



GDG DevFest

Porto-Novo 2018



Firestore Codelabs

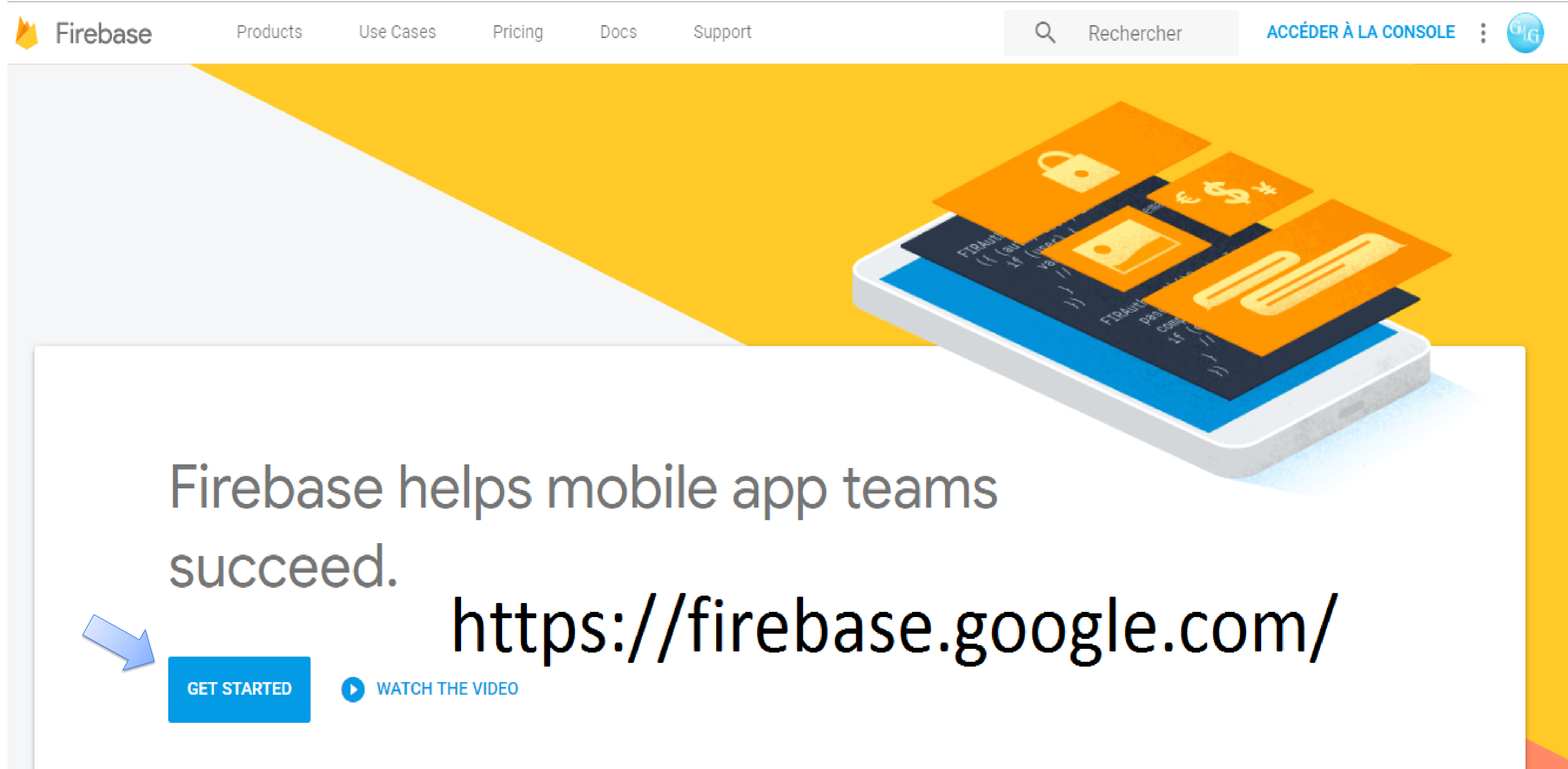


Marnel Gnacadja
@marnel_fr

Configurer Firebase



Home page - Firebase



The screenshot shows the top navigation bar of the Firebase website. It includes the Firebase logo, links for Products, Use Cases, Pricing, Docs, and Support, a search bar with the text 'Rechercher', and a link to 'ACCÉDER À LA CONSOLE' next to a Google Assistant icon. The main hero section features a large illustration of a smartphone with several orange cards floating above it, each containing a different icon representing Firebase services like authentication, database, and analytics. Below the illustration, the text 'Firebase helps mobile app teams succeed.' is displayed. To the right of this text is the URL 'https://firebase.google.com/'. Below the text and URL, there are two buttons: 'GET STARTED' and 'WATCH THE VIDEO'. A blue arrow points to the 'GET STARTED' button.

Firebase

Products Use Cases Pricing Docs Support

Rechercher

ACCÉDER À LA CONSOLE

Firebase helps mobile app teams succeed.

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

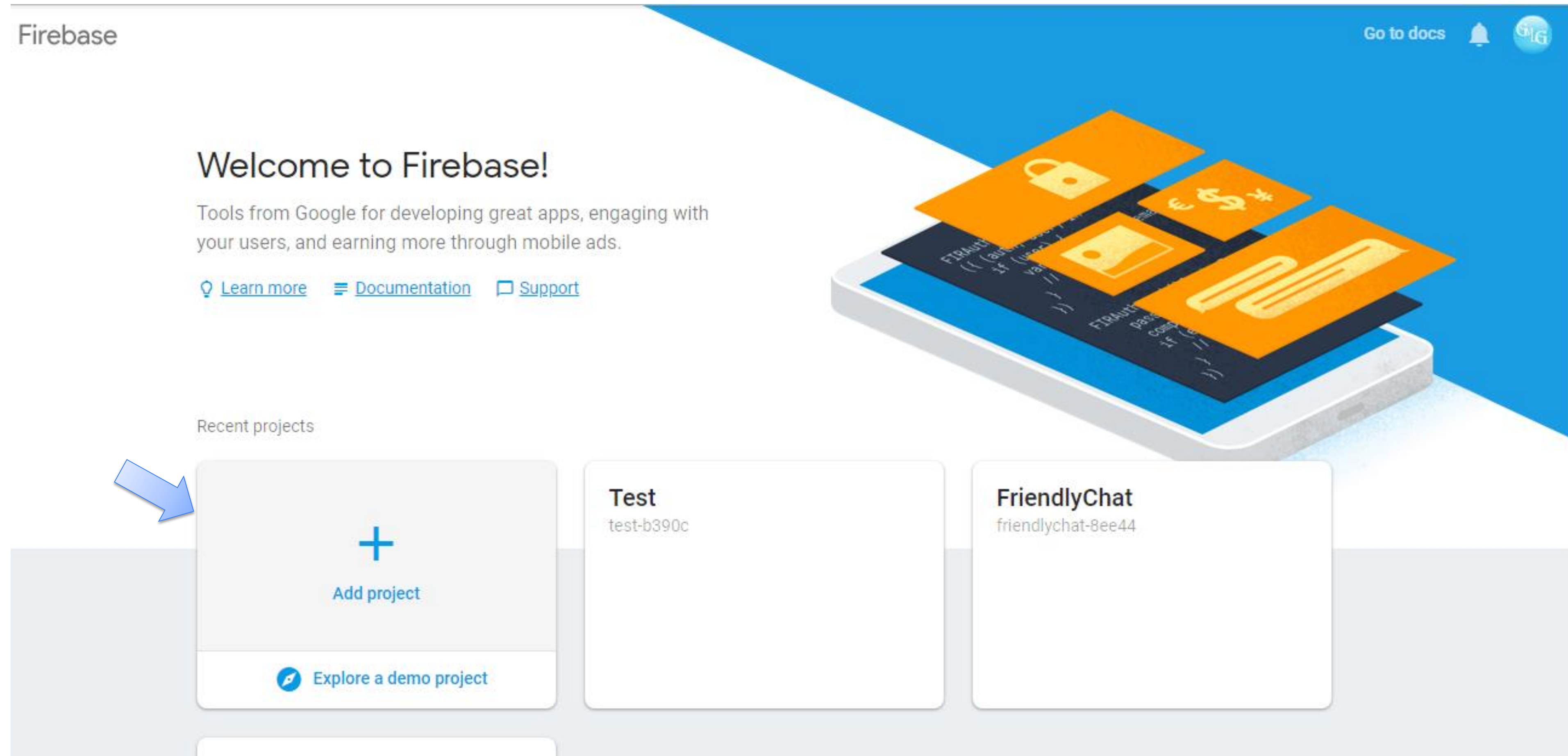
GET STARTED

WATCH THE VIDEO

Cliquer sur "GET STARTED"



Ajout de projet - Firebase



Cliquer sur "Add projet"



Ajout de projet - Firebase

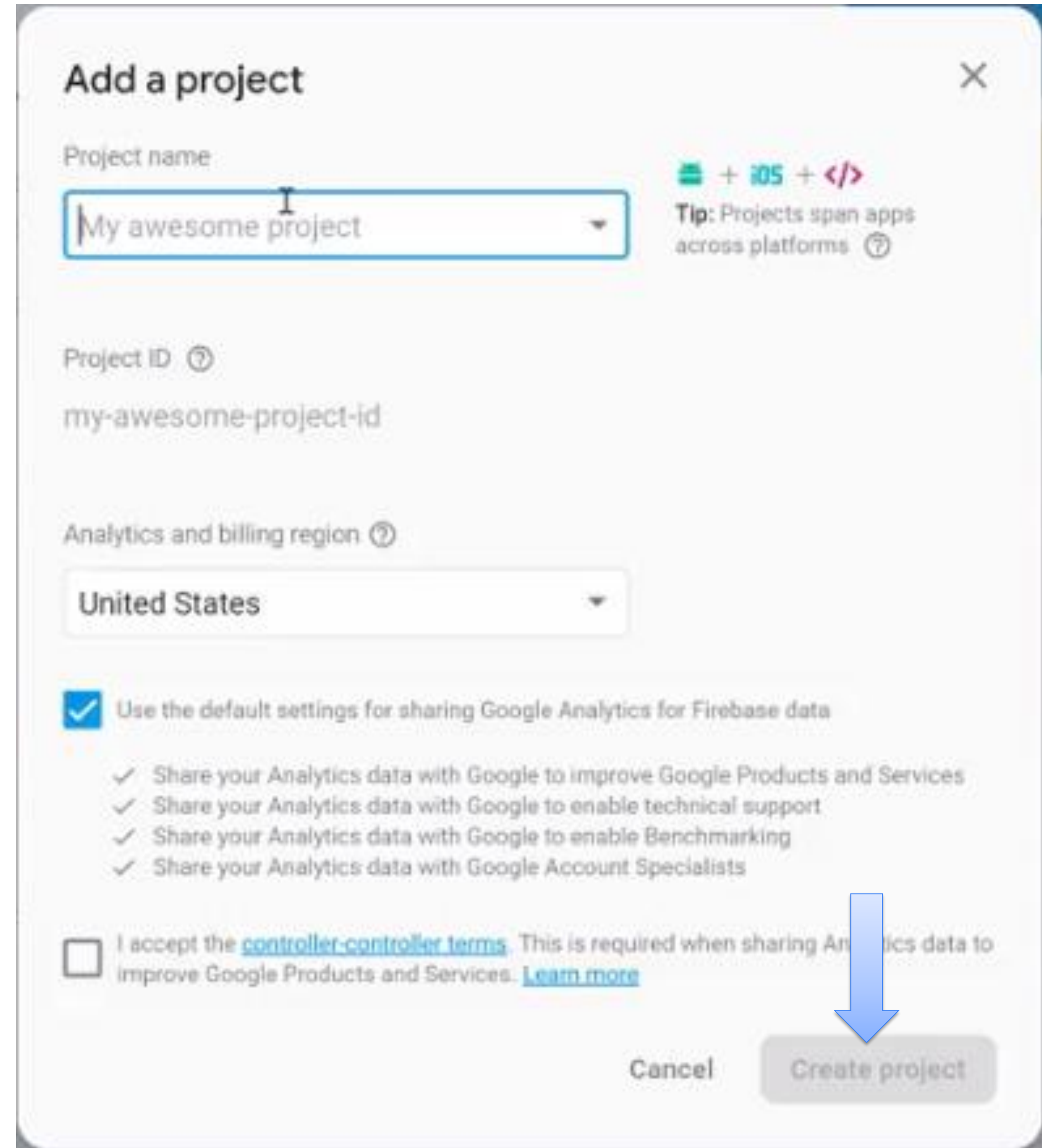
Donner un nom au projet => "**PHP-Firebase**"

Project-ID => "**php-firebase-1234**"

Choisir une région => "**Benin**"

Accepter les termes

Cliquer sur "**Create project**"



The screenshot shows the 'Add a project' dialog box in the Firebase console. It includes a close button (X) in the top right corner. The 'Project name' field contains 'My awesome project' and is highlighted with a blue border. To its right, there are icons for Android, iOS, and a code editor icon, along with a tip: 'Tip: Projects span apps across platforms'. Below the project name, the 'Project ID' field contains 'my-awesome-project-id'. The 'Analytics and billing region' dropdown menu is set to 'United States'. A checkbox labeled 'Use the default settings for sharing Google Analytics for Firebase data' is checked. Below this, there are four checkmarks indicating the benefits of sharing analytics data: 'Share your Analytics data with Google to improve Google Products and Services', 'Share your Analytics data with Google to enable technical support', 'Share your Analytics data with Google to enable Benchmarking', and 'Share your Analytics data with Google Account Specialists'. At the bottom, there is an unchecked checkbox for 'I accept the controller-controller terms. This is required when sharing Analytics data to improve Google Products and Services. Learn more'. The 'Create project' button is highlighted with a blue arrow pointing to it, and a 'Cancel' button is also visible.

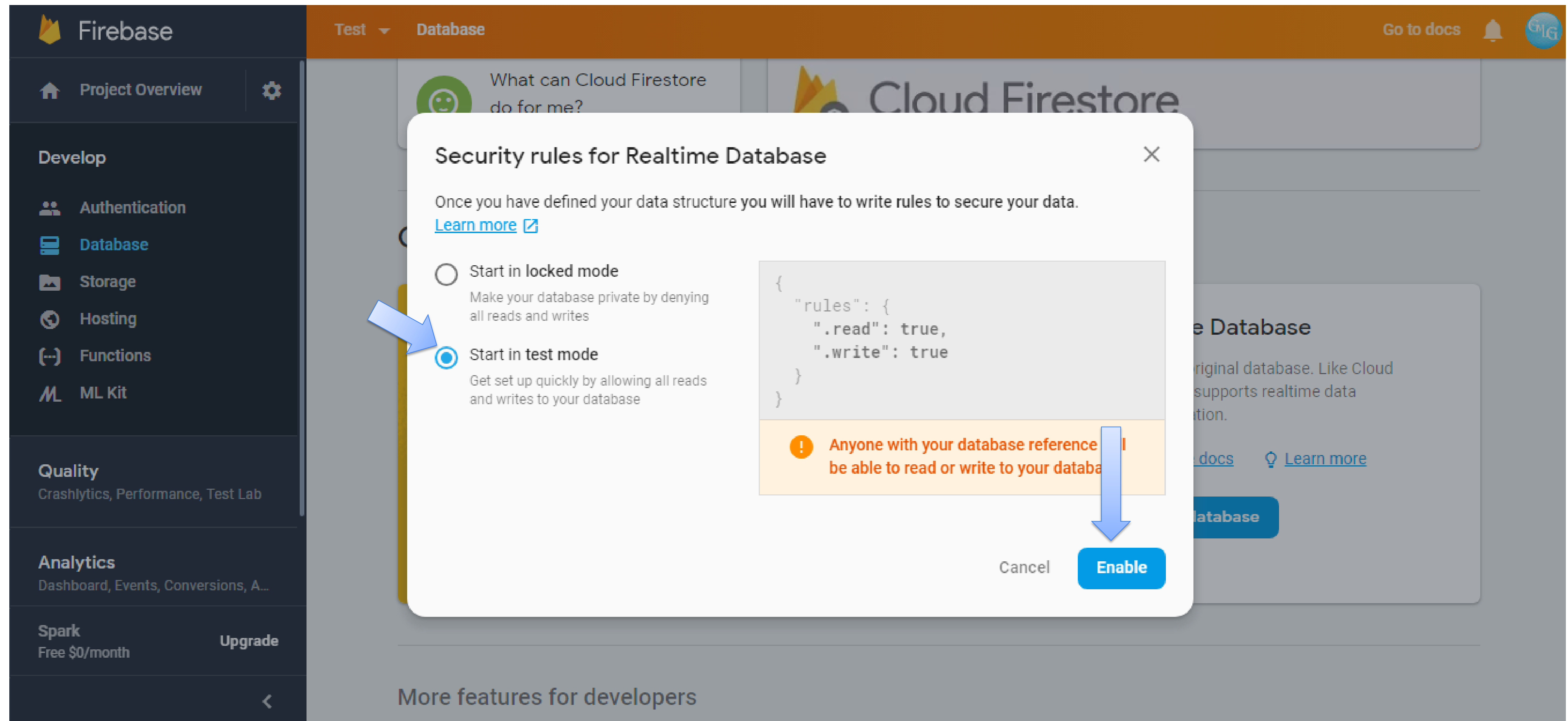
Ajout de base de données- Firebase

The screenshot shows the Firebase console interface. On the left is a dark sidebar with the 'Firebase' logo at the top. Below it are sections: 'Project Overview' with a home icon and settings gear; 'Develop' with links for 'Authentication', 'Database' (highlighted with a blue arrow), 'Storage', 'Hosting', 'Functions', and 'ML Kit'; 'Quality' with 'Crashlytics, Performance, Test Lab'; 'Analytics' with 'Dashboard, Events, Conversions, A...'; and 'Spark' with 'Free \$0/month' and an 'Upgrade' button. The main content area has an orange header with 'Test' and 'Database' tabs, and 'Go to docs', a bell icon, and a Google logo. Below the header, there's a 'What can Cloud Firestore do for me?' card with a 'Learn more' link, and a 'Cloud Firestore' card. A section titled 'Or choose Realtime Database' features a graphic of three server racks with orange and yellow lines connecting them to a white box on the right. This box contains the title 'Realtime Database', a description: 'Firebase's original database. Like Cloud Firestore, it supports realtime data synchronization.', links for 'View the docs' and 'Learn more', and a blue 'Create database' button. A blue arrow points from the 'Create database' button back to the 'Database' link in the sidebar. At the bottom of the main area is a link for 'More features for developers'.

Cliquer sur **Database** => **Create database**



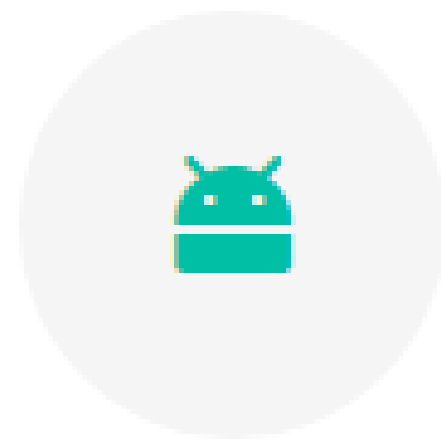
Ajout de base de données- Firebase



Mettons nous en **test mode** => **Enable**



DocOfficiel - Langues supportés



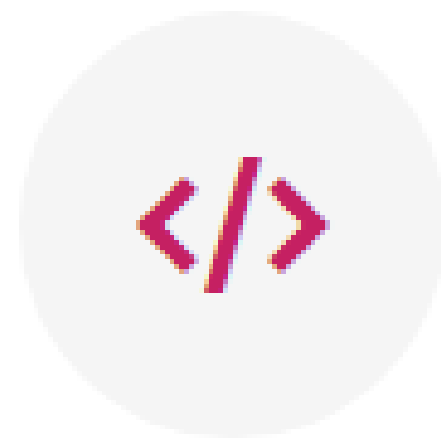
Android guides

Get started now



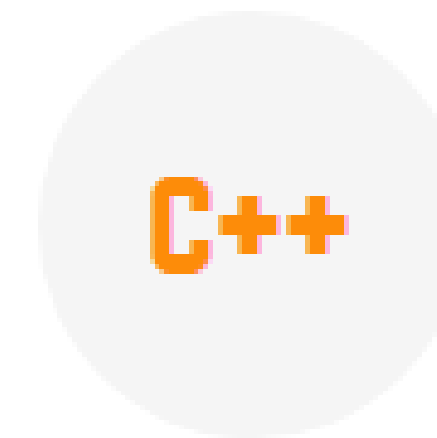
iOS guides

Get started for Swift & Obj-C



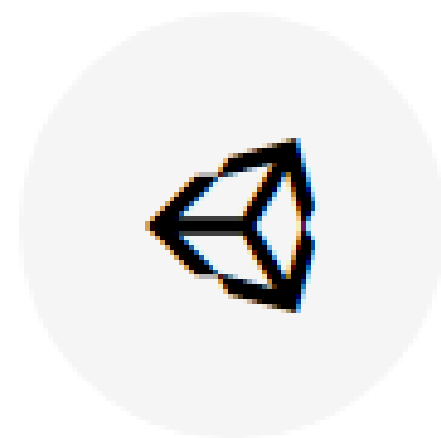
Web guides

Get started for JS Client



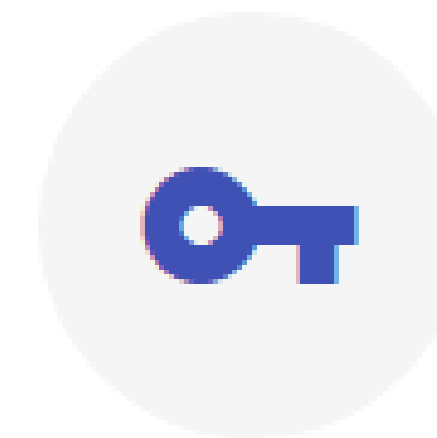
C++ guides

Get started now



Unity guides

Get started now



Admin guides

Get started now


Il n'existe pas de documentation officielle pour PHP



Et PHP alors ?



Firebase Admin SDK

 **Firestore Admin SDK for PHP**
latest

Search docs

Overview

Setup

Realtime Database

Authentication

User management

Storage


Remote Config

Cloud Messaging

Troubleshooting

HIRE DEVELOPERS
With Read the Docs

Recruiting developers?
[Read the Docs can help!](#)

 Read the Docs

v: latest ▼

Docs » Firestore Admin SDK for PHP

 [Edit on GitHub](#)

Firestore Admin SDK for PHP

Interact with [Google Firestore](#) from your PHP application.

license **MIT** stars **634** downloads **373k** downloads **361/day**

Note

If you are interested in using the PHP Admin SDK as a client for end-user access (for example, in a web application), as opposed to admin access from a privileged environment (like a server), you should instead follow the instructions for setting up the client JavaScript SDK.

The source code can be found at <https://github.com/kreait/firebase-php/>.

A ready-to-go repository with usage examples can be found at <https://github.com/jeromegamez/firebase-php-examples>.

User Guide

- [Overview](#)
 - [Requirements](#)

<https://firebase-php.readthedocs.io/en/latest/>

Un package, mon préféré ;) permettant d'utiliser
firebase avec PHP



Outil indispensable

(Enfin, pas vraiment 😊)



Dependency Manager for PHP

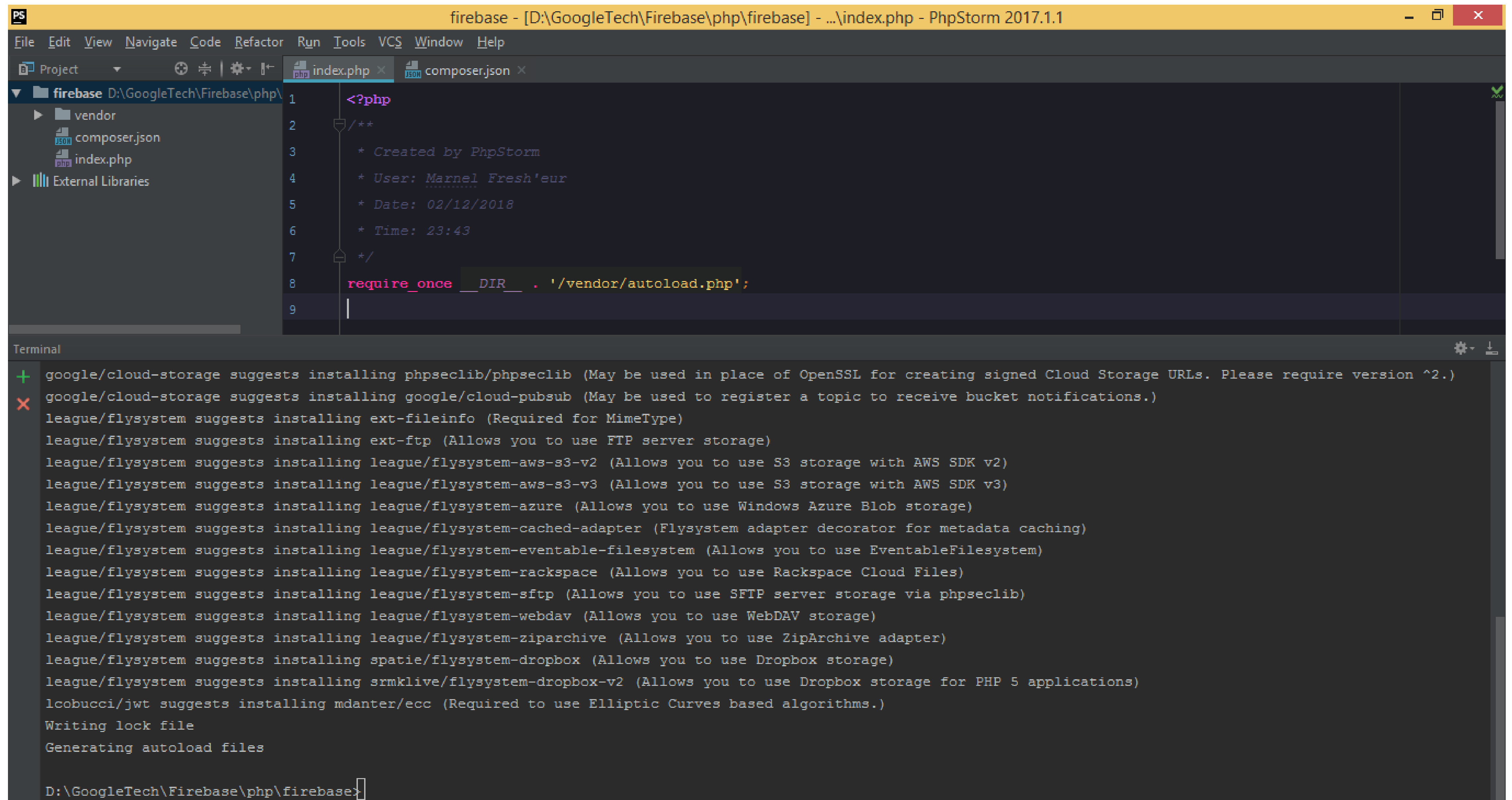
==>

```
C:\Users\Ginola
λ composer --version
Composer version 1.4.2 2017-05-17 08:17:52

C:\Users\Ginola
λ
```

composer require kreait/firebase-php ^4.18





firebase - [D:\GoogleTech\Firebase\php\firebase] - ...\index.php - PhpStorm 2017.1.1

File Edit View Navigate Code Refactor Run Tools VCS Window Help

Project ▾ index.php x composer.json x

▼ firebase D:\GoogleTech\Firebase\php\

- ▶ vendor
 - composer.json
 - index.php
- ▶ External Libraries

```
1 <?php
2 /**
3  * Created by PhpStorm
4  * User: Marnel Fresh'eur
5  * Date: 02/12/2018
6  * Time: 23:43
7  */
8 require_once __DIR__ . '/vendor/autoload.php';
9
```

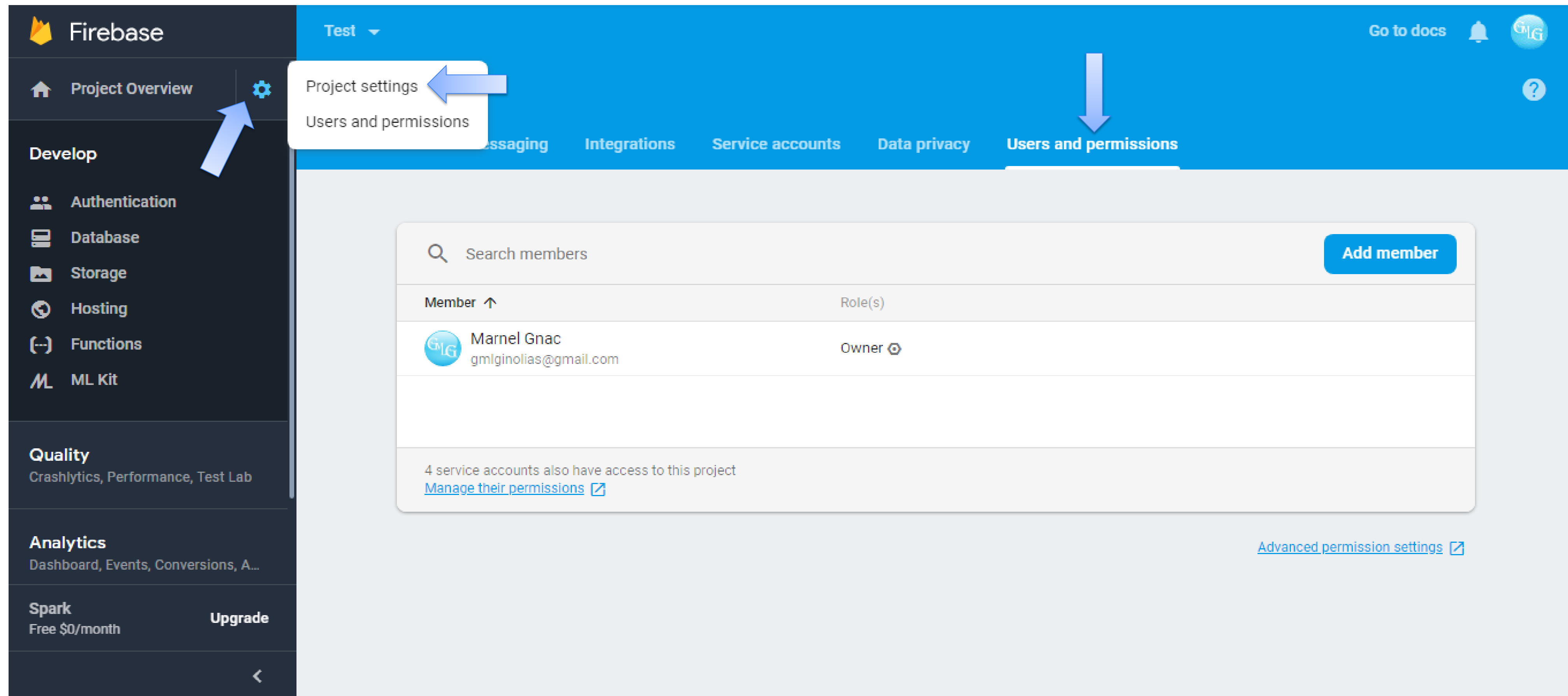
Terminal

```
+ google/cloud-storage suggests installing phpseclib/phpseclib (May be used in place of OpenSSL for creating signed Cloud Storage URLs. Please require version ^2.)
X google/cloud-storage suggests installing google/cloud-pubsub (May be used to register a topic to receive bucket notifications.)
league/flysystem suggests installing ext-fileinfo (Required for MimeType)
league/flysystem suggests installing ext-ftp (Allows you to use FTP server storage)
league/flysystem suggests installing league/flysystem-aws-s3-v2 (Allows you to use S3 storage with AWS SDK v2)
league/flysystem suggests installing league/flysystem-aws-s3-v3 (Allows you to use S3 storage with AWS SDK v3)
league/flysystem suggests installing league/flysystem-azure (Allows you to use Windows Azure Blob storage)
league/flysystem suggests installing league/flysystem-cached-adapter (Flysystem adapter decorator for metadata caching)
league/flysystem suggests installing league/flysystem-eventable-filesystem (Allows you to use EventableFilesystem)
league/flysystem suggests installing league/flysystem-rackspace (Allows you to use Rackspace Cloud Files)
league/flysystem suggests installing league/flysystem-sftp (Allows you to use SFTP server storage via phpseclib)
league/flysystem suggests installing league/flysystem-webdav (Allows you to use WebDAV storage)
league/flysystem suggests installing league/flysystem-ziparchive (Allows you to use ZipArchive adapter)
league/flysystem suggests installing spatie/flysystem-dropbox (Allows you to use Dropbox storage)
league/flysystem suggests installing srmklive/flysystem-dropbox-v2 (Allows you to use Dropbox storage for PHP 5 applications)
lcobucci/jwt suggests installing mdanter/ecc (Required to use Elliptic Curves based algorithms.)
Writing lock file
Generating autoload files
D:\GoogleTech\Firebase\php\firebase>
```

Installation de kreative/firebase-php



Obtenir les identifiants à notre base de données



Cliquer sur  => "Project settings" => "Users and permissions" => "Manage their permissions"



Un nouveau onglet ? 🤔

Your free trial is waiting: activate now to get \$300 credit to explore Google Cloud products. [Learn more](#) DISMISS ACTIVATE

Google Cloud Platform Test

IAM & admin

- IAM
- Identity & Organization
- Organization policies
- Quotas
- Service accounts
- Labels
- Privacy & Security
- Settings
- Cryptographic keys
- Identity-Aware Proxy
- Roles

We have updated some of our Terms of Service. To continue, accept all the updated Terms of Service below.

Terms of service

☒ I agree to the [Google Cloud Platform Terms of Service](#), and the terms of service of [any applicable services and APIs](#).

Country of residence

Benin

Email updates

I would like to receive periodic emails on news, product updates and special offers from Google Cloud and Google Cloud Partners.

☒ Yes ☐ No

[ACCEPT](#)

En attente de console.cloud.google.com...

Oui!! Ici, on va accepter **termes d'usage**, dire si on **veut recevoir des annonces** de nouveauté, puis cliquer sur => "**Accept**"



Un nouveau onglet ?

Google Cloud Platform

Service accounts

Service accounts for project "Test"

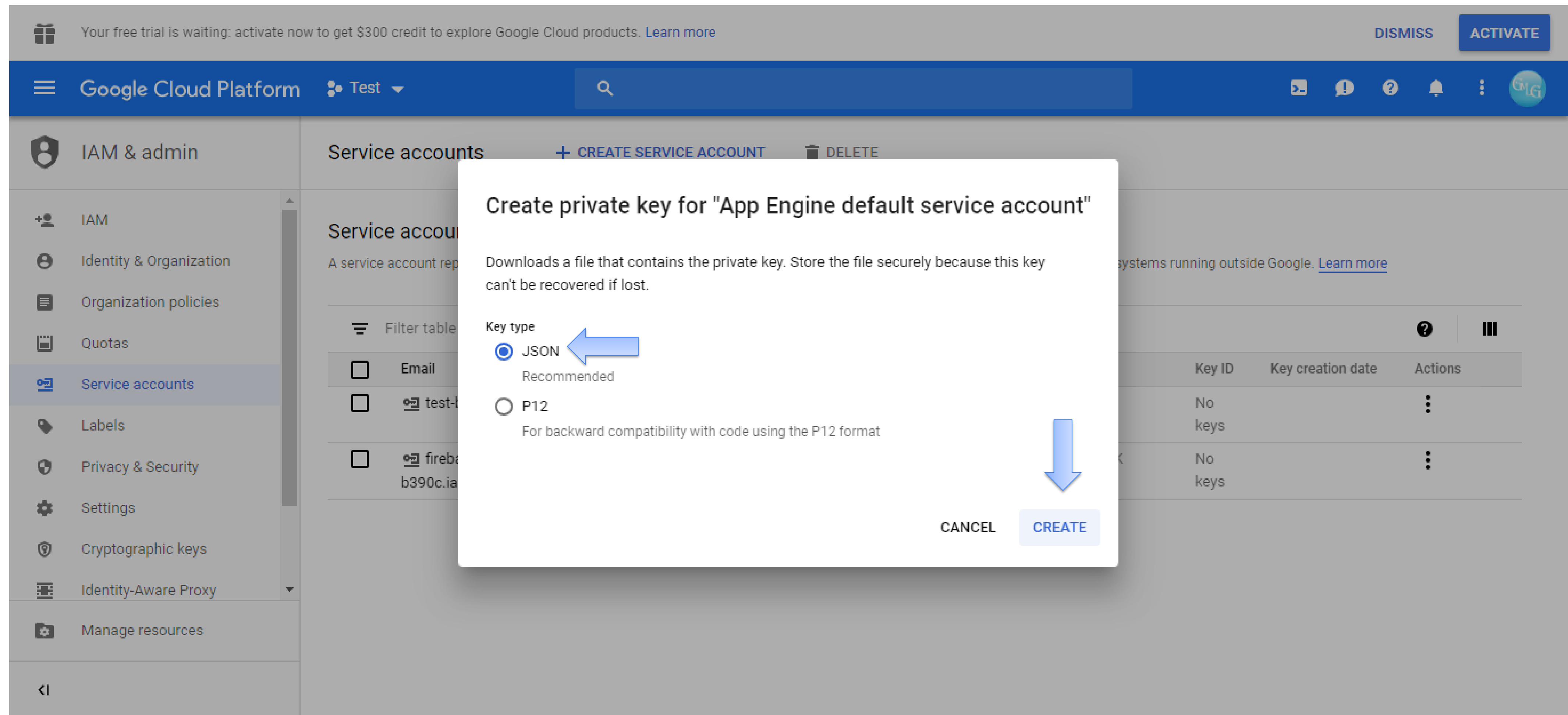
A service account represents a Google Cloud service identity, such as code running on Compute Engine VMs, App Engine apps, or systems running outside Google. [Learn more](#)

	Email	Name	Description	Key ID	Key creation date	Actions
<input type="checkbox"/>	test-b390c@appspot.gserviceaccount.com	App Engine default service account		No keys		<div><div></div><div>Edit</div><div>Delete</div><div>Create key</div></div>
<input type="checkbox"/>	firebase-adminsdk-ha51u@test-b390c.iam.gserviceaccount.com	firebase-adminsdk	Firebase Admin SDK Service Agent	No keys		

Dans l'onglet, cliquer sur "Service accounts" =>  => "Create key"



Un nouveau onglet ? 🤔



Choisir le format "Json"
Cliquer sur
"Create"

==>

Génère et télécharge un fichier json
de nom semblable à
test-b390c-a5cf2394a813.json



Du code, du
code!!!!



Connexion à la base de données

```
8
9  require_once __DIR__ . '/vendor/autoload.php';
10
11  use Krait\Firebase\Factory;
12  use Krait\Firebase\ServiceAccount;
13
14  $serviceAccount = ServiceAccount::fromJsonFile( filePath: __DIR__ . '/key/test-b390c-a5cf2394a813.json' );
15
16  $firebase = (new Factory)
17      ->withServiceAccount($serviceAccount)
18      ->create();
19
20  $database = $firebase->getDatabase();
21
22  var_dump($database);
```



Je m'en fou! J'ai déjà mon fichier **Json**

Grâce au fichier **json**, on peut simplement utiliser la méthode statique **fromJsonFile** de la classe **ServiceAccount**

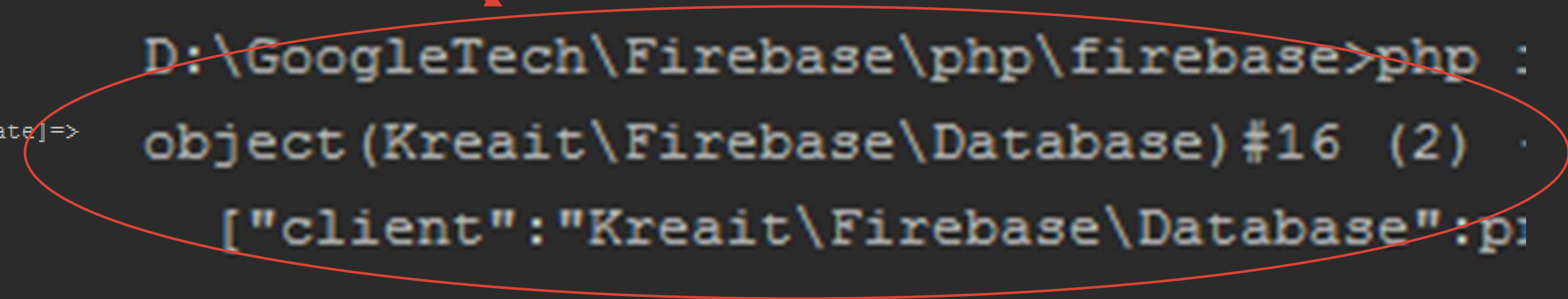

Ceci va nous donner son instance dont à besoin la classe **Factory** pour établir la connexion à la base de données grâce à la méthode **getDatabase**



Connexion à la base de données

```
D:\GoogleTech\Firebase\php\firebase>php index.php
object(Kreait\Firebase\Database)#16 (2) {
    ["client":Kreait\Firebase\Database:private]=>
    object(Kreait\Firebase\Database\ApiClient)#18 (1) {
        ["httpClient":protected]=>
        object(GuzzleHttp\Client)#14 (1) {
            ["config":GuzzleHttp\Client:private]=>
            array(8) {
                ["handler"]=>
                object(GuzzleHttp\HandlerStack)#8 (3) {
                    ["handler":GuzzleHttp\HandlerStack:private]=>
                    object(GuzzleHttp\Handler\StreamHandler)#9 (1) {
                        ["lastHeaders":GuzzleHttp\Handler\StreamHandler:private]=>
                        array(0) {
                        }
                    }
                }
            }
        }
    }
    ["stack":GuzzleHttp\HandlerStack:private]=>
    array(6) {
        [0]=>
        array(2) {
            [0]=>
            object(Closure)#10 (1) {
                ["parameter"]=>
                array(1) {
                    ["$handler"]=>

```



On se retrouve donc avec un objet de la classe
Kreait/Firebase/Database
Contenant notre connexion à la base de données



Insertion en base de données

```
20 $database = $firebase->getDatabase();
21
22 $newPost = $database->getReference( path: 'blog/post')
23     ->push([
24         'title' => 'Mon premier post',
25         'content' => 'Ceci est mon premier post dans une base de données firebase ;) '
26     ]);
27
```

getReference permet de définir une référence, un chemin d'accès aux données dans la base de données.

Un peu comme les collections dans mongoDB



Facon c'est facile

Push, comme si on avait à faire à un simple tableau PHP, permet de rajouter des enregistrement à notre collection



Affichage des données dans la console



Mon poste !!



Notre poste est bien enregistrée en base de données et trouvable dans la **console firabase**



Récupération de données de la base de données

```
32 $reference = $database->getReference( path: 'blog/post' );
33 $snapshot = $reference->getSnapshot();
34 $value = $snapshot->getValue();
35
36 var_dump($value);
```

getSnapshot récupère les données contenu dans une référence de la base de données au moment où elle est appelé

Un peut comme notre

select * from blog.post

getValue retourne simplement son contenu



Recuperation de données de la base de données

```
D:\GoogleTech\Firebase\php\firebase>php index.php
array(2) {
  ["-LSq0TES8bpiKpSkA-2F"]=>
  array(2) {
    ["content"]=>
    string(63) "Ceci est mon premier post dans une base de données firebase ;)"
    ["title"]=>
    string(16) "Mon premier post"
  }
  ["-LSq7Yirdb7f88D59q4c"]=>
  array(2) {
    ["content"]=>
    string(65) "Ceci est mon deuxième post dans une base de données firebase :D"
    ["title"]=>
    string(18) "Mon deuxième post"
  }
}

D:\GoogleTech\Firebase\php\firebase>
```

Affichage de contenu de notre
variable **\$value**



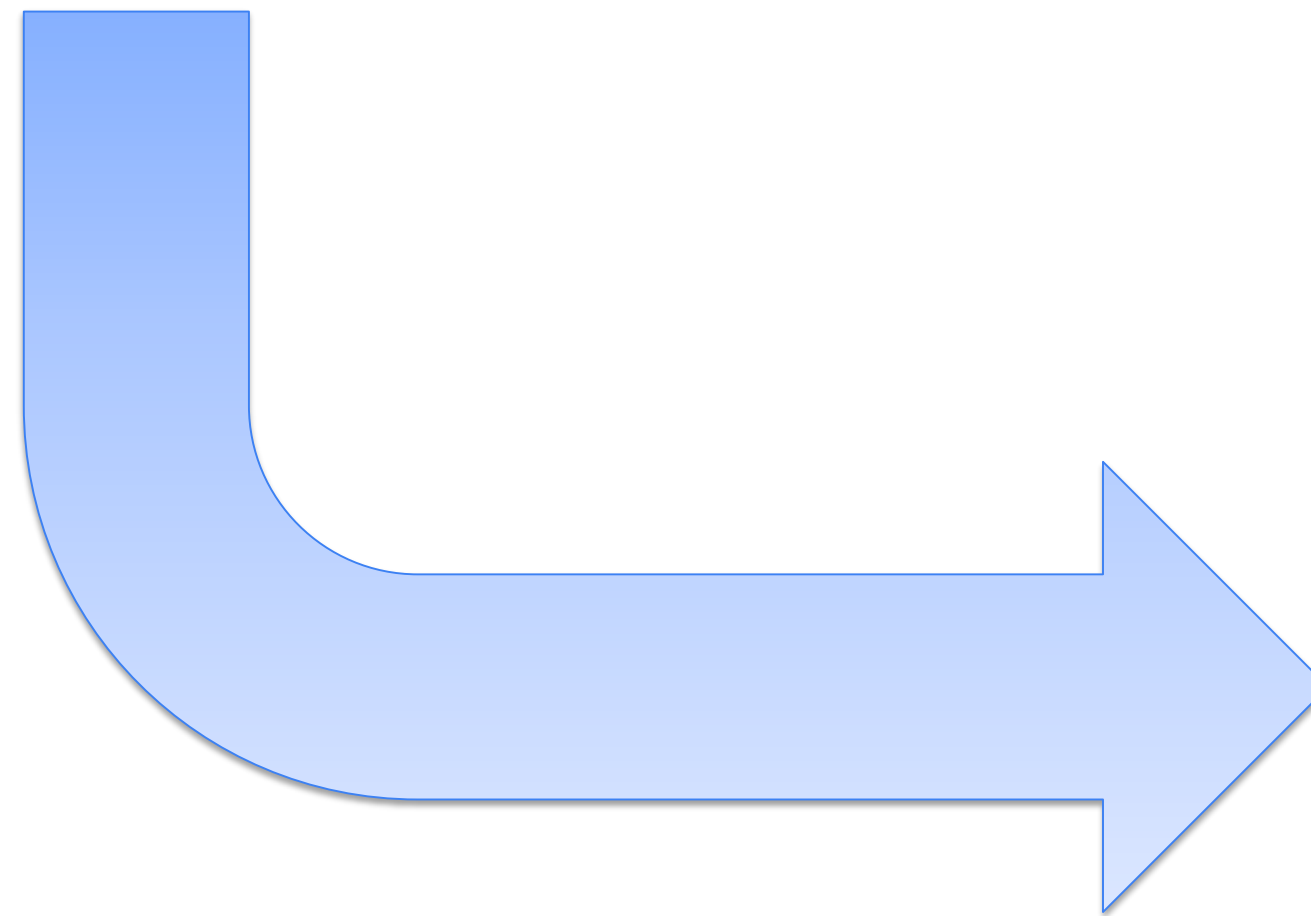
Quelques methods de snapshot

- **exists()** renvoie **vrai** si le snapshot contient des données donc n'est pas vide.
- **getChild()** revoie le snapshot d'une sous-reference.
- **getReference()** renvoie à la reference mere de la reference sur laquelle on l'a appelé.
- **getValue()** renvoie la donnée contenu dans le snapshot.
- **hasChild()** renvoie **vrai** si la sous-reference contient des données.
- **hasChildren()** renvoie **vrai** si le snapshot à 'des' propriétés enfants.
- **numChildren()** renvoie le nombre de propriété enfant, un peu notre count() ici.



Interroger la base de données

```
46 $data = $database->getReference( path: 'personne')
47   ->orderByChild( path: 'taille')
48   ->startAt( value: 1.50)
49   ->endAt( value: 3.10)
50   ->limitToFirst( limit: 25)
51   ->getSnapshot();
52
```



Select *
From personne
Where taille >= 1,50
And taille <= 3,10
Order by taille
Limit 25



- Utilisant Git:

```
git clone https://github.com/marnelfr/firebase-php.git
```

- Téléchargement direct:

```
https://github.com/marnelfr/firebase-php/archive/master.zip
```



Firestore sous tout force



- Utilisant Git:

```
git clone https://github.com/firebase/friendlychat-web
```

- Téléchargement direct:

```
https://github.com/firebase/friendlychat-web/archive/master.zip
```

- Documentation:

```
https://firebase.google.com/docs/web/setup
```



Débrouillez-vous !!!



Documentation:

<https://console.firebase.google.com/>

<https://firebase-php.readthedocs.io/en/latest/>

<https://www.gograph.com/clipart/teasing-tongue-dumb-emoji-gg84007627.html>



Merçi!



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