

# DOM Selectors

## EE1707 Programming for Digital Media 2 Workshop 2 (Peter Broomhead& Ali Mousavi)

This workshop reinforces material presented as part of the accompanying lecture course on JavaScript and in particular the DOM Selectors API.

The work sheet itself is self-paced in the sense there is no set allocation of work to be carried out during the timetabled activity. But remember you learn to program by writing code, solving problems, observing what others have done, emulating others and most importantly by experimentation; that is: *'suck-it-and-see'*.

Please ensure you read the worksheet carefully and completely understand what is being asked of you in terms of the tasks before attempting them. Remember if you are lost at this stage, matters will only get worst later on.

In this workshop you are expected to:

- Use comments to make the program more readable
- Use correct program layout
- Test your program at each stage
- Create a HTML file in your project
- Use a JavaScript function as an event handler
- Use the CSS selectors to locate DOM elements
- Use DOM scripting to update the user interface
- Include an external JavaScript file

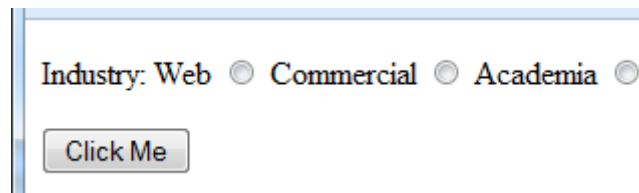
- 1) Add a new HTML file (File > New File... > HTML5 > HTML File) to your NetBeans project for this week's workshop. Set the File Name to workshop 2.

In the HTML set the title to Workshop 2 and add an input button to the page above the div. The HTML content should look like this:

```
<html>
  <head>
    <title>Workshop 2</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width">
  </head>
  <body>
    <input type="button" value="Click Me" name="button" />
```

```
</div></div>
</body>
</html>
```

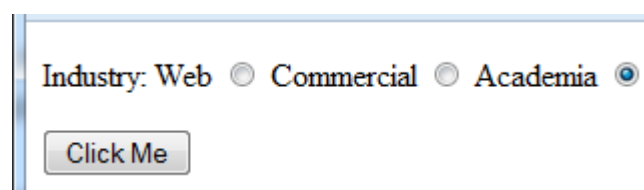
- 2) Now above the `<input>` button in the HTML `<body>` insert three radio buttons whose common name is 'industry' and their respective individual values are: 'web', 'commercial' and 'academia' – add formatting and layout as necessary. You may wish to use the Palette in NetBeans to drag and drop the radio buttons into your page (Window > IDE Tools > Palette). The page should be of the form shown below:



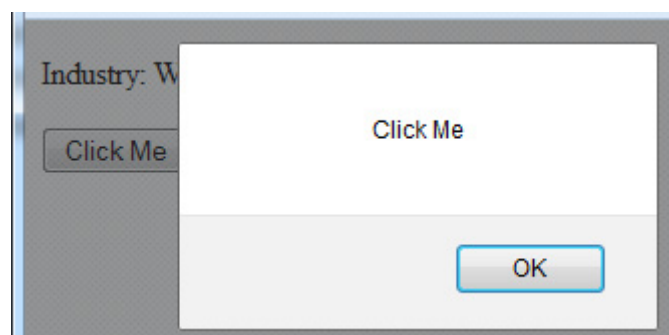
Add a JavaScript file to the project, in the *project* window right click on the 'Site Root' node and select a New > JavaScript File... set the File Name to *myAlert1*.

Next add a `<script>` tag to the HTML header who's a 'src' attribute value is set to 'myAlert1.js' i.e. includes that file.

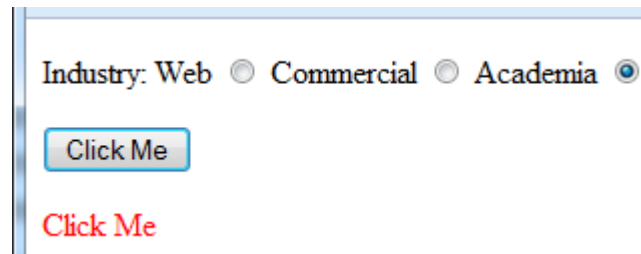
In your JavaScript file add a 'window.onload' handler function. In the handler function, use the DOM Selectors API to locate the 'input' element whose type is 'radio', whose value is 'academia' and set its 'checked' property to true i.e. preselect that radio button. Run your HTML and it should look like:



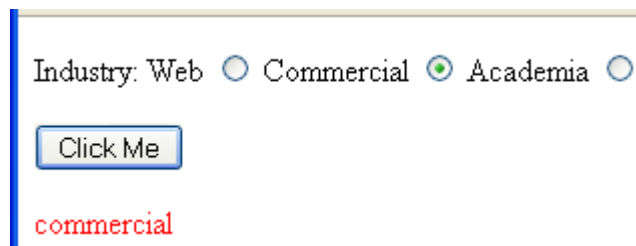
- 3) Now locate the input button in your page using the Selector API and add an 'onclick' handler function to it. In your 'onclick' handlers body make a call to alert and display the buttons 'value' property. Run the HTML and click on the button:



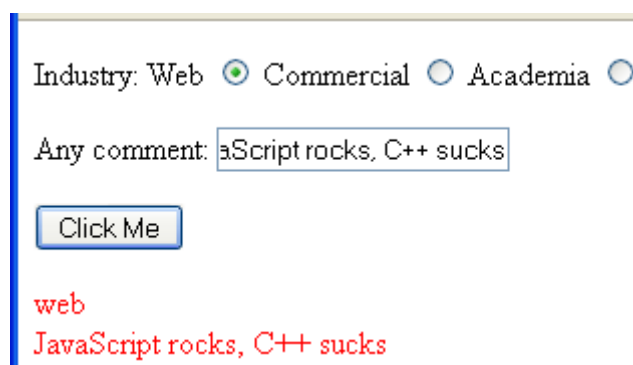
Now that the alerts working, replace it with a call to the Selectors API that locates the <div> element in your page and set its 'innerHTML' i.e. its body content to the buttons value. Set the located <div> elements 'color' to red and run the HTML:



- 4) Now that we've 'wired-up' the event handling and display, in the 'onclick' handler use the Selectors API to locate the radio button whose name is 'industry', has been selected and display its value:



- 5) As you've gain some experience in the use of the Selectors API and DOM scripting, try dragging a 'Text Input' from the palette into your HTML and format it. In your 'onclick' handler supply the necessary JavaScript to locate this element, to access its value and to also display its value:



- 6) As optional extension work: do it all again, but on this occasion use jQuery.