ITP-342
App Proposal

Goal
- Create an app proposal for an iPhone app of your choice.
- App should demonstrate mastery of the concepts discussed in the course.
- App should include two items that are not covered in previous homework assignments.

Overview
For your final project, you will create an original app of your own design. You will submit a proposal that explains your app. It will include the name, app definition statement, key features, user profile, technology items, and wireframes. Please choose a project that you believe you can complete by the end of the semester.

Your final app will be graded on the quality and completion of the code and how it fulfills the requirements. You will demonstrate the app (individually) during the final exam time scheduled for the class or at an agreed-upon time before the exam time. There will not be a final exam. The final project is taking the place of your final exam.

Requirements for App
- Create a new iOS project. You cannot start with an earlier iOS project. You can use a previous idea.
- Your app must be written in Swift.
- Your app must have @2x and @3x versions of the app icon and follow the appropriate guidelines.
- The images for your app must be in Assets.xcassets with at least 2 versions (@2x and @3x).
- Your project must use a storyboard.
- The user interface contains at least **4 View Controllers** and each one has a corresponding class. A `TabBarController` or a `NavigationController` does not count.
- Your app must use the delegation design pattern that uses a data source & delegate (such as `CollectionView` or `TableView`).
- Your app must use the MVC design pattern. Data should be in a model class (or classes). If you need to share the data across controllers, use a singleton or completion handler (closure).

- Your app must use persistent storage either on the device or a server (using an API).
- Your app must use **2 third-party API / web service / REST service**.
  - Examples are Firebase, Google Maps, Google Places, Sign in with Google, Realm, Facebook Sign in, Ticketmaster, Spotify, OpenWeather.
  - Complexity level of API will be considered in grading.
- Your project must use **2 Apple Frameworks** from the following list:
  - ARKit
  - CloudKit
  - Contacts
  - Core Location and MapKit (counts as one)
  - Core ML
  - EventKit
  - HomeKit
  - HealthKit
  - Localization and Internationalization (counts as one)
  - Messages
  - PassKit
  - PDFKit
  - PhotoKit
  - SiriKit
  - Social
  - Speech
  - StoreKit
  - If you want to use something that isn't listed, check the following link and ask for permission https://developer.apple.com/documentation/
  - Complexity level of the item will be considered in grading.

- Your user interface should follow good design principles and the HIG.
- Your project has to compile and run in order to be graded.
- Comment your code. Include your name and email at the top of your files.
- If your app requires a physical device, please indicate this in your submission.
- Compress your project to create a zip file and submit it on Blackboard.

Ideas for App
- A resume app about you that you could show to potential employers. It could display information about you including projects you have worked on. You could also add contacts and share contacts.

- App for ITP that showcases our classes, minors, etc. Two tech items could be REST APIs and Internationalization (another language such as Spanish).
- App to display restaurants/gyms/stores around you using CoreLocation and Google Places.
- App to edit/share photos via image/camera picker and APIs such as Instagram/Unsplash.
- App to show popular pictures from Instagram/Unsplash based on your location.

App Proposal – 20 pts, calculated into Assignments
- Download the app proposal template on Blackboard named: *LastFirst*AppProposal
- Rename this document where *Last* is your last (or family) name and *First* is your first name.
- Write a proposal in the document stating the app name, app definition statement, key features, user profile, and technology items.
- An app definition statement is a concise, concrete declaration of an app's main purpose and its intended audience.
- The key features are the 3 – 5 main features of your app.
- The user profile is the target audience which could include gender, age range, interests, and other aspects of the intended audience of your app.
- For the technology items, specify the ones you will be using. If they are not on the list in this document, then give a URL to the framework.
- Create hand-drawn or visual wireframes/prototypes of the main screens of your app. If you would like to use Balsamiq, post on Piazza. Put the images in your document. If you have images on paper, please scan them and include them in your document. In the past, we have had students take photos with their phones which are hard to read. If you can't scan, then use an app like Office Lens to get good photos. You must have at least 3 wireframes.
- Export your document to PDF and submit to Blackboard.

Grading App Proposal – 20 pts
- App name – 1 pts
- App definition statement – 1 pts
- Key Features – 2 pts
- User profile – 2 pts
- Technology items – 4 pts
- Wireframes/prototypes – 10 pts

Final App – 100 pts, 20% of overall grade

- Submit your final app on Blackboard.
- During the scheduled final exam time for the class, compile and run your app in front of the instructor or one of the TAs. You will also need to show your code and answer questions.
- Scheduling your demo will be announced on Piazza closer to the due date.

Example of Final App – Photos Around