Develop

- Project Overview
- Authentication
- **Database**
- Storage
- Hosting
- Functions
- ML Kit

Quality
Crashlytics, Performance, Test Lab, …

Analytics
Dashboard, Events, Conversions, Au…

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- Extensions

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Database — ☁ Cloud Firestore ▾

Data | **Rules** | Indexes | Usage

⭐ Unit test and debug your Rules by downloading and running the Emulator. Run `$ firebase emulators:start --only firestore` in your terminal.   Quick start ⧉

Yesterday · 4:38 AM
Yesterday · 4:31 AM
Yesterday · 4:13 AM
Yesterday · 4:07 AM
Yesterday · 4:01 AM
Yesterday · 3:52 AM
Yesterday · 3:47 AM

Simulator

```
1  rules_version = '2';
2  service cloud.firestore {
3    match /databases/{database}/documents {
4      match /Users/{UserID} {
5        allow read;
6        allow write: if request.auth.uid == UserID;
7      }
8    }
9  }
```
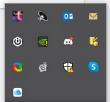
Handwritten annotations:
- Rule Applies to ALL Database (Name Used as Variable) → {database}
- Users Collection → /Users
- Document to Read (Name Used as Variable) → {UserID}
- request.auth.uid == UserID;
- The UID from Firebase Auth of the user making the query request.

🔥 Firebase

Test WebSite And DataBase ▾

Go to docs

Authentication

Users | **Sign-in method** | Templates | Usage

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Sign-in providers

Enable methods of Authentication

If a method is disabled firebase Auth JS will return error.

Provider	Status
✉ Email/Password	**Enabled**
📞 Phone	Disabled
G Google	Disabled
▶ Play Games	Disabled
Game Center Beta	Disabled
f Facebook	Disabled
🐦 Twitter	Disabled
GitHub	Disabled
Y! Yahoo	Disabled
⊞ Microsoft	Disabled
👤 Anonymous	Disabled

Authorized domains ⑦

Add domain

Authorized domain | Type

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Authentication

| Users | Sign-in method | Templates | Usage |

Add User With Email & Password

🔍 Search by email address, phone number, or user UID   **Add user**

Identifier	Providers	Created	Signed In	User UID ↑
rayce@lifesrough.com	✉	Sep 25, 2019	Sep 26, 2019	8zf6ed30Sfffhx U iT1CiNb9XL0NH3
example@email.com	✉	Sep 25, 2019	Sep 26, 2019	hrdwXI1x5MYVTmg9RnAq85ufELD2
chssquad05@gmail.com	✉	Sep 23, 2019	Sep 25, 2019	xWSL8asFXZWSew7PBXtOyKzWV...
aaronshii@icloud.com	✉	Sep 26, 2019	Sep 26, 2019	xWIBr6tN59VAw55sQI4nQ7InQhx2

Rows per page: 50 ▾   1-4 of 4   ‹ ›

In the future, Website can create users by calling
JS function   firebase.auth().createUserWithEmailAndPassword(email, password)

Extensions

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Firebase

Test WebSite And DataBase ▾

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Database

☁️ **Cloud Firestore** ▾

Data | Rules | Indexes | Usage

🏠 > Users > 8zf6ed30SffhxU...

🌐 test-website-and-database	📄 Users ▾ ⋮	🗄 8zf6ed30SffhxUiT1CiNb9XLONH3 ⋮
+ Start collection	**+ Add document**	**+ Start collection**
Users	8zf6ed30SffhxUiT1CiNb9XLONH3	**+ Add field**
		UserName : "Rayce"

Create Collection "Users" (Same as Rules)

Create Document Named with User UID

Add info to be grabbed.

Because users can write data to documents with their UID, they can, firebase JS can create Docs if they don't exist, and edit

Cloud Firestore location: nam5 (us-central)

Waiting for mgm.demdex.net...

```
rayce@RayceDesktop:~/firebase/public$ firebase serve

=== Serving from '/home/rayce/firebase'...

✔  functions: Using node@8 from host.
i  hosting: Serving hosting files from: public
✔  hosting: Local server: http://localhost:5000
127.0.0.1 - - [26/Sep/2019:03:18:10 +0000] "GET / HTTP/1.1" 200 2208 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) Appl
eWebKit/537.36 (KHTML, like Gecko) Chrome/76.0.3809.132 Safari/537.36"
127.0.0.1 - - [26/Sep/2019:03:18:10 +0000] "GET /__/firebase/init.js HTTP/1.1" 200 - "http://localhost:5000/" "Mozilla/5
.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/76.0.3809.132 Safari/537.36"
127.0.0.1 - - [26/Sep/2019:03:18:10 +0000] "GET /favicon.ico HTTP/1.1" 200 2208 "http://localhost:5000/" "Mozilla/5.0 (W
indows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/76.0.3809.132 Safari/537.36"
127.0.0.1 - - [26/Sep/2019:03:18:23 +0000] "GET / HTTP/1.1" 200 2199 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) Appl
eWebKit/537.36 (KHTML, like Gecko) Chrome/76.0.3809.132 Safari/537.36"
127.0.0.1 - - [26/Sep/2019:03:18:23 +0000] "GET /__/firebase/init.js HTTP/1.1" 200 - "http://localhost:5000/" "Mozilla/5
.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/76.0.3809.132 Safari/537.36"
127.0.0.1 - - [26/Sep/2019:03:18:23 +0000] "GET /favicon.ico HTTP/1.1" 200 2199 "http://localhost:5000/" "Mozilla/5.0 (W
indows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/76.0.3809.132 Safari/537.36"

Error: TIMEOUT: Port 5001 was not active within 30000ms
rayce@RayceDesktop:~/firebase/public$ firebase serve
```

When setting up Firebase CLI
it gives you a folder for the
website root dir, and files
for: firestore (database) & Storage (User File Content)
security rules.

Hosts Copy of Web Code
as if it was being hosted
by firebase, to allow
for testing before publishing

_ _ _ is the directory path firebase
uses for it's Web API's (You do not need a local copy for testing with the Firebase CLI)

```
rayce@RayceDesktop:~/firebase/public/pictures$ firebase deploy

=== Deploying to 'test-website-and-database'...

i  deploying database, storage, firestore, functions, hosting
Running command: npm --prefix "$RESOURCE_DIR" run lint

> functions@ lint /home/rayce/firebase/functions
> eslint .

☑  functions: Finished running predeploy script.
i  database: checking rules syntax...
☑  database: rules syntax for database test-website-and-database is valid
i  storage: checking storage.rules for compilation errors...
☑  storage: rules file storage.rules compiled successfully
i  firestore: checking firestore.rules for compilation errors...
i  firestore: reading indexes from firestore.indexes.json...
☑  firestore: rules file firestore.rules compiled successfully
i  functions: ensuring necessary APIs are enabled...
☑  functions: all necessary APIs are enabled
i  storage: uploading rules storage.rules...
i  firestore: uploading rules firestore.rules...
☑  firestore: deployed indexes in firestore.indexes.json successfully
i  functions: preparing functions directory for uploading...
i  hosting[test-website-and-database]: beginning deploy...
i  hosting[test-website-and-database]: found 11 files in public
☑  hosting[test-website-and-database]: file upload complete
i  database: releasing rules...
☑  database: rules for database test-website-and-database released successfully
☑  storage: released rules storage.rules to firebase.storage/test-website-and-database.appspot.com
☑  firestore: released rules firestore.rules to cloud.firestore
i  hosting[test-website-and-database]: finalizing version...
☑  hosting[test-website-and-database]: version finalized
i  hosting[test-website-and-database]: releasing new version...
☑  hosting[test-website-and-database]: release complete

☑  Deploy complete!

Project Console: https://console.firebase.google.com/project/test-website-and-database/overview
Hosting URL: https://test-website-and-database.firebaseapp.com
rayce@RayceDesktop:~/firebase/public/pictures$
```

(handwritten annotation, top right) Uploads rules and web directory/files to firebase, once complete, changes are live.

(handwritten annotation, middle right) Will notify you if rules/settings are improper and cancel the push.