Mobile App Project - 24 Hour iOS Hackathon

CIS 380 – Spring 2015

Final Due Date: July 23, 2014 @ 3:45pm

Objective

The objective of this project is to give students an opportunity to demonstrate the level of proficiency they have achieved on the iOS platform in the course.

Overview

Student teams will identify an app concept of their choice and implement it on the iOS platform. Apps may support either the iPhone or iPad form factor or both.

Coming up with an app idea

One of the more challenging (and hopefully fun!) aspects of this project is that you are to come up with your own application idea. While there are general requirements your application must meet (see details below) you are free to innovate and design a mobile experience that you are personally interested in and passionate about. Here are a few suggestions to help facilitate the creative process:

- Browse iTunes AppStore[1] and search for apps related to areas you are interested in. You can use your iOS device or borrow a friend's or family member to try apps out. In lieu of an actual device, you'll also find plenty of video reviews that show apps in action.
- Consider looking for mobile app use cases at your place of employment. Do make sure if you take this route you are still able to submit your source code to your instructor for assessment purposes!
- Visit blogs, etc. where new mobile apps are often reviewed and discussed.
- Follow people on twitter who tweet about mobile and have interests similar to your own.
- Ask acquaintances what they think a "killer app" idea might be, though you don't necessarily need a killer app to survive this course!

Minimal app requirements

Your app must meet the requirements described below at a minimum for a passing grade. If you want a stellar grade (e.g. an A) you need to go well beyond the minimal requirements.

[1] You will need to install Apple's iTunes software on your computer in order to browse the iTunes AppStore. http://www.apple.com/itunes/. Accessed on 5/10/14.

Innovation Requirement:
Your app must be original and creative. It is ok to come up with a better mouse trap, but don't just replicate an app that already exists. Substantially improving upon an existing app idea or giving it a novel spin of your own is permissible. Your grade will in part be determined by your creativity as well as the quality of your implementation.

Base Requirements:
Base requirements are essential requirements that the typical non-trivial app will implement. Your application must implement *all* of the following base requirements:

- The application must have a fully functional and well-designed foreground user interface.
- The application must persist data between user sessions via local storage on the device, or via web services.
- The application must be stable and not crash frequently.

Network Integration Requirements:
Mobile apps inevitably use the device's networking capabilities to integrate with the world beyond the device itself. Your application must support a minimum of *two* of the following *network integration requirements*.

- Directly integrate with a data store in the network via web services. This can be an existing data store from another service, or something you have implemented/deployed yourself.
- Frame existing web content in a seamless way within your app. (note: the content must be rendering for small screens!).
- Integrate with a popular social media platform using the Social Framework.

Project Deliverable Timeline

Morning of July 20: Each team will brainstorm, identify your app concept and start wire framing. Wireframes can be refined and completed during the evening hours.

Morning of July 21: Each team will present their app idea in terms of a wireframe model to the class. Instructors (Brossi, Engelsma, Leidig) will provide feedback and grant final approval to proceed.

Afternoon of July 22 - July 23, 3:45pm: Students will implement their app.

July 23, 3:45pm – 5:30pm: Lightening Talks - Deliver a compelling 10-12 minute presentation of your app to the class. You can use any presentation tools you would like – PowerPoint, Keynote, Prezi, or you can create a screen capture demo of your emulator with the app running using QuickTime.

A panel of instructors (Brossi, Engelsma, and Leidig and others) will be evaluating the creativity of your final app and the quality of its implementation.

A final zip archive of your complete project (FinalProject-TeamDD.zip) must be emailed to jonathan.engelsma@gvsu.edu by 3:45pm July 23. Your project MUST be self-contained and build without further manual interventions by the instructor.

Grading Rubric

Your work will be graded on the overall quality/creativity of your mobile app and whether or not it meets the specified requirements. Also factoring into your final grade Grading will follow the rubric given in Figure 1 below.

Requirements	Points	Pts Earned
Creativity / Novelty of the application		
- Innovation Requirement	30	
Quality of the Implementation		
- Base Requirements	30	
- Network Integration Requirements	30	
Final Presentation		
- Final Presentation to the Class	10	
Total Points	**100**	

Figure 1. Project Grading Rubric