

Exercise - 7

November 03, 2022

Objective

Create an app that load pictures from library and take pictures from camera, apply filters, and save the picture to the photo library.

Motivation

You will learn how to load photos from library, save photos, and apply image.

Must Follow

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

1. Start your XCode project “**Exercise7_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 14.1**.

Tips

- **Read the question carefully, then start coding!**
- **Build, Build, and 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.
 - It is easier to debug after each single feature added.

Details

Create a multiple view iPhone application using Swift as a programming language. Start your XCode project “**Exercise7_LastName_FirstName**” (replace **LastName** with your last name and **FirstName** with your first name).

[2 pts] Design your interface to look like the screenshots [Figures 1-6]

- Design your UI for **all iPhone devices (starting from iPhone 8)** in **Portrait** and **Landscape** mode
- Design your UI for the Apple Watch [Figures 7,8]
- Pay attention to images, icons (buttons!), colors, fonts, and font sizes

[1 pt.] When user taps the first button, allow user to load image from the camera(not working in the simulator).

[2 pt.] When user taps the second button, allow user to load image from the photo library. [Fig 2]

[2 pt.] When user taps the third button – send current timestamp and current image to the Apple Watch, interface should be updated accordingly. [Fig 8]

[1 pt.] The last button saves current image (with applied filters) to the photo library. [Fig 4,5,6]

- The application should not crash if photo library or camera is not found. Add an appropriate alert the user for any error.
 - Make sure to add the appropriate properties to the Info.plist – eg: to access the gallery - `NSPhotoLibraryUsageDescription`
- [2 pts.] When the user taps on one of the filters, apply the appropriate filter to the image. [Fig 4]. If original button is tapped, revert to the original image [Fig 1]

Submission

Zip XCode project and submit to the blackboard. The name of your zip file will be automatically “**Exercise7_LastName_FirstName.zip**” (**Last Name** is your last name and **FirstName** is your first name). One submission per person.

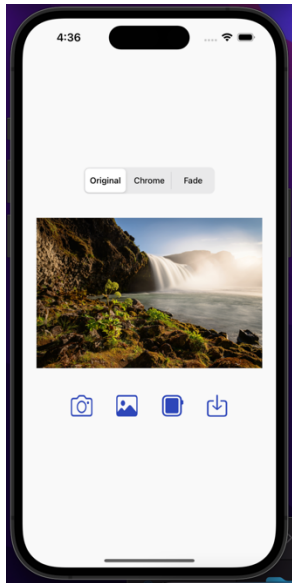


Figure 1

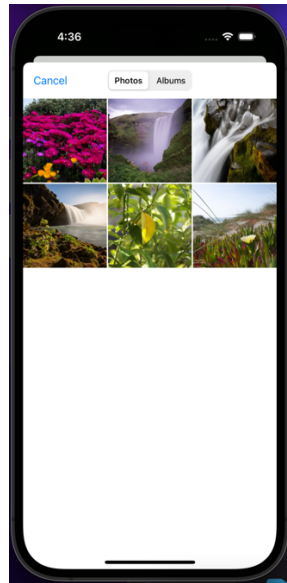


Figure 2

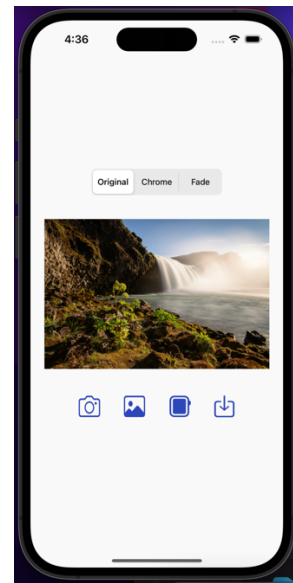


Figure 3

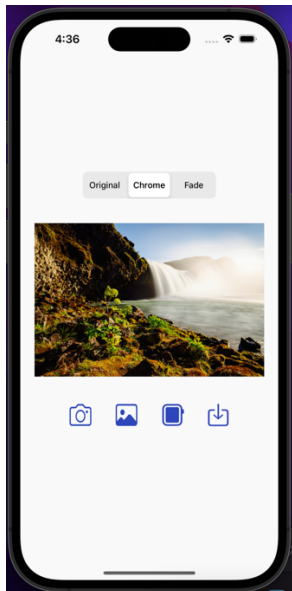


Figure 4

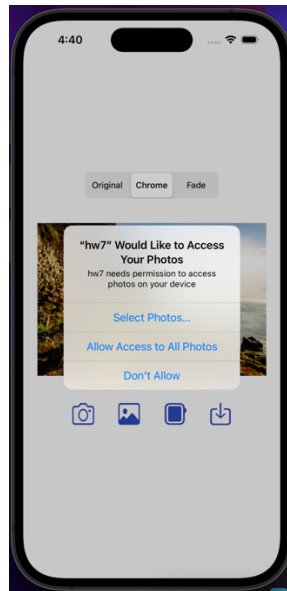


Figure 5

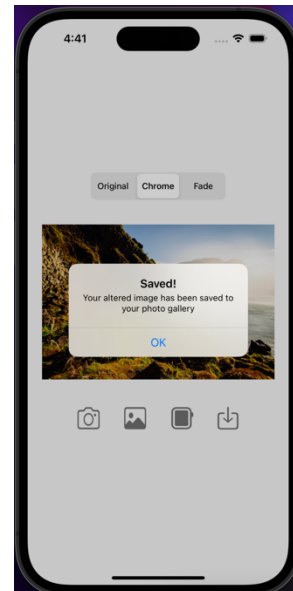


Figure 6

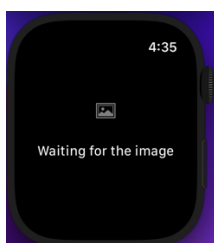


Figure 7

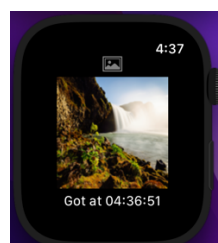


Figure 8