

Project Name - NavCtrl

Assignment

1. Add two more companies to the start page
2. Add 3 products for each company
3. Show the logo for each company and each product (similar to the UITableView project)
4. Add a 3rd level to the app so that a web page related to the product is shown when a product is selected. Use the class UIWebView
 - a. Change the WebView to WKWebView and learn about the differences between the two (pros and cons)
5. Enable delete functionality on the products page so that products can be deleted.
 - a. Make sure that when you leave the view and come back that the product is still deleted
 - b. The product should only come back if you restart the app
6. Enable the user to rearrange the order of the cells
7. Create a Company class and a Product class
8. Refactor the project to be object-oriented, so that each company is a Company object and each product is a Product object.
9. The Company class should have a products property (an array of Product objects).
10. Add a Data Access Object (DAO).
 - a. This is a separate class where all the Companies and Products are created.
 - b. Objective-C does not allow for singletons, but you should ensure that there can only ever be one instance of the DAO class
11. Refactor the app so that the companies and products are actually created in the DAO, and NOT in the viewController
12. Add persistence using sqlite
 - i. If the above steps are done correctly, this should not require any changes to the View Controllers
 - ii. If you delete a product and restart the app, the product should still be deleted
13. Copy the project to a new one and change the persistence type to Object Archiving with NSUserDefaults.

- i. If the above steps are done correctly, this should not require any changes to the ViewControllers
- 14. Refactor the app so that instead of using UITableView, it uses UICollectionView
 - i. If the above steps are done correctly, this should not require any changes to the DAO or Models
 - ii. User should be able to delete from collection view
 - iii. OPTIONAL: add the option to rearrange the collectionView cells
- 15. Using XCode's 'Instruments' tool, ensure that there are no objects allocated that should not be there, and that there are no leaks
- 16. Copy your project to a new one and remove all code relating to Object Archiving with UserDefaults and replace your method of persistence with Core Data

Reading

1. View Controller Programming Guide for iOS
 - a. <https://developer.apple.com/library/ios/featuredarticles/ViewControllerPGforiPhoneOS/ViewControllerPGforiOS.pdf>
2. View Programming Guide for iOS
 - a. https://developer.apple.com/library/ios/documentation/WindowsViews/Conceptual/ViewPG_iPhoneOS/ViewPG_iPhoneOS.pdf
3. Core data Programming Guide
 - a. <https://developer.apple.com/library/mac/documentation/Cocoa/Conceptual/CoreData/CoreData.pdf>
4. Advanced Memory management programming guide
 - a. <https://developer.apple.com/library/ios/documentation/Cocoa/Conceptual/MemoryMgmt/MemoryMgmt.pdf>