

Data Storage: Extras

Mobile Application Development in iOS

School of EECS

Washington State University

Instructor: Larry Holder

Data Storage Extras

- Firebase
 - Authentication
- CloudKit



Firebase Authentication

- Pod 'Firebase/Auth'
- Enable authentication methods

The image displays two screenshots of the Firebase Authentication console interface.

Left Screenshot: Sign-in providers

The 'Sign-in method' tab is selected. It shows a table of providers:

Provider	Status
Email/Password	Enabled
Phone	Disabled
Google	Disabled

Right Screenshot: Users

The 'Users' tab is selected. It shows a table of users:

Identifier	Providers	Created	Signed In	User UID
holder@wsu.edu	Email	Apr 5, 2021	Apr 5, 2021	UwOSFhFYRhQL9pF8EonyNnQdXe...

Firebase Authentication

```
import FirebaseAuth

// Create user
Auth.auth().createUser(withEmail: email, password: password)
    { authResult, error in
        // ...
    }

// Sign in (existing user)
Auth.auth().signIn(withEmail: email, password: password)
    { authResult, error in
        // ...
    }

// Current user
let user = Auth.auth().currentUser

// Sign out current user
try? Auth.auth().signOut()
```

CloudKit



- Apple's cloud data storage capability
- Integrated with Core Data
- Designed to work only with Apple apps

CloudKit

- Use CloudKit version of NSPersistentContainer

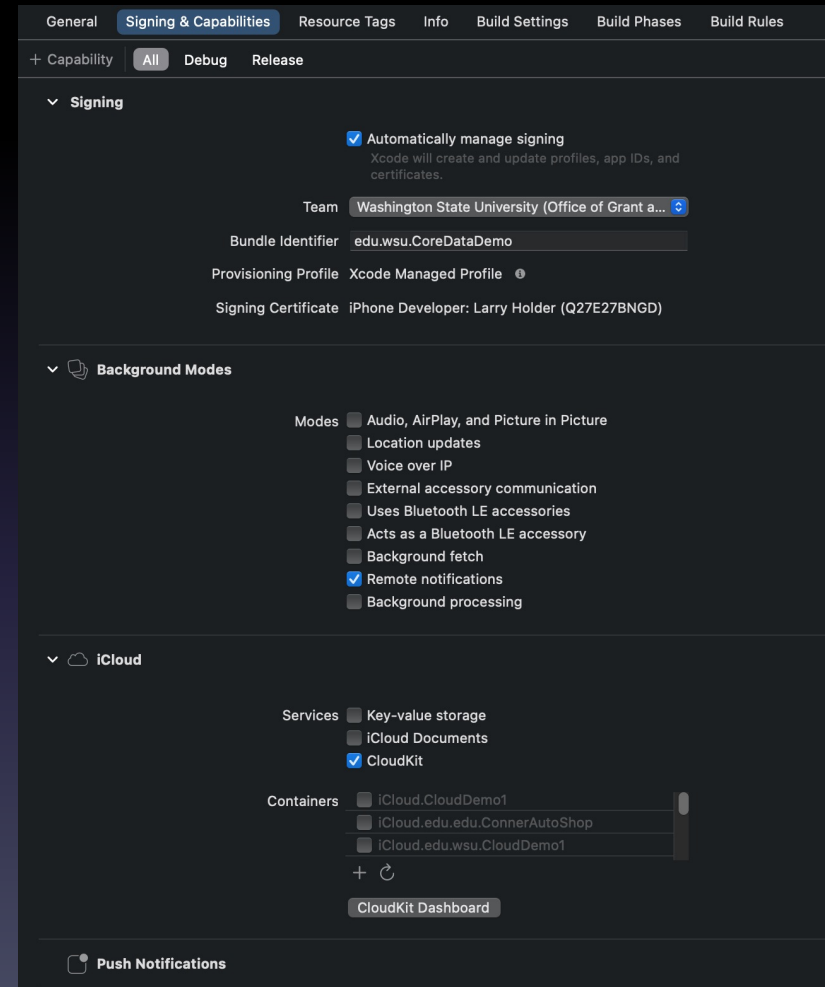
```
// AppDelegate.swift

// MARK: - Core Data stack

lazy var persistentContainer: NSPersistentCloudKitContainer = {
    /*
     The persistent container for the application. This implementation
     creates and returns a container, having loaded the store for the
     application to it. This property is optional since there are legitimate
     error conditions that could cause the creation of the store to fail.
    */
    let container = NSPersistentCloudKitContainer(name: "CoreDataDemo")
    ...
}
```

CloudKit

- Add capabilities to app
 - iCloud
 - Choose 'CloudKit' and Container
 - Push Notifications
 - Background Modes
 - Remote notifications



CloudKit

- Sign in to iCloud
- Cycle Automatic Signing
- Goto CloudKit Dashboard

