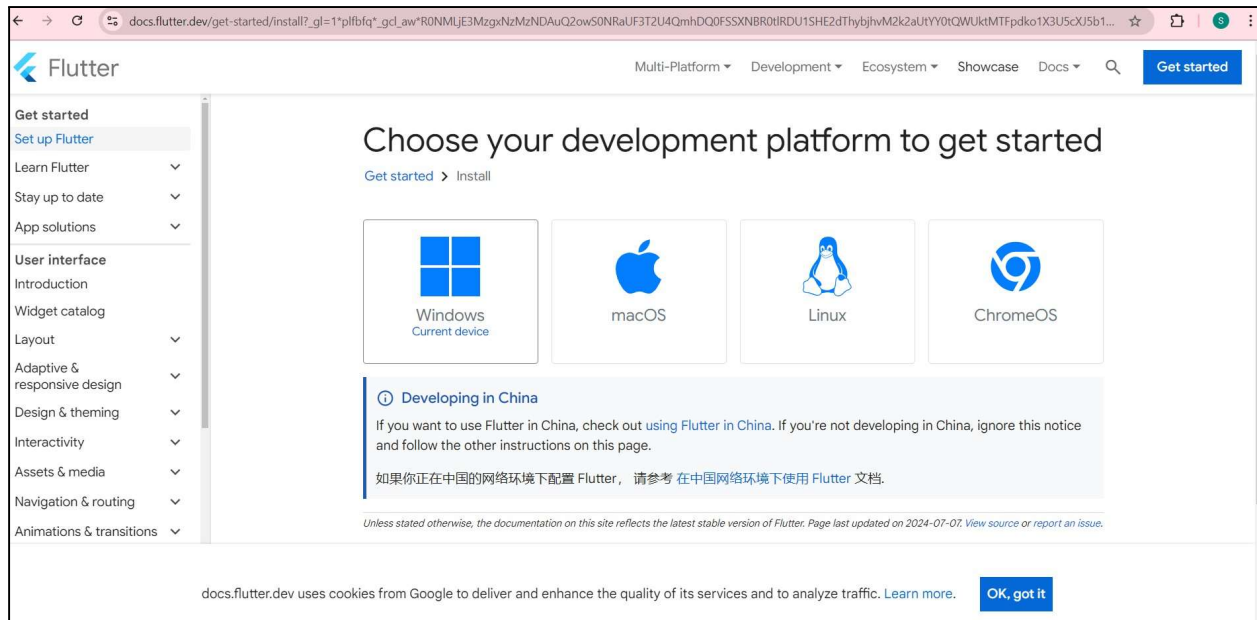


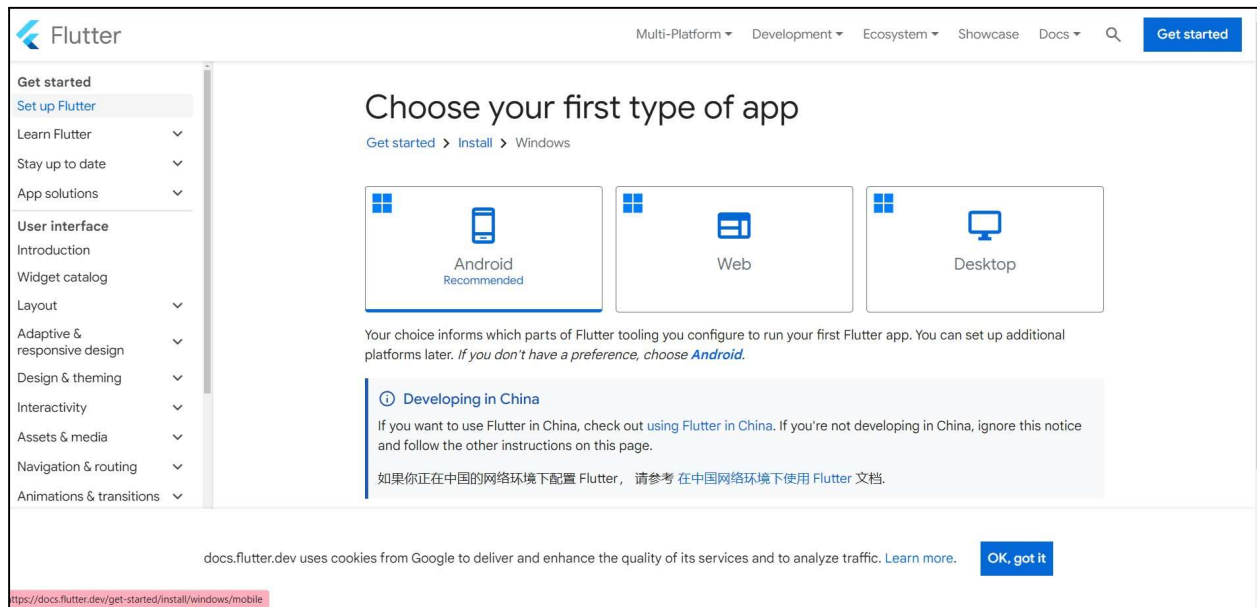
Experiment No. 1

AIM : Installation and Configuration of Flutter Environment.

Step 1: Download the installation bundle of the Flutter Software Development Kit for windows. To download Flutter SDK, Go to its official website <https://docs.flutter.dev/get-started/install> , you will get the following screen.



Step 2: Next, to download the latest Flutter SDK, click on the Windows icon and then select Android. Here, you will find system requirements and the download link for SDK.



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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 installDownload 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

Contents

Verify system requirements

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Software requirements

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Install the Flutter SDK

Configure Android development

Configure the Android toolchain in Android Studio

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OK, got it

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Recent download history

flutter_windows_3.27.3-stable.zip

4 0.1/1.0 GB • 11 minutes left

Full download history

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OK, got it

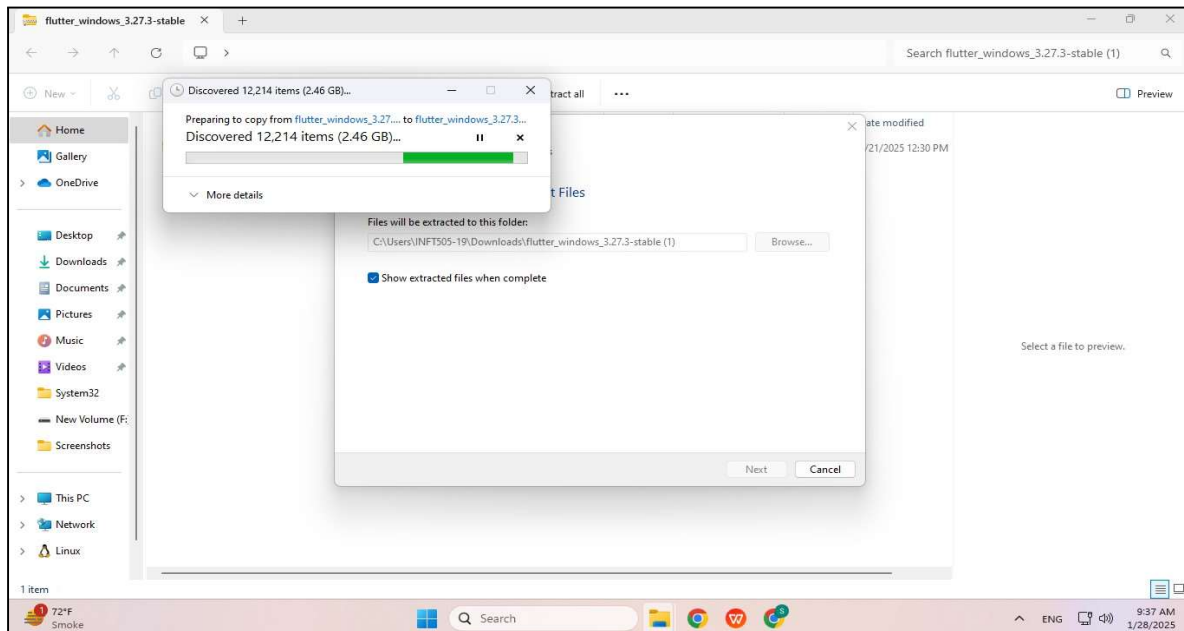
72°FSmoke

Search

ENG

9:22 AM1/28/2025

Step 3: When your download is complete, extract the zip file and place it in the desired installation folder or location, for example, C: /Flutter. (Here I have created Flutter folder in C drive and inside that created src folder and extracted in it.)



Step 4: Now run flutter doctor command in that folder bin directory we will get to know the status and what is remaining to install

```
Microsoft Windows [Version 10.0.22631.4751]
(c) Microsoft Corporation. All rights reserved.

C:\flutter_windows_3.27.3-stable\flutter\bin>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'.
```

```

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)
[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.

[✓] 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 (not installed)
[✓] VS Code (version 1.96.4)
[✓] Connected device (3 available)
[✓] Network resources

! Doctor found issues in 3 categories.

The Flutter CLI developer tool uses Google Analytics to report usage and diagnostic
data along with package dependencies, and crash reporting to send basic crash
reports. This data is used to help improve the Dart platform, Flutter framework,
and related tools.

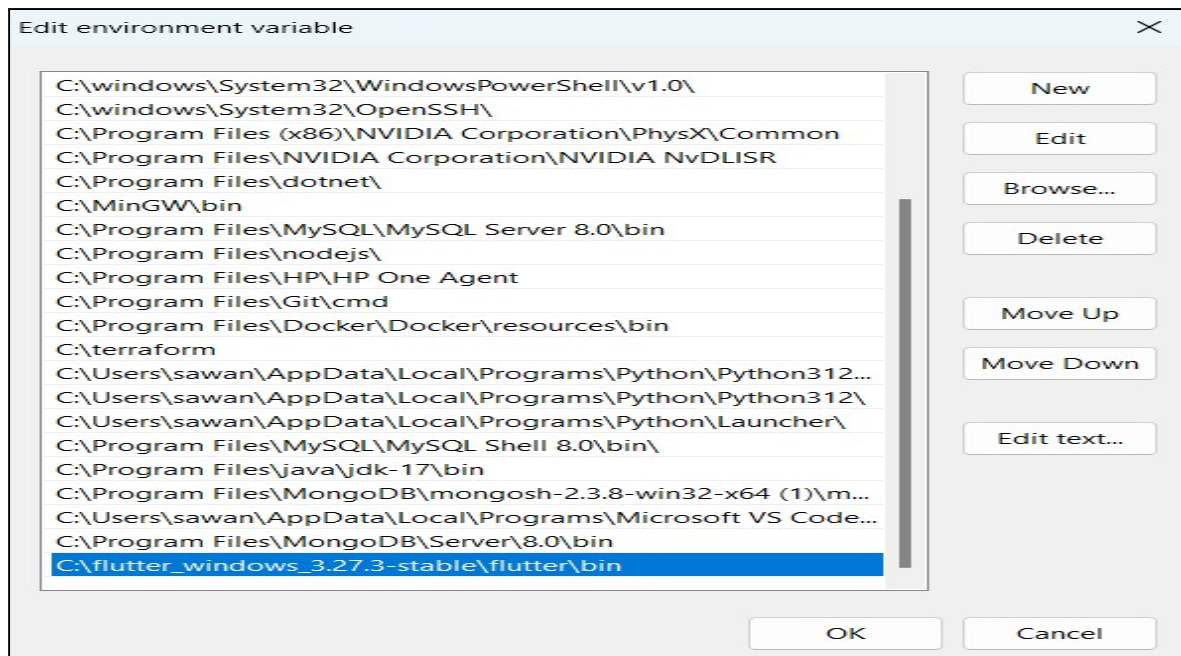
Telemetry is not sent on the very first run. To disable reporting of telemetry,
run this terminal command:

    flutter --disable-analytics

If you opt out of telemetry, an opt-out event will be sent, and then no further
information will be sent. This data is collected in accordance with the Google
Privacy Policy (https://policies.google.com/privacy).

```

Step 5: To run the Flutter command in regular windows console, you need to update the system path to include the flutter bin directory. The following steps are required to do this: Step 5.1: Search for environment variables in search bar -> advanced tab -> environment variables. You will get the following screen.



Step 6: Now, run the \$ flutter command in command prompt.

```
C:\Users\siddi>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.
```

Step 7: Now, run the \$ flutter doctor command. This command checks for all the requirements of Flutter app development and displays a report of the status of your Flutter installation.

Step 8: When you run the above command, it will analyze the system and show its report, as shown in the below image. Here, you will find the details of all missing tools, which are required to run Flutter as well as the development tools that are available but not connected with the device.

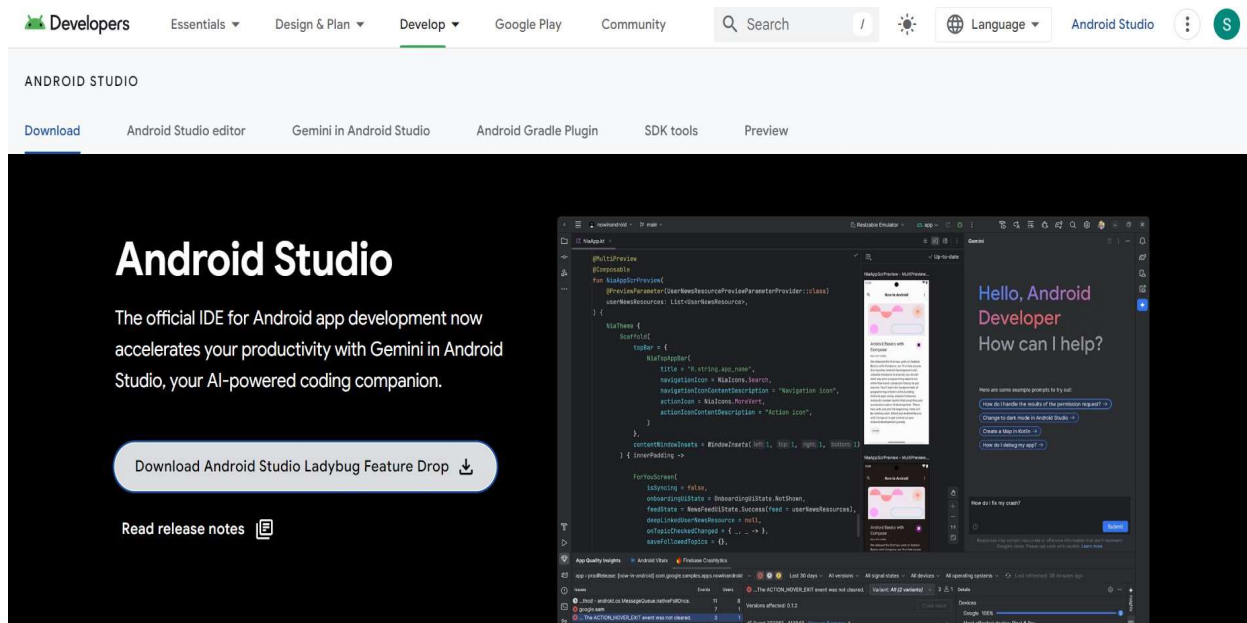
```
C:\Users\siddi>flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 3.24.0, on Microsoft Windows [Version 10.0.22631.4751], locale en-IN)
[✓] Windows Version (Installed version of Windows is version 10 or higher)
[✓] Android toolchain - develop for Android devices (Android SDK version 35.0.0)
[✓] Chrome - develop for the web
[!] Visual Studio - develop Windows apps (Visual Studio Build Tools 2019 16.11.38)
    X The current Visual Studio installation is incomplete.
      Please use Visual Studio Installer to complete the installation or reinstall Visual Studio.
[✓] Android Studio (version 2024.1)
[✓] VS Code (version 1.96.4)
[✓] Connected device (3 available)
[✓] Network resources

! Doctor found issues in 1 category.

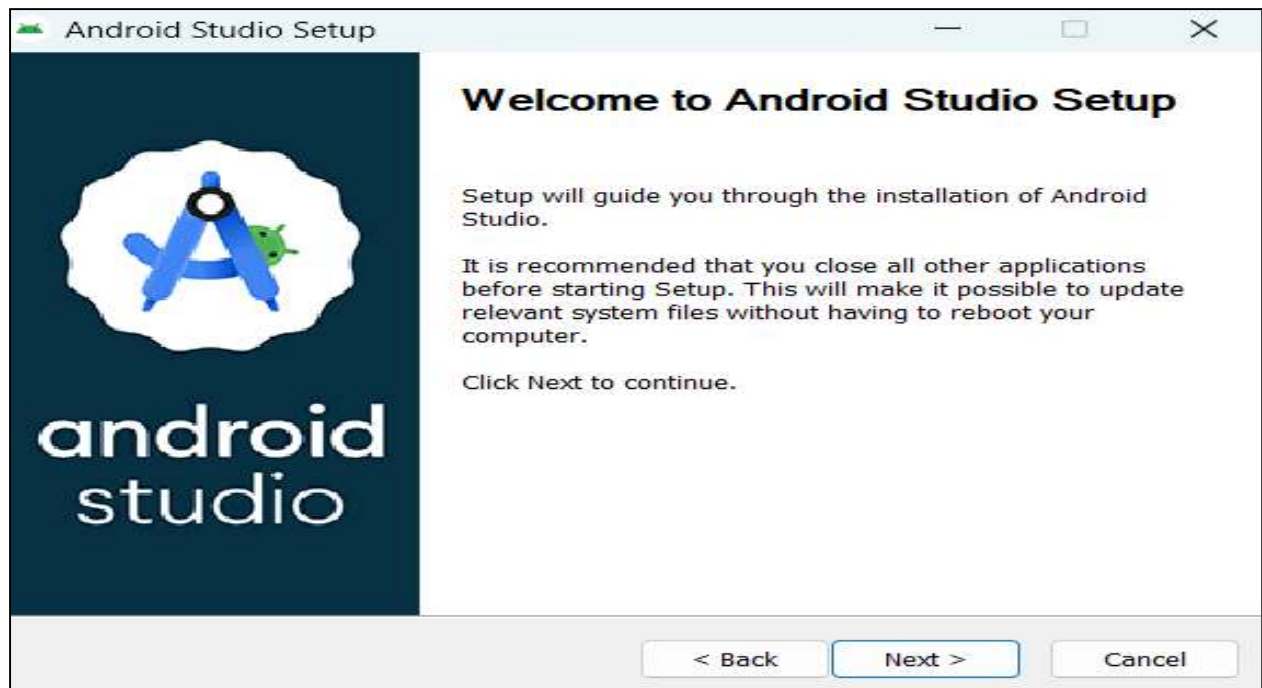
C:\Users\siddi>
```

Step 9: Install the Android SDK. If the flutter doctor command does not find the Android SDK tool in your system, then you need first to install the Android Studio IDE. To install Android Studio IDE, do the following steps.

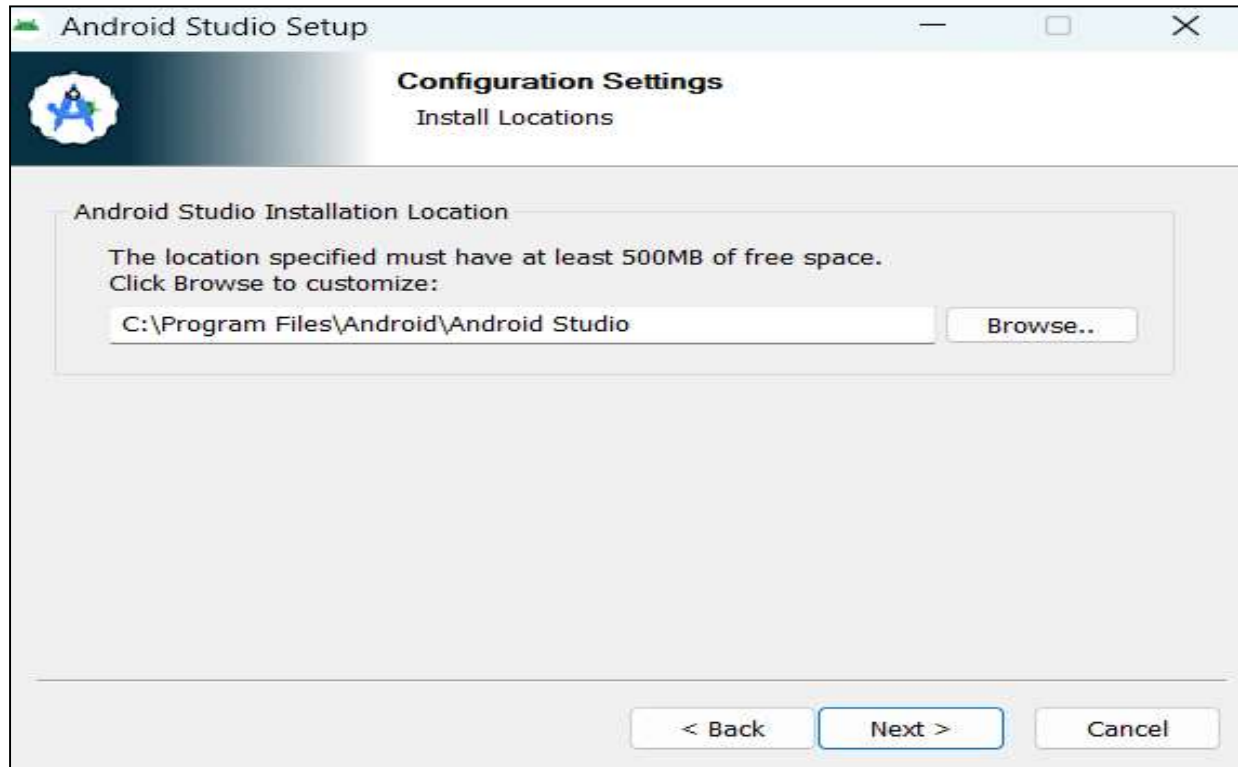
Step 9.1: Download the latest Android Studio executable or zip file from the official site by accepting terms and conditions.



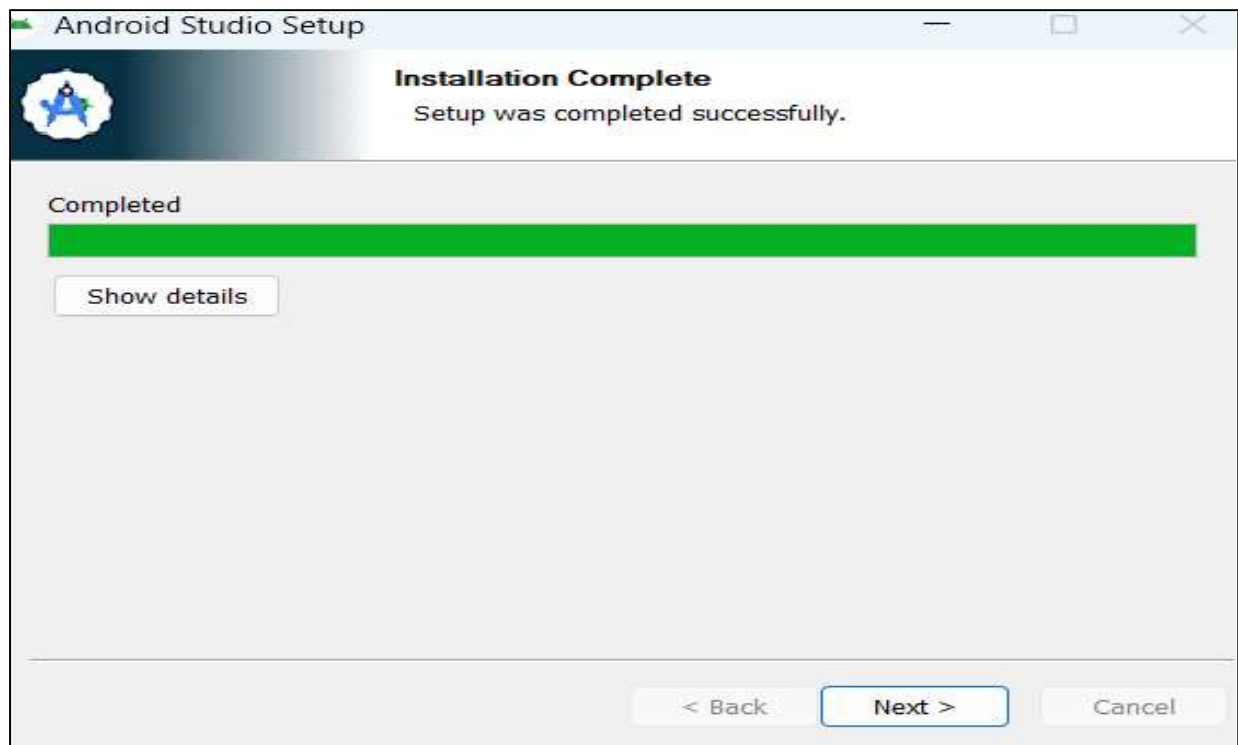
Step 9.2: When the download is complete, open the .exe file and run it. You will get the following dialog box.



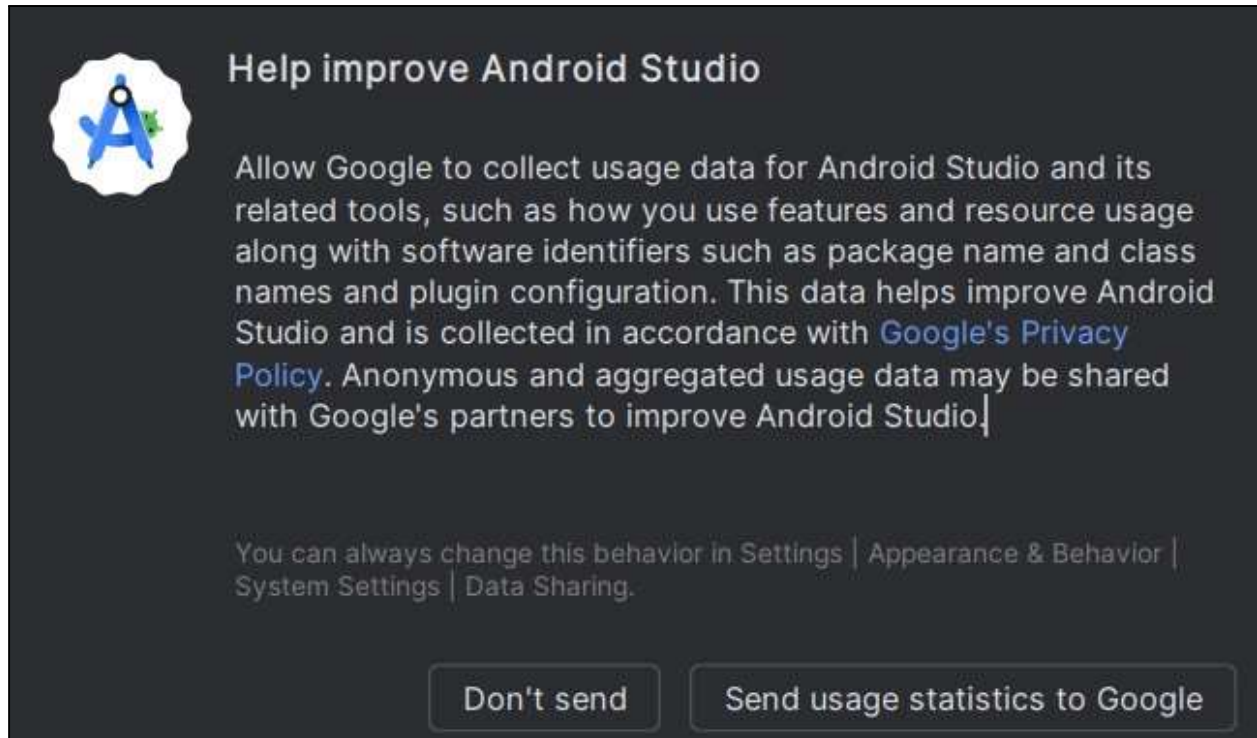
Step 9.3: Follow the steps of the installation wizard and also select installation location.



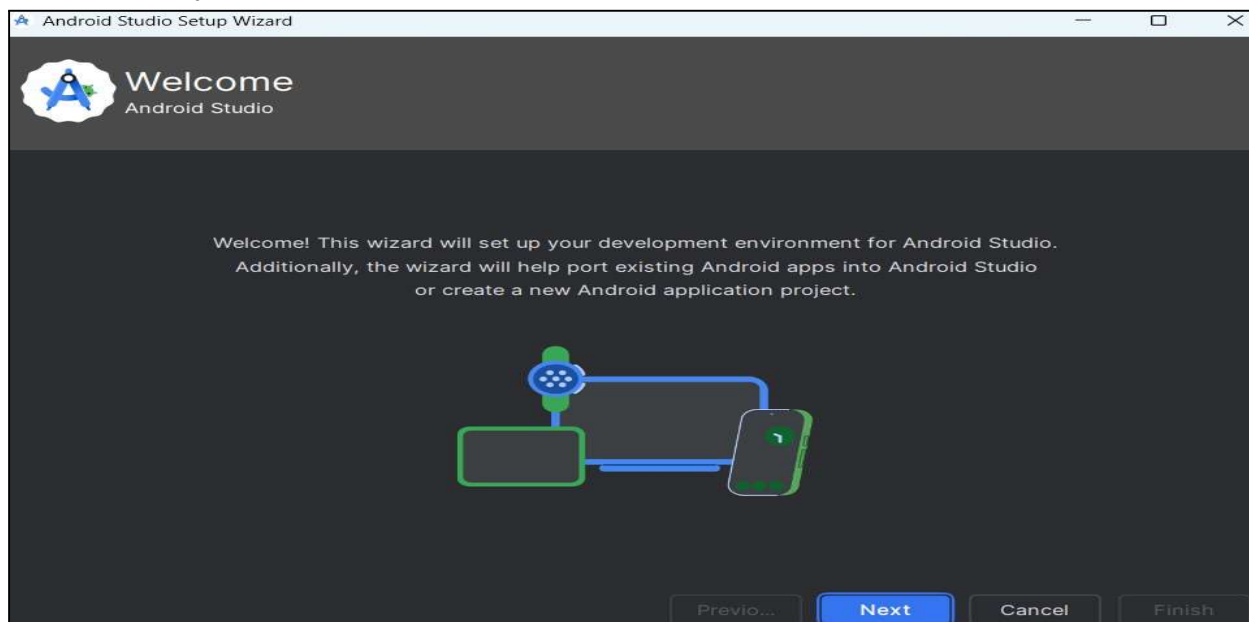
Step 9.4: Once the installation wizard completes, you will get the following screen.



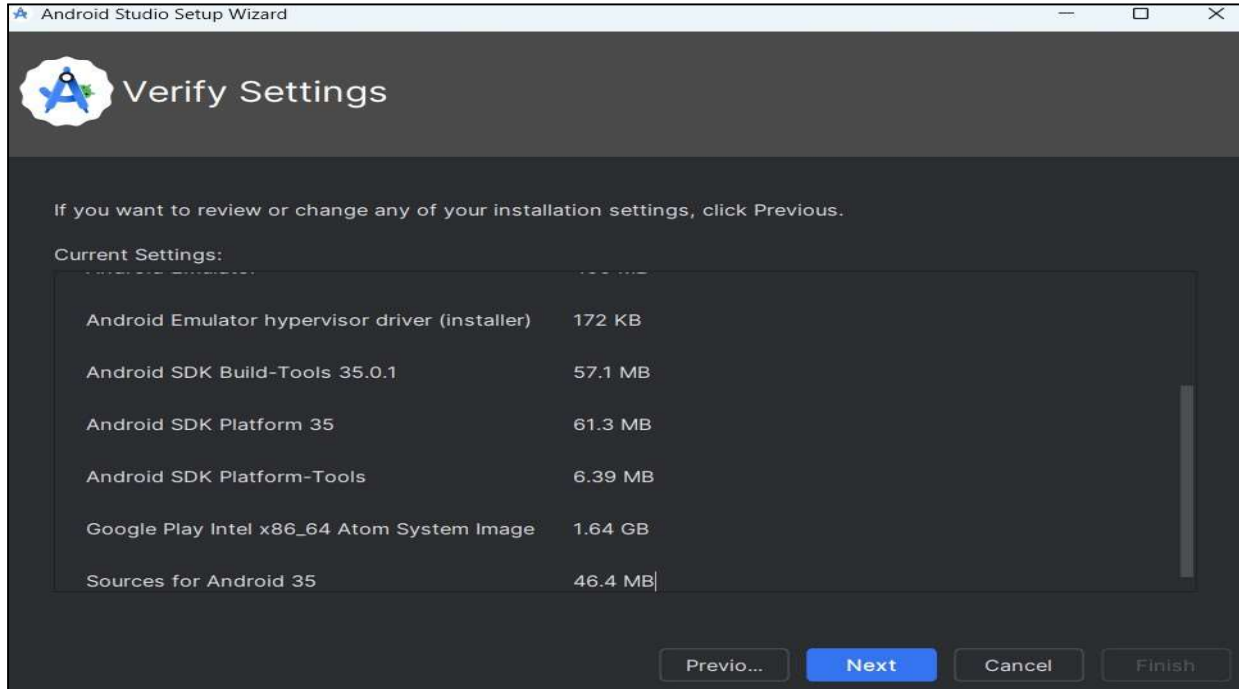
Step 9.5: In the above screen, click Next-> Finish. Once the Finish button is clicked, you need to choose the 'Don't import Settings option' and click OK. It will start the Android Studio. Also click on Don't send so that your data will not get shared with android studio.



Step 9.6: Now you will see android studio setup wizard. Click next



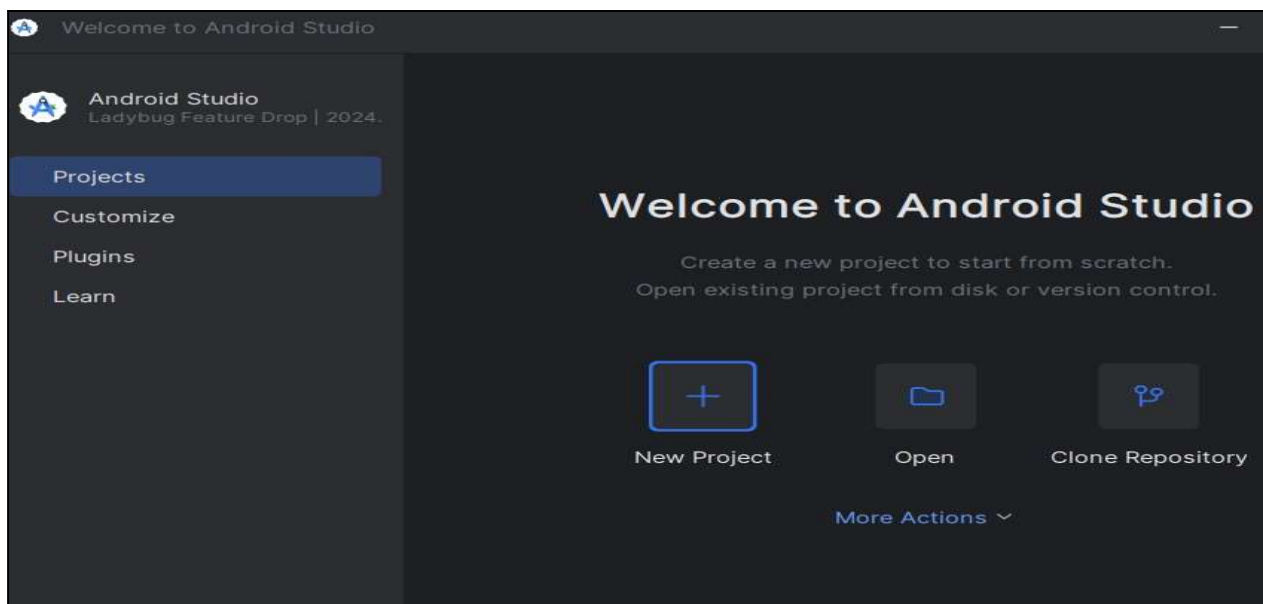
Step 9.7: Select Standard then Next -> Next -> Accept ->Finish.

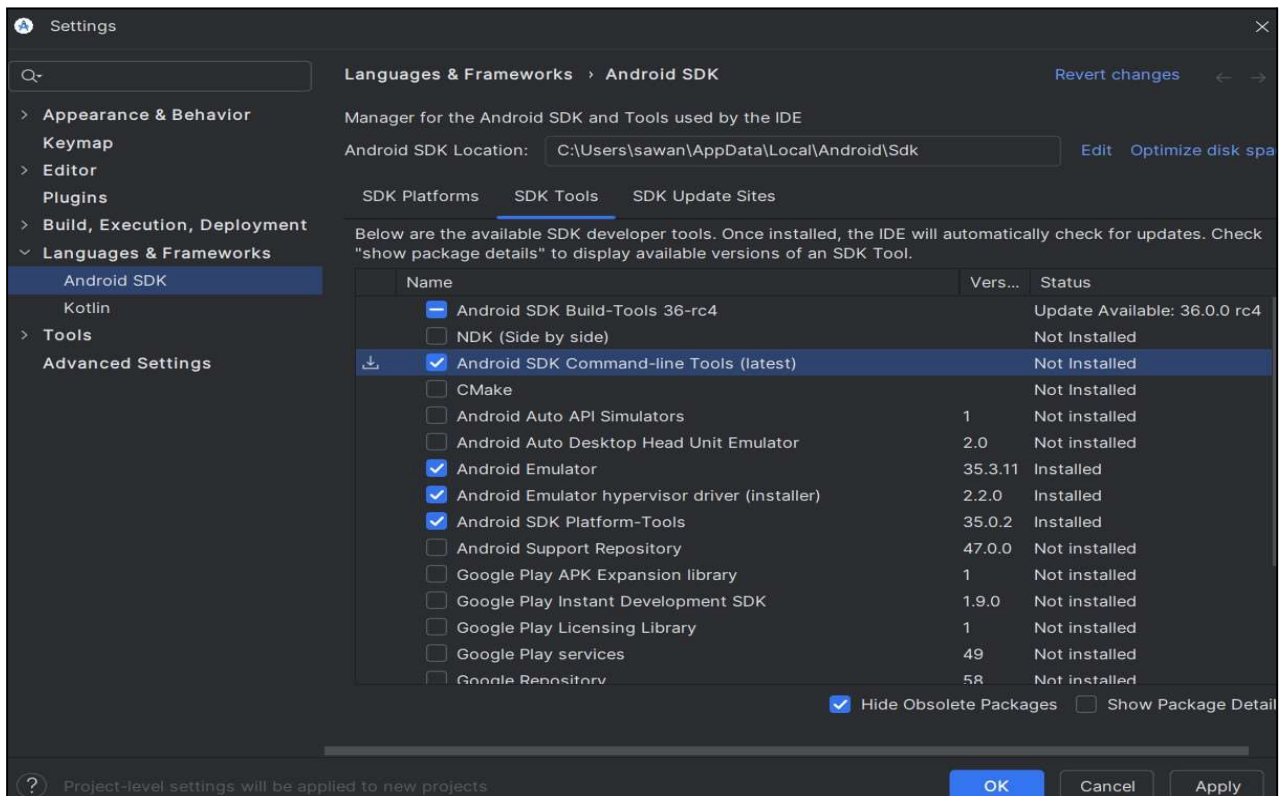
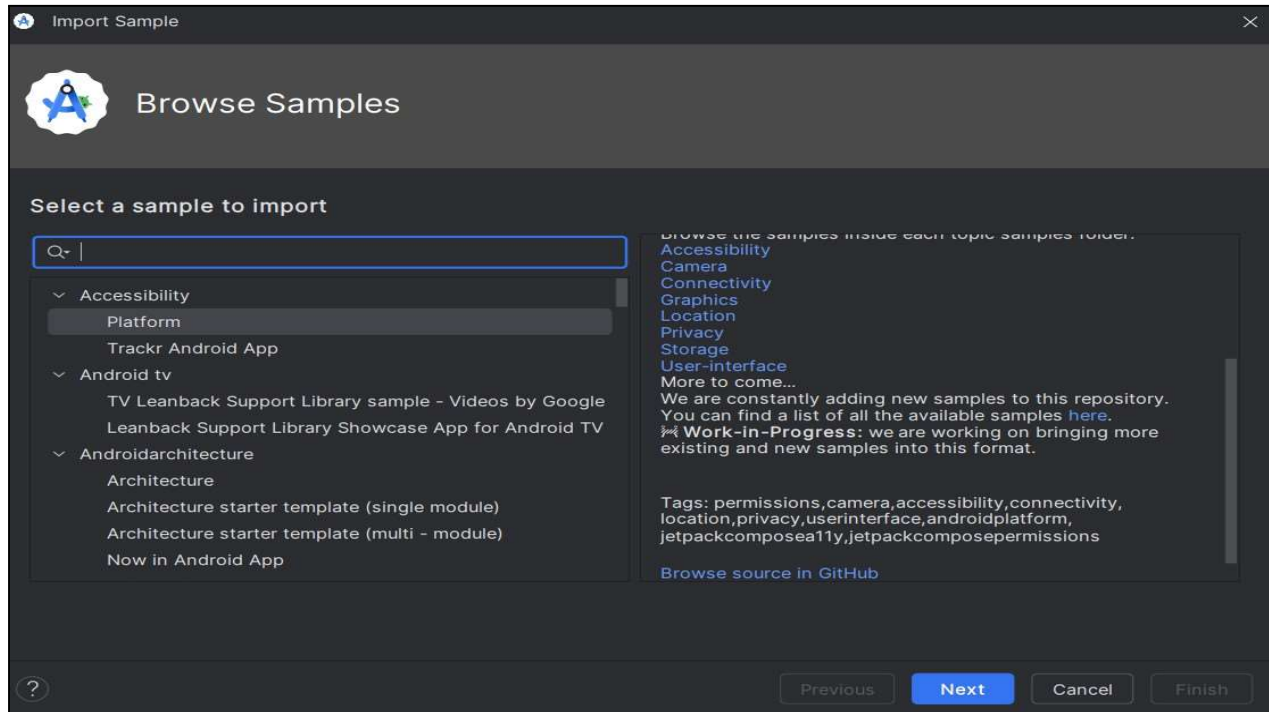


Step 9.8: Now you will see following downloading components wizard. After finishing download click on Finish.

Step 9.9: run the \$ flutter doctor command and Run flutter doctor --android-licenses command.

Step 9.10: Now open android studio you will see the following window. Click on more actions-> Import an android code Sample -> select Android SDK command-line tools (latest) this will download command-line tools.







SDK Component Installer

Completing Requested Actions

SDK Path: C:\Users\sawan\AppData\Local\Android\Sdk

Packages to install: - Android SDK Command-line Tools (latest) (cmdline-tools;latest)

Preparing "Install Android SDK Command-line Tools (latest) v.17.0".

Downloading https://dl.google.com/android/repository/commandlinetools-win-12700392_latest.zip

Starting download...

https://dl.google.com/android/repository/commandlinetools-win-12700392_latest.zip

Please wait until the requested actions are completed.

Background

Cancel

Finish

Step 10: Next, you need to set up an Android emulator. It is responsible for running and testing the Flutter application.

Step 10.1: To set an Android emulator, go to Android Studio > Tools > Android > AVD Manager and select Create Virtual Device. Or, go to Help->Find Action->Type Emulator in the search box. You will get the following screen.

Step 10.2: Choose your device definition and click on Next.

Step 10.3: Select the system image for the latest Android version and click on Next.

```
C:\Users\sawan> flutter doctor --android-licenses
Warning: Errors during XML parse:
Warning: Additionally, the fallback loader failed to parse the XML.ry...
Warning: Errors during XML parse:
Warning: Additionally, the fallback loader failed to parse the XML.ry...
[=====] 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:
-----
Terms and Conditions

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

1. Introduction

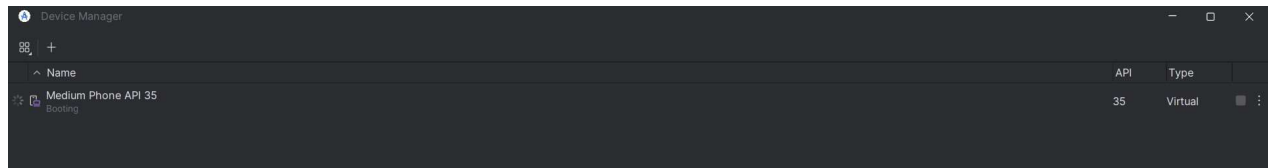
1.1 The Google TV Add-on for the Android Software Development Kit (referred to in this License Agreement as the "Google TV Add-on" and specifically including the Android system files, packaged APIs, and Google APIs add-ons) is licensed to you subject to the terms of this License Agreement. This License Agreement forms a legally binding contract between you and Google in relation to your use of the Google TV Add-on.

1.2 "Google" means Google Inc., a Delaware corporation with principal place of business at 1600 Amphitheatre Parkway, Mountain View, CA 94043, United States.

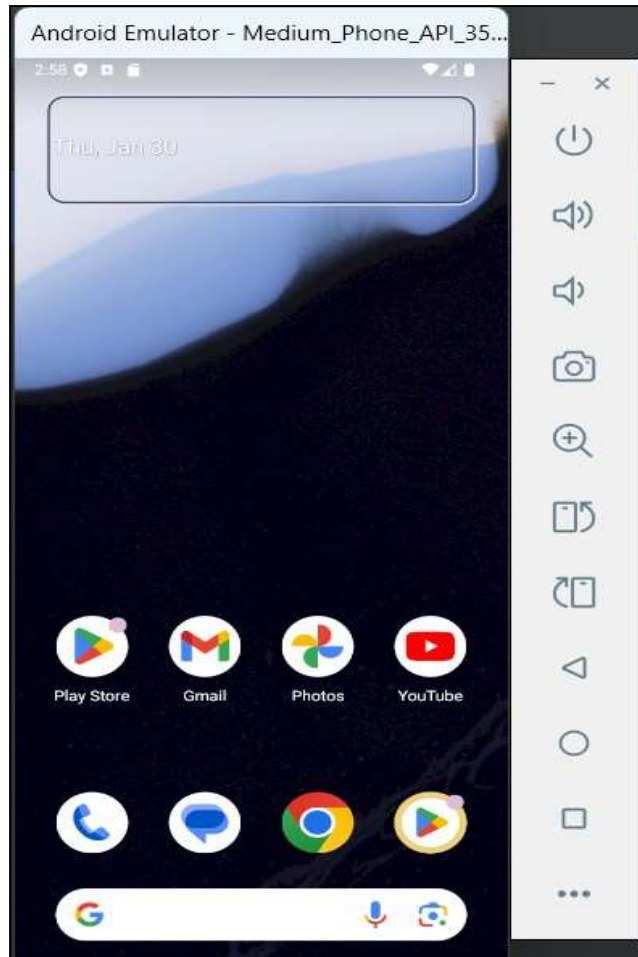
2. Accepting this License Agreement

2.1 In order to use the Google TV Add-on, you must first agree to this License Agreement. You may not use the Google TV Add-on if you do not accept this License Agreement.
```

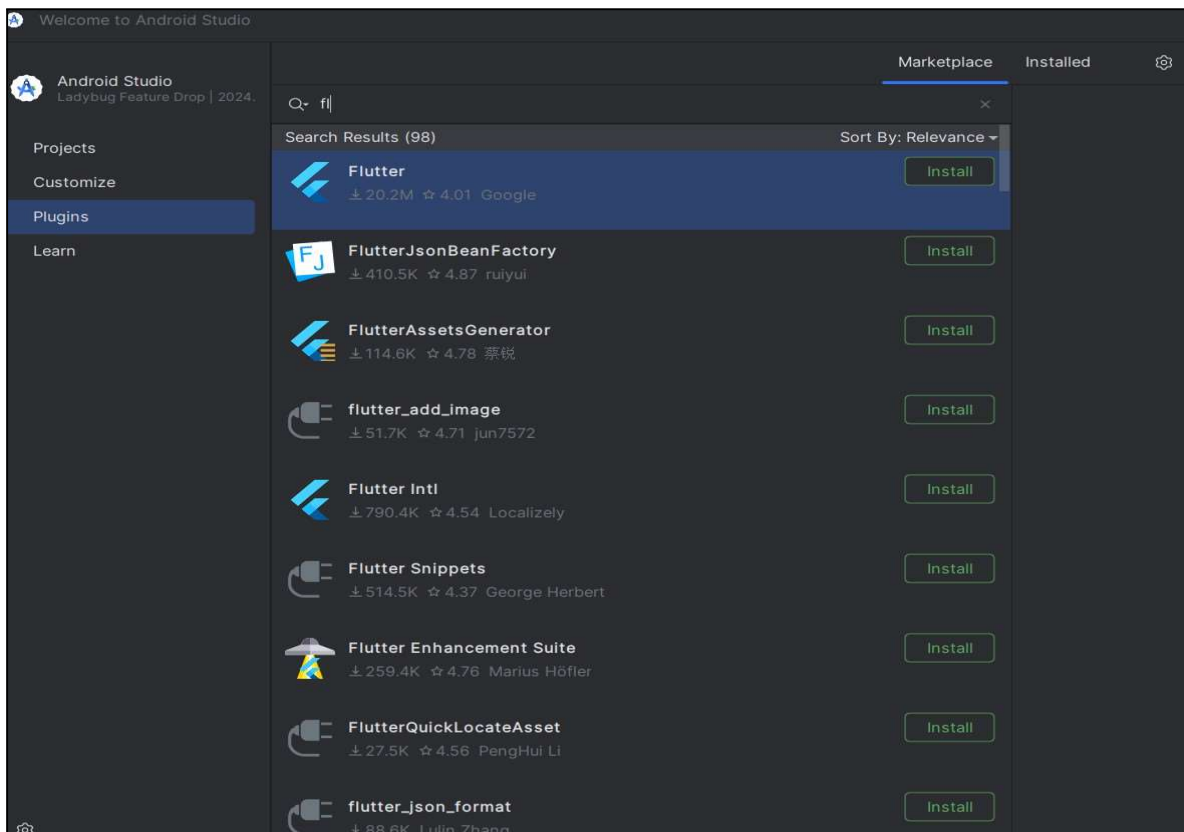
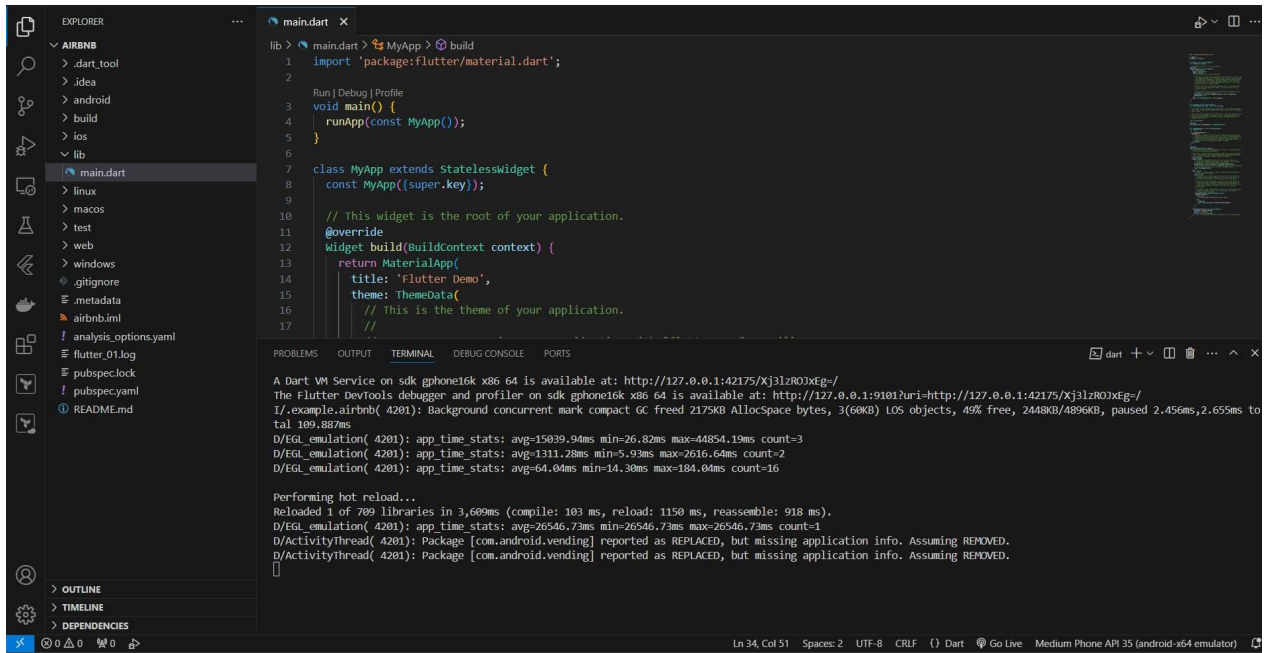
Step 10.4: Now, verify the all AVD configuration. Select Hardware in graphics. If it is correct, click on Finish



Step 10.5: Last, click on the icon pointed into the rectangle. The Android emulator displayed as below screen.



Step 11: Next, you need to install flutter plugin . Go to plugins ->Install Flutter plugin(it will automatically install dart) and then restart android studio. These plugins provide a template to create a Flutter application, give an option to run and debug Flutter application in the Android Studio itself



Step 12: Next, click on new Flutter project and provide SDK path ->Next.

Step 12.1: Next, provide name of the project -> select project location -> create.



