

Cloud Notifications

Collin McRae

Today

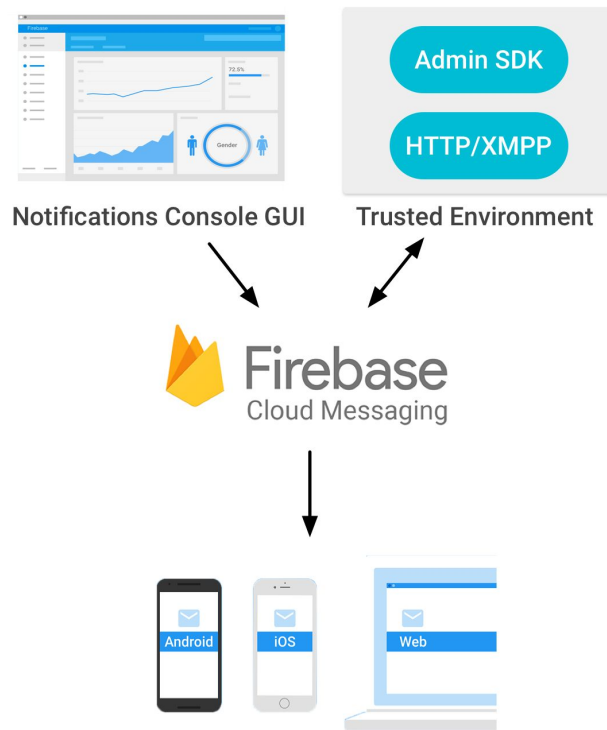
- What are Cloud Notifications / Why should you care?
- Creating Minimum Viable version of FCM
- Demonstrating / Discussing advanced features

Cloud Notifications

- a.k.a push notifications
- Recognizable in many apps, notify users for certain events
- Can be programmatic in nature, or generated by administrators

Firestore Cloud Messaging

- Previously Google Cloud Messaging
 - GCM is currently deprecated, and the API will be entirely removed starting in April 2019
- Makes use of Firebase, a server to handle responses (Cloud Functions), and a device SDK



What is Firebase?

- Backend-as-a-Service (BaaS)
 - Manages all of backend
 - Authentication
 - Cloud Messaging ←
 - File Storage / Hosting
 - Functions ←
 - Notifications and User Engagement
- Also, it's backed by Google



Firebase

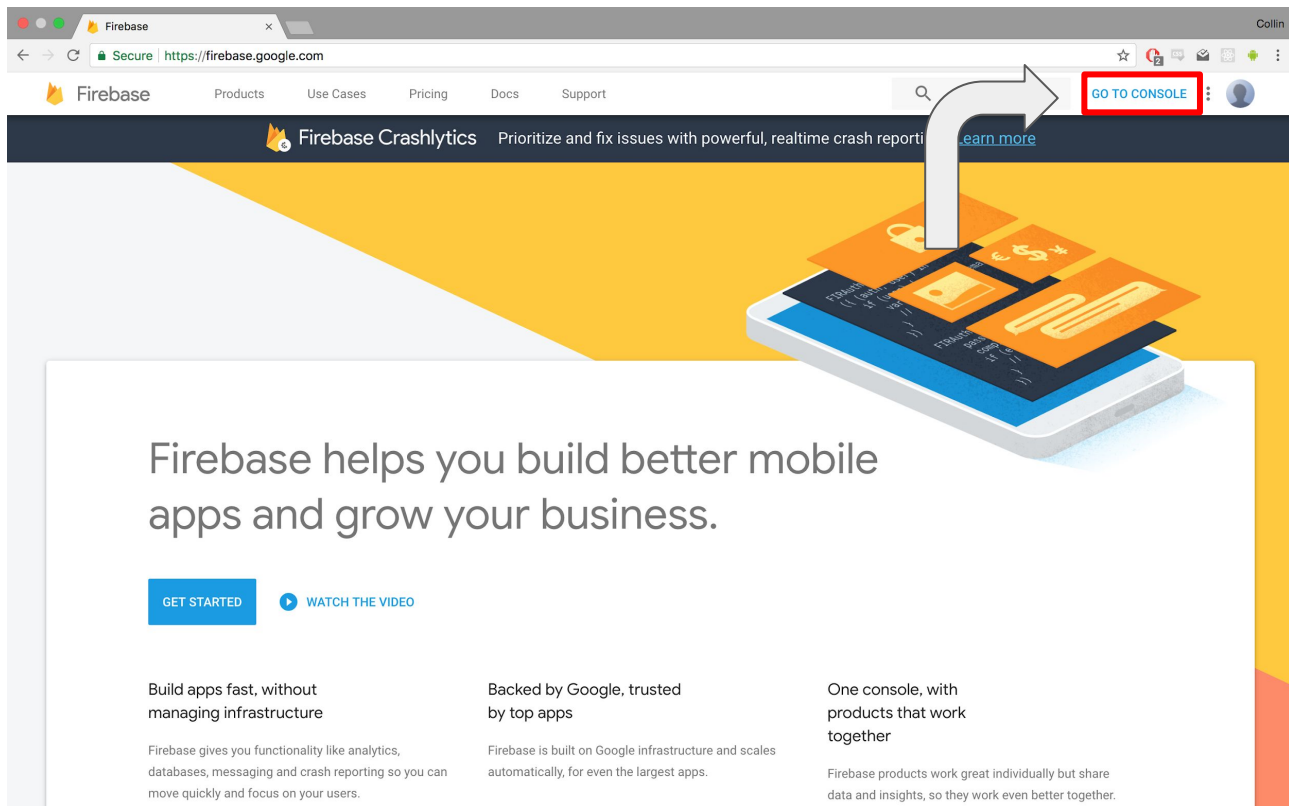
What we care about

- Android SDK
- Firebase Cloud Functions
- Firebase Cloud Messaging

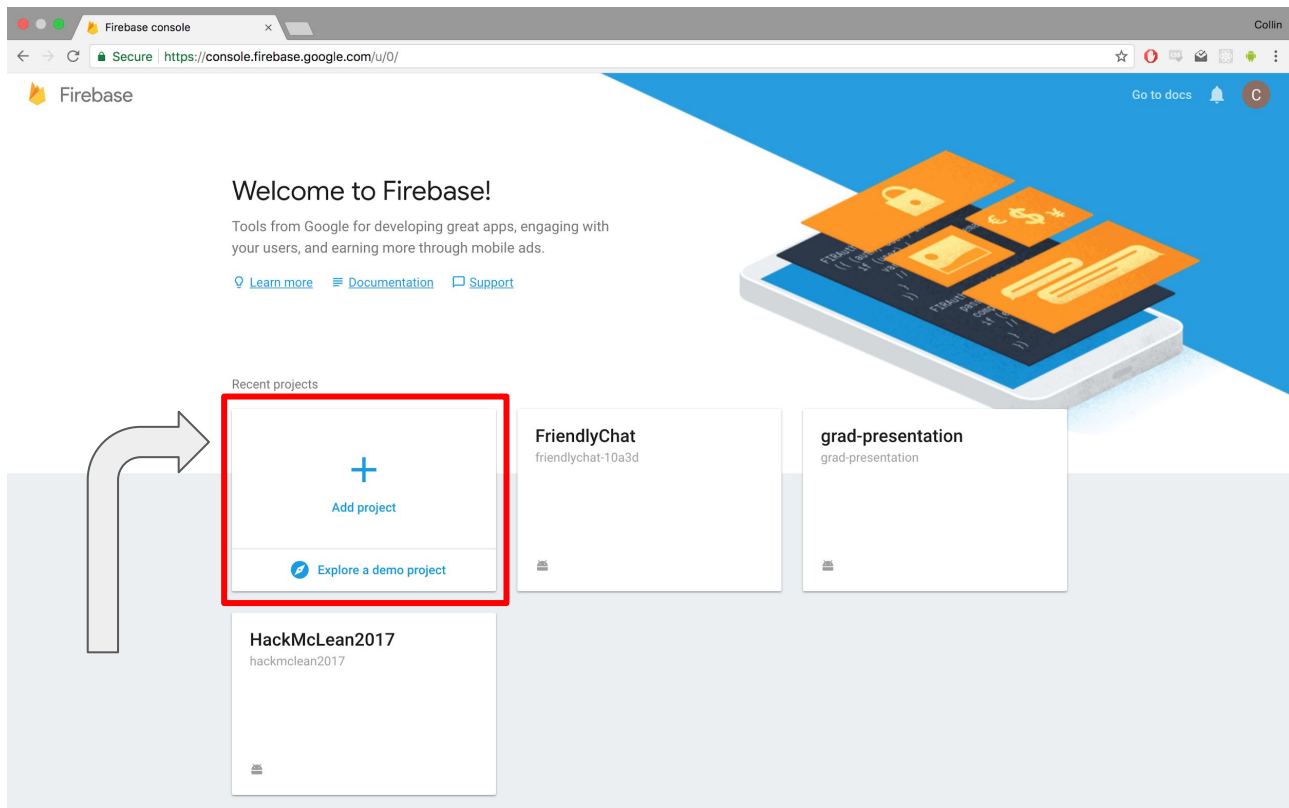
Order of Operations for MVP

1. Create Firebase project using Firebase console
2. Add Firebase project to Android Studio Project
3. Add firebase token service
4. Ready!

Creating Firebase Project



Creating Firebase Project



Creating Firebase Project

Add a project

×

Project name

my-cool-project ▼

Project ID ⓘ

my-cool-project-d6c2a ✎

Country/region ⓘ

United States ▼

By default, your Analytics data will enhance other Firebase features and Google products. You can control how your analytics data is shared in your settings at anytime.

[Learn more](#)

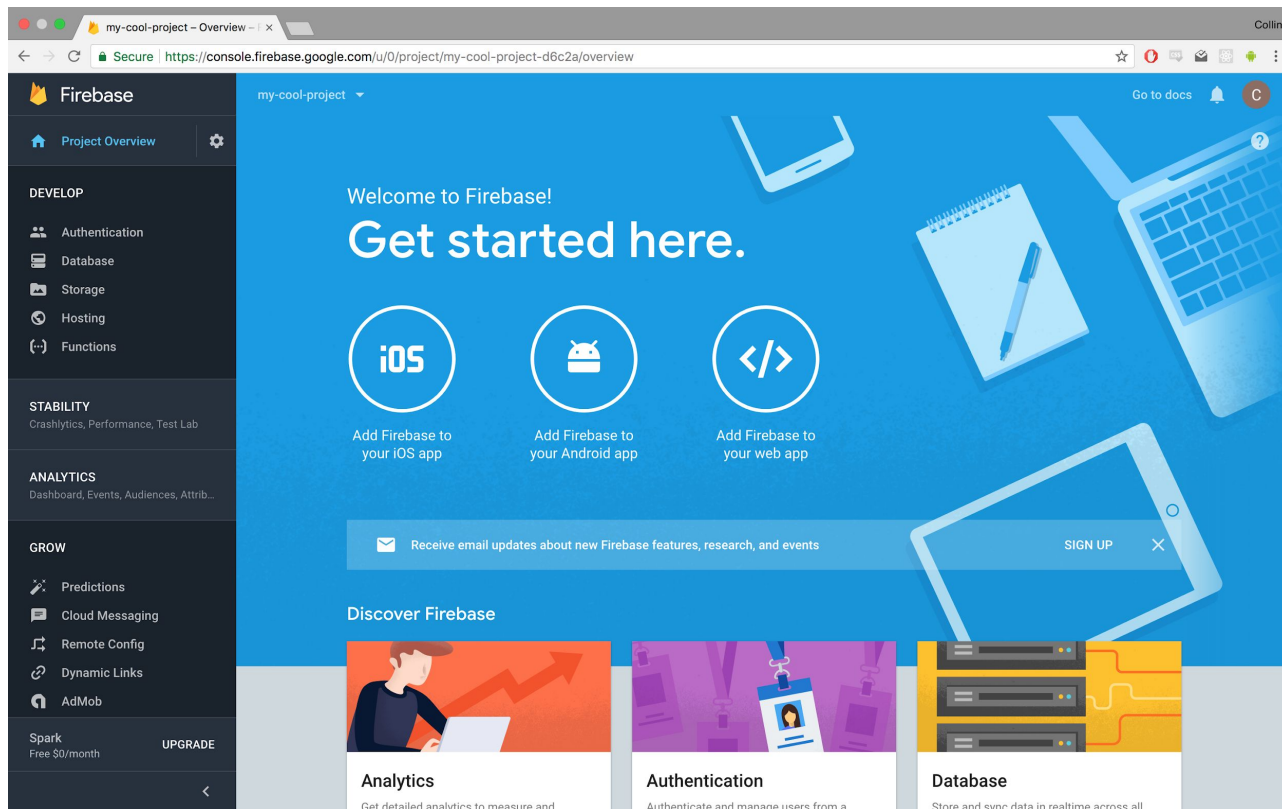
CANCEL

CREATE PROJECT



Tip: Projects span apps across platforms ⓘ

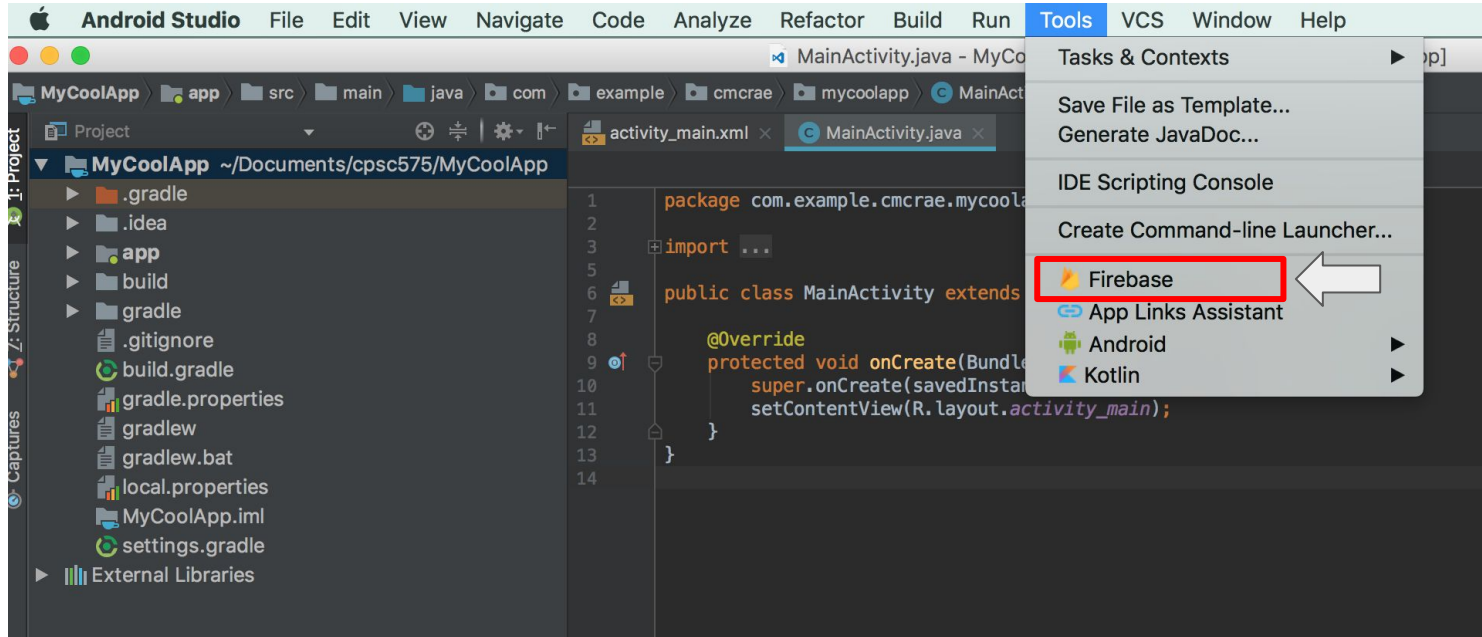
Creating Firebase Project



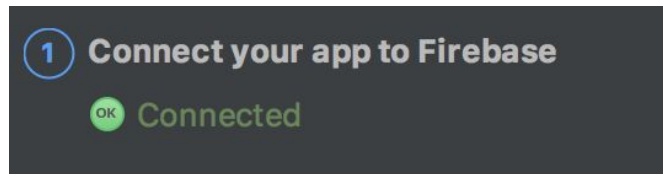
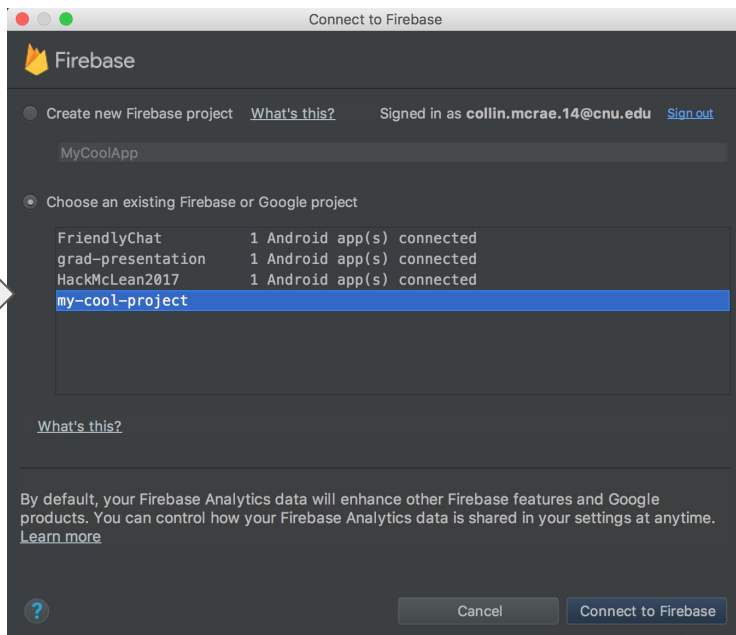
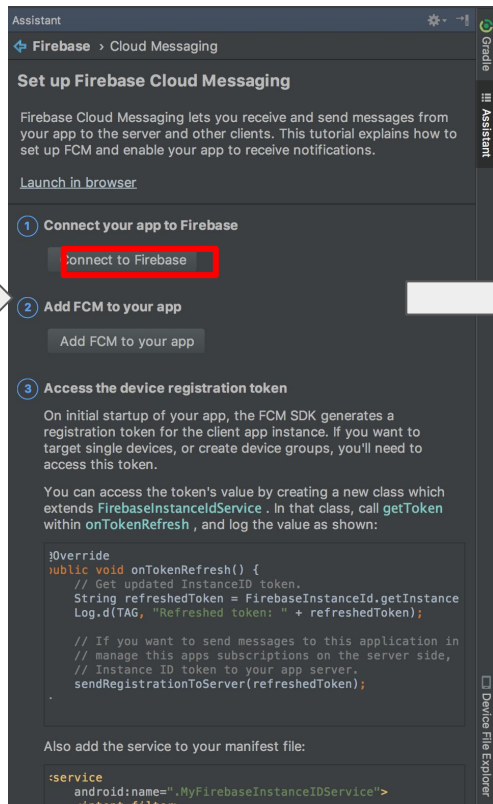
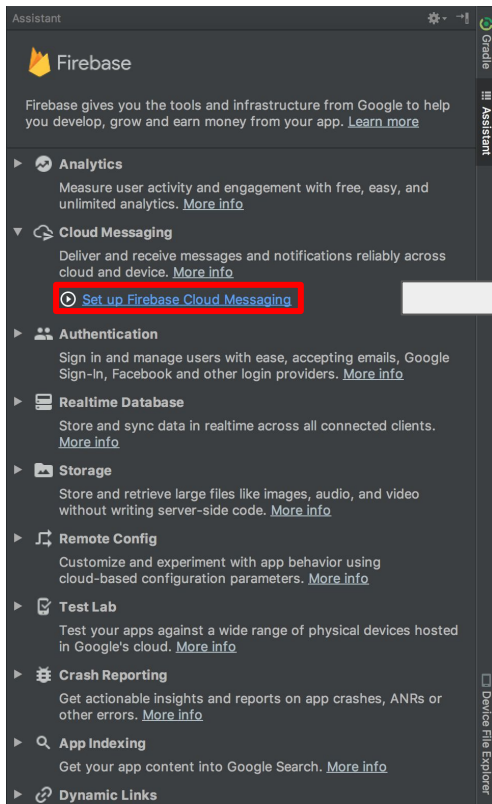
Creating Firebase Project (done!)

This screen is pretty overwhelming, but thankfully we don't need to do anything yet. Head over to Android Studio, and create a new project.

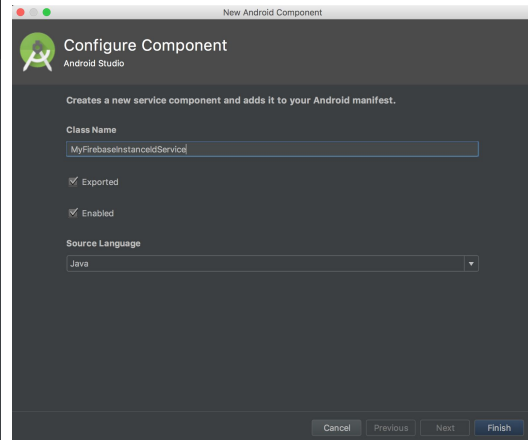
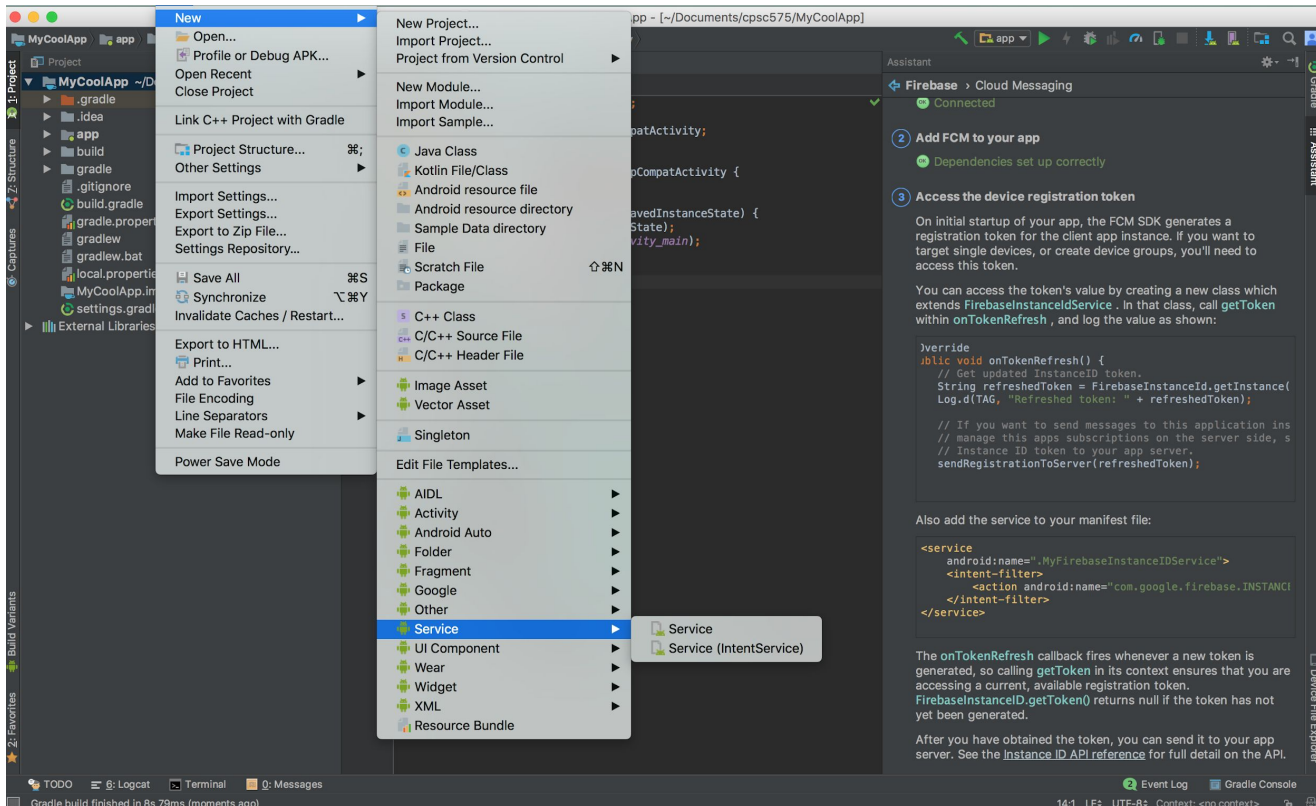
Add Firebase to Project



Add Firebase to Project



Add Firebase Device Token



Send Cloud notification!

Head over to the console!

- Note: Sometimes there is an error when adding a new project (unknown error). Just logout, then log back in!

Review old demo!

Features of old demo:

- Google Authentication (through Firebase)
- Messaging Pub/Sub (through Firebase)
- Functions (Through Cloud Functions)

Consulted Information

- <https://codelabs.developers.google.com/codelabs/firebase-web/#0>
- <https://codelabs.developers.google.com/codelabs/firebase-cloud-functions/index.html?index=..%2F..%2Findex#0>
- <https://codelabs.developers.google.com/codelabs/firebase-android/index.html?index=..%2F..%2Findex#0>
- <https://firebase.google.com/docs/reference/android/com/google/firebase/messaging/FirebaseMessagingService>
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