



Let's Build an App | Tip Calculator

A Simple, Swift-Based Calculator App for iOS

Giancarlos Alvarado |

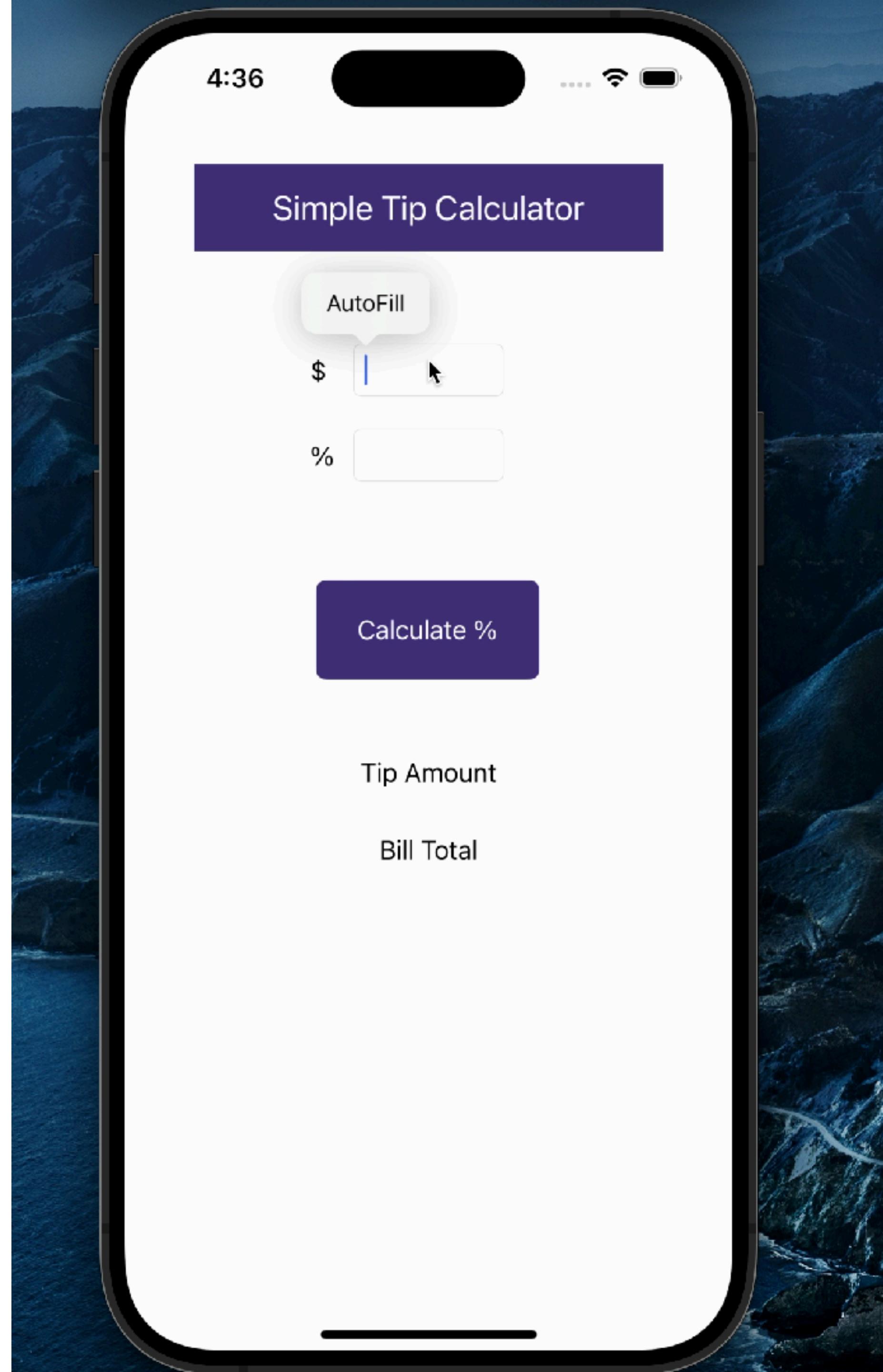
Download the project on GitHub here: <https://github.com/laguna783/TipCalculatoriOS.git>

Objective:

Build a Simple Tip Calculator

Project Steps:

- Create Project.
- Design in Storyboard.
- Connect Storyboard to ViewController.
- Code in Swift using UIKit Framework.
- Share.



STEP 1 | Create an iOS App Project in Xcode

Click on Xcode icon. | Click on “Create New Project”

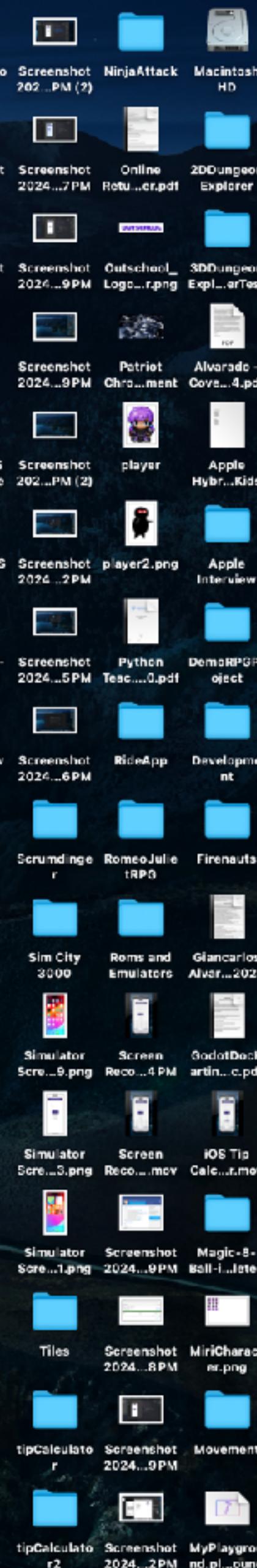
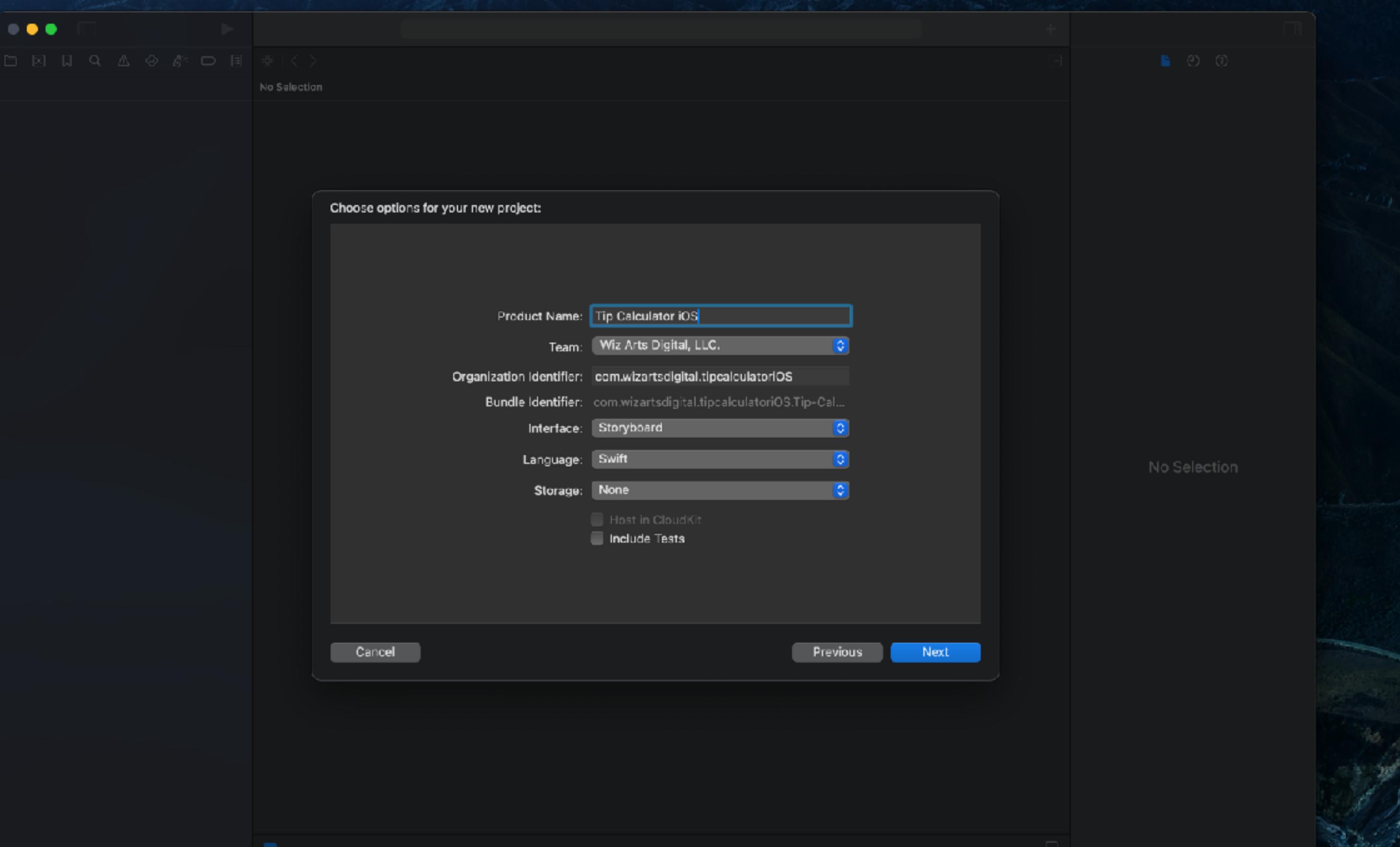


STEP 2 | Create the iOS App Project

Click on iOS Tab. | Select “App” | Name Project | Save.

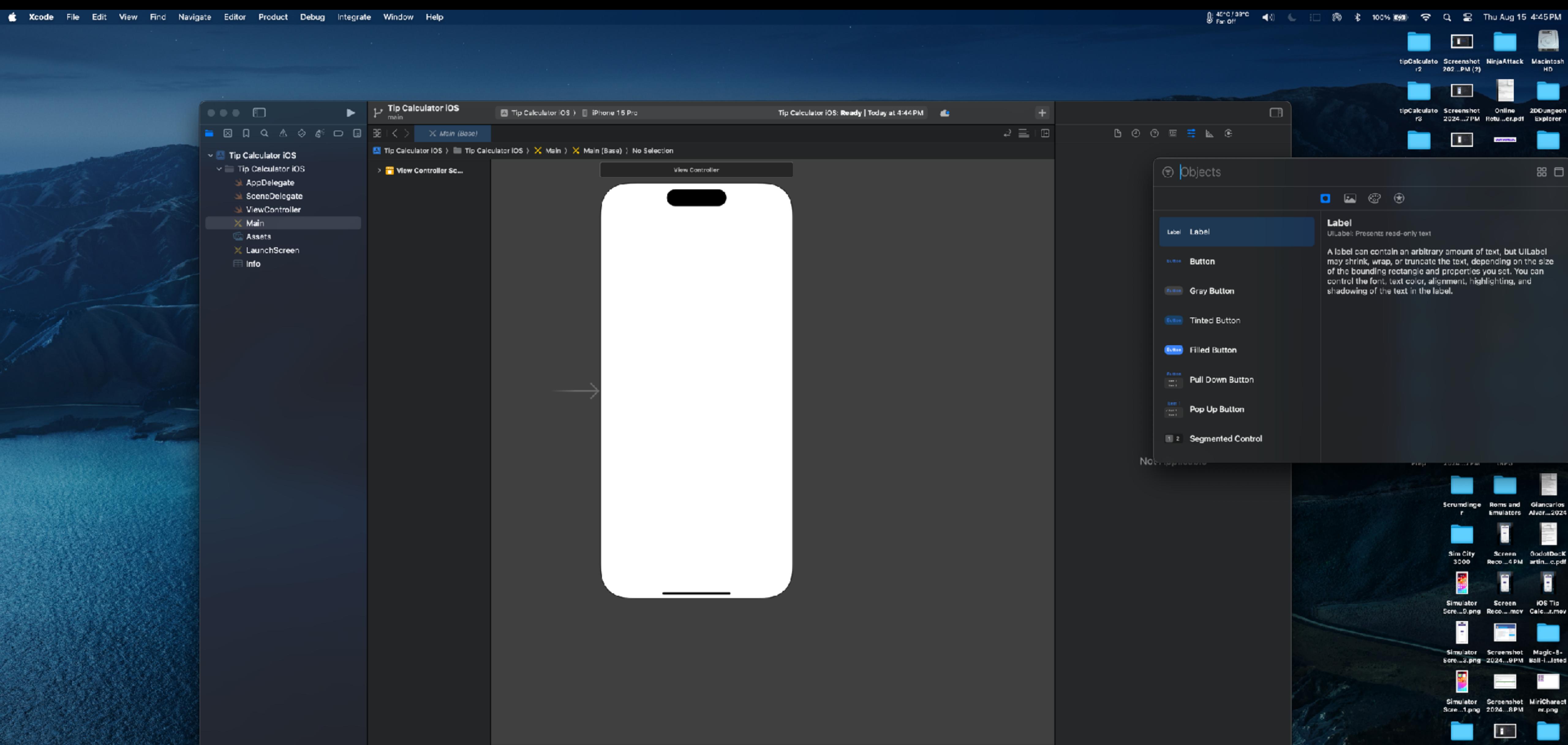
STEP 2a | Create the iOS App Project

Click on iOS Tab. | Select “App” | Name Project | Save.



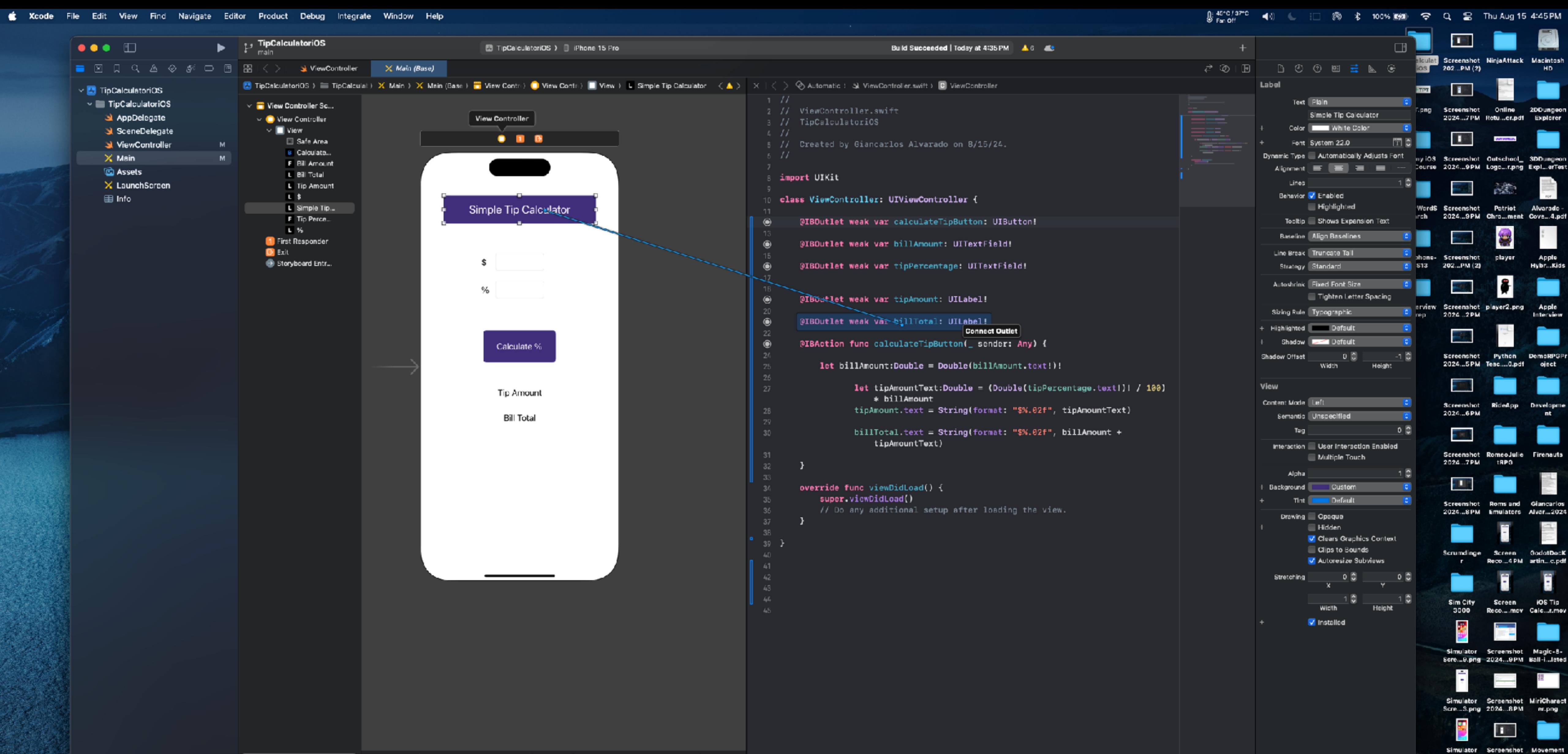
STEP 3 | Design Layout in Storyboard

Click on “Main”. | Click on Library “+”, Add 5Labels, 2 TextFields & 1 Button



STEP 4 | Connect Storyboard Elements to ViewController (IBOutlets)

Right Click on Each Element and drag connection to ViewController above “viewDidLoad()



STEP 5 | Code.

(See code below)

The screenshot shows the Xcode interface with the following components:

- Project Navigator:** Shows the project structure with files like AppDelegate, SceneDelegate, ViewController, Main.storyboard, Assets, LaunchScreen, and Info.
- Storyboard:** Displays the "Main (Base)" storyboard scene titled "Simple Tip Calculator". It contains a purple header bar with the title, two white text fields for "Bill Amount" and "Tip Percentage", and a blue button labeled "Calculate %". Labels "Tip Amount" and "Bill Total" are positioned below their respective fields.
- Code Editor:** Displays the "ViewController.swift" code. The code defines a `ViewController` class that implements `UIViewController`. It includes outlets for the bill amount, tip percentage, tip amount, and bill total labels, and a button action for calculating the tip. The `viewDidLoad` method is also overridden.
- Attributes Inspector:** On the right side, the "Button" section is expanded, showing properties for the "Calculate %" button, such as Type (System), Style (Plain), Title (Plain), Subtitle (Plain), Alignment (Default), Foreground (White Color), and Image (Image).

```
1 // ViewController.swift
2 // TipCalculatoriOS
3 // Created by Giancarlos Alvarado on 8/15/24.
4 //
5 import UIKit
6
7
8 class ViewController: UIViewController {
9
10    @IBOutlet weak var calculateTipButton: UIButton!
11
12    @IBOutlet weak var billAmount: UITextField!
13
14    @IBOutlet weak var tipPercentage: UITextField!
15
16
17    @IBOutlet weak var tipAmount: UILabel!
18
19    @IBOutlet weak var billTotal: UILabel!
20
21
22    @IBAction func calculateTipButton(_ sender: Any) {
23
24        let billAmount:Double = Double(billAmount.text!)!
25
26
27        let tipAmountText:Double =
28            (Double(tipPercentage.text!)! / 100) * billAmount
29        tipAmount.text = String(format: "$%.02f",
30                               tipAmountText)
31
32
33        billTotal.text = String(format: "$%.02f", billAmount
34                                + tipAmountText)
35
36    }
37
38
39    override func viewDidLoad() {
40        super.viewDidLoad()
41        // Do any additional setup after loading the view.
42    }
43}
```

STEP 5 | Code.

(Code is copyable)

```
TipCalculator iOS Code
//
// ViewController.swift
// TipCalculatoriOS
//
// Created by Giancarlos Alvarado on 8/15/24.
//

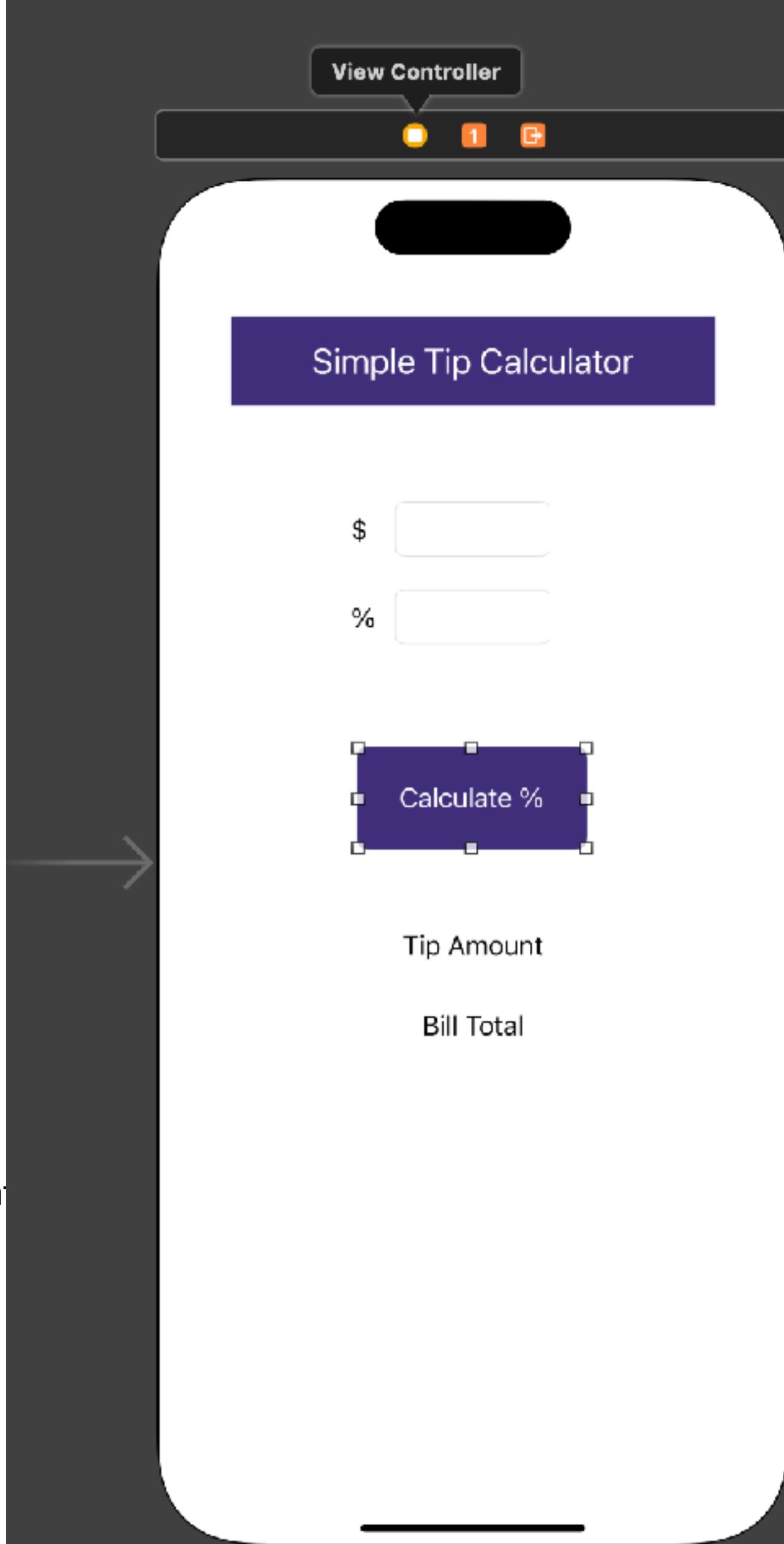
import UIKit

class ViewController: UIViewController {

    @IBOutlet weak var calculateTipButton: UIButton!
    @IBOutlet weak var billAmount: UITextField!
    @IBOutlet weak var tipPercentage: UITextField!
    @IBOutlet weak var tipAmount: UILabel!
    @IBOutlet weak var billTotal: UILabel!

    @IBAction func calculateTipButton(_ sender: Any) {
        let billAmount:Double = Double(billAmount.text!)!
        let tipAmountText:Double = (Double(tipPercentage.text!)! / 100) * billAmount
        tipAmount.text = String(format: "$%.02f", tipAmountText)
        billTotal.text = String(format: "$%.02f", billAmount + tipAmountText)
    }

    override func viewDidLoad() {
        super.viewDidLoad()
        // Do any additional setup after loading the view.
    }
}
```



Project End

Video is playable on macOS ->

