

1 Hello World

1.1 Create a project

Open xcode and create a new project

1. Create a new xcode project
2. Select under **iOS > App**
 - Product name: HelloWorld
 - Team: (blank) if you don't have a developer account
 - Organization Identifier: fr.eurecom
 - Language: Swift
 - UI: Storyboard
3. uncheck "create git repository" (not visible for newers versions of Xcode)
4. select a location for the your project and click create
 - **this has to be a local directory, later you will copy your project to the course directory**

Notes:

1. The main function in main.m calls the UIApplicationMain function within an autorelease pool, which support memory management for your app
2. The call to UIApplicationMain creates two important initial components of the app
 - a. The application object that manages the app event loop and coordinates other high-level app behaviors
 - b. The app delegate that responds to state transitions within the app
 - c. The application object calls pre-defined methods on the app delegate to give your custom code a chance to do its job

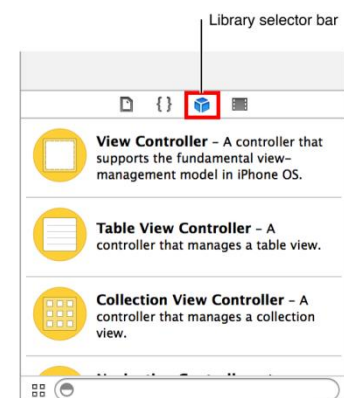
1.2 Storyboard

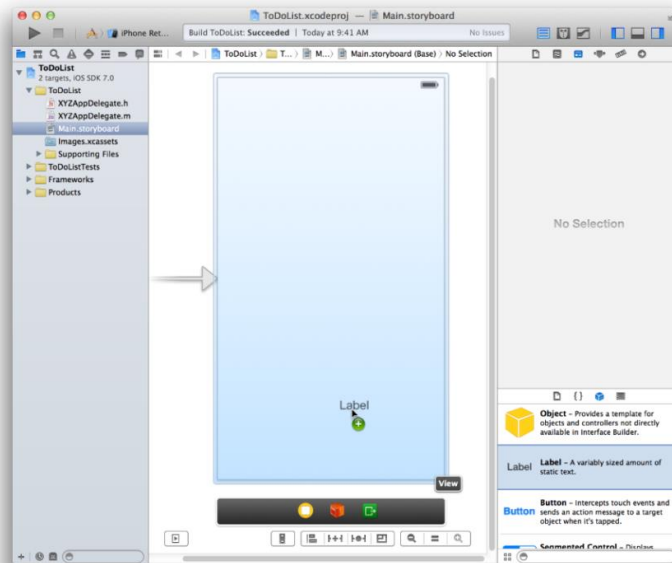
A storyboard is a visual representation of the app's user interface, showing screens of content and the transitions between them.

1.2.1 Add a scene to the storyboard

Select Main.storyboard, and

- Note that it contains a view controller
 - It is in the object directory as shown in the figure
- At this point, the storyboard in your app contains one **scene**. The arrow that points to the left side of the scene on the canvas is the **initial scene indicator**, which means that this scene is loaded first when the app starts.
- Add a label to your scene

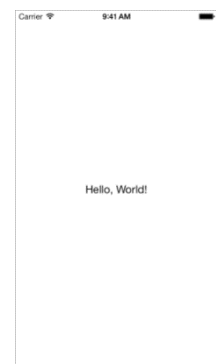




- Center the label until horizontal and vertical guides appear.
- Double-click the text of the label to select it for editing.
- Type Hello, World! and press Return.

1.3 Test

Run the iOS simulator, your app should launch and load the scene you created in your main storyboard. Click the Run button in Xcode. You should see something like this:



2 Extended Hello World Example

Use the following simple demo to change the background, add buttons, add emoji, and some animations.

https://medium.com/@seabjackson/cs19_3p-developing-ios-11-apps-with-swift-4-lecture-1-notes-97731bd7862

3 Questions

- Why the text is not centered? How this can be fixed?
- What are the iOS app states (lifecycle)?
- Elaborate more on the usage of the app delegate and application object and their interactions?
- Rebuild the project with SwiftUI and check how the view is constructed?
 - <https://developer.apple.com/tutorials/swiftui>
 - <https://www.hackingwithswift.com/quick-start/swiftui>

