

**Name:** Yukta Bhatia

**RollNo:** 07

**Class:** D15A

## **Experiment-6**

**Aim:** To connect Flutter UI with Firebase Database.

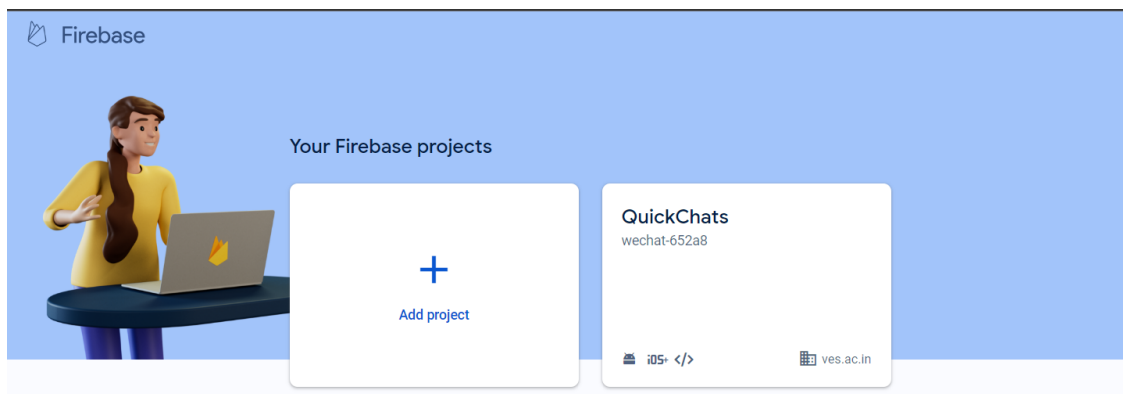
Theory :

Prerequisites :

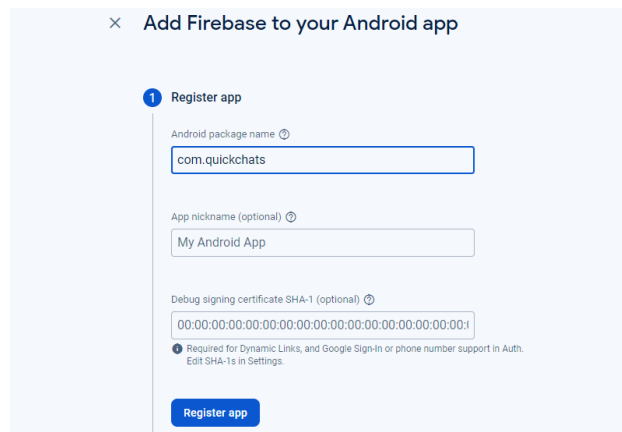
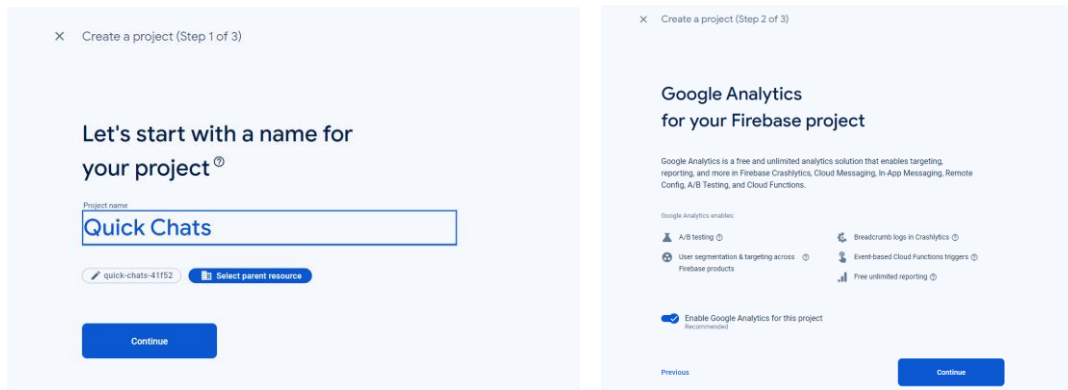
To complete this tutorial, you will need:

- 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.

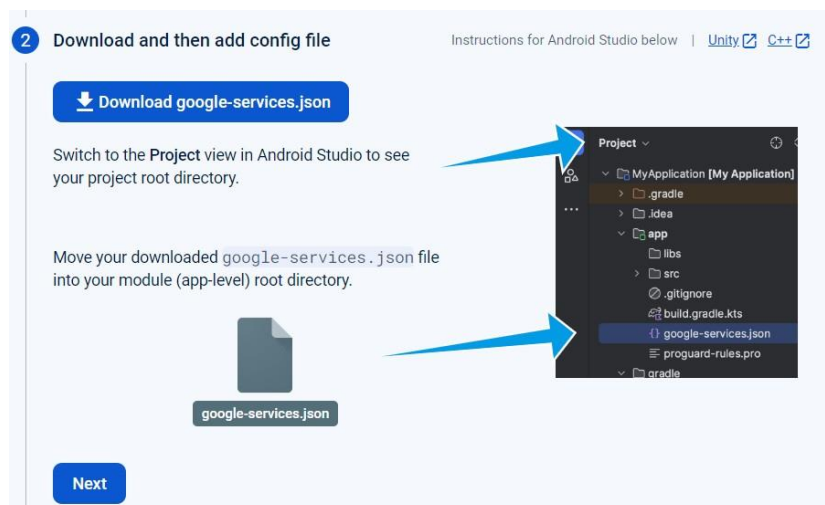
Creating a New Firebase Project :



## Adding Android support:



## Downloading the Config File:



Adding dependencies to the project:

```
dependencies:
  flutter:
    sdk: flutter
  # For using cupertino icons
  cupertino_icons: ^1.0.2
  firebase_core: ^2.2.0
  firebase_auth: ^4.1.3
  google_sign_in: ^5.4.2
  cloud_firestore: ^4.1.0
  cached_network_image: ^3.2.3
  image_picker: ^0.8.6
  firebase_storage: ^11.0.6
  emoji_picker_flutter: ^1.5.1
  firebase_messaging: ^14.2.0
  http: ^0.13.5
  flutter_notification_channel: ^2.0.0
```

**Code:**

**login\_screen.dart**

```
import 'dart:developer';
import 'dart:io';

import 'package:firebase_auth/firebase_auth.dart';
import 'package:flutter/material.dart';
import 'package:google_sign_in/google_sign_in.dart';

import '../api/apis.dart';
import '../helper/dialogs.dart';
import '../main.dart';
import '../home_screen.dart';

//login screen -- implements google sign in or sign up feature for app
class LoginScreen extends StatefulWidget {
  const LoginScreen({super.key});

  @override
```

```

State<LoginScreen> createState() => _LoginScreenState();
}

class _LoginScreenState extends State<LoginScreen> {
  bool _isAnimate = false;

  @override
  void initState() {
    super.initState();

    //for auto triggering animation
    Future.delayed(const Duration(milliseconds: 500), () {
      setState(() => _isAnimate = true);
    });
  }

  _handleGoogleBtnClick() {
    //for showing progress bar
    Dialogs.showProgressBar(context);

    _signInWithGoogle().then((user) async {
      //for hiding progress bar
      Navigator.pop(context);

      if (user != null) {
        log("\nUser: ${user.user}');
        log("\nUserAdditionalInfo: ${user.additionalUserInfo}');

        if ((await APIs.userExists())) {
          Navigator.pushReplacement(
            context, MaterialPageRoute(builder: (_) => const HomeScreen()));
        } else {
          await APIs.createUser().then((value) {

```

```

        Navigator.pushReplacement(
            context, MaterialPageRoute(builder: (_) => const HomeScreen()));
    });
}
}
});
}

```

```

Future<UserCredential?> _signInWithGoogle() async {
    try {
        await InternetAddress.lookup('google.com');

        // Trigger the authentication flow
        final GoogleSignInAccount? googleUser = await GoogleSignIn().signIn();

        // Obtain the auth details from the request
        final GoogleSignInAuthentication? googleAuth =
            await googleUser?.authentication;

        // Create a new credential
        final credential = GoogleAuthProvider.credential(
            accessToken: googleAuth?.accessToken,
            idToken: googleAuth?.idToken,
        );

        // Once signed in, return the UserCredential
        return await APIs.auth.signInWithCredential(credential);
    } catch (e) {
        log('\n _signInWithGoogle: $e');
        Dialogs.showSnackBar(context, 'Something Went Wrong (Check Internet!)');
        return null;
    }
}

```

```

@override
Widget build(BuildContext context) {
  //initializing media query (for getting device screen size)
  mq = MediaQuery.of(context).size;

  return Scaffold(
    //app bar
    appBar: AppBar(
      automaticallyImplyLeading: false,
      title: const Text('Welcome to Quick Chats'),
    ),

    //body
    body: Stack(children: [
      //app logo
      AnimatedPositioned(
        top: mq.height * .15,
        right: _isAnimate ? mq.width * .25 : -mq.width * .5,
        width: mq.width * .5,
        duration: const Duration(seconds: 1),
        child: Image.asset('images/icon.png')),

      //google login button
      Positioned(
        bottom: mq.height * .15,
        left: mq.width * .05,
        width: mq.width * .9,
        height: mq.height * .06,
        child: ElevatedButton.icon(
          style: ElevatedButton.styleFrom(
            backgroundColor: const Color.fromARGB(255, 223, 255, 187),

```

```

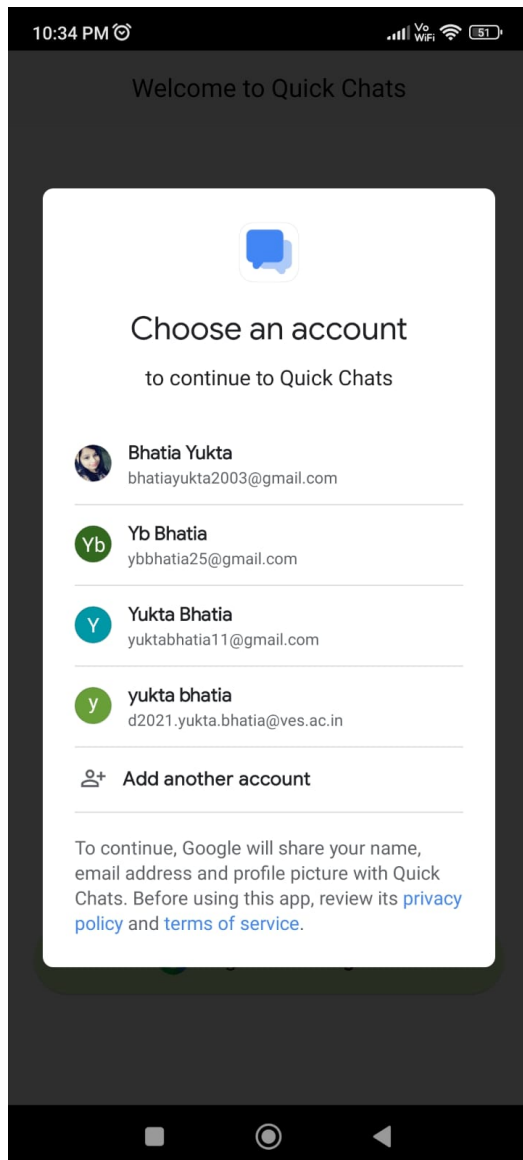
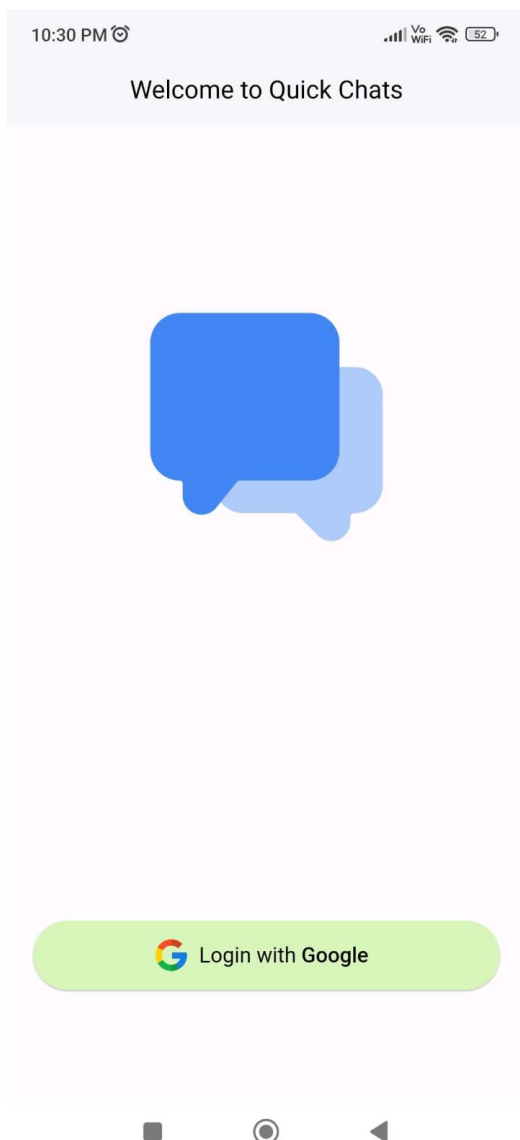
        shape: const StadiumBorder(),
        elevation: 1),
    onPressed: () {
      _handleGoogleBtnClick();
    },

    //google icon
    icon: Image.asset('images/google.png', height: mq.height * .03),

    //login with google label
    label: RichText(
      text: const TextSpan(
        style: TextStyle(color: Colors.black, fontSize: 16),
        children: [
          TextSpan(text: 'Login with '),
          TextSpan(
            text: 'Google',
            style: TextStyle(fontWeight: FontWeight.w500)),
        ],
      )),
  ],
);
}
}






```

## Output:



## Authentication

[Users](#) | [Sign-in method](#) | [Templates](#) | [Usage](#) | [Settings](#) | [Extensions](#)

Search by email address, phone number, or user UID					Add user		
Identifier	Providers	Created ↓	Signed in	User UID			
yuktabhatia11@gmail.c...		Feb 7, 2024	Feb 7, 2024	PHhrsahDhbUyFlmX07HFicq...			
dbbhatia2003@gmail.c...		Feb 7, 2024	Feb 7, 2024	7ytapSwL3DWdceWvW0IBC6...			
d2021.yukta.bhatia@ve...		Feb 7, 2024	Feb 14, 2024	2HYJhyVPiygWsM86u9HPBJA...			
dharabhatia05@gmail.c...		Feb 7, 2024	Feb 19, 2024	K2obb2BH9FTLjXDSihwfm4S...			
d2021.dhara.bhatia@ve...		Feb 7, 2024	Feb 19, 2024	QRcIDWWaZxfJyWqLYSPNF...			
Rows per page: 50					1 - 5 of 5	<	>



# Cloud Firestore

Data Rules Indexes Usage Extensions

Panel view Query builder

users > 2HYJhVPlygWs...

More in Google Cloud

(default)

users

2HYJhVPlygWsM86u9HPBjIAHwB3

+ Start collection

chats

users

+ Add document

2HYJhVPlygWsM86u9HPBjIAHwB3

7ytapSwL3DwdeWvvWBIDC6xwU13

B38QbtXSoYev3YRqP1C3

K2obb2BHGFTtJjxDSzhefw4SYyg1

PhHrsahDhbuVF1IeX07HF1cqTZ4Z

P1c4968o6HRv81dFN8QbzFGn3Jg1

QfRCIDWwazKFJy8qLYSPFNfni3d2

+ Start collection

my\_users

+ Add field

about: "Hey, I'm using Quick Chats!"

created\_at: "1707305931209"

email: "d2021.yukta.bhatia@ves.ac.in"

id: "2HYJhVPlygWsM86u9HPBjIAHwB3"

image: "https://lh3.googleusercontent.com/a/ACg8ocL0mg9EeDhrHpayI4xb7\_hc"

is\_online: false

last\_active: "1708399995569"

name: "yukta bhatia"

push\_token: "c5uHR0wdQ7uif6m2mUhh2k:APA91bGep9SKVcwtthyHcGE56Gjr:eZsCMm29pP\_ZTaVPu1tq2EJOdRXyhsaEdnCSdCrxh-6hMu\_LIKcV1kxy9QYgvhD0r7vnDVftHdi-yUVf0B3ex-Zallno"