## CocoaPods and Firebase Database

This demo shows you how to build a small chat room app by using the Firebase database.

We need CocoaPods to install and manage the Firebase SDK.

## CocoaPods

CocoaPods is an application-level dependency manager for Objective-C, Swift. It is similar to pip in Python application. You can find more details about CocoaPods from its website: <a href="https://cocoapods.org/">https://cocoapods.org/</a>.

 To install CocoaPods, type the following code into the Terminal on the Mac. The system will ask you to enter the password to finish the installation.

sudo gem install cocoapods

2. Type **pod** into the Terminal, we should see something similar to this screenshot.

```
→ ~ pod
Usage:
   $ pod COMMAND
     CocoaPods, the Cocoa library package manager.
Commands:
   + cache
                   Manipulate the CocoaPods cache
                   Deintegrate CocoaPods from your project
   + deintegrate
                   Display pod environment
   + init
                   Generate a Podfile for the current directory
   + install
                   Install project dependencies according to versions from a
                   Podfile.lock
   + ipc
                   Inter-process communication
   + lib
                   Develop pods
   + list
                   List pods
   + outdated
                   Show outdated project dependencies
                   Show available CocoaPods plugins
   + plugins
   + repo
                   Manage spec-repositories
                   Search for pods
   + search
                   Setup the CocoaPods environment
   + setup
                   Manage pod specs
   + spec
   + trunk
                   Interact with the CocoaPods API (e.g. publishing new specs)
   + try
                   Try a Pod!
                   Update outdated project dependencies and create new
   + update
                   Podfile.lock
Options:
                   Show nothing
                   Show the version of the tool
                   Show more debugging information
                   Show output without ANSI codes
                   Show help banner of specified command
```

To use CocoaPods in our project, use **cd** to change the current working directory to our project, and then use **pod** init to create a Podfile.

A Podfile is a specification that describes the dependencies of the targets of one Xcode project.

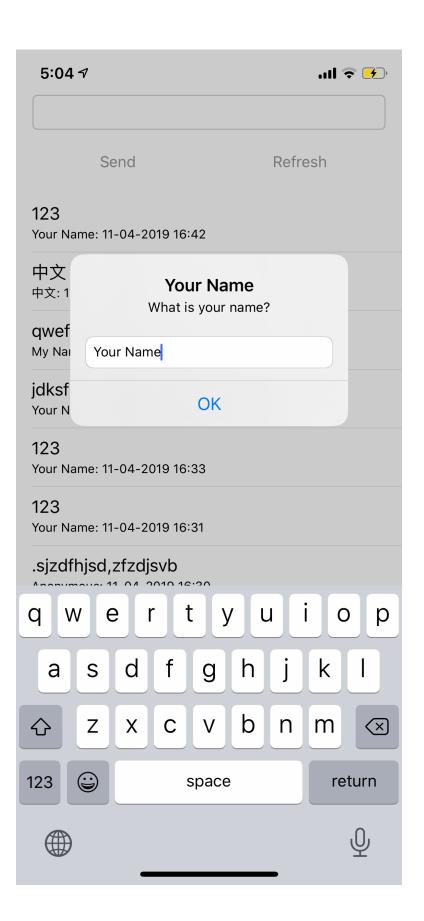
After we put everything we need (each SDK document will tell you what you need) in the Podfile and saved it, type pod install to install all the dependencies. Notice that CocoaPods will create a new file (it is actually a folder, but we will trade it as a file) named <ProjectName>.xcworkspace in the project folder. Open that file, and we will find that CocoaPods has configured all the dependencies for us. From now on, when we want to open the project, we will use <ProjectName>.xcworkspace instead of <ProjectName>.xcworkspace).

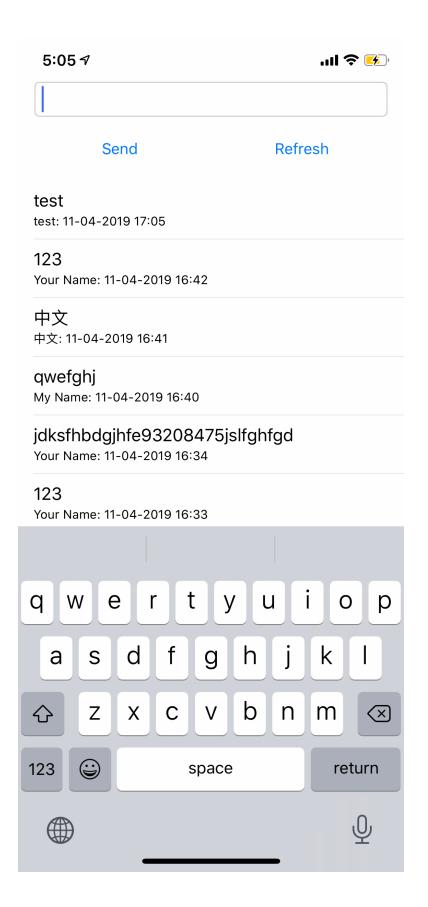
## **Firebase Database**

To use Firebase Database, we need to install Firebase SDK. You can find more details about Add Firebase to your iOS project from here <a href="https://firebase.google.com/docs/ios/setup">https://firebase.google.com/docs/ios/setup</a>. You can also check out how to use the Firebase database here <a href="https://firebase.google.com/docs/database/ios/start">https://firebase.google.com/docs/database/ios/start</a>.

## **Demo**

To use this demo, run pod install in the demo project folder to install all the dependencies. After that, open ChatRoom.xcworkspace and run it. The app will ask you for your name and then allow you to post messages to the chat room.





Please note that we need a Google Service API KEY to run this app, and people should never share this information online ever. I include my key in GoogleService-Info-plist for demonstration purposes only. I may revoke this key if it gets abused.