This assignment is due at 2:45 Thursday, Sept. 6. You should work with a partner to complete this assignment but it should be a thoroughly collaborative effort. Do not partition the work! You and your partner will submit one solution except to problem 1. You may confer with your partner on problem 1 but each of you must complete the tutorial.

Definitions:

- A sudoku grid is *valid* if it has a unique solution. Otherwise it is *invalid*.
- A sudoku grid is *consistent* if every number appears at most once in any row, column, or block. Otherwise it is *inconsistent.*

1) Complete the online tutorial at
   http://www.cs.hmc.edu/courses/2012/fall/cs121_1/tutorials/tutorial1.pdf

   (You will demo your result in class on Thursday.)

2) Write down the rules of sudoku. (Use online resources as needed.)

3) Consider three version of sudoku:
   a) Paper version (supplied in lab)
   b) L.A. Times online sudoku available at: http://games.latimes.com/
   c) One iPad version (supplied in lab)

   What do they have in common? How do they differ? How do they enforce the rules of sudoku (or not)? What sort of support do they provide to players to help them reach a solution?

4) Develop a model of your "core" sudoku game using the following formats:

   a) Storyboard
   b) Flow chart or state diagram
   c) Use case(s)

   Make sure your models clearly articulate how you will handle invalid and inconsistent input. Provide a brief rationale for your choices.

   (Hand-drawn storyboards and flow charts are fine. Just be sure they are legible.)

5) Develop a prioritized list of features (6-10) to augment your core game. (Note: if you can't think of at least 6, it probably means your core game has too many features!) Briefly describe each feature you propose and rationalize your prioritization.