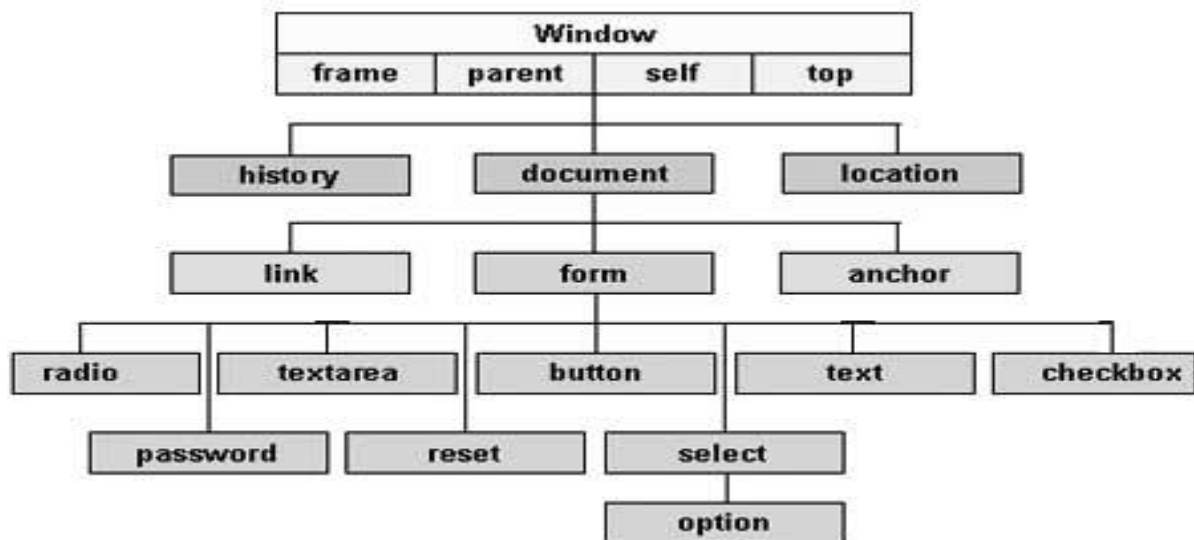Javascript is a client side programming language, client side means it does not require a server to run it only runs in client side or we can say it runs in a web browser.

Javascript works on Document Object Model or (DOM).

Document Object Model means every window is represented as an object and tags within the windows are also represented as objects.

IDE for Javascript is IntelliJ WebStorm.

Following image will elaborate the document object model.

Following are the examples where javascript can be used.

- To present an alert dialog box when a button is clicked.
- To change image in a html page when a button is clicked
- To point browser to another website when a button is clicked.

There are two ways to include javascript code in your html page.
First is to define a script tag and write javascript code in the script tag.

```html
<html>
<head>
    <title>First Javascript Page</title>
    <script language = "javascript" type = "text/javascript">

        document.write("Hello World!")

    </script>
</head>
<body>

</body>
</html>
```
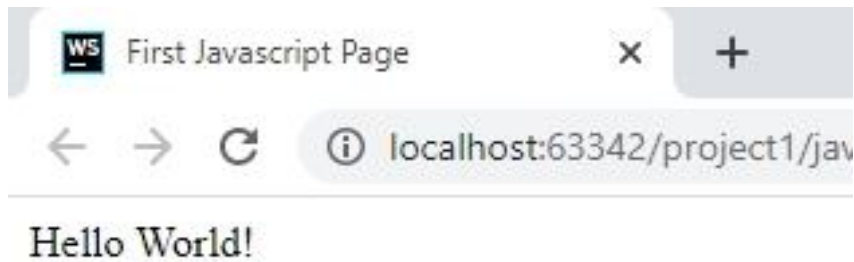
You will see the following output in the browser

Second way is to write javascript code in a separate file and include that file in html file using script tag.
Following is the example
create a new javascript file as firstjs.js
and paste the following code in it

```
document.write("Raman Deep Singh");
```

now create a html file with name firstpage.html and include firstjs.js file in html page using script tag.
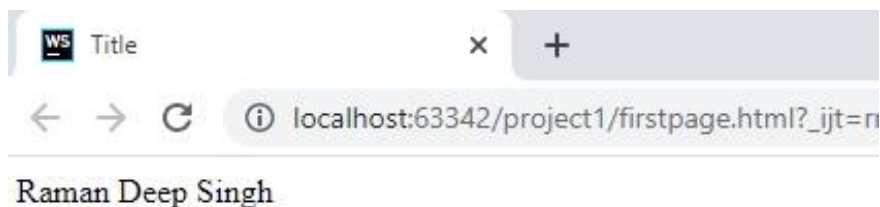
Following is the code.

```
<html>
<head>

    <title>Title</title>
  <script src="firstjs.js"></script>
</head>
<body>

</body>
</html>
```
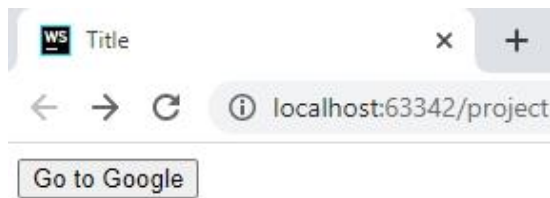
```
You will see following output in web browser
```

Following is the javascript code to point browser to www.google.com on a button click.

```html
<html>
<head>

    <title>Title</title>
  <script language="JavaScript" type="text/javascript">
    function gotogoogle()
    {
       document.location.href="http://www.google.com";
    }
  </script>
</head>
<body>
<input type="button" value="Go to Google" onclick="gotogoogle();">
</body>
</html>
```

Following output
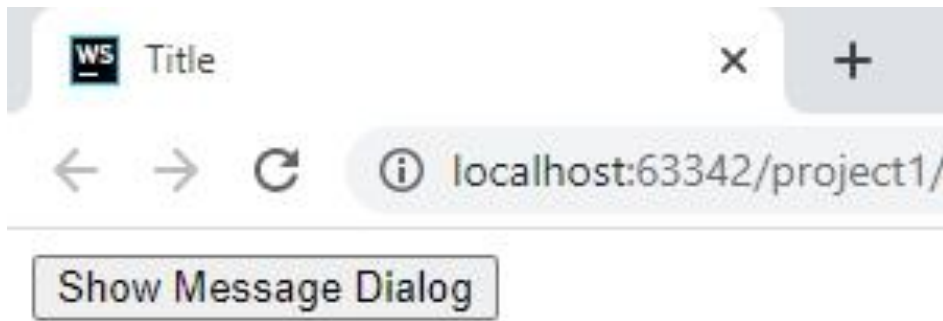

When you will click on Go to Google Button browser will point to www.google.com.

Next example is to show an alert dialog message box on click of a button and message dialog box displays hello world.

Following is the code

```html
<html>
<head>

  <title>Title</title>
  <script language="JavaScript" type="text/javascript">
    function showalert()
    {
       window.alert("Hello World");
    }
  </script>
</head>
<body>
<input type="button" value="Show Message Dialog" onclick="showalert();">
</body>
</html>
```
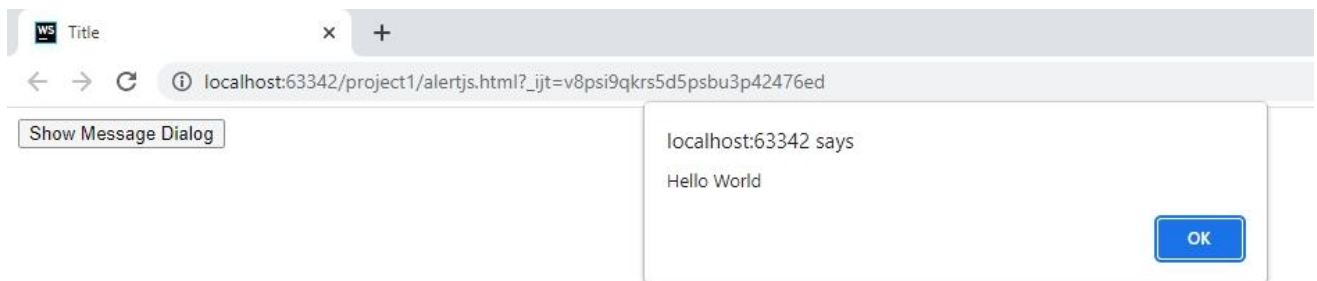
Output will be

Upon clicking Show Message Dialog you will see Following Alert or Dialog Box

Following example is to display an image with Alphabet a when button A is clicked and display image b when button B is clicked.

```html
<html>
<head>

    <title>Title</title>
  <script language="JavaScript" type="text/javascript">
    function showa()
    {
      image1.src="A.jpg";
    }
    function showb()
    {
      image1.src="B.jpg";
    }
  </script>
</head>
<body>
<img name="image1" src="A.jpg">
<br>
<input type="button" onclick="showa();" value="Show A Image">
<br>
<input type="button" onclick="showb();" value="Show B Image">
</body>
</html>
```
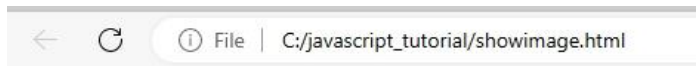
Output will be

B

Show A Image
Show B Image

Another Output

A

Show A Image
Show B Image