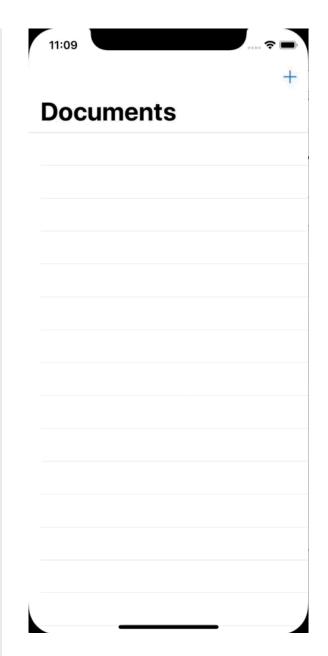


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Part 1 - Storyboard

You will create a simple master-detail layout in the "Main.storyboard".

- 1. Add a UITableViewController scene and embed it in a navigation controller. Set the navigation controller as the initial view controller.
- 2. Create a Cocoa Touch subclass of the table view controller scene and set the scene's class to it.
- 3. Set the cell's identifier, and its style to subtitle.
- 4. Add an "Add" bar button item to the table view controller.
- 5. Add a UIViewController scene. Add the following to it:
 - o A label that will display the amount of words in the document
 - o A text field for the user to enter the title of the document
 - o A text view for the user to enter the actual text of the document.
 - o A bar button item (after you add a navigation item) that uses the "Save" System Item.
- 6. Create a Cocoa Touch Subclass of UIViewController for this scene and create any outlets and/or actions you may need.
- 7. Add segues from the cell and the "Add" bar button item to the UIViewController scene. Give the segues appropriate

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identifiers.

Part 2 - Category, Model, and Model Controller

NSString Category

- 1. Create a new Objective-C file in "File > New File...". Set its name to "WordCount". For the "File Type" select "Category". For the "Class", choose NSString
- 2. Add an instance method called wordcount that returns an int to the category. In the implementation, this should simply return the amount of words in the string.

Model

- 1. Create a Cocoa Touch Subclass of NSObject called Document (with your prefix).
- 2. Add properties with the appropriate types and property attributes for a document's title, text, and word count.
- 3. Create an initializer that will set the model's title and text, but not the word count.
- 4. Create a custom property accessor for the word count property. In the accessor, use the wordCount method you just created in the NSString category. (Remember to import the "NSString+WordCount.h" file or you won't be able to access the method)

Model Controller

- 1. Create a model controller for your Document model.
- 2. Add a property (with the appropriate property attributes) that will hold an array of documents.
- 3. In the initializer of this class, initialize the array with an empty array.
- 4. Add and implement three methods that will create, update, and delete a document, respectively.

Part 3 - View Controllers

- 1. Add a property with property attributes for an instance of your model controller in the table view controller subclass.
- 2. In the two initializers of the table view controller, instantiate the model controller property.
- 3. Implement the required UITableViewDataSourceMethods .
- 4. In your detail view controller, add two properties with property attributes; one for your model and one for your model controller.
- 5. In the prepareForSegue and depending on whether the user tapped the add button or a cell, pass the necessary properties to the detail view controller.
- 6. In the detail view controller, adopt the UITextViewDelegate protocol. Set the view controller as the delegate of the text view.
- 7. Implement the textViewDidChange method. This will get called every time the user enters a character on the keyboard while the text view is the first responder. In the method, update the label's text to show how many words are in the textView's text. Use the wordCount method from the NSString+WordCount category to do this.
- Create an updateViews method that should place the document's properties in the appropriate UI elements for the user to see.
- 9. When the user wants to save the document, either create a new document or update an existing one.

Go Further

- 1. Implement Core Data in this application. If you wish to do this, be aware of a few things:
 - o In your data model file, you must change the "Code Generation" to Objective-C in the File Inspector.
 - Create a category for your Document+Convenience. You may need to import the header file for the generated Core
 Data class. It would be something like "LSIDocument+CoreDataClass.h"

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