

#HACKUMass VII

# Introduction to iOS Development

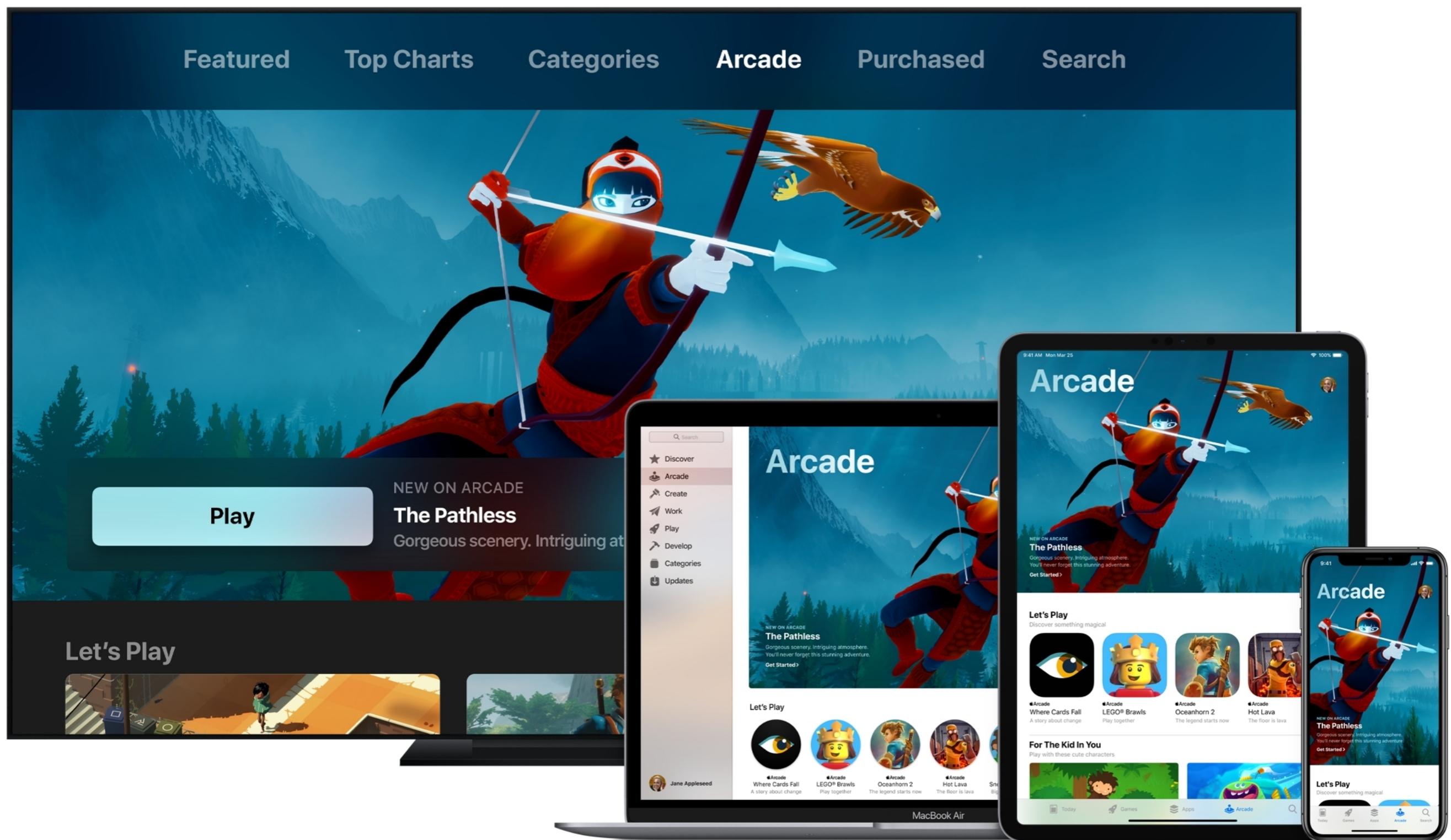
Samuel DuBois

# Important Prerequisites

- Need a working Mac or MacBook in order to download, install, and run Xcode (Apple's iOS IDE)

**Thats all !**



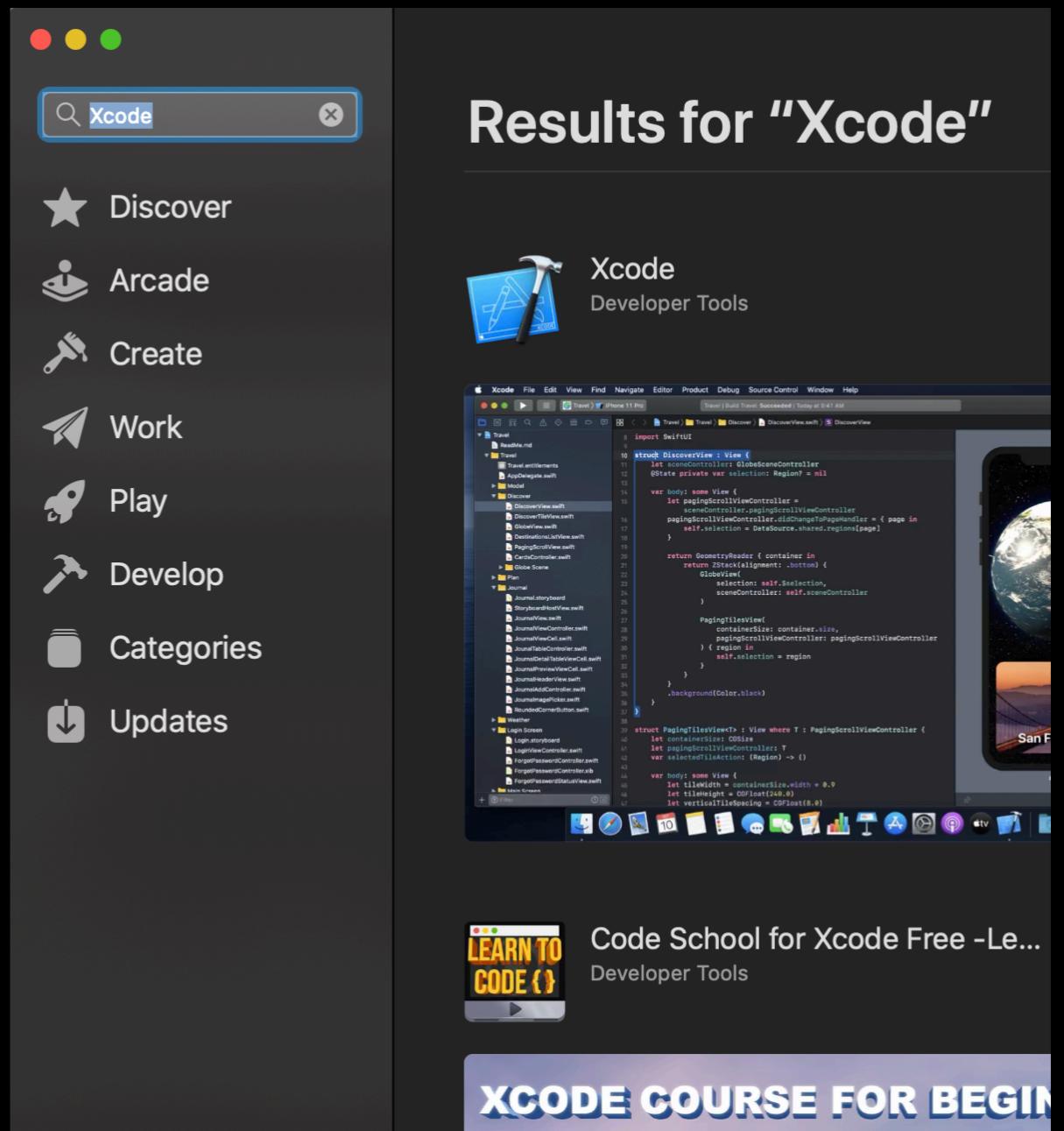






# Downloading Xcode

- Head to the native Mac App Store.
- Search for ‘Xcode’
- Download the application and wait for it to install
- You do not need to download swift specifically on the device.



*Demo*

**UIGestureRecognizer**

**UIResponder**

**UITextView**

**UINavigationBarButton**

**UISplitViewController**

**UIViewController**

**UIButton**

**UIView**

# **UIKit**

**UIStoryboardSegue**

**UICollectionView**

**UITableView**

**UILabel**

**UIStoryboard**

**UINavigationController**

**fileView**

**UITabBarButton**

**UIKeyCommand**

**UIViewController**

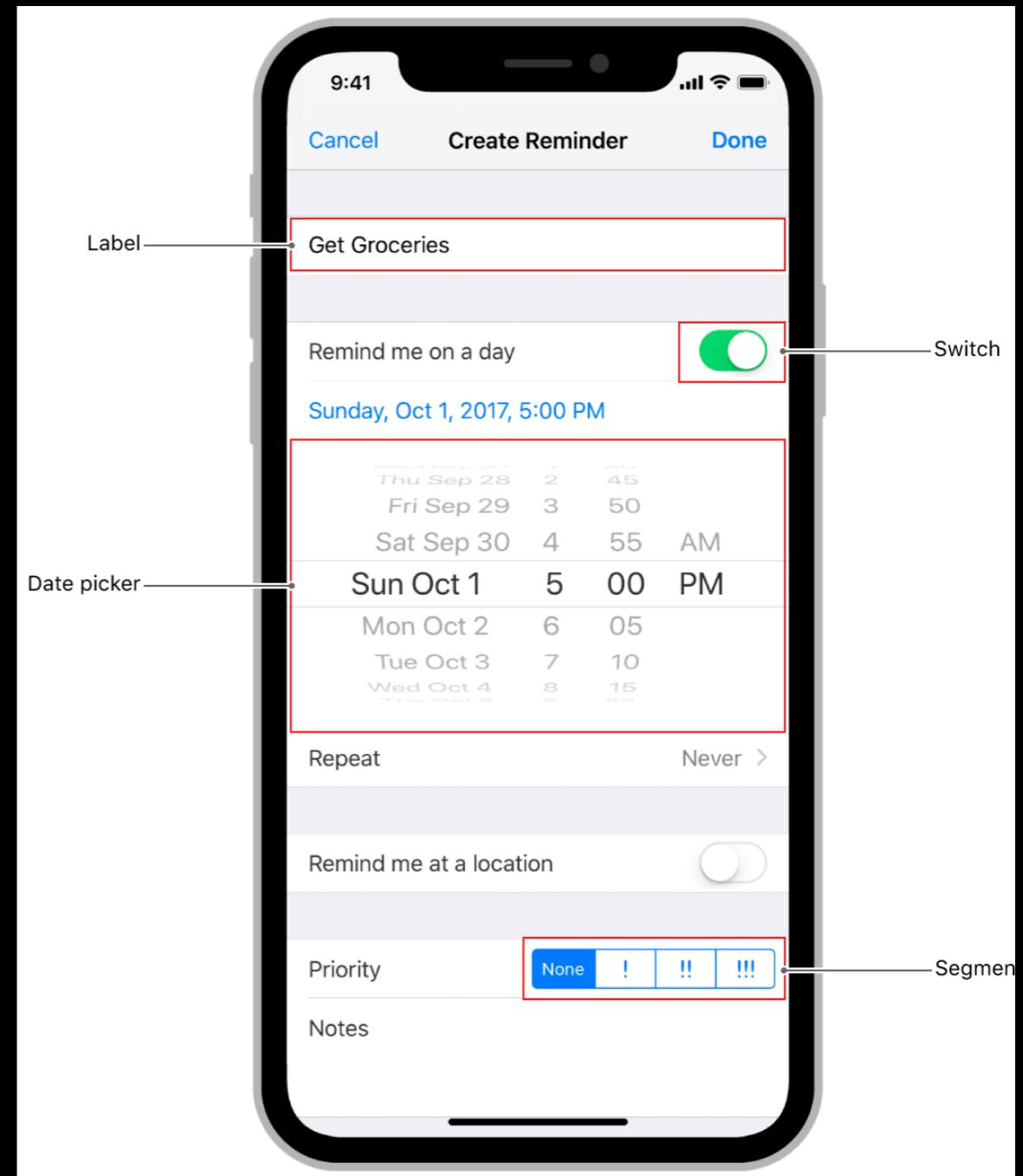
**UILabel**

**UIView**

**UIButton**

# UIViewController

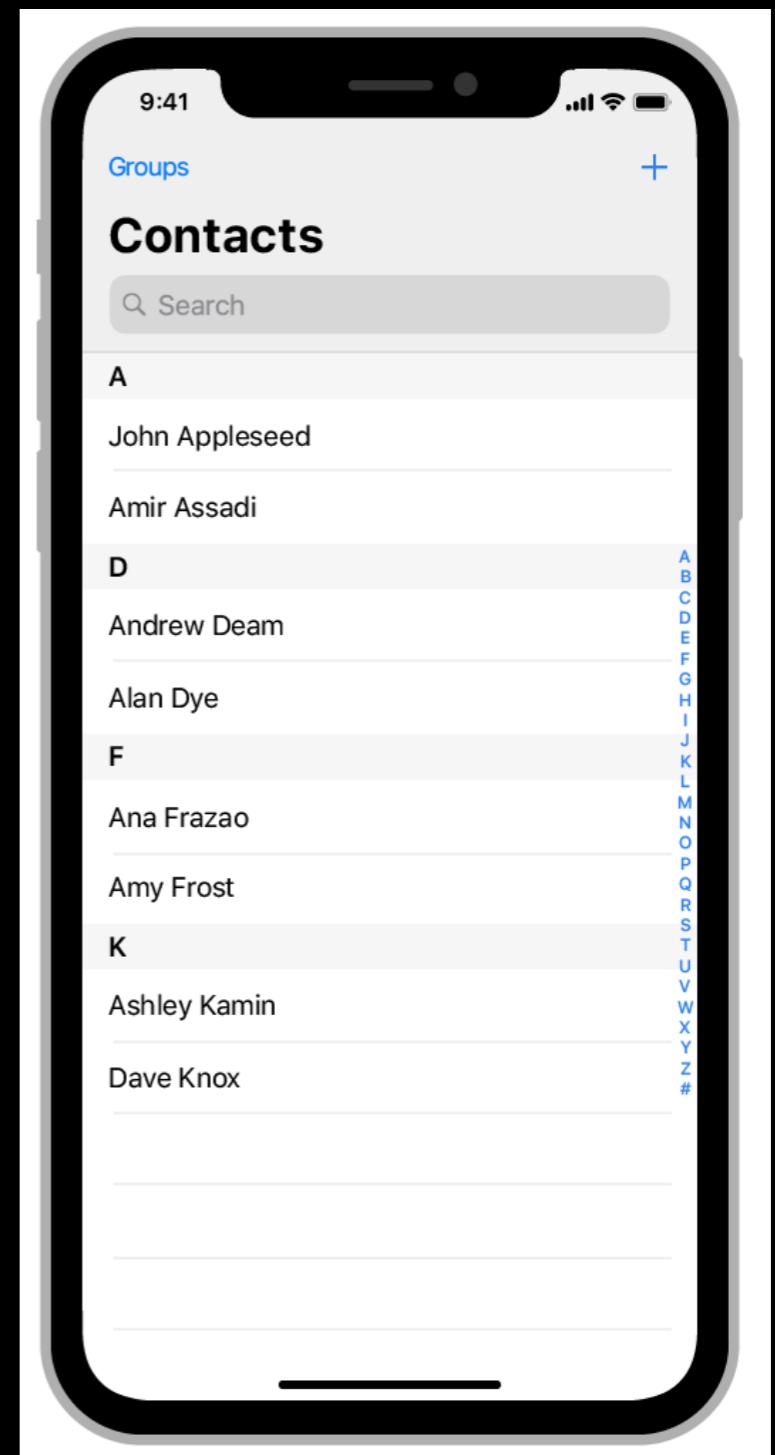
- Maintains views in the view hierarchy. (Keeps everything on screen where it should be)
- Provides ‘out of the box’ segues and animations for transitioning between different views.
- Very powerful for creating the best layout of your app.
- Houses all the items on the screen



*Demo*

# UITableViewController

- Conforms to UITableViewDataSource and UITableViewDelegate, two protocols that specific the size and style of the complexity
- Must create a UITableViewCell to coordinate with the UITableView. A Cell is just the individual object that is made in each row of the table.
- A UITableViewCell has all the capabilities of a UIView which means you can create practically anything you want in a tableview cell.



*Demo*

# Where to go from here...

- **Learning Swift**
  - [swift.org](https://swift.org)
  - Swift Playgrounds
  - Youtube
- **Xcode and UIKit**
  - [developer.apple.com](https://developer.apple.com) (Apple's Documentation)
  - Udemy (online education)
  - Youtube



## Metal

Maximize the graphics and compute potential of your games with Metal, which provides the best access to the GPU on iOS, macOS, and tvOS.

[Learn more about Metal >](#)



## SceneKit

Use this fully featured high-level graphics framework to create 3D animated scenes and effects in your games.

[Learn more about SceneKit >](#)



## SpriteKit

With SpriteKit, it's easy to create high-performance, power-efficient 2D games.

[Learn more about SpriteKit >](#)



## ReplayKit

Enable players to share gameplay recordings or broadcast live games to players and viewers online with this easy-to-use framework.

[Learn more about ReplayKit >](#)



## GameplayKit

This framework provides a collection of essential tools and techniques used to implement modern gameplay algorithms.

[Learn more about GameplayKit >](#)



## Model I/O

Integrate physically-based materials, models, and lighting for SceneKit, GameplayKit, and Metal with Model I/O.

[Learn more about Model I/O >](#)



## Game Center

Take advantage of Game Center, Apple's social gaming network. Gamers can track their best scores on a leaderboard, compare their achievements, and start a multiplayer game through auto-matching.

[Learn more about Game Center >](#)



## Game Controller

Integrate your games with MFi game controllers and take advantage of other modes of input. Learn how to add support for physical D-pads, buttons, triggers, joysticks, and more.

[Game Controller Programming Guide >](#)



## On-Demand Resources

Create smaller app bundles, enable faster downloads, and add up to 20 GB of additional content hosted on the App Store.

[On-Demand Resources Guide >](#)

# Enjoy HACKUMass !

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