Firebase – CRUD with NPM

Create folder in desktop \rightarrow open the folder in visual studio code \rightarrow create a file index.js

Check node js is install \rightarrow open terminal in vs code \rightarrow type "**node -v**"

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\Student\Desktop\Firebase2> node -v
v22.11.0

PS C:\Users\Student\Desktop\Firebase2>
```

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\Student\Desktop\Firebase2> npm install firebase
npm : File C:\Program Files\nodejs\npm.ps1 cannot be loaded because running scripts is disabled on this system. For more information, see
about_Execution_Policies at https:/go.microsoft.com/fwlink/?LinkID=135170.

At line:1 char:1
+ npm install firebase
+ categoryInfo : SecurityError: (:) [], PSSecurityException
+ FullyQualifiedErrorId : UnauthorizedAccess
```

If error, open powershell \rightarrow run as administrator \rightarrow type "Set-ExecutionPolicy RemoteSigned" \rightarrow y \rightarrow again run the command "**npm install firebase**"

```
PS C:\Users\Student\Desktop\Firebase2> npm install firebase

added 86 packages in 58s

3 packages are looking for funding
   run `npm fund` for details

PS C:\Users\Student\Desktop\Firebase2>
```

Run again

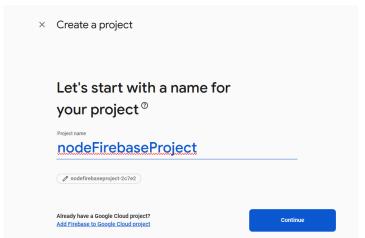
After that , run → npm install firebase-admin

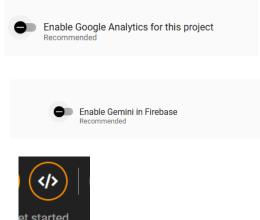
```
PS C:\Users\Student\Desktop\Firebase2> npm install firebase-admin

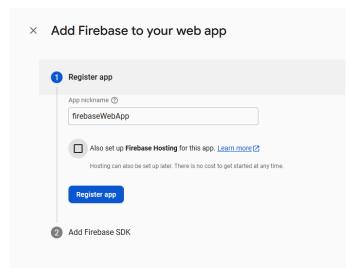
added 129 packages, and audited 216 packages in 13s

19 packages are looking for funding
   run `npm fund` for details

found 0 vulnerabilities
PS C:\Users\Student\Desktop\Firebase2>
```

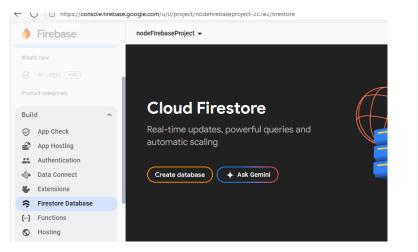






No any changes here → continue



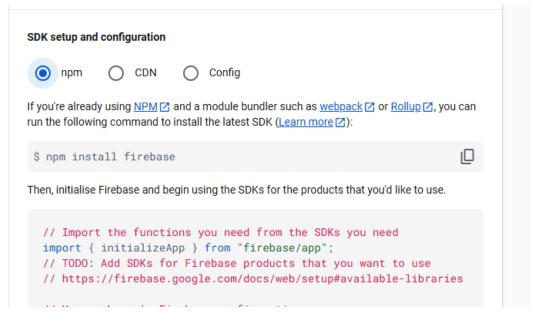


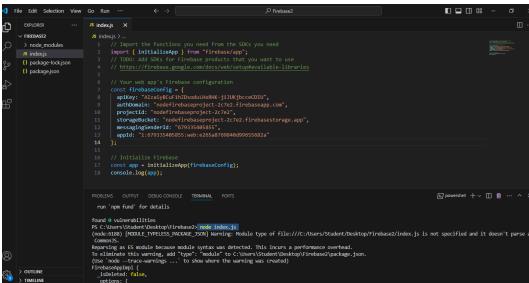
Start in test mode

Your data is open by default to enable quick setup. However, you must update your security rules within 30 days to enable long-term client read/write access.

Create database → no changes → test mode → create

Project overview → project settings → scroll down → select npm, copy paste in index.js file

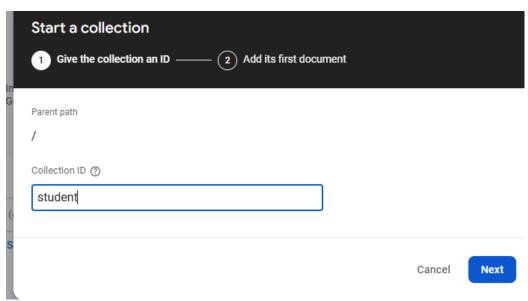


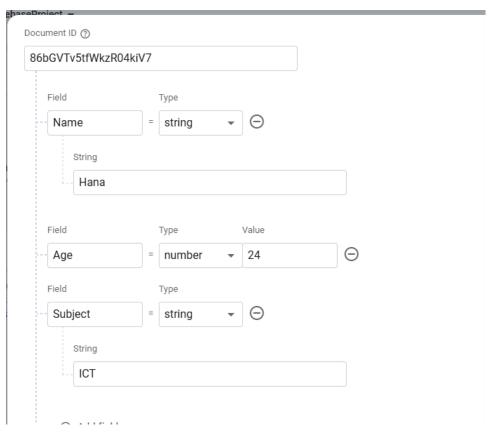


console.log(app);

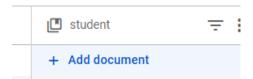
In firebase,



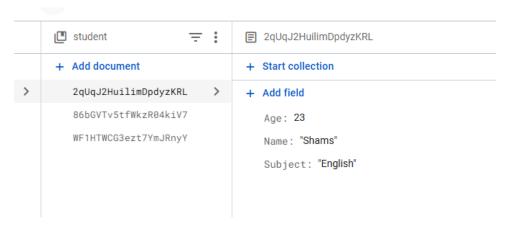




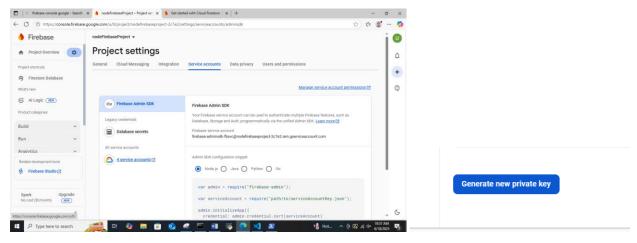
Give auto ID



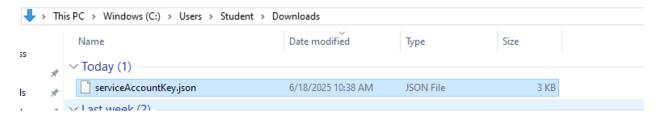
Give data same like 1st one with name, age & subject

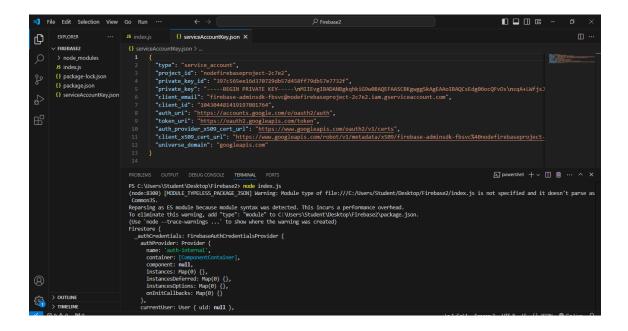


Go to our firebase project \rightarrow project overview \rightarrow project settings \rightarrow service account \rightarrow Generate private key



After download rename the file as serviceAccountKey \rightarrow copy paste the file in vs code \rightarrow then run \rightarrow node index.js

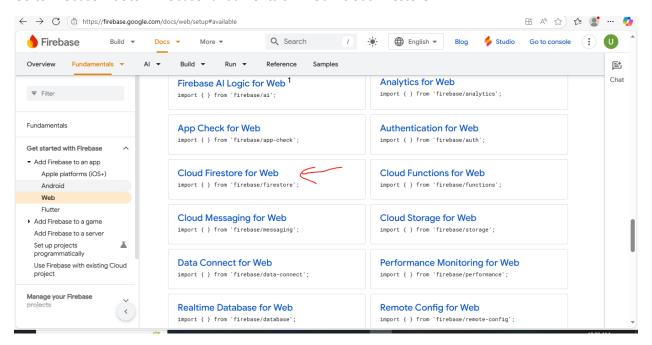


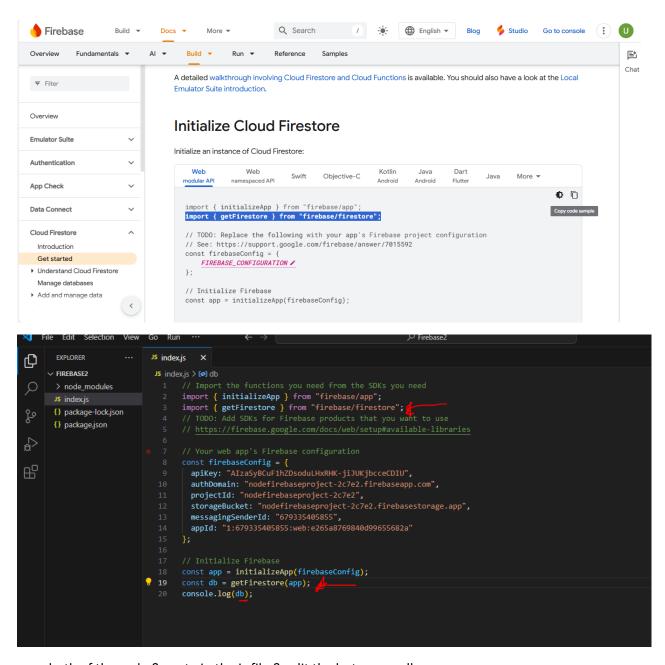


In google search tab → https://firebase.google.com/docs/web/setup#available

or

Go to firebase → docs → firebase fundamentals → web → cloud firestore





copy both of the code & paste in the js file & edit the last one as db

```
console.log(db);
```

run the js file

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

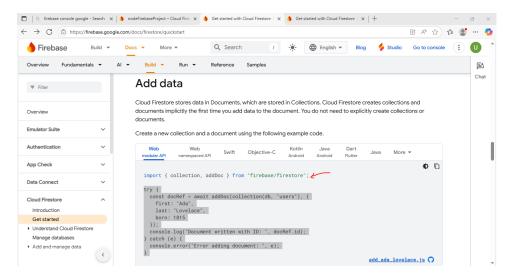
PS C:\Users\Student\Desktop\Firebase2> node index.js
(node:5352) [MODULE_TYPELESS_PACKAGE_JSON] Warning: Module type of file:///C:/Users/Student/Desktop/Firebase2/index.js is not specified and it doesn't CommonDs.

Reparsing as ES module because module syntax was detected. This incurs a performance overhead.

To eliminate this warning, add "type": "module" to C:\Users\Student\Desktop\Firebase2\package.json.
(Use `node --trace-warnings ...` to show where the warning was created)

Firestore {
    authProvider: Provider {
    auth-internal', container: [ComponentContainer], component: null, instances: Map(0) {}, instancesDeferred: Map(0) {}, instancesDeferred: Map(0) {}, onInitCallbacks: Map(0) {}, onInitCallbacks: Map(0) {}, onInitCallbacks: Map(0) {}, forceRefresh: false, auth: null
```

To add data



Copy the import code & the try, catch code & paste as below (edit the collection & filed names) →run

```
import { collection, addDoc } from "firebase/firestore";

//import { getFirestore collection addDoc } from "firebase/

const app = initializeApp(firebaseConfig);

const db = getFirestore(app);

//addDoc(collection,(db,"student"));

try {

const docRef = await addDoc(collection(db, "student"), {

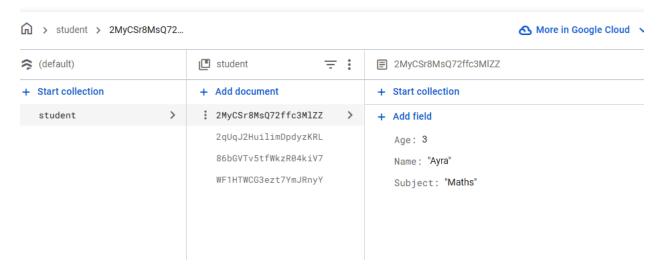
Name: "Ayra",
Age: 3,
Subject: "Maths"
});

console.log("Document written with ID: ", docRef.id);

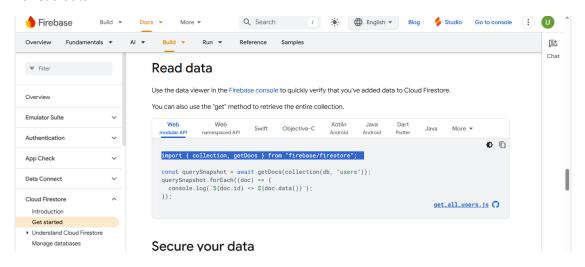
console.error("Error adding document: ", e);

console.log(db);

problems Output Debug Console Terminal Ports
```



To read data



Copy getDoc & paste in previous import code

[addDoc – to add data , getDoc – to read the data]

Run

```
PROBLEMS OUTPUT DEBUG CONSOLE TBEMINAL

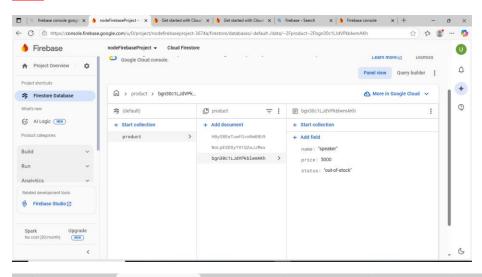
> YEBMINAL

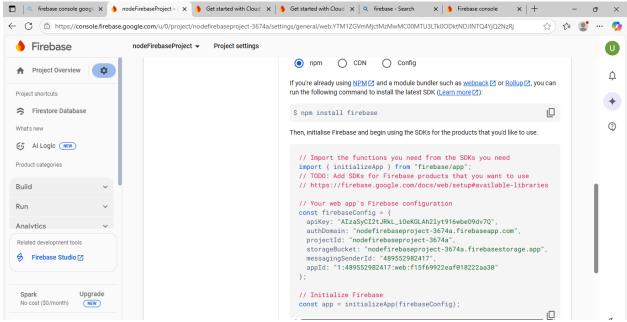
PS C:Users\Student\Desktop\Firebase2> node index.js
(node:7628) [MCDULE_TYPELESS_PACKAGE_SCN] Namring: Module type of file:///C:/Users\Student/Desktop/Firebase2/index.js is as Commonls.

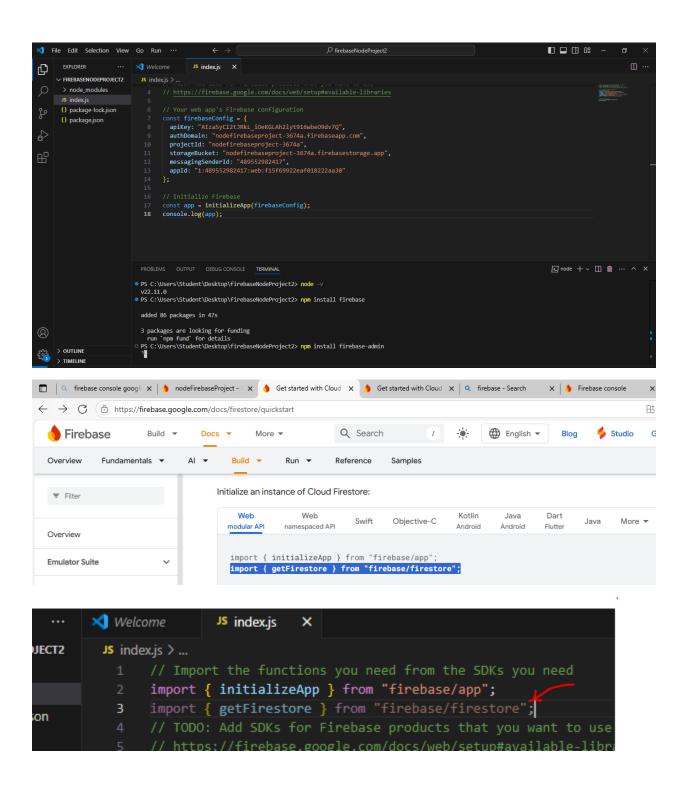
Reparsing as ES module because module syntax was detected. This incurs a performance overhead.

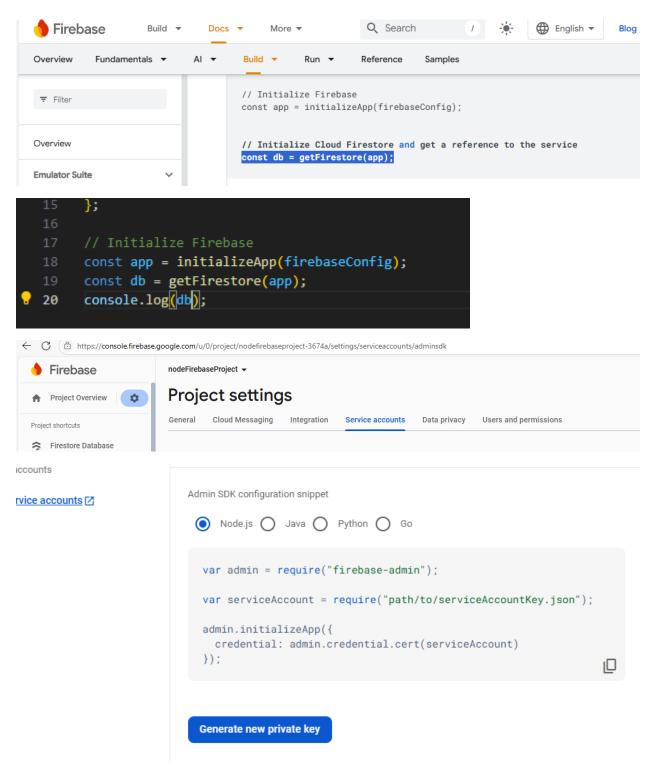
To eliminate this warning, add "type": "module" to C:Users\Student\Desktop\Firebase2\package.json.
(Use 'node -trace-warnings...' to show where the warning was created)
Document written with ID: IcgKCOG*rXPIyy8M99X
1BwdTWpfcAncyw220e >> [object Object]
29byCsr89k072ffc3M1ZT >> [object Object]
29byCsr89k072ffc3M1ZT >> [object Object]
88boxTVStfWcR80k1VT >> [object Object]
WFJHTMCGGetZfVmRNPy >> [object Object]
IcgKCOG*rXPIyy8M99X >> [object Object]
Firestore {
    authProvider: Provider {
    authProvider: Provider {
        name: 'auth-internal',
    }
```

Try

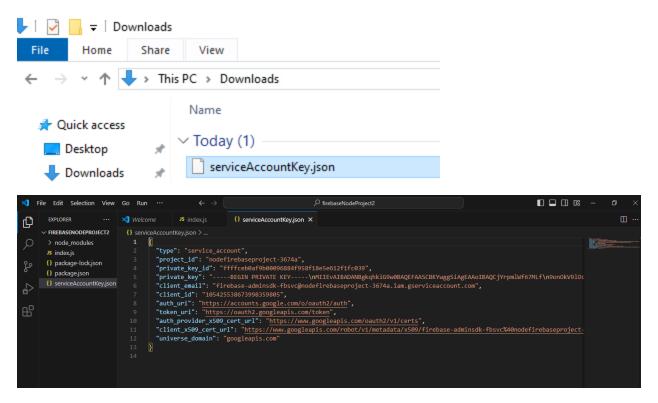








Download & rename → cut & paste to vs code



Run the project

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
                                                                                                                                             powersh
 found 0 vulnerabilities
 PS C:\Users\Student\Desktop\firebaseNodeProject2> node index.js
(node:4688) [MODULE_TYPELESS_PACKAGE_JSON] Warning: Module type of file:///C:/Users/Student/Desktop/firebaseNodeProject2/index.js is
 't parse as CommonJS.
 Reparsing as ES module because module syntax was detected. This incurs a performance overhead.
 To eliminate this warning, add "type": "module" to C:\Users\Student\Desktop\firebaseNodeProject2\package.json. (Use `node --trace-warnings ...` to show where the warning was created)
 Firestore {
   _authCredentials: FirebaseAuthCredentialsProvider {
     authProvider: Provider {
       name: 'auth-internal',
        container: [ComponentContainer],
        component: null,
       instances: Map(0) {},
instancesDeferred: Map(0) {},
        instancesOptions: Map(\theta) {},
        onInitCallbacks: Map(0) {}
```

ADD DATA

```
// Import the functions you need from the SDKs you need
import { initializeApp } from "firebase/app";
import { getFirestore } from "firebase/firestore";
import { collection, addDoc } from "firebase/firestore";

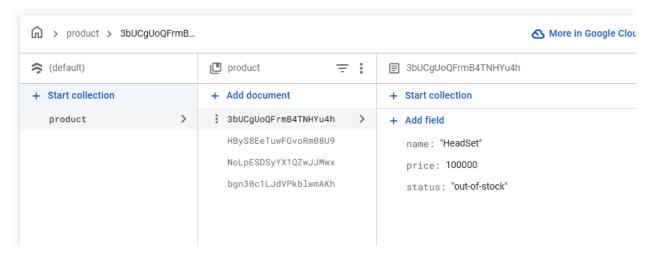
// TODO: Add SDKs for Firebase products that you want to use
// https://firebase.google.com/docs/web/setup#available-libraries
```

```
const app = initializeApp(firebaseConfig);
const db = getFirestore(app);

try {
    const docRef = await addDoc(collection(db, "product"), {
        name: "HeadSet",
        price: 100000,
        status: "out-of-stock"
});
console.log("Document written with ID: ", docRef.id);
} catch (e) {
    console.error("Error adding document: ", e);
}

console.log(db);
```

Run



READ DATA

```
import { collection, addDoc ,getDocs } from "firebase/firestore";

const querySnapshot = await getDocs(collection(db, "product"));
querySnapshot.forEach((doc) => {
   console.log(`${doc.id} => ${doc.data()}`);
});

console.log(db);
```

import { getFirestore } from "firebase/firestore";

Run

```
PS C:\Users\Student\Desktop\firebaseNodeProject2> node index.js
(node:3064) [MODULE_TYPELESS_PACKAGE_JSON] Warning: Module type of file:///C:/Users/Student/Desktop/firebaseNodeProject2/inc
fied and it doesn't parse as CommonJS.

Reparsing as ES module because module syntax was detected. This incurs a performance overhead.

To eliminate this warning, add "type": "module" to C:\Users\Student\Desktop\firebaseNodeProject2\package.json.
(Use `node --trace-warnings ...` to show where the warning was created)

Document written with ID: b0XN9s2AGvG7wJi6Qw1q

3bUCgUoQFrmB4TNHYu4h => [object Object]

HByS8EeTuwFGvoRm08U9 => [object Object]

NoLpESDSyYX1QZwJJMwx => [object Object]

bQXN9s2AGvG7wJi6Qw1q => [object Object]

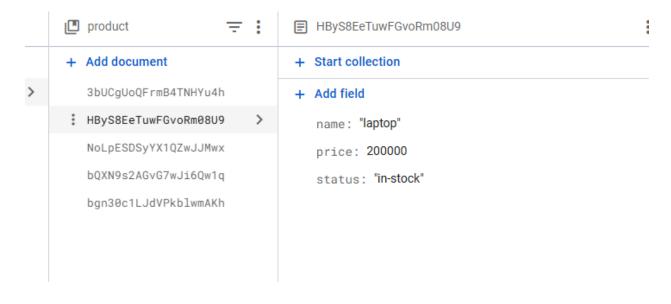
bgn30c1LJdVPkblwmAKh => [object Object]

Firestore {

authCondentials: FireboseAuthCondentialsDequider {

authCondentials: Firebo
```

UPDATE DATA



```
const updateRef =doc(db,"product","HByS8EeTuwFGvoRm08U9");
  await updateDoc(updateRef,{
    status:"out-of-stock"
  });
  console.log("Document Updated Successfully");
```

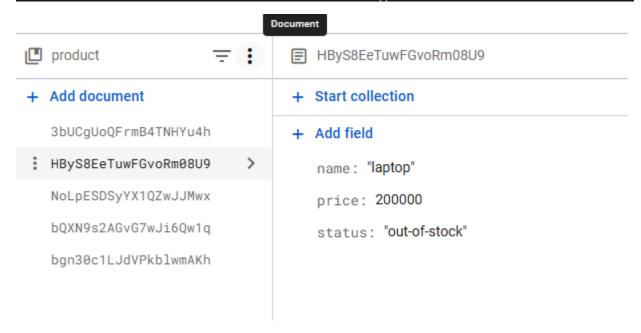
```
import { getFirestore, updateDoc ,doc } from "firebase/firestore";
import { collection, addDoc ,getDocs } from "firebase/firestore";
```

Node.js v22.11.0
PS C:\Users\Student\Desktop\firebaseNodeProject2> node index.js

(node:12696) [MODULE_TYPELESS_PACKAGE_JSON] Warning: Module type of file:///C:/Users/Sified and it doesn't parse as CommonJS.

Reparsing as ES module because module syntax was detected. This incurs a performance or To eliminate this warning, add "type": "module" to C:\Users\Student\Desktop\firebaseNot(Use `node --trace-warnings ...` to show where the warning was created)

Document Updated Successfully



DELETE DATA

```
//delete
swait deleteDoc(updateRef);
console.log("Document Deteleted successfully");

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Document Updated Successfully
PS C: \Users\Student\Desktop\firebaseNodeProject2> node index.js
PS C: \Users\Student\Desktop\firebaseNodeProject2> node index.js
(node:1188) [MODULE_INFELESS_PACKAGE_JSON] Warning: Module type of file:///C:/Users/Student\Desktop/firebaseNodeProject2/index.js is fied and it doesn't parse as CommonJS.
Reparsing as ES module because module syntax was detected. This incurs a performance overhead.
To eliminate this warning, add "type": "module" to C:\Users\Student\Desktop\firebaseNodeProject2\package.json.
(Use `node --trace-warnings ...` to show where the warning was created)
Document Updated Successfully
Document Deteleted successfully
```

HByS8EeTuwFGvoRm08U9 has been deleted



When we add more data at the same time, only change the variable name

```
try {
 const docRef = await addDoc(collection(db, "Vegetables"), {
   VegName: "Eggplant",
   price: 6000,
   weight: "10kg"
 const docRef2 = await addDoc(collection(db, "Vegetables"), {
   VegName: "Beetroot",
   price: 2000,
   weight: "5kg"
  const docRef3 = await addDoc(collection(db, "Vegetables"), {
   VegName: "pumpkin",
   price: 500,
  weight: "1kg"
 console.log("Document written with ID: ", docRef.id);
} catch (e) {
 console.error("Error adding document: ", e);
console.log(db);
```

