

# Workshop:

# My first app: Apple Pie

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# Agenda

## What are we learning today?

- Xcode: where things are and how to use it
- Swift Language:
  - Constants/Variables
  - Data Types
  - Conditional statements
  - Functions
  - Loops
- Auto Layout and Stack Views

# Before we start

Make sure you have Xcode 9.x installed, and that you have downloaded the images from:

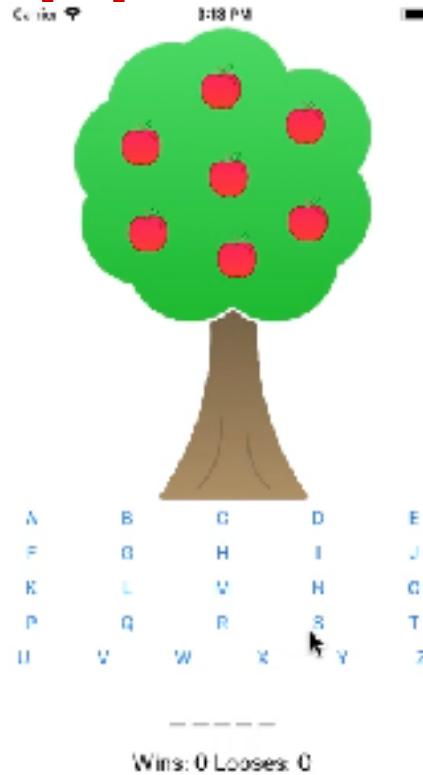
<https://github.com/ananogal/Workshop-Apple-Pie-I>

# Demo Playground

# What have we learned so far?

- ***Swift Language:***
  - Variables and Constants
  - Data Types
  - Operators
  - Conditional Statements
  - Functions
  - Arrays

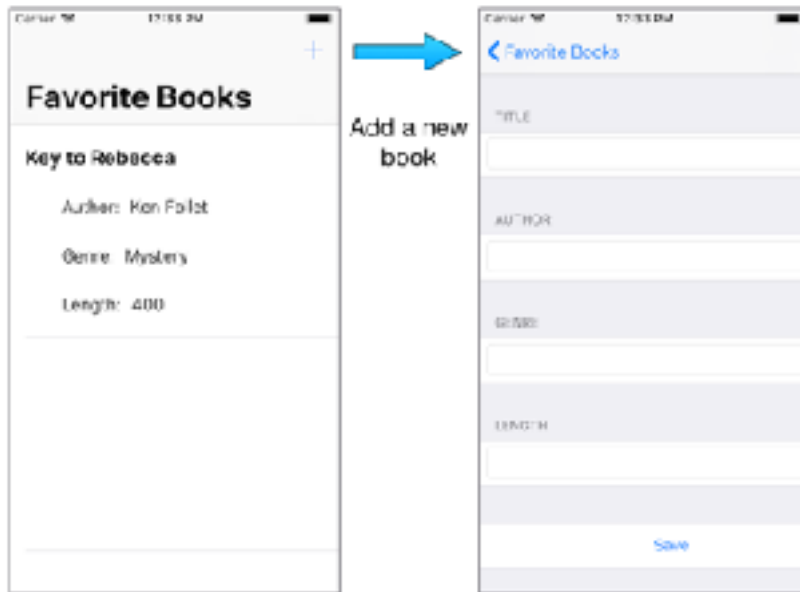
# Apple Pie



# Demo Project

# View Controllers

Manage a Screen or a portion of a Screen





# View Controllers

Main.storyboard  
(Design)



ViewController.swift  
(Code)

```
@IBAction func showAlert() {  
  
}  

```

# Add a button to the VC

- Go to Main.storyboard
- Drag and drop a button to the VC
- Center it in the VC
- Run the app

# Different Sizes

- Different Devices -> Different screen sizes.
- Change the device
- Change the orientation
- What Happened?

# Auto Layout

- Different sizes of screens
- Defines constraints or rules for all screens
- Stack Views
- Size Classes

# Demo Auto Layout

# Challenge 1

- Create three more Buttons “C”, “D” and “E”.
- All buttons should be 20 pixels from the top and 30 from the left.
- Add a different background-colour for each one.

# Stack Views

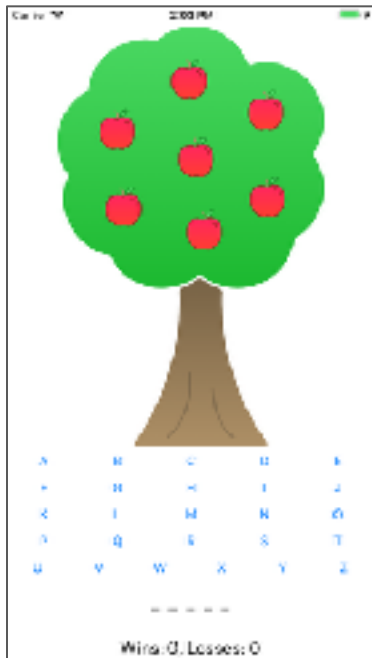
- Allows you to manage several constraints
- Vertical (Column)
- Horizontal (Row)

# Demo Stack Views

- Go to Main.Storyboard
- Select all the buttons and embed them in a StackView
- Try out some of the properties of the StackView
- Add a top vertical StackView
- Add constraints to the top StackView



# Challenge 2

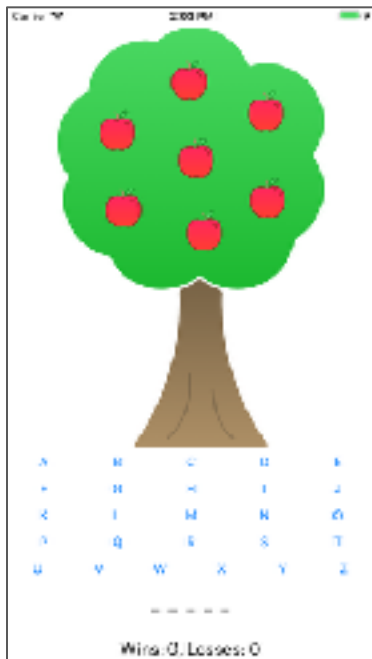


- Embed the StackView in another one
- Select the top one and make sure it has vertical axis
- Add constraints to this StackView with value 0 and uncheck “constraints to margins”
- Add all buttons
- Change buttons titles

# Walkthrough add images

- In the Navigator panel go to the Project Navigator
- Select the Assets folder
- Go to the folder where you download the images
- Drag and Drop them after the AppIcon
- Go back to the Main.storyboard
- Add an UIImageView to the top StackView
- Set its image property to Tree 7
- Set “Content mode” to “Aspect Fit”.

# Challenge 3



- Add two labels to the top Stack view
- Add a height constraint to the first label with the value 60
- Set the font size to 30 and centre the text
- Select the second label and add a height constraint of 30
- Set the font size to 20 and centre the text

# IBOutlets

Establishes a relationship between Design file  
(Main.storyboard) and Code (ViewController.swift)

# Demo Project

# What have we learned so far?

- ***Swift Language:***
  - Variables and Constants
  - Data Types
  - Operators
  - Conditional Statements
  - Functions
  - Arrays

# What have we learned so far?

- ***ViewControllers:***

- Controls a screen.
- Are made of 2 parts: the design and code.
- Use IBOutlets to establish a relationship between design and code

- ***Auto Layout:***

- Defines constraints or rules that can be applied to all screens.

- ***Stack Views:***

- Manage the constraints of its children.

# App Labs

- Unit 1
  - Units 1.1 to Unit 1.4
- Unit 2
  - Unit 2.1 to 2.7



# Resources

[App Development with Swift](#)

[Apple Swift Book](#)

[Human Interface Guidelines iOS](#)