



المعهد الوطني للبريد والهواصالات

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Institut National des Postes et Télécommunications

TP2 – Cloud Functions

SERVERLESS ET CLOUD NATIVE APPLICATIONS

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Younes IBIZZI

INE2 ASEDS

1- Login avec Firebase CLI

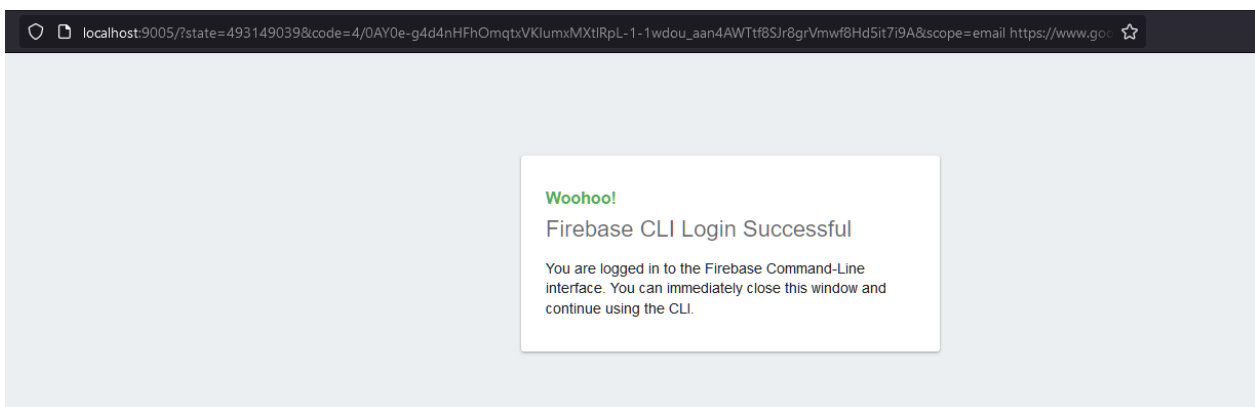
```
PS C:\Users\Admin\Desktop\cs\rapports\INE2\s4p2\SERVERLESS ET CLOUD NATIVE APPLICATIONS\TP2> npm i -g firebase-tools
npm WARN deprecated har-validator@5.1.5: this library is no longer supported
npm WARN deprecated uid@3.4.0: Please upgrade to version 7 or higher. Older versions may use Math.random() in certain circumstances, which is known to be problematic. See https://v8.dev/blog/math-random for details.
npm WARN deprecated request@2.88.2: request has been deprecated, see https://github.com/request/request/issues/3142
added 268 packages, removed 87 packages, changed 446 packages, and audited 715 packages in 1m
28 packages are looking for funding
  run 'npm fund' for details
found 0 vulnerabilities
PS C:\Users\Admin\Desktop\cs\rapports\INE2\s4p2\SERVERLESS ET CLOUD NATIVE APPLICATIONS\TP2> firebase login
Already logged in as y.ibizzi.fcb@gmail.com
PS C:\Users\Admin\Desktop\cs\rapports\INE2\s4p2\SERVERLESS ET CLOUD NATIVE APPLICATIONS\TP2>
```

```
PS C:\Users\Admin\Desktop\cs\rapports\INE2\s4p2\SERVERLESS ET CLOUD NATIVE APPLICATIONS\TP2> firebase login --reauth

Visit this URL on this device to log in:
https://accounts.google.com/o/oauth2/auth?client_id=563584335869-fgrhgm47bqnekj5i8b5pr03ho849e6.apps.googleusercontent.com&scope=email%20openid%20https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcloudplatformprojects.readonly%20https%3A%2F%2Fwww.googleapis.com%2Fauth%2Ffirebase%20https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcloud-platform&response_type=code&state=493149039&redirect_uri=http%3A%2F%2Flocalhost%3A9005&login_hint=y.ibizzi.fcb@gmail.com

Waiting for authentication...

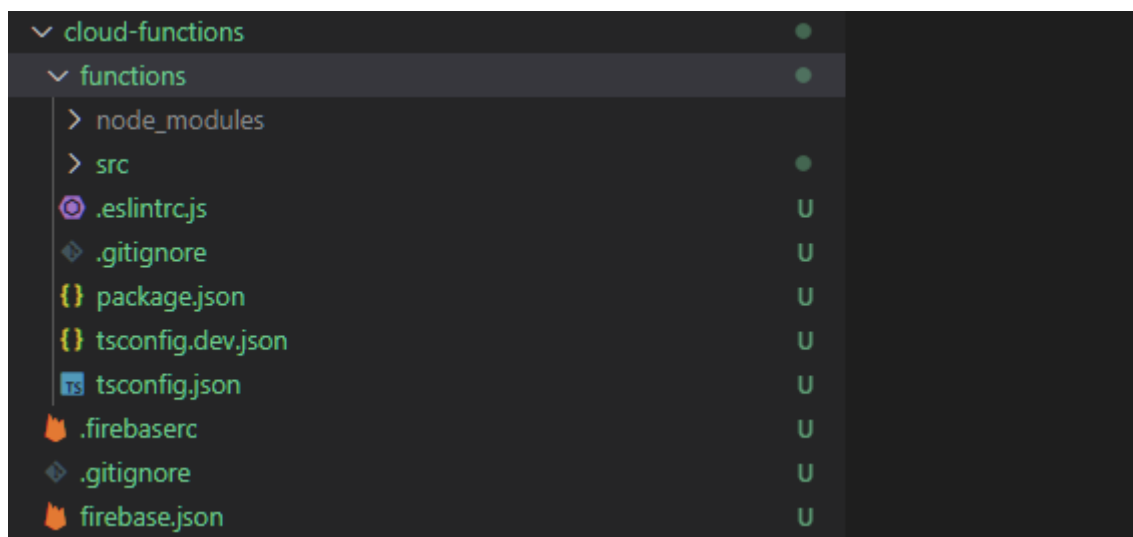
+ Success! Logged in as y.ibizzi.fcb@gmail.com
PS C:\Users\Admin\Desktop\cs\rapports\INE2\s4p2\SERVERLESS ET CLOUD NATIVE APPLICATIONS\TP2>
```



```
PS C:\Users\Admin\Desktop\cs\rapports\INE2\s4p2\SERVERLESS ET CLOUD NATIVE APPLICATIONS\TP2> firebase projects:list
✓ Preparing the list of your Firebase projects
```

Project Display Name	Project ID	Project Number	Resource Location ID
baf-donations-app	baf-donations-app	469842742497	us-east1

2- Initialisation de Cloud Functions :



3- Déploiement sur Firebase :

```
PS C:\Users\Admin\Desktop\cs\rapports\INE2\s4p2\SERVERLESS ET CLOUD NATIVE APPLICATIONS\tp2\cloud-functions> firebase deploy --only functions

=== Deploying to 'tp-serverless-ca2ce'...

i deploying functions
Running command: npm --prefix "$RESOURCE_DIR" run lint

> lint
> eslint --ext .js,.ts .

Running command: npm --prefix "$RESOURCE_DIR" run build

> build
> tsc

+ functions: Finished running predeploy script.
i functions: ensuring required API cloudfunctions.googleapis.com is enabled...
i functions: ensuring required API cloudbuild.googleapis.com is enabled...
! functions: missing required API cloudbuild.googleapis.com. Enabling now...
+ functions: required API cloudfunctions.googleapis.com is enabled
```

+ Deploy complete!

Project Console: <https://console.firebase.google.com/project/tp-serverless-ca2ce/overview>

Update available 9.12.1 → 9.13.1

To update to the latest version using npm, run `npm install -g firebase-tools`

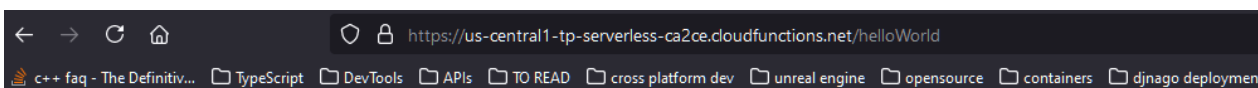
For other CLI management options, visit the [CLI documentation \(https://firebase.google.com/docs/cli#update-cli\)](https://firebase.google.com/docs/cli#update-cli)

Functions

Dashboard Health Logs Usage

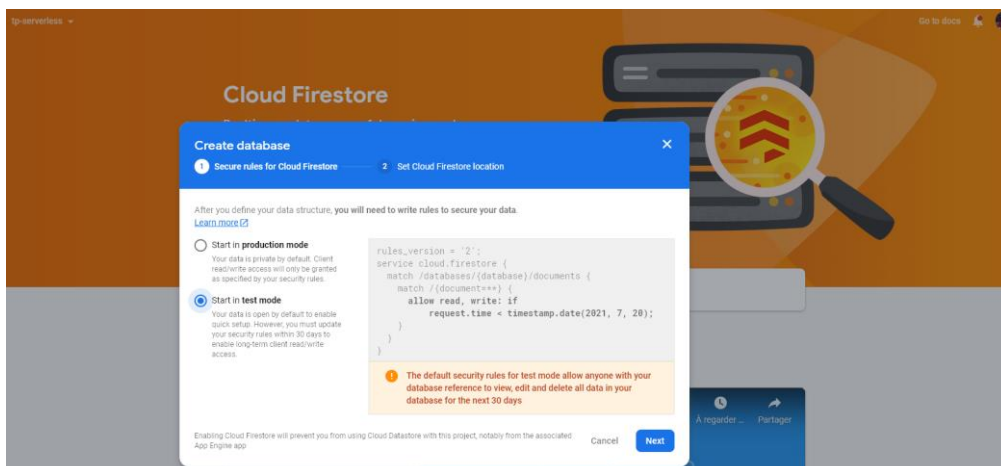
Protect your Functions resources from abuse, such as billing fraud or phishing [Configure App Check](#)

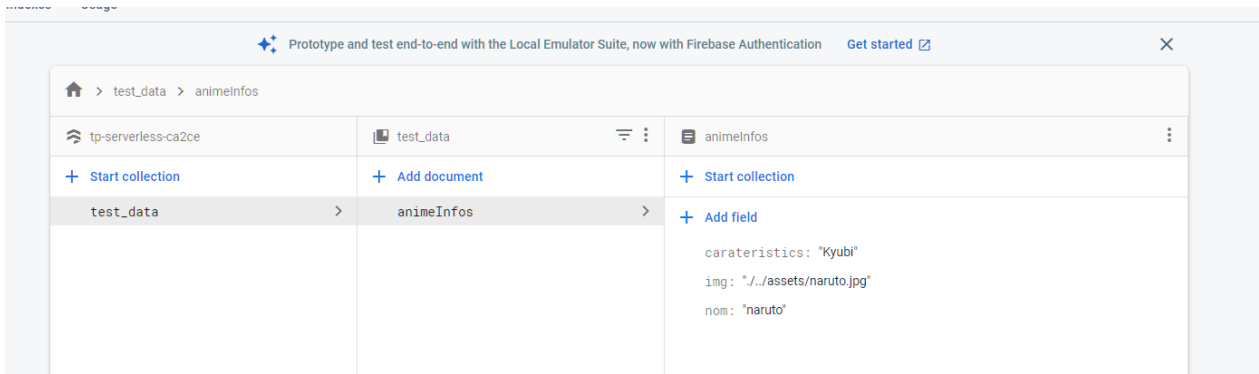
Function	Trigger	Region	Runtime	Memory	Timeout
helloWorld	HTTP Request https://us-central1-tp-serverless-ca2ce.cloudfunctions.net/helloWorld	us-central1	Node.js 14 Beta	256 MB	60s



Hello from Firebase!

4- Ajout du data à Firestore :





5- Read Firestore data from cloud function :

```

TS index.ts U X
TP2 > cloud-functions > functions > src > TS index.ts > getNarutoData > functions.https.onRequest() callback > cors() callback > catch() callback
13  admin.initializeApp();
14  let db = admin.firestore();
15
16  export const getNarutoData = functions.https.onRequest((request, response) => {
17    functions.logger.info("Naruto data demanded.");
18    cors(request, response, () => {
19      db.collection("test_data")
20        .where("nom", "==", "naruto")
21        .limit(1)
22        .get()
23        .then((doc) => {
24          if (doc.empty) {
25            console.log("No Documents for Naruto!");
26            return response.send("Not found.");
27          }
28          let result = doc.docs.pop();
29          console.log("Naruto found!");
30          return response.send(result?.data);
31        })
32      .catch((_) => {
33        console.log("Error retrieving Naruto.");
34      })
35    });
  });

```

```

TERMINAL  PROBLEMS  OUTPUT  DEBUG CONSOLE
> eslint --ext .js,.ts .

Running command: npm --prefix "$RESOURCE_DIR" run build

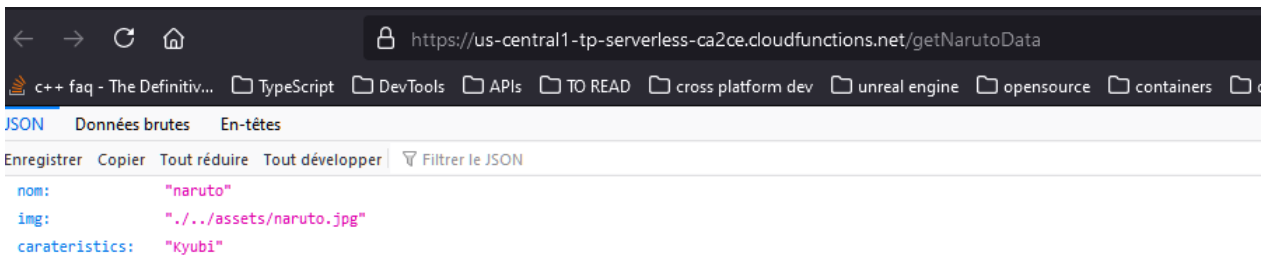
> build
> tsc

+ functions: Finished running predeploy script.
i functions: ensuring required API cloudfunctions.googleapis.com is enabled...
i functions: ensuring required API cloudbuild.googleapis.com is enabled...
+ functions: required API cloudbuild.googleapis.com is enabled
+ functions: required API cloudfunctions.googleapis.com is enabled
i functions: preparing functions directory for uploading...
i functions: packaged functions (88.58 KB) for uploading
+ functions: functions folder uploaded successfully
i functions: creating Node.js 14 function getNarutoData(us-central1)...
i functions: updating Node.js 14 function helloWorld(us-central1)...
+ functions[getNarutoData(us-central1)]: Successful create operation.
+ functions[helloWorld(us-central1)]: Successful update operation.
Function URL (getNarutoData(us-central1)): https://us-central1-tp-serverless-ca2ce.cloudfunctions.net/getNarutoData
Function URL (helloWorld(us-central1)): https://us-central1-tp-serverless-ca2ce.cloudfunctions.net/helloWorld

+ Deploy complete!

Project Console: https://console.firebase.google.com/project/tp-serverless-ca2ce/overview
PS C:\Users\Admin\Desktop\cs\rapports\INE2\s4p2\SERVERLESS ET CLOUD NATIVE APPLICATIONS\tp2\cloud-functions>

```



6- Call cloud function from ANGULAR Project :

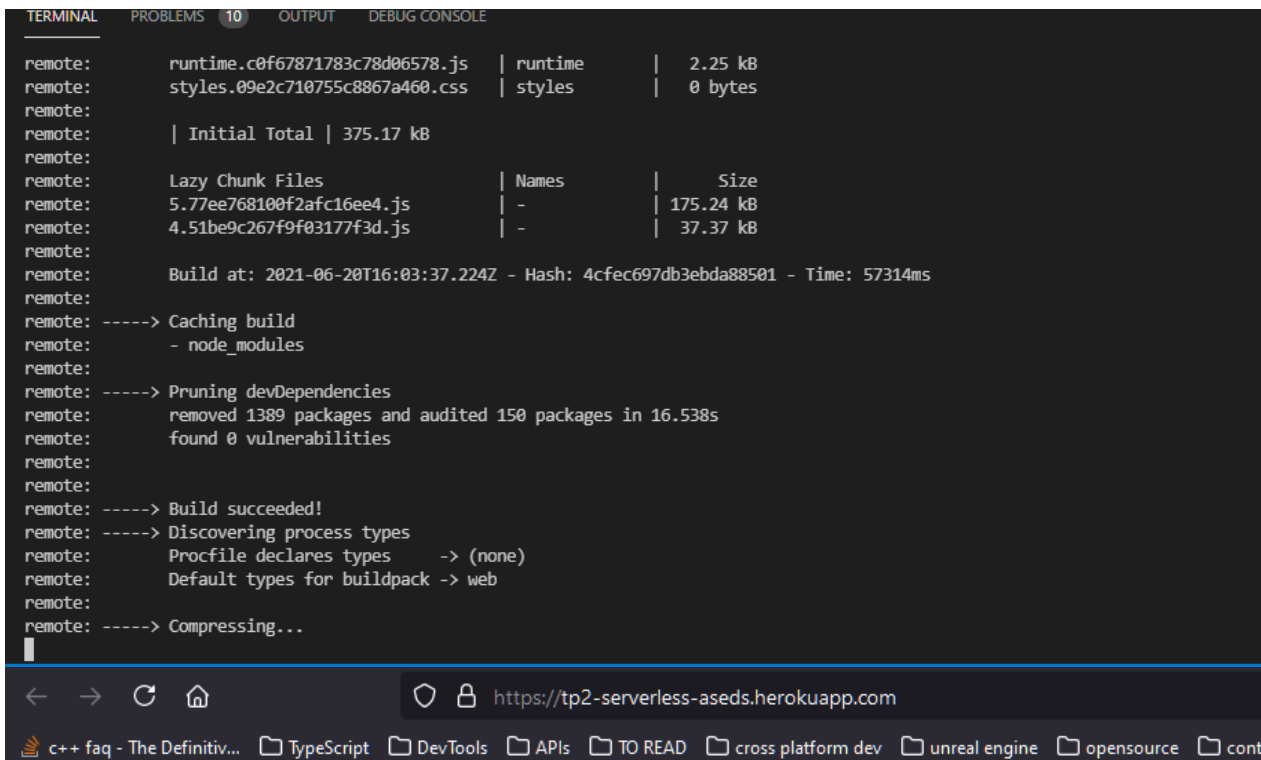
```

getData(){
  console.log("before call API");


  return this._httpClient.get("https://us-central1-tp-serverless-ca2ce.cloudfunctions.net/getNarutoData").subscribe((dataFirestore: any) => {
    console.log("data", dataFirestore);
    this.data = dataFirestore;
  });
}

```

7- Deploy To heroku



Naruto SHIPPUDDEN

image	name	caracteristique
	Naruto UZUMAKI	Kyubi