

CIS 4004: Web-Based Information Technology

Fall 2013

Homework Assignment #4 (100 pts)
Due Friday November 8, 2013

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Homework Assignment #4

- This assignment has three main objectives:
 - (1) To give you some more practice utilizing CSS to style your pages.
 - (2) To gain experience with the DOM tree and manipulating web pages dynamically.
 - (3) To utilize JavaScript to access the DOM tree of a document to dynamically modify the presentation of the page.



HTML For Assignment #4

- I've put a validated copy of the markup that you are to use to *begin* this assignment on the course web page (it's also on WebCourses).
- The markup consists of a single table that has only a width style property assigned to it. All other table styles (except for the width property) are simply whatever the default styles for table elements will be in the browser.
- This is the starting point for this assignment.
- The page renders as shown on the next slide.



Opera

file:///C:/COURSES/CIS%204004%20-%20Web%20Based%20Information%20Technology/CIS%204004%20-%20Fall%2

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Title	Author	Publisher	Comment
PPK on JavaScript	Peter-Paul Koch	New Riders	Europe's foremost JS expert gives his personal insights.
Beginning JavaScript with DOM Scripting and Ajax	Chris Heilmann	Apress	Yahoo's JS guru ensures you're not a beginner for long.
Pro JavaScript	John Resig	Apress	Serious JS with the man who brought you jQuery.
Bulletproof Ajax	Jeremy Keith	New Riders	Approachable and readable—a little masterpiece.
Ajax in Action	David Crane & Eric Pascarello	Manning	Modern coding techniques for professional Web programmers.
Programming The World Wide Web	Robert Sebesta	Pearson	A long standing classic - 3 JavaScript chapters, two of which deal with the DOM.



Details For Assignment #4

- The first step in this assignment is to apply CSS to the original markup so that when the page is rendered with the CSS applied it will look like the page shown on the next slide.
- All CSS should be in an external style sheet. Do not use any embedded or inline styles in this assignment.
- Note that getting the styles correct will include slight modification of the markup.
- Get rid of the original “border=1” property of the table.
- **NOTE:** The original style that is included in the initial markup should be moved to the external style sheet.



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Details For Assignment #4

- Once you get the CSS correct, the second step in this assignment is to create the necessary JavaScript that will cause the odd numbered rows (rows of the table will be indexed from 0..n, so rows 1, 3, 5,... will be striped using the alternate color) of the table to be striped with a single color that will enhance the readability of the table.
- A screen shot of what the final document rendering should look like is shown on the next slide.
- The JavaScript should fire when the page is loaded. In other words, no user interaction is required to cause the final rendering as shown to appear, this should be the only rendering that the user sees.



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Details For Assignment #4

- Your JavaScript must work correctly for:
 1. A table with an arbitrary number of rows.
 2. A page with more than one table. That is to say, any identified table that appears in the document should have its rows striped by your JavaScript. (Hint: Do not use the method `getElementById()`, rather use the method `getElementsByTagName()`, where you'll be looking for the `table` tag.)
- You can use different colors than I used, but you must have a good contrast between the rows in the table.



Details For Assignment #4

- What your JavaScript is doing is adding a CSS class to alternate rows in a table to accomplish the striping effect.
- This will be done dynamically via the JavaScript accessing and manipulating the DOM tree for the document. In other words, you do not add the class to the rows of the table statically (i.e., in the markup), it will be done dynamically via the JavaScript.
- Only the tables identified by a specific class will be striped. In other words, there might be 10 tables on the page, but only 3 of those tables are in the class, the remaining 7 tables would not be striped.



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A Multiplication Table

	1	2	3	4	5	6	7	8	9
1	1	2	3	4	5	6	7	8	9
2	2	4	6	8	10	12	14	16	18
3	3	6	9	12	15	18	21	24	27
4	4	8	12	16	20	24	28	32	36
5	5	10	15	20	25	30	35	40	45
6	6	12	18	24	30	36	42	48	54
7	7	14	21	28	35	42	47	56	63
8	8	16	24	32	40	48	56	64	72
9	9	18	27	32	45	54	63	72	81



When And What To Turn In

- The deliverables for this assignment are:
 1. A semantically correct HTML5 markup document (5 pts).
 2. The CSS external stylesheet (30 pts).
 3. The JavaScript file (40 pts.)
 4. A document containing screen captures for both HTML5 validation that shows only the one warning as shown on the next page and CSS validation (both passing!). Make sure that the name of the validated file appears in the screen shot. (10 pts – 5 pts each)
 5. A screen shot of your final rendered document. (10 pts)
- The deliverables for this assignment are to be submitted via WebCourses no later than 11:59pm (WebCourses2 time) on Friday November 8, 2013.



W3C[®] Markup Validation Service

Check the markup (HTML, XHTML, ...) of Web documents

Jump To: [Notes and Potential Issues](#) [Congratulations - Icons](#)

This document was successfully checked as HTML5!

Result:	Passed, 1 warning(s)	
File:	<input type="button" value="Choose File"/> no file selected <i>Use the file selection box above if you wish to re-validate the uploaded file ProjectFourFinalMarkup - Project Version.html</i>	
Encoding:	utf-8	<input type="button" value="(detect automatically)"/>
Doctype:	HTML5	<input type="button" value="(detect automatically)"/>
Root Element:	html	



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The W3C CSS Validation Service

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Jump to: [Validated CSS](#)

W3C CSS Validator results for project4css.css (CSS level 3)

Congratulations! No Error Found.

This document validates as [CSS level 3](#) !

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<p>  
  <a href="http://jigsaw.w3.org/css-validator/check/referer">  
      
  </a>  
</p>
```

