

KEY IN-CLASS STUDENT ACTIVITY 4.2: MANAGE AND MAINTAIN JAVASCRIPT

Lesson Objective 4.1:

Manage and maintain JavaScript.

Resources, software, and additional files needed for this lesson:

1. Microsoft® Expression® Web 4 (preferred) or Notepad++. Notepad++ provides real-time feedback for writing JavaScript. Download: <http://www.notepadplusplus.org/>.

Guiding questions:

1. **What is the difference between a global and a local variable?** In JavaScript, a global variable is created outside any specific method or function. It is then available to all code inside the script tags. A local variable is defined as a variable defined inside a method or function. A local variable can only be used by the function that defines it.
2. **How can you avoid problems if a browser does not support JavaScript?** Avoid problems by adding comment code: `<!--` before the first JavaScript statement, and adding an end comment after the JavaScript code `-->`. This prevents the page from displaying the code, because HTML would render this as a comment and therefore does not display on the page.
3. **What is the purpose of using Windows® Library or jQuery for JavaScript in your website?** The Windows Library for JavaScript contains JavaScript and CSS files that provide several additional controls and CSS style rules that make it easier to build a website with a consistent Windows look and feel. jQuery is a fast and concise JavaScript Library that simplifies HTML document traversing, event handling, animating, and Ajax interactions for rapid web development. (from <http://jquery.com>)

Student activity:

Directions to the student:

Read the following scenario, answer the questions, and use the new CSS Region and multi-column styles to create a fluid web page. Verify your answers with the instructor.

Scenario:

Diane Forsyth has a friend who teaches children between the ages of five and seven years. She wants to review simple math facts with them, and she would like to make it fun by adding this activity to her school website.

Diane recommends using JavaScript, but her friend is not familiar with this tool. Demonstrate your skills by creating a web page using CSS Region and multi-column styles.

Content:

1. Create an HTML page that presents a math problem.
2. When the user presses the "Find answer" button, display the answer.
3. Include various types of math problems. Include at least four or five multiple-choice problems with varying degrees of difficulty.
4. Test the page.

5. Add a call to some built-in functions, such as `alert()` and `prompt()`.

Answers will vary, but this script is an example of code that will multiply two numbers and show the answer.

```
<html>
<head>
<script type="text/javascript">
function product(a,b)
{
return a*b;
}
</script>
<title>Math demo of using JavaScript</title>
</head>

<body>
<p>The product of 3 * 4 is: </p>
<script type="text/javascript">
document.write(product(4,3));
</script>

</body>
</html>
```