ARIA Tutorial:
8 February 2012

Using CSS3 Features
This tutorial session will help you to learn and use CSS features like styling as well as new features in CSS3 like font-face, multi column layout and media queries.

Part I: Setup

1) Download the sample HTML & CSS File from Moodle under "Week 2 - Extra Tutorial Resources."

2) Copy both files (ARIATutorialPart2.html & ARIATutorialPart2.css) to your desktop.

3) Open both files in a text editors and a browser so that you're ready to change things in the text files & reload it in the browser.

4) Change the title of the HTML page to be your name & student number. Save & refresh the browser so you see the change in the browser.

Now you're ready to get to work!

Part II: Styling & Spacing elements
1) In your CSS file, you have an id called "#square." Give this a background color of green, a height & width of 200px each, and a blue groove border that is 5 pixels wide.

2) Now you're going to give the div rounded corners. Add a border-radius of 40px to this div. For help, see this page: http://www.w3schools.com/css3/css3_borders.asp

3) Now give the div a box-shadow. Add a grey box shadow of 8 pixels to the div. For help, see this page under "CSS3 Box Shadow": http://www.w3schools.com/css3/css3_borders.asp

4) It's not easy to read the page as things bump right up against the edge of the window. Edit your CSS file so that the body has a width of 960 pixels, a top-margin of 30. and an "auto" margin for the rest of the sides. This lets the browser set default margins for your content which will make it easier to read.

Part III: Using Web Fonts / CSS3 @font-face

1) Go to Google Fonts: http://www.google.com/webfonts

2) Select a font that you like & click "Quick-use" for that font.

3) Copy the "<link rel="stylesheet"....>" code and past it into the <head> section of your HTML document. Now you can reference this font.

4) In your CSS file, find the h2 block & add the following code to make it use your new font family:

```
h2 {
      font-family: 'THENAMEOFTHEFONT YOU USED';
}
```

So if I selected the font "Tangerine" for example, my h2 code would be:

```
h2 {
      font-family: 'Tangerine';
}
```

5) Save & reload the html page in the browser. If your font hasn't changed, take a look at this for more information or to debug it: https://developers.google.com/webfonts/docs/getting_started

6) Add some additional properties to your font to make it more interesting. Change the font size to be 48 pixels. Add a text-shadow of 4 pixels. If you aren't sure how to do these, see the CSS3 guidelines on font-sizes here: http://www.w3schools.com/css/css_font.asp and on text effects here: http://www.w3schools.com/css3/css3_text_effects.asp

Part IV: Using CSS3 Transforms

Transforms require different prefixes for different browsers unfortunately. You'll see what I mean below when you have to define properties multiple times for different browsers.

1) Copy your square div in your html file so you have two square divs, one called square and one called squareRotated.

2) Copy your square id in your CSS file so you have two IDs, one called square and one called squareRotated.

3) In the CSS file, add a rotation transform of 45 degrees. For help, see this page: http://www.w3schools.com/css3/css3_2dtransforms.asp

4) Save & refresh your browser to make sure you now have two divs on the page, one normal & one that is rotated to 45 degrees.

Part V: Using CSS3 Transitions

Transitions don't work yet in Internet Explorer, so if you're using that browser, try a different one like Chrome or Firefox for this exercise.

You're going to create an effect on your rotated div so that when you mouse over it, it will enlarge.

1) In your CSS file, edit the squareRotated div to add a transition property. Give it two properties: width 3s and height of 3s. The s here stands for seconds, so this is how long you want the effect to last. If you need help, see this page: http://www.w3schools.com/

css3/css3_transitions.asp

2) Now we need to set the div to listen for a mouse hover. Add a section in your CSS file called "#squareRotated:hover" and set its height and width to 300 pixels. Again, if this isn't making sense, re-read this page on transitions: http://www.w3schools.com/css3/css3_transitions.asp

3) Save your CSS file & refresh the browser. Now when you mouse over the rotated div, it should change size slightly.

Part VI: Using CSS3 Multiple Columns
Multiple Columns also don't work in Internet Explorer, so use Chrome or Firefox for this exercise.

1) In your CSS file, you have a section called "theText." Edit this so that the text becomes 4 columns. If you need help on this, read this section: http://www.w3schools.com/css3/css3_multiple_columns.asp

2) Make the gaps between the columns a bit wider. Change the CSS so that there is a 60 pixel gap in between the columns.

3) Now put a grey, dotted vertical line in between columns with a width of 5 pixels. Again, see this page for more help if you need it: http://www.w3schools.com/css3/css3_multiple_columns.asp

4) Resize the browser to see how the column widths change and the browser window gets larger or smaller.

Part VII: Looking at fixed versus fluid layouts
If you've made it this far today, nice work! You are quickly getting very familiar with CSS!

The next thing to look at is understanding the difference between fixed layouts and fluid layouts. Look at this site: http://csseasy.com/. Each of the eight different layout styles has its CSS in an internal spreadsheet.

Click on a layout and you'll see a few boxes. Right click to view the source and try to understand how these layouts are different.

Also notice the very clean styles used for comments in the HTML and in the CSS section of the files. This is a good place to learn how to create readable code which will make sense for years to come.

There is no deliverable for this section of the exercise, it's just to look at the differences between fluid and fixed layouts so you can understand the properties and elements used.

Further References:
Fluid Grids article by Ethan Marcotte -- http://www.alistapart.com/articles/fluidgrids/

Responsive web design article by Ethan Marcotte: http://www.alistapart.com/articles/responsive-web-design/

CSS Media Queries and Using Available Space by Chris Coyier: http://css-tricks.com/css-media-queries/

Styling Images with CSS3 by Nick La: Part I http://webdesignerwall.com/tutorials/css3-image-styles & Part II http://webdesignerwall.com/tutorials/css3-image-styles-part-2

Taking advantage of HTML5 & CSS3 with Modernizr by Faruk Ates: http://www.alistapart.com/articles/taking-advantage-of-html5-and-css3-with-modernizr/

Modernizr: http://www.modernizr.com/

CSS3 Foundations on Team Treehouse: http://teamtreehouse.com/library/design-foundations/css3