CMSCI 256 Project 1 (Due Tuesday 3/22/16)

You can work alone or in a group of up to three people. You have two choices:

Option 1: Develop your own web app. There is an opportunity to present your app at SPARC if you do a good enough job. It should satisfy the following criteria:

- It should involve HTML, CSS, JavaScript, and PHP.
- The level of difficulty should be at least as high as the Sudoku problem below.
- You **must approve** your project ahead of time with me.

Option 2: A Sudoku puzzle program. Here are the requirements:

- There is a text file containing 30 Sudoku puzzles. Use these puzzles for this project.
- When the player first visits the page, your program should randomly choose a puzzle and display it.
- If the player reloads the page, a different puzzle should be generated.
- The display should look like the one shown below. In particular, your borders must vary in thickness in the appropriate places. You will probably need to look up the CSS nth child property in order to do this.
- The user should be able to type values into the appropriate cells, but they should not be allowed to modify the cells that are part of the initial puzzle. They should only be able to type a single number in the cells that they are allowed to change.
- Do something (like change the color) to make sure the editable cells are displayed differently from non-editable cells.
- There should be a check button that they can use to check their answers. When it is clicked, your program should highlight in red any cells that are wrong. Other than that, the user should still be able to play the same puzzle, and all of their entries should still be there.
- There should be a show answer button that displays the correct answer directly in the puzzle.
- The program should support keyboard navigation using the arrow keys to move from cell to cell. All four arrow keys should be supported.