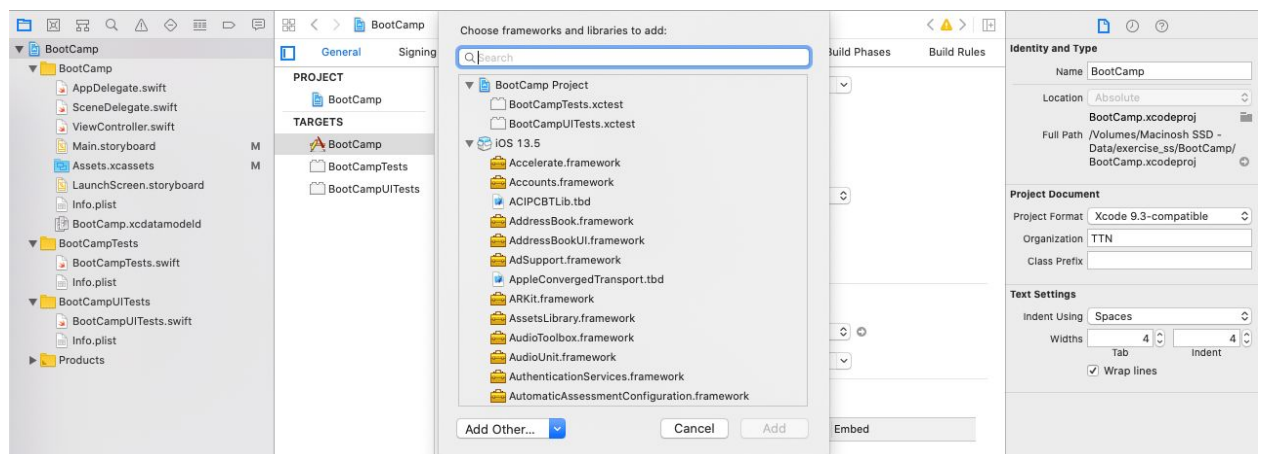## Explain what Xcode is?

Xcode is Apple's default Integrated Development Environment, made for producing software on mac for macOS, watchOS, ipadOS, iOS, and tvOS. It's a free to download software which is usually used by the developers to create iPhone, iPad applications as well as programs for mac.

It enables developers to write code and compile applications that can be used on various devices and operating systems. It is primarily used for the development of applications within its own ecosystem, though it can be used for writing source code in a variety of languages for use in other projects.

As an entire suite, developers can use Xcode to design the user interface, write app code, compile code, test the code, and debug. On completing an application to a quality where it can be accepted distribution, Xcode can submit the app to Apple's assorted App Store marketplaces.

Explain how you can add frameworks in Xcode projects?

1. Select the project file from the project navigator on the left side of the project window.
2. Select the target for where you want to add frameworks in the project settings editor.
3. Select the "Build Phases" tab, and click the small triangle next to "Link Binary with Libraries" to view all of the frameworks in your application.
4. To Add frameworks, click the"+" below the list of frameworks.
5. To select multiple frameworks, press and hold the command key while using the mouse to click the desired frameworks.

Explain what is the difference between Xcode, Cocoa and Objective C?

Xcode	Objective C	Cocoa
Xcode is the IDE that developers use to write the softwares for iOS and/or OSX. It includes the editor, the build system(determining what to build to produce the desired target), and quite a few other things.	It is the main language that developers write such software in. It is not exclusive as sometimes pure C and C++ is also combined as per the case requirements.	Cocoa is an application programming interface framework for Apple's OS(macOS). Cocoa and Cocoa Touch have distinct target devices. Cocoa Touch is a specific API for anything apart from macOS, i.e, basically used for gestures, animations and various other graphical control elements.

What is the shortcut to open the "Code Snippet Library" in Xcode?

We can access the code snippet library from the Xcode Source Editor using the shortcut **Control+Option+Command+2.**

Mention what are the build phases available in Xcode?
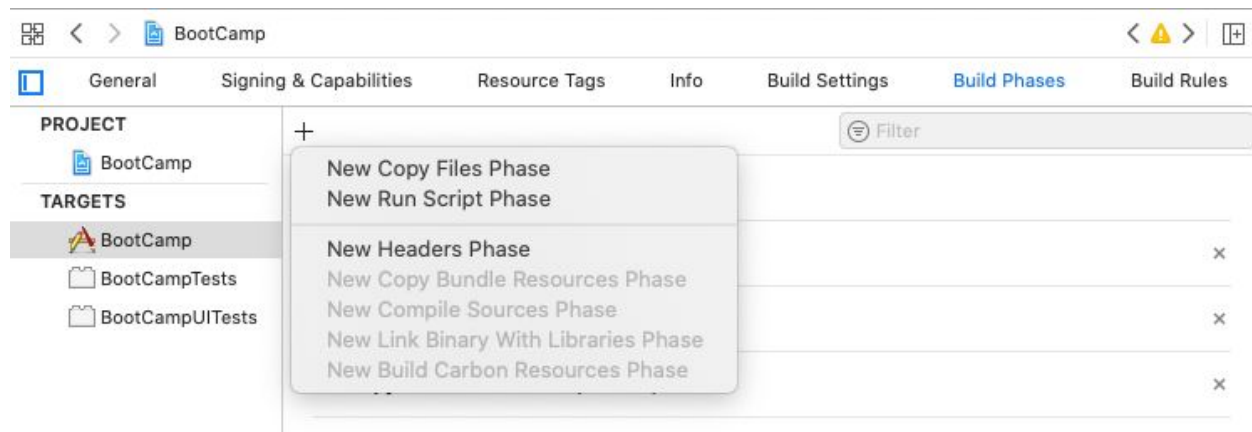
The Build phases available in Xcode are as follows:
1. New Copy Files Phase
2. New Run Script Phase
3. New Headers Phase
4. New Copy Bundle Resources Phase
5. New Compile Sources Phase
6. New Link Binary with Libraries Phase
7. New Build Carbon Resources Phase

Explain how app delegate is declared by Xcode project templates?

The Application delegate is a custom object created at application launch time, usually by UIApplicationMain function. The primary purpose of this object is to handle state transitions within the application. For instance, this object is responsible for launch-time initialization and handling transitions to and from the background.
App delegate is declared as a subclass of UIResponder by Xcode project templates. The Xcode project templates declare the app delegate as a subclass of UIResponder. If the UIApplication object does not handle an event, it dispatches the event to your app delegate for processing.

Explain how you define variables in Swift language?

In Swift, we use the var keyword to declare a variable.
"Let" is used to declare a constant value- you won't change it after giving it an initial value.
"Var" is used to declare a variable value - you could change its value as you wish.

What is an interface builder?

Interface Builder (IB) is a WYSIWYG(What You See Is What You Get) editor for building user interfaces. You add GUI components-- such as button, labels, and images-- through a drag-and-drop interface. You then "wire" these controls to your view controller's source code. The editor creates a file you can load at runtime to recreate the GUI you've designed.

Create an app with a login interface which should have two text fields for email, password where the password is a secure field and a button.
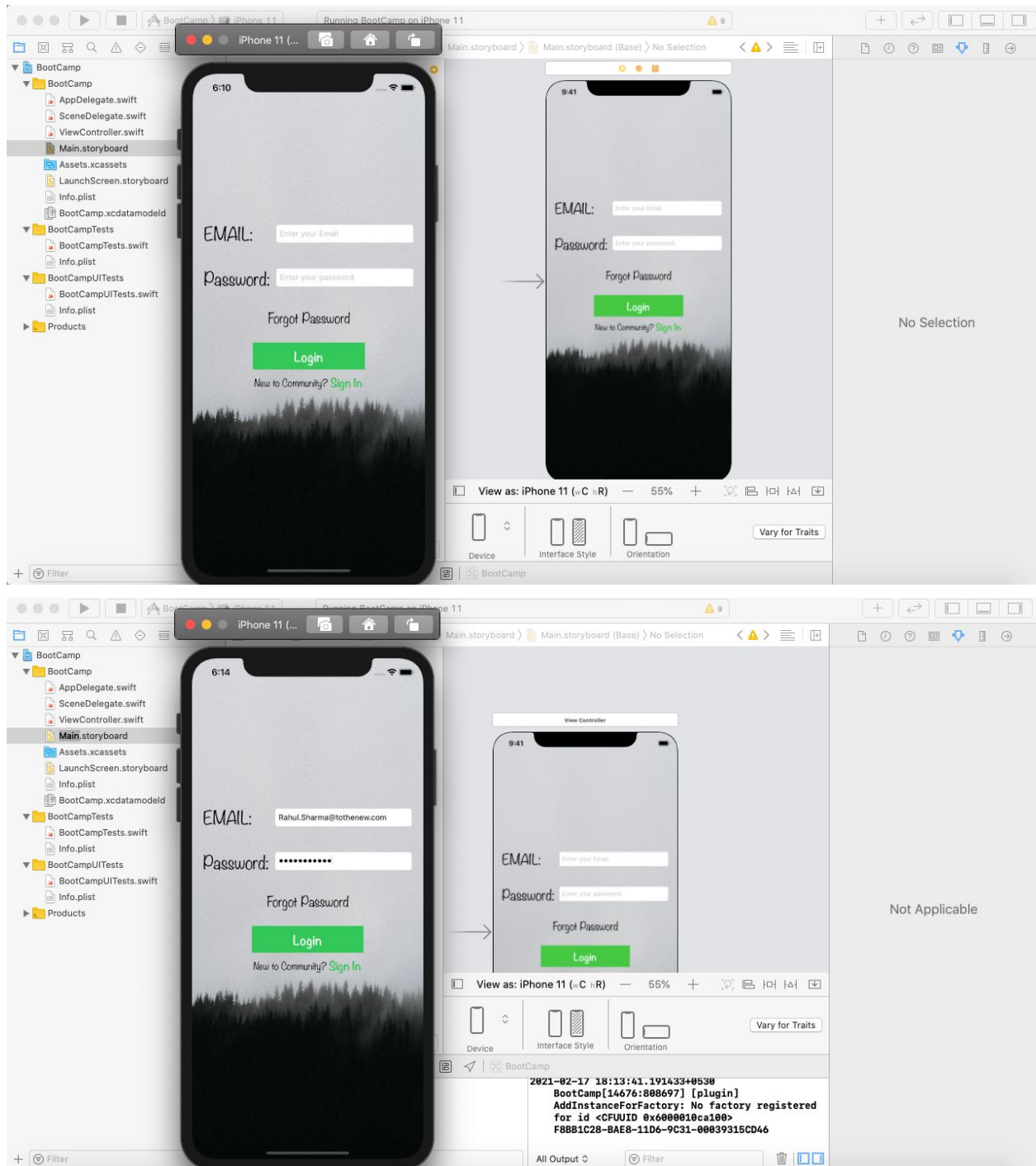
List devices and their resolutions, screen size has iOS as their OS.

- 38mm Apple Watch: 272x340 (326 ppi)

- 42mm Apple Watch: 312x390 (326 ppi)

- 2.5‑inch iPod Nano: 240x432 (202 ppi)

- 4-inch iPod Touch: 1136x640 (326 ppi)

- 4-inch iPhone SE: 1136-by-640-pixel (326 ppi)

- 4.7-inch iPhone 6 & 6S: 1334-by-750-pixel (326 ppi)

- 5.5-inch iPhone 6 Plus & 6S Plus: 1920x1080 (401 ppi)

- 7.9-inch iPad Mini 2: 2048x1536 (326 ppi)

- 7.9-inch iPad Mini 4: 2048x1536 (326 ppi)

- 9.7-inch iPad Air 2: 2048x1536 (264 ppi)

- 9.7-inch iPad Pro: 2048x1536 (264 ppi)

- 12.9-inch iPad Pro: 2732x2048 (264 ppi)

- 11.6-inch MacBook Air: 1366x768 (135 ppi)

- 12-inch MacBook with Retina display: 2304x1440 (226 ppi)

- 13.3-inch MacBook Air: 1440x900 (127 ppi)

- 13.3-inch MacBook Pro: 1280x800 (113 ppi)

- 13.3-inch MacBook Pro with Retina display: 2560x1600 (227 ppi)

- 15.4-inch MacBook Pro with Retina display: 2880x1800 (220 ppi)

- 21.5-inch iMac: 1920x1080 (102 ppi)

- 21.5-inch iMac with Retina 4K display: 4096x2304 (219 ppi)

- 27-inch iMac with Retina 5K display: 5120x2880 (218 ppi)

- 27-inch Apple Thunderbolt display: 2560x1440 (109 ppi)