

Experiment No: 06

Aim: To Setup Firebase with Flutter for iOS and Android app

Theory:

Firebase

Google Firebase is a set of cloud-based development tools that helps mobile app developers build, deploy and scale their apps.

Firebase is a mobile and web application development platform that provides a suite of cloud-based services to help developers build and scale their applications more easily. It was initially developed by Firebase, Inc., which was later acquired by Google in 2014.

Prerequisites

- 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:
 1. Flutter and Dart plugins installed for Android Studio.
 2. Flutter extension installed for Visual Studio Code.

Implementation

Creating a New Flutter Project

Creating a New Flutter Project:

Once you have your environment set up for Flutter, you can run the following to create a new application:

```
Flutter create MAD Expt 6
```

```
Copy
```

```
Navigate to the new project directory:
```

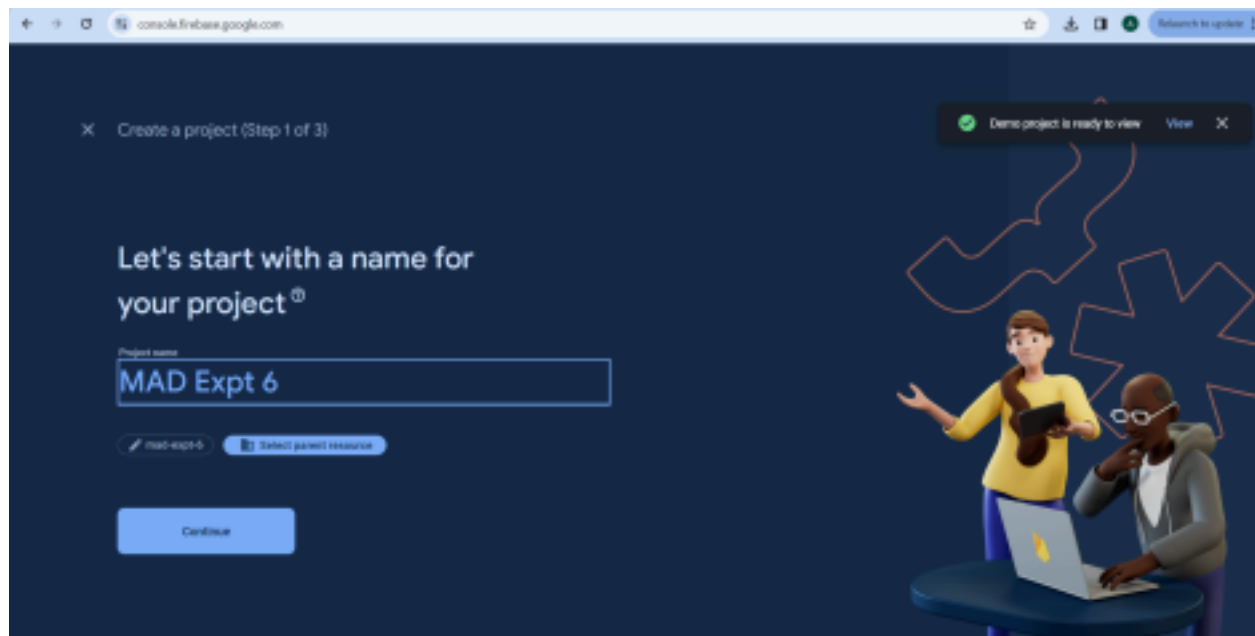
```
cd MADExp4
```

Using flutter create will produce a demo application that will display the number of times a button is clicked.

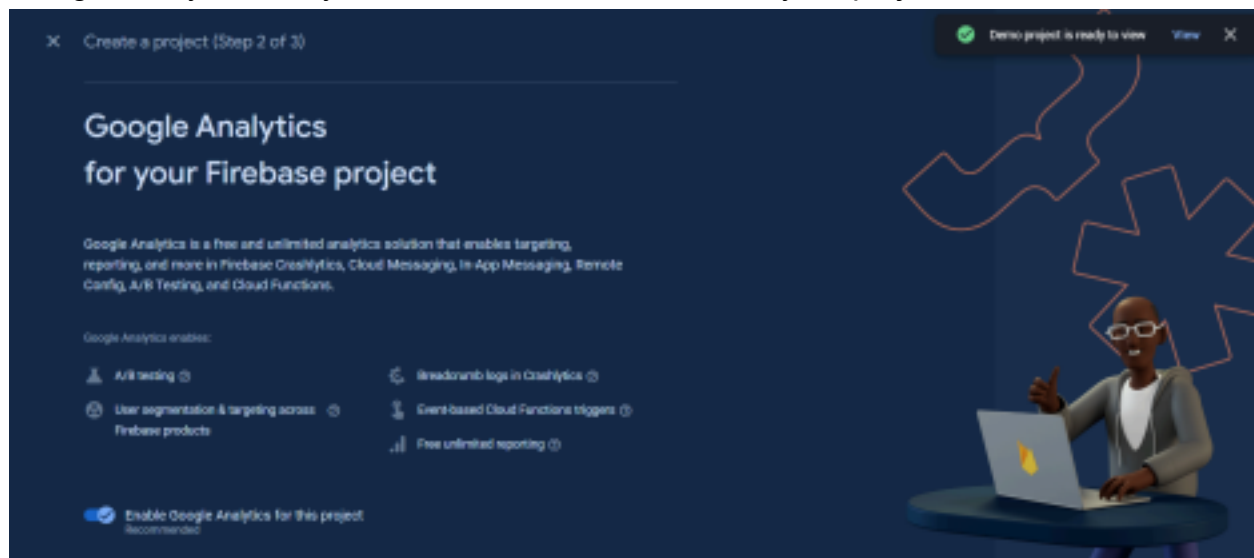
Now that we've got a Flutter project up and running, we can add Firebase.

Creating a New Firebase Project

First, log in with your Google account to manage your Firebase projects. From within the Firebase dashboard, select the Create new project button and give it a name



Next, we're given the option to enable Google Analytics. This tutorial will not require Google Analytics, but you can also choose to add it to your project.



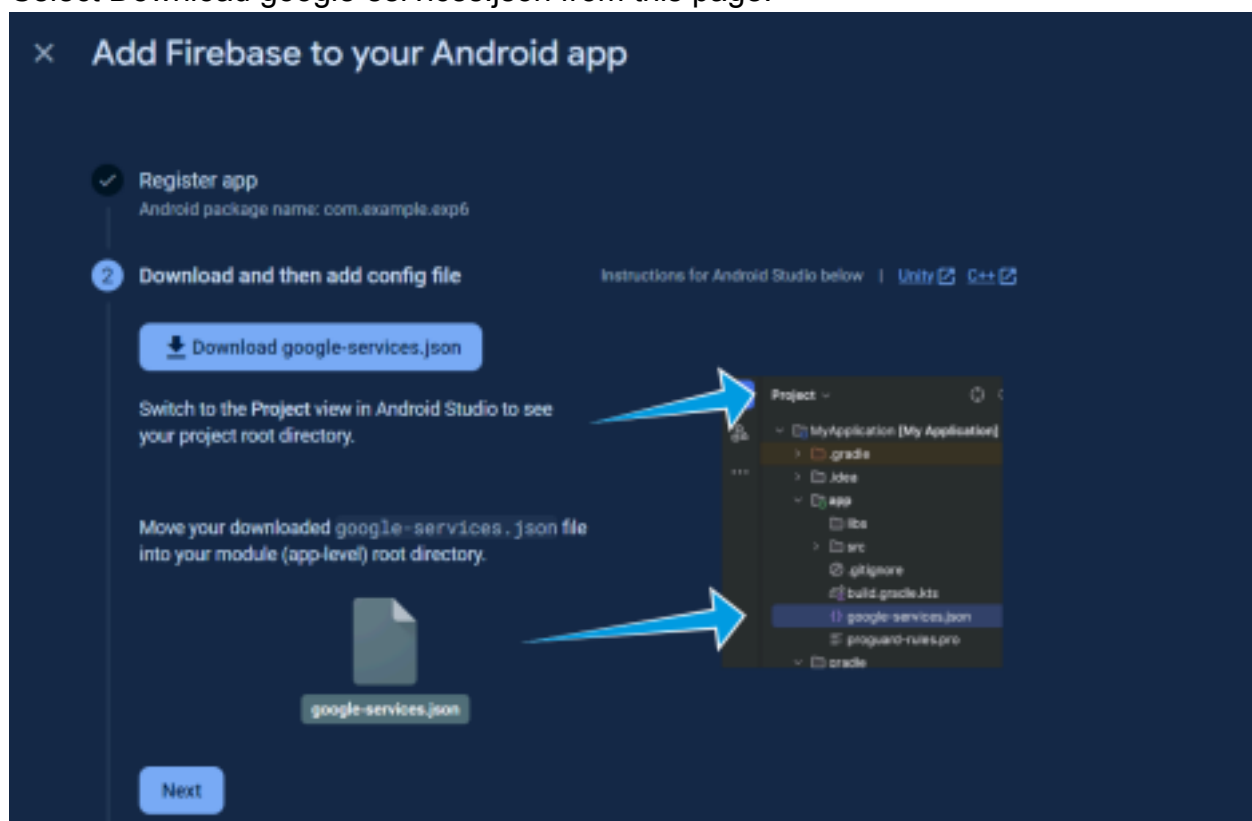
$$\dots \}$$

You can skip the app nickname and debug signing keys at this stage. Select Register app to continue.

Downloading the Config File

The next step is to add the Firebase configuration file into our Flutter project. This is important as it contains the API keys and other critical information for Firebase to use.

Select Download google-services.json from this page:



Next, move the google-services.json file to the android/app directory within the Flutter project.

Adding the Firebase SDK

We'll now need to update our Gradle configuration to include the Google Services plugin.

Open android/build.gradle in your code editor and modify it to include the following:
android/build.gradle

```
buildscript {
```

```
repositories {
```

```
// Check that you have the following line (if not, add it):
```

```
google() // Google's Maven repository
}
dependencies {
...
// Add this line
classpath 'com.google.gms:google-services:4.3.6'
}
}
allprojects {
...
repositories {
// Check that you have the following line (if not, add it):
google() // Google's Maven repository
...
}
}
```

Finally, update the app level file at android/app/build.gradle to include the following:

apply plugin: 'com.android.application'

// Add this line

apply plugin: 'com.google.gms.google-services'

dependencies {

// Import the Firebase BoM

implementation platform('com.google.firebase:firebase-bom:28.0.0') // Add the

dependencies for any other desired Firebase products //

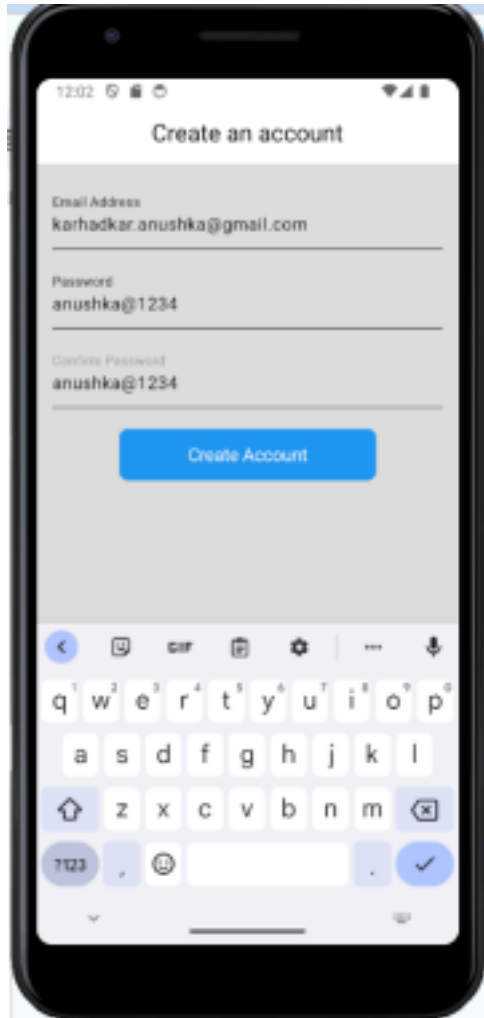
<https://firebase.google.com/docs/android/setup#available-libraries> } With this update, we're essentially applying the Google Services plugin as well as looking at

how other Flutter Firebase plugins can be activated such as Analytics. From here, run your application on an Android device or simulator. If everything has worked correctly, you should get the following message in the dashboard:

Name : Roshni Talreja

Roll No : 66

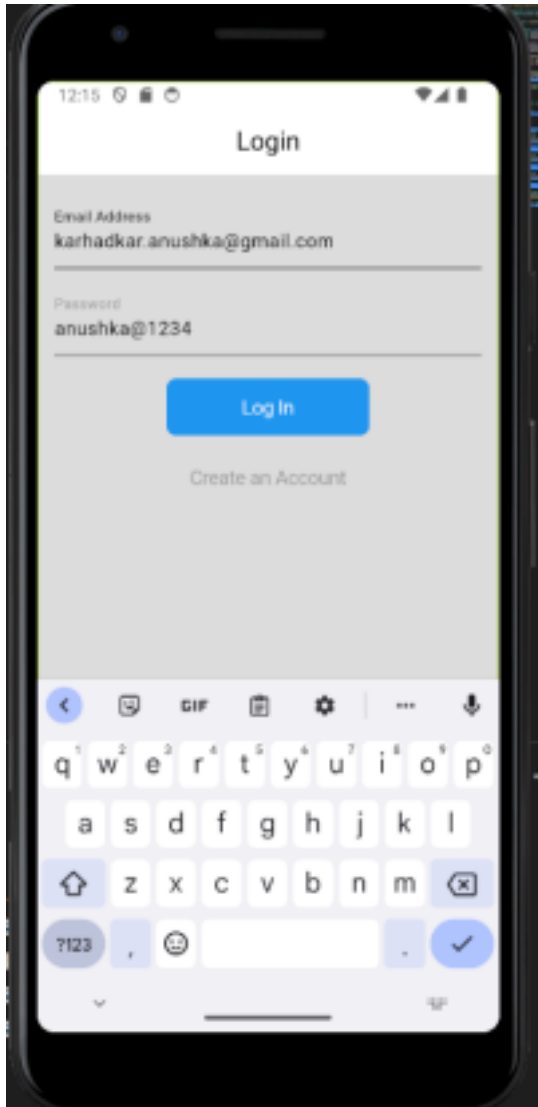
Div: D15B



Name : Roshni Talreja

Roll No : 66

Div: D15B



Authentication

Users | Sign-in method | Templates | Usage | Settings | Extensions

Add user 🔄 ⋮

Identifier	Providers	Created ↓	Signed in	User UID
karhadkar.anushka@g...	📧	Mar 13, 2024	Mar 13, 2024	m0rVhCjWSQn3K0xGEhGL...
test1.abc@gmail.com	📧	Mar 6, 2024	Mar 6, 2024	.J9RJRPyRRE3A3Knp0N1Y3...
test.test@gmail.com	📧	Mar 6, 2024	Mar 6, 2024	PeguTKoAyU00zCgKDn6Fb...

Rows per page: 50 | 1 - 3 of 3 | < >

Conclusion:

We have learned how to set up and ready our Flutter applications to be used with Firebase. Flutter has official support for Firebase with the FlutterFire set of

Name : Roshni Talreja

Roll No : 66

Div: D15B

libraries.