JavaScript

Module 2 - JavaScript Basics

Chapter 2-Using Javascript inside HTML

JavaScript *Syntax*

- **In HTML, JavaScript code is inserted between <script> and </script> tags.**

```
<script>

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</script>
```

- **Old JavaScript examples may use a type attribute: <script type="text/javascript">.**

- **The type attribute is not required because JavaScript is the default scripting language in HTML.**

Some Points to note

End with Semicolon

Each Javascript code statement has to end with a semicolon (;)

JavaScript Character Set

JavaScript uses the Unicode character set. Unicode covers (almost) all the characters, punctuations, and symbols in the world.

JavaScript is Case Sensitive

- The variables lastName and lastname, are two different variables.
- JavaScript does not interpret LET or Let as the keyword let.

```
let lastname, lastName;
lastName = "Aitrich";
lastname = "Academy";
```

Where to place Javascript in HTML

Scripts can be placed in the <body>, or in the <head> section of an HTML page, or in both.

Scripts can also be placed in external files:

You can place any number of scripts in an HTML document.

Placing scripts at the bottom of the <body> element improves the display speed, because script interpretation slows down the display.
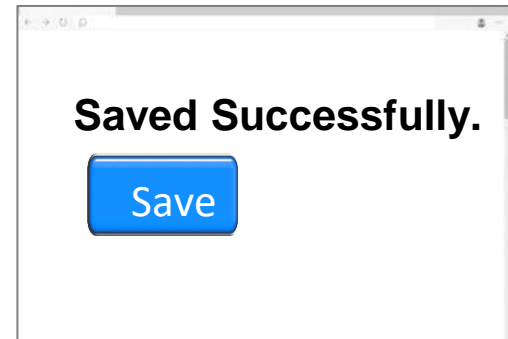
Javascript in <head> tag

```html
<!DOCTYPE html>
<html>
<head>
<script>
function showmsg() {
document.getElementById("msg").innerHTML =
"Saved Successfully" }
</script>
</head>
<body>
<p id="msg">Click this button to save.</p>
<button type="button"
onclick="showmsg()">Save</button>
</body>
```
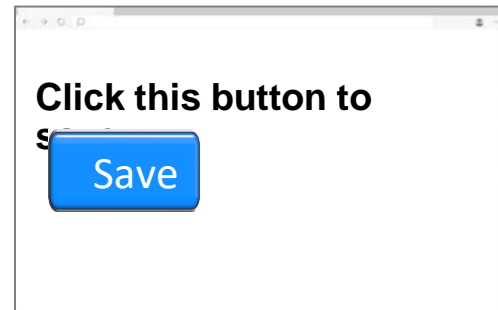
Output before button click
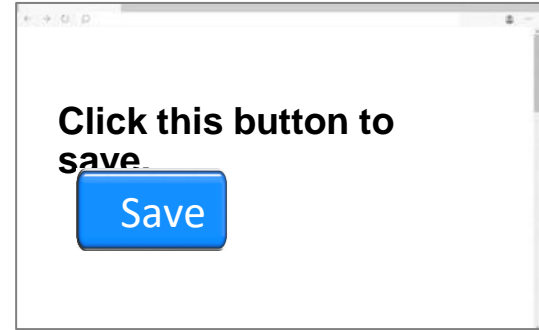
Click this button to save.

Save

Output after button click

Saved Successfully.

Save

Javascript in <body> tag

```
<!DOCTYPE html>

<html>

<body>

<p id="msg">Click this button to save.</p>

<button type="button"
onclick="showmsg()">Save</button>

<script>

function showmsg() {

document.getElementById("msg").innerHTML =
"Saved Successfully" }

</script>

</body>

</html>
```

Output before button click

Click this button to
s...

Save

Output after button click

Saved Successfully.

Save

Aitrich
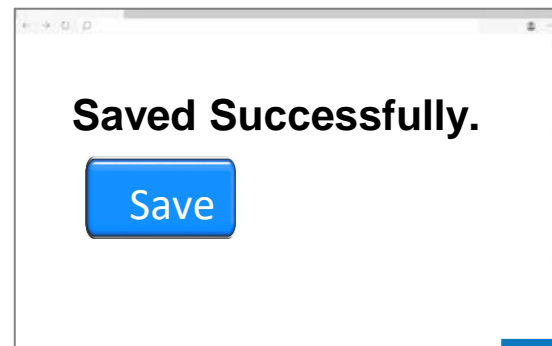
Javascript in an external file

Scripts can also be placed in external files: JavaScript files have the file extension .js.

To use an external script, put the name of the script file in the src (source) attribute of a <script> tag.

showmessage.js

```
<!DOCTYPE html>

<html>

<body>

<p id="msg">Click this button to save.</p>

<button type="button"
onclick="showmsg()">Save</button>

<script src="showmessage.js"></script>

</body>

</html>
```

```
function showmsg() {

document.getElementById("msg").inner
HTML = "Saved Successfully"

}
```

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How to give External Reference

An external script can be referenced in 3 different ways:

With a full URL (a full web address)

<script src="**https://www.aitrich.com/js/showmessage.js**"></script>

With a file path (like /js/)

<script src="**/js/showmessage.js**"></script>

Without any path

<script src="**showmessage.js**"></script>

External Javascript Advantages

- It separates HTML and code
- It makes HTML and JavaScript easier to read and maintain
- Cached JavaScript files can speed up page loads
- External scripts are practical when the same code is used in many different web pages.

You can place an external script reference in <head> or <body> as you like.

External scripts cannot contain <script> tags.

To add several script files to one page - use several script tags:

```
<script src="showmessage1.js"></script>
<script src="showmessage2.js"></script>
```

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Javascript Display possibilities(Output)

JavaScript can "display" data in different ways:

1. Writing into an HTML element, using innerHTML.

2. Writing into the HTML output using document.write().

3. Writing into an alert box, using window.alert().

4. Writing into the browser console, using console.log().

Writing into an HTML element using innerHTML

```
<!DOCTYPE html>
<html>
<body>
<p id="msg"></p>
<script>
document.getElementById("msg").innerHTML
= 5 + 6;
</script>
</body>
</html>
```

Output

11

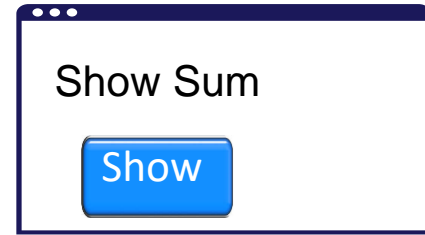# Writing into an HTML output using document.write()

```
<!DOCTYPE html>

<html>
<body>
<p id="msg">Show Sum</p>

<button type="button"
onclick="document.write(5 + 6)">
Show</button>

</body>
</html>
```
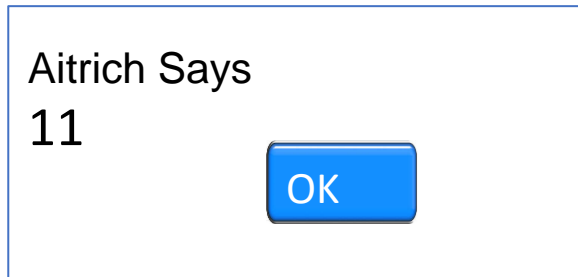
Output before button click

Show Sum

Show

Output after button click

11

Writing into an alert box

Alert box will pop up like this

```
<script>
alert(5 + 6);
</script>
```

Aitrich Says

11

OK

Aitrich

Writing into the browser console, using console.log()

```
<!DOCTYPE html>
<html>
<body>
<script>
//For debugging purposes, you can call the console.log()
//method in the browser to display data.
console.log(5 + 6);
</script>
</body>
</html>
```

How to Activate Debugging

- F12 on your keyboard will activate debugging.
- Then select "Console" in the debugger menu.
- Then Run again. The console will display 11

Thank You