

AJAX

AJAX stands for **A**synchronous **J**avaScript and **X**ML. AJAX is a new technique for creating better, faster, and more interactive web applications with the help of XML, HTML, CSS, and Java Script.

- Ajax uses XHTML for content, CSS for presentation, along with Document Object Model and JavaScript for dynamic content display.
- Conventional web applications transmit information to and from the sever using synchronous requests. It means you fill out a form, hit submit, and get directed to a new page with new information from the server.
- With AJAX, when you hit submit, JavaScript will make a request to the server, interpret the results, and update the current screen. In the purest sense, the user would never know that anything was even transmitted to the server.
- XML is commonly used as the format for receiving server data, although any format, including plain text, can be used.
- AJAX is a web browser technology independent of web server software.
- A user can continue to use the application while the client program requests information from the server in the background.
- Intuitive and natural user interaction. Clicking is not required, mouse movement is a sufficient event trigger.

AJAX cannot work independently. It is used in combination with other technologies to create interactive webpages.

JavaScript

- Loosely typed scripting language.
- JavaScript function is called when an event occurs in a page.
- Glue for the whole AJAX operation.

DOM

- API for accessing and manipulating structured documents.
- Represents the structure of XML and HTML documents.

CSS

- Allows for a clear separation of the presentation style from the content and may be changed programmatically by JavaScript

XMLHttpRequest

- JavaScript object that performs asynchronous interaction with the server.

Why use ajax

- No page reload on each request
- Update a part of web page not full page
- Send data to server in background
- Receive data from server in background

VBScript

VBScript stands for **V**isual **B**asic Scripting that forms a subset of Visual Basic for Applications (VBA). VBA is a product of Microsoft which is included NOT only in other Microsoft products such as MS Project and MS Office but also in Third Party tools such as AUTO CAD.

Features of VBScript

- VBScript is a lightweight scripting language, which has a lightning fast interpreter.
- VBScript, for the most part, is case insensitive. It has a very simple syntax, easy to learn and to implement.
- Unlike C++ or Java, VBScript is an object-based scripting language and NOT an Object-Oriented Programming language.
- It uses Component Object Model (**COM**) in order to access the elements of the environment in which it is executing.

- Successful execution of VBScript can happen only if it is executed in Host Environment such as Internet Explorer (**IE**), Internet Information Services (**IIS**) and Windows Scripting Host (**WSH**)

Difference between JavaScript and VBScript

- JavaScript is not a true object-oriented scripting language as it doesn't support inheritance concept, subroutines but it supports usage of an object, definition of classes for subsequent object creation whereas VBScript also not a true object-oriented scripting language as it doesn't support inheritance, object usage, classes usage but it supports reusable functions and subroutines.
- JavaScript is a default scripting language for most of the browsers whereas VBScript is not a default scripting language and we need to mention it as a scripting language.
- JavaScript is case-sensitive scripting language whereas VBScript is not a case-sensitive scripting language.
- JavaScript syntax is similar to the C programming language whereas VBScript syntax is similar to the Visual Basic as it is a subpart of it and it follows the syntax of the visual basic.
- JavaScript is used as a client-side scripting language whereas VBScript can be used as both server-side and client-side scripting language.

- JavaScript uses the same operator for different operations whereas VBScript uses different operators for different operations.