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/figure)
* [<footer>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/footer)
* [<header>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/header)
* [<main>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/main)