Adding script to HTML

Overview

To use JavaScript in your web page, you need to insert it into your HTML page.

You can write your JavaScript code by using the **<script> tag**. You then need to write JavaScript code in between them. This will also help in using the same script in other web pages as well.

Example :
```
< script type = " text/javascript ">
    document.getElementById("demo").innerHTML = "My First JavaScript";
</script>
```

You can add a **type** attribute to mention the type of script you are using. But since **default scripts are written in JavaScript,** you may not need to write it.

Adding External Scripts

<script> tag can be used in another manner as well. It can **add external JavaScript files** to the web page.

Writing JavaScript code in external files separates it from HTML code. It makes HTML and JavaScript easier to read and maintain.

The external JavaScript files should have the **extension - '.js'.**

Example : < **script** type = " text/javascript " src = " myScript.js "> </**script**>

The JavaScript file name with the extension is mentioned inside the **src** attribute, i.e. file name is myScript.js

External scripts can be referenced with a full **absolute URL** or with a **path relative** to the current web page.

JavaScript in <head> and <body> Tag

You place scripts **inside the <head> tag**, just like the <link> tag. You can use both of the ways mentioned above to add the script to the web page by writing them inside the <head> tag like -

```
<head>
        <!-- Other Header Tags -->
        <script type="text/javascript" src="myScript.js"> </script>
 </head>
```

But you can also **add script inside the <body> tag** as well like -

```
<body>
        <script type="text/javascript" src="myScript.js"></script>
        ...
        <!-- HTML CODE -->
         ...
</body>
```

But when you use the above two methods, the **JavaScript compilation is done first,** even before the HTML code is rendered on the web page. This **slows down the loading time of the web page,** and also, some things might not be as expected as elements are not rendered at that time.

To improve the web page's loading time, we can also load and compile the JavaScript after the page is loaded. To do this, we need to **add the script at the bottom of the <body> tag** after the HTML code like -

```
<body>
        ...
         <!-- HTML CODE -->
        ...
         <script type="text/javascript" src="myScript.js"> </script>
 </body>
```

Now, the **HTML code is rendered first,** and then after that, the JavaScript is loaded.

Internal JavaScript

Rather than making another JavaScript file and attaching it to the HTML file, you could also write the **JavaScript code within the HTML file** as we did for the CSS.
But this method is not recommended much. It could be done if there are some lines of JavaScript code.

External JavaScript files help us to reuse them in multiple HTML files.

Example :

```
<body>

    <h1 id="heading"> Hello World !</h1>

    <script type="text/javascript">
        document.getElementById("heading").innerHTML = "Bye JavaScript!";
    </script>

</body>
```

Browser :

The above JavaScript code changes the inner HTML content of the element, which had an id heading associated with it.

<noscript> Tag

The HTML <noscript> tag defines an **alternate content** to be displayed to users that have disabled scripts in their browser or have a browser that doesn't support scripts:

Example :

```
<script type="text/javascript">
    document.getElementById("heading").innerHTML = "Bye JavaScript!";
</script>

<noscript> Sorry, your browser does not support JavaScript! </noscript>
```

Browser :