

Exercise 6

October 14, 2021



Objective

Create an application which shows map and map annotations

Motivation

Learn how to embed and customize Maps in an iOS applications

Tips

- **Read the question carefully, then start coding!**
- **Build**
 - If you add anything on storyboard -> **Build**
 - If you make a reference from storyboard -> **Build**
 - Do not wait until finishing all parts and build
 - Otherwise, you will not be able to understand where the problem is

Details

Create a single view iPhone application using Swift as programming language. Name your XCode project “**Exercise6_LastName_FirstName**” (replace **LastName** with your last name and **FirstName** with your first name). Select iPhone 8 Plus UI initially.

1. Add a table view controller to your main storyboard. Embed a navigation controller to the table view controller. Make the navigation controller the initial view controller.
2. Connect a segue from the table view controller to the existing view controller (the one created along with the project)
 - a. Add a map view to the view controller
3. Follow the [color palette link](#)
4. Fetch contents of this URL
http://cpl.uh.edu/courses/ubicomp/fall2021/webservice/companies_map.json
5. Show the list of companies in a table view as per [Figure 1, 2]
6. When the user taps on a company, load the view controller map page [Figure 3, 4]
 - a. Display the company's location as a pin and zoom to that region

- b. When user taps the pin, reverse geocode the address (City, State, Country).
[Figure 5]
7. Long press anywhere on the map view to add a pin with title and subtitle at that location [Figure 6]
8. Show a notification with default sound after 5 seconds of map view loading [Figure 7]
9. Reflect proper UI design for all iOS devices/simulators - Portrait & Landscape
 - a. iPhone SE (2nd Generation), iPhone 11 (all versions), iPhone 12 (all versions) etc.

Grading

- [2 pts.] Fetch and display company list on a table view
- [2 pts.] Show map view with proper annotation when user taps a company
- [2 pts.] Reverse geocode for the city, state, and country
- [1 pt.] Long press gesture recognizer
- [1 pt.] Notification alert with sound
- [2 pts.] Proper UI for landscape and portrait mode for all iOS devices

Submission

Zip the full XCode project and submit to the blackboard. The name of your zip file will be automatically “**Exercise6_LastName_FirstName.zip**” (**LastName** is your last name and **FirstName** is your first name). One submission per person.

Screenshots

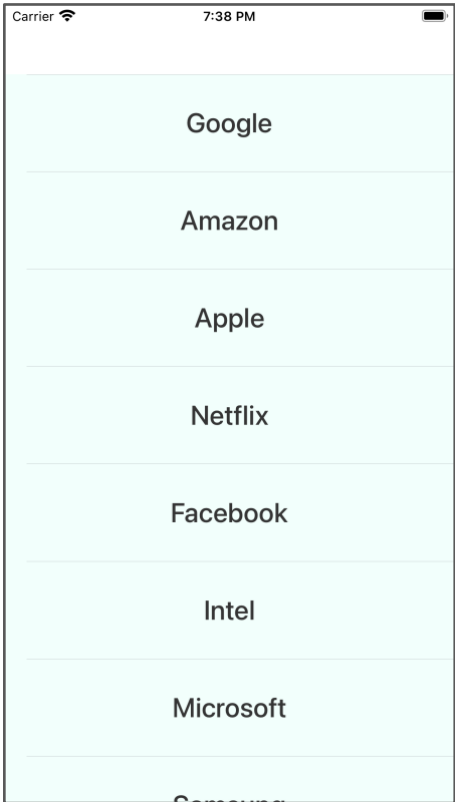


Figure 1

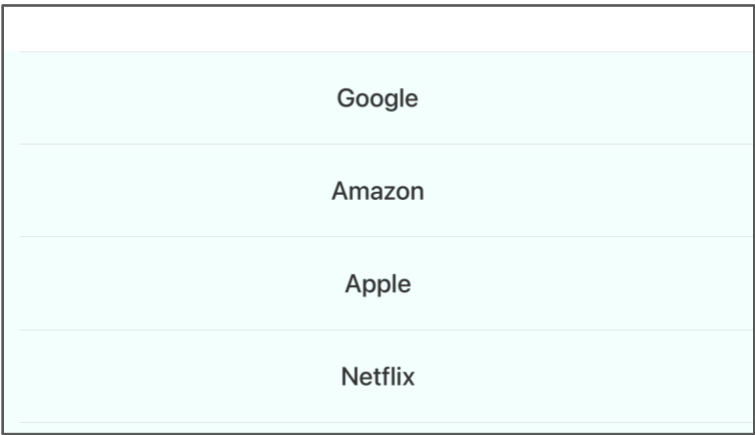


Figure 2

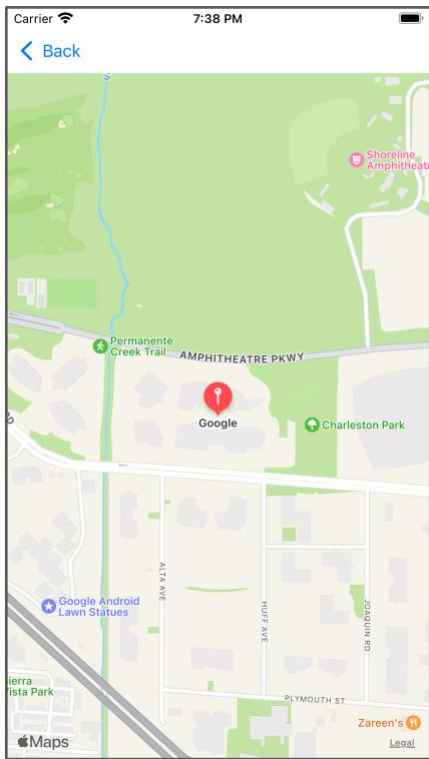


Figure 3

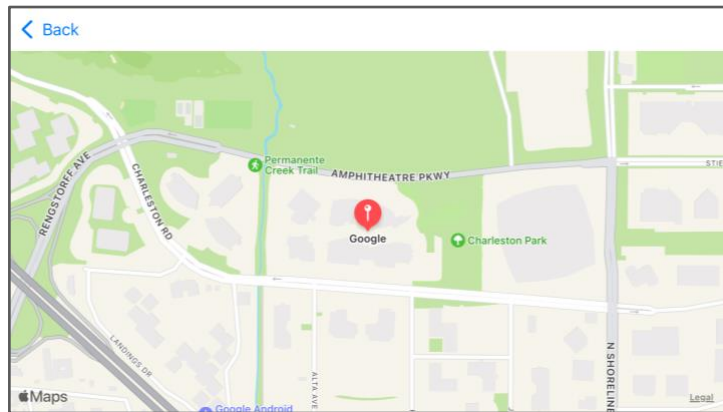


Figure 4

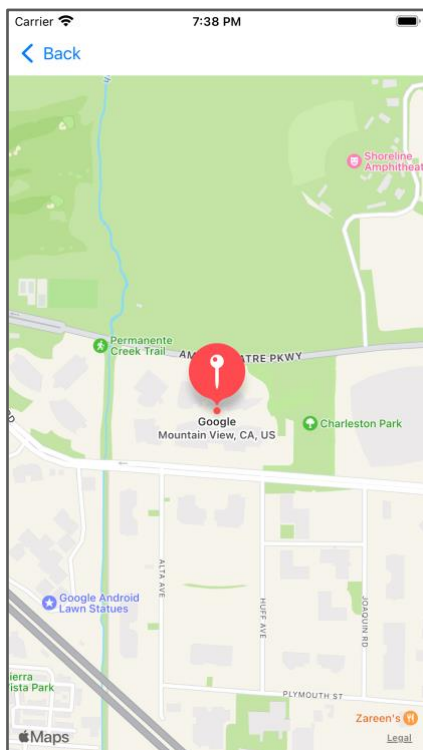


Figure 5

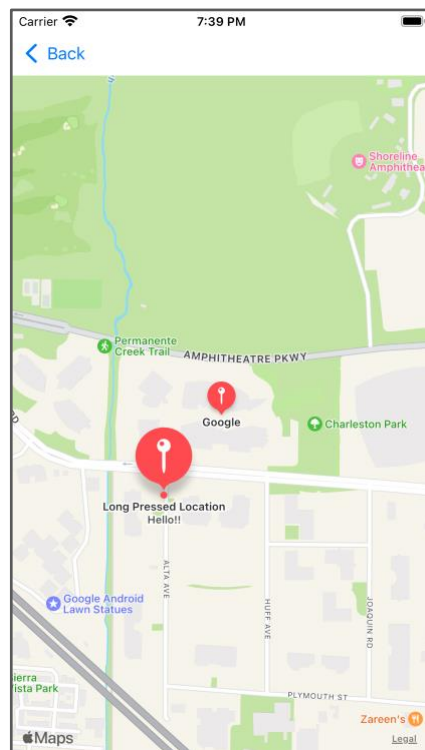


Figure 6

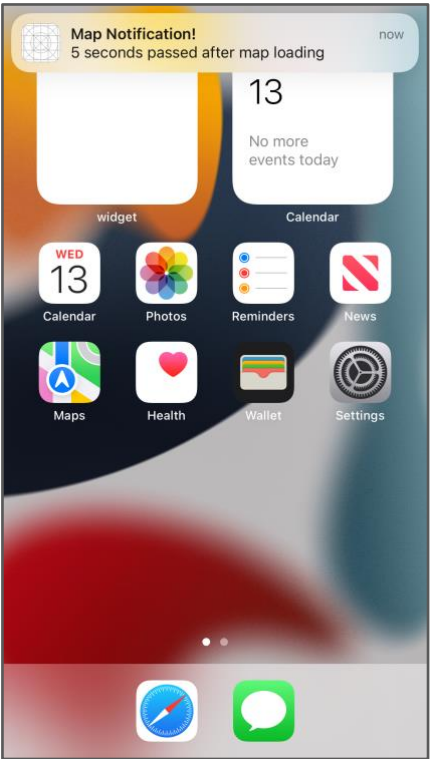


Figure 7