



Firebase

Firebase is a platform for creating mobile and web applications developed by Google. It was originally an independent company founded in 2011. In 2014, Google acquired the platform and it is now their flagship offering for app development.



Realtime Database

The Firebase Realtime Database is a cloud-hosted NoSQL database that lets you store and sync between your users in realtime.

The Realtime Database is really just one big JSON object that the developers can manage in realtime.

Authentication



Google Sign In using Firebase in flutter

- Create firebase project in firebase console
- Configure firebase in android project
- Install plugin for flutter

Configure firebase in android project

Install plugins

- `firebase_auth: ^0.15.3+1`
- `google_sign_in: ^4.1.1`

Declaring auth variables:

```
GoogleSignIn _googleSignIn = new GoogleSignIn();  
FirebaseAuth _auth = FirebaseAuth.instance;
```

Code for authentication

```
try {  
  final GoogleSignInAccount googleSignInAccount =  
    await _googleSignIn.signIn();  
  final GoogleSignInAuthentication  
    googleSignInAuthentication = await googleSignInAccount.authentication;
```

```
final AuthCredential credential =
    GoogleAuthProvider.getCredential(
        accessToken: googleSignInAuthentication.accessToken,
        idToken: googleSignInAuthentication.idToken,
    );
final AuthResult authResult =
    await _auth.signInWithCredential(credential);
final FirebaseUser user = authResult.user;
assert(!user.isAnonymous);
assert(await user.getIdToken() != null);
final FirebaseUser currentUser =
    await _auth.currentUser();
assert(user.uid == currentUser.uid);
SharedPreferences prefs =
    await SharedPreferences.getInstance();
await prefs.setString('name', user.displayName);
await prefs.setString('email', user.email);
await prefs.setString('photoUrl', user.photoUrl);
Navigator.push(
    context,
    MaterialPageRoute(builder: (context) => Profile()),
);
} catch (error) {
    print(error);
}
```