
Firestore WordPress Integration

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This is a guide to [Integrate Firebase PRO](#), a plugin that helps to integrate Firebase to WordPress.

Demo site: <https://wordpress.dalenguyen.me>

If you are interested in making this plugin better, please take part in this survey: <https://forms.gle/5TBSDHUtSeVzzKno8>

CHAPTER 1

Introductions

After downloading the [Integrate Firebase PRO](#) plugin, please follow the video in order to have better review of how to install and make use of this plugin in your WordPress site.

The current version of the plugin works best in the situation that you want to take advantage of Firebase features without connecting with the default WordPress users database.

How to integrate Firebase to WordPress

I'm not sure why you want to integrate Firebase and WordPress together because they are two separate system. The authentication is different too. But somehow, you end up here and want to combine Firebase and WordPress together. And yes, we can do it.

2.1 Download the Integrate Firebase PRO plugin

There is a FREE version of this [Firebase WordPress integration plugin](#) that you can find in WordPress plugin site. You can give it a try, however, the application is very limited. If you only want to interact with Firebase through WordPress frontend only, then the free version would be sufficient enough.

However, if you want a more secured and advanced feature of the plugin. Please support the development of [Integrate Firebase PRO](#) version.

2.2 Prepare Firebase Credentials

Before using the plugin, we need have the credentials from Firebase Console. You can get it by logging into <https://console.firebase.google.com>.

After signing in, you can navigate to **Project Overview > Project Settings**.

In General tab, you can get the config at the bottom. If you don't have any app ready, you can create a new one.

After creating a web app for you project, you can save your credentials for later usage.

2.3 Installation Process

After you have downloaded the plugin, you can use default installation process in order to install the plugin. Otherwise, you can always manually upload the plugin to your plugin folder through FTP client.

After you activate the plugin, you need to enter the Firebase credentials in the **Dashboard > Firebase**.

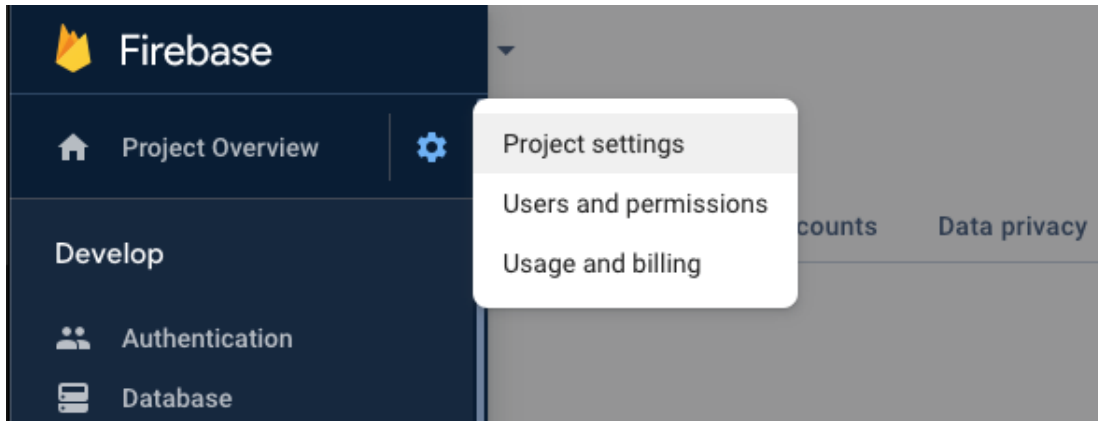


Fig. 1: General configuration

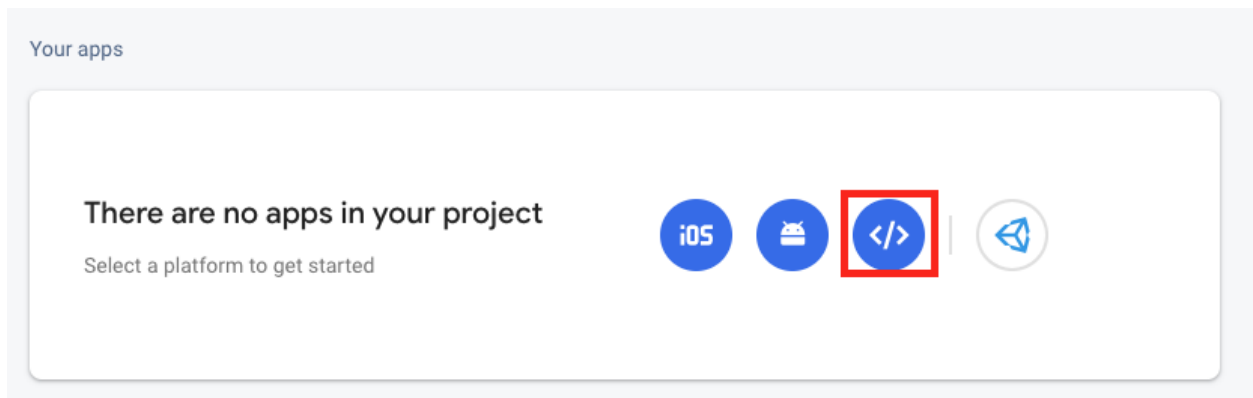


Fig. 2: Create a Web app

Add a web app

1

2

Register app
Add Firebase SDK

Copy and paste these scripts into the bottom of your `<body>` tag, but before you use any Firebase services:

```

<!-- The core Firebase JS SDK is always required and must be listed first -->
<script src="https://www.gstatic.com/firebasejs/7.8.2/firebase-app.js"></script>

<!-- TODO: Add SDKs for Firebase products that you want to use
https://firebase.google.com/docs/web/setup#available-libraries -->

<script>
  // Your web app's Firebase configuration
  var firebaseConfig = {
    apiKey: "AIzaSyC3em",
    authDomain: "server",
    databaseURL: "https",
    projectId: "server1",
    storageBucket: "ser",
    messagingSenderId:
    appId: "1:875634686"
  };
  // Initialize Firebase
  firebase.initializeApp(firebaseConfig);
</script>

```

Learn more about Firebase for web: [Get started](#), [Web SDK API reference](#), [Samples](#)

Note: Upgrade to full analytics to measure web analytics
Upgrade now

Continue to the console

Fig. 3: Firestore Credentials

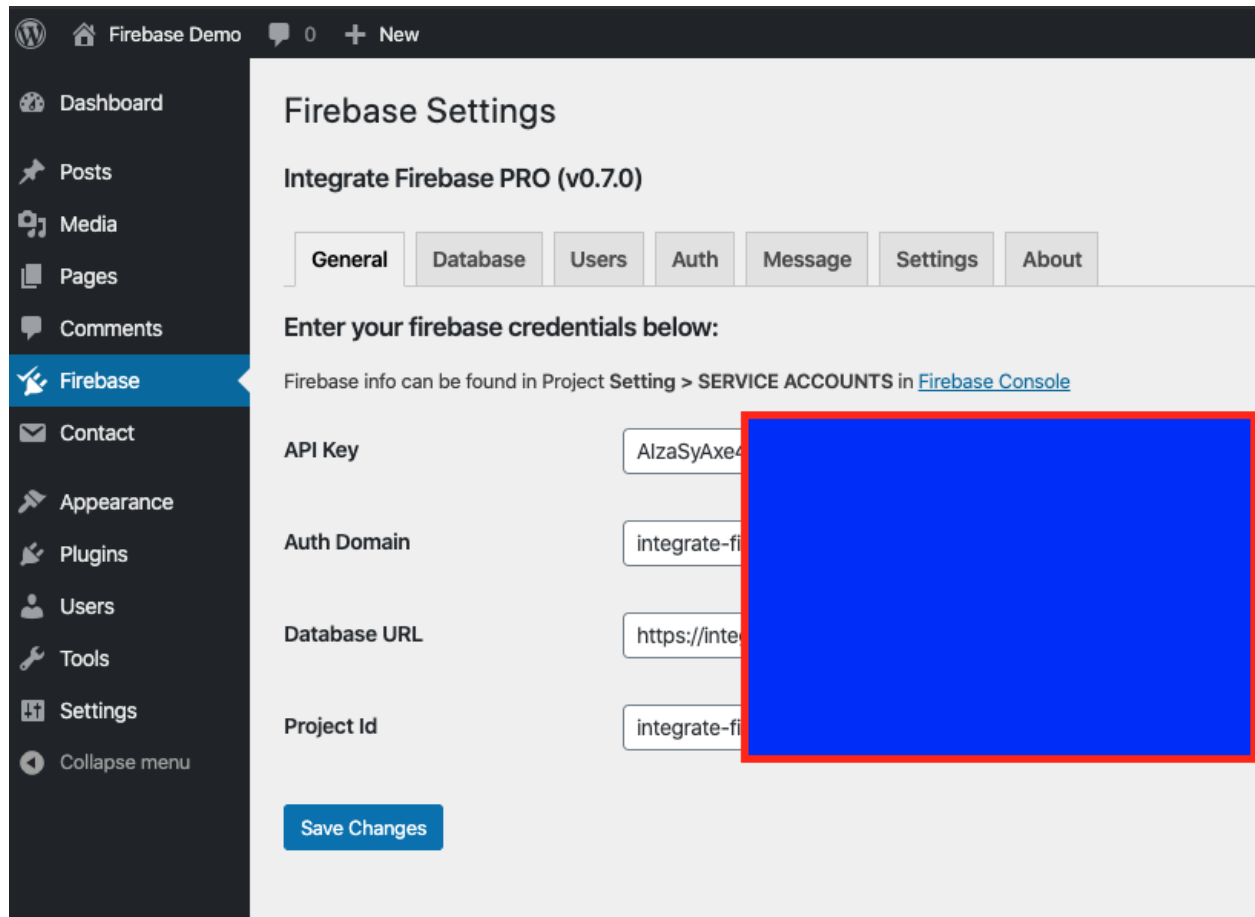


Fig. 4: General configuration

After that, you can create login form, show data, show logout button... on WordPress frontend.

2.4 Firebase Cloud Functions Deployment (PRO version only)

If you are using PRO version, there is another folder named **firebase-wordpress-functions**. If you want to manage database, Firebase users and custom functions, you should deploy the functions together with the plugin. Make sure that you have Nodejs installed on your machine.

In order to deploy cloud functions, you need to have [Nodejs](#) installed on your machine.

Then install [firebase-tools](#) packaged

```
npm install -g firebase-tools
```

SignIn and test firebase cli

```
firebase login
```

Since version 0.6.0, before deploying any functions, you should create two tokens for security purpose. One for Wordpress dashboard usage, the other is for Wordpress frontend.

```
// Generate random token
node -e "console.log(require('crypto').randomBytes(20).toString('hex'))"

// Set your token to firebase configuration (dashboard token)
firebase functions:config:set api.dashboard_token=your-secret-key --project project-id

// Set your token to firebase configuration (frontend token)
firebase functions:config:set api.frontend_token=your-secret-key --project project-id

// Check your api token
firebase functions:config:get api --project project-id
```

Install packages and build functions. I'm using Yarn, you can use npm if you want.

```
cd functions/
yarn OR npm install
```

The code will go to *functions* folder, then installs packages with yarn / npm.

Start deploying firebase functions

```
cd functions
yarn deploy --project project-id
// OR
firebase deploy --only functions --project project-id
```

The deployment result should look like this

```
✓ functions: Finished running predeploy script.
i functions: ensuring necessary APIs are enabled...
✓ functions: all necessary APIs are enabled
i functions: preparing functions directory for uploading...
i functions: packaged functions (103.29 KB) for uploading
✓ functions: functions folder uploaded successfully
i functions: updating Node.js 10 (Beta) function api-user(us-central1)...
```

(continues on next page)

(continued from previous page)

```
i functions: updating Node.js 10 (Beta) function api-database(us-central1)...
✓ functions[api-user(us-central1)]: Successful update operation.
✓ functions[api-database(us-central1)]: Successful update operation.

✓ Deploy complete!

Project Console: https://console.firebase.google.com/project/project-id/overview
Done in 77.56s.
```

After that, you should update your Firebase setting with the dashboard token and frontend token and firebase functions url (e.g. `https://us-central1-project-id.cloudfunctions.net`)

Firestore Settings

Integrate Firestore PRO to WordPress

General Database Users Auth **Settings** About

Please enter your credentials information.

** API secret token is mandatory for securely managing Firestore. Never reveal your dashboard api token!*

Base Domain

Dashboard API Secret Token

Frontend API Secret Token

Save Changes

Fig. 5: Firestore setting

CHAPTER 3

List of Current Shortcodes

Shortcodes are mostly used on WordPress frontend, when you create a page or a post in WordPress dashboard, you can embed in the content.

```
// Page or Post
[firebaseui_web][firebaseui_web]
```

If you are a developer who knows PHP, you can use it anywhere you want.

```
// php files
echo do_shortcode("[firebaseui_web][firebaseui_web]");
```

3.1 Authentication

```
// Login, Register through FirebaseUI Web
[firebaseui_web][firebaseui_web]
```

```
// Greetings Logged in User
[firebase_greetings][firebase_greetings]
```

```
// Show Firebase Error
[firebase_error class='your-class-name'][firebase_error]
```

```
// Logout Button
[firebase_logout][firebase_logout]
```

3.2 Content

```
// Show custom message for NOT Logged in Users
[firebase_show_not_login class='your-class-name']YOUR HTML CODE[/firebase_show_not_
→login]
```

```
// Show custom message for Logged in Users
[firebase_show class='your-class-name']YOUR HTML CODE[/firebase_show]
```

3.3 Realtime Database & Firestore

```
// show realtime data basing on collection name & document id
[realtime class='your-class-name' collection_name='string' document_name='string']
```

```
// show firestore data basing on collection name & document id
[firestore class='your-class-name' collection_name='string' document_name='string']
```

3.4 Custom Claims (User's roles)

```
// only user with admin claim will see the content
// otherwise they will see a Custom message
[firebase_show_with_claims class='your-class-name' claims='admin' message='Custom_
→message' ] HTML Data With Tags [/firebase_show_with_claims]
```

How To Enable FirebaseUI Web (User Authentication)

This feature will help to you register, login and logout on WordPress with your Firebase Users. However, this won't let your users login to WordPress Dashboard. If you want to sync the Users between two systems, please read the WordPress User Integration section in this guide.

Before showing the [FirebaseUI Web](#) on your WordPress, you need to enable sign-in options in *Firebase > Authentication*

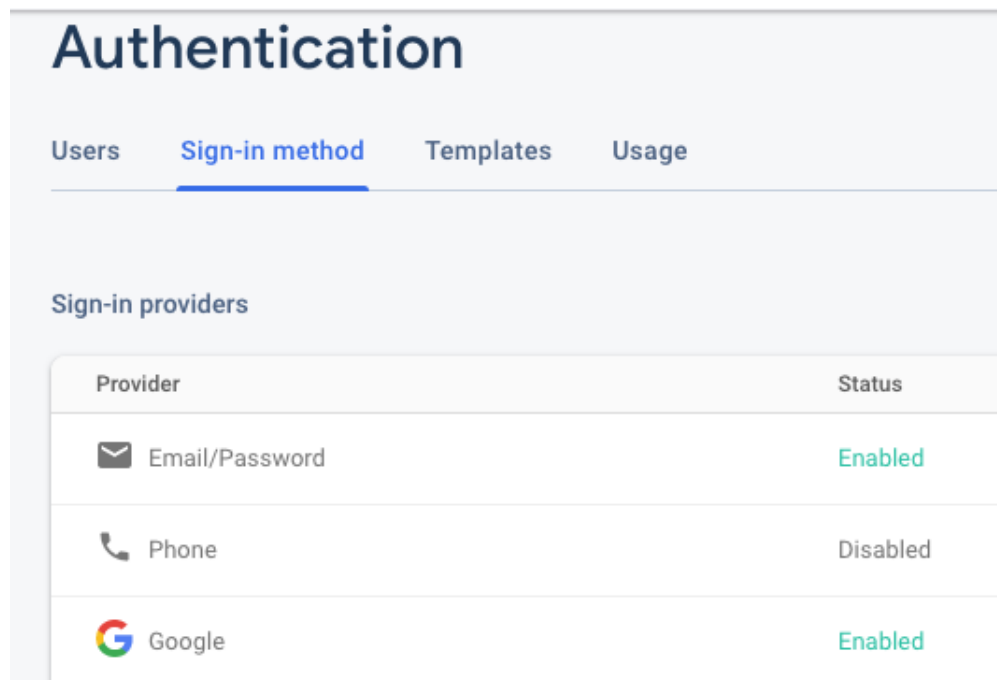
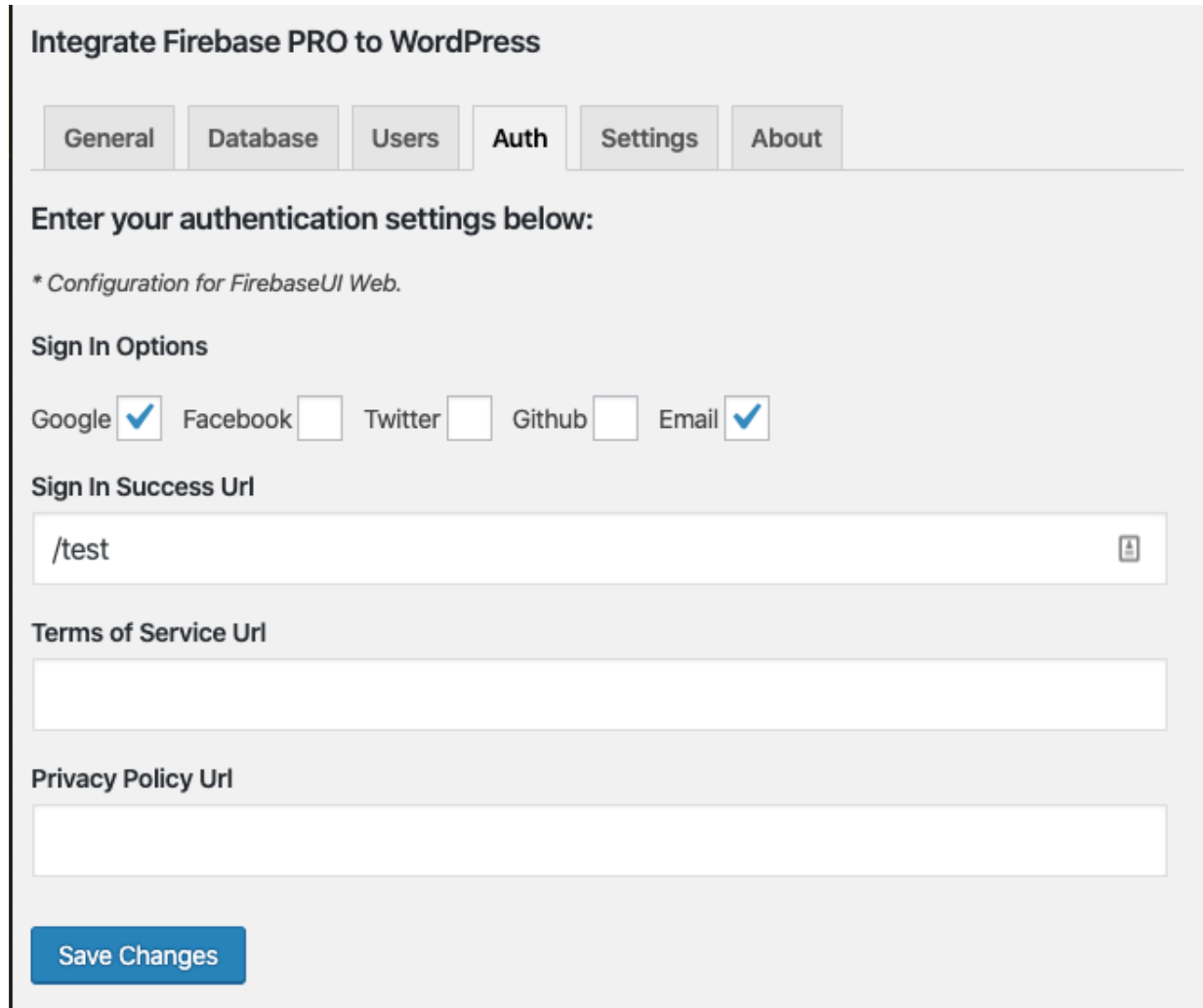


Fig. 1: Enable SignIn Options

Since version 0.5.5, all the authentication methods will be handled through FirebaseUI-Web.

```
// Deprecated shortcodes  
[firebase_user_register] and [firebase_login]
```

You need to update the Auth settings in Firebase, in order to enable this feature.



Integrate Firebase PRO to WordPress

General Database Users **Auth** Settings About

Enter your authentication settings below:

** Configuration for FirebaseUI Web.*

Sign In Options

Google ☒ Facebook ☐ Twitter ☐ Github ☐ Email ☒

Sign In Success Url

Terms of Service Url

Privacy Policy Url

Save Changes

Fig. 2: FirebaseUI Web Settings

Then you will see the login feature on the frontend.

You can enable the login feature by adding this shortcode to a post or a page.

```
[firebaseui_web] [/firebaseui_web]
```

Firebase Shortcode

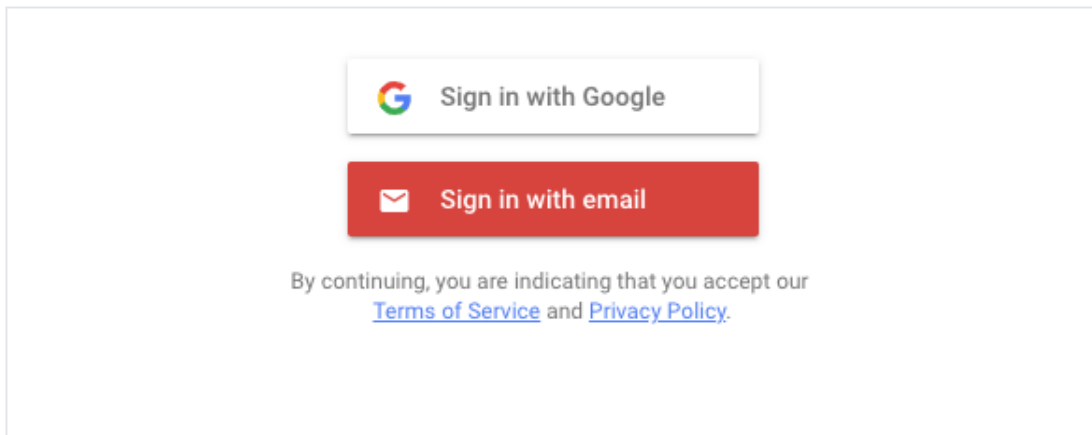


Fig. 3: FirebaseUI Web Frontend

Manage Firebase Users in WordPress Dashboard

Google provided a great tool for authentication. However, it is not convenient in terms of user management. As you can see, the options are limited.

claims@dalenguyen.me	✉	15 Mar 2020	29 Mar 2020	rJ2qRtxzOCYeTuLjtffRF0vpZhD3	
test9@dalenguyen.me	✉	13 Mar 2020	13 Mar 2020	ClnFaWDeU8Weml...40T	Reset password
test7@dalenguyen.me	✉	13 Mar 2020	13 Mar 2020	9j3aziDqSleRath5eWYeuL	Disable account
test5@dalenguyen.me	✉	13 Mar 2020	13 Mar 2020	BNCLLgHOPwhFvjUddPibEpNm2...	Delete account
test4@dalenguyen.me	✉	13 Mar 2020	13 Mar 2020	ee3CKRsYiRMPH8pB7rgPNWD08...	
test3@dalenguyen.me	✉	13 Mar 2020	13 Mar 2020	cTQkaXV3pjPGgb3cjfKPmTHJrFG2	

Fig. 1: Firebase default options

That is why I want to make it easier for the webmaster if they want to create, read, update and delete (CRUD) a Firebase user directly through WordPress dashboard.

5.1 Prerequisite

Before you can achieve this, you have to configure **Firebase > Settings** with your Base Domain and Dashboard API Secret Token. You can take a look at how to set it up the [Integrate Firebase to WordPress](#) section.

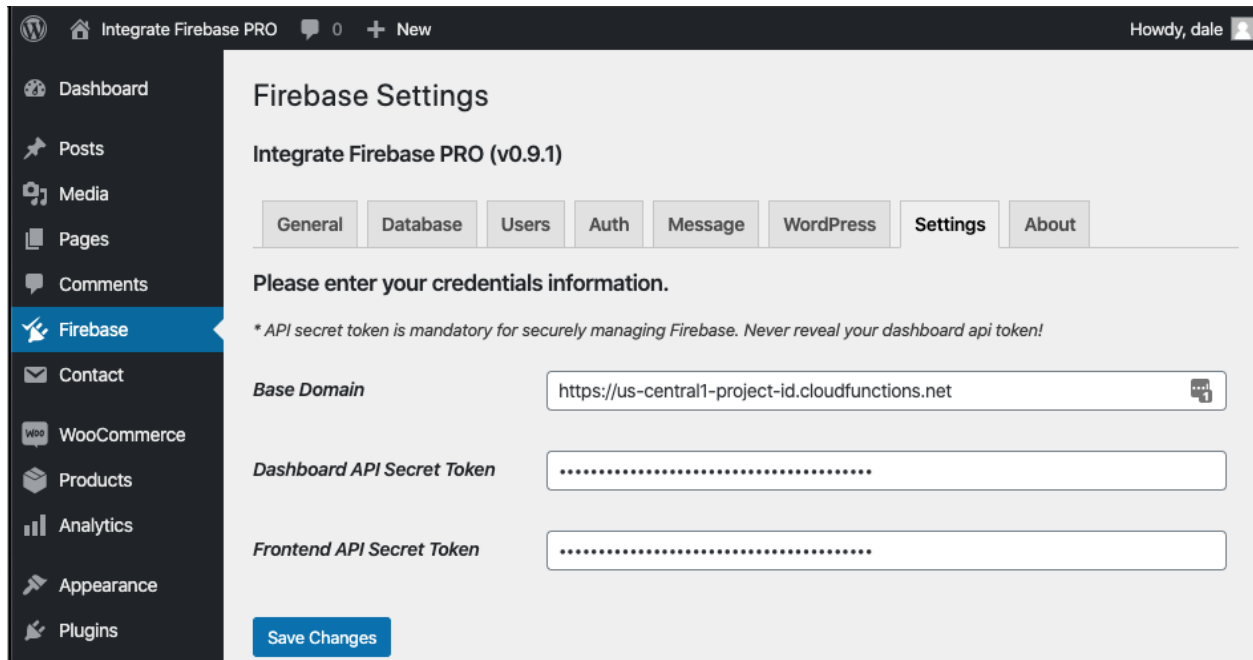


Fig. 2: Firestore settings

5.2 Firestore Users Management

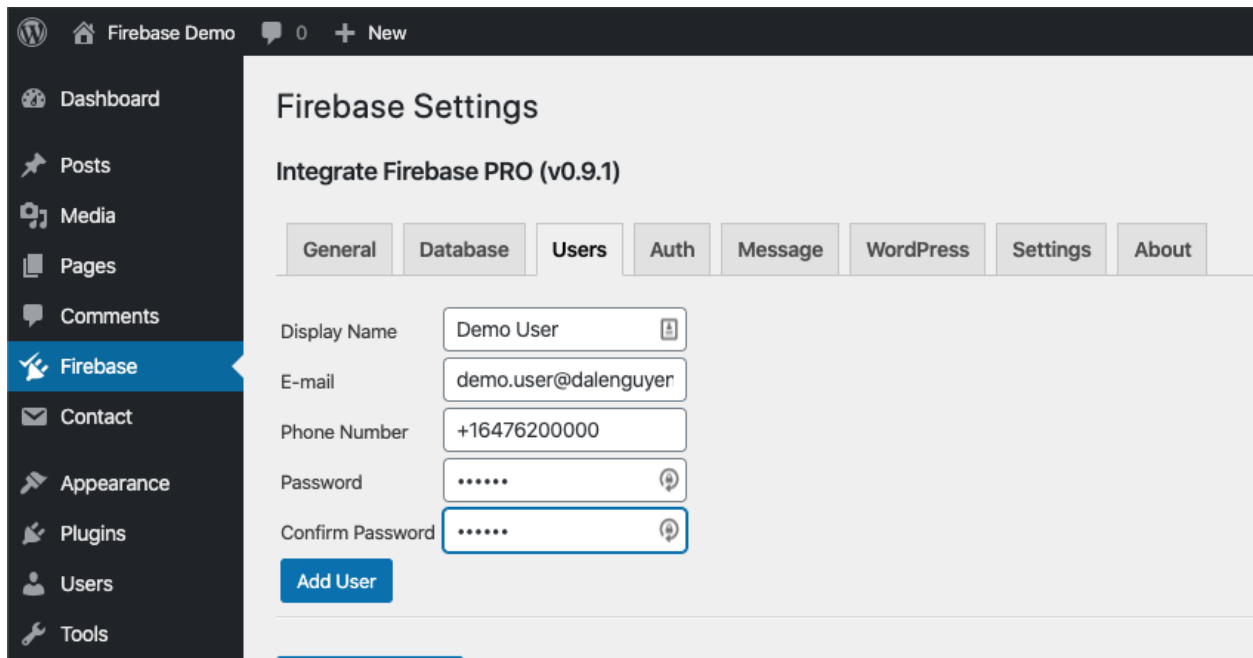
User management is under the **Firestore > Users** tab. You will see a form where you can add a new User to Firestore. Remember that the user will be added to Firestore, not WordPress.

If the process is successful, you will be notified with a message that contains the user id.

If you want to read, modify or delete a user, you can press on “Click to load users”. You can find the information about Firestore users where you can update the display name, email, phone number, and even user custom claims.

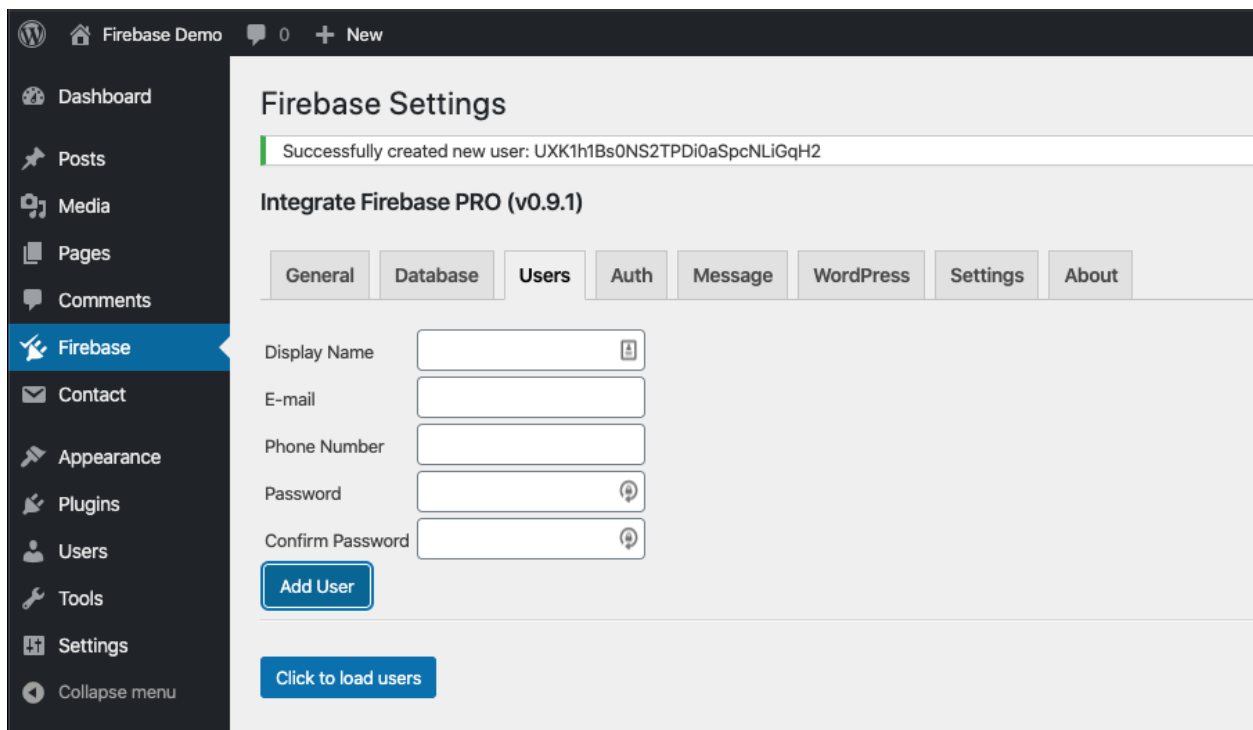
When you delete a user, there will be a prompt to confirm if you want to delete it to make sure that you do not accidentally press the delete button.

Note: the limit now is 1000 users. I will try to make it better in the next release.



The screenshot shows the WordPress dashboard with the 'Firebase' menu item selected. The 'Firebase Settings' page is displayed, featuring a sidebar with navigation links and a main content area with tabs for 'General', 'Database', 'Users', 'Auth', 'Message', 'WordPress', 'Settings', and 'About'. The 'Users' tab is active, showing a form to 'Integrate Firebase PRO (v0.9.1)'. The form includes fields for 'Display Name' (filled with 'Demo User'), 'E-mail' (filled with 'demo.user@dalenguyer'), 'Phone Number' (filled with '+16476200000'), 'Password' (masked with dots), and 'Confirm Password' (masked with dots). An 'Add User' button is located below the form.

Fig. 3: Add a new Firebase user



The screenshot shows the same 'Firebase Settings' page, but now with a green success message at the top: 'Successfully created new user: UXK1h1Bs0NS2TPDi0aSpcNLIgQH2'. The 'Add User' form is still present, but the 'Add User' button is now disabled. A new 'Click to load users' button has appeared below the form. The sidebar navigation links are also visible.

Fig. 4: Firebase user is added

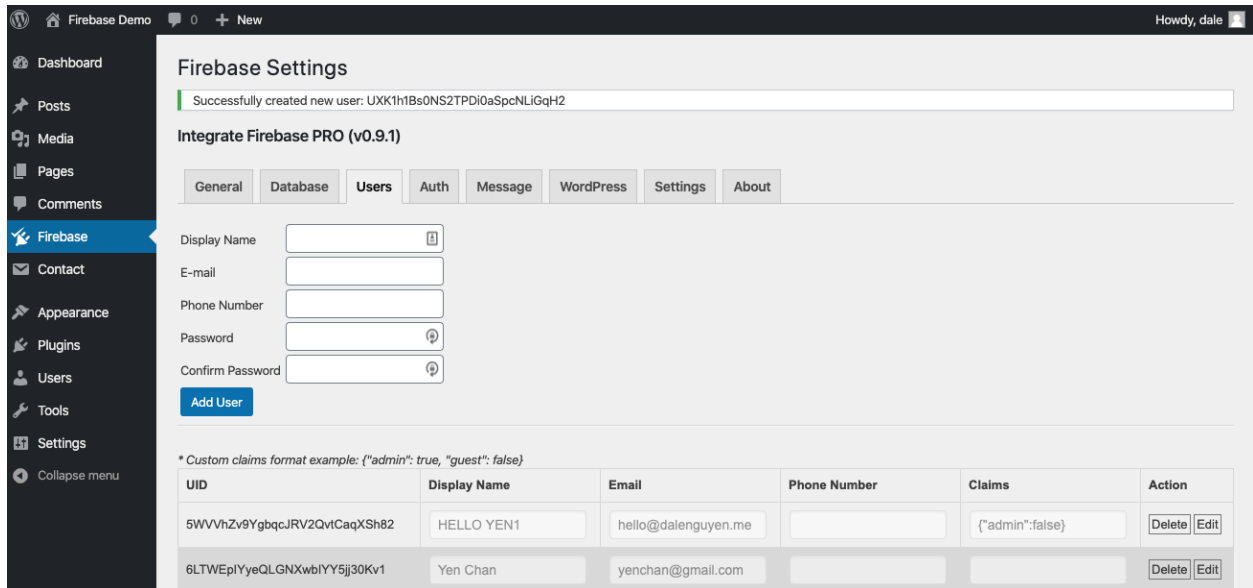


Fig. 5: Load Firebase Users

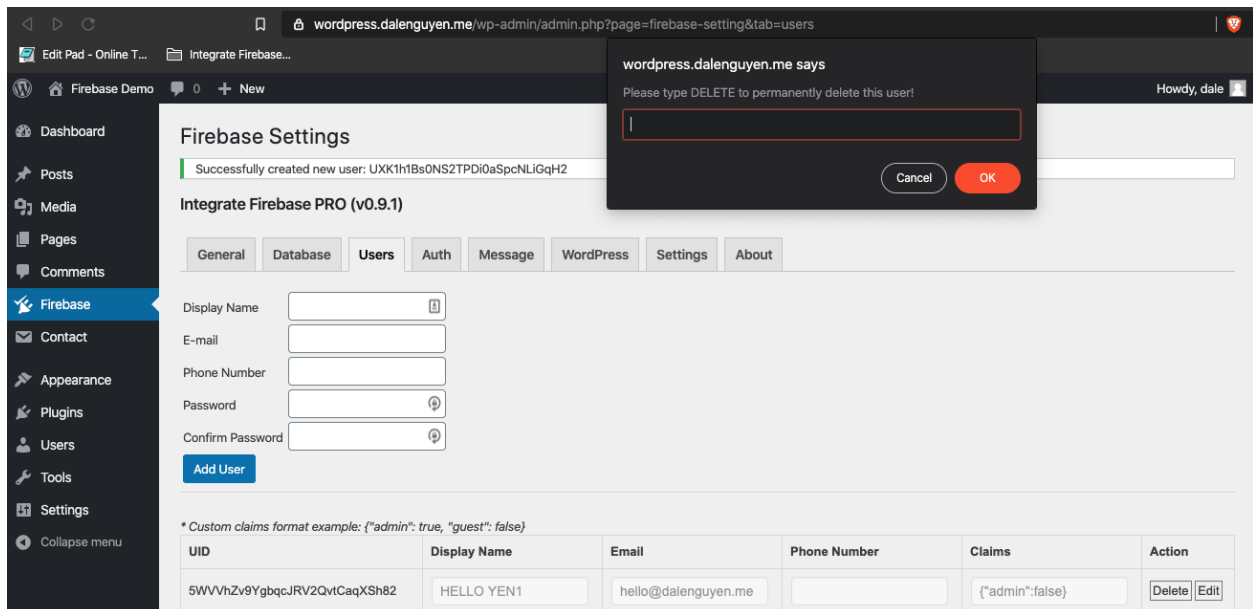


Fig. 6: Delete a Firebase User

WordPress User Integration

This feature is available since **v0.7.0**. There are a lots of tasks that needs to be done in order to make the integration much better for WordPress and Firebase Users because they are in two separate systems.

This feature solves the authentication problem. This is an example from one of my potential clients. The client has a mobile app (Firebase users), and they want those users to login to a separate WordPress website without registering again.

And this plugin can help you to achieve just that.

At this stage, it helps to authenticate to WordPress dashboard with a subscriber or customer role (WooCommerce). And the password change will be dominated by Firebase Users. User cannot change password when logging into WordPress dashboard. They have to use *forgot password* feature in Firebase in order to create a new password. And if the password is different in both systems, the next time user logs in through FirebaseUI Web shortcode, it will change the password in WordPress automatically.

6.1 Login to WP Dashboard with Firebase Users

Important: Before doing this, you should keep a dashboard open for yourself, and open another private window in order to login with an email from Firebase, then assign the Admin right to that user before you log out of current window - to make sure that you can log in again with your Firebase user (with **admin** rights).

In case of logging out without assign another user with admin rights, you can rename the plugin folder, and login as usual.

This flow will utilize FirebaseUI Web workflow in order to authenticate users. In order to that, you have to log in to WordPress Dashboard, then **Dashboard > Firebase > Auth**.

Check **Allow Login to WP Dashboard** and enter you **Login Url**. It could be your homepage or a separate page just for logging in. From now, everytime users navigate to <https://your-webiste.com/wp-admin>, it will redirect to your new login page.

This page will contain the shortcode for logging in.

Firestore Settings

Integrate Firestore PRO (v0.7.0)

General Database Users **Auth** Message Settings About

Login Page Configuration:

** Enter these fields if you want to login through Firestore Web UI.*

Allow Login to WP Dashboard ☒

Login Url

FirestoreUI Web Configuration:

** Configuration for FirestoreUI Web.*

Sign In Options Google ☐ Facebook ☐ Twitter ☐ Github ☐ Email ☒

Sign In Success Url

Terms of Service Url

Privacy Policy Url

Save Changes

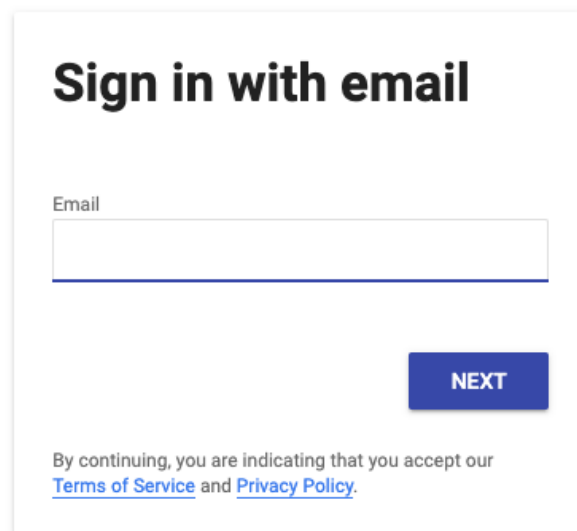
Fig. 1: Firestore Auth Settings

```
// Login, Register through FirebaseUI Web
[firebaseui_web][firebaseui_web]
```

Firestore Demo

WordPress Firestore Integration

Sign In



The image shows a 'Sign in with email' form. It has a title 'Sign in with email' at the top. Below the title is a label 'Email' followed by a text input field. To the right of the input field is a blue button with the text 'NEXT'. At the bottom of the form, there is a line of text: 'By continuing, you are indicating that you accept our [Terms of Service](#) and [Privacy Policy](#).'

Fig. 2: New WP Login Page

After users log in, it will create a new user in WordPress if the user doesn't exist. Then authenticate it to WordPress dashboard automatically.

When users log out from dashboard, that means they will also be logged out to Firestore.

6.2 Create a new WordPress User through API

The Integrate Firestore PRO has its own Restful API endpoints that help to create a new WordPress user. In this scenario, when you have a mobile app, and you want to duplicate user in WordPress, you can call the API to create a new User after user register on your app.

```
Endpoint: POST https://example.com/firebase/v2/users/register
```

```
Example payload: {  
  username: 'dale',  
  email: 'dale@dalenguyen.me',  
  password: 'the-password'  
}
```

Sync Data from WordPress to Firebase

Since version 0.9.0, I added some event triggers for syncing data from WordPress to Firebase. The plugin now supports syncing Post & Page from WordPress to Firebase. That means when you add or update a new Post or Page. The content will be updated automatically to Firebase (Realtime / Firestore).

- For posts, they locate under **wpPosts** collection name.
- For pages, they locate under **wpPages** collection name.

7.1 1. Setting Up

Make sure the version of the plugin is at least: v0.9.0. Then you can choose which type of data to sync to Firebase.

In this example, it will choose Firestore as the database, and every new or update posts will be synced to Firestore. You can choose both Post & Page type.

7.2 2. Create a Sample Post

After that, you can create a new post or update an existing one.

After you save, the post will be added to Firestore. The document id of the post is also the post id for query purpose.

When you update the current post, it will override the data in the firestore to make sure that it always updated.

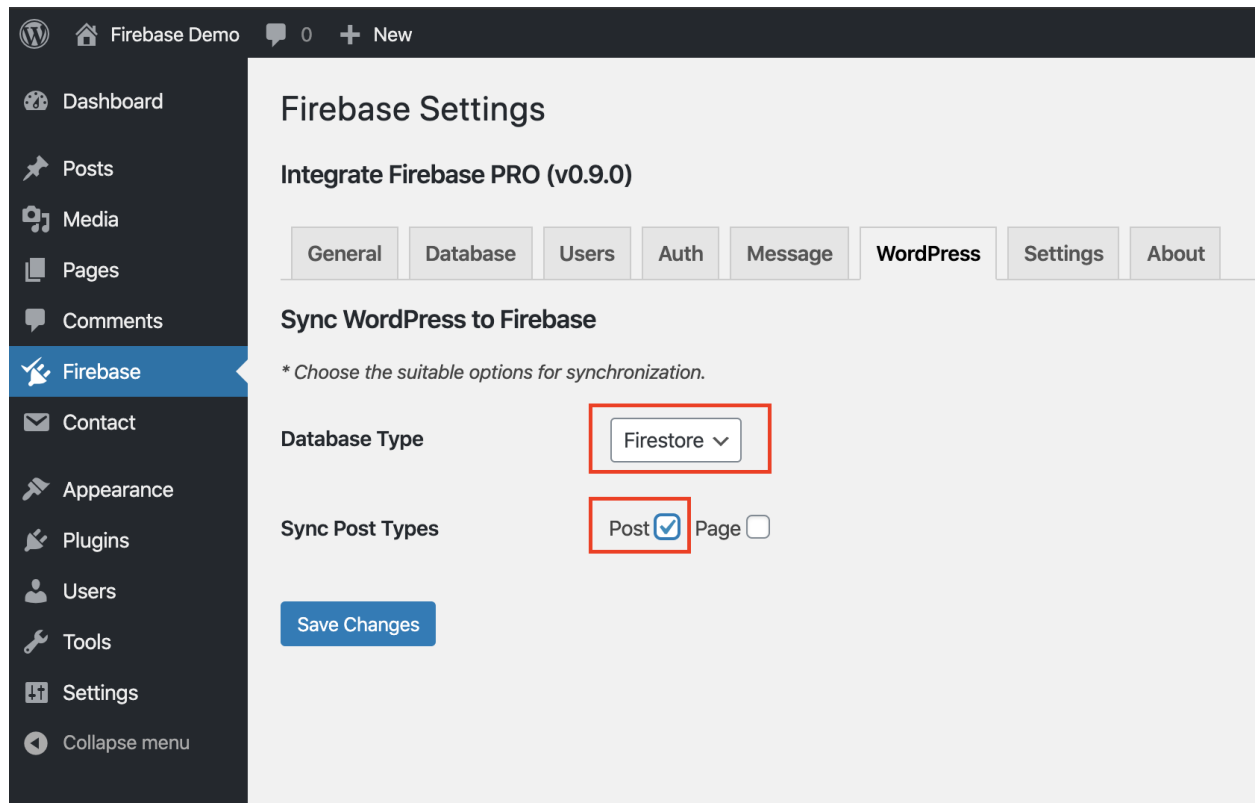


Fig. 1: Synchronization configuration

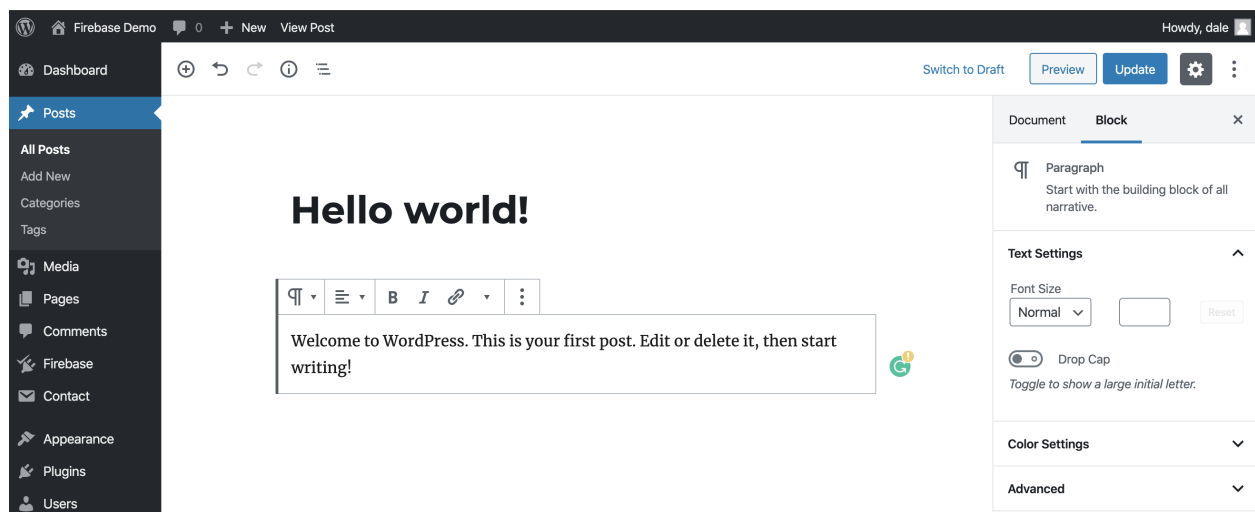


Fig. 2: Create a new post

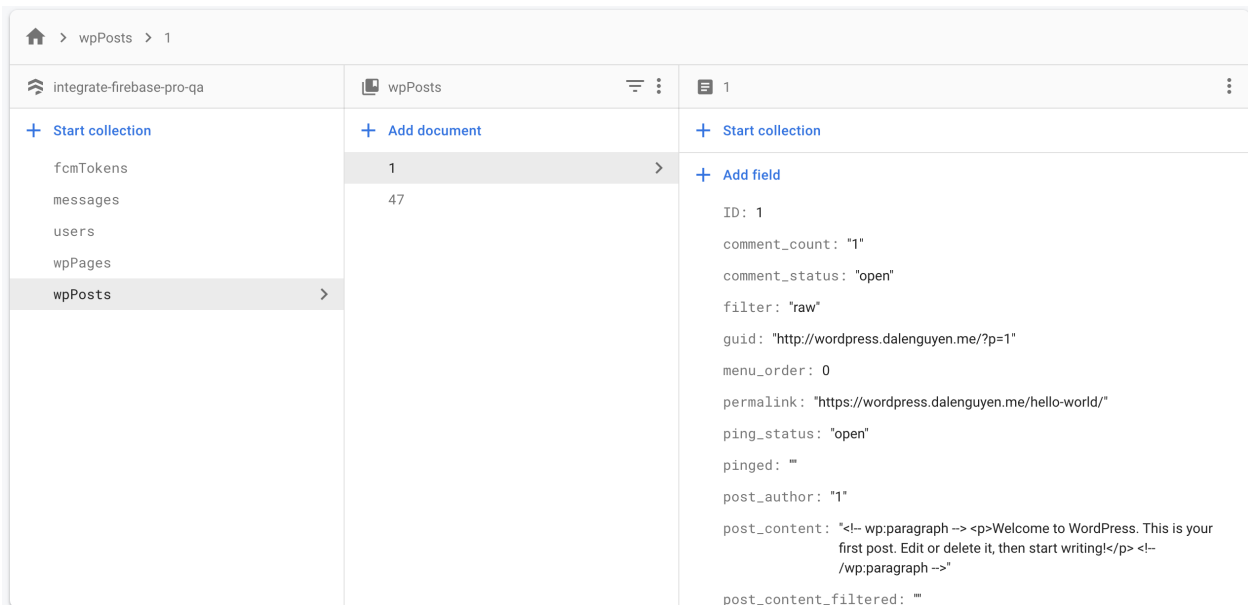


Fig. 3: New post in firestore

Firebase Cloud Message Integration

This feature only helps you to send notification or data to a topic. In order to improve this feature, you can participate in [this 3 minutes survey](#).

In order to use this feature, you need to update the plugin's cloud functions to at least v0.6.0 which comes together with the Integrate Firebase PRO plugin.

After that, you can go to WordPress dashboard > **Settings > Firebase > Message**, prepare your message and send it.

There is a sample notification in the Message tab, that will send a notification to “topic-name” topic. You will have to modify it basing on your needs.

This is the structure of the message. You can send a notification or data to a specific topic. Below are samples of the message. If you want to learn more on the message structure, please check the [firebase send message documentation](#).

You also can send notification together with data.

```
// Send notification
{
  "notification": {
    "title": "Background Message Title",
    "body": "Background message body"
  },
  "topic": "topic-name"
}
```

```
// Send data
{
  "data": {
    "score": "850",
    "time": "2:45"
  },
  "topic": "topic-name"
}
```

If the message is sent successfully, you will see a message.

Firestore Settings

Integrate Firestore PRO to WordPress (v0.6.0)

General
Database
Users
Auth
Message
Settings
About

Message only support send to topic or condition at the moment. If you want to improve this feature
Please read the [document](#) for more example of topic and condition

Please modify the data basing on your need.

```

{
  "notification": {
    "title": "Background Message Title",
    "body": "Background message body"
  },
  "topic": "topic-name"
}

```




Send Message

Fig. 1: Sample notification message

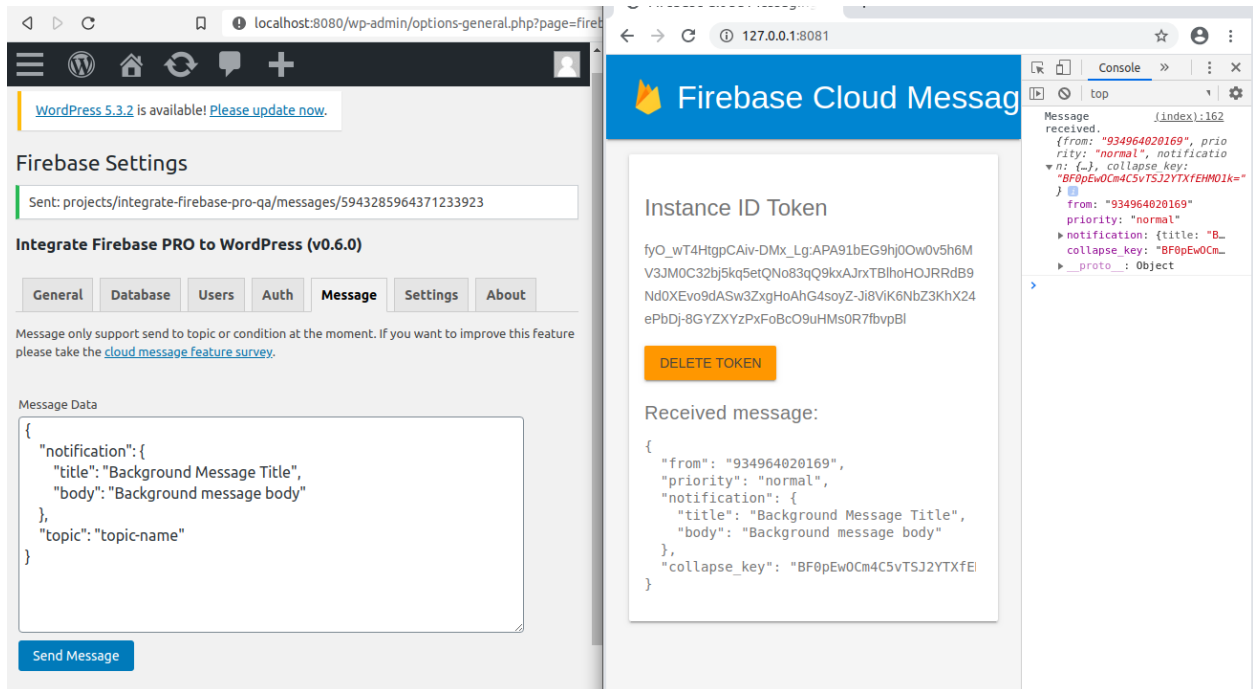


Fig. 2: Successfully sent a message

If you send a notification to a topic, and website is in the background, this is what user will see.

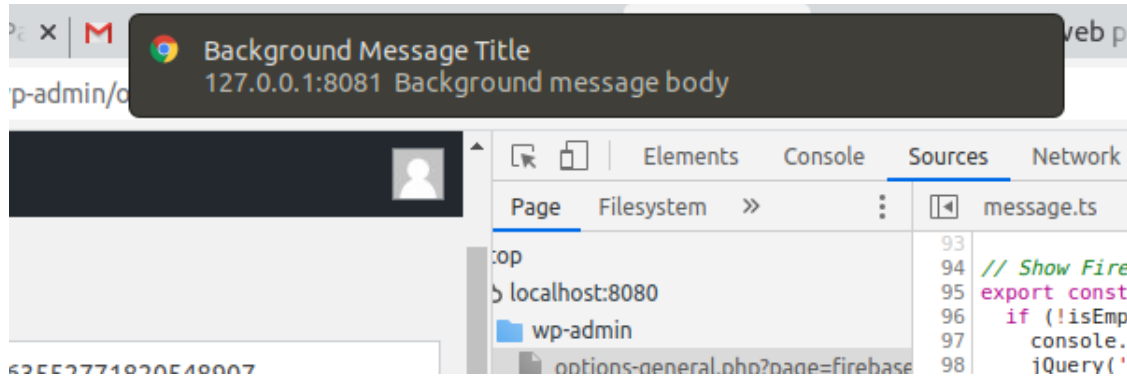


Fig. 3: Background notification

How to Save Data from WordPress to Firebase (Realtime + Firestore)

In this guide, I will show you how to add new data to Realtime database Firestore. In this example, I use [Contact Form 7](#), but you feel free to design your own form or use other plugin.

The reason that I use Contact Form 7 is because it's the most popular form in WordPress plugin. It is well supported and highly customisation. You don't have to worry about form validation or email handling after submitting a form.

If you decide to create your own custom form, remember to add "if-create-data-form" as an ID to your form, together with the hidden fields below.

```
▼<form action="/?p=12#wpcf7-f11-p12-o1" method="post" class="wpcf7-form demo
sent" novalidate="novalidate" id="if-create-data-form" _lpchecked="1">
  ▶<div style="display: none;"></div>
    <input type="hidden" name="collectionName" value="users" class="wpcf7-form-
control wpcf7-hidden">
    <input type="hidden" name="databaseType" value="realtime" class="wpcf7-form-
control wpcf7-hidden">
    <input type="hidden" name="arrayType" value="hobbies,food" class="wpcf7-form-
control wpcf7-hidden">
```

Fig. 1: Custom Create Form

9.1 Prerequisite

Before saving data to the Firebase, we need to add the public collections to the Firebase environment. Without this step, your data won't be saved.

In order to add the public collections, you can open the terminal and run this

```
firebase functions:config:set public.collections="users" --project project-id
```

__NOTE__: This will allow WordPress public frontend to write data to **users** collection. Remember that it's case sensitive. It should only be used for public collection such as **Contact**. Please don't use this approach for private or secured collection. If you don't want public to write data to this collection. You can set the post as private and add new data after you log in to WordPress.

9.2 Example of creating new form and writing data to Firestore

Sample of data that I will use to update to Firestore

```
export interface Contact {
  firstName: string
  lastName: string
  email: string
  phone: string
  age: string
  dateOfBirth: string
  hobbies: array<string>
  food: array<string>
  gender: string
}
```

From that you can create a sample form in Contact tab. The hidden fields are important.

- [hidden collectionName "users"] -> collection name is users.
- [hidden documentId "1"] -> it will override the document id 1. This field is optional.
- [hidden databaseType "firestore"] -> data will be saved in firestore.
- [hidden arrayType "hobbies,food"] -> array data should be added to arrayType field. This field is optional.
- [hidden dateType "dateOfBirth"] -> will save as ISO string type. This field is optional.

```
[hidden collectionName "users"]
[hidden documentId "1"]
[hidden databaseType "firestore"]
[hidden arrayType "hobbies,food"]
[hidden dateType "dateOfBirth"]

[text* firstName placeholder "First Name"]
[text* lastName placeholder "Last Name"]
[text* email placeholder "Email"]
[tel phone placeholder "+1 647 620 0000"]

<label for="age">Age</label>
[number age id:age min:1 max:100]

<label for="dateOfBirth">Date of Birth</label>
[date* dateOfBirth id:dateOfBirth]

<label for="hobbies">Hobbies</label>
[select* hobbies id:hobbies multiple "Archery" "Slap Dance" "Rock Climbing"]

<label for="food">Food</label>
[checkbox food id:food "Pho" "Ramen" "Dimsum"]

<label for="gender">Gender</label>
[radio gender id:gender default:1 "Male" "Female" "Other"]

[submit id:if-data-submit "Submit"]
```

The shortcode will be added to the WordPress page or post. With the id: "if-create-data-form". The id is important in order for the plugin to save the data to firebase.

```
[contact-form-7 id="11" html_id="if-create-data-form" title="Contact form 1"]
```

After submitting, data will be saved to Firestore

9.3 Example of creating new form and writing data to Realtime

If you want to save data to Realtime database, the only thing that you need to change is the databaseType hidden field.

```
[hidden databaseType "realtime"]
```

If there form is valid, the data will be saved to realtime database

9.4 Addition Settings

Contact form 7 comes with extra configurations. If you don't want to send a confirmation email to customers, you can this line to the addition settings.

```
skip_mail: on
```

9.5 Reference

<https://contactform7.com/additional-settings/> <https://contactform7.com/hidden-field/>

Dale

Nguyen

dale@dalenguyen.me

+1 234 567 8910

Age

21

Date of Birth

14/05/1980

Hobbies

Archery

Slap Dance

Rock Climbing

Food

☒ Pho

☒ Ramen

☐ Dimsum

Gender

☒ Male

☐ Female

☐ Other

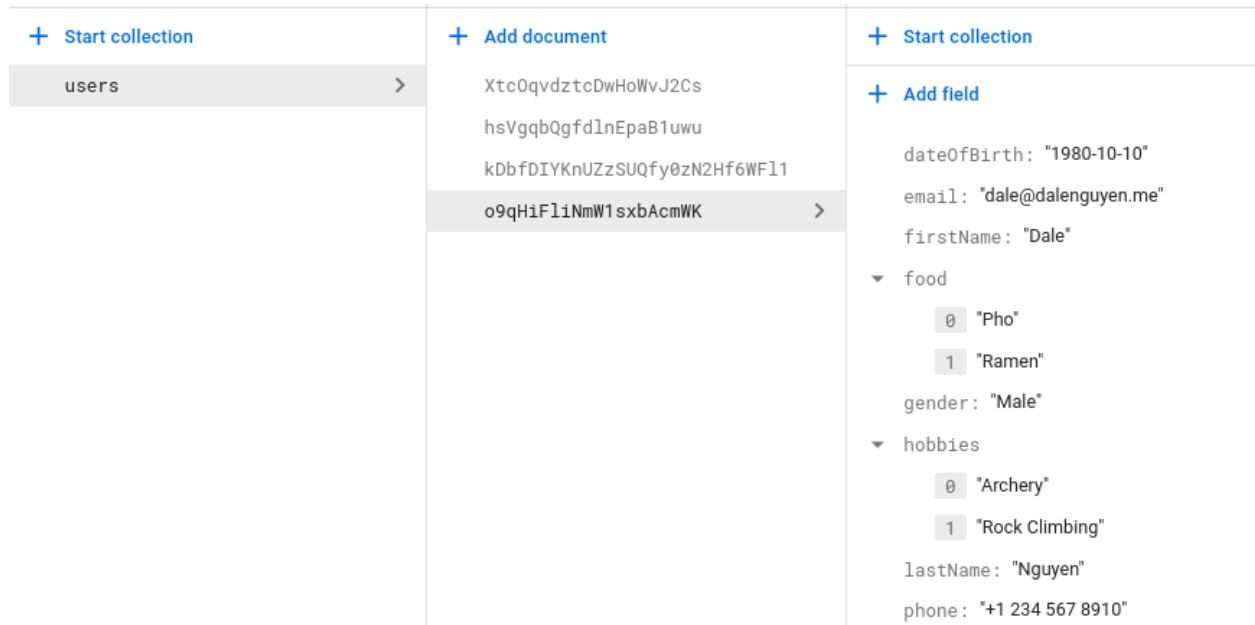


Fig. 3: Data saved to firestore

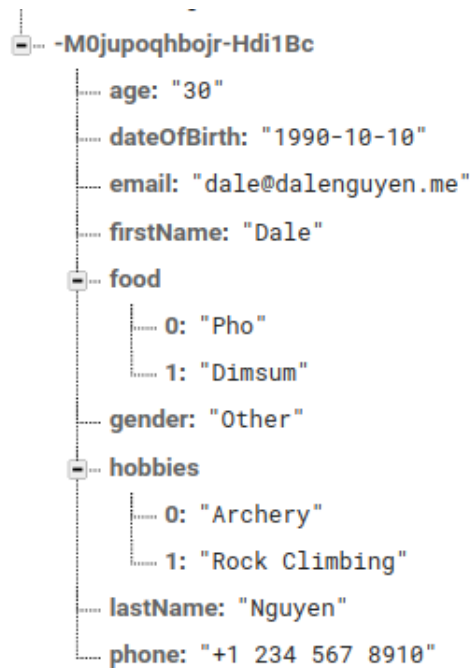


Fig. 4: Data saved to realtime

How to Retrieve Data from Firestore and Display on WordPress

In this tutorial, I will show you how to retrieve the database from your Firestore and display it on the WordPress website. Before that, make sure you have:

- Install and active Integrate Firebase plugin
- Update the firebase configuration on the Firebase dashboard
- Make sure that Firebase security rules allow you to access the document with or without logging in

The plugin support getting one document and display on the frontend as a table with the shortcode.

```
// Get document id '1' from 'users' collection from realtime database
[realtime class='your-class-name' collection_name='users' document_name='1']

// Get document id '1' from 'users' collection from firestore
[firestore class='your-class-name' collection_name='users' document_name='1']
```

If the default shortcode doesn't suite your needs, you can create a custom one. Please follow the guide below.

10.1 Step 1: Create a custom shortcode

You can do this by edit functions.php in your current theme

```
// functions.php

// custom firebase short code
function custom_firebase_func($atts)
{
    return "<div id='custom-firebase'>Test</div>";
}
add_shortcode('custom_firebase', 'custom_firebase_func');
```

Add the shortcode on a page or post

displayName	Dale Nguyen
email	dungnq@itbox4vn.com
photoURL	https://lh5.googleusercontent.com/-z_469Er-kgo/AAAAAAAAAAI/AAAAAAAAAAcc/RUPjZINaMpQ/photo.jpg
role	guest,admin
uid	kDbfDIYKnUZzSUQfy0zN2Hf6WFI1

Fig. 1: Display data from firebase

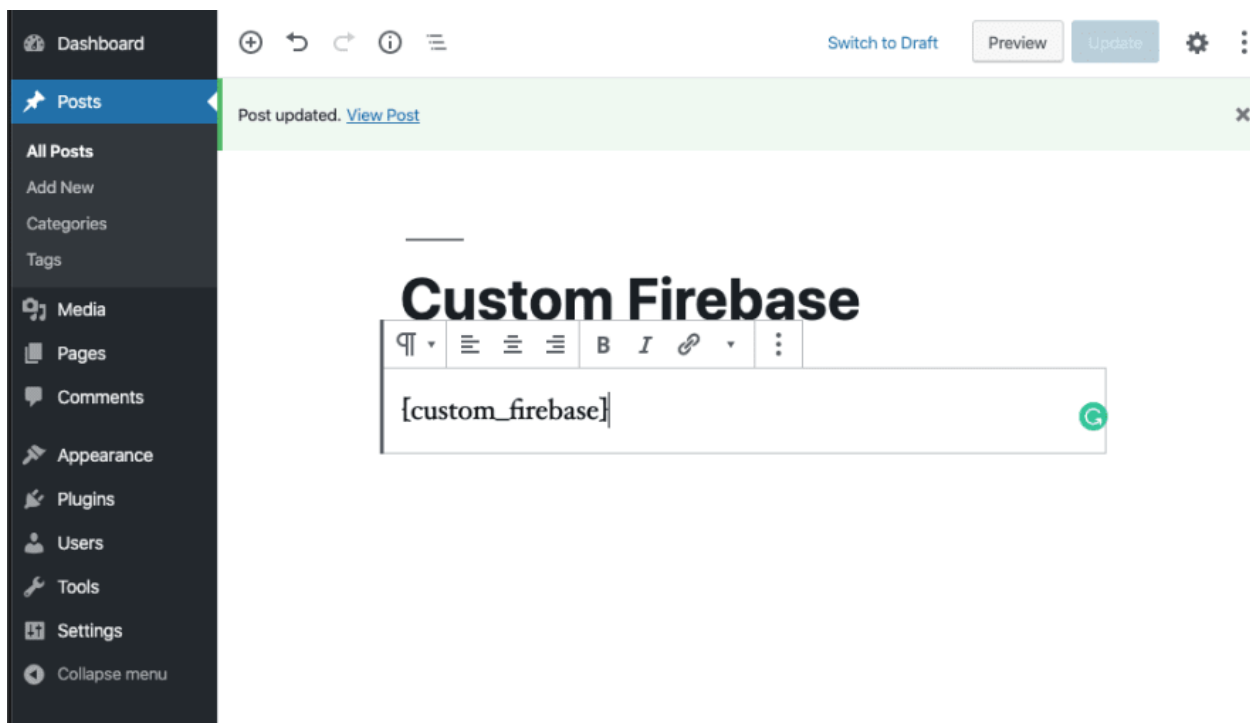
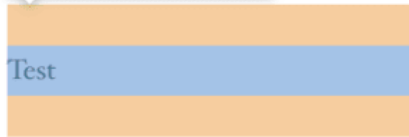


Fig. 2: Custom Firebase Shortcode

Custom Firebase

admin May 25, 2019

1 Comment Edit
div#custom-firebase 314 x 39



admin May 25, 2019

Uncategorized Edit

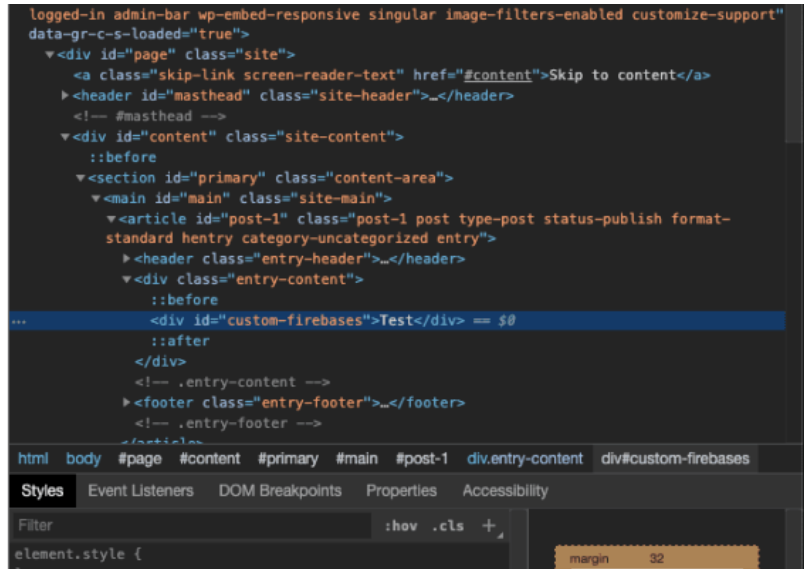


Fig. 3: Custom Firebase Shortcode Frontend

10.2 Step 2: Add custom javascript file

Again, you can do this by editing your functions.php

```
// functions.php

// Custom JavaScript for Firebase
function custom_firebase_scripts_function()
{
    wp_enqueue_script('custom_firebaes', get_template_directory_uri() . '/js/custom-
    ↪firebase.js', array('firebase_app', 'firebase_auth', 'firebase_database', 'firebase_
    ↪firestore', 'firebase'));
}
add_action('wp_enqueue_scripts', 'custom_firebase_scripts_function');
```

Your custom-firebase.js will be under js/ folder

Verify it on the front-end. You have access to firebase now.

Custom JS shows

10.3 Step 3: Retrieve and display data from Firestore

Now, it's all about JavaScript. You can customize, modify and do whatever you want.

```
(function ($) {
    'use strict';
    $(document).ready(function () {
        const showFirestoreDatabase = () => {
            const db = firebase.firestore();
            const firestoreEl = jQuery('#custom-firebase');
```

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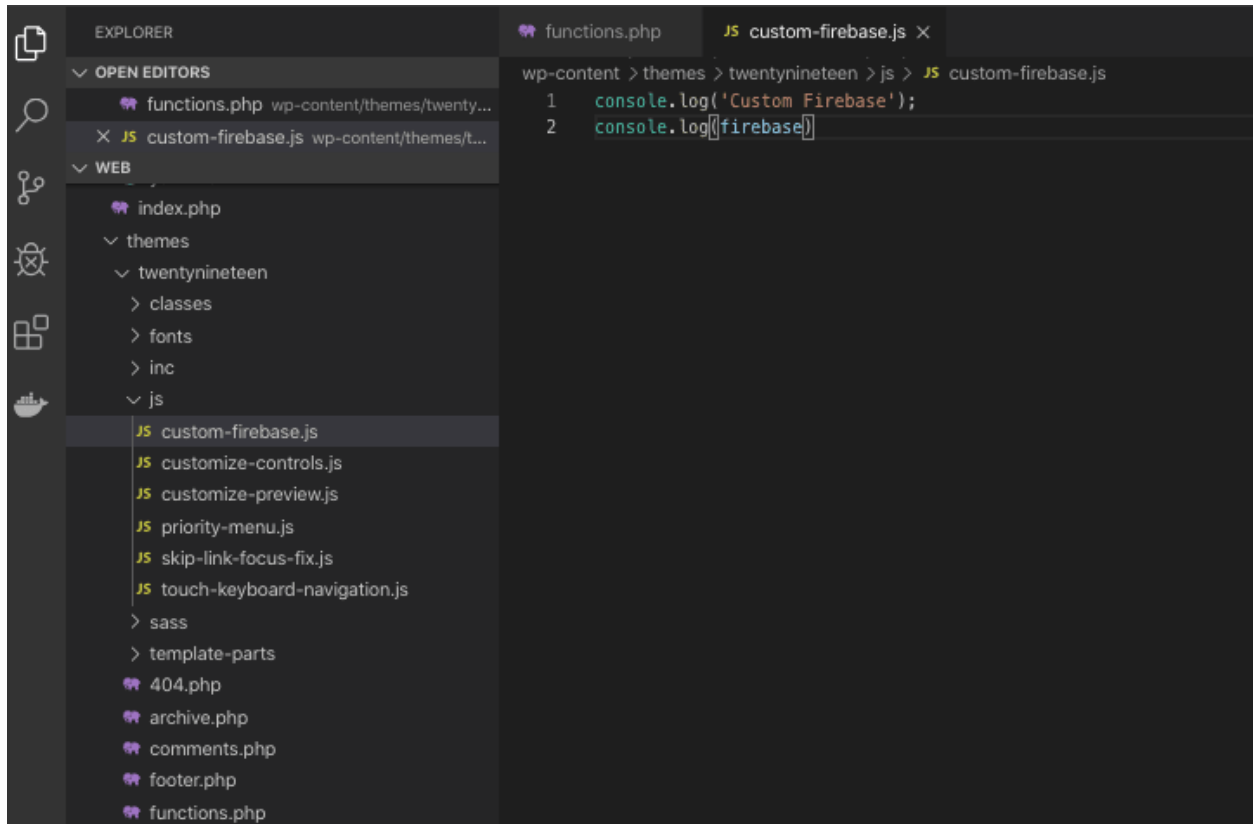


Fig. 4: Custom Firebase Location

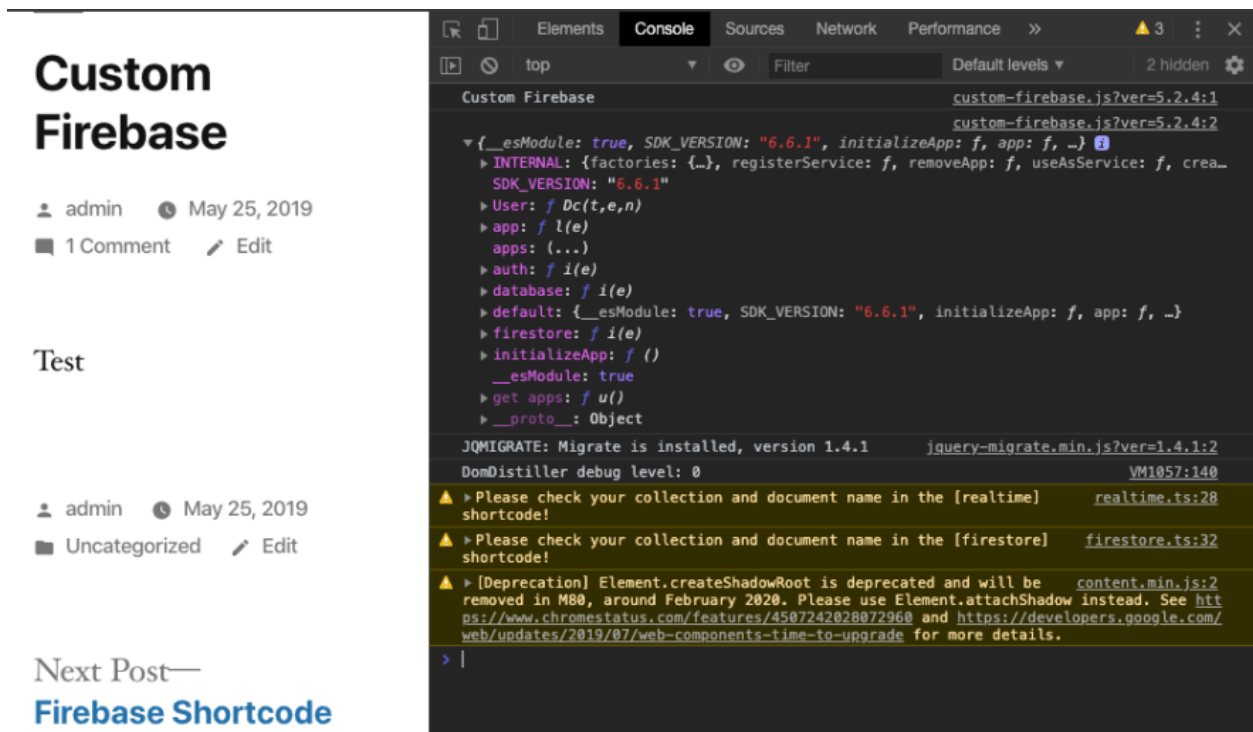


Fig. 5: Verify custom firebase on frontend

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```

// You can get the collectionName and documentName from the shortcode_
↪attribute
const collectionName = 'users';
const documentName = 'document-1'

if (collectionName && documentName) {
  const docRef = db.collection(collectionName).doc(documentName);

  docRef.get().then(doc => {
    if (doc.exists) {
      // console.log('Document data:', doc.data());
      let html = '<table>';
      jQuery.each(doc.data(), function (key, value) {
        // You can put condition to filter your value
        // and it won't show on the frontend
        html += '<tr>';
        html += '<td> ${String(key)} </td>';
        html += '<td>' + value + '</td>';
        html += '</tr>';
      })
      html += '</table>';
      firestoreEl.append(html)
    } else {
      // doc.data() will be undefined in this case
      console.error('Please check your collection and document name_
↪in the [firestore] shortcode!');
    }
  }).catch(error => {
    console.error('Please check your collection and document name in_
↪the [firestore] shortcode!', error);
  });
} else {
  console.warn('Please check your collection and document name in the_
↪[firestore] shortcode!');
}

showFirestoreDatabase()
})
})(jQuery)

```

Check the code on the WordPress post.

Yay, firestore data is retrieved

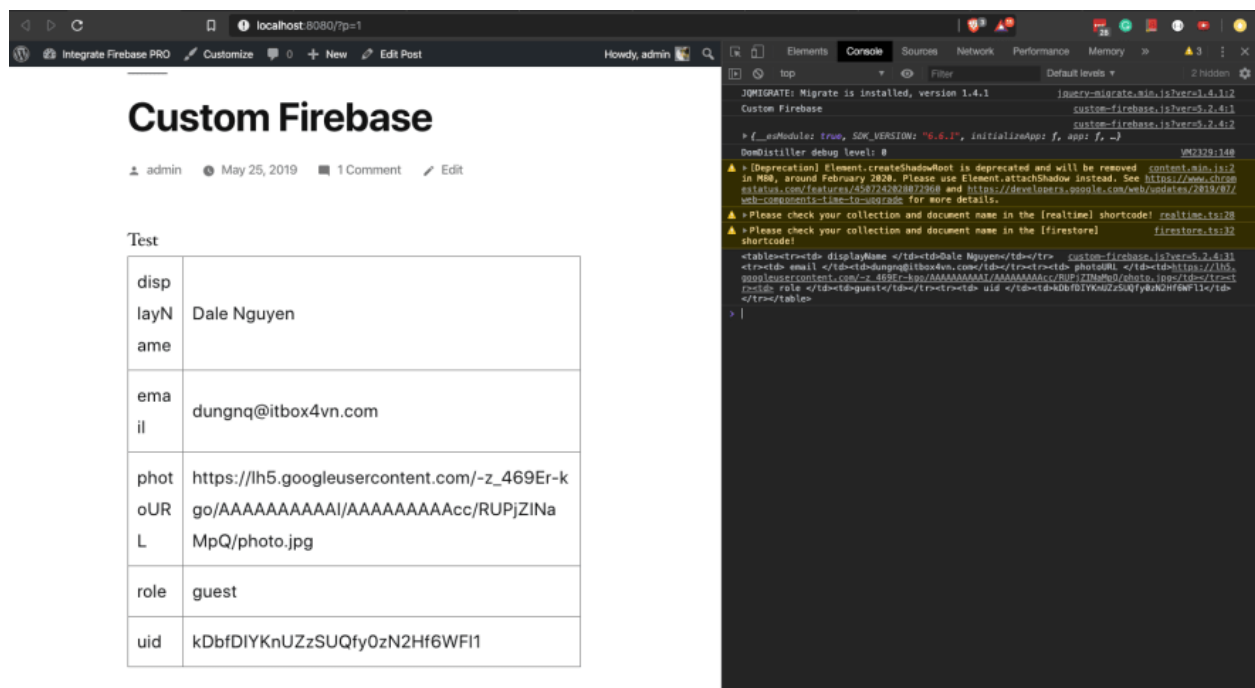


Fig. 6: Firestore data retrieved

How to Work With Firebase Custom Claims in WordPress

We already knew how to get and display data to WordPress. What if you want to display data to the user who is admin (through custom claims of course), and display something else to the others or just show nothing.

11.1 Using shortcode to display custom data

Since version 0.5.6, I added a shortcode that helps to display data if users log in and have the right custom claims.

```
[firebase_show_with_claims
  class='your-class-name'
  claims='admin'
  message='Custom message'
]
  HTML Data With Tags
[/firebase_show_with_claims]
```

- `class='your-class-name'`: custom class that you can add style to the element
- `claims='admin'`: user's claims
- `message='Custom message'`: this message will show to invalid user

11.2 Using custom code to display custom data

This is the original code to retrieve and display data.

```
(function ($) {
  'use strict';
  $(document).ready(function () {
    const showFirestoreDatabase = () => {
      const db = firebase.firestore();
```

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(continued from previous page)

```

const firestoreEl = jQuery('#custom-firebase');

// You can get the collectionName and documentName from the shortcode_
↳attribute
const collectionName = 'users';
const documentName = 'document-1'

if (collectionName && documentName) {
  const docRef = db.collection(collectionName).doc(documentName);

  docRef.get().then(doc => {
    if (doc.exists) {
      // console.log('Document data:', doc.data());
      let html = '<table>';
      jQuery.each(doc.data(), function (key, value) {
        // You can put condition to filter your value
        // and it won't show on the frontend
        html += '<tr>';
        html += '<td> ${String(key)} </td>';
        html += '<td>' + value + '</td>';
        html += '</tr>';
      })
      html += '</table>';
      firestoreEl.append(html)
    } else {
      // doc.data() will be undefined in this case
      console.error('Please check your collection and document name_
↳in the [custom_firebase] shortcode!');
    }
  }).catch(error => {
    console.error('Please check your collection and document name in_
↳the [custom_firebase] shortcode!', error);
  });
} else {
  console.warn('Please check your collection and document name in the_
↳[custom_firebase] shortcode!');
}

showFirestoreDatabase()
})
})(jQuery)

```

The **showFirestoreDatabase()** function will display data on WordPress. Now, we will wrap it under custom claims check.

```

(function ($) {
  'use strict';
  $(document).ready(function () {
    const showFirestoreDatabase = () => {
      ...
    }
    // We won't call the function directly here
    // showFirestoreDatabase()

    const getUserCustomClaims = () => {

```

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```

        firebase.auth().onAuthStateChanged(function (user) {
            if (firebase.auth().currentUser) {
                firebase.auth().currentUser.getIdTokenResult()
                    .then((idTokenResult) => {
                        // Confirm the user is an Admin.
                        if (!!idTokenResult.claims.admin) {
                            // We will call the function here
                            showFirestoreDatabase()
                        } else {
                            // Show something else
                        }
                    })
                .catch((error) => {
                    console.log(error);
                });
            }
        });

        getUserCustomClaims()
    })
})(jQuery)

```

After checking the user's custom claims, and make sure that it's admin. Then we will call showFirestoreDatabase() function.

This tutorial doesn't limit to retrieve data from Firestore, you can put any functions or features after checking the custom claims.

CHAPTER 12

Use Cases for Integrate Firebase PRO

This part contains a list of use cases that can be achieved with the plugin:

WordPress CMS for Mobile Apps (Ionic + Firebase)

CHAPTER 13

Troubleshooting

If you have any errors or questions during the setting up, you can open the inspect on the browser, please go to the console log tab, then take a snapshot and send an email to me at: dale@dalenguyen.me.

Before doing that, you can take a look at the playlist on [How to Integrate Firebase to WordPress](#).

CHAPTER 14

Roadmap

Here is the of the feature that I will add for the next release.

- Realtime & Firestore CRUD on Dashboard
- Improve Firebase Cloud Message (FCM) integration
- Integrate Storage management on Dashboard
- WooCommerce integration
- Import WordPress posts, pages. . . to Firebase

If you have a feature request, please create a [ticket](#).

CHAPTER 15

CHANGELOG

All notable changes to this project will be documented in this file.

15.1 ## [0.11.1] - 07-04-2020

- Showed warning if base domain is not set
- Check for undefined in order to pass error check
- Updated options for plugin deletion

15.2 ## [0.11.0] - 02-04-2020

- Used wait for element rather than setTimeout
- Added logout event to all logout links
- Added post thumbnail and author name to Firebase Sync
- Updated Firebase script from 7.9.3 to 7.13.1

15.3 ## [0.10.0] - 01-04-2020

- Added date type for saving data to Firebase
- Increase time wait for error in form submit to Firebase

Dependency: cloud functions: v0.9.0

15.4 ## [0.9.1] - 29-03-2020

- Fixed ArrayType when saving data to Realtime/Firestore
- Fixed WP post type is null when sync data to Firebase
- Removed notice warning for post types

Dependency: cloud functions: v0.8.0

15.5 ## [0.9.0] - 28-03-2020

- Fixed save data to realtime / firestore token error
- Added document id option when saving data
- Added trigger for syncing post and page to Firebase

Dependency: cloud functions: v0.8.0

15.6 ## [0.8.0] - 24-03-2020

- Logout of everything when clicking signout buttons
- Added warning before deleting a Firebase user
- Added user role (Customer) for WooCommerce sites
- Prevent user to change password when login through firebase is active
- User password will be dominated by Firebase procedure

Dependency: cloud functions: v0.7.0

15.7 ## [0.7.0] - 13-03-2020

- Styled add new user button
- Created and log in Firebase Users to WordPress
- Redirect login page feature
- Added Rest API for creating new Users (Subscriber)
- Updated FirebaseUI Web to 4.5.0
- Bring Firebase Menu to the front
- Prevent normal user to see dashboard token when they log in
- Updated about page
- Show realtime & firestore data based on security rules

15.8 ## [0.6.0] - 01-03-2020

- Update firebase scripts from 7.8.2 to 7.9.3
- Added send cloud message to a topic feature

15.9 ## [0.5.8] - 20-02-2020

- Breaking change for getting database: you need to update wordpress firebase functions to 0.5.8.
- Added create data for Realtime database & firestore with Contact Form 7
- Added warning for missing [firebaseui_web] globally
- Moved environment variables to one source

15.10 ## [0.5.7] - 16-02-2020

- Updated firebase scripts to v7.8.2
- Hide greetings when signing out

15.11 ## [0.5.6] - 21-12-2019

- Display data with claims

15.12 ## [0.5.5] - 21-12-2019

- Breaking changes
- Deprecated authentication process and replaced with firebaseui-web

15.13 ## [0.5.4] - 01-12-2019

- Updated packages
- Moved error and message to the top of dashboard
- Add CRUD to manage Firebase User from Dashboard

15.14 ## [0.5.3] - 22-09-2019

- Added user register form to frontend #4
- Show firestore database after login #10
- Added delete user from dashboard #11
- Search document from firestore or realtime

- Update firebase version

15.15 ## [0.5.2] - 30-03-2019

- Show realtime database after login

15.16 ## [0.5.1] - 11-08-2018

- Hide login form after logging in

15.17 ## [0.5.0] - 04-08-2018

- Add shortcode to display when not login
- Add error handling shortcode

15.18 ## [0.4.0] - 17-07-2018

- Added Firestore database support in Dashboard

15.19 ## [0.3.2] - 17-07-2018

- Fixed firebase-show shortcode

15.20 ## [0.3.1] - 17-07-2018

- Fixed getting credentials

15.21 ## [0.3.0] - 02-07-2018

- Added about information
- Added Real Time database support in Dashboard

15.22 ## [0.2.0] - 25-5-2018

- Added firebase scripts and styles to header
- Implement login and logout features

15.23 ## [0.1.0] - 20-4-2018

- Started the project and add an authentication method