

MPL EXPERIMENT NO.1

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CLASS-D15A

ROLL NO-33

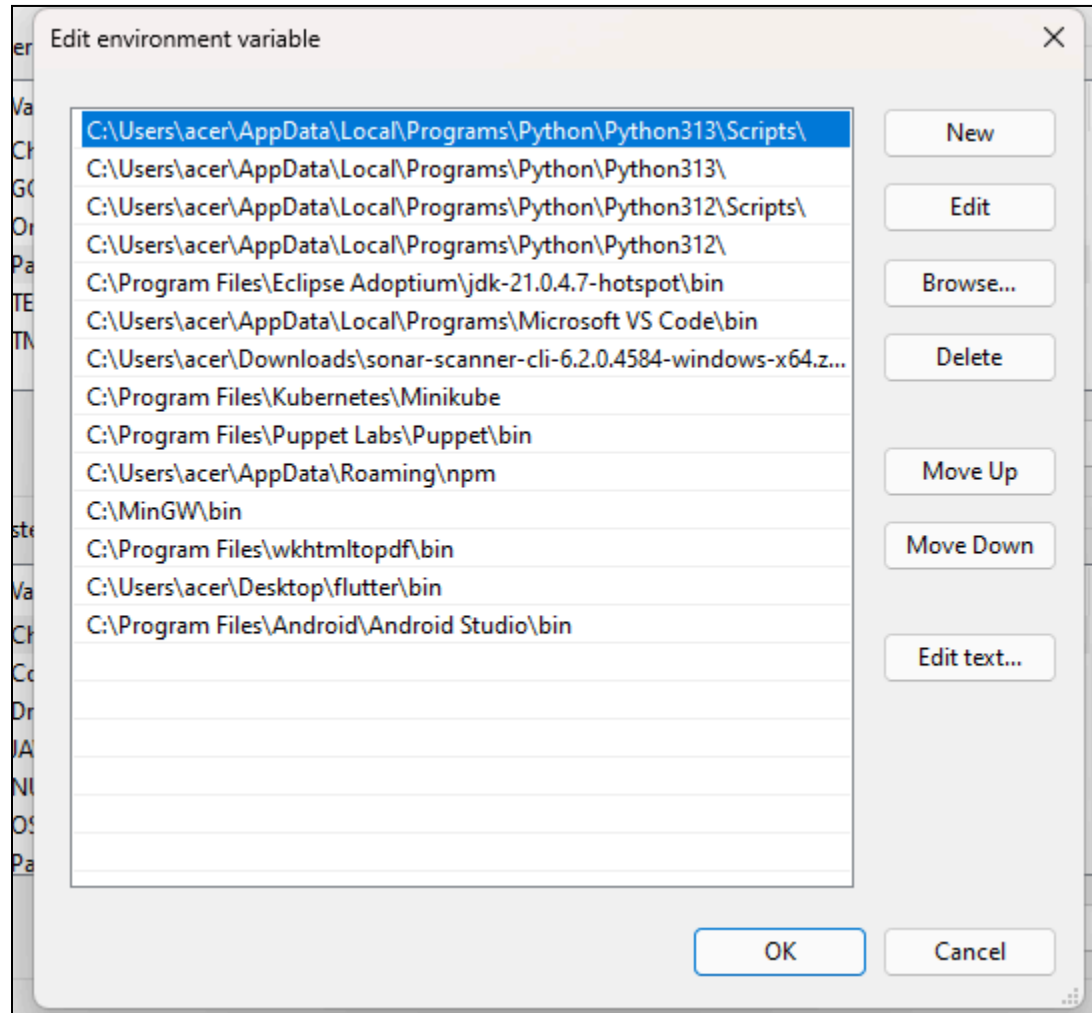
AIM: Installation and Configuration of Flutter Environment.

STEPS:

Install Flutter

The screenshot shows the Flutter documentation website at `docs.flutter.dev/get-started/install/windows/mobile`. The page is titled "Download then install Flutter". It provides instructions for downloading the Flutter SDK bundle from its archive, moving it to the desired location, and extracting it. The first step is to download the installation bundle for the latest stable release of the Flutter SDK, which is `flutter_windows_3.27.3-stable.zip`. The page also mentions that for other release channels and older builds, users should check out the [SDK archive](#). The Flutter SDK should be downloaded to the Windows default download directory, which is `%USERPROFILE%\Downloads`. If the user has changed the location of the Downloads directory, they should replace the path with that path. To find the Downloads directory location, they should check out this [Microsoft Community post](#). The second step is to create a folder where they can install Flutter. The page suggests creating a directory at `%USERPROFILE%` (C:\Users\{username}) or `%LOCALAPPDATA%` (C:\Users\{username}\AppData\Local). A warning box at the bottom states: "Warning: Don't install Flutter to a directory or path that meets one or both of the following conditions: ...". The page also has a sidebar with navigation links for "Get started", "Set up Flutter", "Learn Flutter", "Stay up to date", "App solutions", "User interface", "Introduction", "Widget catalog", "Layout", "Adaptive & responsive design", "Design & theming", "Interactivity", "Assets & media", and "Navigation & routing". The right sidebar contains a "Contents" section with links to "Verify system requirements", "Hardware requirements", "Software requirements", "Configure a text editor or IDE", "Install the Flutter SDK", "Configure Android development", "Configure the Android toolchain in Android Studio", "Configure your target Android device", "Agree to Android licenses", and "Check your development setup".

Set the environment variables



Run flutter command on cmd

```
C:\Users\acer>flutter
Manage your Flutter app development.

Common commands:

  flutter create <output directory>
    Create a new Flutter project in the specified directory.

  flutter run [options]
    Run your Flutter application on an attached device or in an emulator.

Usage: flutter <command> [arguments]

Global options:
-h, --help            Print this usage information.
-v, --verbose         Noisy logging, including all shell commands executed.
                      If used with "--help", shows hidden options. If used with "flutter doctor", shows additional
                      diagnostic information. (Use "-vv" to force verbose logging in those cases.)
-d, --device-id       Target device id or name (prefixes allowed).
--version             Reports the version of this tool.
--enable-analytics    Enable telemetry reporting each time a flutter or dart command runs.
--disable-analytics  Disable telemetry reporting each time a flutter or dart command runs, until it is
                      re-enabled.
--suppress-analytics  Suppress analytics reporting for the current CLI invocation.

Available commands:

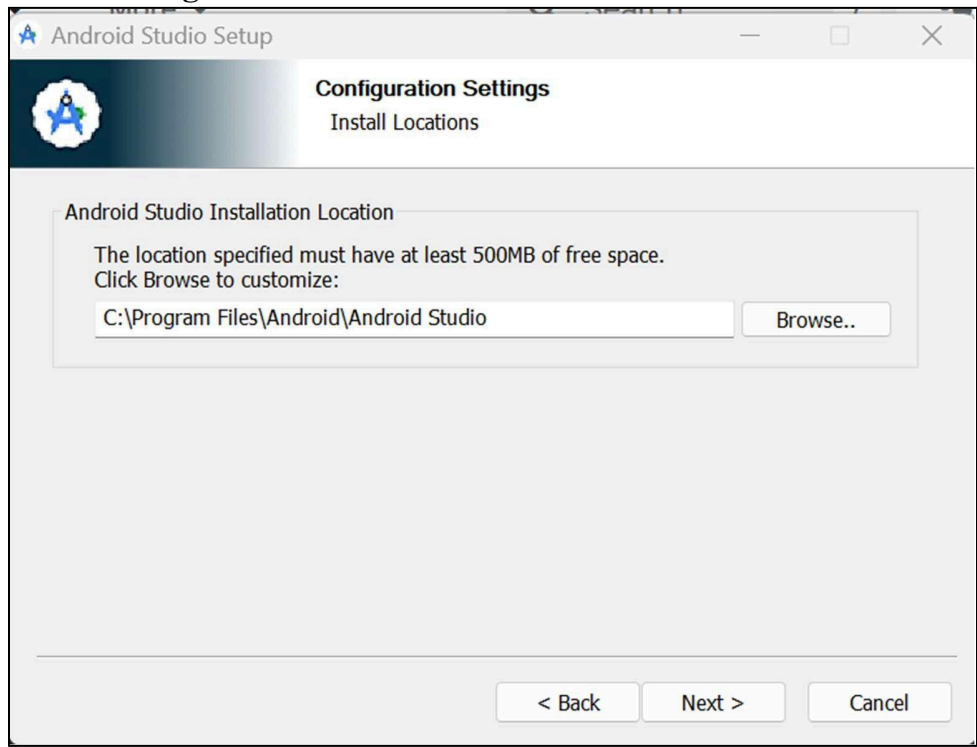
Flutter SDK
bash-completion  Output command line shell completion setup scripts.
channel          List or switch Flutter channels.
config           Configure Flutter settings.
doctor           Show information about the installed tooling.
downgrade        Downgrade Flutter to the last active version for the current channel.
precache         Populate the Flutter tool's cache of binary artifacts.
upgrade          Upgrade your copy of Flutter.

Project
analyze          Analyze the project's Dart code.
assemble         Assemble and build Flutter resources.
build            Build an executable app or install bundle.
clean            Delete the build/ and .dart_tool/ directories.
create           Create a new Flutter project.
drive            Run integration tests for the project on an attached device or emulator.
gen-l10n         Generate localizations for the current project.
pub             Commands for managing Flutter packages.
run              Run your Flutter app on an attached device.
test            Run Flutter unit tests for the current project.
```

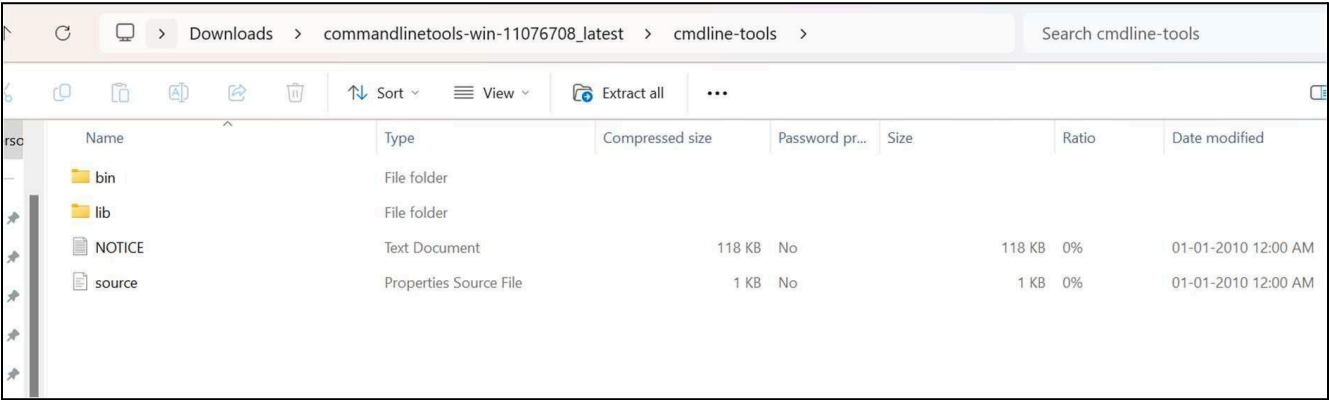
Run flutter doctor

```
C:\Users\HOME\spandan>flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 3.27.3, on Microsoft Windows [Version 10.0.22631.4751], locale en-US)
[✓] Windows Version (Installed version of Windows is version 10 or higher)
[X] Android toolchain - develop for Android devices
    X Unable to locate Android SDK.
      Install Android Studio from: https://developer.android.com/studio/index.html
      On first launch it will assist you in installing the Android SDK components.
      (or visit https://flutter.dev/to/windows-android-setup for detailed instructions).
      If the Android SDK has been installed to a custom location, please use
      `flutter config --android-sdk` to update to that location.
```

Downloading Android SDK



Downloaded command line tools of Android SDK



There are two issues according to flutter doctor

```
C:\Users\HOME>flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 3.27.3, on Microsoft Windows [Version 10.0.22631.4751], 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)
    ! Some Android licenses not accepted. To resolve this, run: flutter doctor --android-licenses
[✓] 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)
[✓] VS Code (version 1.96.2)
[✓] Connected device (3 available)
[✓] Network resources

! Doctor found issues in 2 categories.
```

Accept the android licenses

```
C:\Users\HOME>flutter doctor --android-licenses
Warning: This version only understands SDK XML versions up to 3 but an SDK XML file of version 4 was encountered.
you use versions of Android Studio and the command-line tools that were released at different times.
Warning: Errors during XML parse...
Warning: Additionally, the fallback loader failed to parse the XML.ry...
Warning: Errors during XML parse: [ 66% Fetch remote repository...
Warning: Additionally, the fallback loader failed to parse the XML.
[=====] 100% Computing updates...
6 of 7 SDK package licenses not accepted.
Review licenses that have not been accepted (y/N)? y

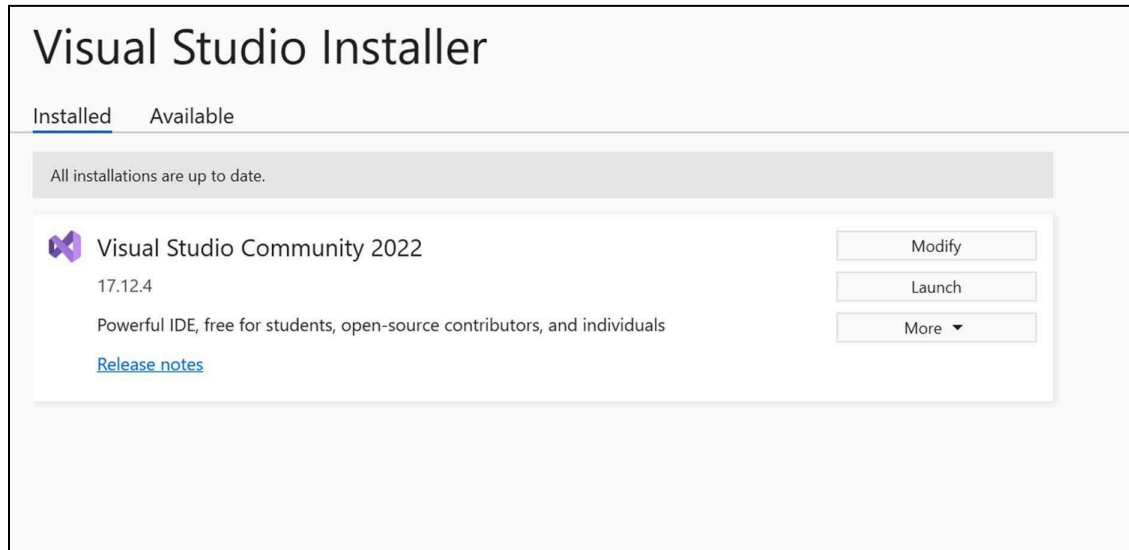
1/6: License android-googletv-license:
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Terms and Conditions

This is the Google TV Add-on for the Android Software Development Kit License Agreement.

1. Introduction

1.1 The Google TV Add-on for the Android Software Development Kit (referred to in this License Agreement as the "Add-on") is licensed specifically including the Android system files, packaged APIs, and Google APIs add-ons) is licensed
```

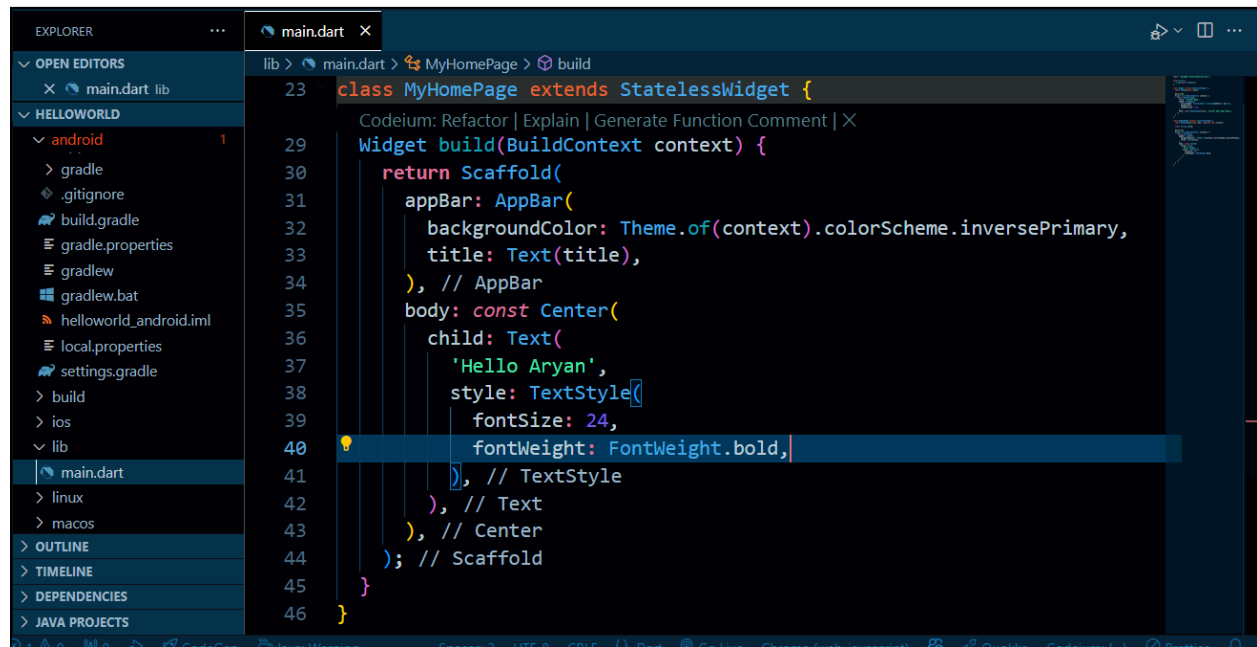
Install Visual Studio



Run flutter doctor command

```
C:\Users\acer>flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 3.27.3, on Microsoft Windows [Version 10.0.22631.4602], 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
[!] Visual Studio - develop Windows apps (Visual Studio Build Tools 2022 17.12.3)
    X The current Visual Studio installation is incomplete.
      Please use Visual Studio Installer to complete the installation or reinstall Visual Studio.
[✓] Android Studio (version 2024.2)
[✓] VS Code (version 1.96.4)
[✓] Connected device (3 available)
[✓] Network resources
```

Hello world code



```
lib > main.dart > MyHomePage > build
23 class MyHomePage extends StatelessWidget {
    Codeium: Refactor | Explain | Generate Function Comment | X
    Widget build(BuildContext context) {
29         return Scaffold(
30             appBar: AppBar(
31                 backgroundColor: Theme.of(context).colorScheme.inversePrimary,
32                 title: Text(title),
33             ), // AppBar
34             body: const Center(
35                 child: Text(
36                     'Hello Aryan',
37                     style: TextStyle(
38                         fontSize: 24,
39                         fontWeight: FontWeight.bold,
40                     ), // TextStyle
41                 ), // Text
42             ), // Center
43         ); // Scaffold
44     }
45 }
46 }
```

Final Output

