Front-End Development

React & Firebase

#3 Firebase Auth with Various Providers

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Firebase Authentication provides backend services, easy-to-use SDKs, and ready-made UI libraries to authenticate users to your app. It supports authentication using passwords, phone numbers, popular federated identity providers like Google, Facebook and Twitter, and more.

Firebase Authentication integrates tightly with other Firebase services, and it leverages industry standards like OAuth 2.0 and OpenID Connect, so it can be easily integrated with your custom backend.

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How to Setup React and Firebase Authentication with Google Provider?

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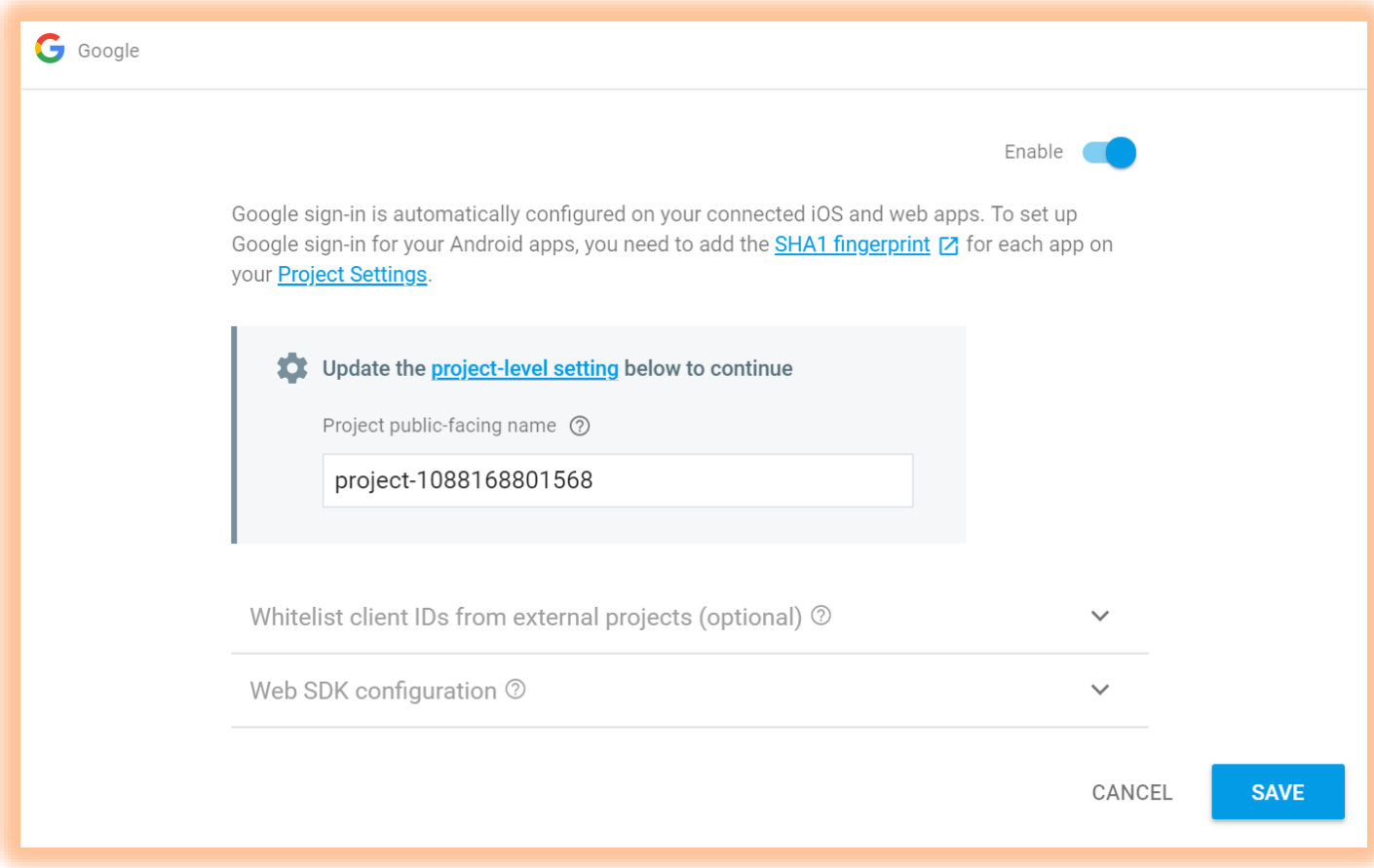
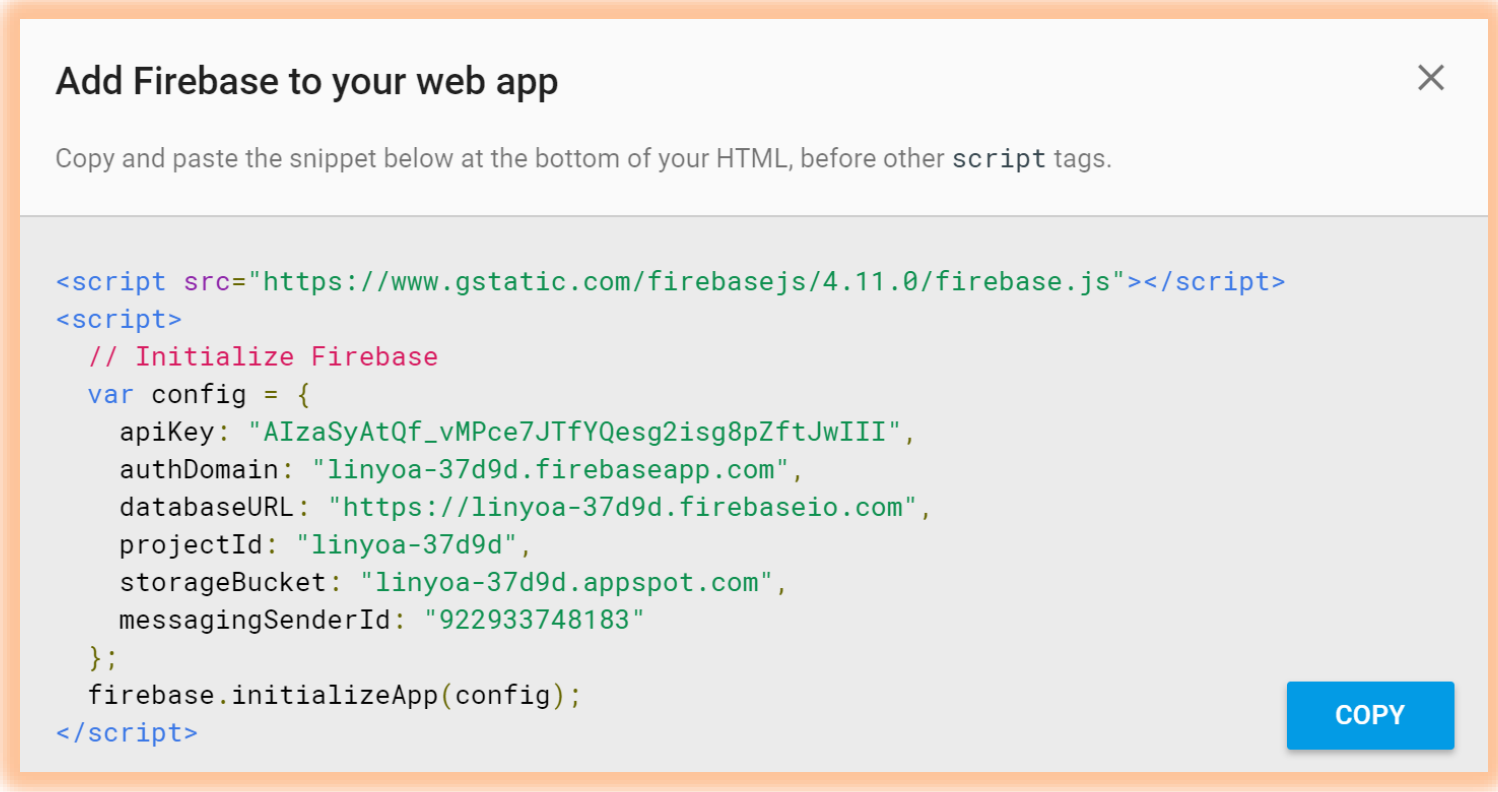
#1 Setup Firebase Auth

- Login to ***Firebase*** Console, choose/create a project then go to ***Firebase Authentication***. On ***Sign-In Method*** tab, enable ***Google*** sign-in provider then Save it!



#2 Firebase Snippet

- Go to ***Project Overview***, choose ***Add Firebase to Your Web App*** then copy its snippet code.



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#3 Create/Prepare Your React App

- Install create-react-app utility globally on your PC (if you have not done yet before)

```
$ npm install -g create-react-app
```

- Create a new react app or prepare yours

```
$ create-react-app lin_auth
$ cd lin_auth
```

- Install Firebase packages needed

```
$ npm install -g firebase-tools
$ npm install firebase
```

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src/fire.js

#4 Insert Snippet

Create src/fire.js

```
import firebase from 'firebase';

var config = {
    apiKey: "a1b2c3d4e5f6g7h8i9j0",
    authDomain: "lintang-auth.firebaseapp.com",
    databaseURL: "https://lintang-auth.firebaseio.com",
    projectId: "lintang-auth",
    storageBucket: "lintang-auth.appspot.com",
    messagingSenderId: "1234567890"
};

firebase.initializeApp(config);
export const ref = firebase.database().ref();
export const auth = firebase.auth;
export const provider = new
firebase.auth.GoogleAuthProvider();
```

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src/App.js

#5 Main Program
Part 1

```
import React, { Component } from 'react';
import { provider, auth } from './fire';

class App extends Component {
 constructor(){
   super();
   this.state = {user: null}
 }
 async login() {
   const result = await auth().signInWithPopup(provider);
   this.setState({user: result.user});
 }
 async logout(){
   await auth().signOut()
   this.setState({user: null});
 }

. . . . . .
```

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src/App.js

#5 Main Program
Part 2

```
. . . . . .
render() {
 return (
  <div>
   <p>
     {this.state.user ? `Hi,
     ${this.state.user.displayName}!` : 'Hi!'}
   </p>
   <button onClick={this.login.bind(this)}>
     Login with Google
   </button>
   <button onClick={this.logout.bind(this)}>
     Logout
   </button>
  </div>
);}}

export default App;
```

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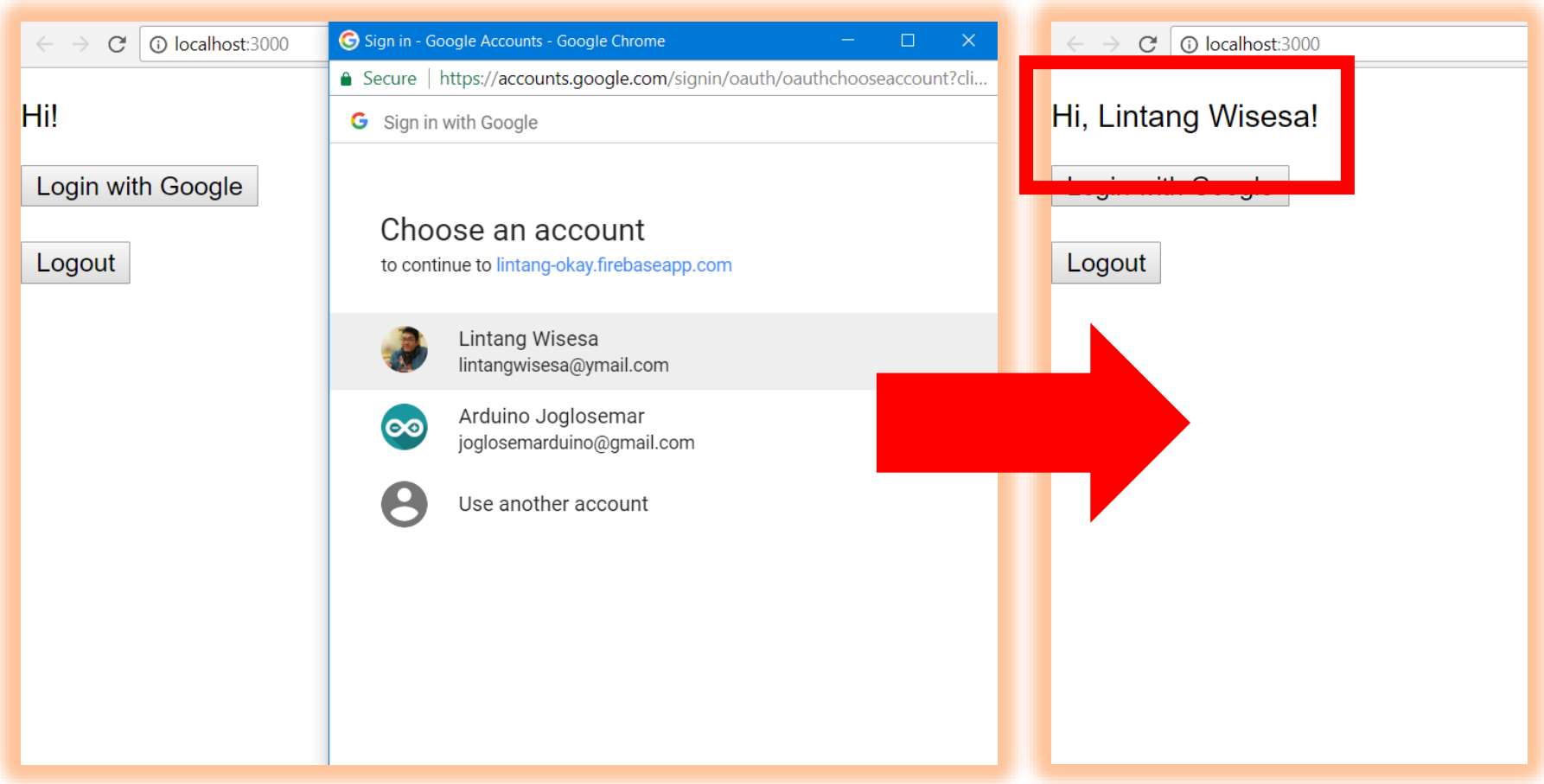
React, Firebase Auth With Google Provider



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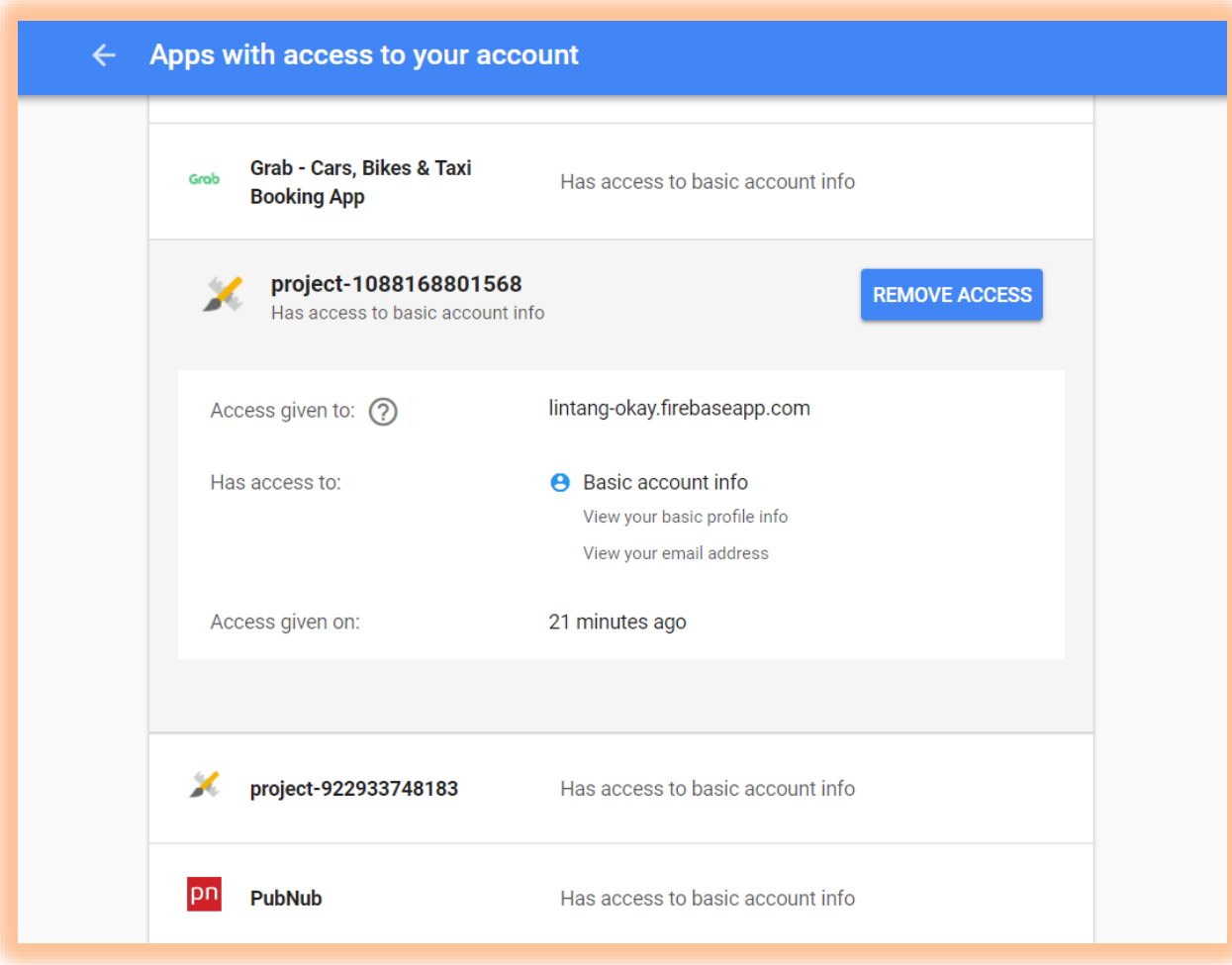
Revoke Google Permission

- Go to `https://myaccount.google.com/permissions` then simply remove its access.



How to Setup React and Firebase Authentication with Facebook Provider?

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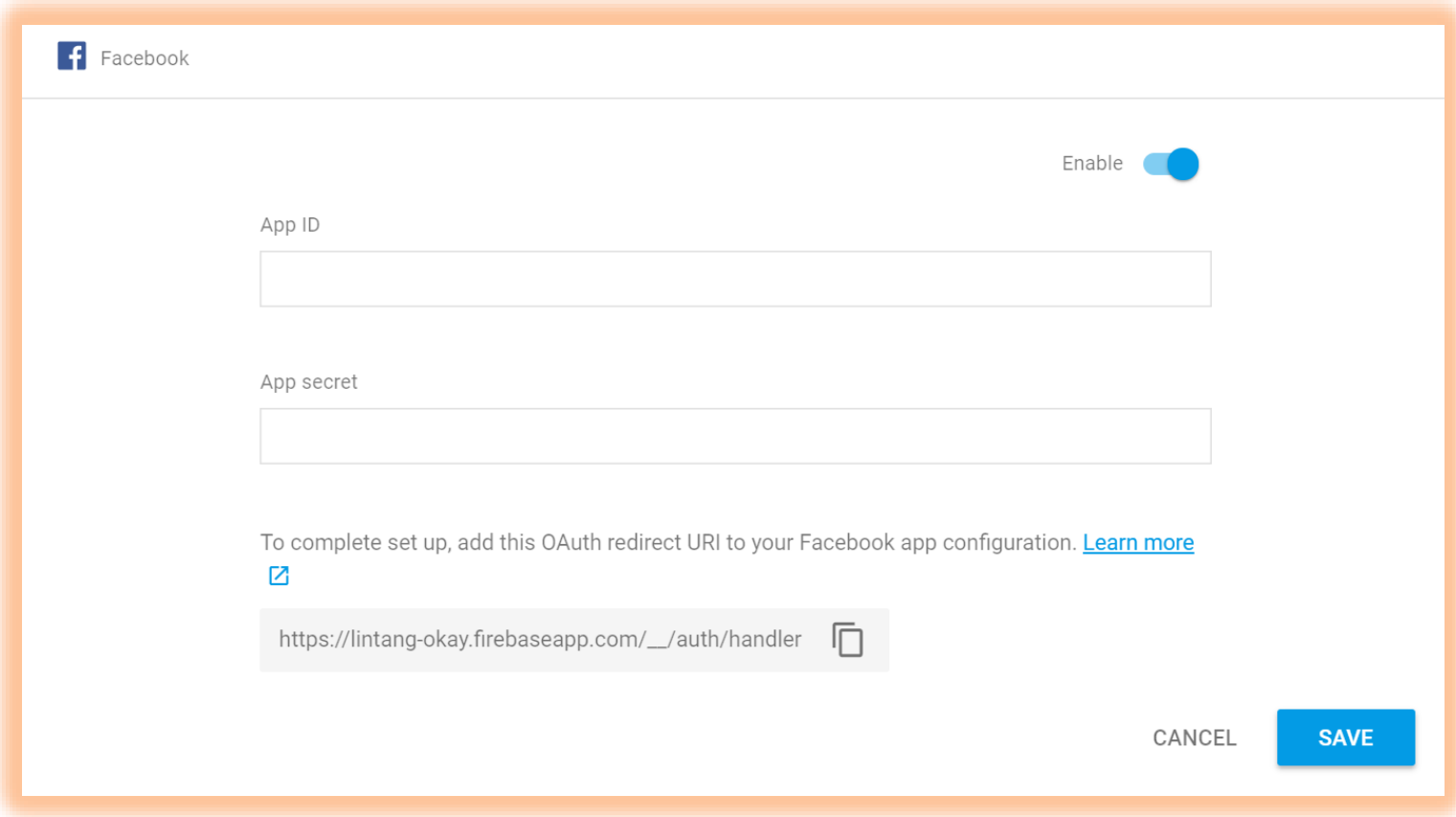
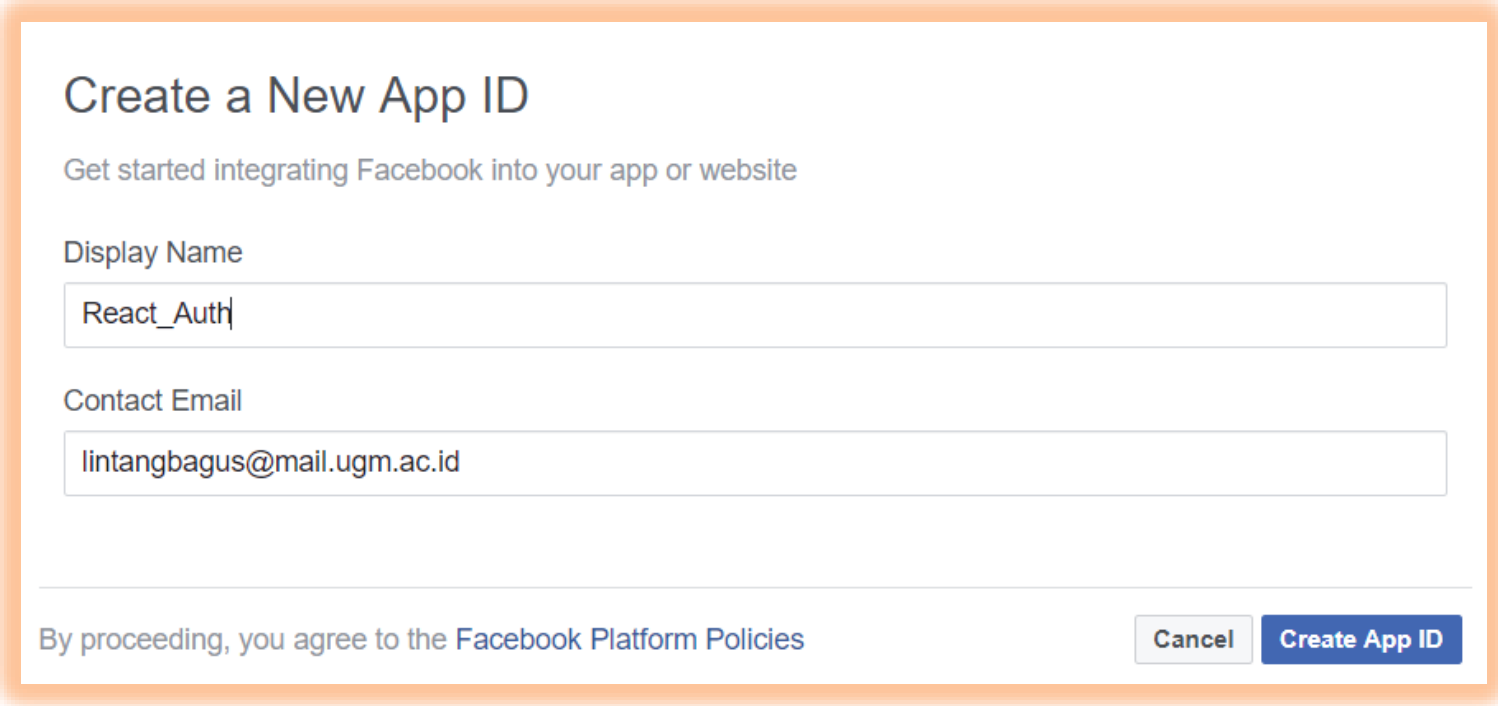
#1 Setup Firebase Auth

- Login to ***Firebase*** Console, choose/create a project then go to ***Firebase Authentication***. On ***Sign-In Method*** tab, enable ***Facebook*** sign-in provider!



#2 Facebook Dev

- Login to Facebook, then go to Facebook Dev at https://developers.facebook.com. Click on ***My Apps → Add a new App***, insert Display Name & Contact Email then click ***Create App ID***.



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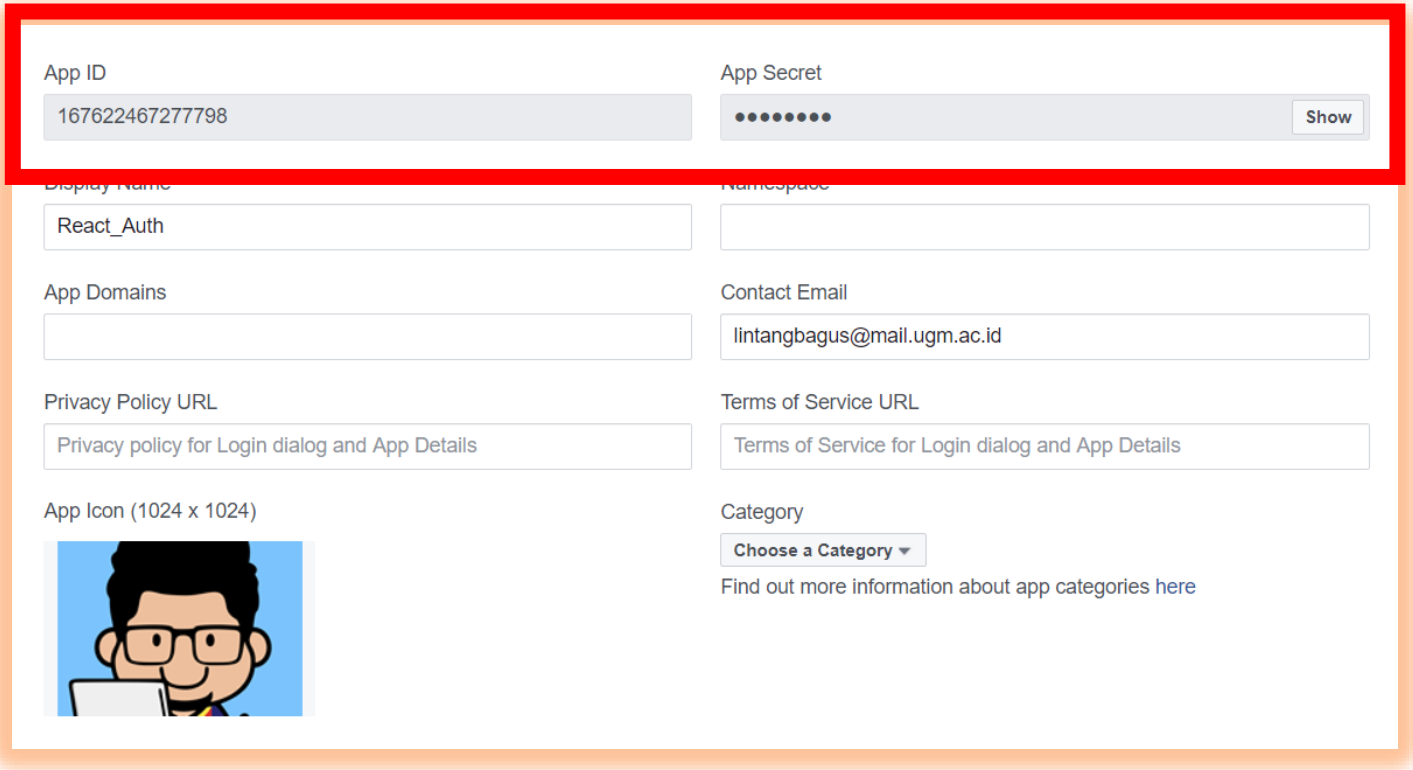
#3 App ID & Secret

- On your Facebook dev dashboard, go to ***Settings*** menu → ***Basic***, you will see your App ID & App Secret. Save its configuration!



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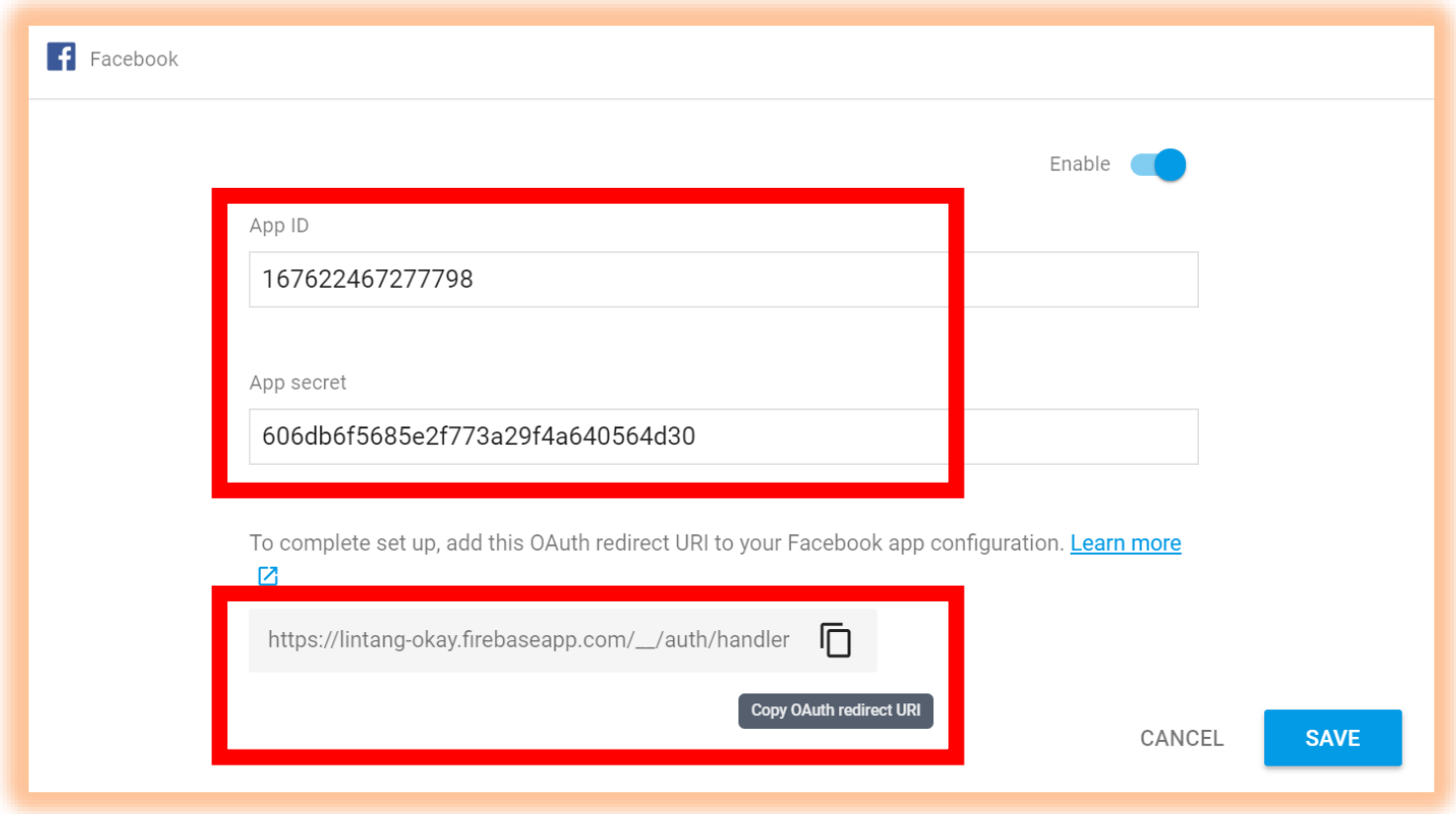
#4 Finishing Firebase Auth

- Go back to Firebase Auth, insert our App ID & App Secret on Facebook sign-in provider. Then copy ***OAuth redirect URI***. We'll need this on Facebook dev.



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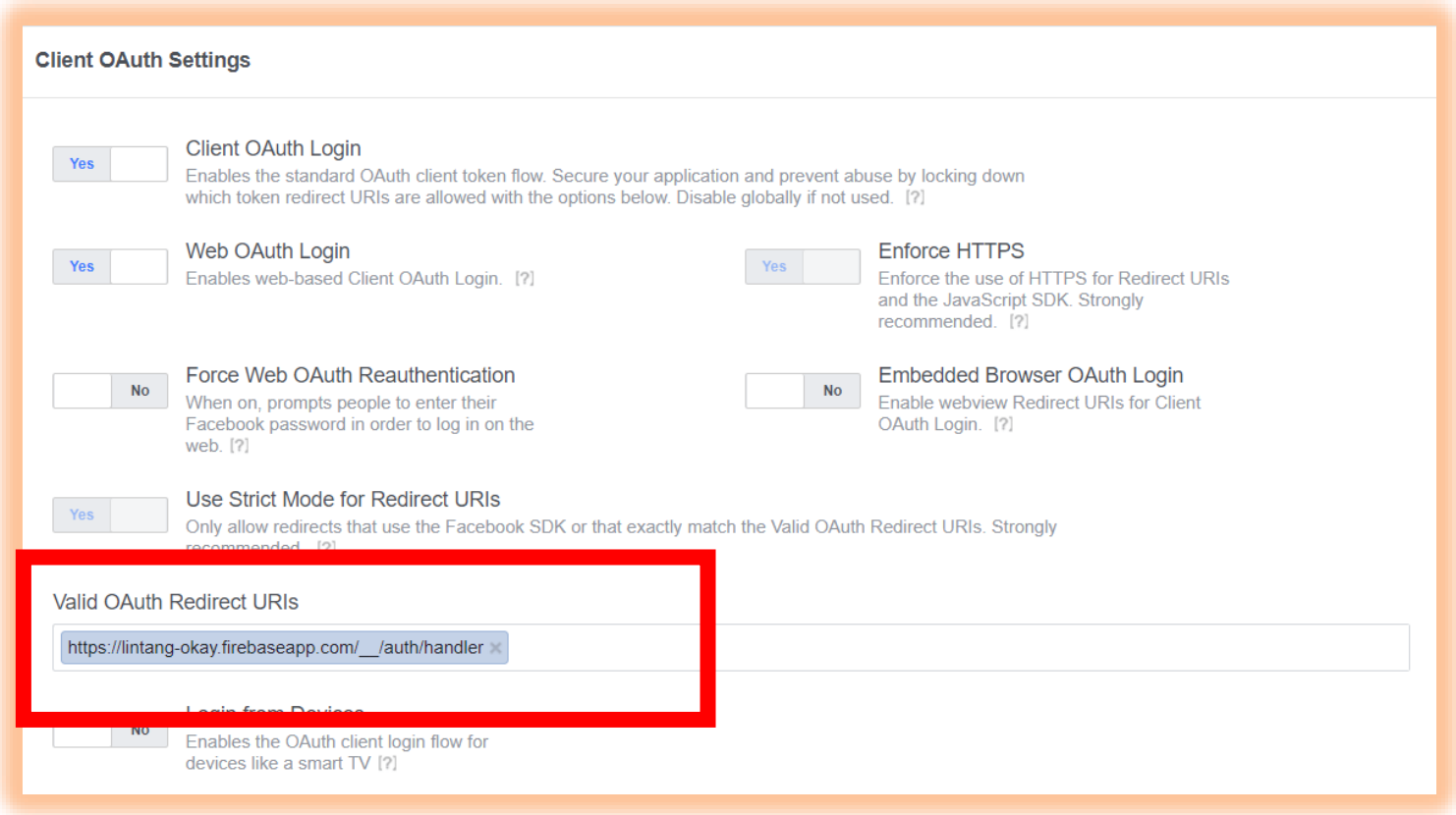
#5 Facebook Login

- Go back to Facebook dev, ***Add a Product***, choose ***Facebook Login***. On its ***Settings***, insert our ***OAuth redirect URI*** from Firebase. Save & you're done.



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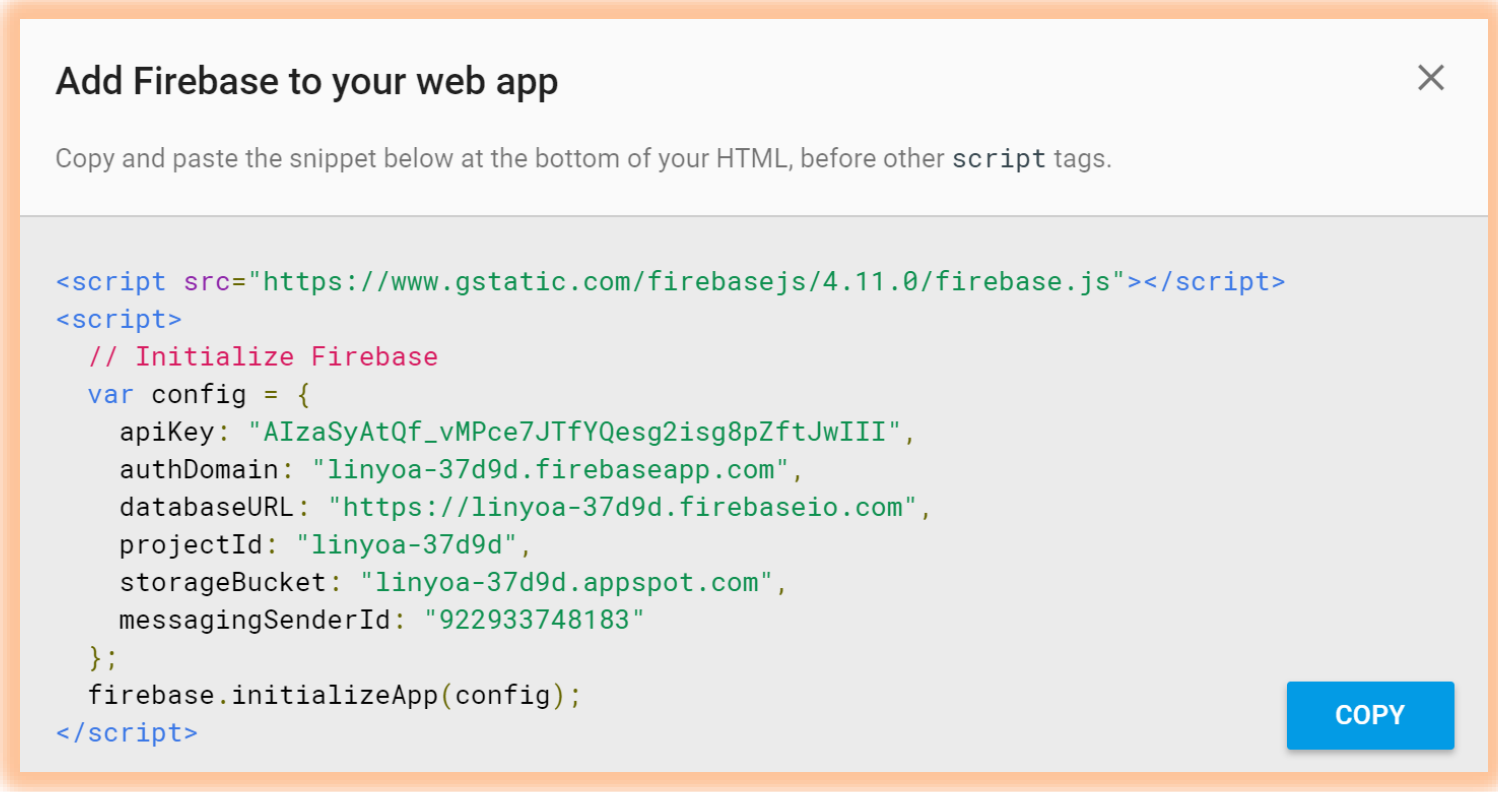
#6 Firebase Snippet

- Go to ***Firebase Project Overview***, choose ***Add Firebase to Your Web App*** then copy its snippet code.



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#7 Create/Prepare Your React App

- Install create-react-app utility globally on your PC (if you have not done yet before)

```
$ npm install -g create-react-app
```

- Create a new react app or prepare yours

```
$ create-react-app lin_auth
$ cd lin_auth
```

- Install Firebase packages needed

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$ npm install -g firebase-tools
$ npm install firebase
```

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src/fire.js

#8 Insert Snippet

Create src/fire.js

```
import firebase from 'firebase';

var config = {
    apiKey: "a1b2c3d4e5f6g7h8i9j0",
    authDomain: "lintang-auth.firebaseapp.com",
    databaseURL: "https://lintang-auth.firebaseio.com",
    projectId: "lintang-auth",
    storageBucket: "lintang-auth.appspot.com",
    messagingSenderId: "1234567890"
};

firebase.initializeApp(config);
export const ref = firebase.database().ref();
export const auth = firebase.auth;
export const provider = new
firebase.auth.FacebookAuthProvider();
```

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src/App.js

#9 Main Program
Part 1

```
import React, { Component } from 'react';
import { provider, auth } from './fire';

class App extends Component {
 constructor(){
   super();
   this.state = {user: null}
 }
 async login() {
   const result = await auth().signInWithPopup(provider);
   this.setState({user: result.user});
 }
 async logout(){
   await auth().signOut()
   this.setState({user: null});
 }

. . . . . .
```

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src/App.js

#9 Main Program
Part 2

```
. . . . . .
render() {
 return (
  <div>
   <p>
     {this.state.user ? `Hi,
     ${this.state.user.displayName}!` : 'Hi!'}
   </p>
   <button onClick={this.login.bind(this)}>
     Login with Facebook
   </button>
   <button onClick={this.logout.bind(this)}>
     Logout
   </button>
  </div>
);}}

export default App;
```

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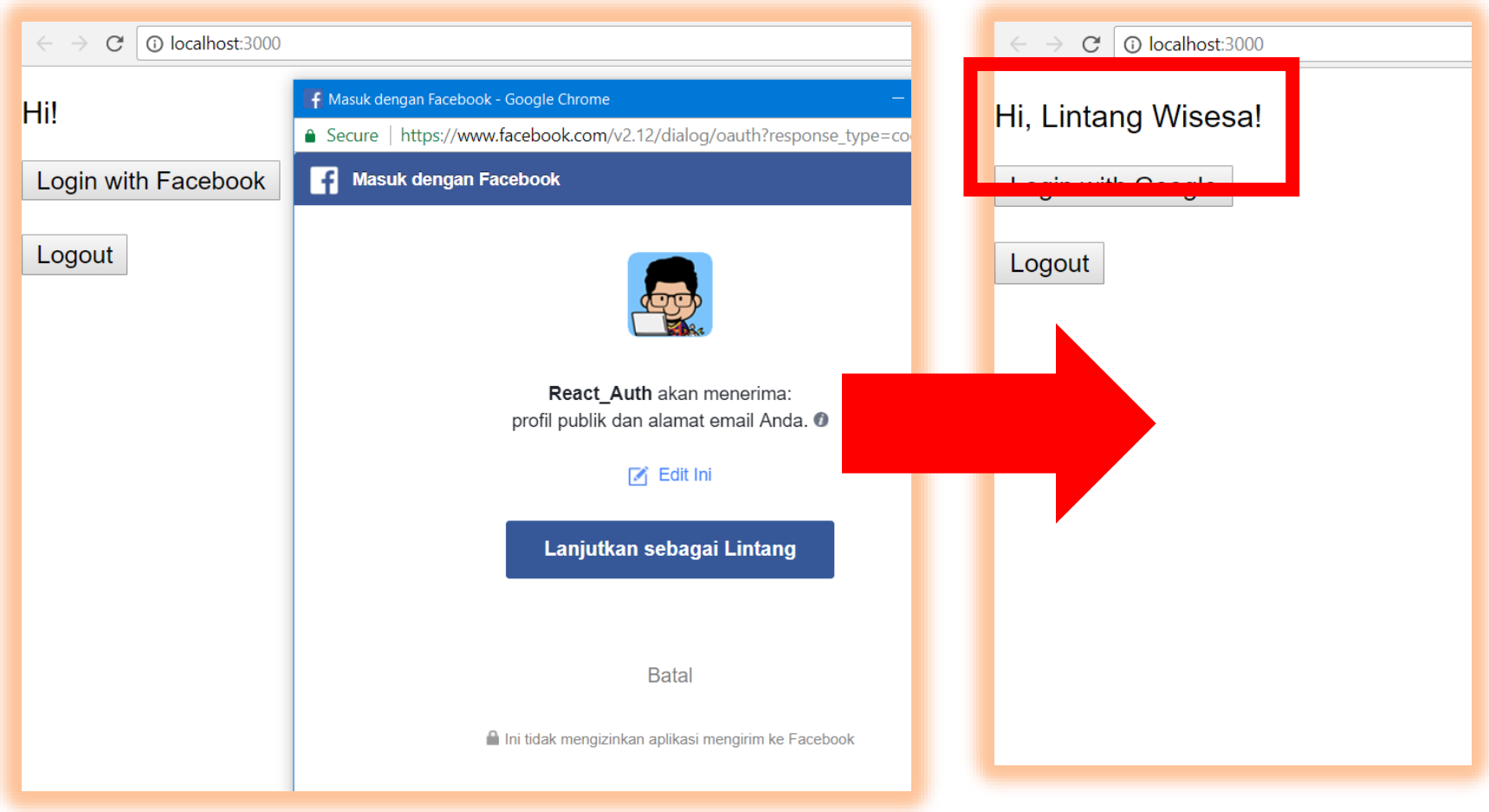
React, Firebase Auth With Facebook Provider



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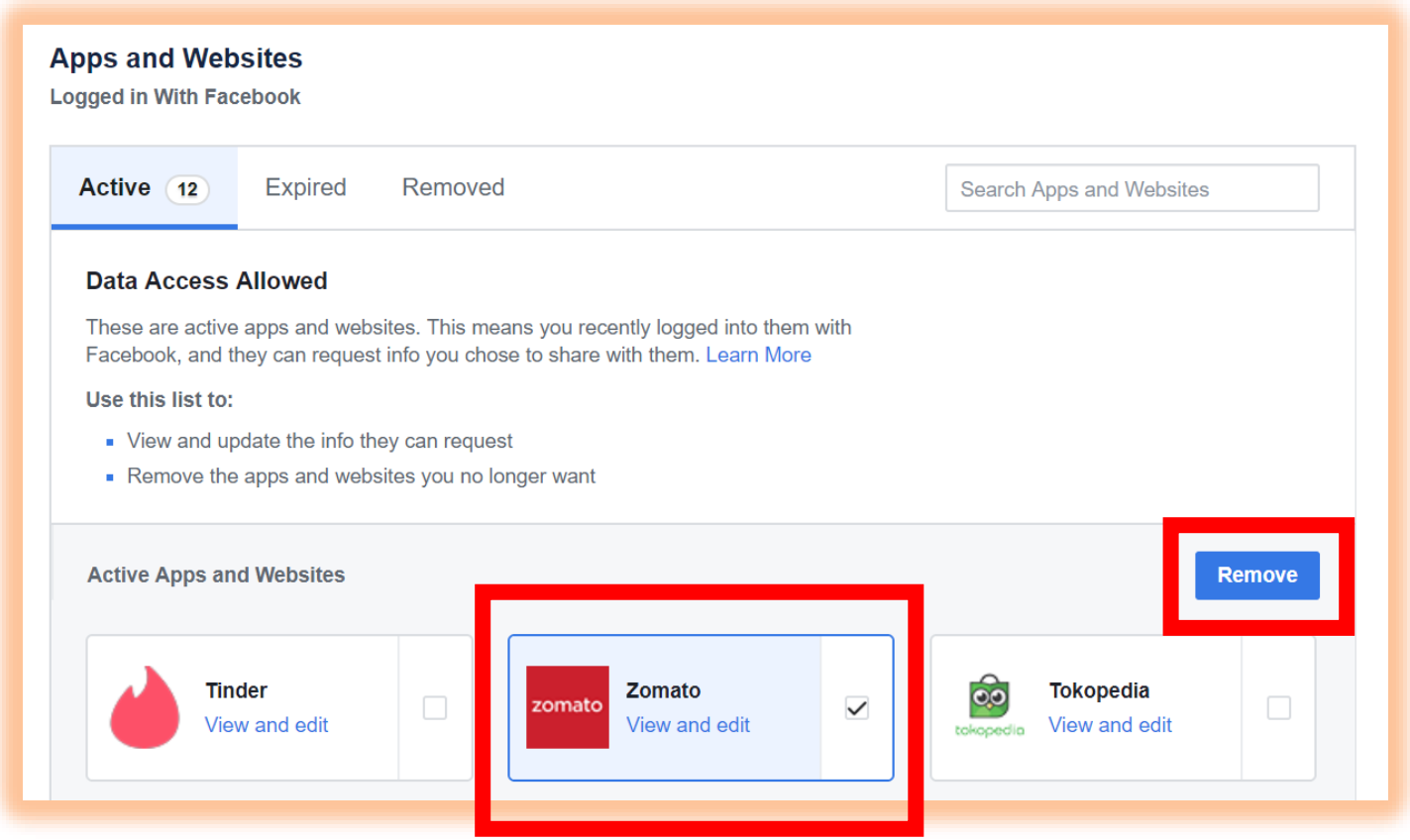
Revoke Facebook Permission

- Go to Facebook.com, on ***Settings → Apps & Websites***, tick on our app then simply ***remove*** it.



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How to Setup React and Firebase Authentication with Twitter Provider?

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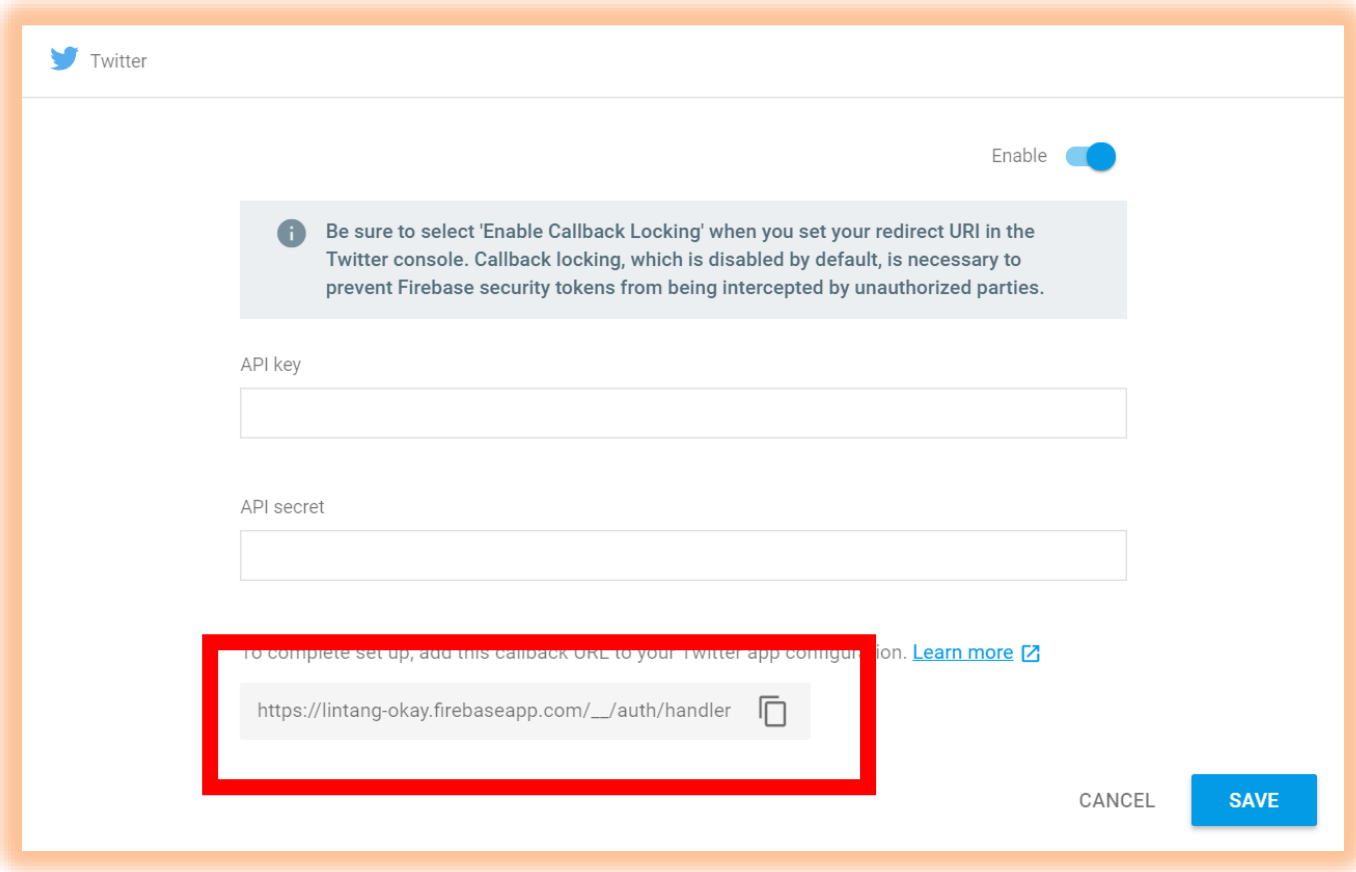
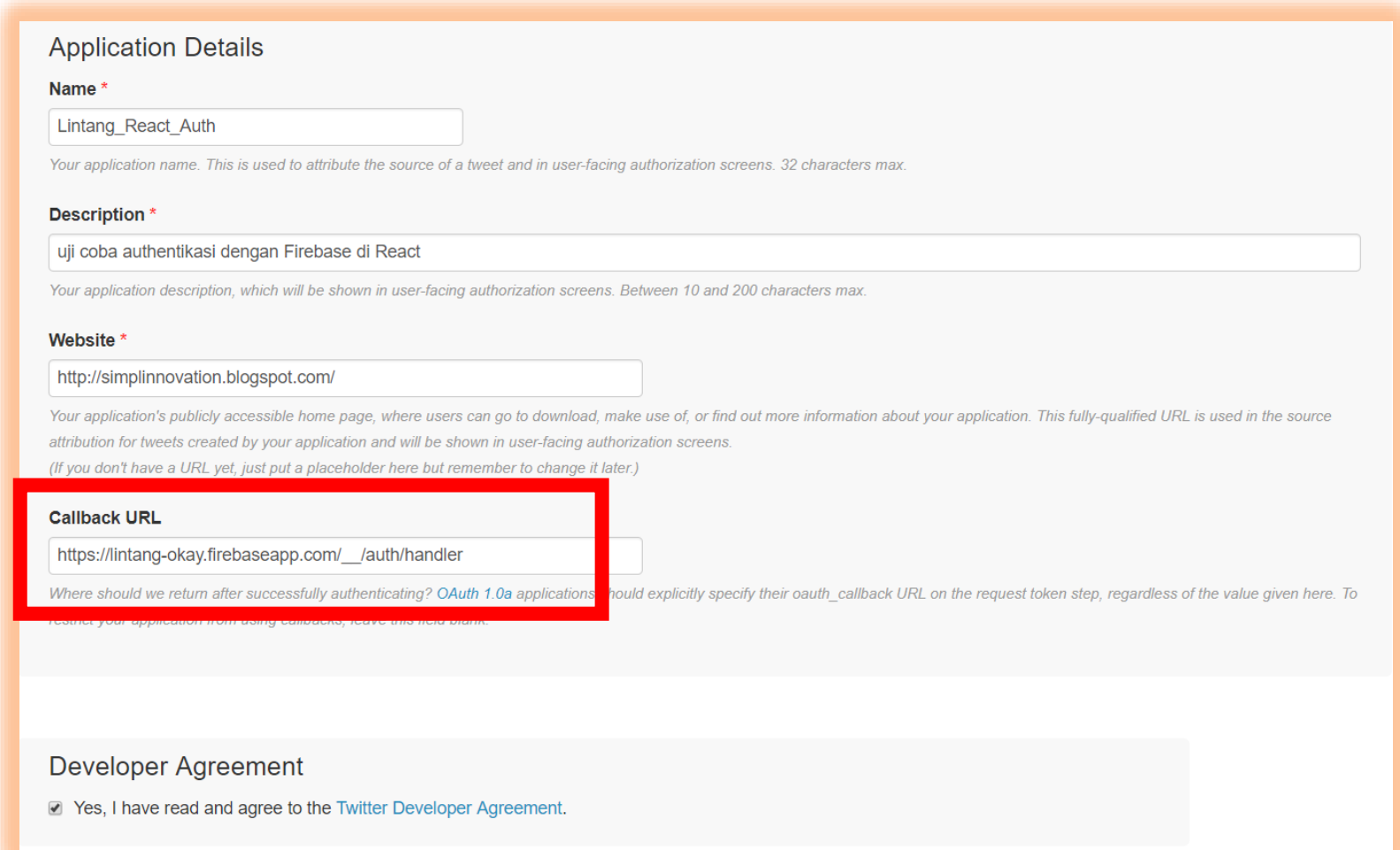
#1 Setup Firebase Auth

- Login to ***Firebase*** Console, choose/create a project then go to ***Firebase Authentication***. On ***Sign-In Method*** tab, enable ***Twitter*** sign-in provider & copy its ***Callback URL***!



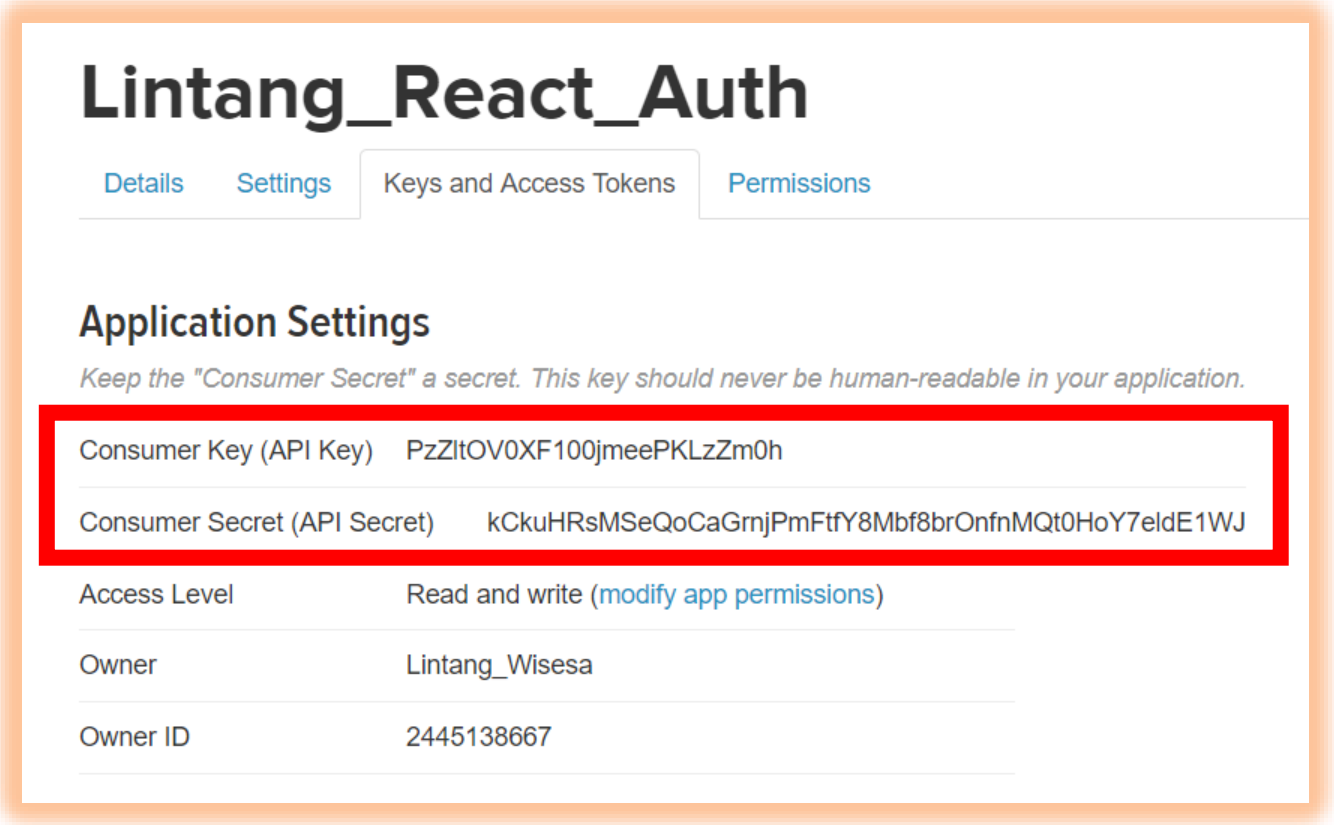
#2 Twitter Dev

- Login to ***Twitter***, go to https://dev.twitter.com/apps/new or https://apps.twitter.com/ and ***Create New App***. Fill in the forms, insert our ***Callback URL*** then click ***Create Your Twitter Application***.



#3 API Key & Secret

- Go to ***Keys and Access Tokens*** to get our API Key & API Secret. Copy these code to our Firebase Auth & Save!



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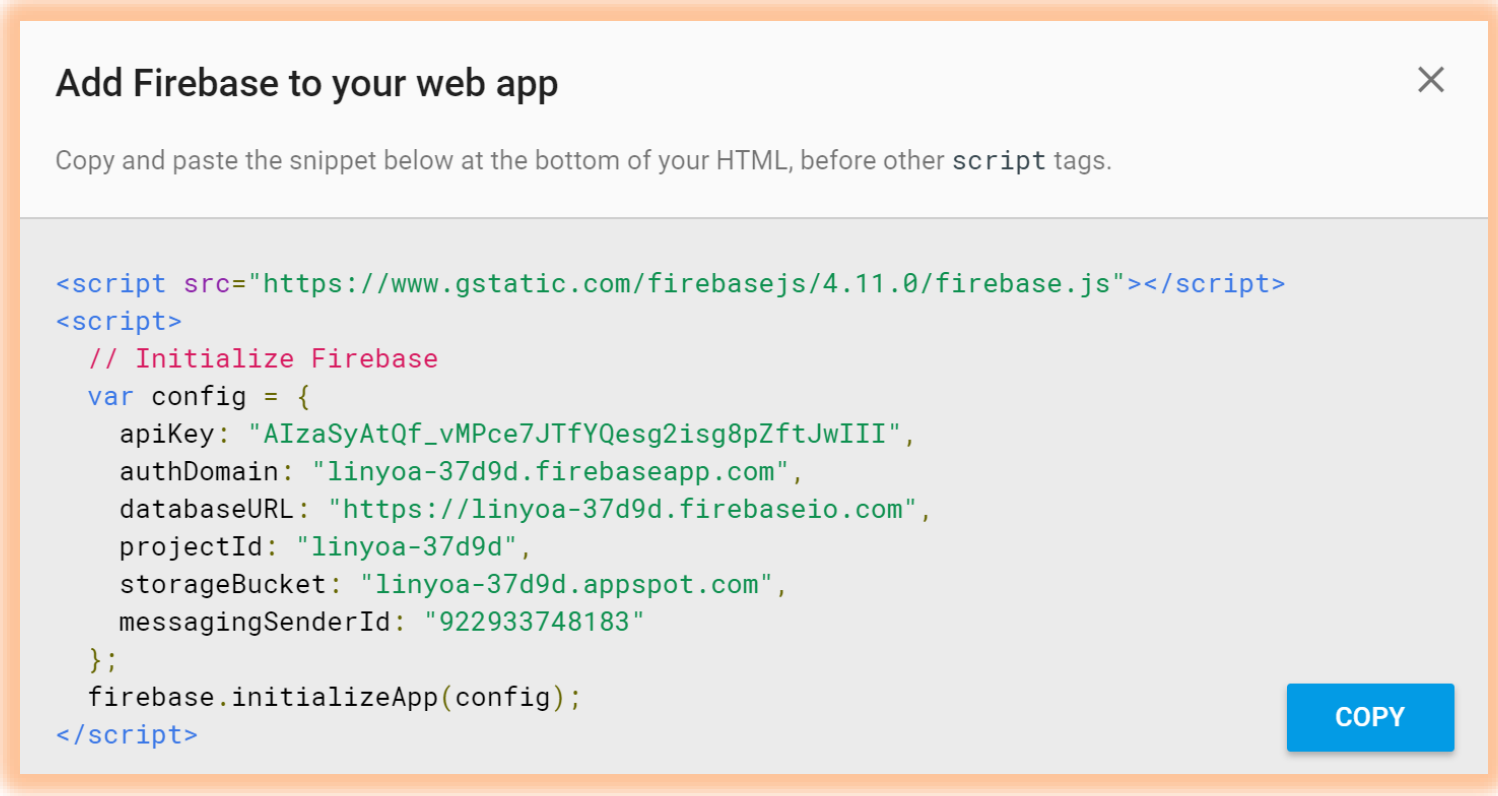

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src/fire.js

#6 Insert Snippet

Create src/fire.js

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var config = {
    apiKey: "a1b2c3d4e5f6g7h8i9j0",
    authDomain: "lintang-auth.firebaseapp.com",
    databaseURL: "https://lintang-auth.firebaseio.com",
    projectId: "lintang-auth",
    storageBucket: "lintang-auth.appspot.com",
    messagingSenderId: "1234567890"
};

firebase.initializeApp(config);
export const ref = firebase.database().ref();
export const auth = firebase.auth;
export const provider = new
firebase.auth.TwitterAuthProvider();
```

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src/App.js

#7 Main Program
Part 1

```
import React, { Component } from 'react';
import { provider, auth } from './fire';

class App extends Component {
 constructor(){
   super();
   this.state = {user: null}
 }
 async login() {
   const result = await auth().signInWithPopup(provider);
   this.setState({user: result.user});
 }
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   await auth().signOut()
   this.setState({user: null});
 }

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```

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src/App.js

#7 Main Program
Part 2

```
. . . . . .
render() {
 return (
  <div>
   <p>
     {this.state.user ? `Hi,
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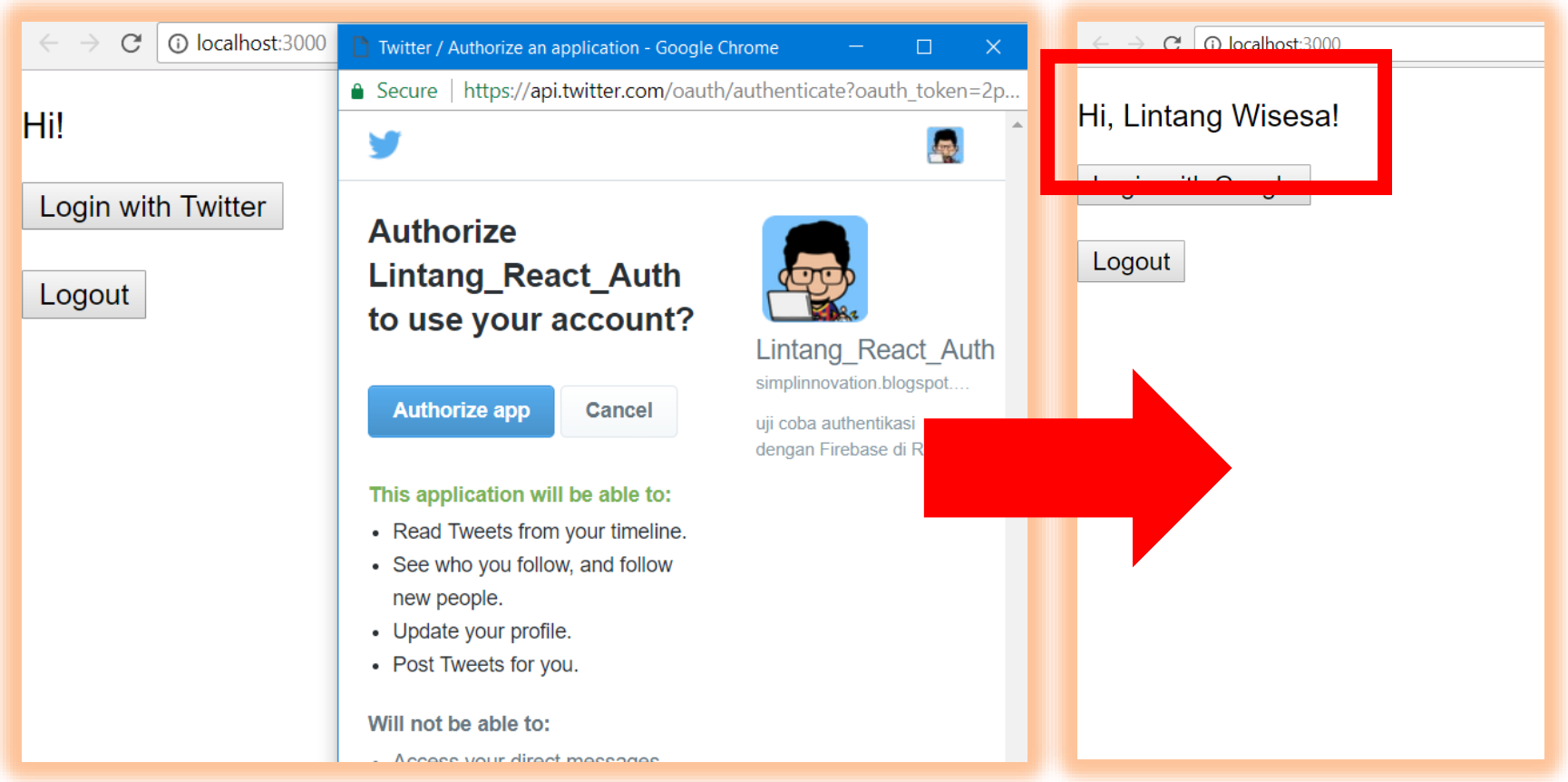
React, Firebase Auth With Twitter Provider



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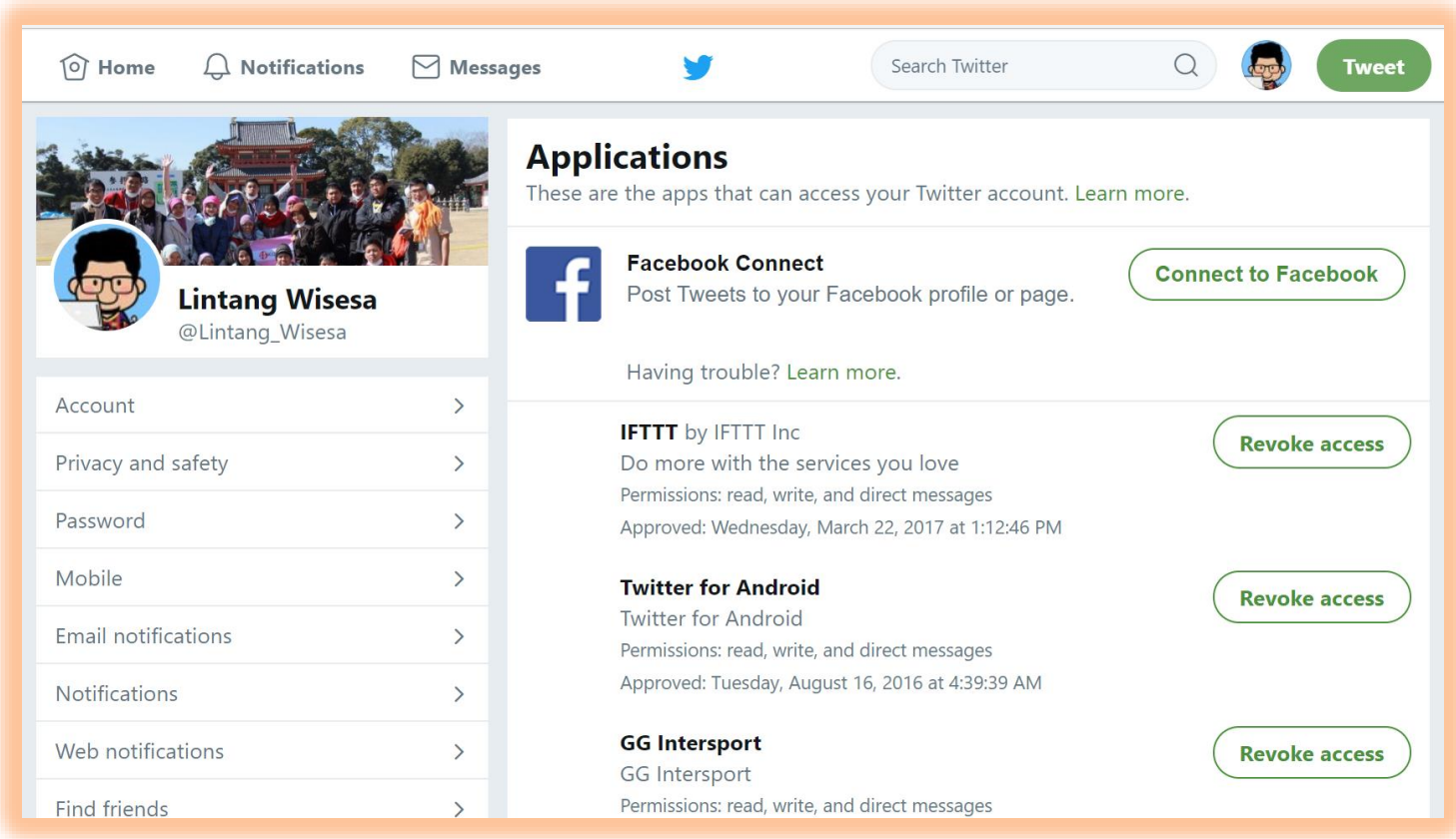
Revoke Twitter Permission

- Go to Twitter.com, on ***Settings*** → ***Apps*** simply remove its access on an application.



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Front-End Development

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