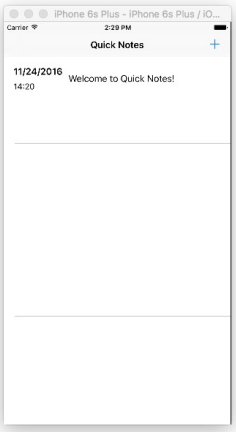
CS 371L: Bulko
Programming Assignment 5
Popover Controllers

Due Date: July 31, 11:59 pm

1 Problem Definition

Your goal in this assignment is to create a note application. There are two View Controllers in this app, a Main View Controller and a Popover View Controller. The Popover View Controller is used for creating new notes. While the Main View Controller maintains a list of created notes. Some examples are shown below.



(a) The Main View Controller

(b) Add a new note

(c) The Main View Controller

In this application, every note consists of a creation date, a creation time and a string of text. In order to add a new note, the user can click on the "+" button and a popover will show as shown in Fig. 1(b). If the user typed in some text and clicked on the "save" button, a new note will be created with a creation date, a creation time and a string of text. The popover is then dismissed and the new note will be added to the note list of the Main View Controller.

However, if the user clicked on the "discard" button, you just need to dismiss the popover and the note list won't change.

Here we provide the class `Note` for your use. Or, if you prefer, you can also create your own `Note` class.

```
class Note {
    private var date: NSDate
    var str: String
    init(s: String) {
        date = NSDate()
        str = s
    }
    func getDate() -> String {
        let myDateFormat = DateFormatter()
        myDateFormat.dateFormat = "MM/dd/yyyy"
        return myDateFormat.string(from: date as Date)
    }
    func getTime() -> String {
        let myDateFormat = DateFormatter()
        myDateFormat.dateFormat = "HH:mm"
        return myDateFormat.string(from: date as Date)
    }
    func update(s: String) {
        str = s
        date = NSDate()
    }
}
```

2 Detailed Instructions

- Create a Single View application project named <lastName><firstName>-HW4.
- The Main View Controller (Fig. 1(a)):
  - In the storyboard, select the Main View Controller and embed it in a navigation controller by "Editor - Embed in - Navigation Controller".
  - Create the "+" button on the Navigation Bar of the Main View Controller.
  - Drag a Table View into the Main View Controller and create a custom table view cell texttNoteTableViewCell. There are 3 labels in a `NoteTableViewCell` object, containing information about the creation date, the creation time and the body of the note.
- The Popover View Controller (Fig. 1(b)):

  - Change the size of the Popover View Controller to `width=300` and `height=400`.
  - Add a Navigation Bar and a Text View. Then, add two Bar Button Items to the Navigation Bar and rename them to "discard" and "save" respectively. If the user clicked on the "save" button, a new note should be created. If the user clicked on the "discard" button, no note will be created.
  - Ctrl+drag the "+" button of the Main View Controller to the Popover View Controller.
  - Add code to dismiss the popover whenever the "save" or the "discard" button is clicked. After the popover is dismissed, the table view of the Main View Controller should be updated accordingly.

- Use the protocols/delegate method to pass the newly created note from Popover View Controller to the Main View Controller.

3 Grading criteria

1. You have UI components as defined. (20%)
2. The Main View Controller is implemented as well as the Note Table View Cell. (20%)
3. The popover shows up when the "+" button is clicked. (30%)
4. The "save" and "discard" button works as expected. (30%)
5. **If the app does not build and run, ZERO points will be given.**
6. The Coding Standard is followed. One point deducted for each violation.

4 General criteria

1. I will be looking for good documentation, descriptive variable names, clean logical structure, and adherence to all coding conventions expected of an experienced programmer, as well as those outlined in the Coding Standard document. There will be penalties for failure to meet these standards.
2. Your code must compile and run before submission.
3. Xcode will automatically generate standard headers to your .swift files. Add two lines to each Swift file that list your EID and the course number, so that the header looks like the following:
   //
   // Filename
   // LastnameFirstname-HW5
   // EID: xxxxxx
   // Course: CS371L
   //
   // Created by xxxxxx on x/xx/18.
   // Copyright 2018 xxxxxx. All rights reserved.
   //