

#HackUMass VII

Introduction to iOS Development

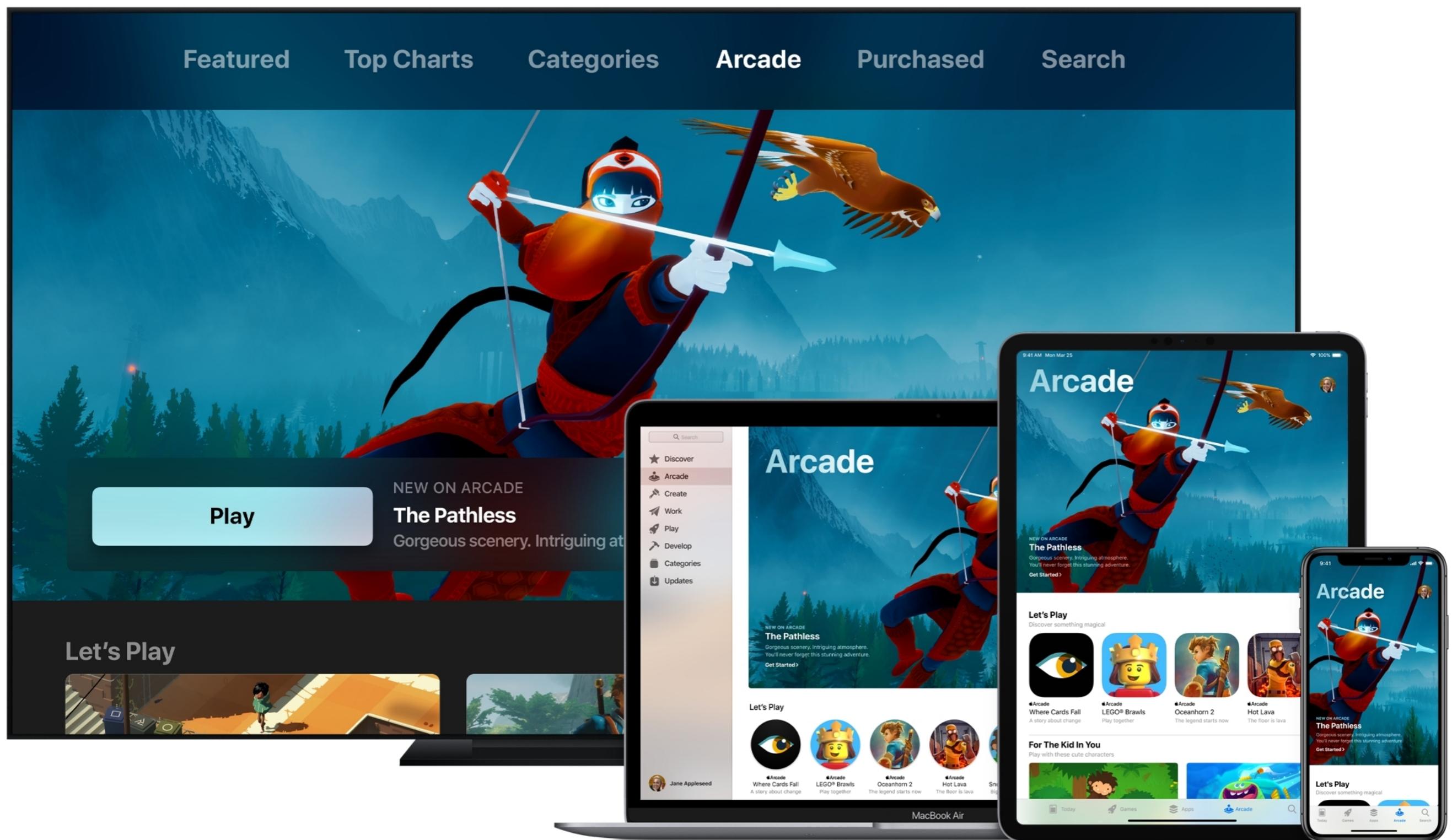
Samuel DuBois

Important Prerequisites

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

Thats all !



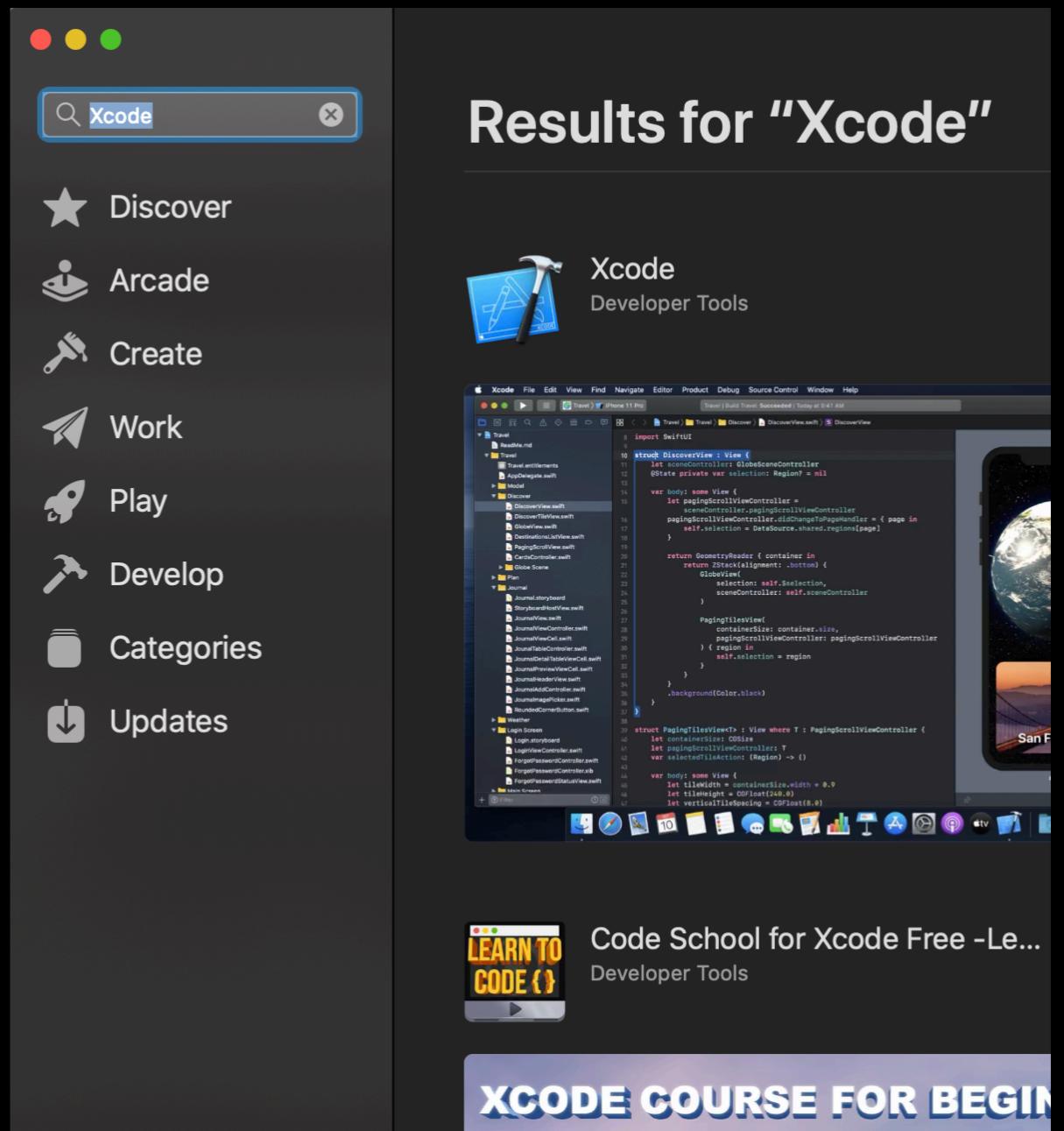






Downloading Xcode

- 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

UIestureRecognizer

UIResponder

UITextView

UINavigationBarButton

UISplitViewController

UIViewController

UIButton

UIView

UIKit

UIStoryboardSegue

UICollectionView

UITableView

UILabel

UIStoryboard

UINavigationController

fileView

UITabBarButton

UIKeyCommand

UIViewController

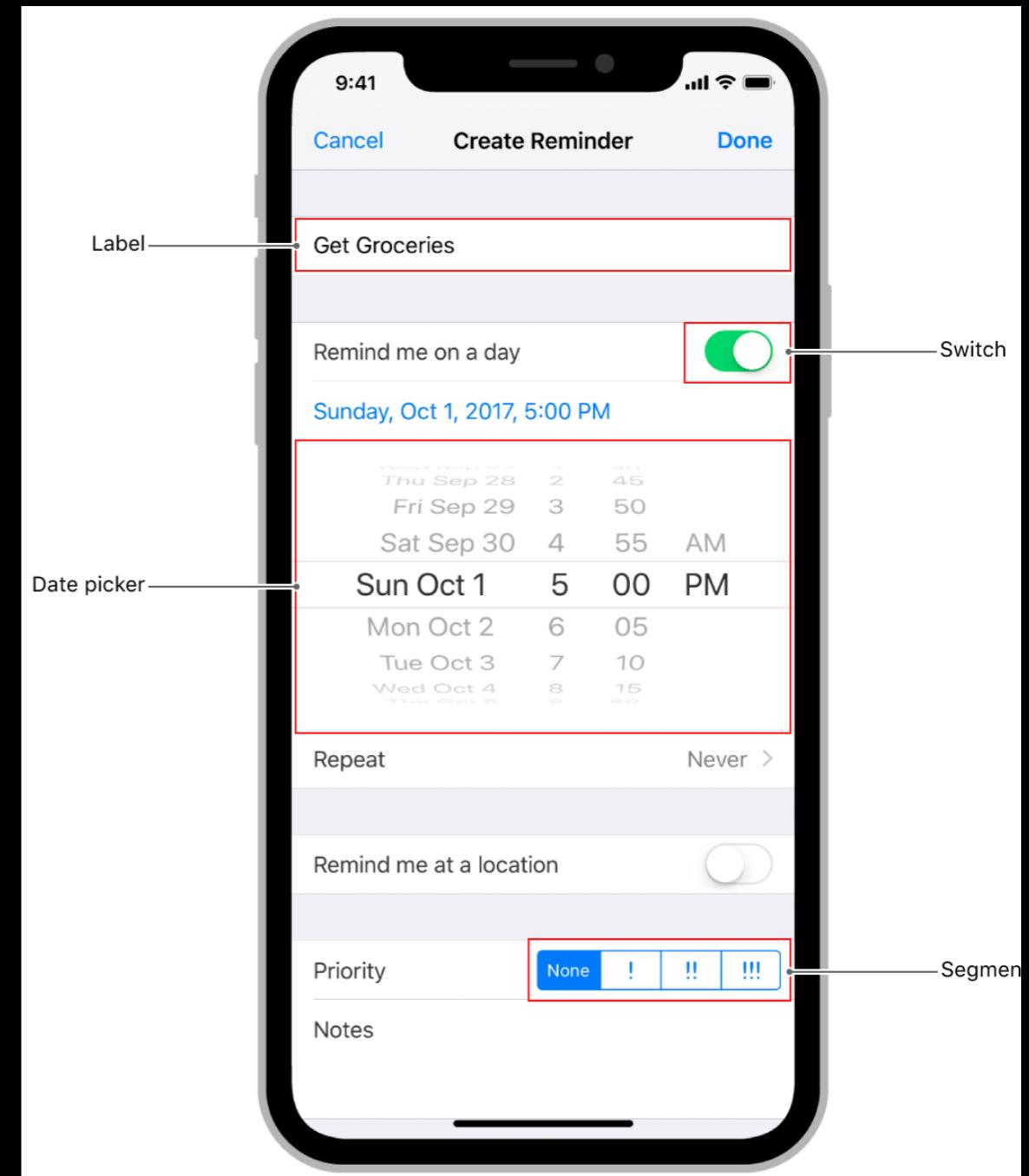
UILabel

UIView

UIButton

UIViewController

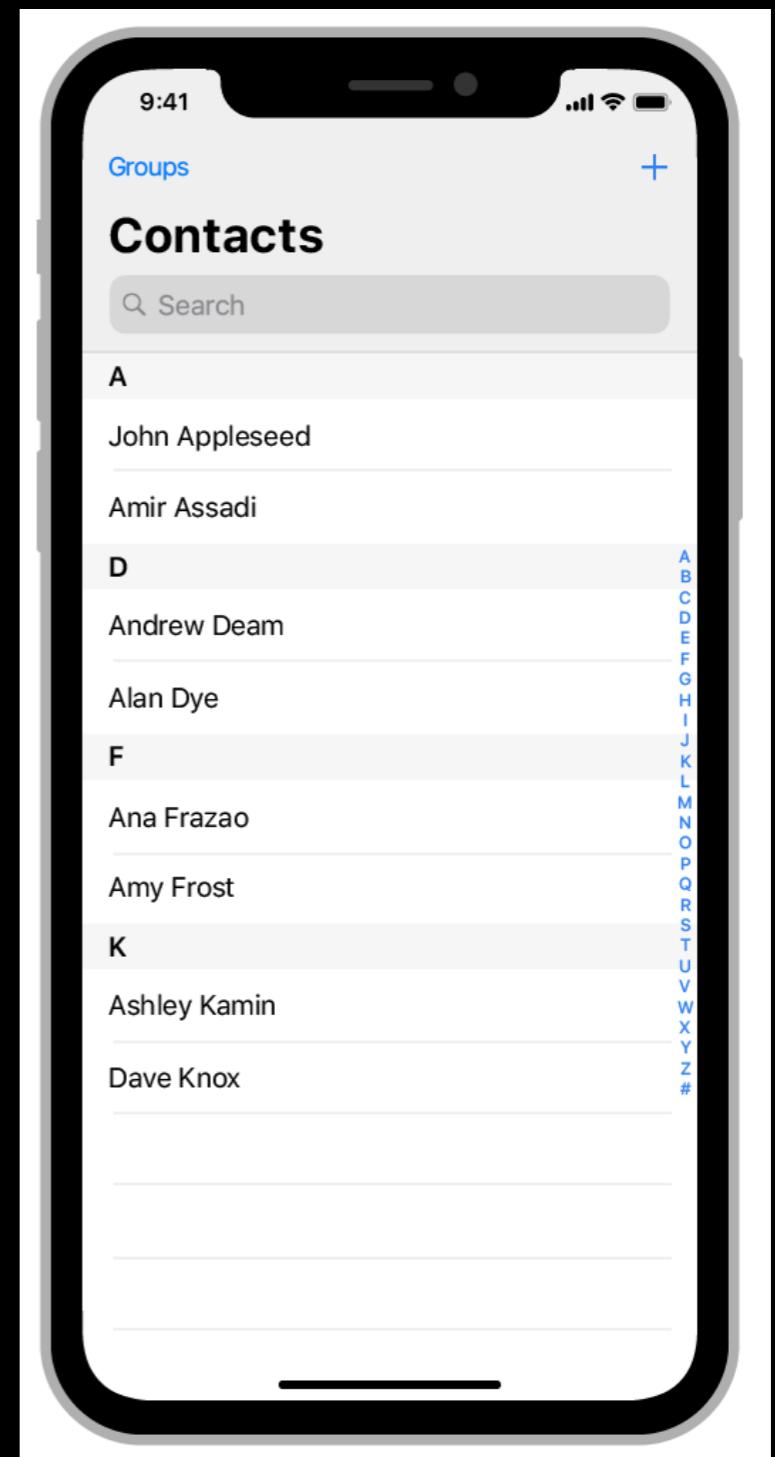
- Maintains views in the view hierarchy. (Keeps everything on screen where it should be)
- Provides ‘out of the box’ segues and animations for transitioning between different views.
- Very powerful for creating the best layout of your app.
- Houses all the items on the screen



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
 - Swift Playgrounds
 - Youtube
- **Xcode and UIKit**
 - 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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[https://github.com/sdubois18/
IntroToiOSDevelopment](https://github.com/sdubois18/IntroToiOSDevelopment)