JavaScript

* JavaScript is the world's most popular programming language.
* JavaScript is the programming language of the Web.
* JavaScript is easy to learn.

JavaScript Introduction:

## **JavaScript Can Change HTML Content**

* One of many JavaScript HTML methods is getElementById().
* The example below "finds" an HTML element (with id="demo"), and changes the element content (innerHTML) to "Hello JavaScript":
* Example:

<!DOCTYPE html>

<html>

<body>

<h2>What Can JavaScript Do?</h2>

<p id="demo">JavaScript can change HTML content.</p>

<button type="button" onclick='document.getElementById("demo").innerHTML = "Hello JavaScript!"'>Click Me!</button>

</body>

</html>

* JavaScript accepts both double and single quotes

## **JavaScript Can Change HTML Attribute Values**

* **Example**:

<!DOCTYPE html>

<html>

<body>

<h2>What Can JavaScript Do?</h2>

<p>JavaScript can change HTML attribute values.</p>

<p>In this case JavaScript changes the value of the src (source) attribute of an image.</p>

<button onclick="document.getElementById('myImage').src='pic\_bulbon.gif'">Turn on the light

</button>

<img id="myImage" src="pic\_bulboff.gif" style="width:100px">

<button onclick="document.getElementById('myImage').src='pic\_bulboff.gif'">Turn off the light</button>

</body>

</html>

## **JavaScript Can Change HTML Styles (CSS)**

* Changing the style of an HTML element, is a variant of changing an HTML attribute:
* Syntax:

<!DOCTYPE html>

<html>

<body>

<h2>What Can JavaScript Do?</h2>

<p id="demo">JavaScript can change the style of an HTML element.</p>

<button type="button" onclick="document.getElementById('demo').style.fontSize='35px'">Click Me!</button>

</body>

</html>

* **JavaScript Where To:**

## **The <script> Tag**

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

<script>  
document.getElementById("demo").innerHTML = "My First JavaScript";  
</script>

## **JavaScript Functions and Events**

* A JavaScript function is a block of JavaScript code, that can be executed when "called" for.
* For example, a function can be called when an **event** occurs, like when the user clicks a button.

## **JavaScript in <head> or <body>**

* You can place any number of scripts in an HTML document.
* Scripts can be placed in the <body>, or in the <head> section of an HTML page, or in both.

## **JavaScript in <head>**

* In this example, a JavaScript function is placed in the <head> section of an HTML page.
* The function is invoked (called) when a button is clicked
* Syntax:

<!DOCTYPE html>  
<html>

<head>  
<script>  
function myFunction()

{  
  document.getElementById("demo").innerHTML = "Paragraph changed.";  
}  
</script>  
</head>  
<body>

<h1>A Web Page</h1>  
<p id="demo">A Paragraph</p>  
<button type="button" onclick="myFunction()">Try it</button>

</body>  
</html>

## **JavaScript in <body>**

* In this example, a JavaScript function is placed in the <body> section of an HTML page.
* The function is invoked (called) when a button is clicked:
* Syntax:

<!DOCTYPE html>  
<html>  
<body>  
  
<h1>A Web Page</h1>  
<p id="demo">A Paragraph</p>  
<button type="button" onclick="myFunction()">Try it</button>  
  
<script>  
function myFunction() {  
  document.getElementById("demo").innerHTML = "Paragraph changed.";  
}  
</script>  
  
</body>  
</html>

## **External JavaScript**

* Scripts can also be placed in external files:
* External file myScript.js
* Syntax:

function myFunction()

{  
  document.getElementById("demo").innerHTML = "Paragraph changed.";  
}

* External scripts are practical when the same code is used in many different web pages.
* 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:
* Syntax:

<!DOCTYPE html>

<html>

<body>

<h2>External JavaScript</h2>

<p id="demo">A Paragraph.</p>

<button type="button" onclick="myFunction()">Try it</button>

<p>(myFunction is stored in an external file called "myScript.js")</p>

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

</body>

</html>