

CS 683 Emerging Technologies
Fall Semester, 2004
Doc 6 Client-side JavaScript
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References

JavaScript: The Definitive Guide, 4th Ed., David Flanagan, O'Reilly, 2002

Reading for Tuesday Sept 14

XSLT tutorial <http://www.w3schools.com/xsl/default.asp>

Embedding JavaScript in Web Pages

- `<script>`
- Files
- Event Handlers
- URL

<script>

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
    "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en">
<head>
    <meta http-equiv="content-type" content="text/html; charset=iso-
8859-1" />
    <title>Sample</title>
    <script>
    var name = 'Roger Whitney';
    </script>
</head>
<body>
<script type="text/javascript" language="javascript1.5">
document.writeln( "Hello from ", name, '<br/>');
document.write( 'Today is ' + new Date());
</script>
</body>
</html>
```

<script> tags are run in the order they are placed in the document while the document is being rendered. So your users are waiting while the script is run, so make them short. Once a document is rendered you can not modify it using document.write();

Files

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
    "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en">
<head>
    <meta http-equiv="content-type" content="text/html; charset=iso-
8859-1" />
    <title>Sample</title>
    <script>
    var name = 'Roger Whitney';
    </script>
</head>
<body>
<script src="sample.js" language="javascript1.5">
</script>
</body>
</html>
```

sample.js

```
document.writeln( "Hello from ", name, '<br/>');
document.write( 'Today is ' + new Date());
```

Event Handler

```
<html>
<head>
  <title>Sample</title>
  <script defer="defer" type="text/javascript">
    function greetings()
    {
      var message = "Hello World\nToday is" + new Date();
      alert(message);
      return false;
    }
  </script>
</head>
<body>
  <a href="http://www.sdsu.edu" onclick="return greetings();">
    Try Me
  </a>
</body>
</html>
```

URL

```
<html>
<head>
  <title>Sample</title>
</head>
<body>
<a href="javascript:alert('Hi');" >Try Me</a>
</body>
</html>
```

alert, confirm & prompt

alert – dialog window with text

confirm – dialog window with text & yes no buttons

prompt – dialog window with text and input area

```
<html>
<head>
  <title>Sample</title>
  <script defer="defer" type="text/javascript">
    function reallyGo()
    {
      var message='Do you really wish\n to leave this page?';
      if (confirm(message))
        return true;
      else
        return false;
    }
  </script>
</head>
<body>
  <a href="http://www.sdsu.edu" onclick="return reallyGo();">
    Try Me
  </a>
</body>
</html>
```

Window object

Global object for client-side JavaScript

Provides access to page objects

Some Window objects

- document
- location
- self
- window
- erroron
- navigator
- status

Location

```
<html>
<head>
  <title>Sample</title>
  <script defer="defer" type="text/javascript">
    function go()
    {
      var message='Where do you wish to go?';
      location = prompt(message, 'http://www.sdsu.edu');
    }
  </script>
</head>

<body>
  <a href="http://www.sdsu.edu" onmouseover="go(); return false">
    Try Me
  </a>

</body>
</html>
```

Some Window Methods

- open()
- close()
- focus()
- blur()
- scrollBy()

```
<html>
<head>
  <title>Sample</title>
  <script defer="defer" type="text/javascript">
    function go()
    {
      var message='Where do you wish to go?';
      var url = prompt(message, 'http://www.sdsu.edu/');
      window.open(url, 'ObjectNameGoesHere', 'resizable=no');
    }
  </script>
</head>

<body>
  <a href="http://www.sdsu.edu" onmouseover="go()">
    Try Me
  </a>

</body>
</html>
```

Document

Represents the HTML document displayed in the window

Methods

- close()
- open()
- write()
- writeln()

Properties

- aLinkColor, linkColor, vlinkColor
- anchors[]
- applets[]
- bgColor, fgColor
- cookie
- domain
- forms[]
- images[]
- lastModified
- links[]
- title
- URL

Accessing HTML Elements

```
<html>
<head>
</head>
<body onload="document.forms[0].elements[0].focus()">

<form action="foo" method="get" id="catId" name="cat">
  <input type="text" id="addressId" name="address" size="40" />
  <input type="text" id="firstNameId" name="firstName"
    size="40" />
</form>
<form action="bar" method="get" id="dogId" name="dog">
  <input type="text" id="addressId2" name="address" size="40" />
  <input type="text" id="lastNameId" name="lastName"
    size="40" />
</body>
</html>
```

Alternatives

```
<body onload="document.dog.lastName.focus()">

<body onload="document.getElementById('addressId2').focus()">
```

Some CSS

```
<html>
<head>
</head>
<body>
<h1>Hi</h1>
<h1>Bye</h1>
<script type="text/javascript">
  var h1 = document.getElementsByTagName("h1");
  h1[0].style.visibility = 'hidden';
  h1[1].style.fontSize = '48pt';
  h1[1].style.color = 'gray';
</script>
</body>
</html>
```