Department of Information Technology

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Class / Branch / Div: TE- IT B	**Roll No. 17**
Subject: MAD & PWA Lab	**Date of Submission: 10/03/25**
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Experiment No.:7

Aim: **To** Implement fireBase connectivity to connect with Flutter UI

Prerequisites: Android studio, flutter SDK**.**

Software: Android studio, flutter SDK**.**

Problem Statement: Implement firebase connectivity for Email-Password authentication.

Code:

1. **Main.dart**

```dart
import 'package:flutter/material.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(
debugShowCheckedModeBanner: false,
home: CounterApp(),
);
```

```dart
}
}

class CounterApp extends StatefulWidget {
@override
_CounterAppState createState() => _CounterAppState();
}

class _CounterAppState extends State<CounterApp> {
int _counter = 0;

void _incrementCounter() {
setState(() {
_counter++;
});
}

@override
Widget build(BuildContext context) {
return Scaffold(
appBar: AppBar(title: Text("Counter App")),
body: Center(
child: Column(
mainAxisAlignment: MainAxisAlignment.center,
children: <Widget>[
Text("You have pushed the button this many times:"),
Text("$_counter", style: Theme.of(context).textTheme.headlineMedium),
],
),
```

```
),

floatingActionButton: FloatingActionButton(

onPressed: _incrementCounter,

tooltip: 'Increment',

child: Icon(Icons.add),

),

);

}

}
```

Output:

creating firebase project

created firebase app and added google-services.json to app level and added plugins and dependencies to build.gradle of app and android level

Added classpath dependencies in android/graddle

added firebase import and firebase intialized

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

Run | Debug | Profile
void main() async {
  WidgetsFlutterBinding.ensureInitialized();
  await Firebase.initializeApp();
  runApp(MyApp());
}

class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      debugShowCheckedModeBanner: false,
      home: CounterApp(),
    ); // MaterialApp
  }
}

class CounterApp extends StatefulWidget {
  @override
  _CounterAppState createState() => _CounterAppState();
}
```

firebase init

```
? What do you want to use as your public directory? build/web
● apsit@apsit-HP-ProDesk-600-G4-PCI-MT:~/Desktop/chirag/exp7/exp7_project$ firebase init

     ####### #### ####### ####### #######   ###   ##### #######
     ##  ## ##  ##  ## ## ##   ## ##     ##     ##  ## ##
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You're about to initialize a Firebase project in this directory:
```

selected hosting and used existing project set the public directory build/web

flutter build web

firebase deployed

firebase deployed
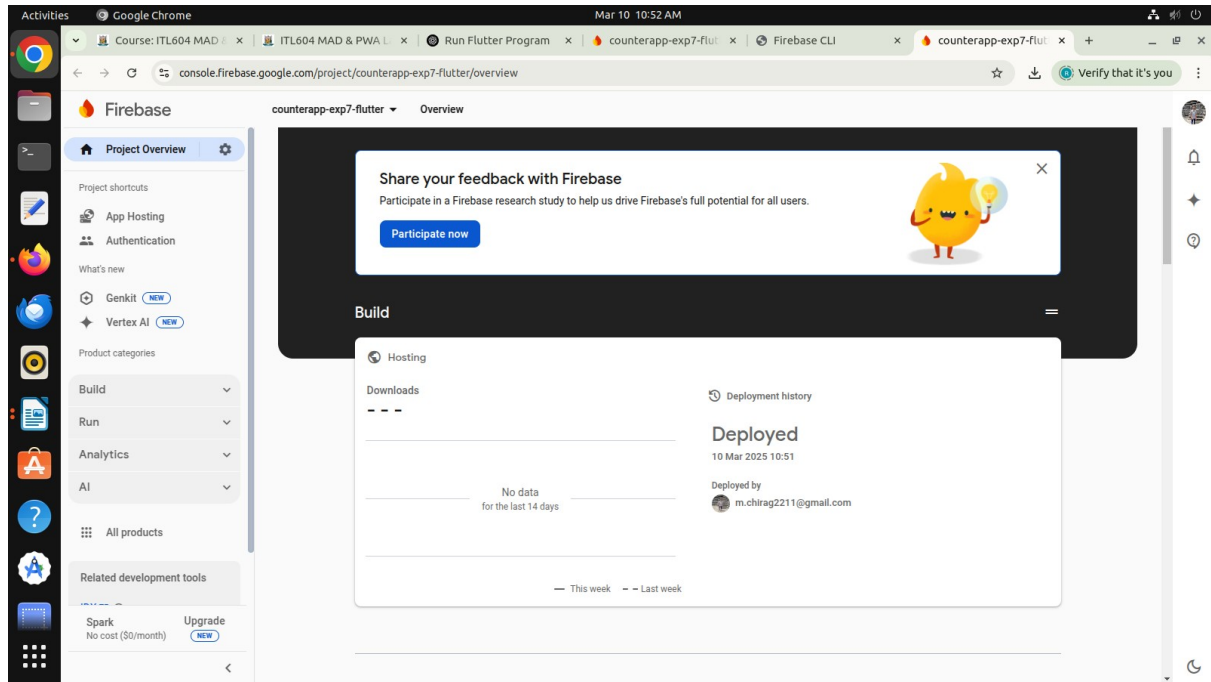
Conclusion: IIn this experiment, we successfully integrated Firebase with a Flutter application for Email-Password authentication. This implementation enhances app functionality by enabling secure user authentication and real-time data management.