DHTML

DHTML, or Dynamic HTML, is a technology that differs from traditional HTML. DHTML combines HTML, CSS, JavaScript, and the Document Object Model (DOM) to create dynamic content. It uses the Dynamic Object Model to modify settings, properties, and methods.

DOM: It is known as a Document Object Model which acts as the weakest link in it. The only defect in it is that most of the browsers does not support DOM. It is a way to manipulate the static content.

The DOM is a W3C (World Wide Web Consortium) standard.

The DOM defines a standard for accessing documents:

"The W3C Document Object Model (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 W3C 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

In the following example, we are changing the text of the element with id = "demo" using the HTML DOM document.getElementById() method

```
<!DOCTYPE html>
<html>
<body>
  <h1>Welcome to Tutorialspoint</h1>
  <p id = "demo"> Text will be modified</p>
  <script>
    document.getElementById("demo").innerHTML = "Simply Easy Learning at your fingertips...";
  </script>
</body>
```

In the example below, we are creating a function that will be invoked if we clicked the button and it changes the background color of the text and displays the alert on the screen.

```
<!DOCTYPE html>
<html>
  <head>
```

```
    <style>
        #demo{
            display: flex;
            margin: auto;
            justify-content: center;
        }
        input{
            display: flex;
            margin: auto;
            justify-content: center;
        }
    </style>
    <h1 id = "demo"> Tutorialspoint </h1>
    <input type = "submit" onclick = "btn()"/>
    <script>
        function btn() {
            document.getElementById("demo").style.backgroundColor = "seagreen";
            window.alert("Background color changed to seagreen");
        }
    </script>
  </head>
</html>
```

Difference between HTML and DHTML:
- HTML is a markup language while DHTML is a collection of technologies.
- HTML is used to create static webpages while DHTML is capable of creating dynamic webpages.
- DHTML is used to create animations and dynamic menus but HTML not used.
- HTML sites are slow upon client-side technologies whereas DHTML sites are comparatively faster.
- Web pages created using HTML are rather simple and have no styling as it uses only one language whereas DHTML uses HTML, CSS, and Javascript which results in a much better and way more presentable webpage.
- HTML cannot be used as server side code but DHTML used as server side code.
- DHTML needs database connectivity but not in case of HTML.
- Files in HTML are stored using .htm or .html extension while DHTML uses .dhtm extension.
- HTML requires no processing from the browser but DHTML does.

Introduction to Doc Types

On the HTML document you have often seen that there is a <!DOCTYPE html> declaration before the <html> tag. HTML <!DOCTYPE> tag is used to inform the browser about the version of HTML used in the document. It is called as the document type declaration (DTD).

Technically <!DOCTYPE > is not a tag/element, it just an instruction to the browser about the document type. It is a null element which does not contain the closing tag, and must not include any content within it.

Actually, there are many type of HTML e.g. HTML 4.01 Strict, HTML 4.01 Transitional, HTML 4.01 Frameset, XHTML 1.0 Strict, XHTML 1.0 Transitional, XHTML 1.0 Frameset, XHTML 1.1 etc.

The <!DOCTYPE> declaration refers Document Type Declaration (DTD) in HTML 4.01; because HTML 4.01 was based on SGML(Standard Generalized Markup Language). But HTML 5 is not SGML based language.

```
<!DOCTYPE html>
<html>
<head>
<title>This is the title</title>
</head>
<body>
This is the content of the document.
</body>
</html>
```