



ASSESSMENT 06

DATA PERSISTENCE

Write a simple Task app that uses some of the basics of data persistence. This assessment offers practice that will enable you to implement persistent stores in future iOS apps.

GOALS OF ASSESSMENT

- › Gain familiarity with common iOS input/output methods, particularly with the file system.
- › Implement a persistent data model with Core Data.

REQUIREMENTS

Your app must:

- › Have a data model designed to manage instances of a Task class. This involves creating a TaskManager singleton that holds an Array of Task objects. In the TaskManager's initialize method, you should use the Core Data infrastructure to "fetch" all the Tasks that have been saved.
- › The Task class should extend NSObject. Each Task instance should have the following Core Data managed properties:
 - › title (String)
 - › notes (String)
 - › isComplete (Boolean)
 - › createdAt (NSDate)
- › The main ViewController should show a table view of all the Tasks contained in the app. Use a "Subtitle" table cell type. Remember to identify your prototype cell (e.g. "task_cell").
 - › The main text label should be used to display the Task's "title" property.
 - › The detail text label should be used to display "Done" if the task is completed, and "Todo" if the task is not completed.
- › In the navigation bar, place a button on the left that says "Settings" (or has a gear icon). When tapping this button, it should segue to a SettingsViewController.
- › The SettingsViewController should have:
 - › A UITextField labeled with "Your name" using a UILabel. It will contain and determine the value of an UserDefaults key called "your_name".
 - › Override the "viewWillDisappear" method, where you can gather the values shown in the SettingsViewController and save them to UserDefaults.
- › Back in the main ViewController, on the right of the main navigation bar, place a "+" button that creates a new Task and segues to the TaskViewController holding the new Task.
 - › When the TaskViewController first appears with a new task, the title should be set to "New task for X" where "X" is the value of the "your_name" key in UserDefaults.



- › The TaskViewController has:
 - › a single property that holds a single Task instance,
 - › a UITextField to set the Task's "title" property,
 - › a UITextView to set the Task's "notes" property,
 - › a UISwitch to indicate and set the Task's "isComplete" property, and
 - › a UILabel that displays the Task's "createdAt" field.
- › When you tap on a task in the main ViewController table, segue to the TaskViewController and populate all its fields with the proper values from the attached Task instance.
- › Override the viewWillDisappear method in the TaskViewController to save those values to the Task.

DELIVERABLES

- › Xcode project, zipped and uploaded to Github.

WAYS TO GET STARTED

- › Review the Notes app we built in class in Session 10.
- › Review data models and singletons.

RESOURCES

- › Core data tutorial: "Core Data from Scratch"
- › <http://code.tutsplus.com/series/core-data-from-scratch--cms-653>