IT350 Web and Internet Programming

SlideSet #8: Intro to JavaScript

(from Chapter 6 of the text)
What’s JavaScript good for?

• Client-side computation?

• Server-side computation?
Java vs. JavaScript

Object-oriented?

Add methods/properties to objects at run-time?

Variable typing?

C-like expressions, control?
Addition / Strings Example – Part 1

Addition / Strings Example – Part 2

<?xml version = "1.0"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns = "http://www.w3.org/1999/xhtml">
<head>
<title>An Addition Program</title>
<script type = "text/javascript">
 <!--
 var firstNumber, secondNumber, number1, number2, sum;
 // read in first number from user as a string
 firstNumber = window.prompt( "Enter first integer", "0" );
 // read in second number from user as a string
 secondNumber = window.prompt( "Enter second integer", "0" );
 // convert numbers from strings to integers
 number1 = parseInt( firstNumber );
number2 = parseInt( secondNumber );
 // add the numbers
 sum = number1 + number2;
 // display the results
 document.writeln( "<h1>The sum is " + sum + "</h1>" );
 // -->
 </script>
</head>
<body>
<p>Click Refresh (or Reload) to run the script again</p>
</body>
</html>
<html xmlns = "http://www.w3.org/1999/xhtml">
<head> <title>Using Relational Operators</title>
<script type = "text/javascript">
<!--
var now = new Date(); // current date and time
  hour = now.getHours(); // current hour (0-23)
  // determine whether it is morning
  if ( hour < 12 )
    document.write("<h1>Good Morning, ");
  // determine whether the time is PM
  if ( hour >= 12 )
    {
      // convert to a 12 hour clock
      hour = hour - 12;
      // determine whether it is before 6 PM
      if ( hour < 6 )
        document.write("<h1>Good Afternoon, ");
      // determine whether it is after 6 PM
      if ( hour > 6 )
        document.write("<h1>Good Evening, ");
      }
      document.writeln( "the date is: " + now + "</h1>");
  // -->
</script>
</head>
<body>
<p>Click Refresh (or Reload) to run this script again.</p>
</body>
</html>
## Operators and Precedence

<table>
<thead>
<tr>
<th>Operators</th>
<th>Associativity</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>* / %</code></td>
<td>left to right</td>
<td>multiplicative</td>
</tr>
<tr>
<td><code>+ -</code></td>
<td>left to right</td>
<td>additive</td>
</tr>
<tr>
<td><code>&lt; &lt;= &gt; &gt;=</code></td>
<td>left to right</td>
<td>relational</td>
</tr>
<tr>
<td><code>== !=</code></td>
<td>left to right</td>
<td>equality</td>
</tr>
<tr>
<td><code>=</code></td>
<td>right to left</td>
<td>assignment</td>
</tr>
</tbody>
</table>

Fig. 7.17  Precedence and associativity of the operators discussed so far.

---

### Exercise #1 -- What’s the output?

```javascript
var a, b, c;

a = 1;
b = 2;
c = 3;

d = a + b * c;

window.alert("<h1>Begin</h1>");

if (d < 20)
  window.alert("d is okay: "+d);
else
  window.alert("d is too high!: "+ d);
  d = d - 3;

document.writeln("<h1>Done. Final d = "+d+"</h1>");
```

---

Adapted from © 2004 Prentice-Hall, Inc. All rights reserved.
Exercise #2 -- What's the output?

```javascript
var x, y, z;

x = 7;
y = 9;
z = "abc";

window.alert(x+y+z);
window.alert(z+y+x);
if (x)
    window.alert("x true");
x = "seven";
window.alert(x+y+z);
```

Exercise #3

- Write a JavaScript snippet to read in a number from the user and output its absolute value.
Exercise #4

• Write a JavaScript snippet to read in three numbers x, y, z and output them in sorted order.