



免費電子書

學習

firebase

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1: firebase

Firestore

AdMob

Android iOS Web Node.js C++ Java Server SDK

SDK		
Firestore JavaScript SDK	3.7.0	201731
Firestore C++ SDK	3.0.0	2107227
Firestore Unity SDK	3.0.0	2107227
Firestore iOS SDK	3.14.0	2017223
Firestore Android SDK	10.2	2017215
Firestore Admin Node.js SDK	4.1.1	2017214
Firestore Java SDK	4.1.2	2017214

Examples

FirestoreAndroid

FirestoreAndroid.

Firestore

1. FirestoreFirestore“ ”。
2. FirestoreAndroid。
3. 。
4. AuthGoogleSHA1 Android StudioGradleRefreshproject (root) - > Tasks - > android - > signingReport 。
5. google-services.json。
6. app /。



1. build.gradle**google-services**

```
buildscript {
    // ...
    dependencies {
        // ...
        classpath 'com.google.gms:google-services:3.0.0'
    }
}
```

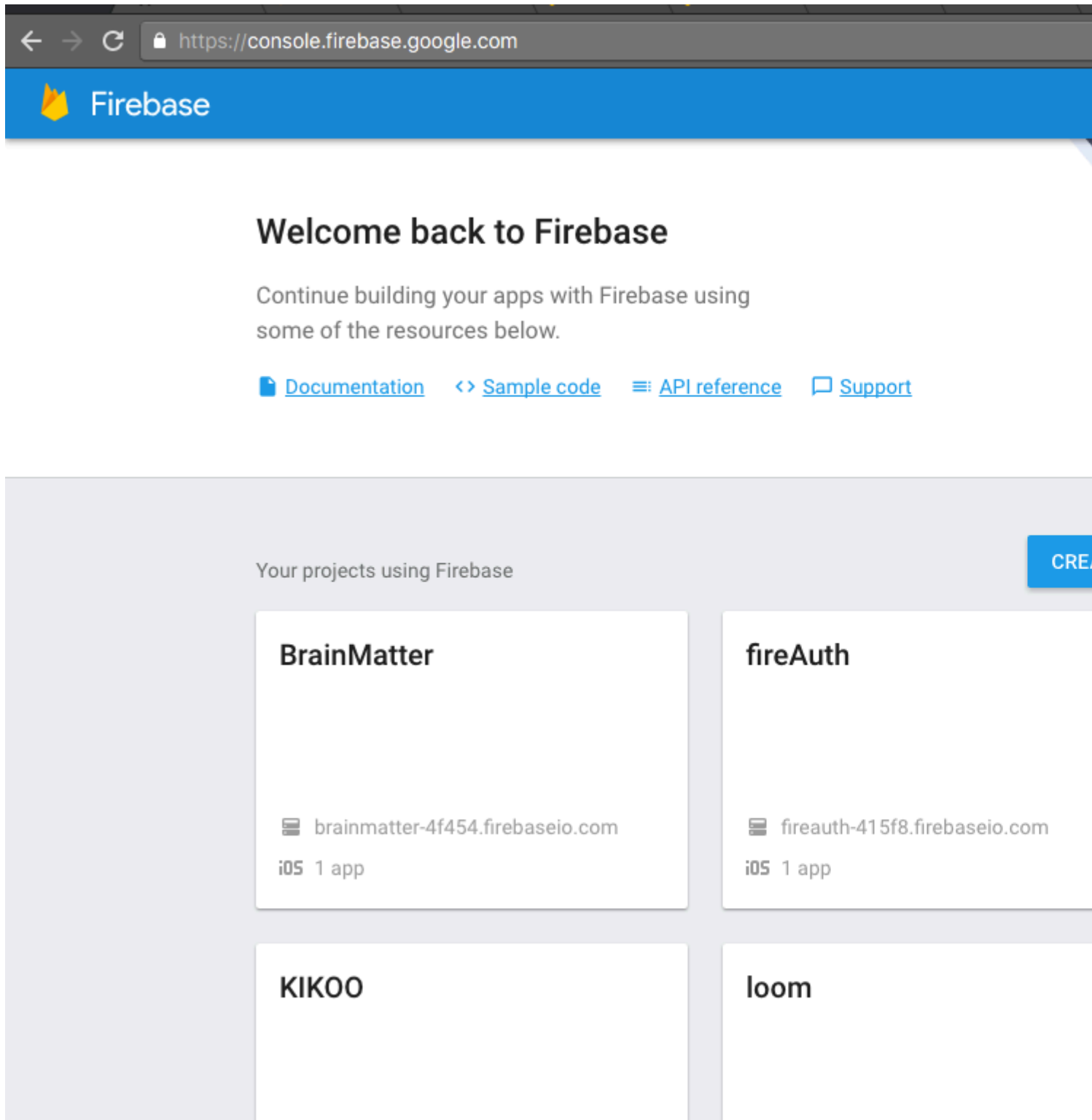
Gradleapp/build.gradle **apply pluginGradle**

```
buildscript {
    // ...
    dependencies {
        // ...
        classpath 'com.google.gms:google-services:3.0.0'
    }
}
```

Gradle	
com.google.firebase9.4.0	Analytics
com.google.firebase9.4.0	
com.google.firebase9.4.0	
com.google.firebase9.4.0	
com.google.firebase-AUTH9.4.0	
com.google.firebase9.4.0	/
com.google.firebase-9.4.0	
com.google.firebase-9.4.0	/
com.google.firebase9.4.0	AdMob
com.google.android.gmsappindexing9.4.0	

IOSFirebase

1. ""firebase.



2. ""


Welcome back to Firebase

Continue building your apps with Firebase using some of the resources below.

 [Documentation](#) <> [Sample code](#)

Your projects using Firebase

BrainMatter

 brainmatter-4f454.firebaseio.com


iOS 1 app


KIKOO

loom

Create a project

Project name

Country/region 

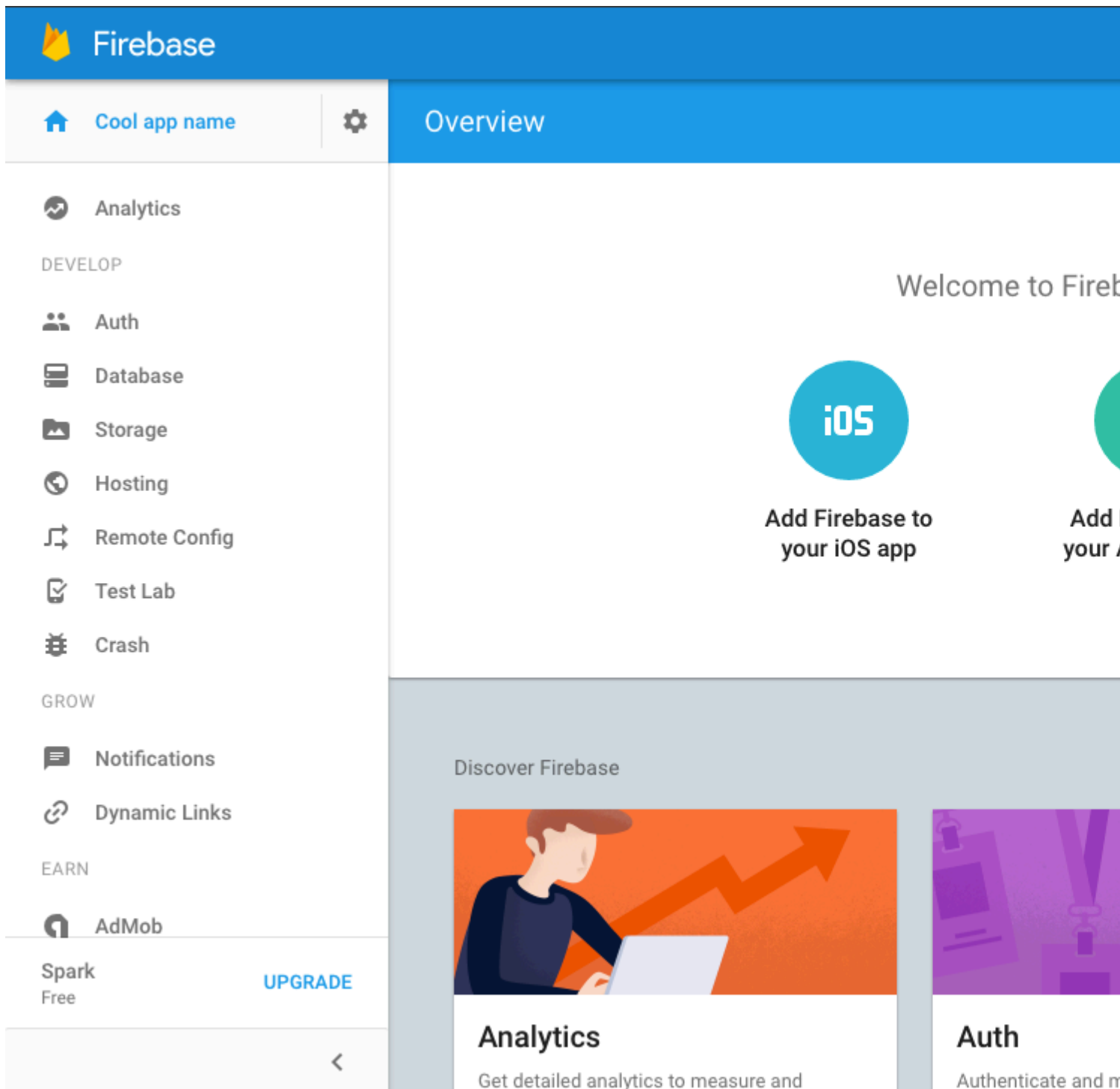
United States 

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

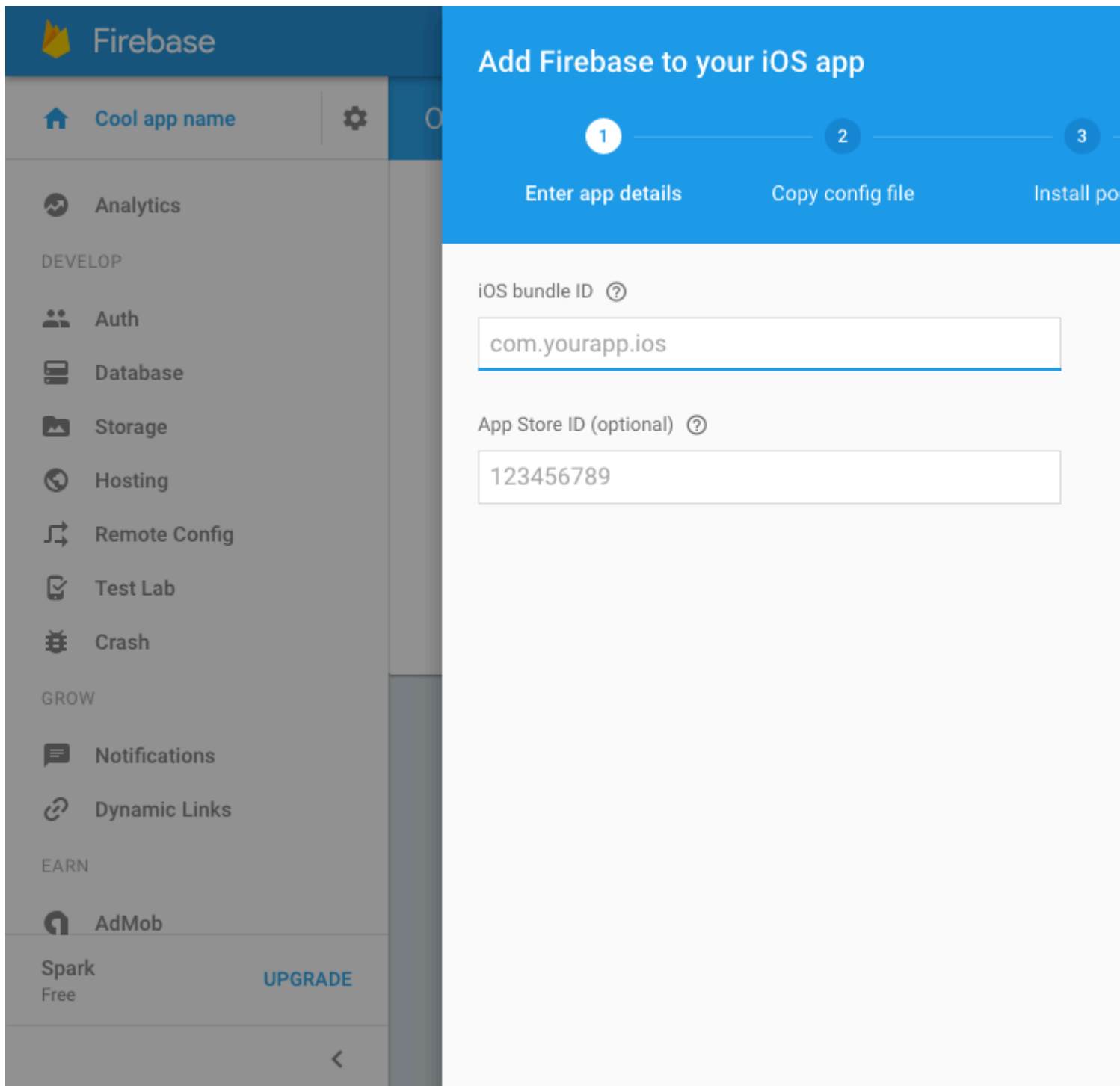
CANCEL

CREATE

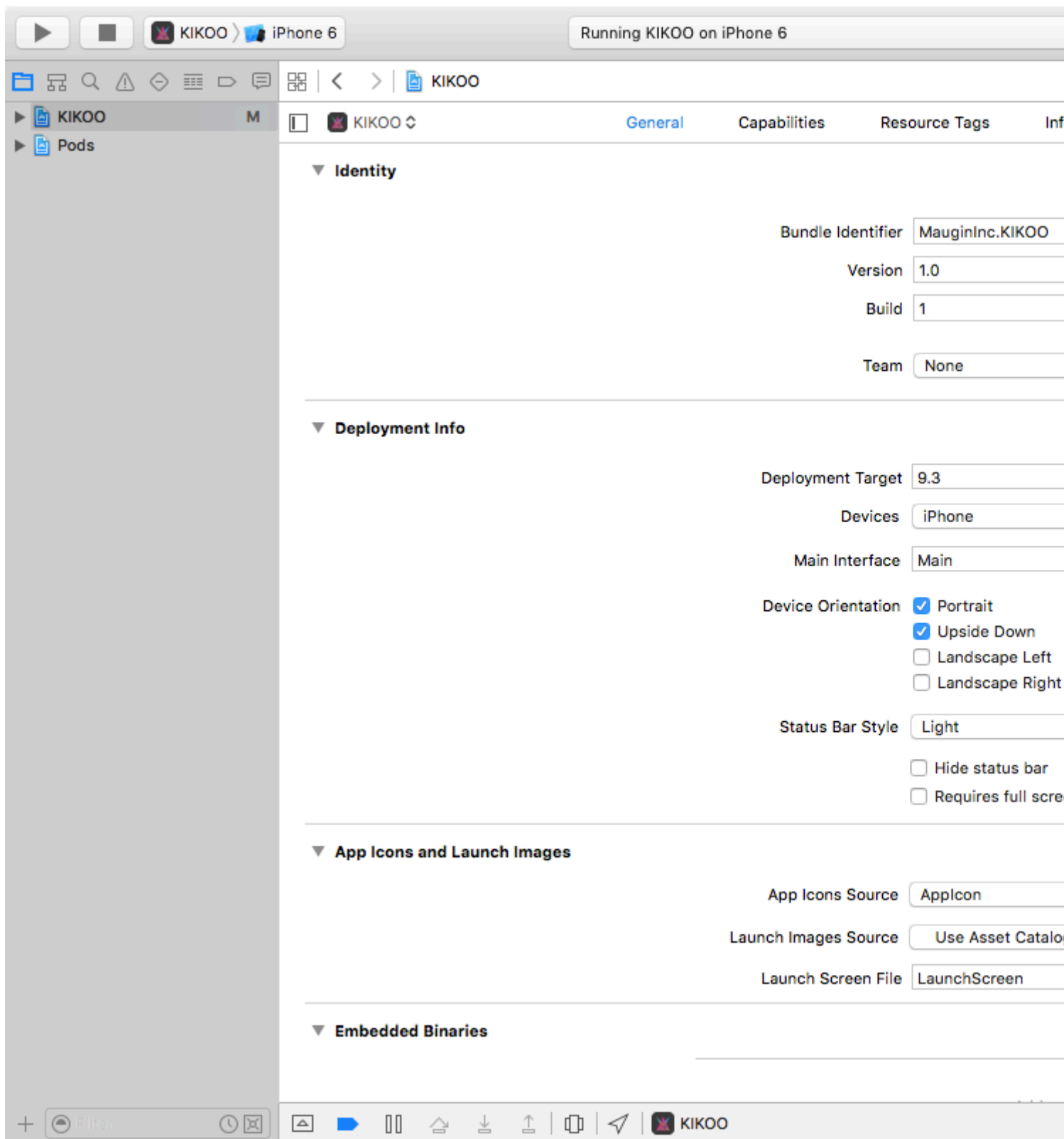
3. firebaseiOS。



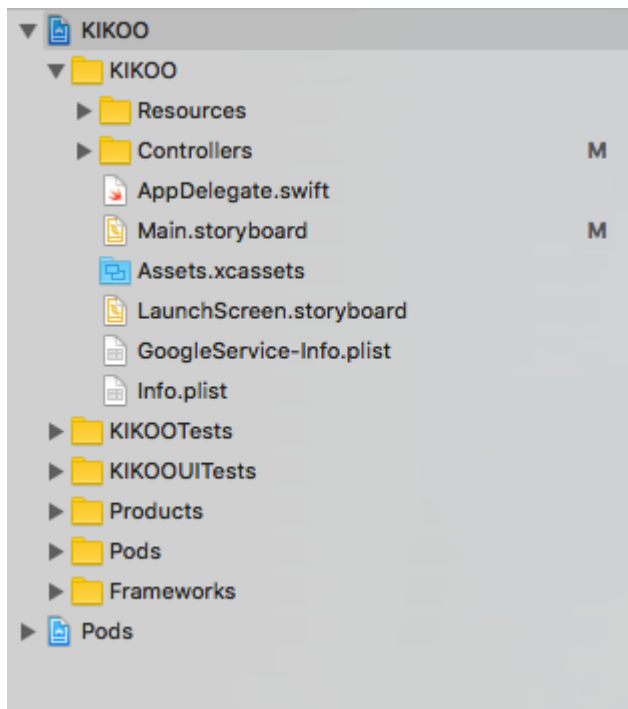
4. IOSIOS BundleID. IOS.




5. `xcodebundleID:com.yourapp.ios`



6. “GoogleService-Info.plist”xcode



7. podfirebase podxcodfirebase.

 **Firebase**

🏠 Cool app name

⚙️

📊 Analytics

DEVELOP

👤 Auth

🗄 Database

📁 Storage

🌐 Hosting

🔗 Remote Config

📝 Test Lab

🐛 Crash

GROW

💬 Notifications

🔗 Dynamic Links

EARN

Spark Free

UPGRADE

Add Firebase to your iOS app

✓

✓

3

Enter app details

Copy config file

Install pods

Google services uses [CocoaPods](#) to install and manage dependencies. You will need to navigate to the location of the Xcode project for your app.

- Create a Podfile if you don't have one:

```
$ pod init
```
- Open your Podfile and add:

```
pod 'FirebaseAnalytics'
```

includes FirebaseAnalytics
- Save the file and run:

```
$ pod install
```

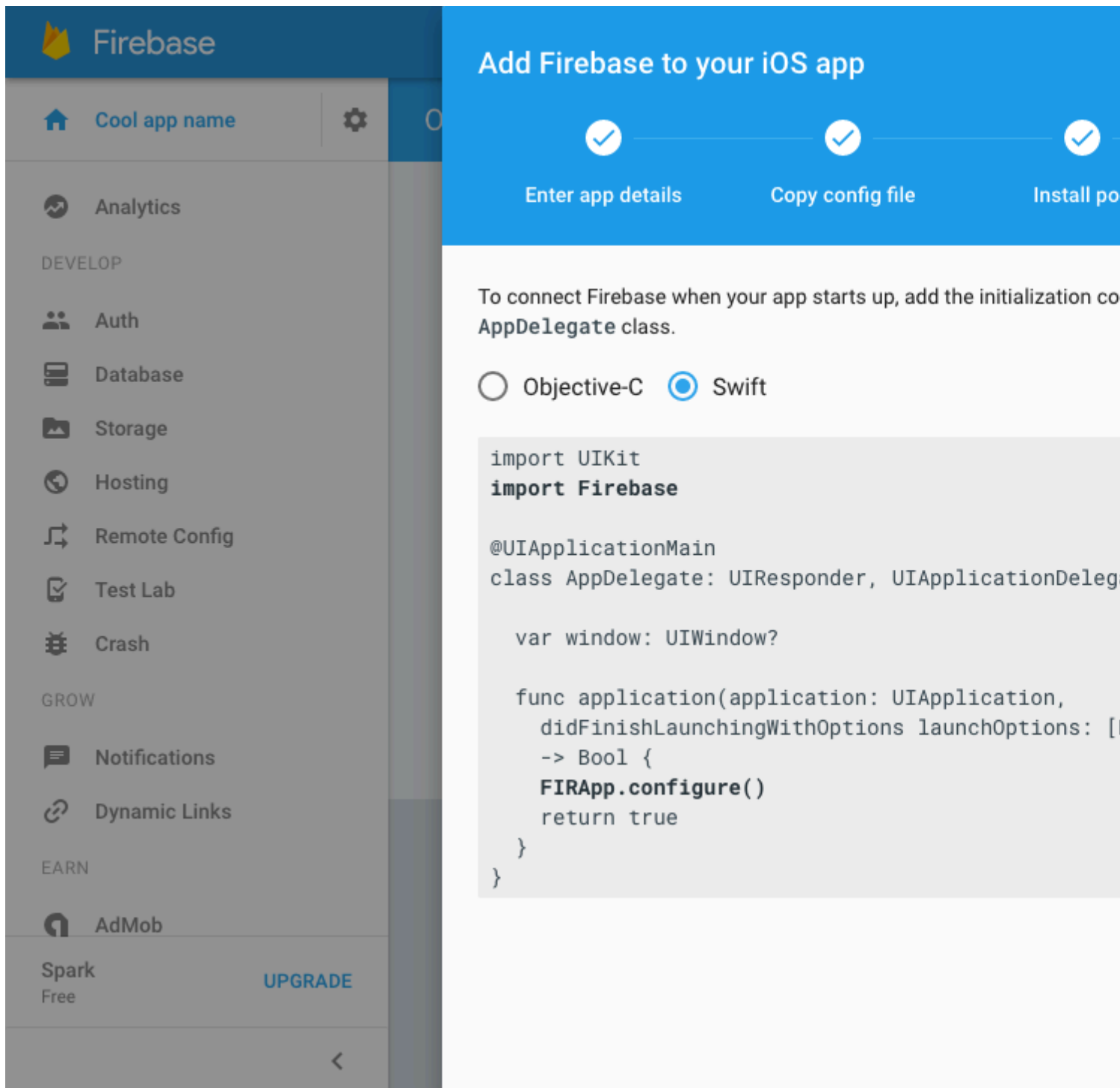
This creates an `.xcworkspace` file for your app. Use this file for all future development of your application.

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

📄 GoogleService-Info (7).plist

📦 swift-DEVELOPMENT-....pkg

8. swiftAppDelegate.swift。



IOSxcodefirebase

JavaScriptHello World WebFirebase

JavaScriptWebFirebase。

Firebase Web。

—

○

•

Firebase - <https://console.firebase.google.com>。 /“ ” 。

Create a project ×

Project name

Country/region ?

United States ▼

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](#)

CANCEL CREATE PROJECT

- **index.html** 。

```
<body>
  <p>Getting started with Firebase</p>
  <h1 id="bigOne"></h1>
  <script>
    // your firebase JavaScript code here
  </script>
</body>
```

- **Firebase**

Welcome to Firebase! Get started here.



Add Firebase to
your iOS app



Add Firebase to
your Android app



Add Firebase
your web app

- **Firebase** ◦ “”


```

<h1 id="bigOne"></h1>
<script>
    // your firebase JavaScript code here
</script>

</body>

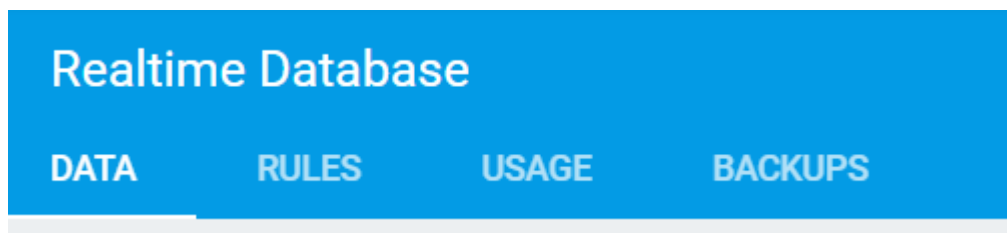
```

- **index.html** Firebase ◦

- ◦ ◦

The screenshot shows the Firebase Realtime Database console. At the top, a variable (redacted) is set to 'null'. Below it, a form is used to add a new entry. The 'Name' field is set to 'text' and the 'Value' field is set to 'Hello Firebase'. There are 'CANCEL' and 'ADD' buttons at the bottom.

- “ ”◦



- **RULES**◦

- ◦

```

<body>
  <p>Getting started with Firebase</p>
  <h1 id="bigOne"></h1>
  <script>
    // your firebase JavaScript code here
  </script>

</body>

```

```

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

```

- index.html

- -

Getting started with Firebase

Hello Firebase

- ◦ Firebase◦

firebase <https://riptutorial.com/zh-TW/firebase/topic/816/firebase>

2: FirebaseUI

Firebase。

Firebase。 Firebase:)

FirebaseUIFirebaseFirebaseGoogle

FirebaseUI。 FirebaseFirebaseUIFirebaseUI。 FirebaseUI - 。 FirebaseUI。

FirebaseUI。 - FirebaseUI。

Examples

FirebaseUI

FirebaseUI[Android](#) [iOS](#)[Web](#)。

```
// app/build.gradle

dependencies {
    // Single target that includes all FirebaseUI libraries
    compile 'com.firebaseui:firebase-ui:0.5.2'

    // FirebaseUI Database only
    compile 'com.firebaseui:firebase-ui-database:0.5.2'

    // FirebaseUI Auth only
    compile 'com.firebaseui:firebase-ui-auth:0.5.2'
}
```

iOS

```
// app/build.gradle

dependencies {
    // Single target that includes all FirebaseUI libraries
    compile 'com.firebaseui:firebase-ui:0.5.2'

    // FirebaseUI Database only
    compile 'com.firebaseui:firebase-ui-database:0.5.2'

    // FirebaseUI Auth only
    compile 'com.firebaseui:firebase-ui-auth:0.5.2'
}
```

```
// app/build.gradle

dependencies {
    // Single target that includes all FirebaseUI libraries
    compile 'com.firebaseui:firebase-ui:0.5.2'
}
```

```
// FirebaseUI Database only
compile 'com.firebaseui:firebase-ui-database:0.5.2'

// FirebaseUI Auth only
compile 'com.firebaseui:firebase-ui-auth:0.5.2'
}
```

FirebaseUI <https://riptutorial.com/zh-TW/firebase/topic/6418/firebaseui>

3: FirebaseAuthAndroid

Examples

[FirebaseUI](#)[Google](#)[Firebase Auth](#)[FirebaseUI](#)◦

[FirebaseUI](#)`build.gradle``build.gradle`

```
android {
    // ...
}

dependencies {
    // Required for FirebaseAuth Database
    compile 'com.google.firebase:firebase-database:9.4.0'
    compile 'com.firebaseui:firebase-ui-database:0.5.1'

    // FirebaseAuth Auth only
    compile 'com.google.firebase:firebase-auth:9.4.0'
    compile 'com.firebaseui:firebase-ui-auth:0.5.1'

    // Single dependency if you're using both
    compile 'com.firebaseui:firebase-ui:0.5.1'
}

apply plugin: 'com.google.gms.google-services'
```

ListView

[Android Studio](#)`ListView`

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.design.widget.CoordinatorLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <!-- Your toolbar, etc -->

    <ListView
        android:id="@+id/list_view"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />

</android.support.design.widget.CoordinatorLayout>
```

[List](#)`ListView`

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.design.widget.CoordinatorLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
```



```

        android:layout_width="match_parent"
        android:layout_height="match_parent">

<!-- Your toolbar, etc -->

<ListView
    android:id="@+id/list_view"
    android:layout_width="match_parent"
    android:layout_height="wrap_content" />

</android.support.design.widget.CoordinatorLayout>

```

ListViewidActivityFirebaseListAdapter

```

<?xml version="1.0" encoding="utf-8"?>
<android.support.design.widget.CoordinatorLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

<!-- Your toolbar, etc -->

<ListView
    android:id="@+id/list_view"
    android:layout_width="match_parent"
    android:layout_height="wrap_content" />

</android.support.design.widget.CoordinatorLayout>

```

ListView◦

FirestoreUIAndroid <https://riptutorial.com/zh-TW/firebase/topic/6610/firebaseui-android->

4: Firebase

1. Firebase Analytics。
2. Firebase。

Firebase Analytics	Firebase
Firebase	

firebase。 firebase。

Examples

Firebase All In One

[Firebase](#)

[AndroidFirebase Analytics](#)

Android

-
- `FirebaseAnalyticsActivity`
- `firebase。`

[Firebase](#) <https://riptutorial.com/zh-TW/firebase/topic/6660/firebase>

5: Firebase

FirebaseCloud Functions for FirebaseGoogle Cloud PlatformCloud Functions。

Node.jsJavaScript。 Firebase SDK for Cloud FunctionsFirebaseFirestore。

Examples

。

GitHub <https://github.com/firebase/functions-samples/blob/master/quickstarts/email-users>

- 。

Firebase

- FirebaseFirestore。
- “ ”Google。
- **Web Firebase**==>Firestorepublic / index.htmlWeb。

```
* TODO(DEVELOPER): Paste the initialization snippet from: Firebase Console > Overview > Add
Firebase to your web app. *
```

```
*****
```

```
-->
```

```
<script src="https://www.gstatic.com/firebasejs/3.7.3/firebase.js"></script>
<script>
  // Initialize Firebase
  var config = {
    apiKey: "your apiKey",
    authDomain: "authDomain.firebaseio.com",
    databaseURL: "https://databaseURL.firebaseio.com",
    storageBucket: "storageBucket.appspot.com",
    messagingSenderId: "messagingID"
  };
  firebase.initializeApp(config);
</script>
```

Firebase CLI

- **NodeJS** <https://nodejs.org/en/NodeJS>。
- **/npm install -g firebase-tools**firebase
- **==>firebase--addCLI**。
- **cd functions; npm install; cd -**

Google Cloud

- `gmail.email` `gmail.password` Google CloudGmail◦ Firebase CLI

```
firebaseconfigset gmail.email ="myusername@gmail.com"gmail.password
="secretpassword"
```

- `cmd / terminal``firebase deploy`◦

```
=== Deploying to '██████████'...

i  deploying database, functions, hosting
+  database: rules ready to deploy.
i  functions: ensuring necessary APIs are enabled...
i  runtimeconfig: ensuring necessary APIs are enabled...
+  functions: all necessary APIs are enabled
+  runtimeconfig: all necessary APIs are enabled
i  functions: preparing functions directory for uploading...
i  functions: packaged functions (1.85 KB) for uploading
+  functions: functions folder uploaded successfully
i  hosting: preparing public directory for upload...
Uploading: [=====] 46%+  hosting: public folder
+  hosting: 82 files uploaded successfully
i  starting release process (may take several minutes)...
i  functions: updating function sendEmailConfirmation...
+  functions[sendEmailConfirmation]: Successful update operation.
+  functions: all functions deployed successfully!

+  Deploy complete!

Project Console: https://console.firebase.google.com/project/██████████/overview
Hosting URL: https://██████████.firebaseapp.com ← Use this URL to open
```

- `firebase open` `hosting:siteURL`◦

Firebase <https://riptutorial.com/zh-TW/firebase/topic/9580/firebase>

6: Firebase

Examples

firebase

Firebaseapplication.

firebasefirebase.

◦ NodeJs

1. Googlefirebase

2. firebase ◦ `bower install firebase --save`

3. firebase - > - > - > - > " " - > json.

4. NodeJs

5. queue/specs

“request_response”

```
{
  "error_state": "request_error_processing",
  "finished_state": "finished_state",
  "in_progress_state": "request_in_progress",
  "start_state": "request_started"
}
```

6. NodeJsfirebase `npm install firebase --save 3json`

`firebase.initializeApp({serviceAccount: / your_file.json'databaseURL
'get_from_firebase_account'});`

◦

1. firebase web sdk'queue / tasks'firebase.

2. queue/tasks/{taskKey}

1. '/'

2. queue/tasks/response

3.

```
{
  "error_state": "request_error_processing",
  "finished_state": "finished_state",
  "in_progress_state": "request_in_progress",
```

```
    "start_state": "request_started"
  }
```

```
{
  "error_state": "request_error_processing",
  "finished_state": "finished_state",
  "in_progress_state": "request_in_progress",
  "start_state": "request_started"
}
```

```
sendRequest('CreateHouseFacade', {houseName:'Test'}) sendRequest('CreateHouseFacade',
{houseName:'Test'}) ◦
```

Kind ◦ ◦

```
{
  "error_state": "request_error_processing",
  "finished_state": "finished_state",
  "in_progress_state": "request_in_progress",
  "start_state": "request_started"
}
```

```
myServiceCreateHouseFacade◦
```

Firestore <https://riptutorial.com/zh-TW/firebase/topic/7619/firebase>

7: Firebase

FirebaseAndroid◦

keepSynced

◦ DiskPersistence◦

DiskPersistence◦

DiskPersistencekeepSynced◦

DiskPersistenceListenerValueEvents◦

1. A“Hello World”B
2. BA“Hello World”
3. A“Firebase”◦
4. B“Hello World”Firebase◦

◦

◦

FirebaseDatabaseDiskPersistenceDiskPersistence keepSync◦

Examples

Android / iOS

FirebaseDatabaseInstancePersistenceEnabled

Android

```
FirebaseDatabase.getInstance().setPersistenceEnabled(true);
```

iOS

```
FirebaseDatabase.getInstance().setPersistenceEnabled(true);
```

Android

```
FirebaseDatabase.getInstance().setPersistenceEnabled(true);
```

iOS

```
FirebaseDatabase.getInstance().setPersistenceEnabled(true);
```

Android / iOS

Firebase。。

Android

```
DatabaseReference workoutsRef = FirebaseDatabase.getInstance().getReference("workouts");  
scoresRef.keepSynced(true);
```

IOS

```
DatabaseReference workoutsRef = FirebaseDatabase.getInstance().getReference("workouts");  
scoresRef.keepSynced(true);
```

Firebase。。

Android

```
DatabaseReference workoutsRef = FirebaseDatabase.getInstance().getReference("workouts");  
scoresRef.keepSynced(true);
```

iOS

```
DatabaseReference workoutsRef = FirebaseDatabase.getInstance().getReference("workouts");  
scoresRef.keepSynced(true);
```

Firebase <https://riptutorial.com/zh-TW/firebase/topic/10777/firebase>

8: AndroidFirebase

Examples

Android

androidFirebaseRealTime。。

1. firebase sdkURL。 [Firebase SDK](#)
2. firebaseURL[FirebaseURL](#)
- 3.。 'com.google.firebasefirebase-database9.2.1'
4. firebase。 URL。 [firebase](#)
5. FirebaseDatabase

```
FirebaseDatabase= FirebaseDatabase.getInstance(); DatabaseReference myRef =  
database.getReference("message");
```

DatabaseReference

6. DataBaseReference

```
myRef.setValue("Demo for Save");
```

```
myRef.addValueEventListener(new ValueEventListener() {  
    @Override  
    public void onDataChange(DataSnapshot dataSnapshot) {  
        // This method is called once with the initial value and again  
        // whenever data at this location is updated.  
        String value = dataSnapshot.getValue(String.class);  
        Log.d(TAG, "Value is: " + value);  
    }  
  
    @Override  
    public void onCancelled(DatabaseError error) {  
        // Failed to read value  
        Log.w(TAG, "Failed to read value.", error.toException());  
    }  
});
```

AndroidFirebaseRealtime

[AndroidFirebase](https://riptutorial.com/zh-TW/firebase/topic/6482/androidfirebase) <https://riptutorial.com/zh-TW/firebase/topic/6482/androidfirebase>

9: FirebaseAuthRecyclerAdapterRecyclerAdapter

Examples

FirebaseUiFirebaseRecyclerAdapter

firebase uigradeljar。

```
compile 'com.firebaseui:firebase-ui-database:0.4.0'
```

firebase

```
compile 'com.firebaseui:firebase-ui-database:0.4.0'
```

FirebaseRecyclerAdapter

```
compile 'com.firebaseui:firebase-ui-database:0.4.0'
```

ChatUserModel.java

```
compile 'com.firebaseui:firebase-ui-database:0.4.0'
```

FirebaseChatUserViewHolder.javaRecyclerView ViewHolder

```
compile 'com.firebaseui:firebase-ui-database:0.4.0'
```

row_user_list.xml

```
compile 'com.firebaseui:firebase-ui-database:0.4.0'
```

[FirebaseRecyclerAdapterRecyclerAdapter](https://riptutorial.com/zh-TW/firebase/topic/8982/firebase-recycleradapter-recycleradapter-firebase-recycleradapter-recycleradapter-) <https://riptutorial.com/zh-TW/firebase/topic/8982/firebase-recycleradapter-recycleradapter-firebase-recycleradapter-recycleradapter->

10: Firebase

Examples

Firebase uid ◦

-

```
{
  "users": {
    "uid1" : {
      "name": "Steve",
      "surname": "Jobs"
    },
    "uid2" : {
      "name": "Bill",
      "surname": "Gates"
    }
  }
}
```

-

```
{
  "users": {
    "uid1" : {
      "name": "Steve",
      "surname": "Jobs"
    },
    "uid2" : {
      "name": "Bill",
      "surname": "Gates"
    }
  }
}
```

\$uid "users" ◦ [\\$ Variables](#) ◦

[Firebase+](#) ◦ [Firebase](#)

[FirebaseAPI](#) ◦

[Firebase](#) ◦

Firebase uid displayName photoURL email ◦ .updateProfile auth ◦ rDB users ◦ ◦ .onAuthStateChange ◦

.onAuthStateChange

- getItem('displayName') getItem('photoURL')
- user.displayName user.photoURL
- ◦ setItem('displayName') setItem('photoURL')
- db.ref.child('users').update displayName/photoURL

.onAuthStateChanged◦ ◦ ◦

Firestore <https://riptutorial.com/zh-TW/firebase/topic/1729/firebasefirebase>

11: Firebase

Firebase。 Firebase。 。

Examples

Android

DogsDog。

```
DatabaseReference reference = FirebaseDatabase.getInstance().getReference().child("dogs");
```

。

```
DatabaseReference reference = FirebaseDatabase.getInstance().getReference().child("dogs");
```

```
reference.child(key).setValue(dog);reference.push().setValue(dog);Dog。
```

Firebase <https://riptutorial.com/zh-TW/firebase/topic/10839/firebase->

12:

Firestore. . FirebaseGoogle.

Firebase StorageGoogle App EngineGoogleFirebaseGoogle Cloud API. FirebaseGoogle Cloud Platform. FirebaseFirebaseGoogle.

Google Cloud Storage gcloudFirestore. GoogleXMLJSON API.

FirebaseFirestore.

APIFirebase .

Examples

iOS

1. [FirebaseiOS](#).
2. `GoogleServices-Info.plist` .

Firebase

Podfile

```
pod 'Firebase/Storage'
```

```
pod install.xcworkspace
```

CocoaPodsFirebase

Firebase

FirebaseFirestore. Firestore.

Firebase

```
pod 'Firebase/Storage'
```

```
pod 'Firebase/Storage'
```

`FIRAppapplication:didFinishLaunchingWithOptions:`

```
pod 'Firebase/Storage'
```

```
pod 'Firebase/Storage'
```

Firestore

```
pod 'Firestore/Storage'
```

```
pod 'Firestore/Storage'
```

Firestore

```
pod 'Firestore/Storage'
```

```
pod 'Firestore/Storage'
```

Firestore

```
pod 'Firestore/Storage'
```

```
pod 'Firestore/Storage'
```

<https://riptutorial.com/zh-TW/firebase/topic/4281/>

13: Firebase

Examples

NodeHello World Firebase

- JS

1. [Firebase](#)。
2. 。
3. 。
4. `""""JSON""""Google App`。
5. `""""JSON"""`。
6. `FirebaseFirebase`。 `user_data`。
7. `Firebase`。

```
//Loading Firebase Package
var firebase = require("firebase");

/**
 * Update your Firebase Project
 * Credentials and Firebase Database
 * URL
 */
firebase.initializeApp({
  serviceAccount: "<path to Firebase Credentials Json File>",
  databaseURL: "<Firebase Database URL>"
}); //by adding your credentials, you get authorized to read and write from the database

/**
 * Loading Firebase Database and refering
 * to user_data Object from the Database
 */
var db = firebase.database();
var ref = db.ref("/user_data"); //Set the current directory you are working in

/**
 * Setting Data Object Value
 */
ref.set([
  {
    id:20,
    name:"Jane Doe",
    email:"jane@doe.com",
    website:"https://jane.foo.bar"
  },
  {
    id:21,
    name:"John doe",
    email:"john@doe.com",
    website:"https://foo.bar"
  }
]);
```



```

/**
 * Pushing New Value
 * in the Database Object
 */
ref.push({
  id:22,
  name:"Jane Doe",
  email:"jane@doe.com",
  website:"https://jane.foo.bar"
});

/**
 * Reading Value from
 * Firebase Data Object
 */
ref.once("value", function(snapshot) {
  var data = snapshot.val(); //Data is in JSON format.
  console.log(data);
});

```

8. JSONURLSameindex.js。

9. FirebaseURLin index.jsFirebaseURLURL<https://firebaseio.com/>。

10.

```

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```

```

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        website:"https://foo.bar"
    }
    ]);

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     */
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11. NPMFirebase

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```

```

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```

Firebase。 Firebase。

。 。

Firebase

firebasefirebaseworker

firebase

1. FirebaseFirebaseFirebase。 GoogleGoogle Project。 ""。

2. 。

3. 。

4. 。

。

ID。

RoleProject> Editor。

JSON。

Google Apps。

“”

5. JSON。 SDK。

nodejs appnpmfirebase-queue

```
npm install firebase firebase-queue --save
```

firebasefirebase-queueQueueFirebase。

firebaseworkerfirebase-queue。

* **server.js**

```
npm install firebase firebase-queue --save
```

FirebaseFirebaseURL

```
npm install firebase firebase-queue --save
```

firebase

```
npm install firebase firebase-queue --save
```

* **worker.js**

```
npm install firebase firebase-queue --save
```

firebase

```
npm install firebase firebase-queue --save
```

Firebase <https://riptutorial.com/zh-TW/firebase/topic/6443/firebase>

14:

-
- ◦

AndroidiOS◦

<https://firebase.google.com/docs/crash/>

Examples

Android

1. Firebase◦
Firebase◦
2. Firebase CrashReportingbuild.gradle

```
compile 'com.google.firebase:firebase-crash:9.4.0'
```

Android

Firebase◦

```
FirebaseCrash.report(new Exception("My first Android non-fatal error"));
```

FirebaseCrash

07-20 085724.442 D / FirebaseCrashApiImpl **FirebaseCrashAPI** 07-20 085724.442 I /
FirebaseCrash **FirebaseCrash** d com.google.firebase.crash.internal.zzg@3333d325
07-20 08 5724.442 D / FirebaseAppcom.google.firebase.crash.FirebaseCrash◦

07-20 085747.052 D / FirebaseCrashApiImpl **throwable java.lang.ExceptionAndroid**
07-20 085818.822 D / FirebaseCrashSenderServiceImpl **200** 07-20 085818.822 D /
FirebaseCrashSenderServiceImpl

```
FirebaseCrash.report(new Exception("My first Android non-fatal error"));
```

<https://riptutorial.com/zh-TW/firebase/topic/4669/>

15:

HTTP Post 2FirebaseSDK 。

Examples

FirebaseHTTP

```
https://fcm.googleapis.com/fcm/send
```

```
https://fcm.googleapis.com/fcm/send
```

```
https://fcm.googleapis.com/fcm/send
```

to

```
https://fcm.googleapis.com/fcm/send
```

```
https://fcm.googleapis.com/fcm/send
```

/ topic / like

```
https://fcm.googleapis.com/fcm/send
```

||&&

```
https://fcm.googleapis.com/fcm/send
```

Admin SDKNode js

firebase sdkadmin SDK

```
const functions = require('firebase-functions');
const admin = require('firebase-admin');

admin.initializeApp({
  credential: admin.credential.cert({
    //your admin credential certificate generated from the console. Follow this [link][1].
  }),
  databaseURL: "https://<PROJECT_NAME>.firebaseio.com"
});
```

JSON。

```
const functions = require('firebase-functions');
const admin = require('firebase-admin');
```

```
admin.initializeApp({
  credential: admin.credential.cert({
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});
```

send。

```
const functions = require('firebase-functions');
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  credential: admin.credential.cert({
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  }),
  databaseURL: "https://<PROJECT_NAME>.firebaseio.com"
});
```

```
const functions = require('firebase-functions');
const admin = require('firebase-admin');

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  credential: admin.credential.cert({
    //your admin credential certificate generated from the console. Follow this [link][1].
  }),
  databaseURL: "https://<PROJECT_NAME>.firebaseio.com"
});
```

<https://riptutorial.com/zh-TW/firebase/topic/10548/>

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Firebase。 。 。

Firebase。

。

FirebaseJavaScript。 。

Firebase。 i

<https://firebase.google.com/docs/database/security/quickstart>

Examples

1. Firebase。
- 2.
3. “””。

“”。

。

。 。

```
// These rules require authentication
{
  "rules": {
    ".read": "auth != null",
    ".write": "auth != null"
  }
}
```

```
// These rules give anyone, even people who are not users of your app,
// read and write access to your database
{
  "rules": {
    ".read": true,
    ".write": true
  }
}
```

。

。 **Firebase** 。

```
// These rules don't allow anyone read or write access to your database
{
  "rules": {
```



```

    ".read": false,
    ".write": false
  }
}

```

/users/\$user_id\$ user_idID。

```

// These rules grant access to a node matching the authenticated
// user's ID from the Firebase auth token
{
  "rules": {
    "users": {
      "$user_id": {
        ".read": "$user_id === auth.uid",
        ".write": "$user_id === auth.uid"
      }
    }
  }
}

```

ID。 /administrators/\$user_idtrue“administrators”。 Authenticated。

```

{
  "rules": {
    "administrators": {
      // No one can list administrators
      ".read": "false",
      "$uid": {
        // Authenticated user can check if they are in this group
        ".read": "$uid === auth.uid",
        // Administrators can write
        ".write": "data.parent().child(auth.uid).val() === true",
        // Allow only add or delete, no duplicates
        ".validate": "!data.exists() || !newData.exists() || newData.isBoolean()",
      }
    }
  }
}

```

<https://riptutorial.com/zh-TW/firebase/topic/3352/>

17:

FirebaseNoSQLJSON。 SQL。

。 ; JSON。

Examples

```
{
  "users": {

    // Uniquely generated IDs for children is common practice,
    // it's actually really useful for automating child creation.
    // Auto-incrementing an integer for a key can be problematic when a child is removed.

    "-KH3Cx0KFvSQELIYZezv": {
      "name": "Jon Snow",
      "aboutMe": "I know nothing...",
      "posts": {
        "post1": {
          "body": "Different roads sometimes leads to the same castle",
          "isHidden": false
        },
        "post2": { ... },
        // Possibly more posts
      }
    },
    "-KH3Dx2KFdSLerIYZcgk": { ... },      // Another user
    // A lot more users here
  }
}
```

。 。

Firebase。 。 。 4。

```
{
  "users": {

    // Uniquely generated IDs for children is common practice,
    // it's actually really useful for automating child creation.
    // Auto-incrementing an integer for a key can be problematic when a child is removed.

    "-KH3Cx0KFvSQELIYZezv": {
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        },
        "post2": { ... },
        // Possibly more posts
      }
    },
  },
}
```

```

    "-KH3Dx2KFdSLerIYZcgk": { ... },      // Another user
    // A lot more users here
  }
}

```

◦ ◦

```

{
  "students": {
    "-SL3Cs0KFvDMQLIYZEzv": {
      "name": "Godric Gryffindor",
      "id": "900130309",
      "courses": {
        "potions": true,
        "charms": true,
        "transfiguration": true,
      }
    },
    "-SL3ws2KvZQLTYMqzSas": {
      "name": "Salazar Slytherin",
      "id": "900132319",
      "courses": {
        "potions": true,
        "herbs": true,
        "muggleStudies": true,
      }
    },
    "-SL3ns2OtARSTUMywqWt": { ... },
    // More students here
  },

  "courses": {
    "potions": {
      "code": "CHEM305",
      "enrolledStudents": {
        "-SL3Cs0KFvDMQLIYZEzv": true,      // Godric Gryffindor
        "-SL3ws2KvZQLTYMqzSas": true,      // Salazar Slytherin
        // More students
      }
    },
    "muggleStuddies": {
      "code": "SOC215",
      "enrolledStudents": {
        "-SL3ws2KvZQLTYMqzSas": true,      // Salazar Slytherin
        "-SL3ns2OtARSTUMywqWt": true,      // Some other student
        // More students
      }
    },
    // More courses
  }
}

```

◦

◦ ;/◦

SQL◦

1.

2. ...

◦ ◦

<https://riptutorial.com/zh-TW/firebase/topic/8912/>

18:

◦ /◦

Examples

Android

◦ ◦

logcat◦ ◦ JSON◦

Android `setValue`

```
ref.setValue("My new value", new DatabaseReference.CompletionListener() {  
    public void onComplete(DatabaseError databaseError, DatabaseReference databaseReference) {  
        throw databaseError.toException();  
    }  
});
```

◦

Android

◦

logcat◦ ◦ JSON◦

Android `onCancelledChildEventListener`

```
databaseRef.addChildEventListener(new ChildEventListener() {  
    public void onChildAdded(DataSnapshot dataSnapshot, String s) { ... }  
    public void onChildChanged(DataSnapshot dataSnapshot, String s) { ... }  
    public void onChildRemoved(DataSnapshot dataSnapshot) { ... }  
    public void onChildMoved(DataSnapshot dataSnapshot, String s) { ... }  
    public void onCancelled(DatabaseError databaseError) {  
        throw databaseError.toException();  
    }  
});
```

`ValueEventListener`

```
databaseRef.addValueEventListener(new ValueEventListener() {  
    public void onDataChange(DataSnapshot dataSnapshot) { ... }  
    public void onCancelled(DatabaseError databaseError) {  
        throw databaseError.toException();  
    }  
});
```

```
});
```

Android。

iOS

◦ ◦

◦ ◦ JSON。

iOS [setValue](#)

```
let message = ["name": "puf", "text": "Hello from iOS"]
ref!.childByAutoId().setValue(message) { (error) in
    print("Error while writing message \(error)")
}
```

◦

JavaScript

◦

JavaScript。◦ ◦ JSON。

JavaScript_{on()}

```
ref.on('value', function(snapshot) {
    console.log(snapshot.key, snapshot.val());
}, function(error) {
    alert(error);
})
```

JavaScript。

JavaScript

◦ ◦

◦ ◦ JSON。

JavaScript_{set}

```
ref.set("My new value").catch(function(error)
    console.error(error);
    alert(error);
});
```

◦

iOS

-
- ◦ JSON◦

iOSwithCancel

```
ref!.child("notAllowed").observe(.value, with: { (snapshot) in
    print("Got non-existing value: \(snapshot.key)")
}, withCancel: { (error) in
    print(error)
})
```

[https://riptutorial.com/zh-TW/firebase/topic/5548/-](https://riptutorial.com/zh-TW/firebase/topic/5548/)

19:

- ◦ Firebase
-
- angular-ui-routerURL◦
- FirebaseapplyCodeparams◦
- ◦

...	
sendEmailVerification	◦
applyActionCode	emailVerifiedfalse>true

Firebase◦ ◦

[Firebase 3.0 SDK◦](#)

Examples

- - AngularJS

```
// thecontroller.js
$scope.sendVerifyEmail = function() {
    console.log('Email sent, whaaaaam!');
    currentAuth.sendEmailVerification();
}

// where currentAuth came from something like this:
// routerconfig

....
templateUrl: 'bla.html',
resolve: {
    currentAuth:['Auth', function(Auth) {
        return Auth.$requireSignIn() // this throws an AUTH_REQUIRED broadcast
    }]
}
...

// intercept the broadcast like so if you want:

....

$rootScope.$on("$stateChangeError", function(event, toState, toParams, fromState, fromParams,
error) {
    if (error === "AUTH_REQUIRED") {
        $state.go('login', { toWhere: toState });
    }
});
...
....
```



```

// So user receives the email. How do you process the `oobCode` that returns?
// You may do something like this:

// catch the url with its mode and oobCode
.state('emailVerify', {
  url: '/verify-email?mode&oobCode',
  templateUrl: 'auth/verify-email.html',
  controller: 'emailVerifyController',
  resolve: {
    currentAuth:['Auth', function(Auth) {
      return Auth.$requireSignIn()
    }]
  }
})

// Then digest like so where each term is what they sound like:

.controller('emailVerifyController', ['$scope', '$stateParams', 'currentAuth', 'DatabaseRef',
function($scope, $stateParams, currentAuth, DatabaseRef) {
  console.log(currentAuth);
  $scope.doVerify = function() {
    firebase.auth()
      .applyActionCode($stateParams.oobCode)
      .then(function(data) {
        // change emailVerified for logged in User
        toastr.success('Verification happened', 'Success!');
      })
      .catch(function(error) {
        $scope.error = error.message;
        toastr.error(error.message, error.reason, { timeOut: 0 });
      })
  };
}
])

```

<https://riptutorial.com/zh-TW/firebase/topic/3380/>

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