



SESSION 7

REACT-FIREBASE

OBJECTIVES

INTRODUCTION TO FIREBASE

FIREBASE SERVICES

DEPLOY A REACT APP ON FIREBASE

INTRODUCTION TO FIREBASE

Build apps fast, without managing infrastructure
Firebase gives you functionality like **analytics, databases, messaging and crash reporting** so you can move quickly and focus on your users.

Backed by Google, trusted by top apps
Firebase is built on **Google infrastructure and scales automatically**, for even the largest apps.

One platform, with products that work better together
Firebase products work great individually but **share data and insights, so they work even better together.**

FIREBASE SERVICES



Build better apps

- Auth
- Cloud Functions
- Cloud Firestore
- Cloud Storage
- Hosting
- ML Kit
- Realtime Database



Improve app quality

- Crashlytics
- Performance Monitoring
- Test Lab



Grow your app

- Analytics
- Predictions
- Cloud Messaging
- In-app Messaging
- Remote Config
- A/B Testing
- Dynamic Links

FIREBASE SERVICES

Develop & test your app

- **Realtime Database**
- **Auth**
- **Test Lab**
- **Crashlytics**
- **Cloud Functions**
- **Firestore**
- **Cloud Storage**
- **Performance Monitoring**
- **Crash Reporting**
- **Hosting**



FIREBASE CLOUD



You can authenticate your app's users through the following methods:

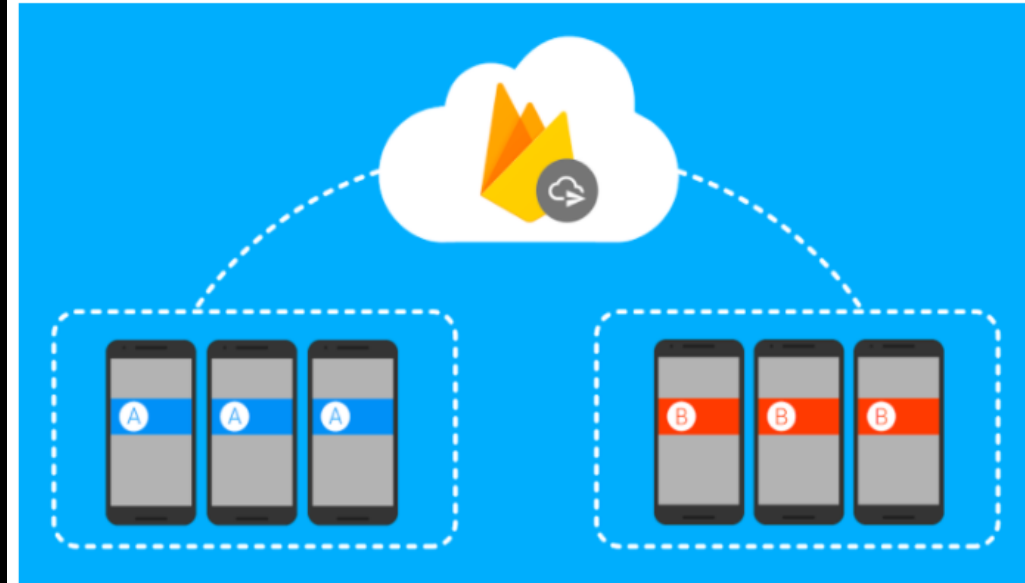
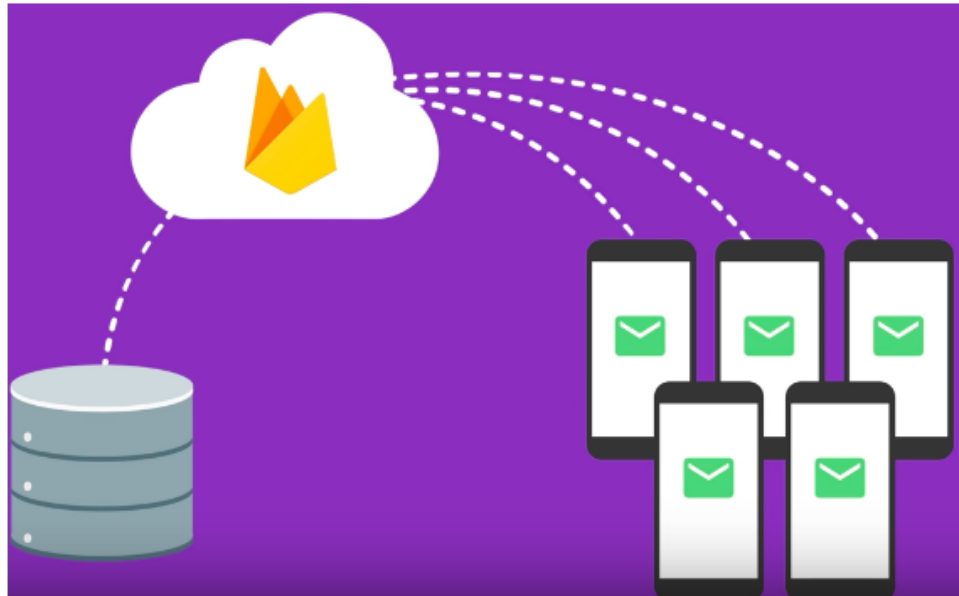
- Email & Password
- Phone numbers
- Google
- Facebook
- Twitter
- & more!

Authentication



FIREBASE CLOUD MESSAGING

Firestore Cloud Messaging (FCM)



You can also use A/B testing to try out different versions of your notification messages, and then select the one which performs best against your goals.

FIRE STORE

Firestore



DEPLOY A REACT APP ON FIREBASE


```
PS D:\React2020WorkShop\lab3-component> npm i -g firebase-tools
```

× Create a project (Step 1 of 3)

Let's start with a name for your project[?]

Project name

lab3-app

 lab3-app-e948d

Continue

FIREBASE DATABASE QUERY

FireBase has simplified the process of retrieving specific data from the database through queries.

Queries are created by chaining together one or more filter methods.

FireBase has 4 ordering functions :

`orderByKey()`

`orderByChild('child')`

`orderByValue()`

`orderByPriority()`

FIREBASE DATABASE QUERY

You can also use these advanced querying functions to further restrict data :

startAt('value')

endAt ('value')

equalTo('child_key')

limitToFirst (10)

limitToLast(10)

FIREBASE DATABASE QUERY

```
SELECT * FROM Users where Name === 'GeekyAnts'
```

```
SELECT * FROM Users LIMIT 10;
```

```
const db = firebase.database();  
  
const firebaseRef = db.child(`child`);  
  
firebaseRef.orderByChild("user").equalTo("GeekyAnts").on("child_added",  
    function(snapshot) {  
        console.log(snapshot.key);  
    }  
);
```


DEPLOY A REACT APP ON FIREBASE


× Create a project (Step 2 of 3)


Google Analytics for your Firebase project


Google Analytics is a free and unlimited analytics solution that enables targeting, reporting, and more in Firebase Crashlytics, Cloud Messaging, In-App Messaging, Remote Config, A/B Testing, Predictions, and Cloud Functions.


Google Analytics enables:


 A/B testing ?

 User segmentation & targeting across
Firebase products ?

 Predicting user behavior ?

 Crash-free users ?

 Event-based Cloud Functions triggers ?

 Free unlimited reporting ?

☒ Enable Google Analytics for this project
Recommended

[Previous](#)


[Continue](#)

DEPLOY A REACT APP ON FIREBASE

× Create a project (Step 3 of 3)

Configure Google Analytics

Choose or create a Google Analytics account ?

 Default Account for Firebase ▼

Automatically create a new property in this account ✎

Upon project creation, a new Google Analytics property will be created in your chosen Google Analytics account and linked to your Firebase project. This link will enable data flow between the products. Data exported from your Google Analytics property into Firebase is subject to the Firebase terms of service, while Firebase data imported into Google Analytics is subject to the Google Analytics terms of service. [Learn more](#).

[Previous](#)

Create project

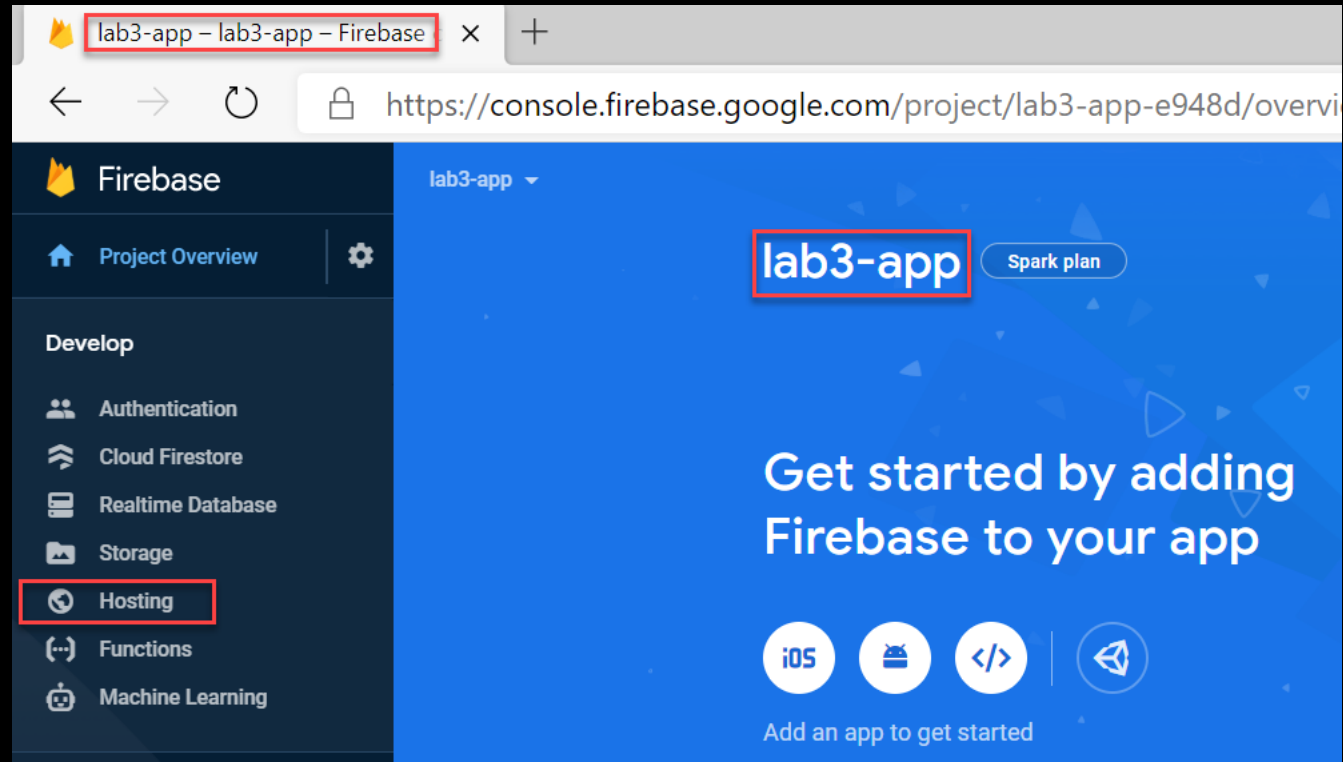


lab3-app

✓ Your new project is ready

Continue

DEPLOY A REACT APP ON FIREBASE



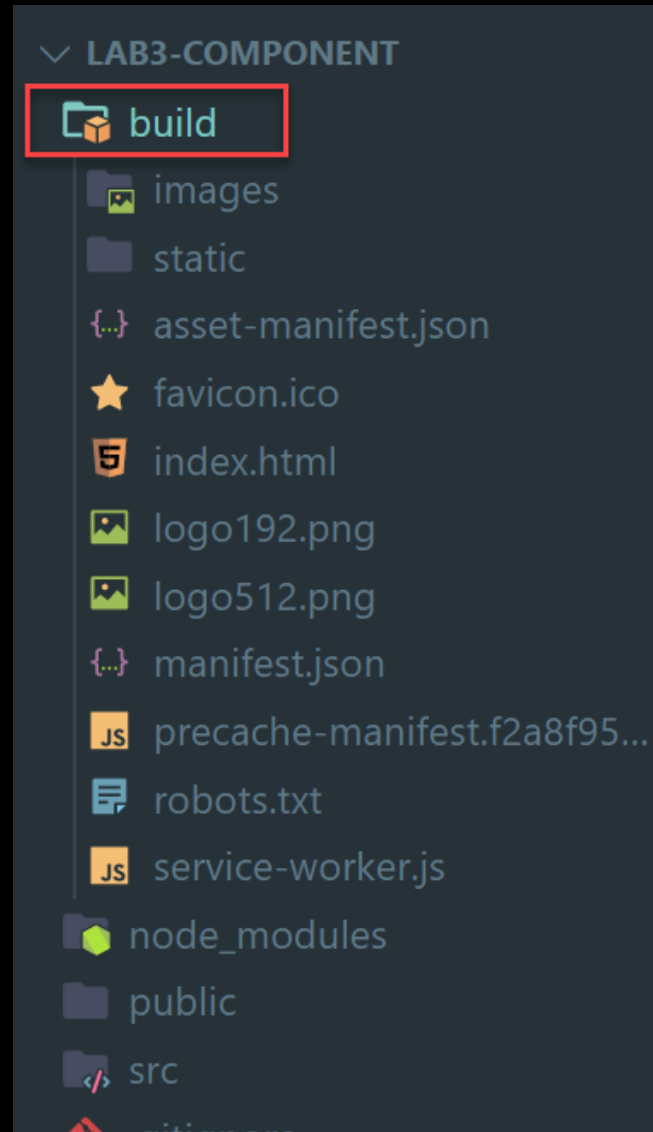
DEPLOY A REACT APP ON FIREBASE

```
PS D:\React2020WorkShop\lab3-component> npm run build
```

```
PS D:\React2020WorkShop\lab3-component> firebase login  
Already logged in as nguyenngophuoc@gmail.com
```

```
PS D:\React2020WorkShop\lab3-component> firebase init
```

DEPLOY A REACT APP ON FIREBASE



DEPLOY A REACT APP ON FIREBASE

```
You're about to initialize a Firebase project in this directory:
```

```
D:\React2020WorkShop\lab3-component
```

```
? Are you ready to proceed? (Y/n) █
```

```
? Please select an option: (Use arrow keys)
```

```
> Use an existing project
```

```
Create a new project
```

```
Add Firebase to an existing Google Cloud Platform project
```

```
Don't set up a default project
```

DEPLOY A REACT APP ON FIREBASE

```
>( ) Database: Deploy Firebase Realtime Database Rules
  ( ) Firestore: Deploy rules and create indexes for Firestore
  ( ) Functions: Configure and deploy Cloud Functions
  ( ) Hosting: Configure and deploy Firebase Hosting sites
  ( ) Storage: Deploy Cloud Storage security rules
  ( ) Emulators: Set up local emulators for Firebase features
  ( ) Remote Config: Get, deploy, and rollback configurations for R
(Move up and down to reveal more choices)
```

DEPLOY A REACT APP ON FIREBASE

```
> demo8-d713b (demo8)
  fir-deploy-fdfff4 (firebase-deploy)
  fir-react-firebase-2c065 (demo-react-firebase)
  lab3-app-e948d (lab3-app)
  movie-app-bdbd5 (movie-app)
  movielist-app-9c3fb (movielist-app)
  react-firebase-demo-da652 (React-FireBase-Demo)
(Move up and down to reveal more choices)
```

```
? What do you want to use as your public directory? (public) █
```

DEPLOY A REACT APP ON FIREBASE

✓ LAB3-COMPONENT

- build
 - images
 - static
 - 404.html
 - asset-manifest.json
 - favicon.ico
 - index.html
 - logo192.png
 - logo512.png
 - manifest.json
 - precache-manifest.f2a8f95...
 - robots.txt
 - service-worker.js
- node_modules
- public
- src
- .firebaserc**
- firebase.json**

```
PS D:\React2020WorkShop\lab3-component> firebase deploy
```

```
i Writing configuration info to firebase.json...
```

```
i Writing project information to .firebaserc...
```

```
+ Firebase initialization complete!
```

```
PS D:\React2020WorkShop\lab3-component>
```

DEPLOY A REACT APP ON FIREBASE

```
? What do you want to use as your public directory? build
? Configure as a single-page app (rewrite all urls to /index.html)
? No
+ Wrote build/404.html
? File build/index.html already exists. Overwrite? (y/N)
```

```
+ hosting[demo8-d713b]: release complete
```

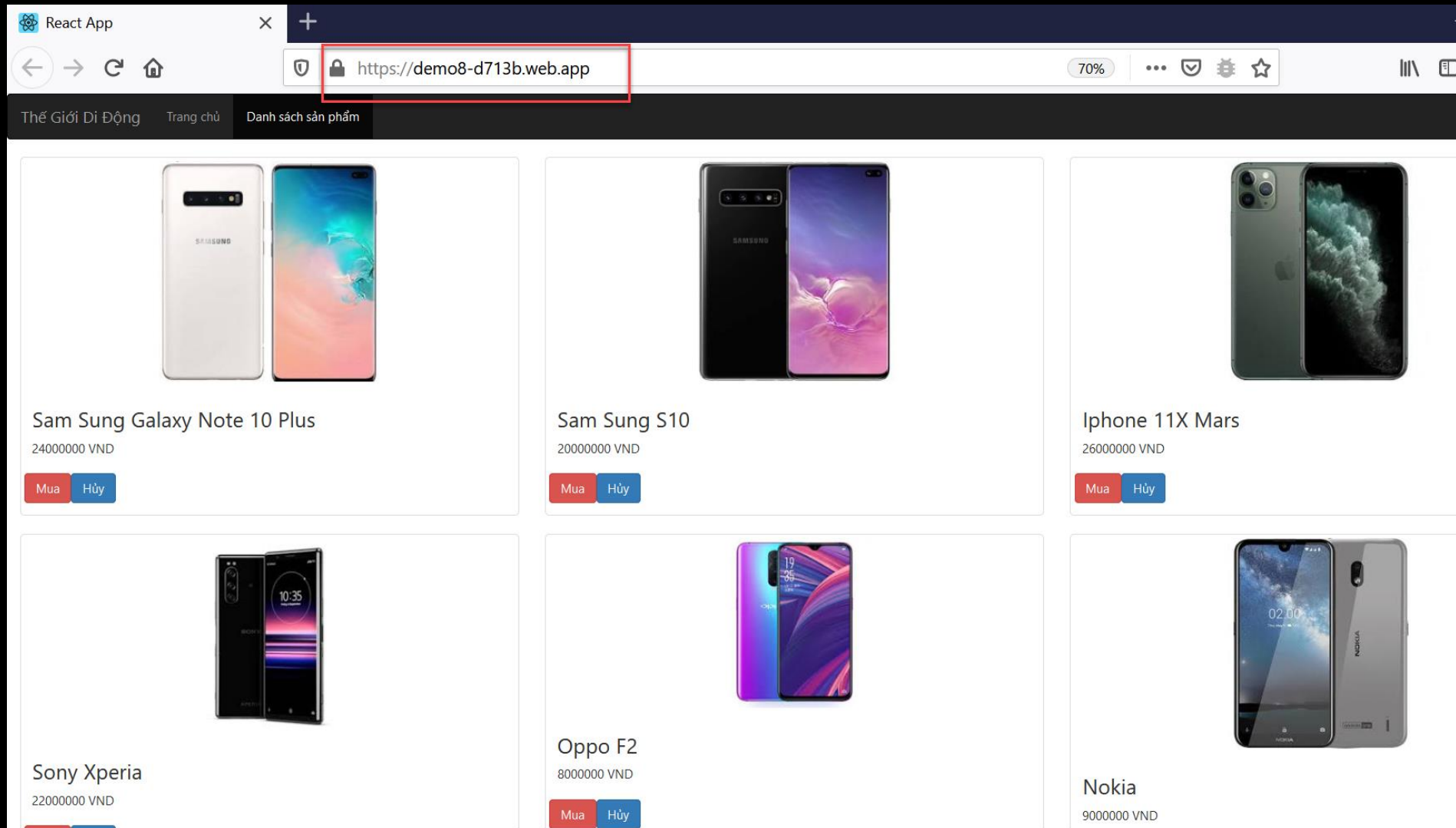
```
+ Deploy complete!
```

```
Project Console: https://console.firebase.google.com/project/demo8-d713b/overview
```

```
Hosting URL: https://demo8-d713b.web.app
```

```
PS D:\React2020WorkShop\lab3-component>
```


DEPLOY A REACT APP ON FIREBASE



THE END