NAME - KARAN MISHRA

DIV - D15B

ROLL NO - 33

MPL EXP 4

```dart
import 'package:flutter/material.dart';

import 'package:firebase_auth/firebase_auth.dart';

import 'package:firebase_core/firebase_core.dart';

void main() async {

WidgetsFlutterBinding.ensureInitialized();

await Firebase.initializeApp();

runApp(MyApp());

}

class MyApp extends StatelessWidget {

@override

Widget build(BuildContext context) {

return MaterialApp(

home: AuthScreen(),

);

}

}

class AuthScreen extends StatefulWidget {

@override

_AuthScreenState createState() => _AuthScreenState();

}
```

```dart
class _AuthScreenState extends State<AuthScreen> {

final FirebaseAuth _auth = FirebaseAuth.instance;

final TextEditingController _emailController = TextEditingController();

final TextEditingController _passwordController = TextEditingController();

Future<void> register() async {

try {

await _auth.createUserWithEmailAndPassword(

email: _emailController.text,

password: _passwordController.text,

);

ScaffoldMessenger.of(context).showSnackBar(

SnackBar(content: Text("Registration Successful")),

);

} catch (e) {

ScaffoldMessenger.of(context).showSnackBar(

SnackBar(content: Text(e.toString())),

);

}

}

Future<void> login() async {

try {

await _auth.signInWithEmailAndPassword(

email: _emailController.text,

password: _passwordController.text,
```

```dart
      );
      Navigator.pushReplacement(
        context,
        MaterialPageRoute(builder: (context) => HomeScreen()),
      );
    } catch (e) {
      ScaffoldMessenger.of(context).showSnackBar(
        SnackBar(content: Text(e.toString())),
      );
    }
  }

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(title: Text("Flutter Firebase Auth")),
      body: Padding(
        padding: EdgeInsets.all(16.0),
        child: Column(
          children: [
            TextField(
              controller: _emailController,
              decoration: InputDecoration(labelText: "Email"),
            ),
            TextField(
```

```dart
          controller: _passwordController,

          decoration: InputDecoration(labelText: "Password"),

          obscureText: true,

        ),

        SizedBox(height: 20),

        ElevatedButton(onPressed: register, child: Text("Register")),

        ElevatedButton(onPressed: login, child: Text("Login")),

      ],

    ),

  ),

);

  }

}

class HomeScreen extends StatelessWidget {

  final FirebaseAuth _auth = FirebaseAuth.instance;

  @override

  Widget build(BuildContext context) {

    return Scaffold(

      appBar: AppBar(

        title: Text("Home"),

        actions: [

          IconButton(

            icon: Icon(Icons.logout),

            onPressed: () async {
```

```dart
      await _auth.signOut();

      Navigator.pushReplacement(

        context,

        MaterialPageRoute(builder: (context) => AuthScreen()),

      );

    },

  )

],

),

body: Center(

  child: Text("Welcome! You are logged in."),

),

);

}

}
```
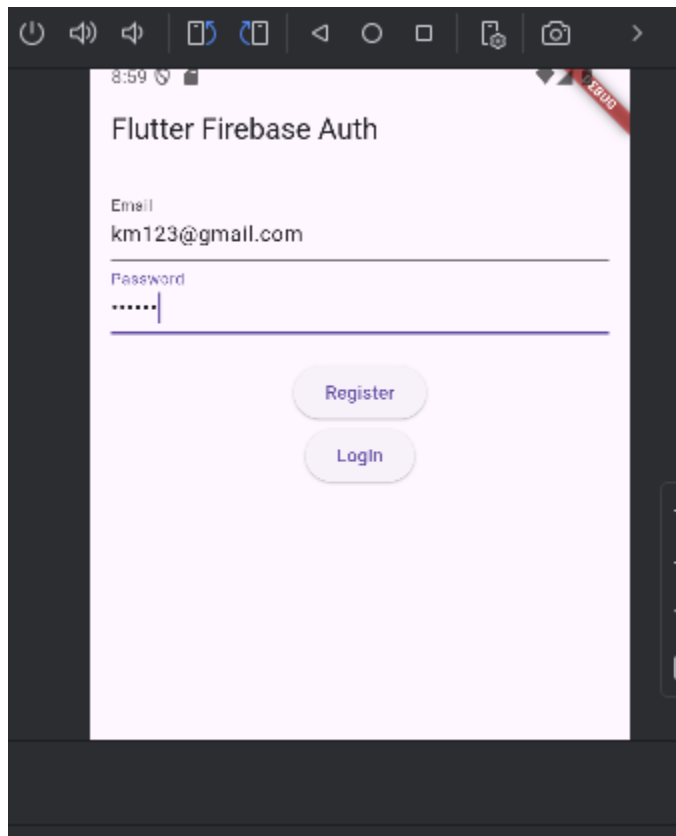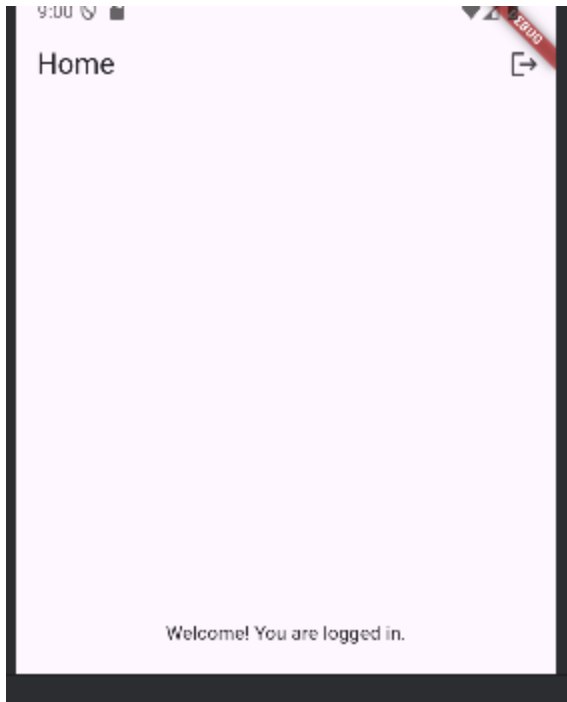
OUTPUT:-

9:00

Home   [→

Welcome! You are logged in.

RegisterMpl ▾

Authentication

Users   Sign-in method   Templates   Usage   Settings   ✦ Extensions

ⓘ The following Authentication features will stop working when Firebase Dynamic Links shuts down on August 25, 2025: email link   ⌄
   authentication for mobile apps, as well as Cordova OAuth support for web apps.

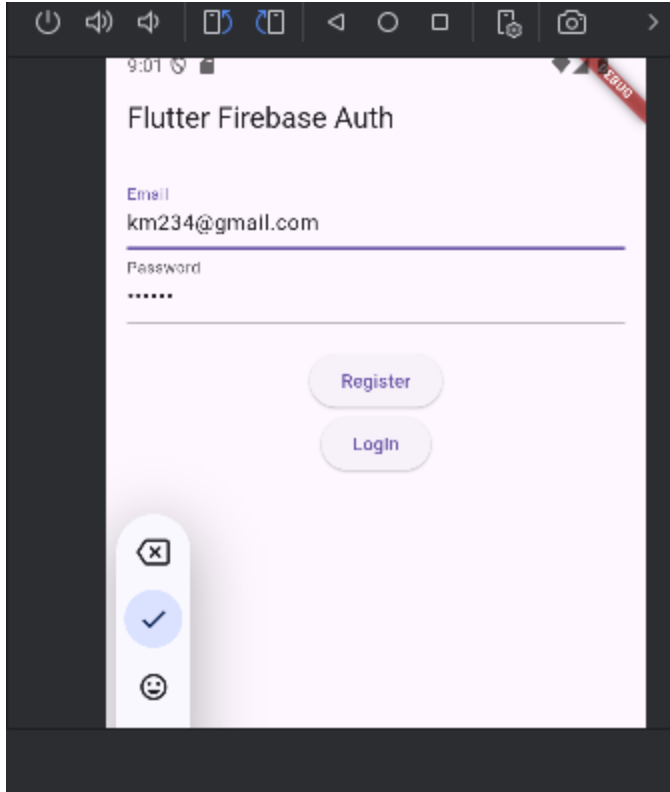🔍 Search by email address, phone number, or user UID   **Add user**   ↻   ⋮

Identifier	Providers	Created ↓	Signed In	User UID
km123@gmail.com	✉	Mar 4, 2025	Mar 4, 2025	vnhZiqv4uAga3JXkLZ0FTuQO...

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RegisterMpl ▾

Authentication

Users   Sign-in method   Templates   Usage   Settings   🧩 Extensions

ℹ️ The following Authentication features will stop working when Firebase Dynamic Links shuts down on August 25, 2025: email link authentication for mobile apps, as well as Cordova OAuth support for web apps.   ⌄

🔍 Search by email address, phone number, or user UID   **Add user**   ⟳   ⋮

Identifier	Providers	Created ↓	Signed In	User UID
km234@gmail.com	✉️	Mar 4, 2025	Mar 4, 2025	l6FHpczNVhTz8qSapUTXFzifL…
km123@gmail.com	✉️	Mar 4, 2025	Mar 4, 2025	vnhZiqv4uAga3JXkLZ0FTuQO…

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