Welcome to iOS Development (CSCI 395.97)

Contact Information

Instructor	Ali ElSayed
Email	aelsay@hunter.cuny.edu
Room	North Building 1036
Days & times	Monday & Wednesday from 8:25 PM - 9:40 PM
Office hours	Monday from 7:25 PM - 8:25 PM

Course Objectives:
- Introduce you to the Swift Programming language
- Introduce you to various iOS frameworks
- Guide you to build your first iOS app

Requirements:
- A Mac laptop with you in class.
- Your Mac must run the latest version of Xcode.
- You must have root access on your Mac.
- The book: *iOS Apprentice (Eighth Edition): Beginning iOS Development with Swift and UIKit*

Lectures:
We will code along with the book. Our goal is to complete one or two chapters in each class.

Attendance is not mandatory. However, you are responsible for the topics discussed in class.

Grading:
- Project (60%)
- Midterm (15%)
- Final (20%)
- Proposal paper (5%)

Important Dates

No class	Feb 12th
Last day to drop	Feb 16th
No class	Feb 17th
Midterm	March 25th
Paper proposal due	April 1st
Last day to withdraw	April 1st
Wednesday schedule	April 7th
Spring recess	April 8th – April 16th
Last class meets	May 13th
Project due	May 13th
Reading day	May 15th
Final exam	May 20th, 7:30 PM – 9:30 PM

Frameworks Covered:
- UIKit
- Foundation
- CoreLocation
- CoreData
- MapKit
- MessageUI
- AudioToolbox

Other Topics Covered:
- Delegates & Protocol
- Singleton pattern

Proposal Paper:
The objective of the proposal paper is to describe what your app does by answering the following questions. Please keep your answers as brief as possible. This is not an essay paper.

1. Briefly explain what your app does?
2. Who is the target audience of your app?
3. What problem is your app trying to solve? How does your app solve it?
4. Are there apps similar to your app in the App Store? If yes, name them. What makes your app unique or better than similar apps in the App Store?
5. What API(s) will your app call? What is their endpoint?
6. Draw a wireframe diagram showing the flow of your app. Show the views/screens of your app, events when a user triggers an action, etc.

Project:
You are required to build a native iOS app. Your app must meet the following requirements:

- Your app is written in Swift or Objective-C. (Javascript or any other programming languages are not allowed.)
- Your app uses native iOS frameworks. Third-party libraries/frameworks are not allowed.
- Your app does _not_ use web views (not directly nor indirectly).
- Your app makes an API request with URLSession.
- Your app has a custom class that implements the Delegation pattern.
- Your app has a custom class that implements the Singleton pattern (thread-safe).
- Your app emits a sound or vibrates the device on an event.
- Your app utilizes a class that extends or subclasses at least one native class.
- Your app has at least three main views (UIViewControllers).
- Your app has at least one animation.
- Your app views are built with Auto Layout.
- Your app uses UserDefaults to save settings.
- Your app uses at least one of the following: ScrollView, TableView, and CollectionView.

Note: group work is not allowed.

Project Submission Checklist:
- Submit your project on time: May 13th, 2020.
- Implement all the requirements mentioned above
- Make sure your app builds and runs successfully
- Make sure your app doesn't crash

Midterm and Final exams:
The midterm and final exams will test your knowledge in iOS frameworks as well as require you to read and write some code in the Swift programming language.

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"Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The College is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures."

ADA Policy:
"In compliance with the American Disability Act of 1990 (ADA) and with Section 504 of the Rehabilitation Act of 1973, Hunter College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical, and/or Learning) consult the Office of AccessABILITY, located in Room E1214B, to secure necessary academic accommodations. For further information and assistance, please call: (212) 772- 4857 or (212) 650-3230."

Note: this syllabus is a guide for the course and is subject to change with advance notice. In the event of a change, an announcement will be made in class and on Blackboard.