


Firestore

- Interact with a web service
 - Create a backend to store our data
 - Parse data from the cloud for display in our application
-

Firebase

“ At least once a day, allow yourself the freedom to think and dream for yourself. ”

- ALBERT EINSTEIN




Firebase

Sign in with Google

or

Email Address

Password [forgot password?](#)

Sign in or 

[I don't have a Google account](#)

Firebase

Create a project ×

Project name

Country/region ?

By default, your Firebase Analytics data will enhance other Firebase features and Google products. You can control how your Firebase Analytics data is shared in your settings at anytime. [Learn more](#)

By proceeding and clicking the button below, you agree that you are using Firebase services in your app and agree to the applicable [terms](#).

CANCEL

CREATE PROJECT

Welcome to Firebase! Get started here.



Add Firebase to
your iOS app



Add Firebase to
your Android app



Add Firebase to
your web app

Discover Firebase



Analytics

Get detailed analytics to measure and analyze how users engage with your app



Authentication

Authenticate and manage users from a variety of providers without server-side code



Database

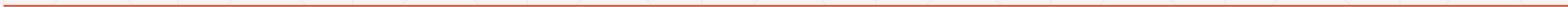
Store and sync data in realtime across all connected clients

Firestore

- `sudo gem install cocoapods`
 - `pod init`
 - `vi podfile`
-

Podfile

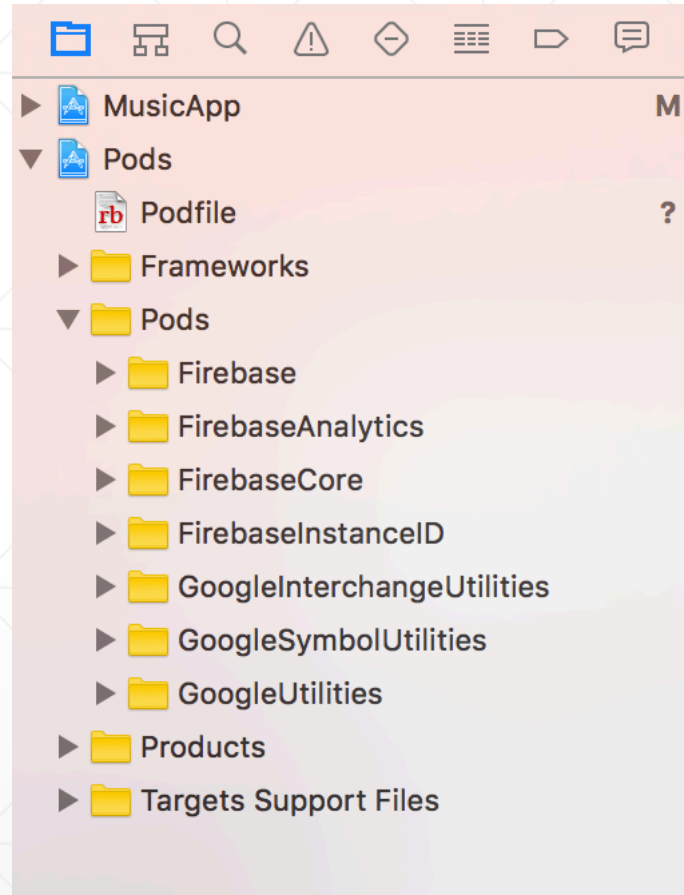
```
pod 'Firebase/Core'  
use_frameworks!
```



Podfile

>pod install

Close project and open xcworkspace file



Add Firebase to your iOS app



1

Enter app details

2

Copy config file


3

Install pod

4

Add initialization code

iOS bundle ID 

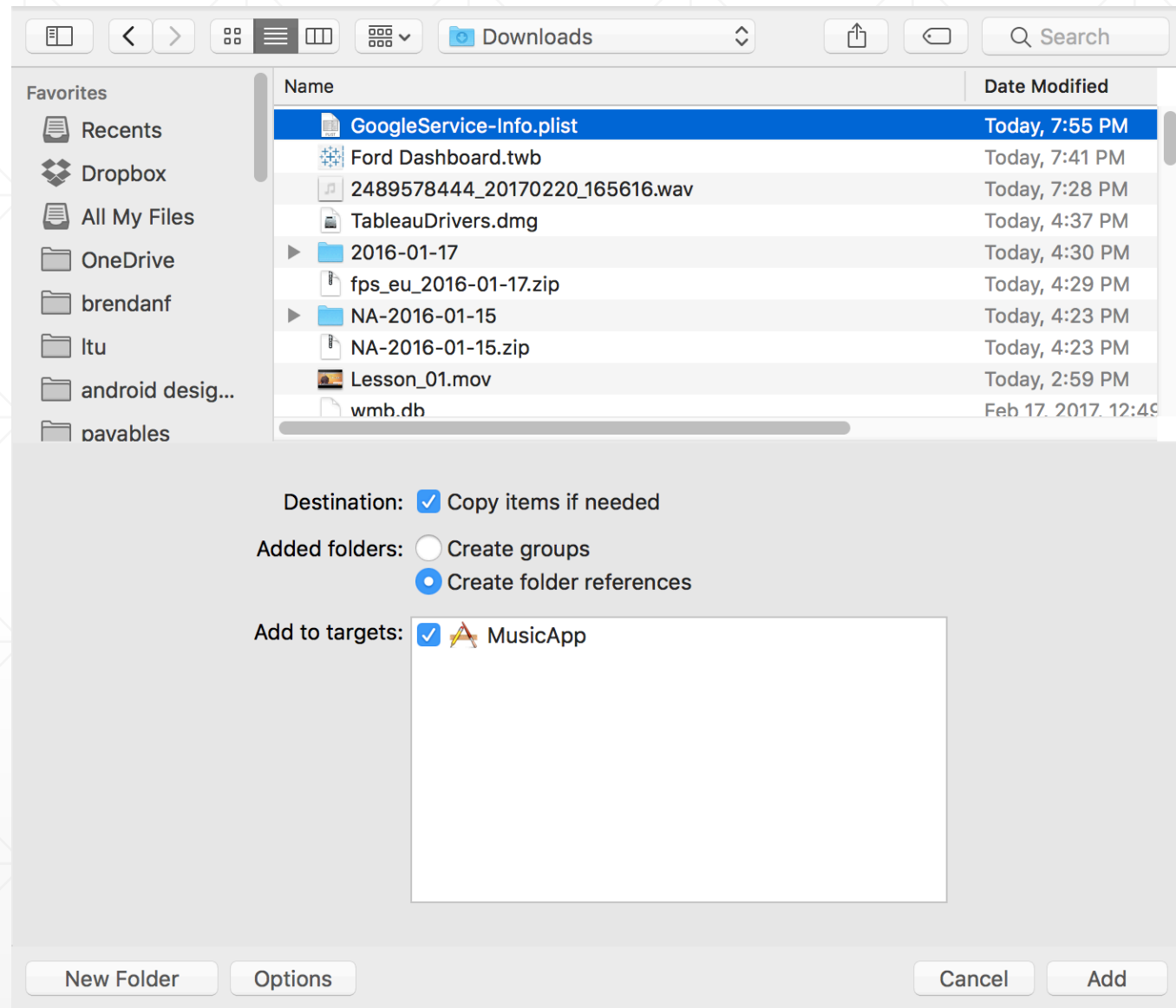
App nickname (optional) 

App Store ID (optional) 

CANCEL

ADD APP

downloads
GoogleService-Info.plist
for your app



Add Firebase to your iOS app



1

Enter app details

2

Copy config file

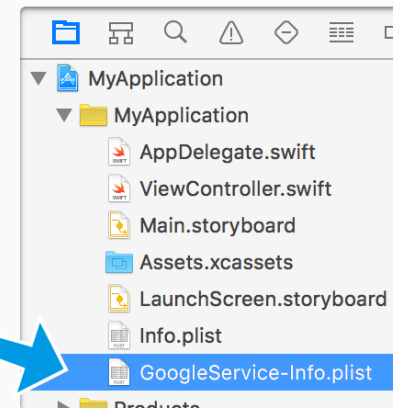
3

Install pod

4

Add initialization code

Move the **GoogleService-Info.plist** file you just downloaded into the root of your Xcode project and add it to all targets.



Already added the pod and initialization code?
[Skip to the console](#)

CONTINUE

Add Firebase to your iOS app



1

Enter app details

2


Copy config file

3

Install pod

4

Add initialization code


Google services uses [CocoaPods](#)  to install and manage dependencies. Open a terminal window and navigate to the location of the Xcode project for your app.

1. Create a Podfile if you don't have one:

```
$ pod init
```

2. Open your Podfile and add:

```
pod 'Firebase/Core'
```

includes Firebase Analytics by default 

3. Save the file and run:

```
$ pod install
```

This creates an **.xcworkspace** file for your app. Use this file for all future development on your application.

Already added the pod and initialization code?
[Skip to the console](#)

CONTINUE

Add Firebase to your iOS app



1

Enter app details

2

Copy config file

3

Install pod

4

Add initialization code

To connect Firebase when your app starts up, add the initialization code below to your main `AppDelegate` class.

☒ Swift ☐ Objective-C

```
import UIKit
import Firebase

@UIApplicationMain
class AppDelegate: UIResponder, UIApplicationDelegate {

    var window: UIWindow?

    func application(application: UIApplication,
        didFinishLaunchingWithOptions launchOptions: [NSObject: AnyObject]?)
        -> Bool {
        FIRApp.configure()
        return true
    }
}
```

FINISH

```
import UIKit
import Firebase

@UIApplicationMain
class AppDelegate: UIResponder, UIApplicationDelegate {

    var window: UIWindow?


    func application(_ application: UIApplication, didFinishLaunchingWithOptions
        launchOptions: [UIApplicationLaunchOptionsKey: Any]?) -> Bool {
        // Override point for customization after application launch.
        FIRApp.configure()
        return true
    }
}
```

Firestore/Database

- Add Firestore/Database to podfile
 - pod install
 - Close and reopen workspace
-



Firebase

MusicApp ▾

Go to docs



Overview



Realtime Database



Analytics

DEVELOP



Authentication



Database



Storage



Hosting



Test Lab



Crash Reporting

GROW



Notifications



Remote Config



Dynamic Links

EARN



AdMob

DATA

RULES

USAGE

BACKUPS

SIMULATOR

```
1 {  
2   "rules": {  
3     ".read": true,  
4     ".write": true  
5   }  
6 }
```



```
override func viewDidLoad() {  
    super.viewDidLoad()  
    bandsModel.fetch()  
  
    let myRootRef = FIRDatabase.database().reference()  
  
    // Write data to Firebase  
    myRootRef.setValue("Do you have data? You'll love Firebase.")  
  
    myRootRef.observe(.value, with: {  
        snapshot in  
        print("\(snapshot.key) -> \(snapshot.value)")  
    })  
  
}
```

```
MusicApp > MusicApp > BandsTableViewController.swift > viewDidLoad()
class BandsTableViewController: UITableViewController {
15
16     let bandsModel = BandsModel()
17
18     override func viewDidLoad() {
19         super.viewDidLoad()
20
21         bandsModel.fetch()
22
23         let myRootRef = FIRDatabase.database().reference()
24
25         // Write data to Firebase
26         myRootRef.setValue("Do you have data? You'll love Firebase.")
27
28         myRootRef.observe(.value, with: {
29             snapshot in
30                 print("\(snapshot.key) -> \(snapshot.value)")
31         })
32
33     }
34
}

Analytics App Delegate Proxy automatically. To
disable the proxy, set the flag
FirebaseAppDelegateProxyEnabled to NO in the
Info.plist
-> Optional(Do you have data? You'll love
Firebase.)
2017-02-20 21:51:13.270 MusicApp[21338] <Debug>
[Firebase/Core][I-COR000019] Clearcut post
completed.
2017-02-20 21:51:13.367 MusicApp[21338:]
<FIRAnalytics/WARNING> The AdSupport Framework is
not currently linked. Some features will not
function properly. Learn more at http://goo.gl/
9vSsPb
2017-02-20 21:51:13.373 MusicApp[21338:]
<FIRAnalytics/INFORM> Firebase Analytics enabled
```



Firebase

MusicApp ▾

Go to docs



Overview



Realtime Database



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Crash Reporting

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EARN



AdMob

<https://musicapp-82395.firebaseio.com/>



musicapp-82395: "Do you have data? You'll love Firebase."



Store and sync data in realtime across all connected clients

[Learn more](#)



Data



Security & Rules



Scheduler



Analytics



Login & Auth



Hosting



Secrets

Expand Data

Collapse Data

Import Data

Export Data

DAZZLING-INFERNO-7155

dazzling-inferno-7155

results

0

bandDescription: "Nicole will knock your socks off"

bandName: "Nicole Atkins"

bandType: "Rock"

fullImageName: "full-nicole-atkins.png"

nextShowDate: "Tue 5/1"

nextShowTime: "8pm"

showDetails: "All ages - \$35"

thumbnailImageName: "thumb-nicole-atkins.png"

venue: "Bowery Ballroom"

videoURL: "http://www.youtube.com/embed/Go9kl4yrxeQ?rel="

1

bandDescription: "It's been 2 years since Ambulance LTD has playe.."

bandName: "Ambulance LTD"

bandType: "Indie Rock"

fullImageName: "full-ambulance-ltd.png"

nextShowDate: "Fri 5/4"

nextShowTime: "10:30pm"

showDetails: "All ages - \$18"

thumbnailImageName: "thumb-ambulance-ltd.png"

venue: "Mercury Lounge"

videoURL: "http://www.youtube.com/embed/12uzjdx8Vyw?rel="

Legend

- Changed
- Added
- Deleted
- Moved

Save your work

- `git add .`
- `git commit -m "Connected Firebase"`



 Overview



 Analytics

DEVELOP

 Authentication

 Database

 Storage

 Hosting

 Test Lab

 Crash Reporting

Realtime Database




DATA

RULES

USAGE

BACKUPS

 <https://musicapp-82395.firebaseio.com/>



musicapp-82395: null  

Realtime Database




DATA

RULES

USAGE

BACKUPS

 <https://musicapp-82395.firebaseio.com/>




musicapp-82395: null 

Name results Value value  

CANCEL

ADD


 <https://musicapp-82395.firebaseio.com/>



musicapp-82395: null 

Name results  

Name 0  

Name bandName Value Nicole Atkins 

CANCEL

ADD

name: 0


+

×

name: bandName

value: Nicole Atkins

×

 <https://musicapp-82395.firebaseio.com/>



musicapp-82395: null ✕

Name results + ✕

Name 0 + ✕

Name bandName Value Nicole Atkins ✕

Name bandType Value Rock ✕

CANCEL ADD

name	value
bandDescription	Nicole will knock your socks off.
fullImageName	full-nicole-atkins.png
thumbImageName	thumb-nicole-atkins.png
nextShowDate	Tue 5/1
nextShowTime	8pm
venue	Bowery Ballroom
showDetails	All ages - \$35
videoUrl	http://www.youtube.com/embed/Go9k14yrxeQ?rel=0

<https://musicapp-82395.firebaseio.com/>



musicapp-82395: null ✕


Name results + ✕

Name 0 + ✕

Name	bandName	Value	Nicole Atkins	✕
Name	bandType	Value	Rock	✕
Name	fullImageNam	Value	full-nicole-atkins.png	✕
Name	thumbImageNa	Value	thumb-nicole-atkins.png	✕
Name	nextShowDate	Value	Tue 5/1	✕
Name	nextShowTime	Value	8pm	✕
Name	venue	Value	Bowery Ballroom	✕
Name	showDetails	Value	All ages - \$35	✕
Name	videoURL	Value	http://www.youtube.com/e	✕

CANCEL

ADD

 <https://musicapp-82395.firebaseio.com/>



musicapp-82395

 results

 0

```
----- bandName: "Nicole Atkins"
----- bandType: "Rock"
----- fullImageName: "full-nicole-atkins.png"
----- nextShowDate: "Tue 5/1"
----- nextShowTime: "8pm"
----- showDetails: "All ages - $35"
----- thumbImageName: "thumb-nicole-atkins.png"
----- venue: "Bowery Ballroom"
----- videoURL: "http://www.youtube.com/embed/Go9k14yrxeQ?rel=0"
```

```
import UIKit
import Firebase

class BandsModel: NSObject {
    var bandDetails = [BandDetail]()
}
```

```
import UIKit
import Firebase

class BandsModel: NSObject {
    var bandDetails = [BandDetail]()
}
```

```
var bandDetails = [BandDetail]()  
func fetch(complete:(Void)->Void){  
  
}
```

```
var bandDetails = [BandDetail]()  
func fetch(complete:(Void)->Void){  
    // Get a reference to my Firebase URL  
    let myRootRef = FIRDatabase.database().reference()  
}
```

```
var bandDetails = [BandDetail]()  
func fetch(complete:(Void)->Void){  
    // Get a reference to my Firebase URL  
    let myRootRef = FIRDatabase.database().reference()  
  
    // Attach a closure to read the data stored at the URL  
    myRootRef.observe(.value, with: {[weak self]  
        snapshot in })  
  
}
```

```
var bandDetails = [BandDetail]()  
func fetch(complete:(Void)->Void){  
    // Get a reference to my Firebase URL  
    let myRootRef = FIRDatabase.database().reference()  
  
    // Attach a closure to read the data stored at the URL  
    myRootRef.observe(.value, with: {[weak self]  
        snapshot in  
            if let snapshots = snapshot.children.allObjects as? [FIRDataSnapshot] {  
                print(snapshot.value)  
            } })  
}
```

```
print(snapshot.value)
```

```
for snap in snapshots {
```

```
    if let array = snap.value as? NSArray {
```

```
    }
```

```
}
```

```
print(snapshot.value)
for snap in snapshots {
    if let array = snap.value as? NSArray {
        for dict in array {
            if let object = dict as? Dictionary<String, AnyObject> {
            }
        }
    }
}
```

```
if let object = dict as? Dictionary<String, AnyObject> {  
    let bandDetail = BandDetail()  
    bandDetail.bandName = object["bandName"] as? String  
    bandDetail.bandType = object["bandType"] as? String  
    bandDetail.bandDescription = object["bandDescription"] as? String  
    bandDetail.fullImageName = object["fullImageName"] as? String  
    bandDetail.thumbImageName = object["thumbImageName"] as? String  
    bandDetail.nextShowDate = object["nextShowDate"] as? String  
    bandDetail.nextShowTime = object["nextShowTime"] as? String  
    bandDetail.venue = object["venue"] as? String  
    bandDetail.showDetails = object["showDetails"] as? String  
    bandDetail.videoURL = object["videoURL"] as? String  
}
```

```
bandDetail.videoURL = object["videoURL"] as? String
```

```
// A little memory management
```

```
if let strongSelf = self {
```

```
    strongSelf.bandDetails.append(bandDetail)
```

```
}
```

```
}
```

```
// A little memory management
if let strongSelf = self {
    strongSelf.bandDetails.append(bandDetail)
}
```

```
    }
    }
    }
    complete()
}
```

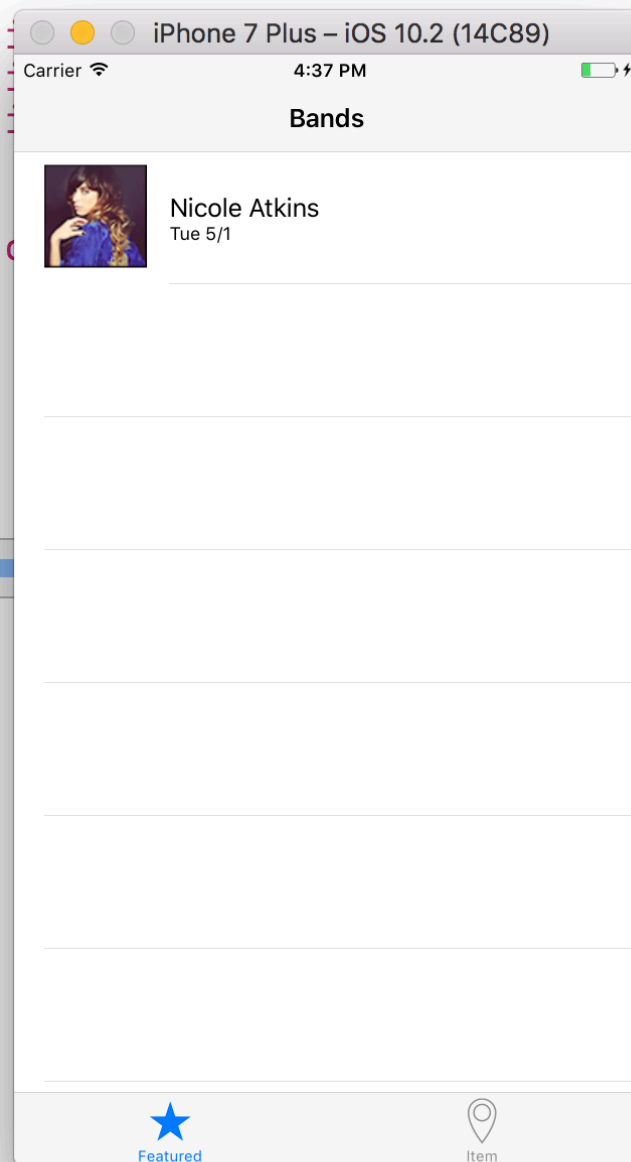
```
} })
```

```
} // End of fetch() method
```

```
override func viewDidLoad() {  
    super.viewDidLoad()
```

```
    bandsModel.fetch {[weak self] (Void) -> Void in  
        if let strongSelf = self {  
            strongSelf.tableView.reloadData()  
        }  
    }  
}
```

```
}
```



```
er: UITableViewController {
```

```
del()
```

```
d() {
```

```
    // MARK: UICollectionViewDataSource
```

```
    FirebaseAppDelegateProxyEnabled to NO in the
    Info.plist
    Optional({
        results = (
            {
                bandName = "Nicole Atkins";
                bandType = Rock;
                fullImageName = "full-nicole-
atkins.png";
                nextShowDate = "Tue 5/1";
                nextShowTime = 8pm;
                showDetails = "All ages - $35";
                thumbImageName = "thumb-nicole-
atkins.png";
                venue = "Bowery Ballroom";
                videoURL = "http://www.youtube.com/
```

```
func fetch(complete:@escaping (Void)->Void){
    let myRootRef = FirebaseDatabase.database().reference()

    // Attach a closure to read the data stored at the URL
    myRootRef.observe(.value, with: {[weak self]
    snapshot in
        if let snapshots = snapshot.children.allObjects as? [FIRDataSnapshot] {
            // print(snapshot.value)

            for snap in snapshots {
                if let array = snap.value as? NSArray {
                    for dict in array {
                        if let object = dict as? Dictionary<String, AnyObject> {
                            let bandDetail = BandDetail()
                        }
                    }
                }
            }
        }
    })
}
```

```
func fetch(complete:@escaping (Void)->Void){
    let myRootRef = FirebaseDatabase.database().reference()

    // Attach a closure to read the data stored at the URL
    myRootRef.observe(.value, with: {[weak self]
    snapshot in
        if let snapshots = snapshot.children.allObjects as? [FIRDataSnapshot] {
            // print(snapshot.value)

            for snap in snapshots {
                if let array = snap.value as? NSArray {
                    for dict in array {
                        if let object = dict as? Dictionary<String, AnyObject> {
                            let bandDetail = BandDetail()
                        }
                    }
                }
            }
        }
    })
}
```

Import More Data

Import JSON

All data at this location will be overwritten

Data (JSON)

Bands.json

BROWSE

CANCEL

IMPORT

Import More Data

