COSC 4355/6355 – Introduction to Ubiquitous Computing

Exercise - 6

October 12, 2023

Objective

Create a touristic app with temperature and custom map pins.

Motivation

Table view, auto layout, urls, maps, json parsing, stacked views, data transfer.

Must Follow

You must follow the rules below. Otherwise, you will get **50% of your actual score.**

1. Start your XCode project "**Exercise6_LastName_FirstName**" (replace **LastName** with your last name and **FirstName** with your first name).
a. **DON'T DO** the following:
   i. Start with any other project name and change the zip file name later.
   ii. This will not be accepted at all.

2. You must have to do the exercise compatible with **XCode version 15.0** or higher.

Tips

- **Read the question carefully, then start coding!**
- **Build, Build, and Build**

  o If you add anything on storyboard -> **Build**
  o If you make a reference from storyboard -> **Build**
  o Do not wait until finishing all parts and build.
  o It is easier to debug after each single feature added.

UNIVERSITY of
HOUSTON

Details

Create a multiple view iPhone application using Swift as a programming language. Start your XCode project "**Exercise6_LastName_FirstName**" (replace **LastName** with your last name and **FirstName** with your first name).

[3 pts] Design your interface to look like the screenshots [Figures 1, 2, 3]
 • Design your UI for **all iPhone devices (iPhone 15)** in **Portrait** [Figures 1, 2] and **Landscape** [Figure 3] mode
 • Pay attention to images, icons, colors, fonts and font sizes

[4 pts] Application gets the data from the remote json file, located at the address: https://m.cpl.uh.edu/courses/ubicomp/fall2022/webservice/treasures.json You need to fetch and parse that file. Data is populated to the cell prototype. At the initial [Figure 1] treasures, their ids and owners are depicted. Color is picked based on the value of each treasure. Scaled from 45 to 100. Colors: gold (rgb: 255/215/0), white (rgb: 255/255/255). At the details [Figure 2] screen map with the pin depicted. Hint for the treasure finders is listed under the pin. When the pin is pressed application highlights: administrative area, locality and iso country code under the hint.

[2 pts] When user performs a long press (2 sec) gesture on the map add a custom pin [Figure 3]. Each pin should have a unique number and subtitle. Pins are removed when you are switching between the screens (numbers are refreshed).

[1 pt.] Add a splash screen, add a proper icon for the app.

Extra Points

To earn extra points, implement the main functionality mentioned above without any errors or issues.

[1 pt.] Add delete treasure functionality [Figure 5].

[2 pt.] Add search box to search/filter treasures by ID, Type or owner.

[2 pt.] Add support for all layouts.

Submission

Zip XCode project and submit to the TEAMS. 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.
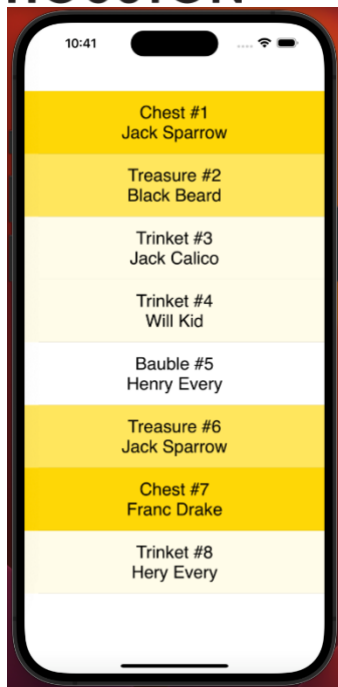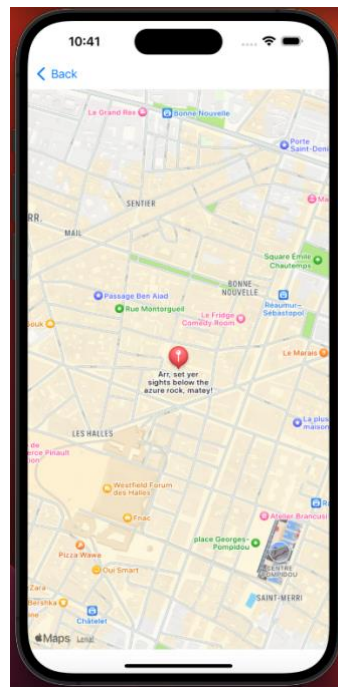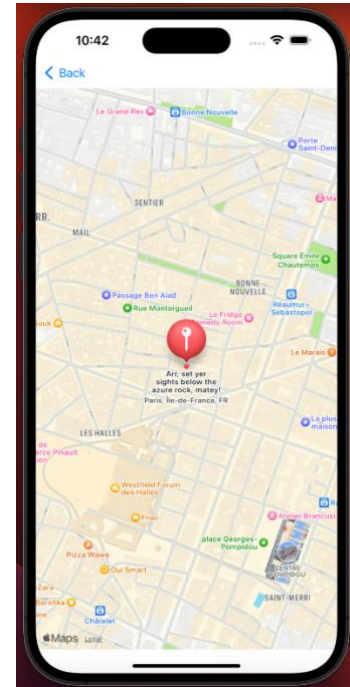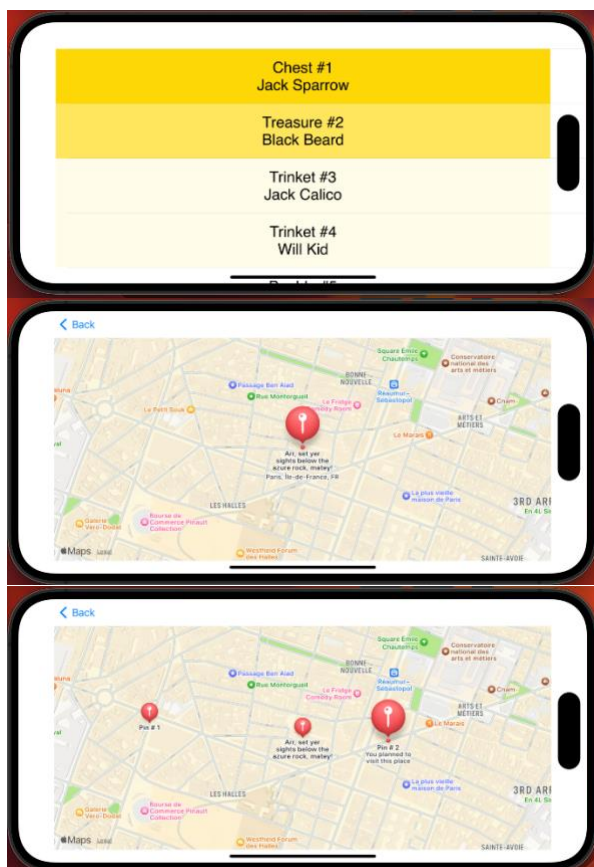
Figure 1

Figure 2

Figure 3

Figure 4

Figure 5