Javascript

Introduction to Javascript

Javascript is one the basic web programming which is used to handle the data and information

Javascript is can be enclosed with <script></script>

<script> can be placed in either Head and body part of Html document

You can use any number of script tags in single HTML document

If you want to have dynamic activity or runtime activity we have use either javascript or javascript related frameworks(jQuery,ReactJS)

Event and EventHandler

Event is runtime activity generated by the end user
For each event performing the specific execution of the program then it comes as EventHandler

Basic Javascript Example:

```html
<!DOCTYPE html>
<html>
    <head>
        <script>
            function myFun(){
                window.alert('Hello Javascript');
            }
        </script>
    </head>
    <body>
        <!--<button></button>
        <input type="button" value="Submit" />
        -->
        <button type="button" onclick="myFun()">Test</button>
    </body>
</html>
```

```html
<!DOCTYPE html>
<html>
    <head>
    </head>
    <body>
        <!--<button></button>
        <input type="button" value="Submit" />
        -->
        <button type="button" onclick="myFun()">Test</button>
        <script>
            function myFun(){
                window.alert('Hello Javascript');
            }
        </script>
    </body>
</html>
```

Multiple Javascript files are linking to Single HTML DOC

```html
<!DOCTYPE html>
<html>
    <head>
        <script src="demo.js"></script>
        <script src="demo1.js"></script>
    </head>
    <body>
        <button type="button" onclick="myFun1()">Test</button>
        <button type="button" onclick="myFun2()">Test1s</button>
    </body>
</html>
```

```javascript
function myFun2(){
    window.alert('Test');
}
```

```javascript
function myFun1(){
    window.alert('Hello Javascript external');
}
```

Javascript Display:
1. window.alert()
2. document.write()
3. console.log()
4. innerHTML

Window.alert()
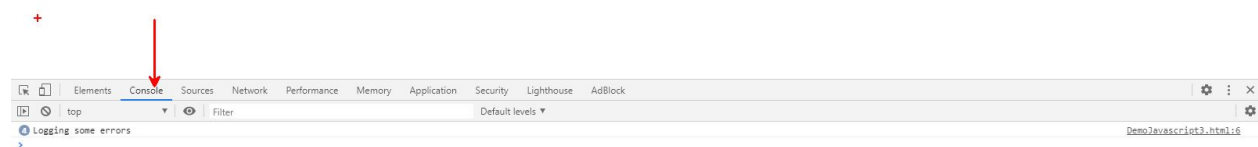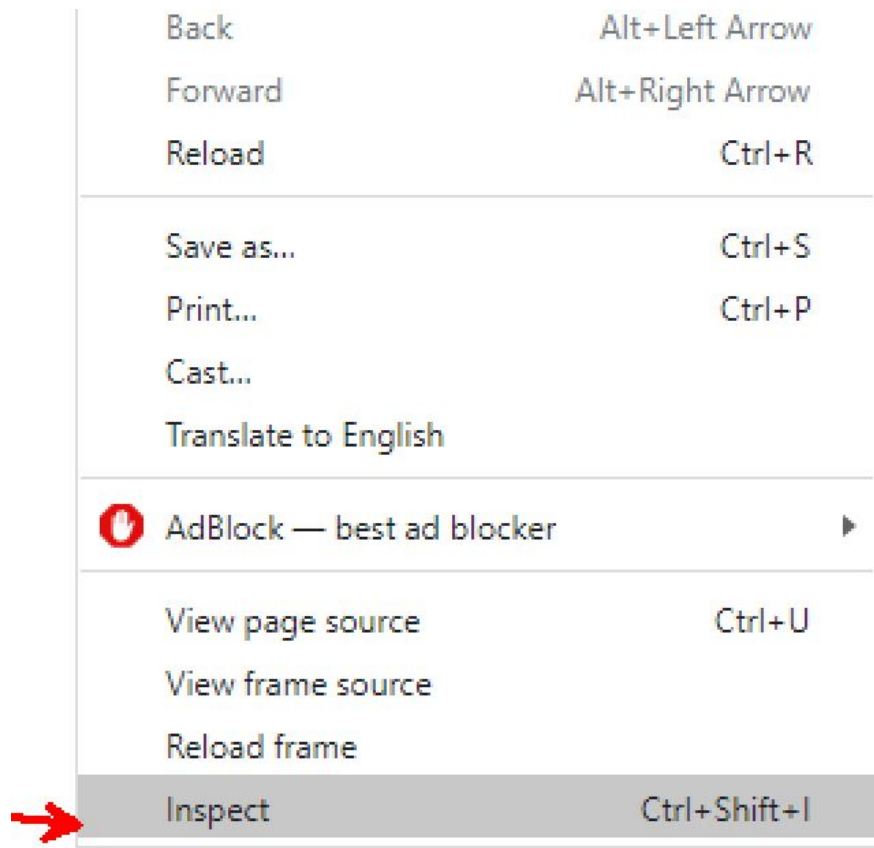All the previous will be considered the examples for window alert

document.write()

```html
<!DOCTYPE html>
<HTML>
    <head>
        <script>
            function myFun1(){
                document.write('Write Method of Javascript');
            }
        </script>
    </head>
    <body>
        <button type="button" onclick="myFun1()">Write</button>
    </body>
</HTML>
```

Console.log()

```html
<!Doctype Html>
<html>
    <head>
        <script>
        function myTest(){
            console.log('Logging some errors');
        }
        </script>

    </head>
    <body>
        <button type="button" onclick="myTest()">Test</button>
    </body>
</html>
```

innerHTML

document.getElementById("IdValue")

```html
<!DOCTYPE html>
<html>
    <head>
        <script>
            function myFun(){
                document.getElementById("idh1").innerHTML = "Javascript";
            }
        </script>
    </head>
    <body>
        <h1 id="idh1">This is Content of H1 Tag</h1>
        <button type="button" onclick="myFun()">Test</button>
    </body>
</html>
```

document.getElementByID Examples

```html
<!DOCTYPE html>
<html>
    <head>
        <script>
            function checkName(){
                //variable
                var name;
                name = document.getElementById('txtUsername').value;
                window.alert(name);

            }
        </script>
    </head>
    <body>
        <input type="text" id="txtUsername" />
        <button type="button" onclick="checkName()">Check the name</button>
    </body>
</html>
```

Task 1

UN [   ]

PWD [   ]

[Check]

If Username and Password is same as "admin" then You have give the message "Successful Login" or "Unsuccessful Login"

```html
<!DOCTYPE html>
<html>
    <head>
        <script>
            function myCheck(){
                var v1,v2;
                v1 = document.getElementById("txt1").value;
                v2 = document.getElementById("txt2").value;
                if(v1 == "admin" && v2 == "admin"){
                    window.alert('Successful');
                }
                else{
                    window.alert('Unsuccessful');
                }
            }
        </script>
    </head>
    <body>
        <input type="text" id="txt1" /> <br />
        <input type="text" id="txt2" /> <br />
        <button type="button" onclick="myCheck()">Check</button>
    </body>
</html>
```

Regular Expressions

      Goto Website "RegxPal"

      Describes about the regular expressions define and test
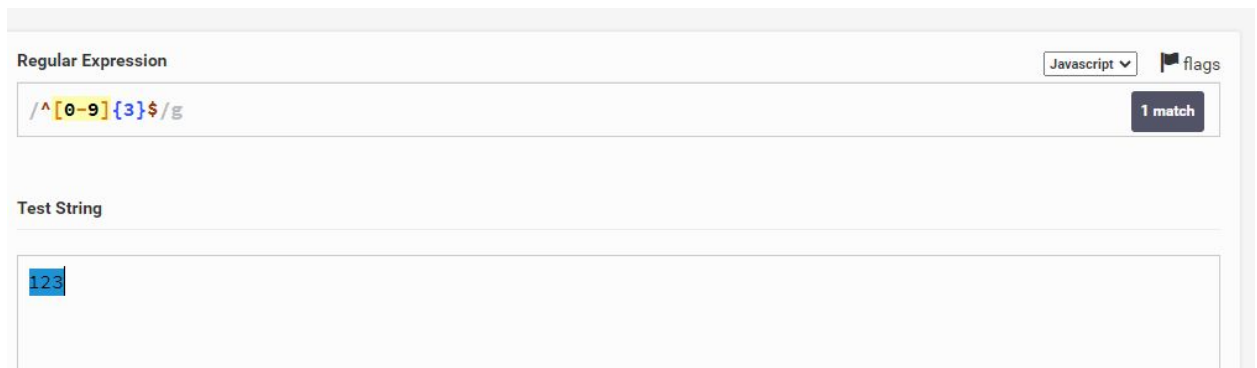
I. Number - [0-9]

II. Small characters - [a-z]

III. Upper characters - [A-Z]

IV. No of repetitions are done with {} within this place a number

V. ^ represents - Start of Regular Expression

VI. $ represents - End of the Regular Expression

1. **Matching the 3 Digit Number**

2. **Matching the Username in which minimum number of character is 6 and Maximum is 10**

Regular Expression

`Javascript ✓` `⚑ flags`

`/^[a-zA-z]{6,10}$/g` `no match`

Test String

```
AnilkumarDsps
```

3. **Matching the Username with min - 6 and Max - 12**
   a. **First character is always Upper case character**
   b. **Second character till last character it should accept the numbers, small characters and Upper case characters also**

Regular Expression

`Javascript ✓` `⚑ flags`

`/^[A-Z][a-zA-Z0-9]{5,11}$/g` `1 match`

Test String

```
Anilkumar188
```

Regular Expression

`Javascript ✓` `⚑ flags`

`/^[A-Z][a-zA-Z0-9]{5,11}$/g` `no match`

Test String

```
Anilkumar1889
```