

WHAT IS JAVASCRIPT? – A GLANCE OF IT

JAVASCRIPT

JavaScript is a scripting language produced by Netscape for use within HTML Web pages.

JavaScript is loosely based on Java and it is built into all the major modern browsers.

JavaScript started life as LiveScript, but Netscape changed the name, possibly because of the excitement being generated by Java to JavaScript. JavaScript made its first appearance in Netscape 2.0 in 1995 with a name *LiveScript*.

JavaScript is a lightweight, interpreted programming language with object-oriented capabilities that allows you to build interactivity into otherwise static HTML pages. The general-purpose core of the language has been embedded in Netscape, Internet Explorer, and other web browsers

Client-side JavaScript:

Client-side JavaScript is the most common form of the language. The script should be included in or referenced by an HTML document for the code to be interpreted by the browser.

It means that a web page need no longer be static HTML, but can include programs that interact with the user, control the browser, and dynamically create HTML content.

The JavaScript client-side mechanism features many advantages over traditional CGI server-side scripts. For example, you might use JavaScript to check if the user has entered a valid e-mail address in a form field.

The JavaScript code is executed when the user submits the form, and only if all the entries are valid they would be submitted to the Web Server.

JavaScript can be used to trap user-initiated events such as button clicks, link navigation, and other actions that the user explicitly or implicitly initiates.

JavaScript is:

- JavaScript is a lightweight, interpreted programming language
- Designed for creating network-centric applications
- Complementary to and integrated with Java
- Complementary to and integrated with HTML
- Open and cross-platform

Advantages of JavaScript:

The merits of using JavaScript are:

- **Less server interaction:** You can validate user input before sending the page off to the server. This saves server traffic, which means fewer loads on your server.
- **Immediate feedback to the visitors:** They don't have to wait for a page reload to see if they have forgotten to enter something.
- **Increased interactivity:** You can create interfaces that react when the user hovers over them with a mouse or activates them via the keyboard.
- **Richer interfaces:** You can use JavaScript to include such items as drag-and-drop components and sliders to give a Rich Interface to your site visitors.

Limitations with JavaScript:

We cannot treat JavaScript as a fully fledged programming language. It lacks the following important features:

- Client-side JavaScript does not allow the reading or writing of files. This has been kept for security reason.
- JavaScript cannot be used for networking applications because there is no such support available.
- JavaScript doesn't have any multithreading or multiprocessing capabilities.

Once again, JavaScript is a lightweight, interpreted programming language that allows you to build interactivity into otherwise static HTML pages.

JavaScript Development tools:

- **Microsoft FrontPage:** Microsoft has developed a popular HTML editor called FrontPage. FrontPage also provides web developers with a number of JavaScript tools to assist in the creation of an interactive web site.
- **Macromedia Dreamweaver MX:** Macromedia Dreamweaver MX is a very popular HTML and JavaScript editor in the professional web development crowd. It provides several handy prebuilt JavaScript components, integrates well with databases, and conforms to new standards such as XHTML and XML.
- **Macromedia Home Site 5:** This provided a well-liked HTML and JavaScript editor, which will manage their personal web site just fine.

A JavaScript consists of JavaScript statements that are placed within the `<script>... </script>` HTML tags in a web page.

You can place the `<script>` tag containing your JavaScript anywhere within you web page but it is preferred way to keep it within the `<head>` tags.

The `<script>` tag alerts the browser program to begin interpreting all the text between these tags as a script. So simple syntax of your JavaScript will be as follows

Syntax:

```
<script ...>
  JavaScript code
</script>
```

The script tag takes two important attributes:

- **language:** This attribute specifies what scripting language you are using. Typically, its value will be *javascript*. Although recent versions of HTML (and XHTML, its successor) have phased out the use of this attribute.
- **type:** This attribute is what is now recommended to indicate the scripting language in use and its value should be set to *"text/javascript"*.

So your JavaScript segment will look like:

```
<script language="javascript" type="text/javascript">
  JavaScript code
</script>
```

Your First JavaScript Script:

Let us write our class example to print out "Hello World".

```
<html>
<body>
<script language="javascript" type="text/javascript">
<!--
  document.write("Hello World!")
//-->
</script>
</body>
</html>
```

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