MPL Exp-1

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Aim: Installation and Configuration of Flutter Environment.

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

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

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

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.

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:
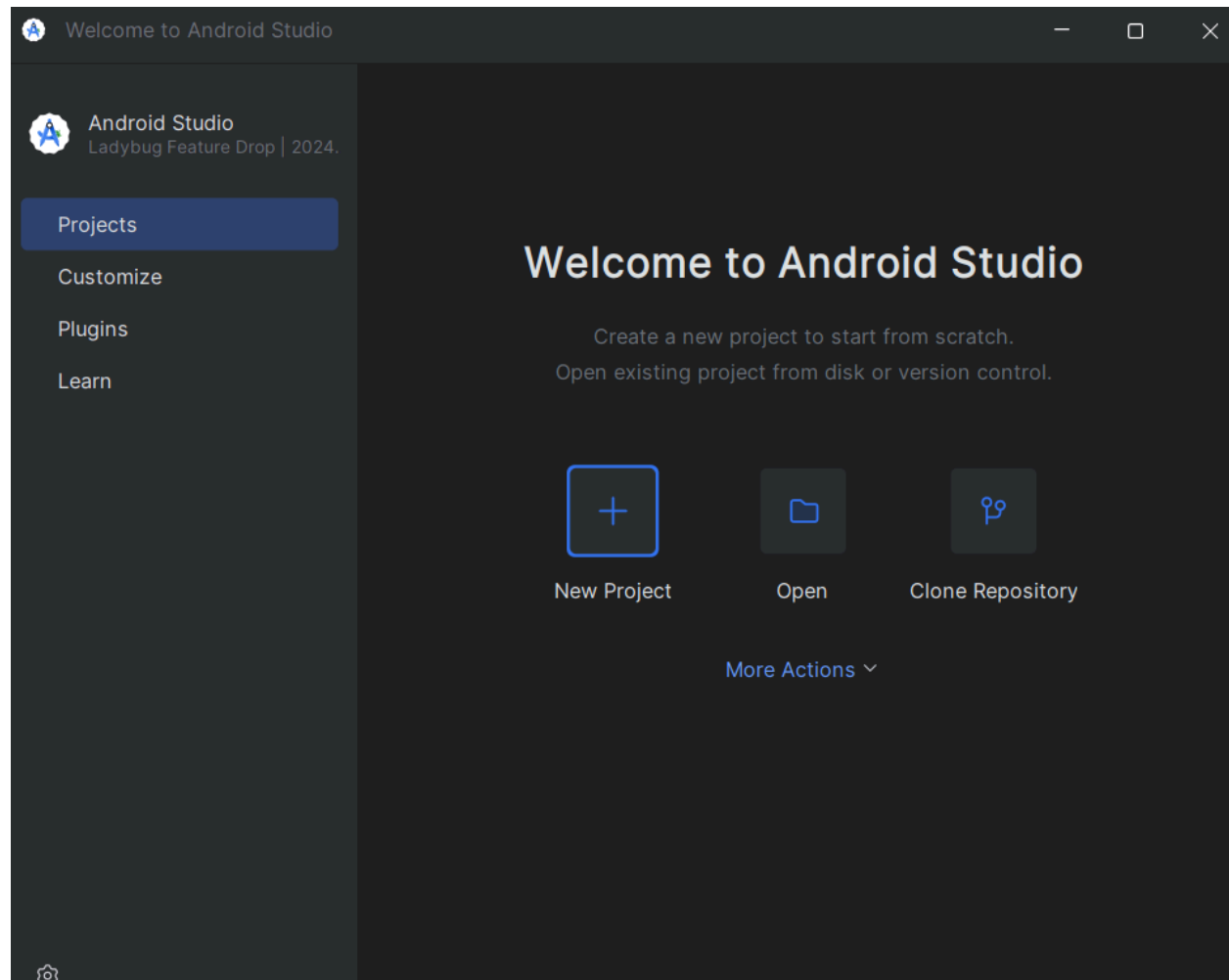
Step-8: Add the Flutter Plugin
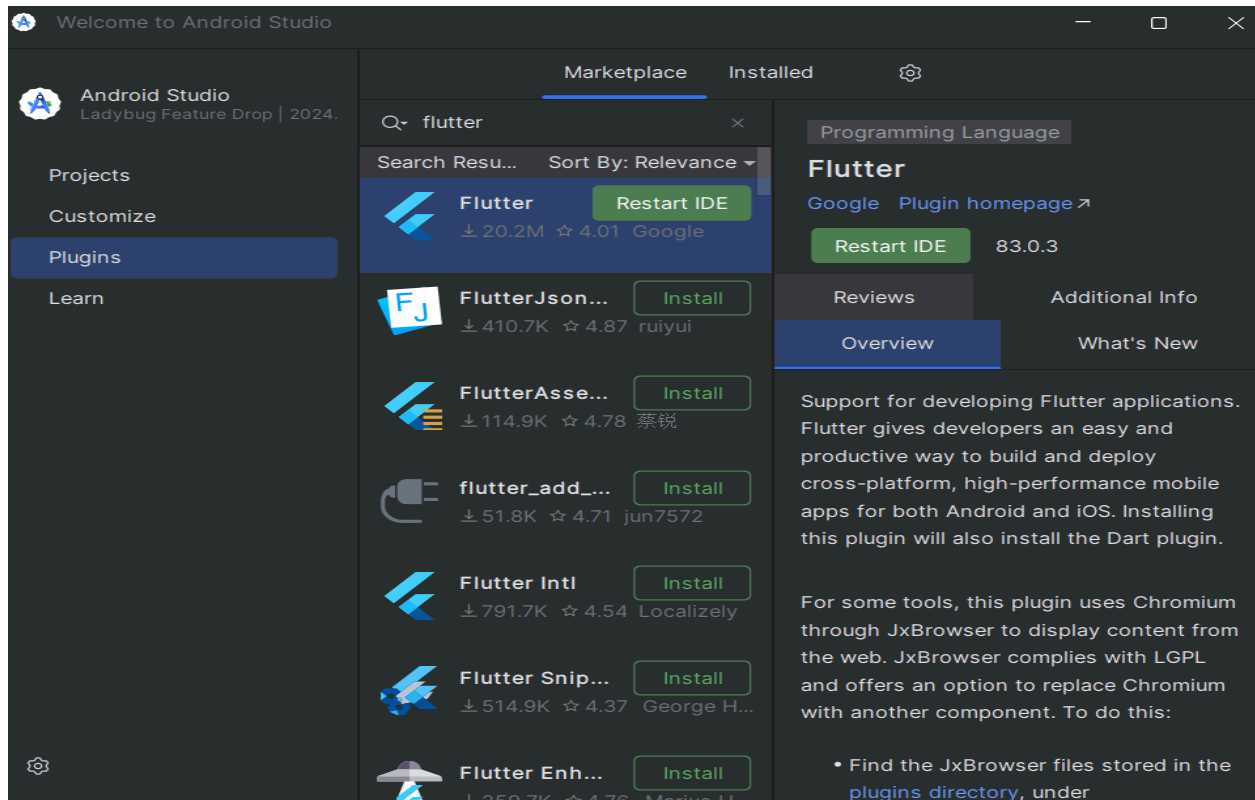
Step-9: Create a new Flutter Project
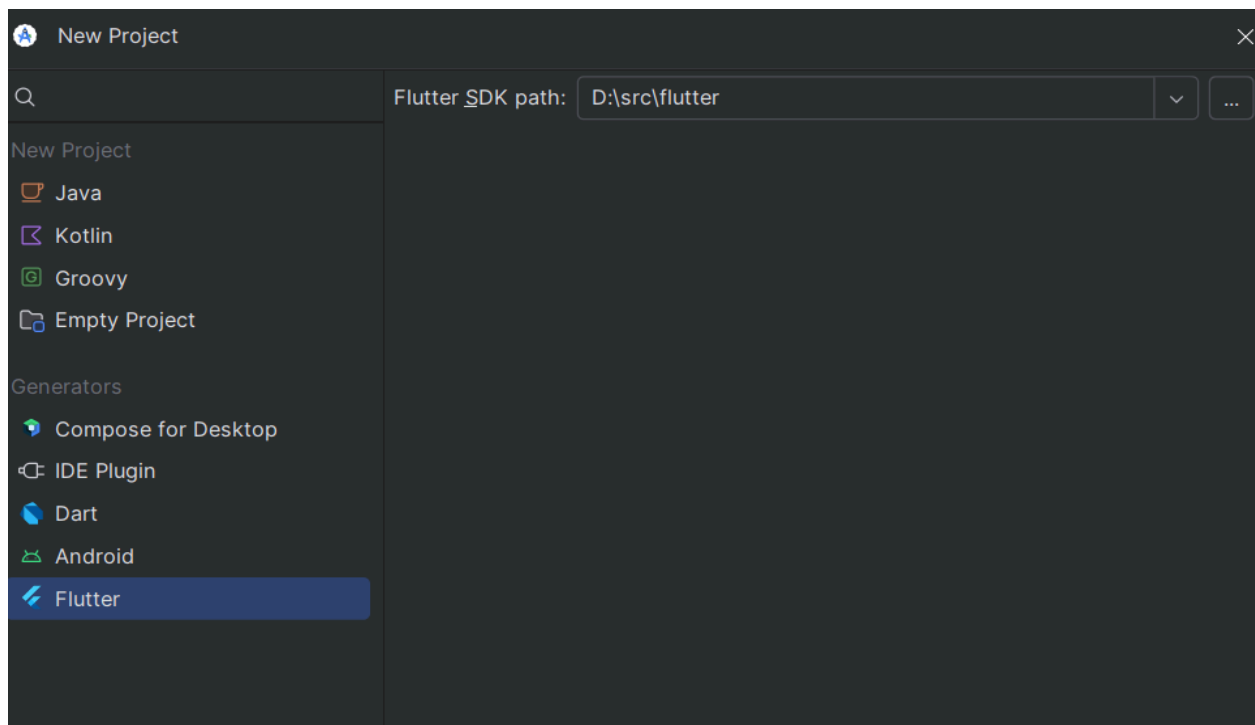
Step-10: Name the Project and set the project directory
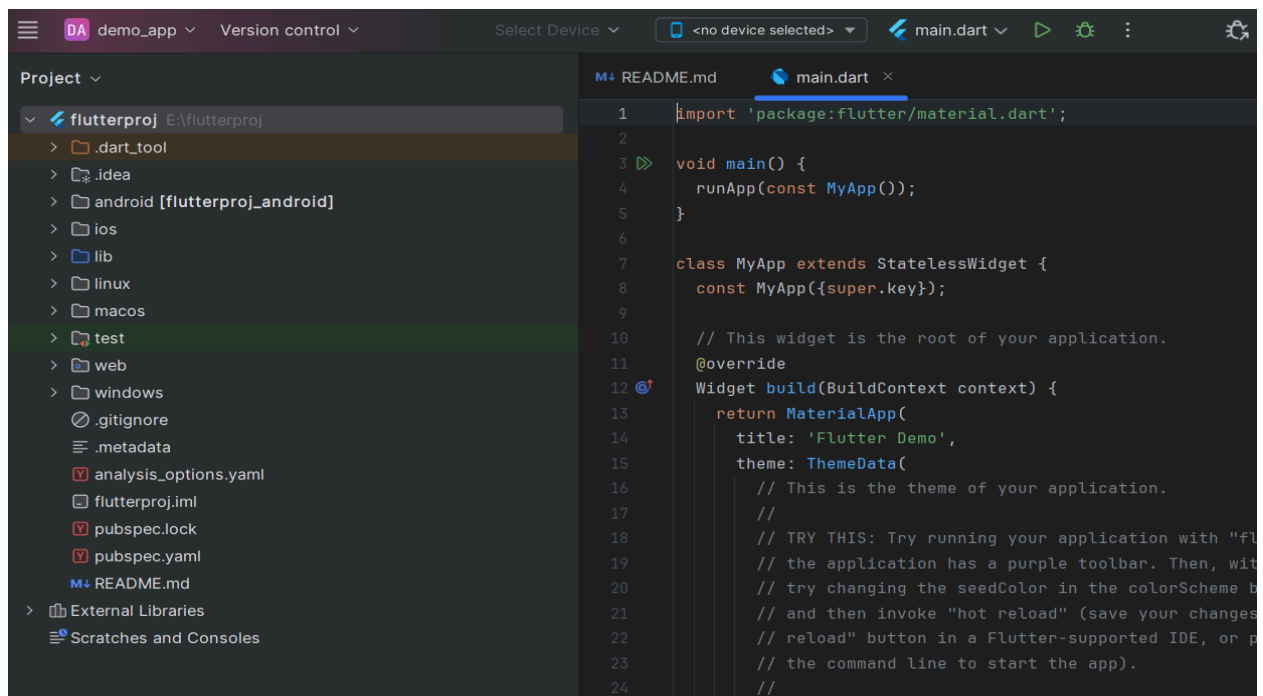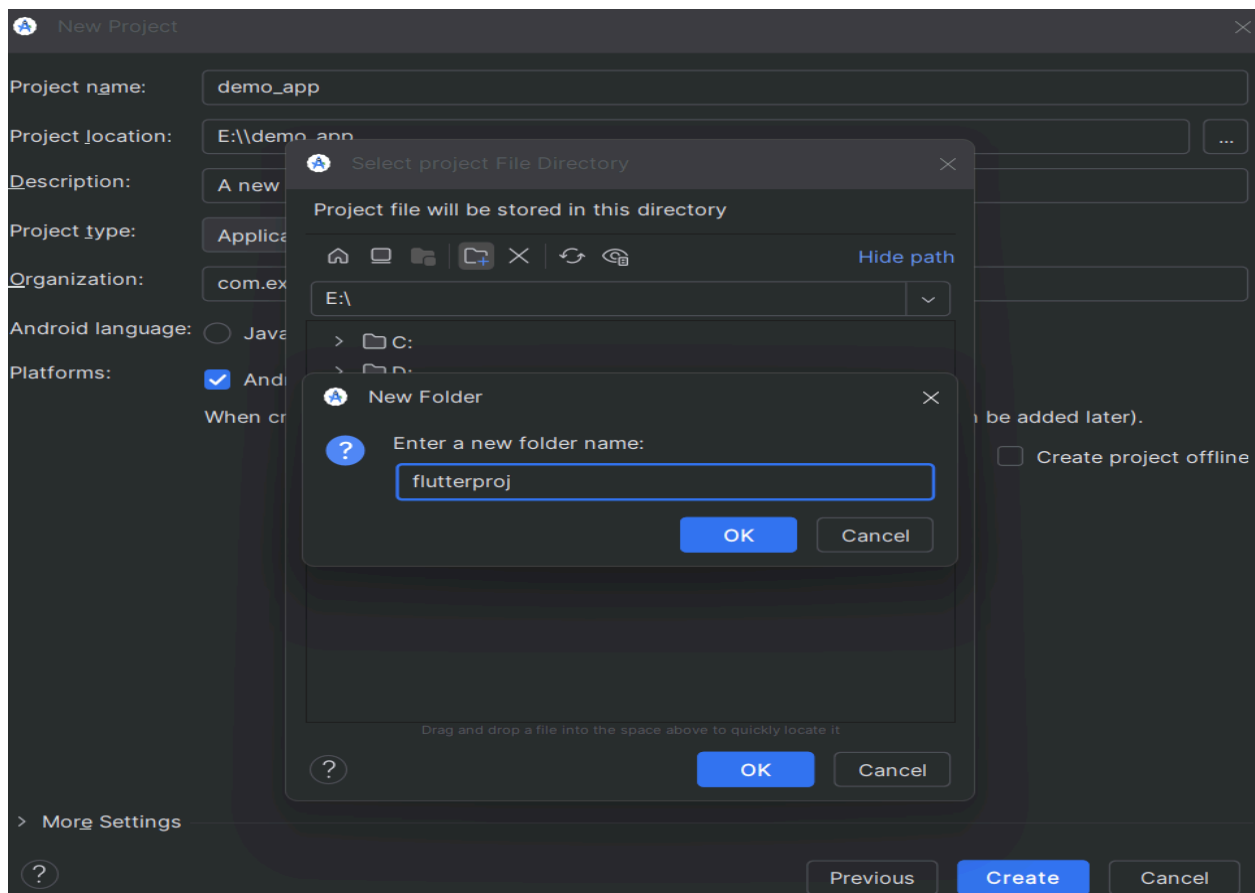
Step-11: Edit the main.dart file with demo code for testing

```
  main.dart ×    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  ×  +  ∨
"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
√ 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: