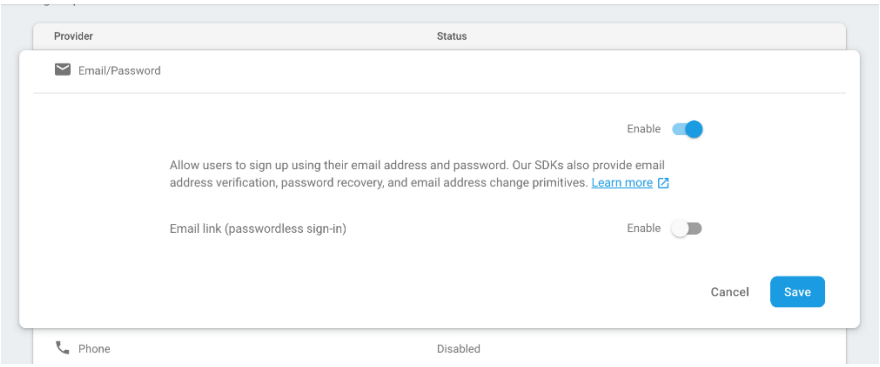
FIREBASE LOGIN

Firebase adalah serangkaian alat (bantu) untuk developer aplikasi, namun bukan hanya untuk developer aplikasi Android. Ini untuk developer aplikasi iOS dan juga developer aplikasi web. Akan tetapi, karena kursus ini adalah tentang development Android, pelajaran ini hanya membahas tentang cara menggunakan Firebase dengan aplikasi Android.

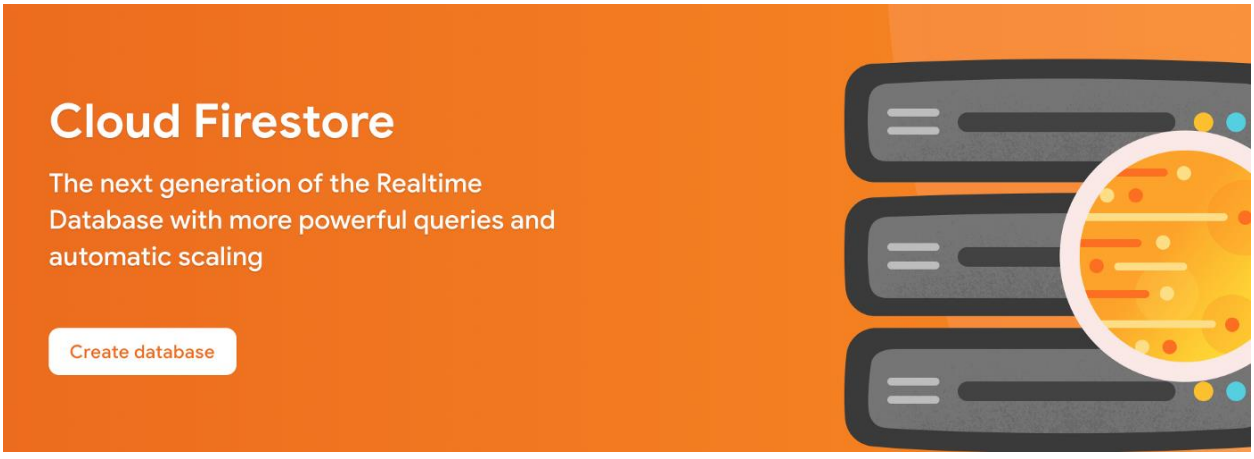
Sebagai developer Android, Anda menggunakan Android Studio untuk membangun aplikasi, namun Anda bisa menggunakan Firebase untuk menambahkan fitur ke aplikasi, mendapatkan pengguna aplikasi yang lebih luas, menguji aplikasi, menghasilkan pendapatan dari aplikasi, dan mendapatkan analisis tentang penggunaan aplikasi tersebut.

Langkah :

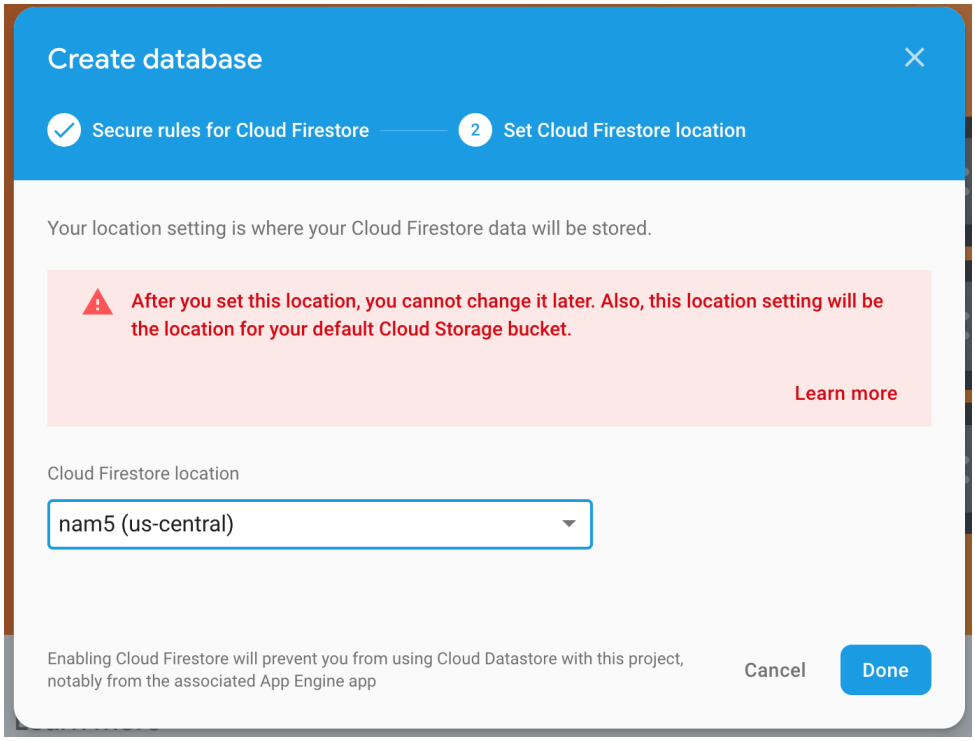
1. Setting Firebase Console
   Login ke firebase console dan add a new project. Pilih authentification dan pilih tab menu Set up sign in method



2. Setelah enabling athentification pilih menu Database dan pilih create database



3. Select **Start in test mode**.



4. PIlih Done

Setting react app dan firebase

1. Buat aplikasi baru dengan perintah

```
create-react-app your-project-name
```

2. Install project baru dengan perintah

```
npm run start
```

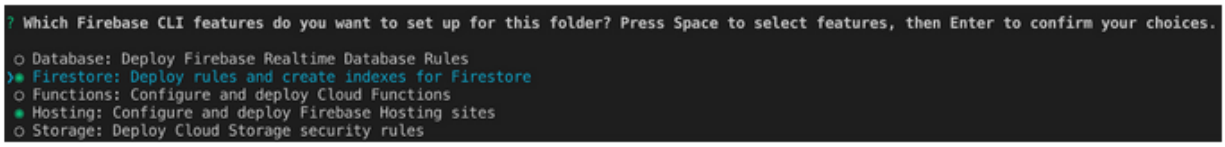
3. Install firebase

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

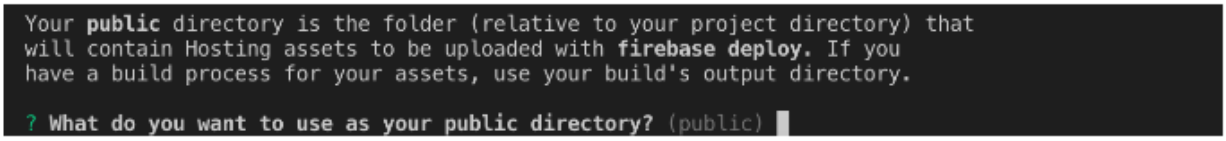
```
firebase login
```

```
firebase init
```

4. Pilih setting untuk firebase nya firebase dan Hosting



5. Pilih build jangan pilih Do not choose public
6. Pilih



Pilih Y lalu N untuk overwriting index.html

7. Untuk membangun firebase

```
npm run build
```

```
firebase serve
```

Instalasi Redux

1. Install Redux dan react redux, redux thunk

```
npm install redux
```

```
npm install react-redux
```

```
npm install redux-thunk
```

```
npm install react-router-dom
```

2. Install firebase

```
npm install firebase
```

3. Pilih UI library

```
npm install @material-ui/core
```

4. Paste kan file public/index.html

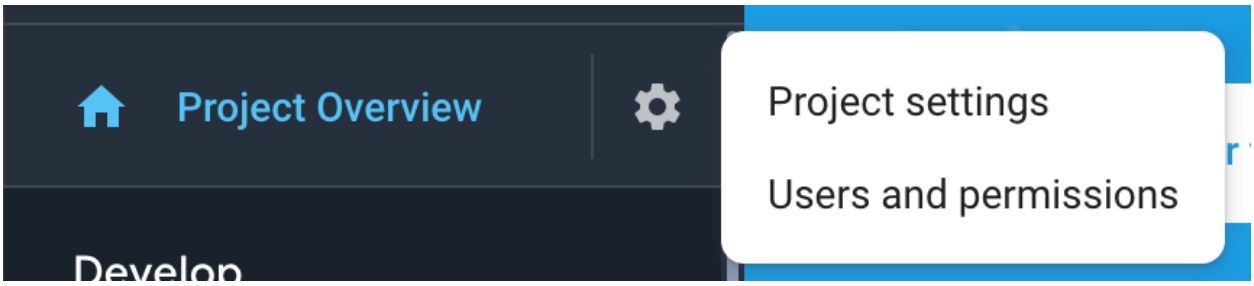
```
<link rel="stylesheet" href="https://fonts.googleapis.com
/css?family=Roboto:300,400,500,700&display=swap" />
```

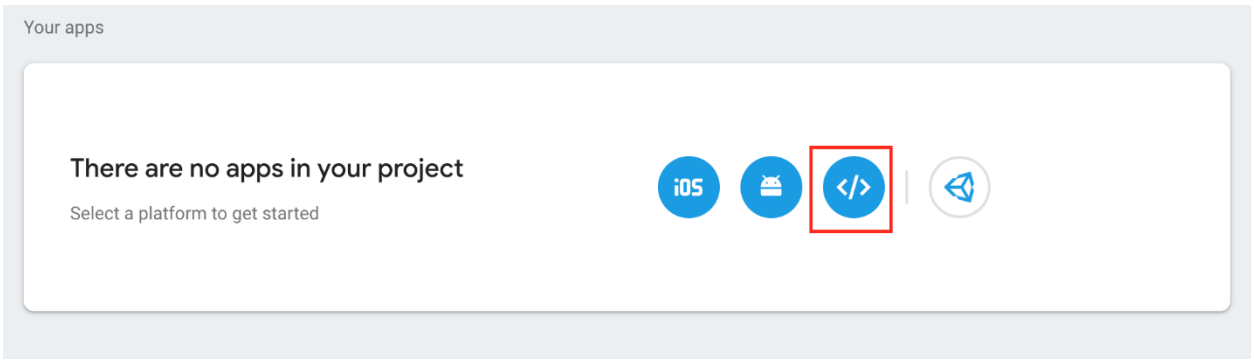
5. Install material icon

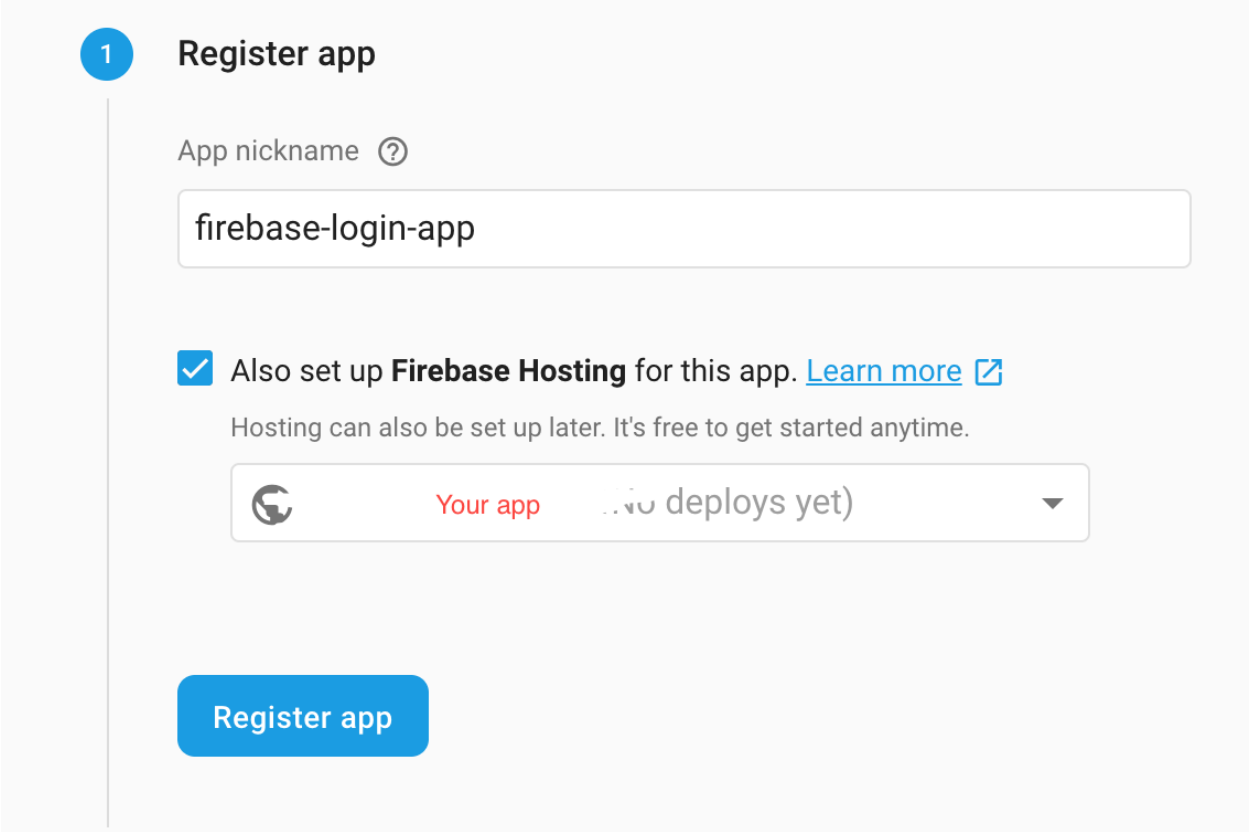
```
npm install @material-ui/icons
```

Setting firebase config

1. Pilih project setting







2. Pilih config

3. Edit **firebase/firebase.js**

```
import firebase from "firebase/app";
import "firebase/auth";
import "firebase/firestore";

const firebaseConfig = {
//Your config values
};

export const myFirebase = firebase.initializeApp(firebaseConfig);
const baseDb = myFirebase.firestore();
export const db = baseDb;
```

4. **Edit actions/auth.js**

```
import { myFirebase } from "../firebase/firebase";
```

```
export const LOGIN_REQUEST = "LOGIN_REQUEST";
export const LOGIN_SUCCESS = "LOGIN_SUCCESS";
export const LOGIN_FAILURE = "LOGIN_FAILURE";

export const LOGOUT_REQUEST = "LOGOUT_REQUEST";
export const LOGOUT_SUCCESS = "LOGOUT_SUCCESS";
export const LOGOUT_FAILURE = "LOGOUT_FAILURE";

export const VERIFY_REQUEST = "VERIFY_REQUEST";
export const VERIFY_SUCCESS = "VERIFY_SUCCESS";
```

5. user requesting to login masih dalam **actions/auth.js**

```
const requestLogin = () => {
  return {
    type: LOGIN_REQUEST
  };
};
```

```
const receiveLogin = user => {
  return {
    type: LOGIN_SUCCESS,
    user
  };
};
```

```
const loginError = () => {
  return {
    type: LOGIN_FAILURE
  };
};
```

6. edit loginUser()

```
import { myFirebase } from "../firebase/firebase";

export const LOGIN_REQUEST = "LOGIN_REQUEST";
export const LOGIN_SUCCESS = "LOGIN_SUCCESS";
export const LOGIN_FAILURE = "LOGIN_FAILURE";

export const LOGOUT_REQUEST = "LOGOUT_REQUEST";
export const LOGOUT_SUCCESS = "LOGOUT_SUCCESS";
export const LOGOUT_FAILURE = "LOGOUT_FAILURE";

export const VERIFY_REQUEST = "VERIFY_REQUEST";
export const VERIFY_SUCCESS = "VERIFY_SUCCESS";

const requestLogin = () => {
 return {
  type: LOGIN_REQUEST
 };
};

const receiveLogin = user => {
 return {
  type: LOGIN_SUCCESS,
  user
 };
};

const loginError = () => {
 return {
  type: LOGIN_FAILURE
 };
};

const requestLogout = () => {
 return {
  type: LOGOUT_REQUEST
 };
};

const receiveLogout = () => {
 return {
  type: LOGOUT_SUCCESS
 };
};
```

```
const logoutError = () => {
  return {
    type: LOGOUT_FAILURE
  };
};

const verifyRequest = () => {
  return {
    type: VERIFY_REQUEST
  };
};

const verifySuccess = () => {
  return {
    type: VERIFY_SUCCESS
  };
};

export const loginUser = (email, password) => dispatch => {
  dispatch(requestLogin());
  myFirebase
    .auth()
    .signInWithEmailAndPassword(email, password)
    .then(user => {
      dispatch(receiveLogin(user));
    })
    .catch(error => {
      //Do something with the error if you want!
      dispatch(loginError());
    });
};

export const logoutUser = () => dispatch => {
  dispatch(requestLogout());
  myFirebase
    .auth()
    .signOut()
    .then(() => {
      dispatch(receiveLogout());
    })
    .catch(error => {
      //Do something with the error if you want!
      dispatch(logoutError());
```

```
    });
};

export const verifyAuth = () => dispatch => {
  dispatch(verifyRequest());
  myFirebase.auth().onAuthStateChanged(user => {
    if (user !== null) {
      dispatch(receiveLogin(user));
    }
    dispatch(verifySuccess());
  });
};
```

Setting reducer

1. Buka reducers/auth.js

```
import {
  LOGIN_REQUEST,
  LOGIN_SUCCESS,
  LOGIN_FAILURE,
  LOGOUT_REQUEST,
  LOGOUT_SUCCESS,
  LOGOUT_FAILURE,
  VERIFY_REQUEST,
  VERIFY_SUCCESS
} from "../actions/";

export default (
  state = {
    isLoggingIn: false,
    isLoggingOut: false,
    isVerifying: false,
    loginError: false,
    logoutError: false,
    isAuthenticated: false,
    user: {}
  },
  action
) => {
  switch (action.type) {
    case LOGIN_REQUEST:
      return {
        ...state,
        isLoggingIn: true,
```

```
    loginError: false
   };
 case LOGIN_SUCCESS:
   return {
    ...state,
    isLoggingIn: false,
    isAuthenticated: true,
    user: action.user
   };
 case LOGIN_FAILURE:
   return {
    ...state,
    isLoggingIn: false,
    isAuthenticated: false,
    loginError: true
   };
 case LOGOUT_REQUEST:
   return {
    ...state,
    isLoggingOut: true,
    logoutError: false
   };
 case LOGOUT_SUCCESS:
   return {
    ...state,
    isLoggingOut: false,
    isAuthenticated: false,
    user: {}
   };
 case LOGOUT_FAILURE:
   return {
    ...state,
    isLoggingOut: false,
    logoutError: true
   };
 case VERIFY_REQUEST:
   return {
    ...state,
    isVerifying: true,
    verifyingError: false
   };
 case VERIFY_SUCCESS:
   return {
    ...state,
```

```
      isVerifying: false
     };
   default:
    return state;
 }
};
```

2. Edit reducers/index.js

```
import { combineReducers } from "redux";
import auth from "./auth";
export default combineReducers({ auth });
```

3. Setting Redux plumbing
4. **Pilih src** folder called **configureStore.js dan edit**

```
import { applyMiddleware, createStore } from "redux";
import thunkMiddleware from "redux-thunk";

import { verifyAuth } from "./actions/";
import rootReducer from "./reducers";

export default function configureStore(persistedState) {
 const store = createStore(
  rootReducer,
  persistedState,
  applyMiddleware(thunkMiddleware)
 );
 store.dispatch(verifyAuth());
 return store;
}
```

5. Pilih dan edit folder src dan root.js

```
import React from "react";
import { Provider } from "react-redux";
import { BrowserRouter as Router } from "react-router-dom";
import App from "./App";
import configureStore from "./configureStore";
const store = configureStore();
function Root() {
 return (
  <Provider store={store}>
   <Router>
    <App />
   </Router>
  </Provider>
 ); } export default Root;
```

6. Pilih dan edit folder src/index.js

```
import React from "react";
import ReactDOM from "react-dom";
import Root from "./Root";
import * as serviceWorker from "./serviceWorker";

ReactDOM.render(<Root />, document.getElementById("root"));

// If you want your app to work offline and load faster, you can change
// unregister() to register() below. Note this comes with some pitfalls.
// Learn more about service workers: https://bit.ly/CRA-PWA
serviceWorker.unregister();
```

7. Buat lah coding App.js

```
import React from "react";
import { Route, Switch } from "react-router-dom";
import { connect } from "react-redux";
import ProtectedRoute from "./components/ProtectedRoute";
import Home from "./components/Home";
import Login from "./components/Login";
function App(props) {
  const { isAuthenticated, isVerifying } = props;
  return (
    <Switch>
      <ProtectedRoute
        exact
        path="/"
        component={Home}
        isAuthenticated={isAuthenticated}
        isVerifying={isVerifying}
      />
      <Route path="/login" component={Login} />
    </Switch>
  );
}
function mapStateToProps(state) {
  return {
    isAuthenticated: state.auth.isAuthenticated,
    isVerifying: state.auth.isVerifying
  };
}
export default connect(mapStateToProps)(App);
```

8. Buatlah file dan simpan **components/Login.js**

```
import React, { Component } from "react";
import { connect } from "react-redux";
import { Redirect } from "react-router-dom";
import { loginUser } from "../actions";
import { withStyles } from "@material-ui/styles";

import Avatar from "@material-ui/core/Avatar";
import Button from "@material-ui/core/Button";
import TextField from "@material-ui/core/TextField";
import LockOutlinedIcon from "@material-ui/icons/LockOutlined";
import Typography from "@material-ui/core/Typography";
import Paper from "@material-ui/core/Paper";
import Container from "@material-ui/core/Container";

const styles = () => ({
  "@global": {
    body: {
      backgroundColor: "#fff"
    }
  },
  paper: {
    marginTop: 100,
    display: "flex",
    padding: 20,
    flexDirection: "column",
    alignItems: "center"
  },
  avatar: {
    marginLeft: "auto",
    marginRight: "auto",
    backgroundColor: "#f50057"
  },
  form: {
    marginTop: 1
  },
  errorText: {
    color: "#f50057",
    marginBottom: 5,
    textAlign: "center"
  }
});

class Login extends Component {
```

```
state = { email: "", password: "" };

handleEmailChange = ({ target }) => {
  this.setState({ email: target.value });
};

handlePasswordChange = ({ target }) => {
  this.setState({ password: target.value });
};

handleSubmit = () => {
  const { dispatch } = this.props;
  const { email, password } = this.state;

  dispatch(loginUser(email, password));
};

render() {
  const { classes, loginError, isAuthenticated } = this.props;
  if (isAuthenticated) {
    return <Redirect to="/" />;
  } else {
    return (
      <Container component="main" maxWidth="xs">
        <Paper className={classes.paper}>
          <Avatar className={classes.avatar}>
            <LockOutlinedIcon />
          </Avatar>
          <Typography component="h1" variant="h5">
            Sign in
          </Typography>
          <TextField
            variant="outlined"
            margin="normal"
            fullWidth
            id="email"
            label="Email Address"
            name="email"
            onChange={this.handleEmailChange}
          />
          <TextField
            variant="outlined"
            margin="normal"
            fullWidth
```

```
            name="password"
            label="Password"
            type="password"
            id="password"
            onChange={this.handlePasswordChange}
           />
           {loginError && (
            <Typography component="p" className={classes.errorText}>
             Incorrect email or password.
            </Typography>
           )}
           <Button
            type="button"
            fullWidth
            variant="contained"
            color="primary"
            className={classes.submit}
            onClick={this.handleSubmit}
           >
            Sign In
           </Button>
          </Paper>
         </Container>
        );
       }
      }
     }

     function mapStateToProps(state) {
      return {
       isLoggingIn: state.auth.isLoggingIn,
       loginError: state.auth.loginError,
       isAuthenticated: state.auth.isAuthenticated
      };
     }

     export default withStyles(styles)(connect(mapStateToProps)(Login));
     view raw
```

9. Buka **component/Home.js**

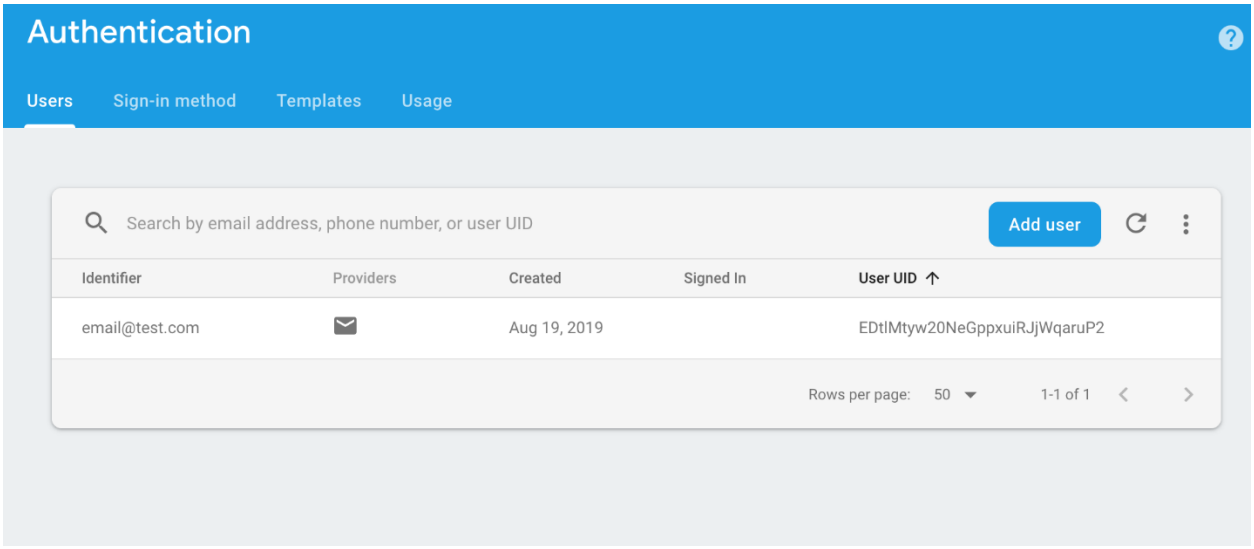
```
import React, { Component } from "react";
import { connect } from "react-redux";
import { logoutUser } from "../actions";class Home extends Component {
  handleLogout = () => {
    const { dispatch } = this.props;
    dispatch(logoutUser());
  };
  render() {
    const { isLoggingOut, logoutError } = this.props;    return (
      <div>
        <h1>This is your app's protected area.</h1>
        <p>Any routes here will also be protected</p>
        <button onClick={this.handleLogout}>Logout</button>
        {isLoggingOut && <p>Logging Out....</p>}
        {logoutError && <p>Error logging out</p>}
      </div>
    );
  }
}function mapStateToProps(state) {
  return {
    isLoggingOut: state.auth.isLoggingOut,
    logoutError: state.auth.logoutError
  };
}export default connect(mapStateToProps)(Home);
```

10. Buatfile dalam folder /src/component/ dengan nama protectedRoute.js

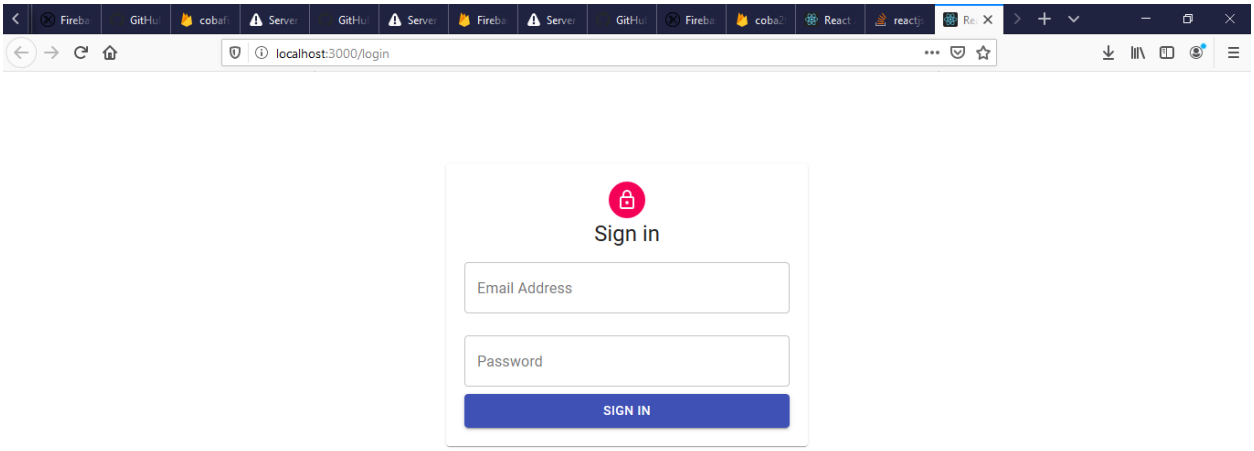
```
import React from "react";
import { Route, Redirect } from "react-router-dom";
const ProtectedRoute = ({
 component: Component,
 isAuthenticated,
 isVerifying,
 ...rest
}) => (
 <Route
  {...rest}
  render={props =>
   isVerifying ? (
    <div />
   ) : isAuthenticated ? (
    <Component {...props} />
   ) : (
    <Redirect
     to={{
      pathname: "/login",
      state: { from: props.location }
     }}
    />
   )
  }
 />
);
export default ProtectedRoute;
```

11. Running start

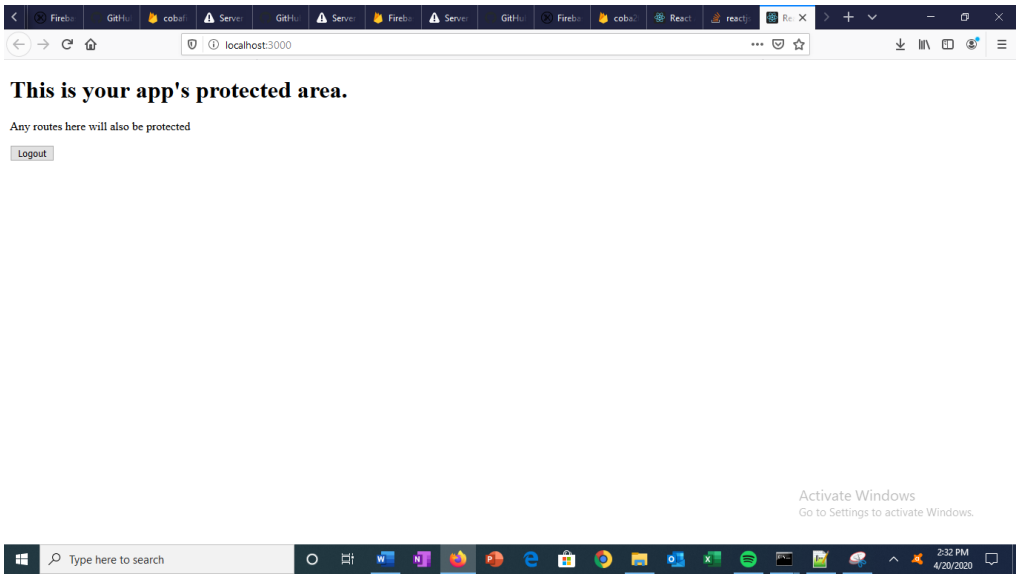
12. MAsuk ke firebase console kemudian add user



13. Pilih **npm start** kemudian masukkan username dan password



14. Kemudian masuk ke dalam halaman beranda


localhost:3000
This is your app's protected area.
Any routes here will also be protected
Logout
Activate Windows
Go to Settings to activate Windows.
Type here to search
2:32 PM
4/20/2020