

## MPL Exp-1

# ANSH SARFARE

D15A/49

### **Aim:** Installation and Configuration of Flutter Environment.

**Step-1:** Go to Flutter's official website and download the zip file to install flutter SDK

## Install the Flutter SDK

To install the Flutter SDK, you can use the VS Code Flutter extension or download and install the Flutter bundle yourself.

Use VS Code to install

Download and install

## Download then install Flutter

To install Flutter, download the Flutter SDK bundle from its archive, move the bundle to where you want it stored, then extract the SDK.

1. Download the following installation bundle to get the latest stable release of the Flutter SDK.

flutter\_windows\_3.27.3-stable.zip

For other release channels, and older builds, check out the [SDK archive](#).

The Flutter SDK should download to the Windows default download directory: `%USERPROFILE%\Downloads`.

If you changed the location of the Downloads directory, replace this path with that path. To find your Downloads directory location, check out this [Microsoft Community post](#).
2. Create a folder where you can install Flutter.

**Step-2:** Place the file in D drive and add its path in system environment variables

The screenshot shows the "Edit environment variable" window in Windows. The title bar at the top says "Edit environment variable" with a close button (X) on the right. On the left side, there is a list of environment variables. The first variable, "%USERPROFILE%\AppData\Local\Microsoft\WindowsApps", is highlighted with a blue background. Below it are other paths: "C:\Users\Ansh\AppData\Local\Programs\Microsoft VS Code\bin", "C:\Users\Ansh\AppData\Roaming\npm", "%IntelliJ IDEA%", "C:\Tools", and "D:\src\flutter\bin". On the right side of the window, there is a vertical column of six buttons: "New", "Edit", "Browse...", "Delete", "Move Up", and "Move Down". At the bottom right, there is another button labeled "Edit text...".

Edit environment variable

%USERPROFILE%\AppData\Local\Microsoft\WindowsApps	New
C:\Users\Ansh\AppData\Local\Programs\Microsoft VS Code\bin	Edit
C:\Users\Ansh\AppData\Roaming\npm	Browse...
%IntelliJ IDEA%	Delete
C:\Tools	Move Up
D:\src\flutter\bin	Move Down
	Edit text...

**Step-3:** Run 'flutter doctor' command to verify that flutter is installed successfully.

```
C:\Users\Ansh>flutter doctor
```

Welcome to Flutter! - <https://flutter.dev>

The Flutter tool uses Google Analytics to anonymously report feature usage statistics and basic crash reports. This data is used to help improve Flutter tools over time.

Flutter tool analytics are not sent on the very first run. To disable reporting, type 'flutter config --no-analytics'. To display the current setting, type 'flutter config'. If you opt out of analytics, an opt-out event will be sent, and then no further information will be sent by the Flutter tool.

By downloading the Flutter SDK, you agree to the Google Terms of Service. The Google Privacy Policy describes how data is handled in this service.

Moreover, Flutter includes the Dart SDK, which may send usage metrics and crash reports to Google.

Read about data we send with crash reports:  
<https://flutter.dev/to/crash-reporting>

See Google's privacy policy:  
<https://policies.google.com/privacy>

To disable animations in this tool, use  
'flutter config --no-cli-animations'.

**Step-4:** Go to official website of Android studio and download the Ladybug Feature Drop for Windows

ANDROID STUDIO

[Download](#)   Android Studio editor   Gemini in Android Studio   Android Gradle Plugin   SDK tools   Preview

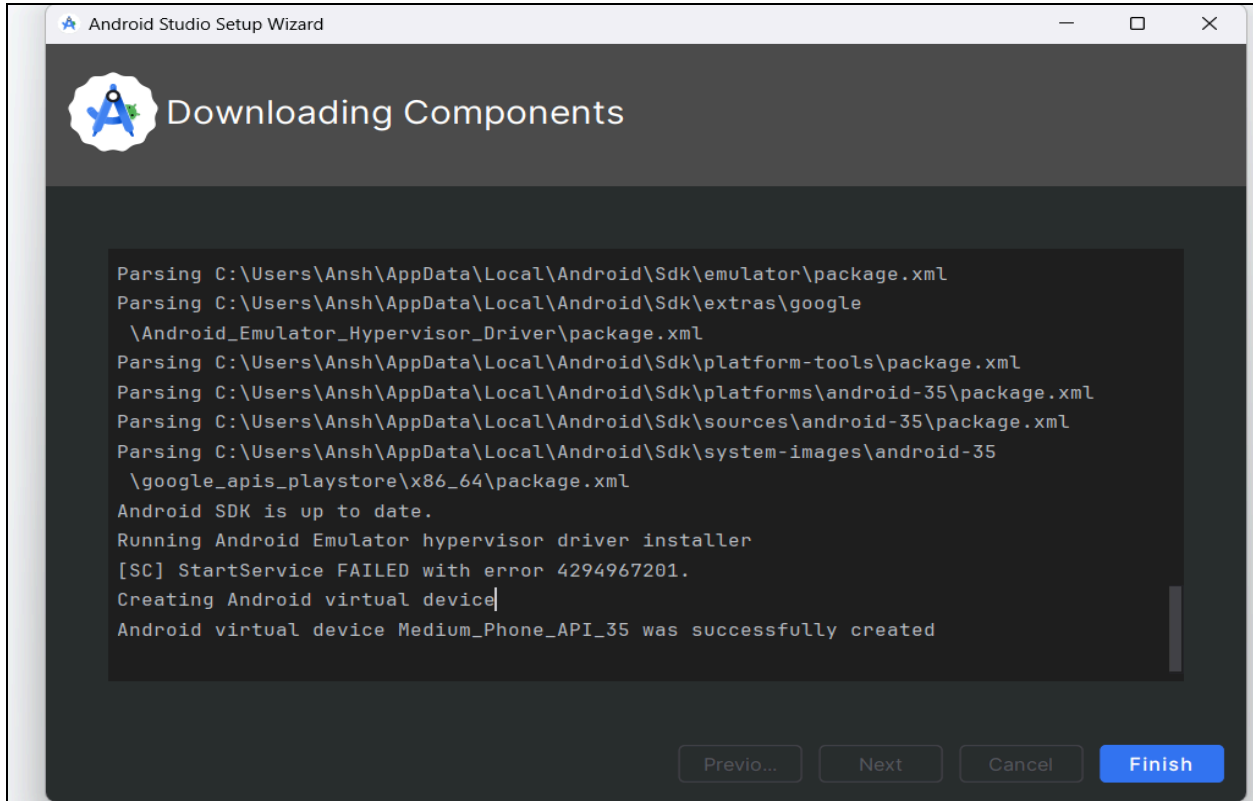
# Android Studio

The official IDE for Android app development now accelerates your productivity with Gemini in Android Studio, your AI-powered coding companion.

Download Android Studio Ladybug Feature Drop

Read release notes

```
@MultiPreview
@Composable
fun NialAppScreenPreview(
    @PreviewParameter(UserNewsResourcePreviewParameterProvider::class)
    userNewsResources: List<UserNewsResource>,
) {
    NialTheme {
        Scaffold(
            topBar = {
                NialAppBar(
                    title = "%string.app_name%",
                    navigationIcon = NialIcons.Search,
                    navigationIconContentDescription = "Navigation icon",
                    actionIcon = NialIcons.MoreVert,
                    actionIconContentDescription = "Action icon",
                )
            },
            contentWindowInsets = WindowInsets(0, 0, 0, 0) { innerPadding ->
                ForYouScreen(
                    isSyncing = false,
                    onboardingUiState = OnboardingUiState.NotShown,
                    feedState = NewsFeedUiState.Success(feed = userNewsResources),
                    deepLinkedUserNewsResource = null,
                    onTopicCheckedChanged = { .. },
                    saveFollowedTopics = {},
                )
            }
        )
    }
}
```



**Step-5:** After installation of Android studio run the command flutter doctor --android-licenses to accept required SDK licenses for Flutter to work with Android.

```
10.7 Special Terms for Pre-Release Materials. If so indicated in the description of the Evaluation Software, the Recipient agrees that: (i) Pre-Release Materials may not be fully tested and may contain bugs or errors; (ii) Recipient agrees that Pre-Release Materials (such as UL or FCC) have not been obtained, and Pre-Release Materials may not be used in applications and (iv) MIPS can provide no assurance that it will ever produce or make generally available a final product based upon the Pre-Release Materials and may unilaterally terminate this Agreement at any time without any obligation or liability whatsoever to Recipient or any other person.
```

```
ANY PRE-RELEASE MATERIALS ARE NON-QUALIFIED AND, AS SUCH, ARE PROVIDED "AS IS" AND "AS AVAILABLE", POSSIBLY WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND.
```

```
10.8 Open Source Software. In the event Open Source software is included with Evaluation Software, such as the Open Source software comments in the applicable source code file(s) and/or file header as indicated in the on-line documentation. With respect to the Open Source software, nothing in this Agreement limits any rights or obligations under applicable law.
```

```
-----
Accept? (y/N): y
```

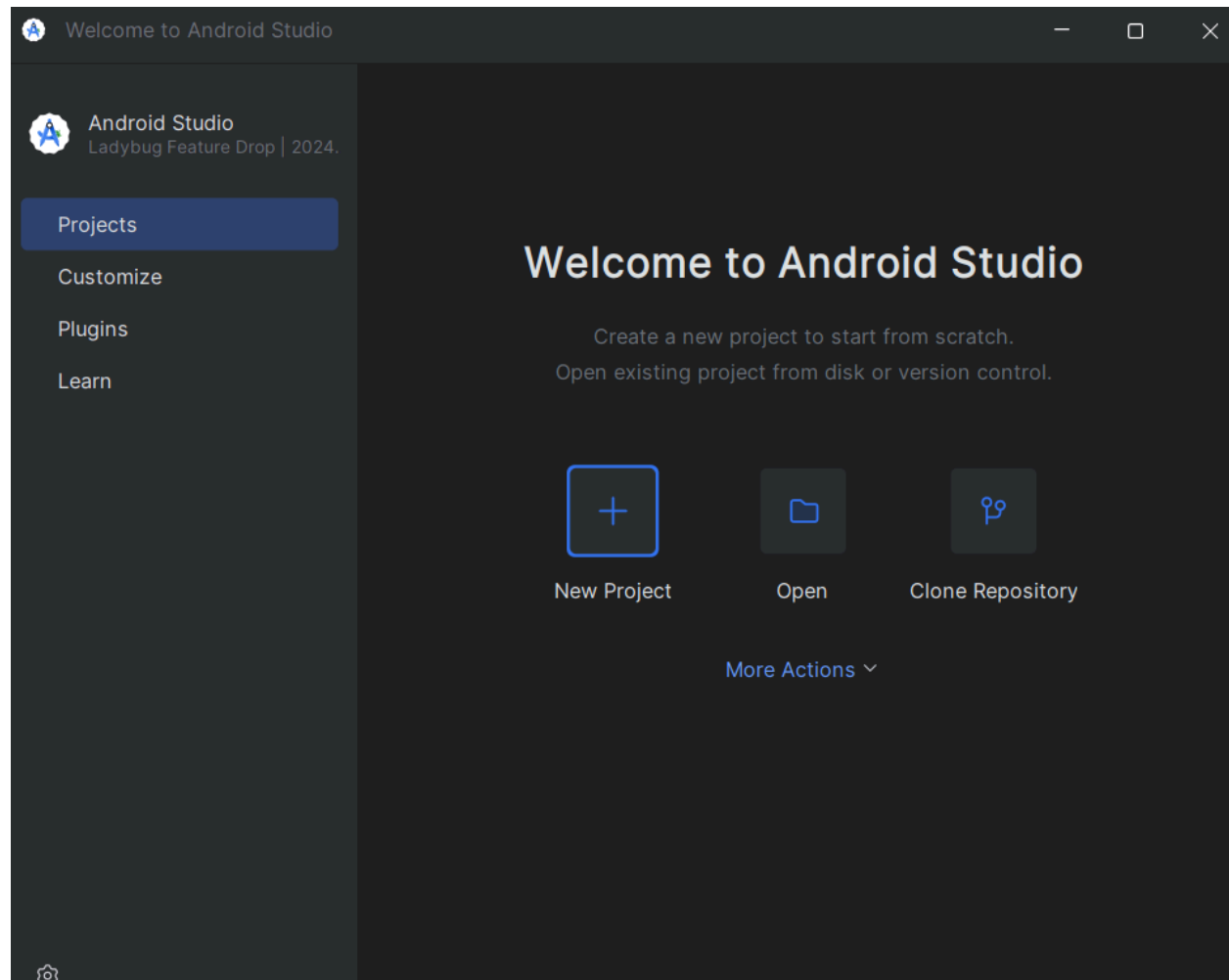
```
All SDK package licenses accepted
```

**Step-7:** Run flutter doctor again to ensure everything is installed properly.

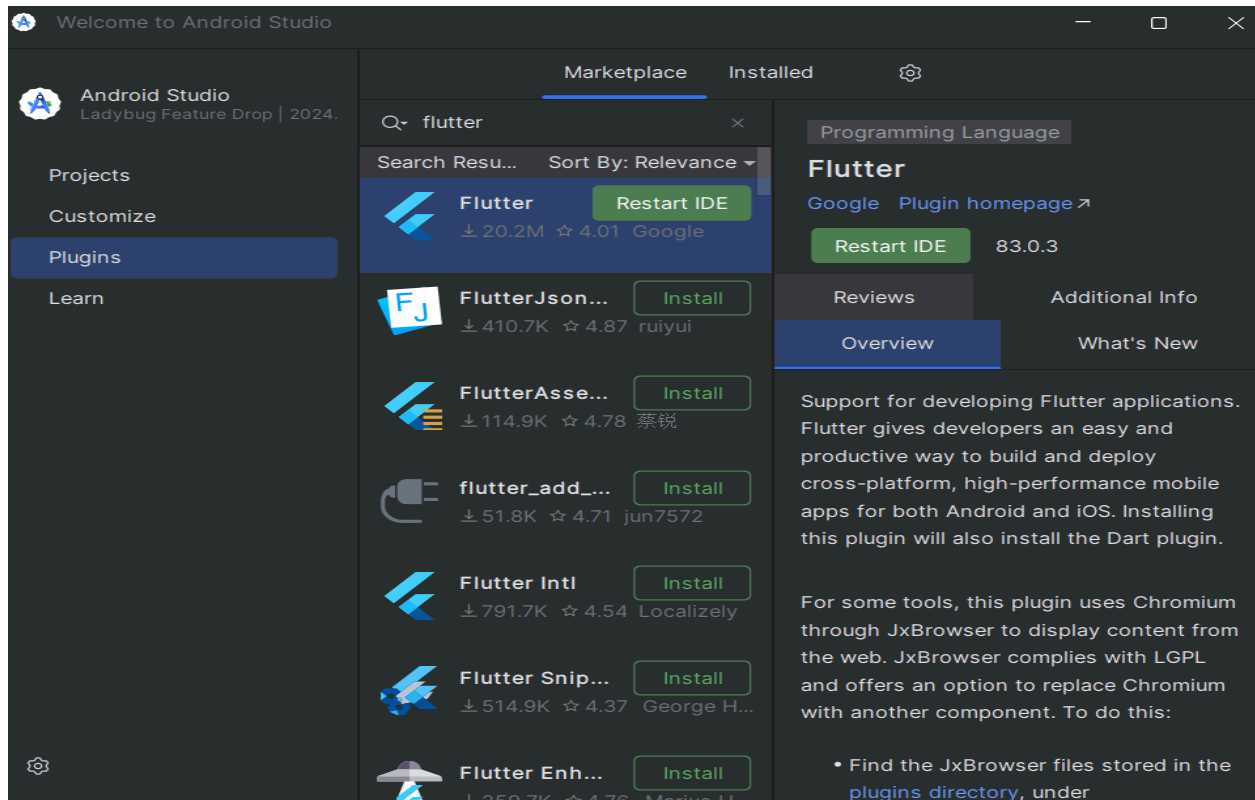
```
C:\Users\Ansh>flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 3.27.3, on Microsoft Windows [Version 10.0.22621.2715], locale en-IN)
[✓] Windows Version (Installed version of Windows is version 10 or higher)
[✓] Android toolchain - develop for Android devices (Android SDK version 35.0.1)
[✓] Chrome - develop for the web
[X] Visual Studio - develop Windows apps
    X Visual Studio not installed; this is necessary to develop Windows apps.
      Download at https://visualstudio.microsoft.com/downloads/.
      Please install the "Desktop development with C++" workload, including all of its default components
[✓] Android Studio (version 2024.2)
[✓] IntelliJ IDEA Ultimate Edition (version 2024.2)
[✓] VS Code (version 1.96.4)
[✓] Connected device (3 available)
[✓] Network resources

! Doctor found issues in 1 category.
```

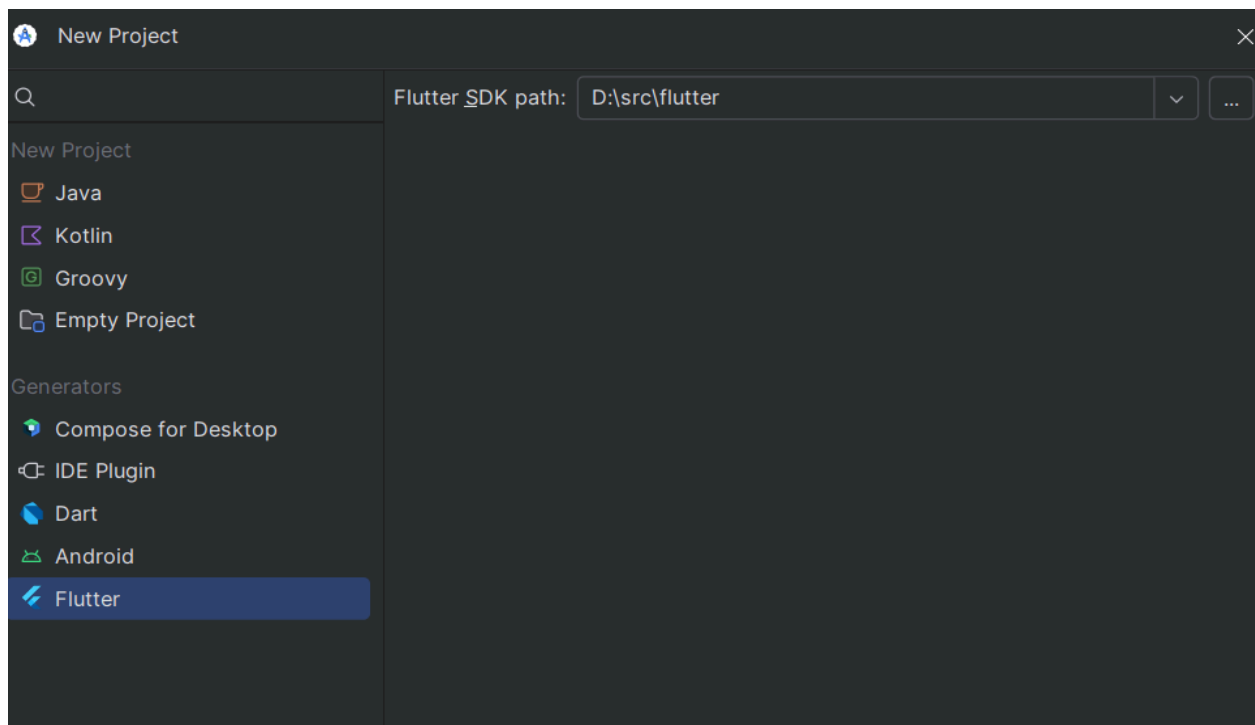
## Android Studio:



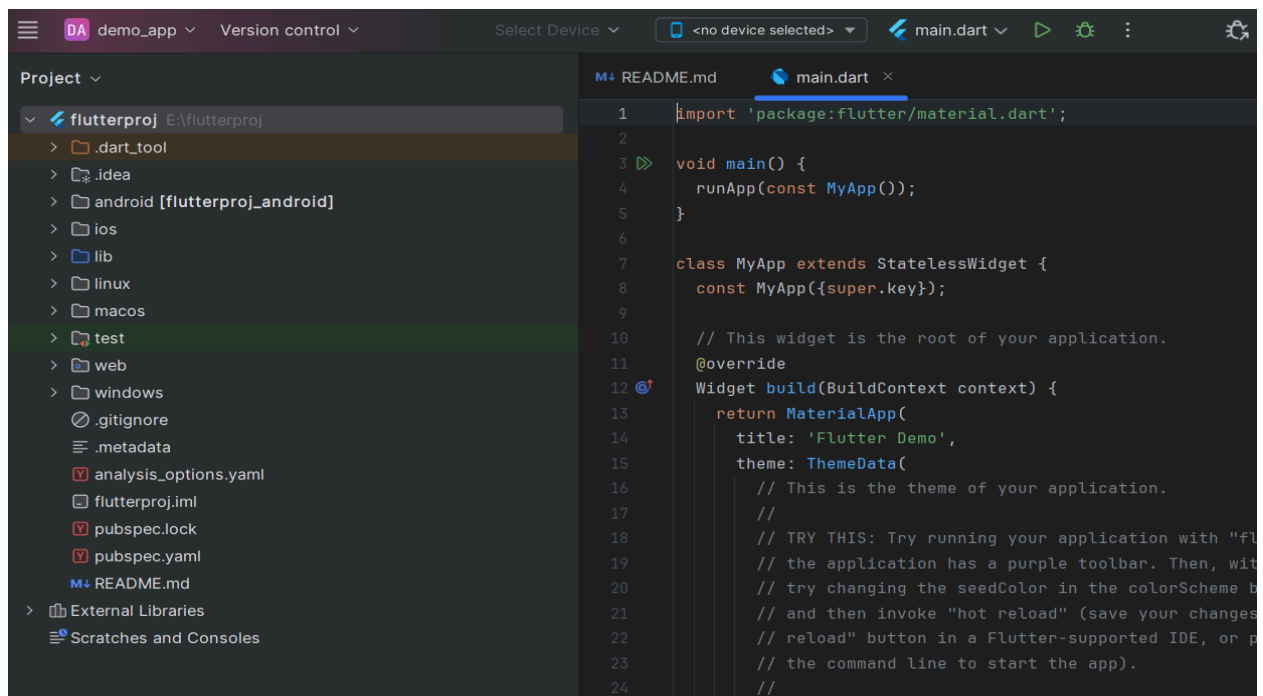
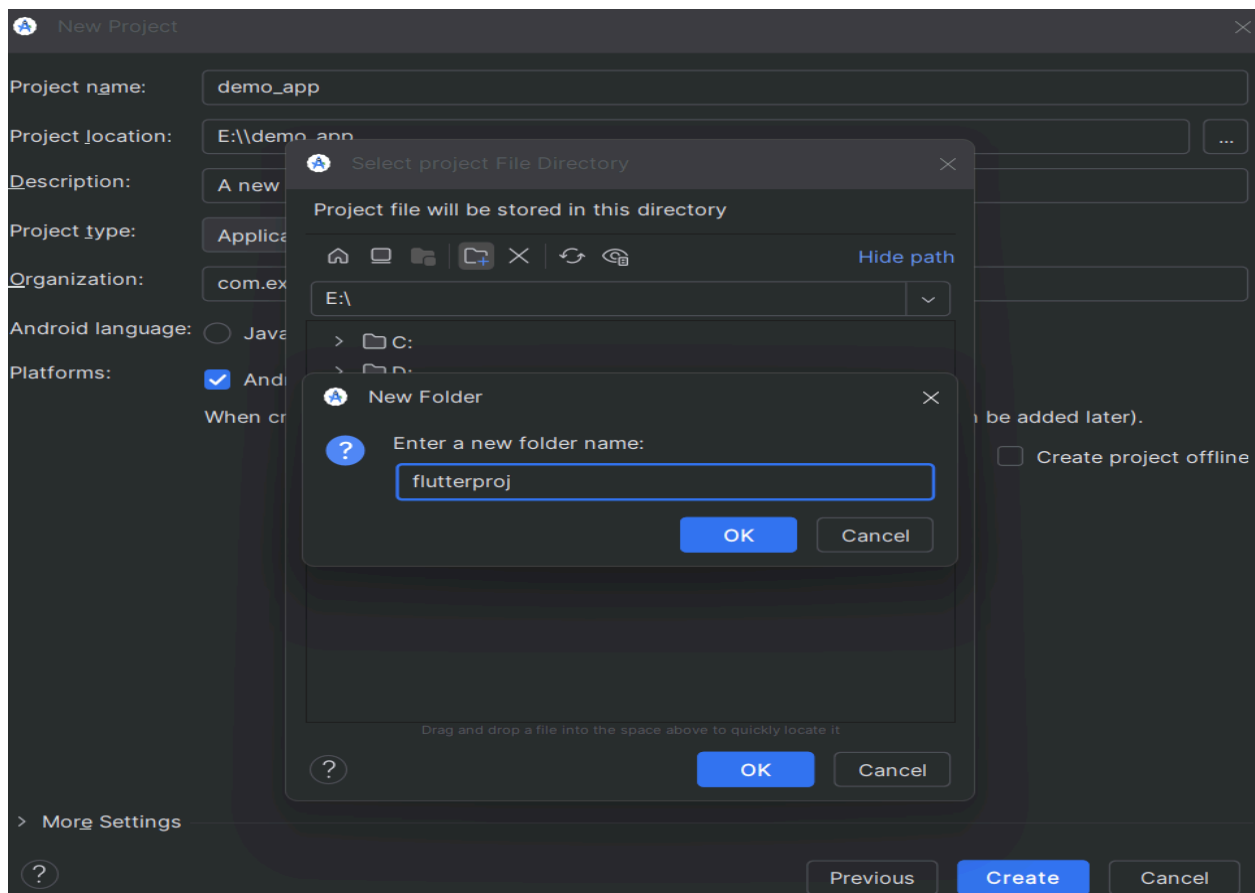
## Step-8: Add the Flutter Plugin



## Step-9: Create a new Flutter Project



## Step-10: Name the Project and set the project directory



### Step-11: Edit the main.dart file with demo code for testing

```
main.dart x M+ README.md
19   ); // MaterialApp
20   }
21 }
22
23 class MyHomePage extends StatelessWidget {
24   const MyHomePage({super.key, required this.title});
25
26   final String title;
27
28   @override
29   Widget build(BuildContext context) {
30     return Scaffold(
31       appBar: AppBar(
32         backgroundColor: Theme.of(context).colorScheme.inversePrimary,
33         title: Text(title),
34       ), // AppBar
35       body: const Center(
36         child: Text(
37           'Ansh Sarfare, I am 20yrs old',
38           style: TextStyle(fontSize: 24, fontWeight: FontWeight.bold),
39         ), // Text
40       ), // Center
41     ); // Scaffold
42   }
43 }
44
```

### Step-11: Connect USB to your phone and enable USB Debugging in developer options, after that run 'flutter devices' command to check if device is listed

```
PS E:\flutterproj> flutter devices
Found 4 connected devices:
AC2001 (mobile) • 876c5c27 • android-arm64 • Android 12 (API 31)
Windows (desktop) • windows • windows-x64 • Microsoft Windows [Version 10.0.22621.2715]
Chrome (web) • chrome • web-javascript • Google Chrome 132.0.6834.160
Edge (web) • edge • web-javascript • Microsoft Edge 132.0.2957.127
```

### Step-12: Run 'flutter run' command to run the app on phone

```
PS E:\flutterproj> flutter run
Launching lib\main.dart on AC2001 in debug mode...
Warning: SDK processing. This version only understands SDK XML versions up to 3 but an SDK XML file of version 4
dio and the command-line tools that were released at different times.
Checking the license for package Android SDK Build-Tools 33.0.1 in D:\Android\Sdk\licenses
```

```
Terminal Local x + v
"Install Android SDK Build-Tools 33.0.1 v.33.0.1" finished.
warning: [options] source value 8 is obsolete and will be removed in a future release
warning: [options] target value 8 is obsolete and will be removed in a future release
warning: [options] To suppress warnings about obsolete options, use -Xlint:-options.
3 warnings
Running Gradle task 'assembleDebug'... 139.5s
v Built build\app\outputs\flutter-apk\app-debug.apk
Installing build\app\outputs\flutter-apk\app-debug.apk... 3.9s
I/flutter (25485): [INFO:flutter/shell/platform/android/android_context_vk_impeller.cc(64)] Kno
Syncing files to device AC2001... 227ms

Flutter run key commands.
r Hot reload.
R Hot restart.
h List all available interactive commands.
d Detach (terminate "flutter run" but leave application running).
```

Output:

