



JAVASCRIPT

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INTRODUCTION

- ◉ JavaScript is used in millions of Web pages to improve the design, validate forms, detect browsers, create cookies, and much more.
- ◉ JavaScript is the most popular scripting language on the internet, and works in all major browsers, such as Internet Explorer, Mozilla Firefox, Netscape, and Opera.

WHAT IS JAVASCRIPT?

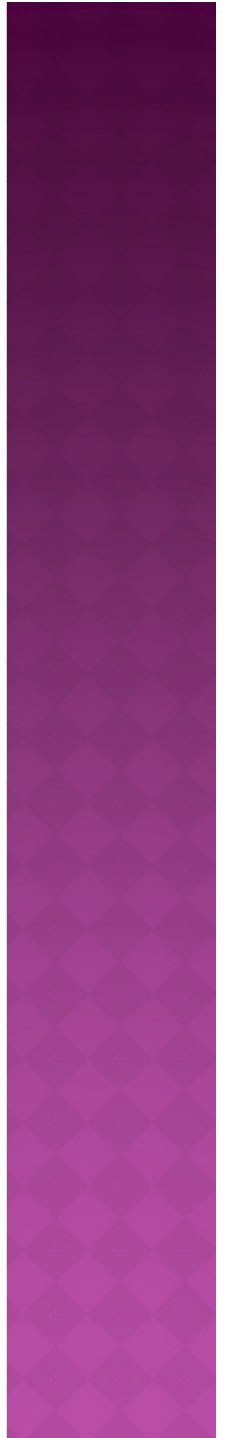
- JavaScript was designed to add interactivity to HTML pages
- JavaScript is a scripting language (a scripting language is a lightweight programming language)
- A JavaScript is usually embedded directly into HTML pages
- JavaScript is an interpreted language (means that scripts execute without preliminary compilation)
- Everyone can use JavaScript without purchasing a license

WHAT CAN A JAVASCRIPT DO?

- JavaScript gives HTML designers a programming tool
- JavaScript can put dynamic text into an HTML page
- JavaScript can react to events
- JavaScript can read and write HTML elements
- JavaScript can be used to validate data
- JavaScript can be used to detect the visitor's browser
- JavaScript can be used to create cookies

HOW TO PUT A JAVASCRIPT INTO AN HTML PAGE

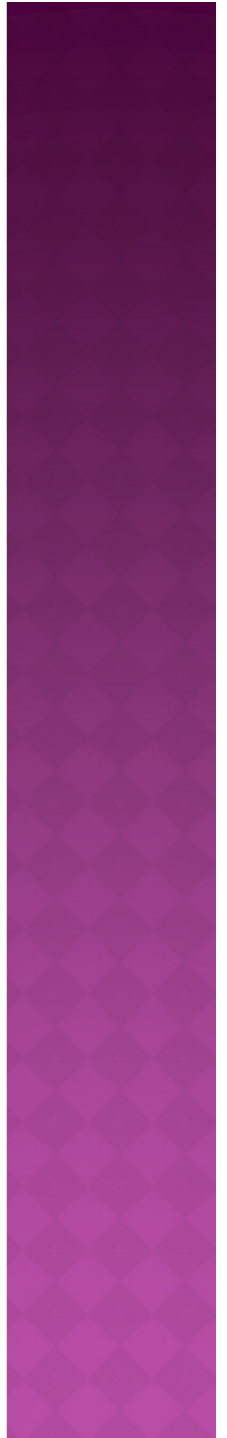
```
<html>  
<body>  
<script type="text/javascript">  
document.write("Hello World!")  
</script>  
</body>  
</html>
```



RESULT

The code above will produce this output on an HTML page:

Hello World!



WHERE TO PUT THE JAVASCRIPT

Scripts in the head section:

Scripts to be executed when they are called, or when an event is triggered, go in the head section. When you place a script in the head section, you will ensure that the script is loaded before anyone uses it.

```
<html>
```

```
<head>
```

```
<script type="text/javascript">....</script>
```

```
</head>
```


- **Scripts in the body section:** Scripts to be executed when the page loads go in the body section. When you place a script in the body section it generates the content of the page.

```
<html>
```

```
<head>
```

```
</head>
```

```
<body>
```

```
<script type="text/javascript">....</script>
```

```
</body>
```

- **Scripts in both the body and the head section:**
You can place an unlimited number of scripts in your document, so you can have scripts in both the body and the head section.

```
<html>  
<head>  
<script type="text/javascript">....</script>  
</head>  
<body>  
<script type="text/javascript">....</script>  
</body>
```



USING AN EXTERNAL JAVASCRIPT

- To use the external script, point to the .js file in the "src" attribute of the <script> tag:

```
<html  
head>  
<script src="xxx.js">  
</script>  
</head>  
<body>java script  
</body>  
</html>
```

DECLARE A VARIABLE

You can create a variable with the var statement:

```
var strname = some value
```

You can also create a variable without the var statement:

```
strname = some value
```

Assign a Value to a Variable

You can assign a value to a variable like this:

```
var strname = "Hege"
```

Or like this:

```
strname = "Hege"
```



EXAMPLE

```
<script type="text/javascript">  
//Write a "Good morning" greeting if the time is less  
  than 10  
var d=new Date()  
var time=d.getHours()  
if (time<10)  
  {  
document.write("<b>Good morning</b>")  
  }  
</script>
```

JS POPUP BOXES

Alert Box

- ◉ An alert box is often used if you want to make sure information comes through to the user.
- ◉ When an alert box pops up, the user will have to click "OK" to proceed.

Syntax:

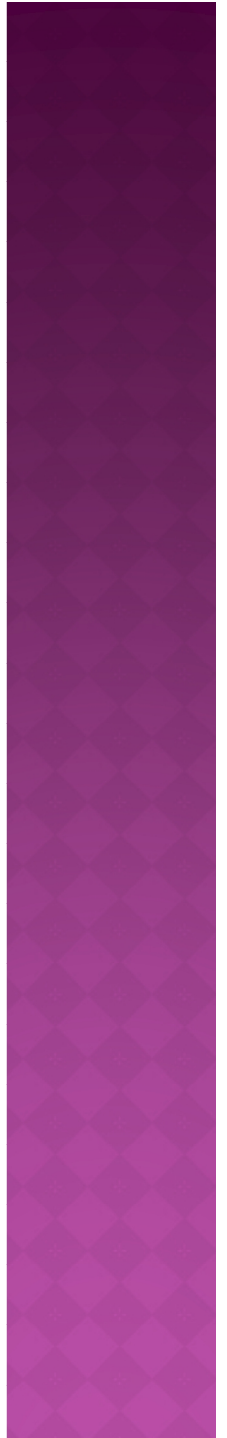
```
alert("sometext")
```

CONFIRM BOX

- A confirm box is often used if you want the user to verify or accept something.
- When a confirm box pops up, the user will have to click either "OK" or "Cancel" to proceed.
- If the user clicks "OK", the box returns true. If the user clicks "Cancel", the box returns false.

Syntax:

```
confirm("sometext")
```



PROMPT BOX

- A prompt box is often used if you want the user to input a value before entering a page.
- When a prompt box pops up, the user will have to click either "OK" or "Cancel" to proceed after entering an input value.
- If the user clicks "OK" the box returns the input value. If the user clicks "Cancel" the box returns null.

Syntax:

```
prompt("sometext", "defaultvalue")
```


JAVASCRIPT FUNCTIONS

- To keep the browser from executing a script as soon as the page is loaded, you can write your script as a function.
- A function contains some code that will be executed only by an event or by a call to that function.
- You may call a function from anywhere within the page (or even from other pages if the function is embedded in an external .js file).
- Functions are defined at the beginning of a page, in the <head> section.

EXAMPLE

```
<html>
<head>
<script type="text/javascript">
function displaymessage()
{alert("Hello World!")}
</script>
</head>
<body>
<form>
<input type="button" value="Click
me!"onclick="displaymessage()" >
</form>
</body>
</html>
```



- we add an optional HTML comment that surrounds our JavaScript code. If a browser does not support JavaScript, it will not display our code in plain text to the user! The comment was ended with a "`//-->`" because "`//`" signifies a comment in JavaScript. We add that to prevent a browser from reading the end of the HTML comment in as a piece of JavaScript code.

