

KEY IN-CLASS STUDENT ACTIVITY 4.2: UPDATE THE UI BY USING JAVASCRIPT

Lesson Objective 4.2:

Update the UI by Using JavaScript.

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

1. Microsoft® Expression® Web 4 (preferred) or Notepad (Notepad++ is preferred; it provides real-time feedback for writing JavaScript. It can be downloaded at: www.notepadplusplus.org).

Guiding questions:

1. **How can JavaScript be used to change the appearance of a web page?** Developers can use JavaScript to change the properties of an element, hide an element, add an element, or delete elements from a page. JavaScript locates the content by using the id of the tag, the class name, or tag name.
2. **What events can be used to trigger a JavaScript function?** There are many events that occur from the moment the web page is loaded until the time the user closes the browser window. They include page load, pressing buttons, mouse events (mouse over, mouse out, mouse click), selecting an input field in an HTML form, submitting a form, and even keystrokes.

Student activity:

Directions to the student:

Read the following scenario. Use the new CSS Region and multi-column styles to create a web page. Verify your answers with the instructor.

Scenario:

Diane Forsyth's friend teaches students ages five to seven years. She created a website that helps students practice mathematics. It is working so well that she wants to add a new activity that teaches students to read the names of colors. When a student presses a button with the word "RED" on it, the background page color should change to red.

Content:

1. Create an HTML page.
2. Add a button for each color of the rainbow. For each button, add an onClick trigger to call the JavaScript function to change the background color.
3. Add a JavaScript function to the <head> section to execute when the user presses any of the buttons. (Be sure to add a variable to represent the color to be used for the background.)
4. Test the page.

Sample code:

```
<!DOCTYPE html>
<html>
<head>

<meta charset=utf-8>
<title>Use JavaScript to change the background color</title>
<script>
function changeBackground(color)
{
if (color=='y')
document.body.style.backgroundColor="yellow";
else if (color=='r')
document.body.style.backgroundColor= "#FF0000";
else if (color=='o')
document.body.style.backgroundColor= "orange";
else if (color=='g')
document.body.style.backgroundColor= "green";
else if (color == 'b')
document.body.style.backgroundColor = "blue";
else if (color == 'i')
document.body.style.backgroundColor = "indigo";
else if (color == 'v')
document.body.style.backgroundColor = "violet";
}
</script>
</head>
<body>
<input type="button" onclick="changeBackground('r')" value="Red Background" />
<input type="button" onclick="changeBackground('o')" value="Orange Background"
/>
<input type="button" onclick="changeBackground('y')" value="Yellow Background"
/>
<input type="button" onclick="changeBackground('g')" value="Green Background"
/>
<input type="button" onclick="changeBackground('b')" value="Blue Background"
/>
<input type="button" onclick="changeBackground('i')" value="Indigo Background"
/>
<input type="button" onclick="changeBackground('v')" value="Violet Background"
/>
</body>
</html>
```