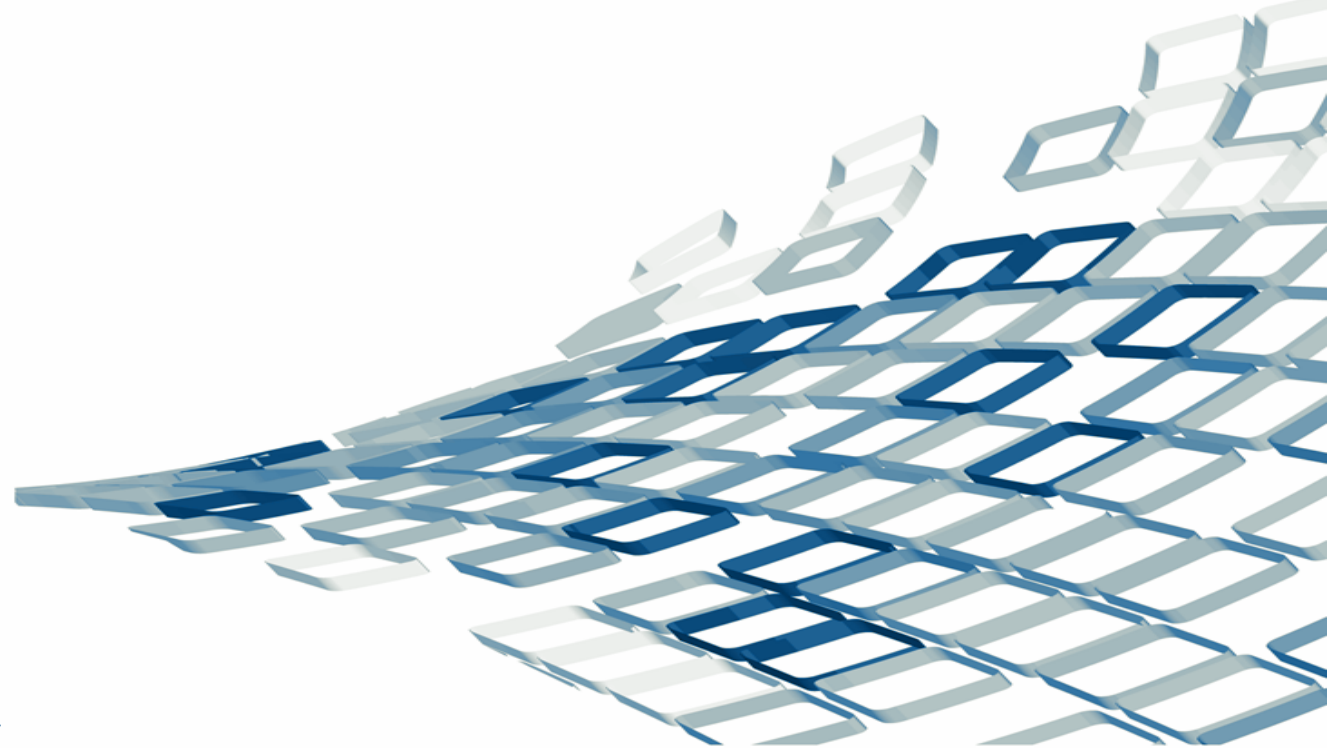# Lesson 10:
Changing X/HTML on the Fly

Objectives

- Identify steps and methods for changing X/HTML "on the fly," including the *getElementById*, *getElementsByName* and *getElementsByTagName* methods of the DOM

- Modify attributes in X/HTML using DOM elements

- Modify values in X/HTML using DOM elements

- Use the *innerHTML* element

Changing X/HTML on the Fly

- "On the fly"
  - Changes can be made when needed, even during the execution of a page or process
- X/HTML basics
- Why change X/HTML on the fly?

Using the *getElementByID* Method

- The *getElementById* method
  - Allows you to access and change all the properties of object elements
- The *innerHTML* property
  - Allows you to set and retrieve the contents of a specified element

Using the *getElementsByName* Method

- The *getElementsByName* method
  - Allows you to access all elements with the specified name

Using the *getElementsByTagName* Method

- The *getElementsByTagName* method
  - Allows you to access all elements with the specified tag name

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Modifying Attributes within the DOM

- *getAttribute()*
  - Allows you to retrieve the corresponding value of an attribute
- *setAttribute()*
  - Allows you to dynamically modify the value of an element's attribute
- *removeAttribute()*
  - Allows you to remove entire X/HTML attributes from an element

Appending Text to the DOM

- The *appendChild* method
  - Enables you to add elements to the end of the page, before the closing *</body>* tag, without overwriting the existing page content

Summary

- Identify steps and methods for changing X/HTML "on the fly," including the *getElementById*, *getElementsByName* and *getElementsByTagName* methods of the DOM

- Modify attributes in X/HTML using DOM elements

- Modify values in X/HTML using DOM elements

- Use the *innerHTML* element

Lesson 10 Quiz

1. What happens when you use the document.write method in an X/HTML page and then render the page?

a. The page will fail to render and cite an undefined error.

b. The document.write will overwrite the existing page.

c. The document.write will append whatever new elements are introduced.

d. The method will not launch, so you will see no difference in the page.

Lesson 10 Quiz

1. What happens when you use the document.write method in an X/HTML page and then render the page?

a. The page will fail to render and cite an undefined error.

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Lesson 10 Quiz

2. Which statement is true about the cross-browser compatibility of X/HTML attributes and elements?

a. Every attribute and element is available in all browsers; W3C has set the standard for this.

b. Every script needs to be tested in multiple browsers to ensure compatibility; this can be time-consuming but will result in better overall products.

c. JavaScript will run even deprecated elements with warnings and occasional errors; every attribute and element is available.

d. If an element or attribute is unavailable, the JavaScript interpreter will run an alternative element or attribute so the user will not know the difference.

Lesson 10 Quiz

2. Which statement is true about the cross-browser compatibility of X/HTML attributes and elements?

a. Every attribute and element is available in all browsers; W3C has set the standard for this.

b. Every script needs to be tested in multiple browsers to ensure compatibility; this can be time-consuming but will result in better overall products.

c. JavaScript will run even deprecated elements with warnings and occasional errors; every attribute and element is available.

d. If an element or attribute is unavailable, the JavaScript interpreter will run an alternative element or attribute so the user will not know the difference.

Lesson 10 Quiz

3. The getAttribute, setAttribute and removeAttribute methods can be run:

a. only once per page.

b. only in the <head></head> section, because the first one to run will be the settings the user will see if there is a conflict.

c. anywhere in the page, as long as they are between <script></script> tags, but the last one to run will be the settings the user will see if there is a conflict.

d. only in the <body></body> tags, because the methods are run from actions.

Lesson 10 Quiz

3. The getAttribute, setAttribute and removeAttribute methods can be run:

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b. only in the <head></head> section, because the first one to run will be the settings the user will see if there is a conflict.

c. anywhere in the page, as long as they are between <script></script> tags, but the last one to run will be the settings the user will see if there is a conflict.

d. only in the <body></body> tags, because the methods are run from actions.

Lesson 10 Quiz

4. Consider the following code snippet:

```
<p><strong>My Text</strong></p>
<script type="text/javascript">
window.onload=function(){
document.getElementsByTagName("p")[0].innerHTML="<strong>My Cool
Text</strong>"
}
</script>
```

What will happen when this code is placed appropriately within XHTML?

a. The words "My Cool Text" will appear in the browser.

b. The words "My Text" will appear in the browser.

c. The words "My Cool Text" will appear underneath "My Text" in the browser.

d. The code has an error; getElementsByTagName cannot be used with block formatting tags (<p>).

Lesson 10 Quiz

4. Consider the following code snippet:

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d. The code has an error; getElementsByTagName cannot be used with block formatting tags (<p>).

5. Consider the following code snippet:

```
<script type="text/javascript">
function changeLink()
{
document.getElementById('ChangeURL').innerHTML="CIW Certified";
document.getElementById('ChangeURL').href="http://www.ciwcertified.com/";
document.getElementById('ChangeURL').target="_blank";
}
</script>
</head>
<body>
<a id="ChangeURL" href="http://www.microsoft.com">Microsoft</a>
<input type="button" onclick="changeLink()" value="Change Link" />
```

What will happen when this code is placed appropriately within XHTML?

a. When the button is clicked, nothing will happen.

b. When the button is clicked, the text and URL will switch to CIW Certified, and when you click the button again, it will switch back to Microsoft.

c. When the button is clicked, the text and URL will switch to CIW Certified, and when you click the button again, nothing will happen.

d. There is an error in the script and it will fail to run.

Lesson 10 Quiz

5. Consider the following code snippet:

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d. There is an error in the script and it will fail to run.