ITP 342 Lab 5

Goal

- You will update your **Flashcards** iPhone app.
- It will have a tab bar for two views – one to display a flashcard and one for the table of flashcards.
- The tab bar item that displays a table of flashcards will allow the user to add and delete cards.
- Add data persistence to the model by saving a plist file to your app's Documents folder. Do not use User Defaults.

Assignment

- Duplicate the high-level Flashcards (or Lab4) folder. Rename the copy to something like Flashcards_Lab5.
- Update the View Controller (the one that displays a single card):
  - Embed it into a Tab Bar Controller.
- Create the Table View Controller in Storyboard:
  - Use the library to create a Table View Controller Scene.
  - Embed in a Navigation Controller.
  - Add a bar button item for Add.
  - For the Table View Cell, update the style and the reuse identifier.
- Create the Cocoa Touch Class for the Table View Controller:
  - Enable the Edit navigation bar item and have it display on the left.
  - Create a private property for the model and use its singleton method.
  - Update the data source and delegate methods.
- Create a View Controller Scene in Storyboard to add a flashcard:
  - Add a navigation bar on top and add bar button items for Cancel and Save.
  - Add a label to tell the user what to enter.
  - Add a text view to input a question.
  - Add a text field to input an answer.
- Create the Cocoa Touch Class for the Add View Controller:
  - Make it adhere to the UITextViewDelegate and UITextFieldDelegate protocols.
  - Implement the UITextViewDelegate and UITextFieldDelegate methods to enable/disable the Save button. It should be enabled when there is text in the text view and the text field.
  - Create a typedefBlock with no return type, and two arguments – NSString objects for the text of the Text View and Text Field.
  - Create a public property of the typedefBlock.
  - Create a public property to set the text of the label telling the user what to enter.
  - Create a public property to set the placeholder of the text field.

  - Create the appropriate IBOutlets.
  - Create the IBActions for the Cancel and Save buttons.
  - Implement the touchesBegan:withEvent: method to have the keyboard dismiss properly.
- Update the Add View Controller in Storyboard:
  - Update the Class in the Identity Inspector.
  - Make it a delegate for the Text View and Text Field.
- Update the Table View Controller in Storyboard:
  - Update the Class in the Identity Inspector.
  - Create a private property for the model and use its singleton method.
  - Update the data source and delegate methods.
  - For the Table View Cell, update the reuse identifier.
  - Create a Present Modally segue from the Add button to the Add View Controller.
- Update the Table View Controller class:
  - Implement the prepareForSegue: method. In it, set the set the public properties.
- Add data persistence:
  - Update the model to add data persistence by saving a plist file to your app's Documents folder.
  - Verify that it works through the user interface.
  - Also verify that the file has been create/updated in the correct folder.
    In the init method in your file, log the filepath in the console. Using Finder, find your app folder that was printed out in console window using the NSLog statement above. In Finder, you can press the Shift-Command-G keys and enter the path in the text field. Look in the Documents folder. You should see a plist file.

Submission

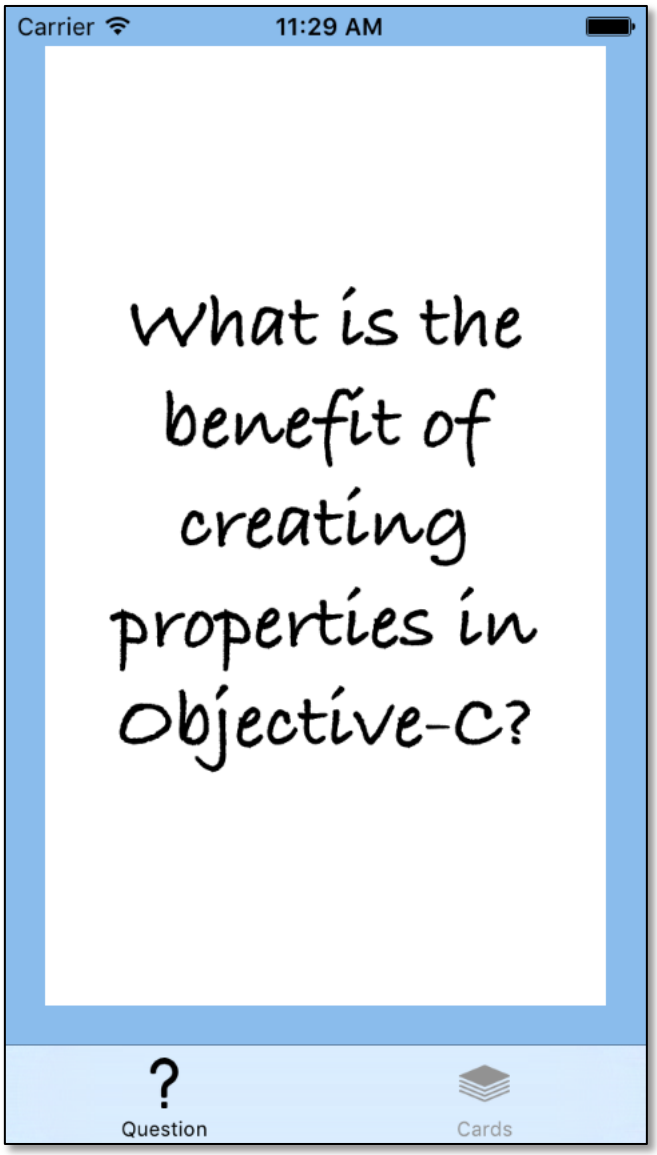
- Compress your project folder.
- Rename the zip to *LastnameFirstname*Lab5.zip.
- Submit the .zip file on Blackboard under Assignments.

Grading (60 pts)

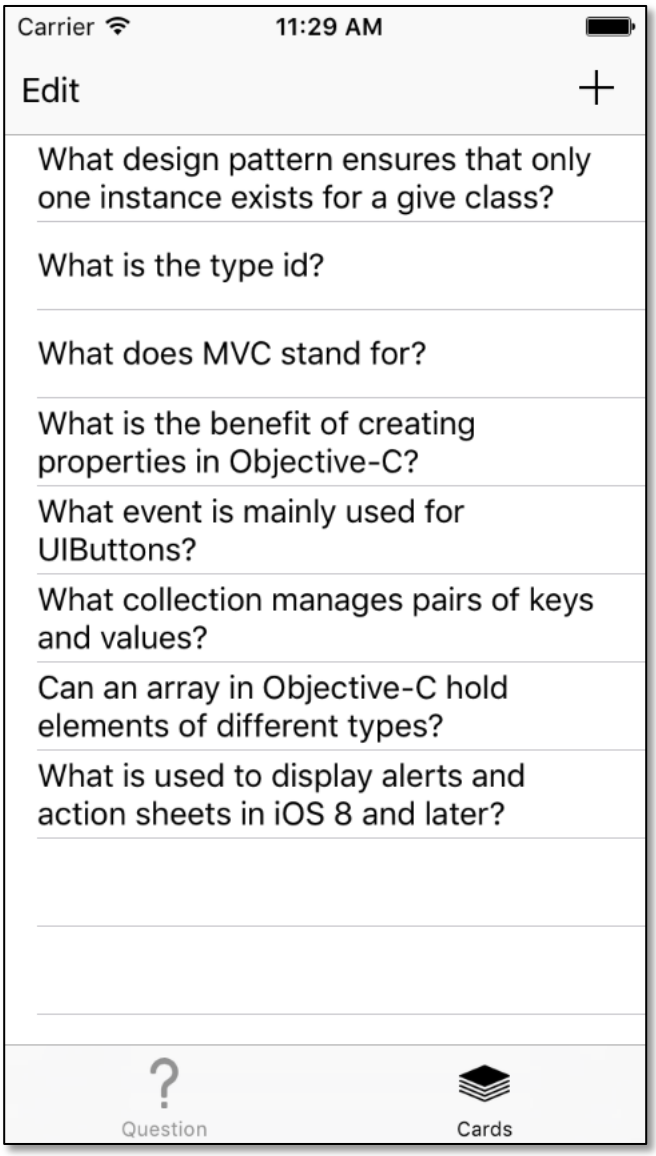
- Tab bar: 5 pts
- Table of flashcards: 15 pts
  - 5 for table shows questions
  - 5 for add button on right and edit button on left
  - 5 for delete working properly
- Add new flashcard: 15 pts
  - 5 for enable/disable Save button (text in text view and text field)
  - 5 for completion handler
- Auto Layout (can be portrait only; iPhone 5, 6, 6 Plus): 5 pts
- App icon image and tab bar icons in Assets: 5 pts
- Data persistence: 15 pts
  - If a plist file exists in the Documents directory, then the model loads the data. If not, model creates at least 5 flashcards: 10 pts
  - Save model when add and delete a flashcard: 5 pts
- Do not share your code with other students. Do not accept code from other students. If you need help, ask the lab assistants and instructor.

Example

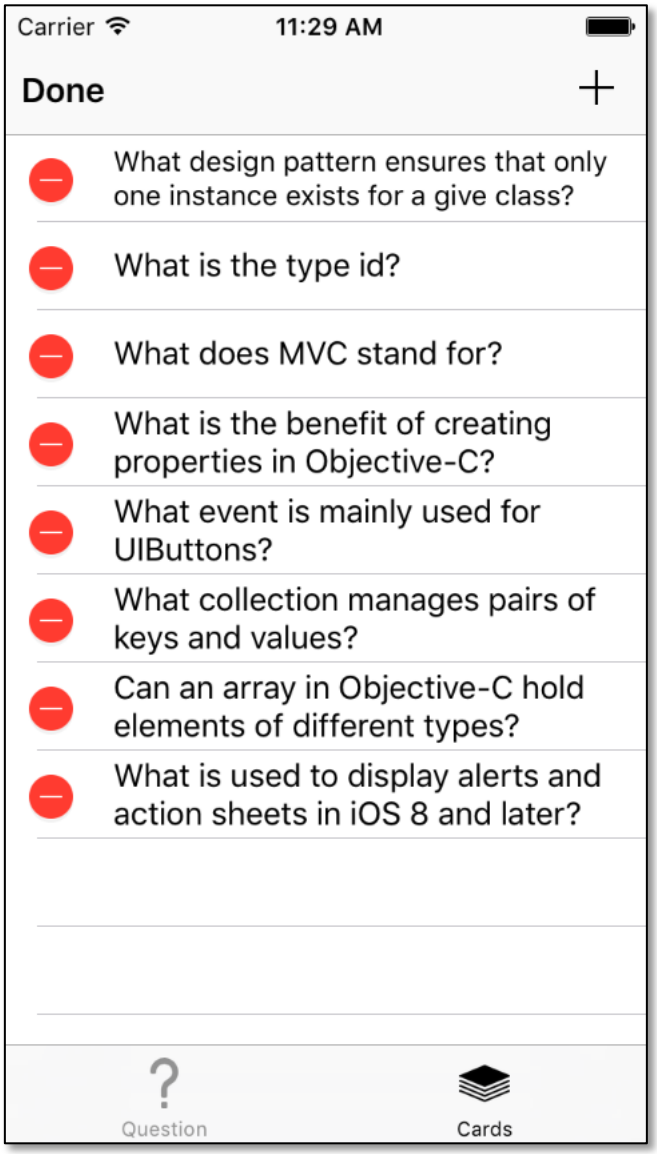
Question Tab



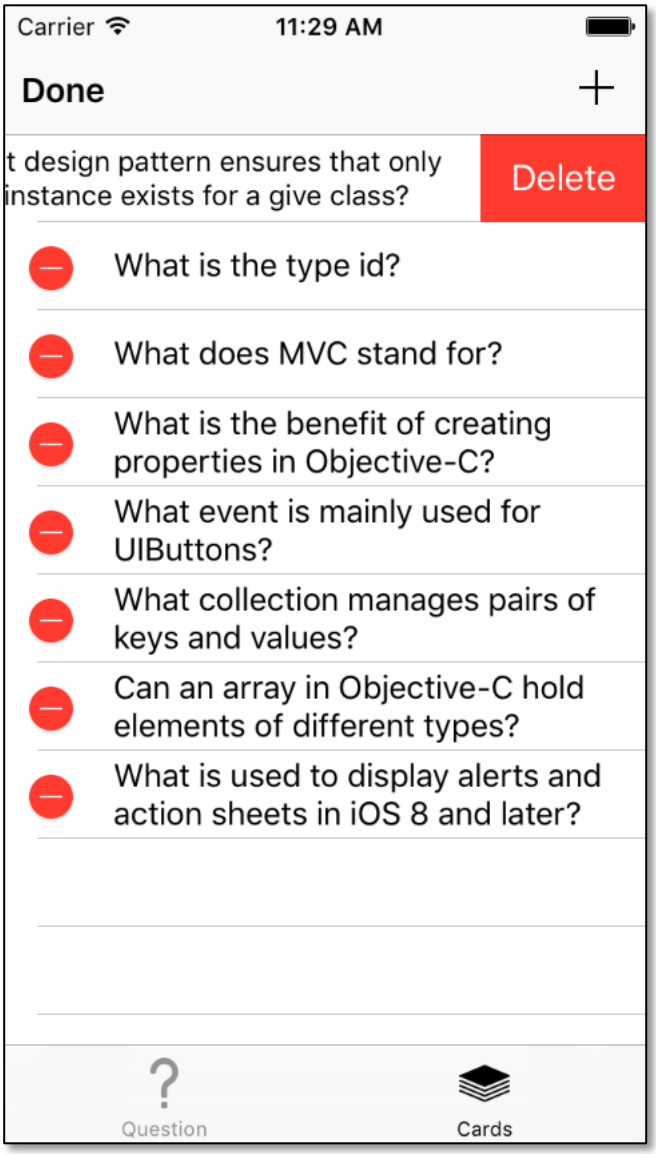
Cards Tab



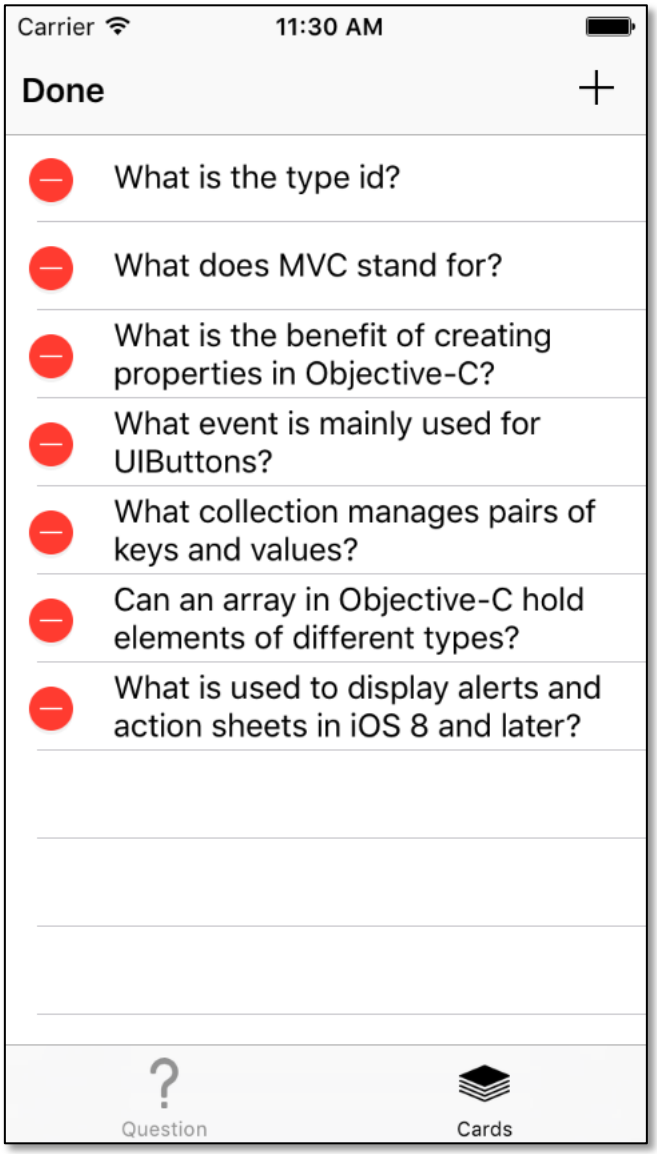
Edit touched



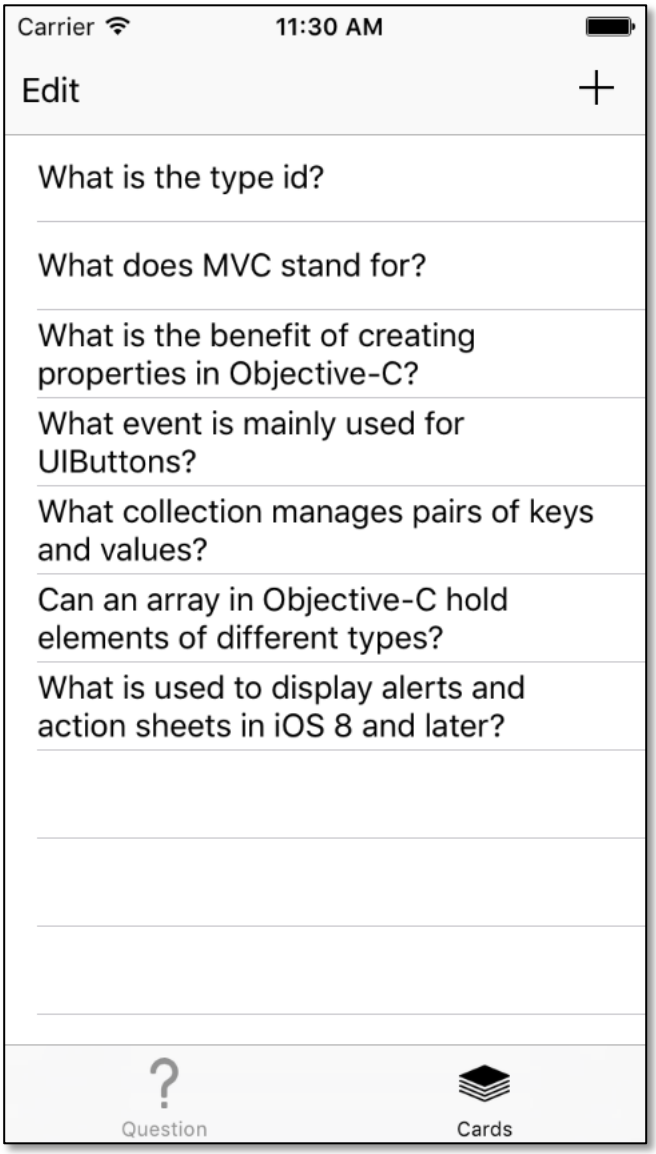
Minus icon touched for first element



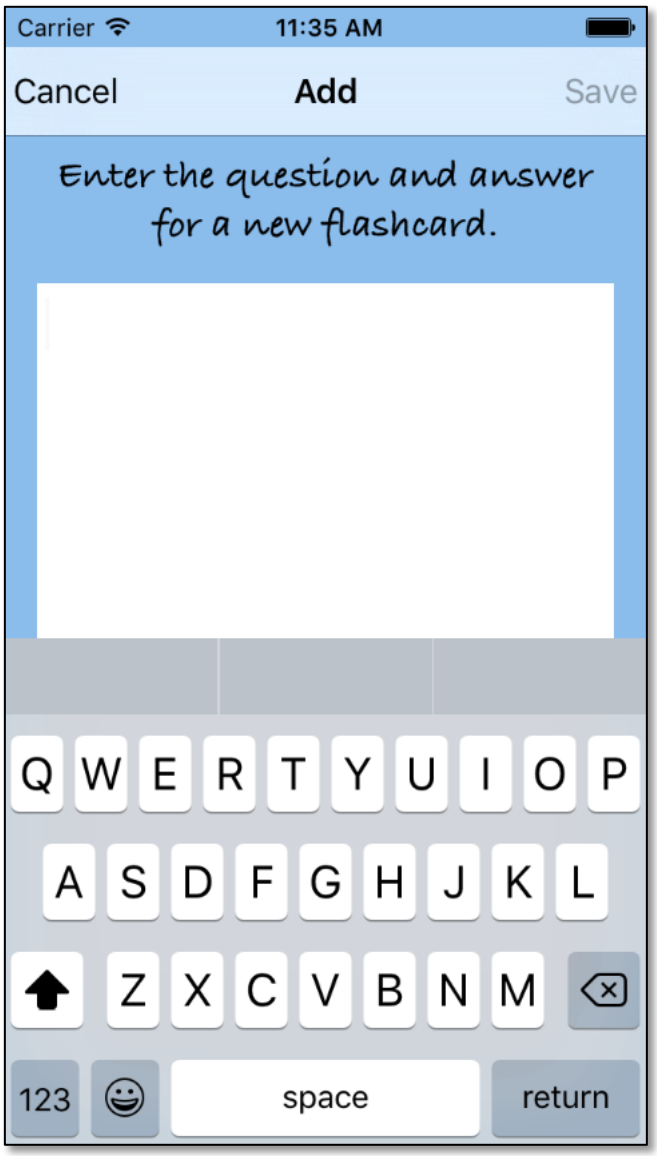
Delete button touched



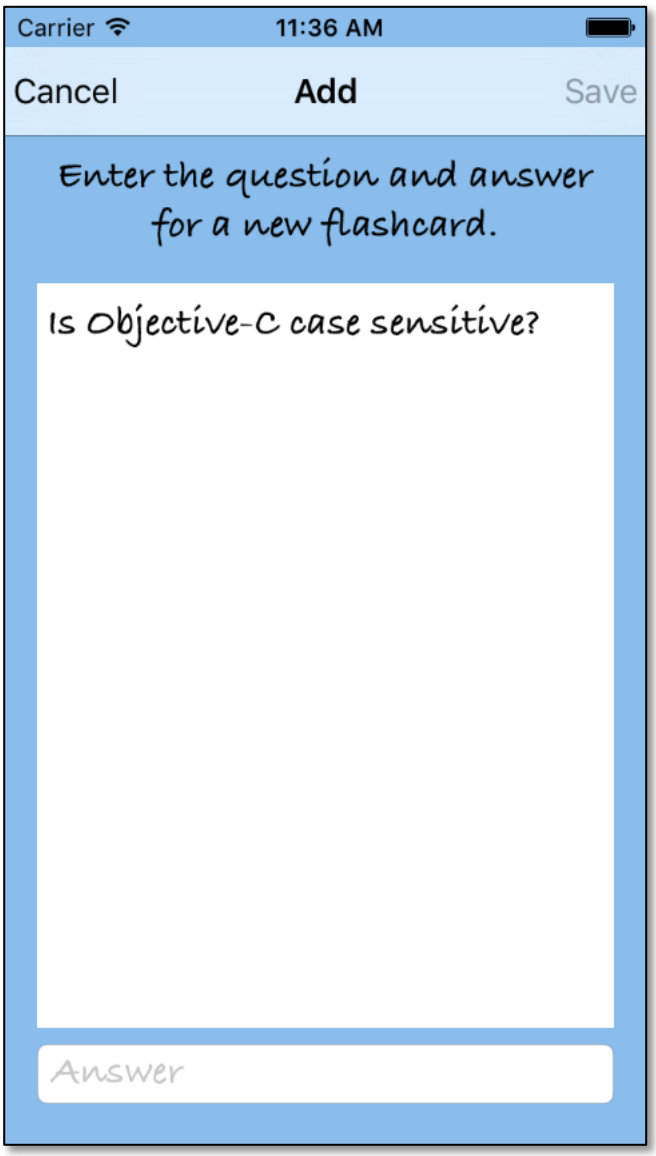
Model and Table is updated



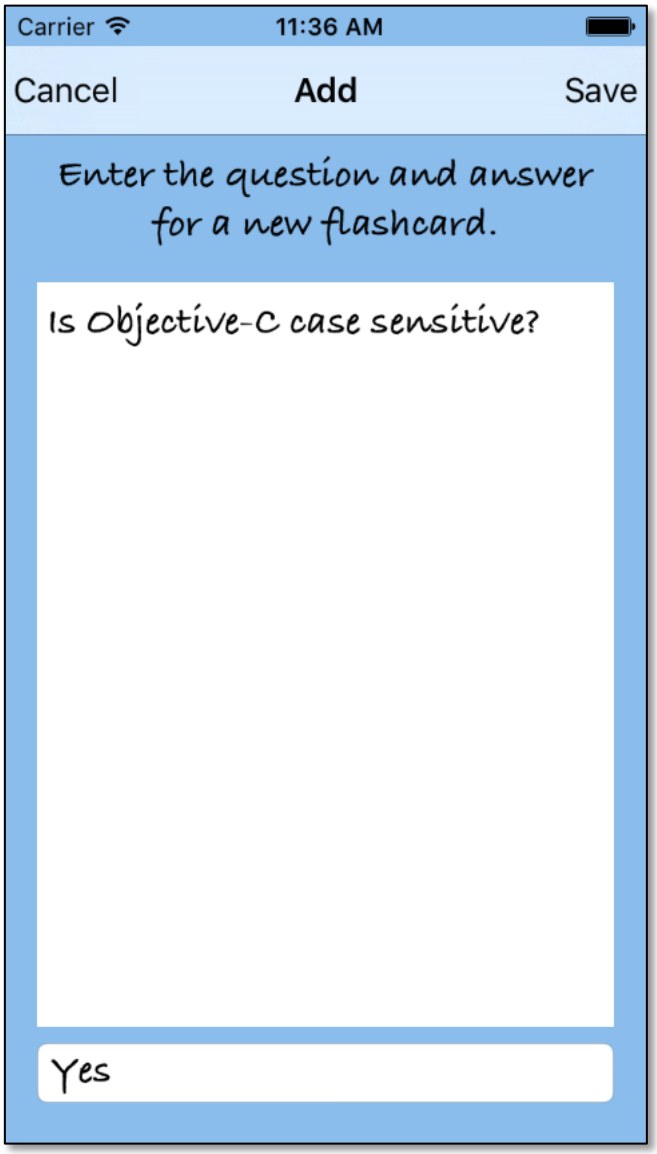
Add button (Plus icon) touched;
Save button is disabled;
Keyboard appears



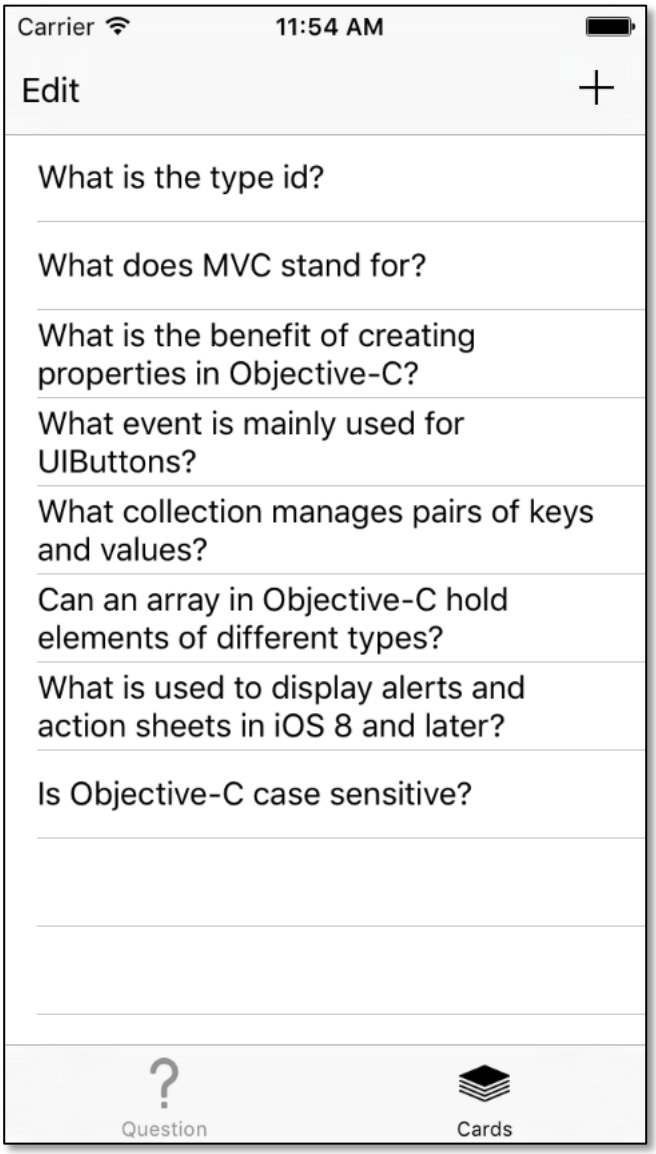
Add text in Text View;
Save button is still disabled;
Touch outside of Text View to dismiss keyboard



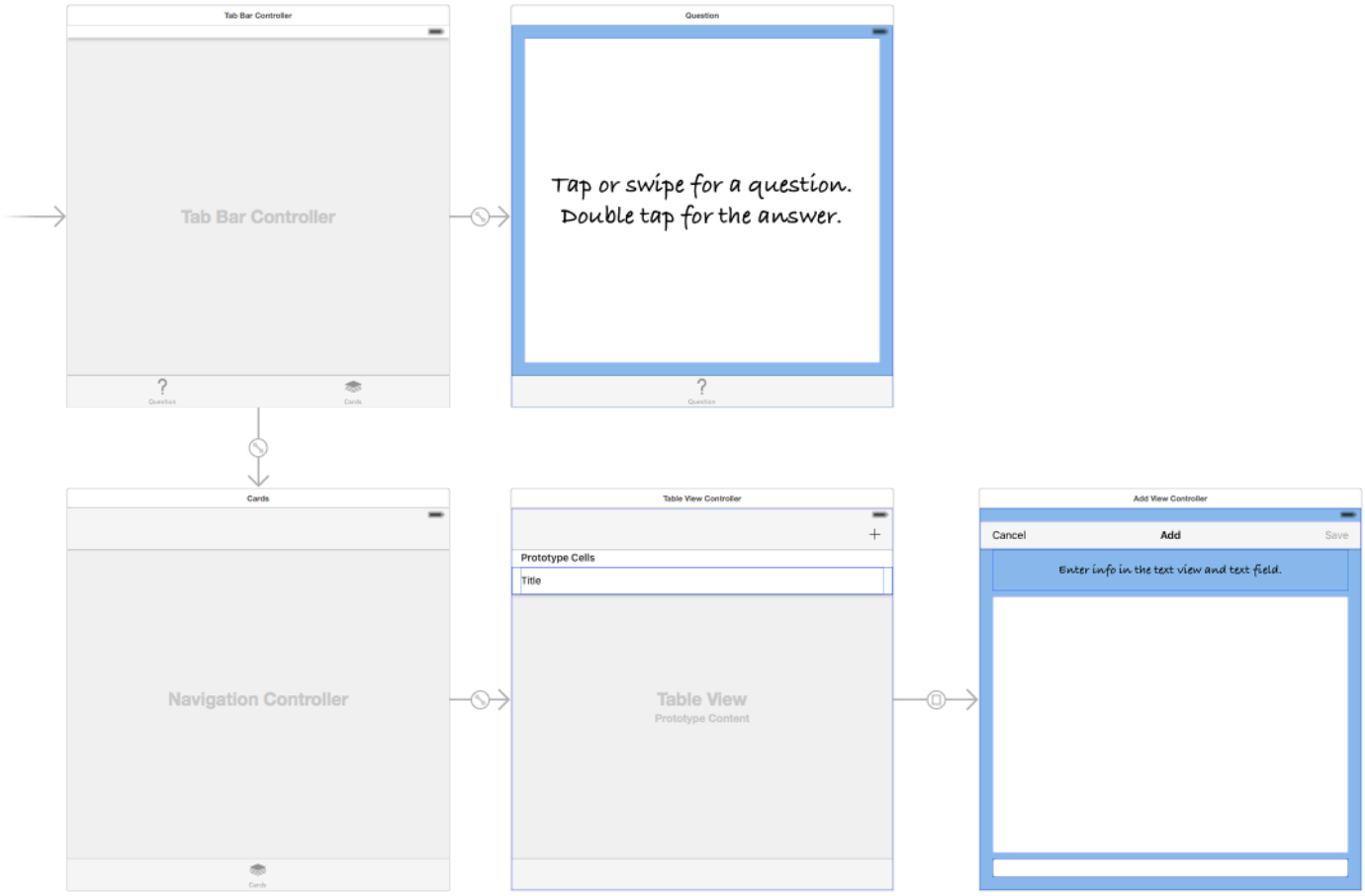
Add text in Text Field;
Save button is enabled;
Touch return/done button on keyboard or outside of Text Field and Text View to dismiss keyboard



Save button touched;
Model and Table is updated



Storyboard


Tab Bar Controller
Tab Bar Controller
Question
Tap or swipe for a question.
Double tap for the answer.
Cards
Navigation Controller
Table View Controller
Prototype Cells
Title
Table View
Prototype Content
Add View Controller
Cancel
Add
Save
Enter info in the text view and text field.