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MPL EXP 6

Aim: To set up Firebase authentication for the android application.

1.firebase_core Initialization:

- `await Firebase.initializeApp();` is crucial. This line initializes Firebase for your app. It's placed in the `main()` function before `runApp()`.
- `WidgetsFlutterBinding.ensureInitialized();` is also important, and is required before `Firebase.initializeApp()`.

2.Firebase Authentication (`firebase_auth`):

- The code uses `FirebaseAuth` for user authentication.
- `signInWithEmailAndPassword` and `createUserWithEmailAndPassword` are used for login and registration.
- Error handling is improved with `FirebaseAuthException` catching, providing user friendly messages.
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3.Cloud Firestore (`cloud_firestore`):

- `FirebaseFirestore` is used to store user data in the "users" collection.
- `set()` is used to write data to Firestore.

4.Platform Setup (iOS and Android):

- To make this work, you must follow the Firebase console setup for both iOS and Android. This involves:
- Creating a Firebase project.
- Adding iOS and Android apps to your project.
- Downloading the `google-services.json` (Android) and `GoogleService-Info.plist` (iOS) files and placing them in the correct locations within your Flutter project.
- Ensuring the correct Firebase plugins are added to your `pubspec.yaml`.

5.Error Handling: `FirebaseAuth` exceptions are now specifically handled, providing better error messages to the user.

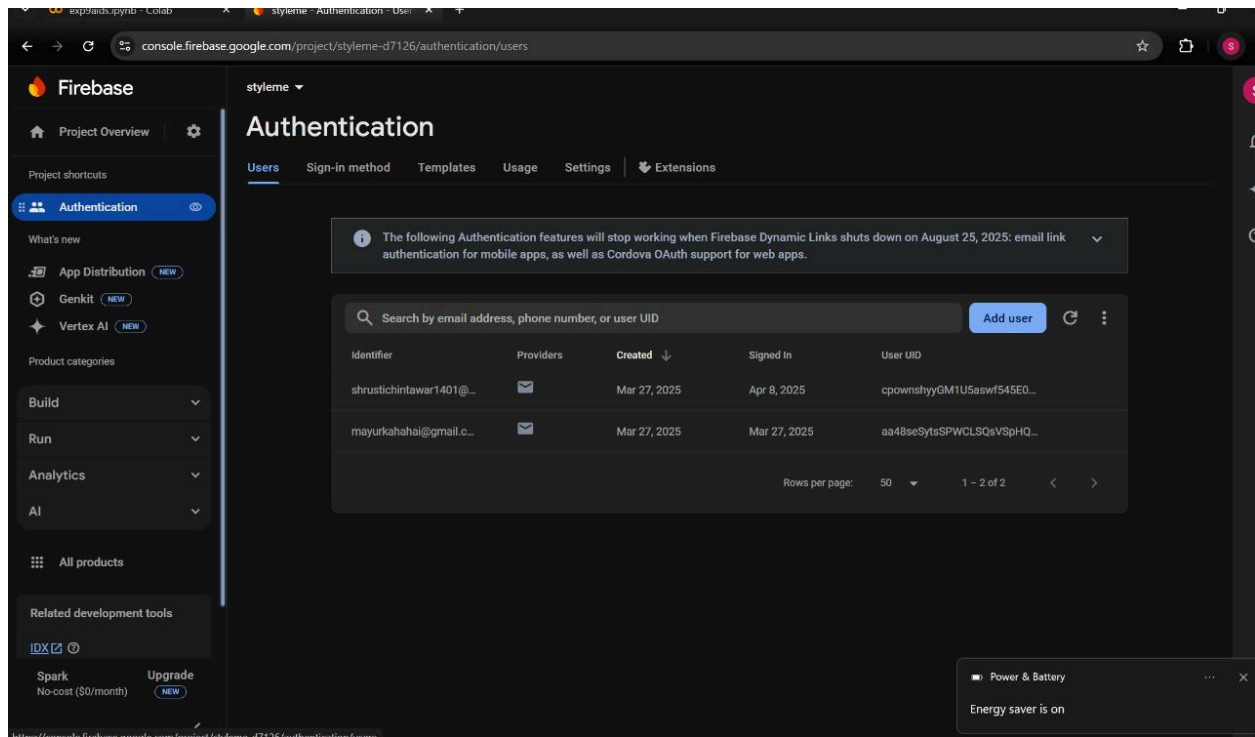
6.Navigation: Navigation is implemented using named routes, allowing for cleaner transitions.

We need the following packages;

```
import 'package:firebase_auth/firebase_auth.dart';  
import 'package:firebase_core/firebase_core.dart';
```

```
import 'package:cloud_firestore/cloud_firestore.dart';
```

OUTPUT



The screenshot shows the Firebase Authentication console for a project named 'styleme'. The 'Users' tab is selected, displaying a table of users. A notification at the top states that certain authentication features will stop working on August 25, 2025, due to the shutdown of Firebase Dynamic Links. The table lists two users with their identifiers, providers, creation dates, sign-in dates, and user IDs.

Identifier	Providers	Created	Signed in	User UID
shrutichintawar1401@...	📧	Mar 27, 2025	Apr 8, 2025	cpownshyyGM1U5aswf545E0...
mayurkahahal@gmail.c...	📧	Mar 27, 2025	Mar 27, 2025	aa48seSytsSPWCLSQsVSpHQ...

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