

Assignment 0: Matchismo

Objective

This assignment starts off by asking you to recreate the demonstration given in the second lecture. Not to worry, the posted slides for that lecture contain a detailed walk-through. It is important, however, that you understand what you are doing with each step of that walk-through because the rest of the assignment requires you to add a simple enhancement and your assignment for next week will extend Matchismo even further.

This assignment must be submitted using the submit script described [here](#) by the end of the day next Monday. You may submit it multiple times if you wish. Only the last submission will be counted. If you wait until the last minute to try to submit and you have problems with the submission script, you'll likely have to use one of your valuable late days.

Be sure to check out the [Hints](#) section below!

Materials

- Before you start this assignment, you will need to download and install Xcode 4 using the App Store on Mac OSX (*not* the App Store on your iOS device, the App Store on your *Mac*).

It is critical that you get Xcode downloaded and functioning as early as possible in the week so that if you have problems you will have a chance to talk to the TA's and get help. If you wait too long and then you cannot get the SDK downloaded and installed, it is unlikely you'll finish this assignment on time.

- The slides for all lectures can be found in the same place you found this document.

Required Tasks

1. Follow the detailed instructions in the lecture slides (separate document) to build and run Matchismo in the iPhone (normal, non-Retina, non-iPhone 5) Simulator. Do not proceed to the next steps unless your card flips as expected and builds without warnings or errors.
2. Add a property to the `CardGameViewController` to hold a `PlayingCardDeck`.
3. Use lazy instantiation to allocate and initialize this property.
4. Matchismo so far only displays the A♣ over and over. Fix Matchismo so that each time the card is flipped face up, it displays a different random card drawn from the deck property you've created above. In other words, Matchismo should flip through the deck, showing the cards one by one.

Hints

These hints are not required tasks. They are completely optional. Following them may make the assignment a little easier or better (no guarantees though!).

1. A good solution will have given some thought to what happens if every card in the deck has been shown and the user still keeps flipping. Do something simple and sensible.
 2. Economy is valuable in coding: the easiest way to ensure a bug-free line of code is not to write the line of code at all. This assignment requires very, very, very few lines of code so if you find yourself writing more than a handful of lines of code (over and above what was demonstrated in lecture), you are on the wrong track.
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Evaluation

In all of the assignments this quarter, writing quality code that builds without warnings or errors, and then testing the resulting application and iterating until it functions properly is the goal.

Here are the most common reasons assignments are marked down:

- Project does not build.
- Project does not build without warnings.
- One or more items in the **Required Tasks** section was not satisfied.
- A fundamental concept was not understood.
- Code is sloppy and hard to read (e.g. indentation is not consistent, etc.).
- Your solution is difficult (or impossible) for someone reading the code to understand due to lack of comments, poor variable/method names, poor solution structure, poor use of whitespace, etc.
- Assignment was turned in late (you get 3 late days per quarter, so use them wisely).

Often students ask “how much commenting of my code do I need to do?” The answer is that your code must be easily and completely understandable by anyone reading it. You can assume that the reader knows the SDK, but should not assume that they already know the (or a) solution to the problem.

Extra Credit

This section usually contains a few ideas for some things you could do to get some more experience with the SDK at this point in the game. However, there is no extra credit available this week since we're just getting started.