

# DMBC: JavaScript & JQuery

## JavaScript

- JavaScript is the most popular scripting language on the internet
- All major browsers support JavaScript
- However, JavaScript can be turned off in browser settings

### What is JavaScript

- JavaScript was designed to add interactivity to HTML pages
- JavaScript is a scripting language
- JavaScript is usually embedded directly in HTML pages

### Are Java and JavaScript the same thing?

- NO
- Java and JavaScript are two completely different languages in both concept and design
- Java (Developed by Sun Microsystems) is a powerful and much more complicated language in the same category of C and C++

### What can a JavaScript do?

- JavaScript gives HTML designers a programming tool—HTML authors are normally not programmers, but JavaScript is a scripting language with a very simple syntax! Almost anyone can put small "snippets" of code into their HTML pages
- JavaScript can put dynamic text into an HTML page—A JavaScript statement like this: `document.write("<h1>" + "Hello World" + "</h1>")` can write a variable text into an HTML page
- JavaScript can react to events— A JavaScript can be set to execute when something happens, like when a page has finished loading or when a user clicks on an HTML element
- JavaScript can read and write HTML elements— A JavaScript can read and change the content or formatting of an HTML element
- A JavaScript can be used to validate form data before it is submitted to a server. This saves the server from extra processing
- JavaScript can be used to detect the visitor's browser, and—depending on the browser—load another page specifically designed for that browser (like naughty IE!)
- A JavaScript can be used to store and retrieve information on the visitor's computer (a.k.a. "Cookies")

### JavaScript Functions and Events

- JavaScripts in an HTML page will be executed when the page loads. This is not always what we want. Sometimes we want to execute a JavaScript when an event occurs, such as when a user clicks a button. When this is the case we can put the script inside a function.
- Events are normally used in combination with functions (like calling a function when an event occurs).

## Scripts in <head> and <body>

- You can place an unlimited number of scripts in your document, and you can have scripts in both the body and the head section at the same time.
- It is a common practice to put all functions in the head section, or at the bottom of the page. This way they are all in one place and do not interfere with page content.

## Using an External JavaScript

- JavaScript can also be placed in external files.
- External JavaScript files often contain code to be used on several different web pages.
- External JavaScript files have the file extension: .js
- Note: External script cannot contain the <script></script> tags!
- To use an external script, point to the .js file in the "src" attribute of the <script> tag:

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

## Demo: JavaScript Rollovers

- Variables
- Functions
- Events

## Demo: Lightbox Box

- Arrays
- Counters
- InnerHTML
- Href
- src

## Assignment: JavaScript Integration

### **Deliverables:**

#### **JavaScript Rollovers**

- Integrate at least one JavaScript Rollover into your website
- This rollover can simply be the in-class rollover demo if more rollovers to not fit your design vision

#### **JavaScript Slideshow**

- Integrate a JavaScript slideshow into your website
- This slideshow should contain images that are personal in nature or project-based