How to deploy React Web Application on Firebase with different environments

Sakul Montha · Follow

5 min read · Jan 26, 2021

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When you implement React Web Application then need to build and deploy on firebase, there's no problem, if you have only one environment or you have configuration file store. But, in real life you have more than one environments such as `dev` or `test` and `prod`. This can be your problem. Currently, we have many solutions to solve it and I'm going to share one of them. This article will guide you to set environments on multiple Firebase hosts.

How to deploy React Web Application on Firebase with different environments
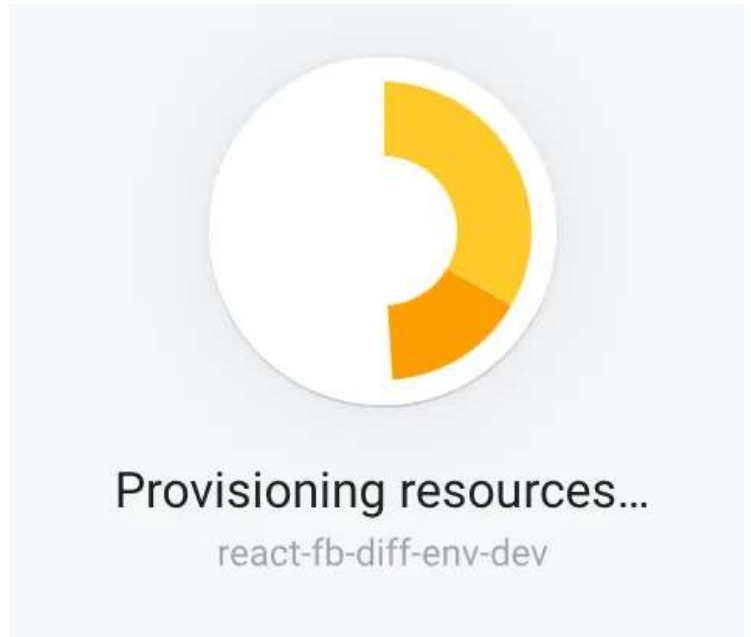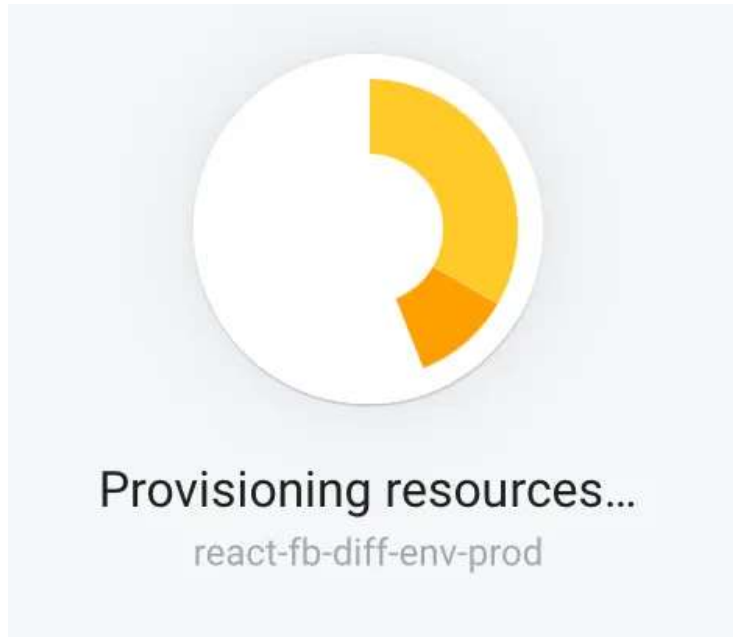
> Let's do it

First of all, you need to create React Web Application. To create one instantly, I use the command `$ npx create-react-app react-firebase-diff-env` . I hope it works for you. If everything ok you just try `$ npm start` .

Next, Go to your Firebase console <u>here</u> then
- Click Add project
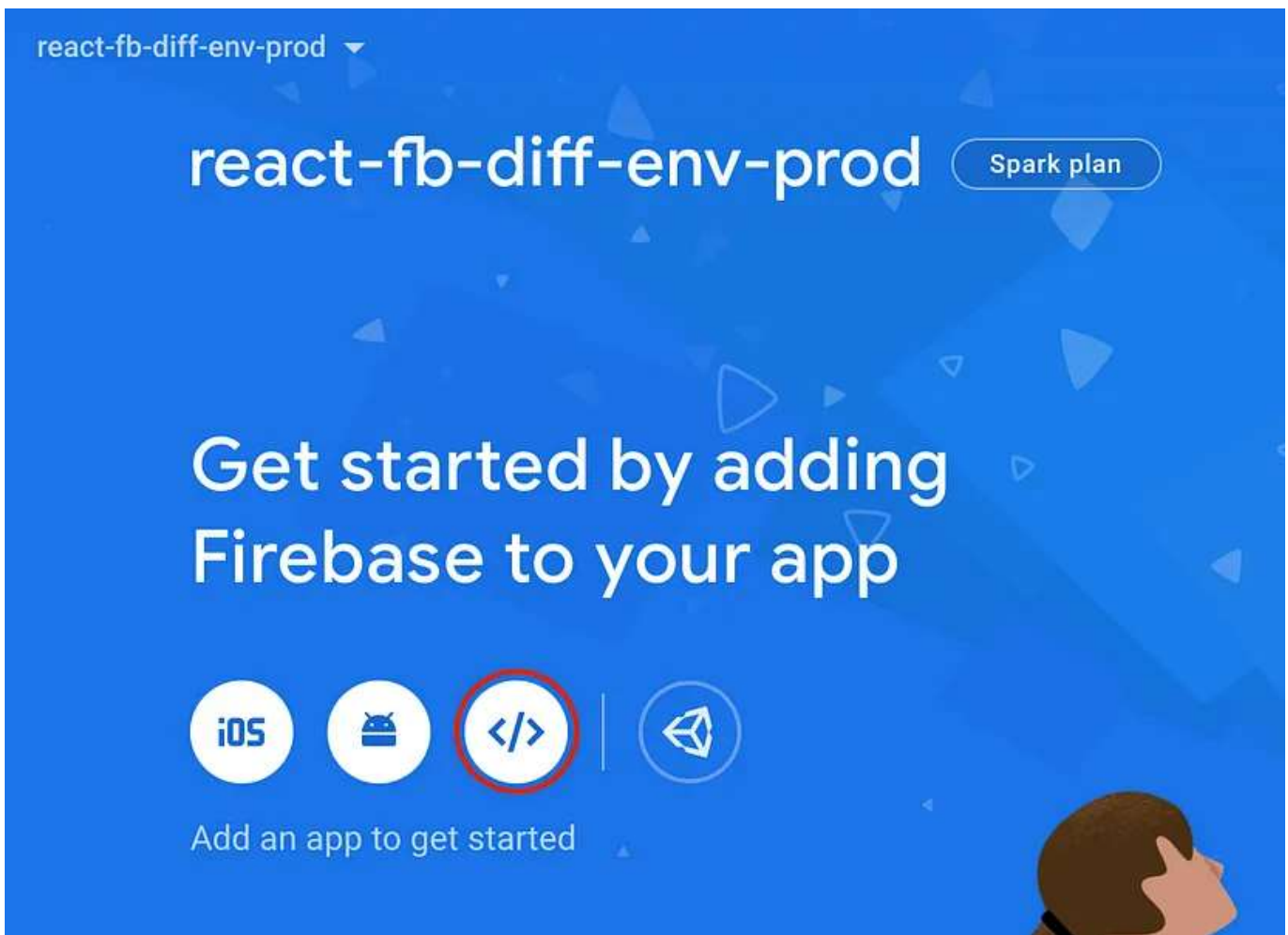- Enter your project name e.g. `react-fb-diff-env-prod` and `react-fb-diff-env-`

- Configuration Google Analytics

Provisioning resources... // firebase

Get started by adding Firebase to your app

Get started by adding Firebase to your app

1. Register app `</>`

2. Click Next on Add Firebase SDK

3. Install Firebase CLI `$ npm install -g firebase-tools`

4. To deploy to Firebase Hosting, you need the account authorization `$ firebase` login then initial Firebase by command $ firebase init then deploy it using `$ firebase deploy`

PS1. Remind create two project `dev` and `prod`.

PS2. Don't do step 4 because we will do it after we set configuration at Firebase Application complete.

One thing for dev environment and second thing for production

Get the configuration from Firebase App

To get the configuration from Firebase Application, you need to click the `Gear` at your application then `scroll down` until found Firebase SDK snippet then click `Config`

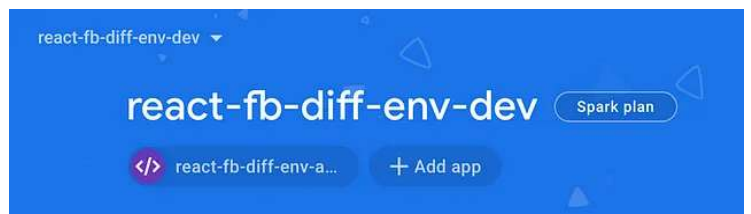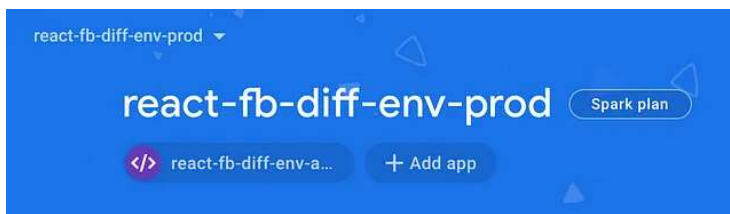**Firebase SDK snippet**

◯ Automatic ⑦   ◯ CDN ⑦   ● Config ⑦

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

```
// For Firebase JS SDK v7.20.0 and later, measurementId is optional
const firebaseConfig = {
  apiKey:
  authDomain:
  projectId:
  storageBucket:
  messagingSenderId:
  appId:
  measurementId:
};
```

Firebase SDK snippet

Remind, you must have two configurations.
Now, we have two Firebase application like this.

react-fb-diff-env-prod / react-fb-diff-env-dev

> Initializing Firebase in our React Web Application

Go to your directory then command below to install firebase.

```
$ npm install firebase
```

Initializing Firebase

```
$ firebase login
$ firebase init
```

Press spacebar at `Hosting: Configure and deploy Firebase Hosting sites` .
Then select `Use an existing project` .
Then select `react-fb-diff-env-prod` .
Enter `build` to set the directory named `build` as a public directory then
enter 1no1 to not rewrite `/index.html` file.

Hosting: Configure and deploy Firebase Hosting sites

Select `Use an existing project` .

Select `react-fb-diff-env-prod`

Type build and type No

Set up React Web Application

Update `src/App.js` with the following code.

```
import React, { Component } from 'react';
import logo from './logo.svg';
import './App.css';
import firebase from 'firebase';
```

```
class App extends Component {
    constructor(props){
        super(props);
        var config = {
            apiKey: process.env.REACT_APP_API_KEY,
            authDomain: process.env.REACT_APP_AUTH_DOMAIN,
            projectId: process.env.REACT_APP_PROJECT_ID,
            storageBucket: process.env.REACT_APP_STORAGE_BUCKET,
            messagingSenderId:
process.env.REACT_APP_MESSAGING_SENDER_ID,
            appId: process.env.REACT_APP_APP_ID,
            measurementId: process.env.REACT_APP_MEASUREMENT_ID

};
        if (!firebase.apps.length) {
            firebase.initializeApp(config);
        }
    }
    render() {
        return (<>
         <div className="App">
            <header className="App-header">
             <img src={logo} className="App-logo" alt="logo" />
             <p>{process.env.REACT_APP_PROJECT_ID}</p>
            </header>
         </div>
        </>
        );
    }
}
export default App;
```

Now we've added Firebase configuration and changed `App.js` to be Component. So, After that we will create env file as following

```
$ touch .env.eg .env.development .env.production
```

Add the following configuration to these three files and replace the value with your project information to both `env` files except the file `.env.eg`. I need to keep it as an example on github.

```
REACT_APP_API_KEY={your_api_key}
REACT_APP_AUTH_DOMAIN={your_auth_domain}
REACT_APP_PROJECT_ID={your_project_id}
REACT_APP_STORAGE_BUCKET={your_storage_bucket}
REACT_APP_MESSAGING_SENDER_ID={your_messaging_sender_id}
REACT_APP_APP_ID={your_app_id}
REACT_APP_MEASUREMENT_ID={your_measurement_id}
```

go to `.gitignore` then add

```
.env.development
.env.production
```

Next step, we will install env-cmd

The `env-cmd` library is a program for executing commands using an environment from an `env` file.

```
$ npm i -D env-cmd
```

Add an alias to Firebase environment by using command

```
$ firebase use --add
```

```
? Which project do you want to add?
```
```
> react-fb-diff-env-dev
  react-fb-diff-env-prod
```

```
? Which project do you want to add? react-fb-diff-env-dev
? What alias do you want to use for this project? (e.g. staging) dev

Created alias dev for react-fb-diff-env-dev.
Now using alias dev (react-fb-diff-env-dev)
```

react-fb-diff-env-dev

react-fb-diff-env-prod

Please be reminded add both environments. $ firebase use --add .

Next step. Add configuration to package.json

```
"scripts": {
  "start": "react-scripts start",
  "build": "react-scripts build",
  "test": "react-scripts test",
  "eject": "react-scripts eject",
  "build:dev":"env-cmd -f .env.development npm run build && firebase
deploy -P dev",
  "build:prod":"env-cmd -f .env.production npm run build && firebase
deploy -P prod"
}
```

> Let's try

```
$ npm start // It should show development env
$ npm run build:dev // It should show development env on firebase
$ npm run build:prod // It should show production env on firebase
```

screenshot

If you made it, I want to tell you… Congratulations!!

> Conclusion

However, this is one of many methods to set an environment. There are other ways to do so e.g. using `dotenv` instead of `env-cmd` which you can find more at this link. In addition, the next interesting topic for you to study is how to manage secret and protect sensitive data which I recommend Vault to be your first step.

Thank you so much for staying with me until this line. I hope you can make it done and have fun with this article. Please feel free to give me comments and suggestions.

You can clone this project source code from Github

iamgique/react-firebase-diff-env

react-firebase-diff-env. Contribute to iamgique/react-firebase-diff-env development by creating an account on GitHub.

github.com

References

Create a New React App - React

A JavaScript library for building user interfaces

reactjs.org

Adding Custom Environment Variables | Create React App

Note: this feature is available with and higher. Your project can consume variables declared in your...

create-react-app.dev

env-cmd

Executes a command using the environment variables in an env file

www.npmjs.com

Firebase　React　Env Cmd　Env　Reactjs

Written by Sakul Montha

Chief Product Officer, a man who's falling in love with the galaxy.

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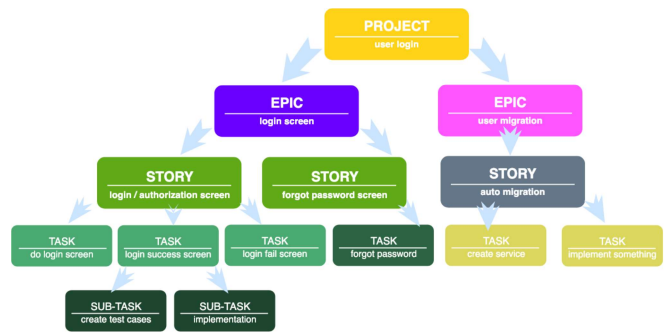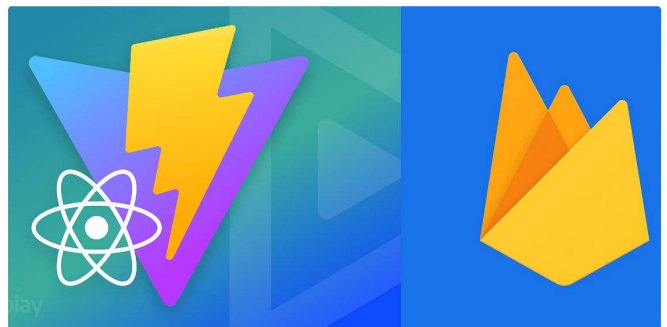## Jira คืออะไร แล้ว Epic, Story, Task และ Sub-Task ต่างกันอย่างไร

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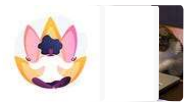
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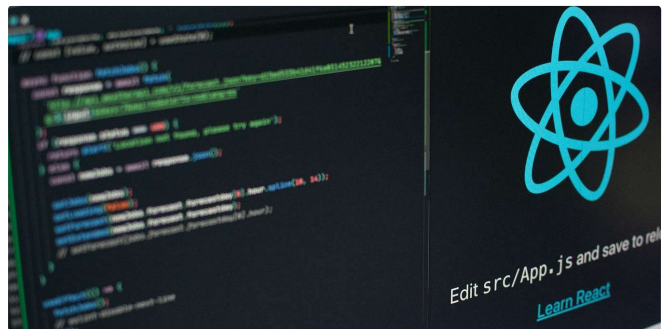
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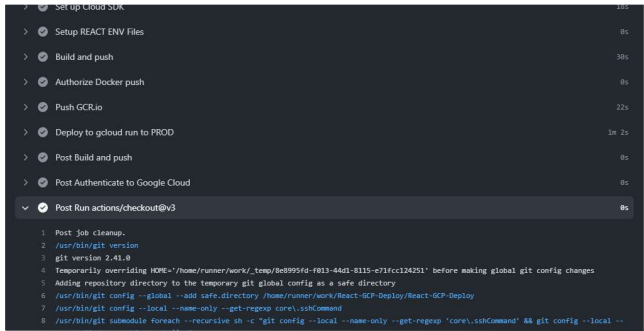Might be the only guide you will ever need

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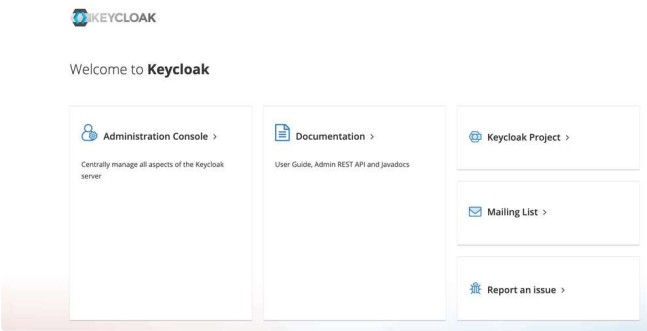
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