

Experiment 06**Aim: To Connect Flutter UI with fireBase database****Theory:**

Firestore offers a backend-as-a-service including authentication and Firestore database. Integration allows storing, updating, and retrieving user data in real-time.

- Firebase Auth is used for sign-in.
- Firestore is used to store user data (users collection) and societies.

References:

https://youtu.be/ErP_xomHKTW

<https://www.digitalocean.com/community/tutorials/flutter-firebase-setup>

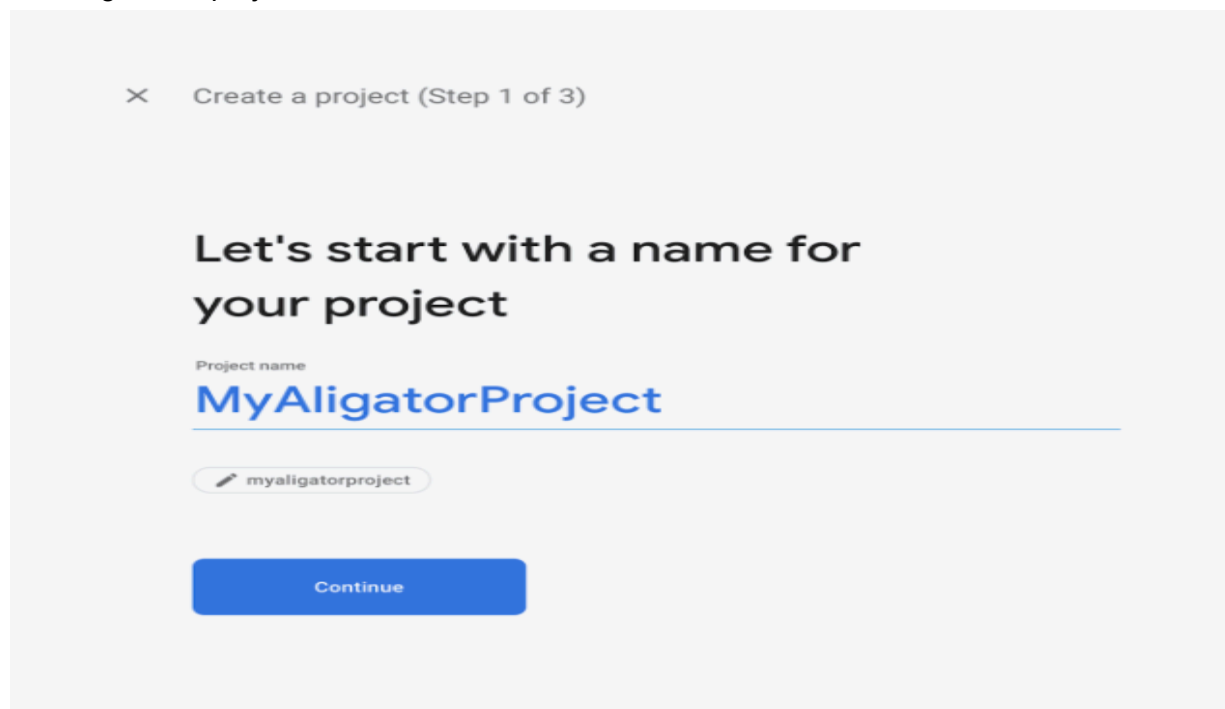
Prerequisites

To complete this tutorial, you will need:

- A Google account to use Firebase.
- Developing for iOS will require XCode.
- To download and install [Flutter](#).
- To download and install [Android Studio](#) and [Visual Studio Code](#).
- It is recommended to install plugins for your code editor:
 - [Flutter](#) and [Dart](#) plugins installed for Android Studio.
 - [Flutter](#) extension installed for Visual Studio Code.

This tutorial was verified with Flutter v2.0.6, Android SDK v31.0.2, and Android Studio v4.1.

Creating a new project







✕ Create a project (Step 2 of 3)



Google Analytics for your Firebase project



Google Analytics is a free and unlimited analytics solution that enables targeting, reporting, and more in Firebase Crashlytics, Cloud Messaging, In-App Messaging, Remote Config, A/B Testing, Predictions, and Cloud Functions.



Google Analytics enables:



 A/B testing 

 User segmentation & targeting across
Firebase products 

 Predicting user behavior 

 Crash-free users 

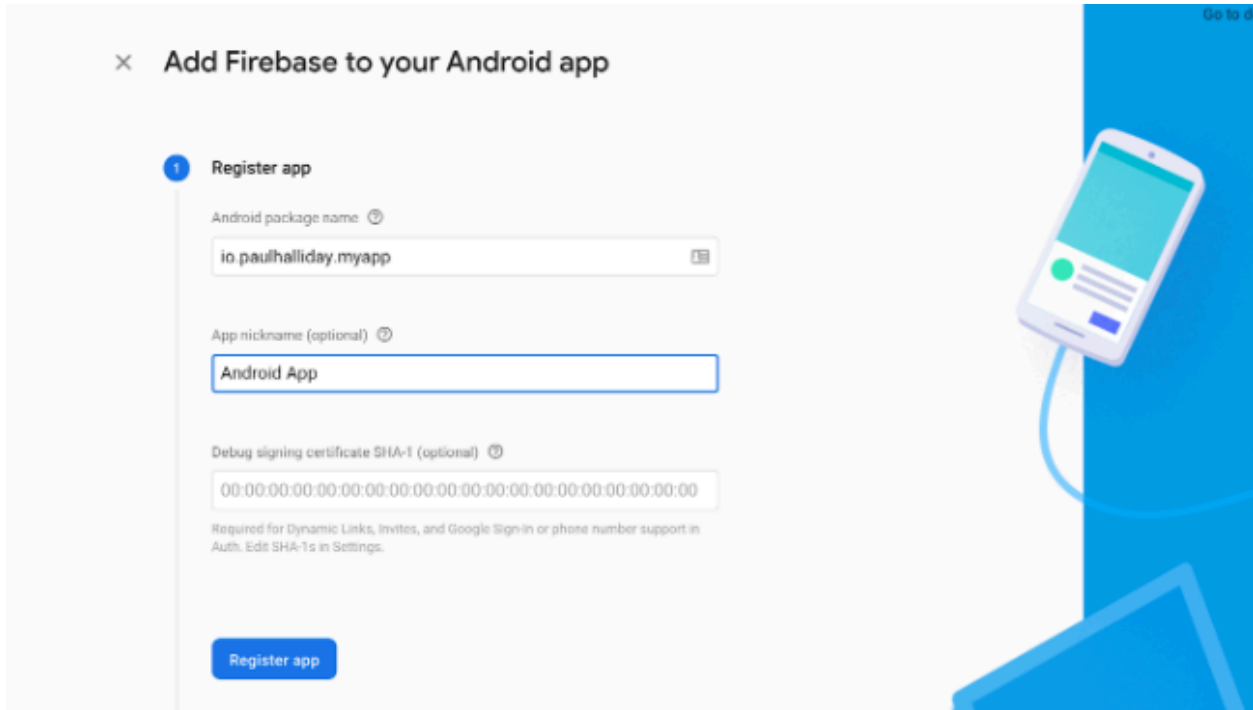
 Event-based Cloud Functions triggers 

 Free unlimited reporting 

☒ Enable Google Analytics for this project
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× Add Firebase to your Android app

1 Register app

Android package name ⓘ

io.paulhalliday.myapplication ⓘ

App nickname (optional) ⓘ

Android App

Debug signing certificate SHA-1 (optional) ⓘ

00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00

Required for Dynamic Links, invites, and Google Sign-in or phone number support in Auth. Edit SHA-1s in Settings.

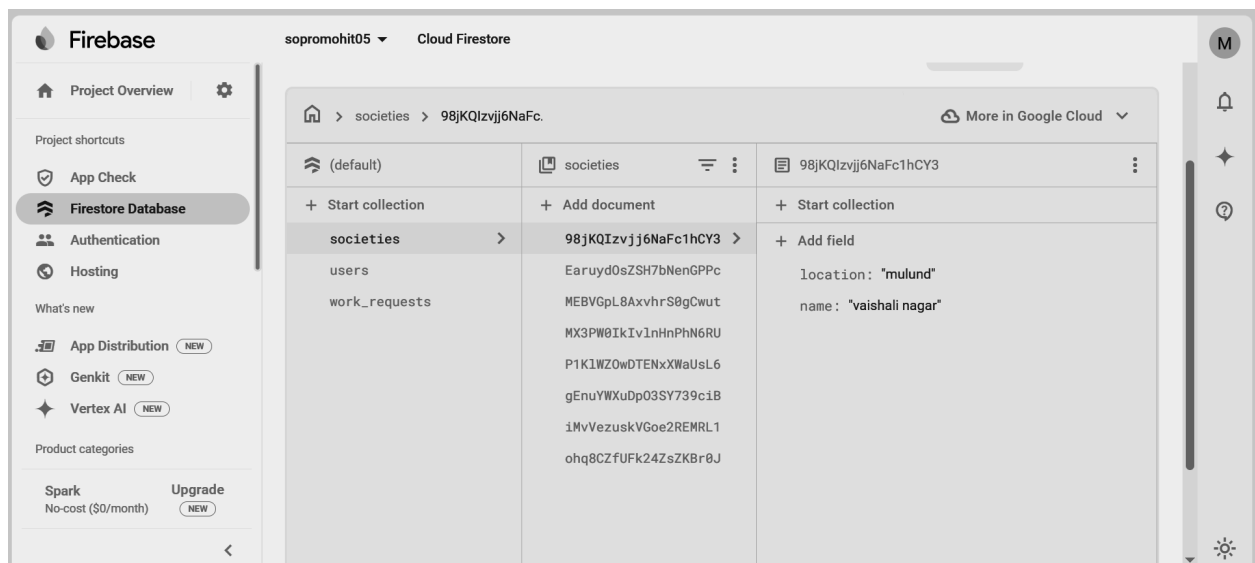
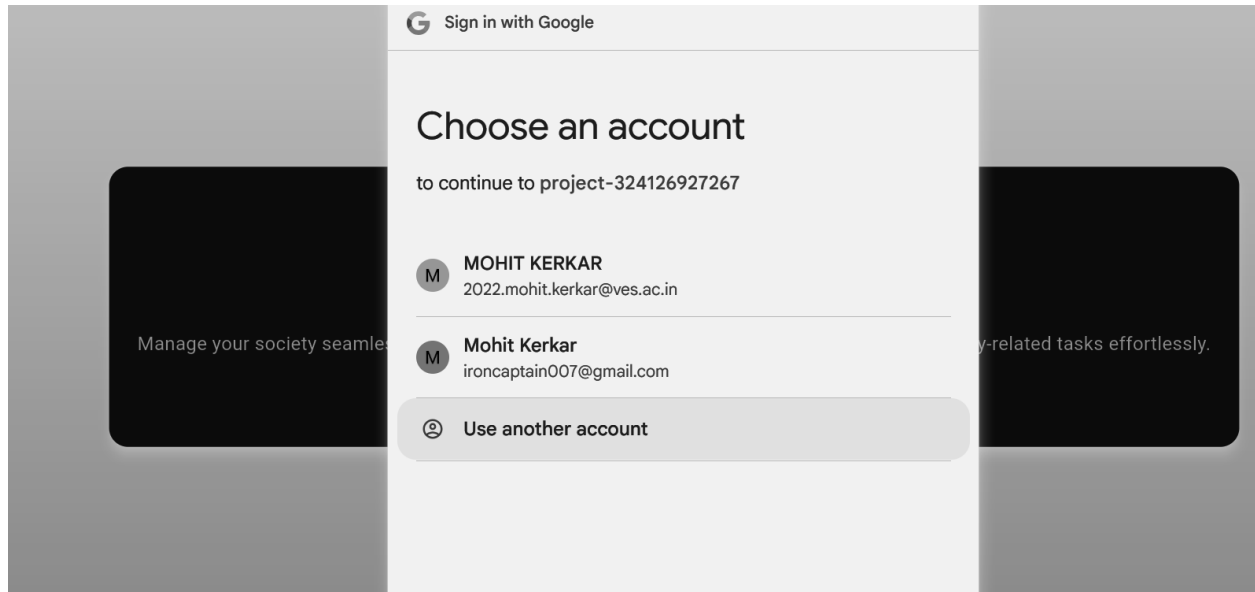
Register app

The most important thing here is to match up the Android package name that you choose here with the one inside of our application.

The structure consists of at least two segments. A common pattern is to use a domain name, a company name, and the application name:

```
com.example.flutterfirebaseexample
```

Once you've decided on a name, open `android/app/build.gradle` in your code editor and update the `applicationId` to match the Android package name:



Conclusion:

Firebase integration made user registration, profile management, and data sync real-time and secure.