

Experiment No : 01

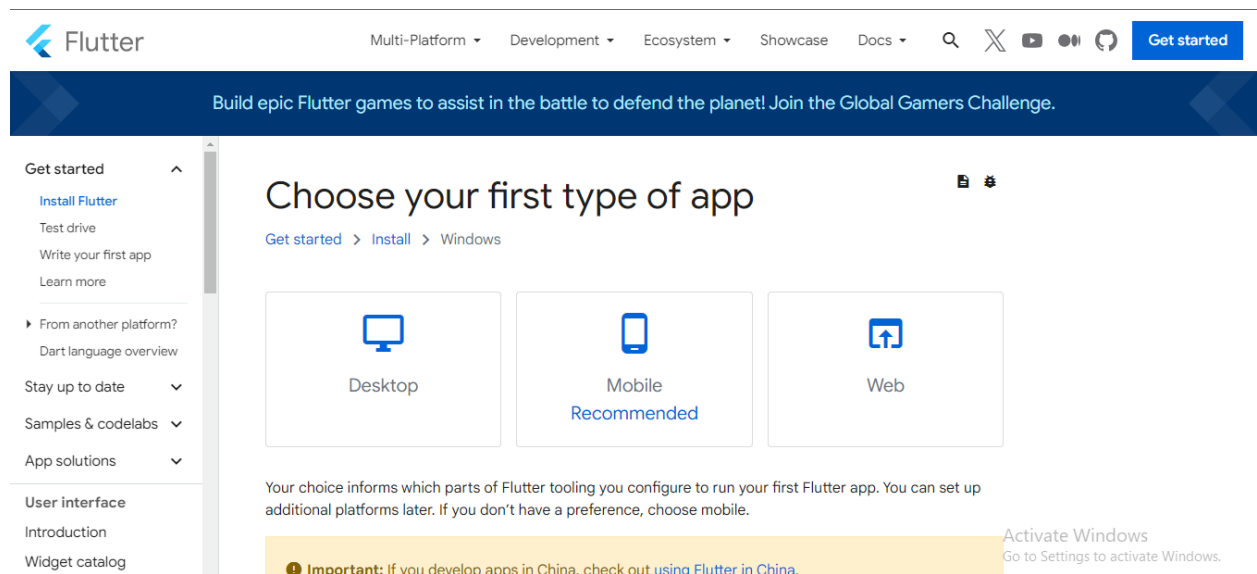
Name : Kunal Pal
Lab : MAD & PWA

Div/Roll : D15B/50

AIM : Installation and Configuration of Flutter Environment.

Install the Flutter SDK

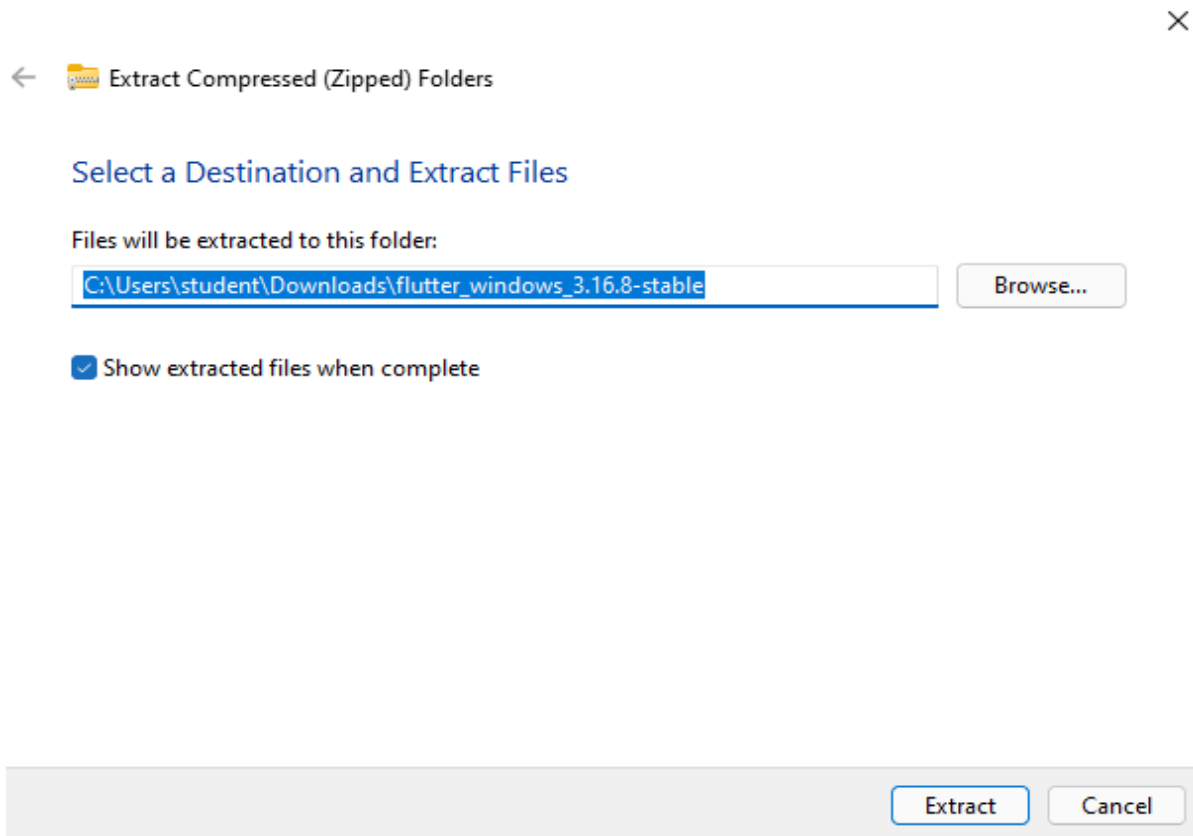
Step 1: Download the installation bundle of the Flutter Software Development Kit for windows.
To download Flutter SDK, Go to its official website <https://docs.flutter.dev/get-started/install>
you will get the following screen.



The screenshot shows the Flutter website's 'Download and install' page. The page has a header with the Flutter logo and navigation links: Multi-Platform, Development, Ecosystem, Showcase, Docs, and a search icon. A 'Get started' button is in the top right. The left sidebar contains links for 'Get started' (Install Flutter, Test drive, Write your first app, Learn more), 'From another platform?' (Dart language overview), 'Stay up to date', 'Samples & codelabs', 'App solutions', 'User interface' (Introduction, Widget catalog, Layout, Design & theming), and 'User interface'. The main content area has two tabs: 'Use VS Code to install' and 'Download and install'. The 'Download and install' tab is active, showing the title 'Download then install Flutter'. The text says: 'To install Flutter, download the Flutter SDK bundle from its archive, move the bundle to where you want it stored, then extract the SDK.' The first step is: '1. Download the following installation bundle to get the latest stable release of the Flutter SDK.' A blue button labeled 'flutter_windows_3.16.8-stable.zip' is highlighted. Below this, it says: 'For other release channels, and older builds, check out the SDK archive.' The text continues: 'This guide presumes that you downloaded your Flutter SDK to the default download directory for Windows: %CSIDL_DEFAULT_DOWNLOADS%. 2. Create a folder where you can install Flutter. Consider %USERPROFILE% or C:\dev.' The right sidebar contains a 'Contents' section with links: System requirements, Hardware requirements, Software requirements, Configure a text editor or IDE, Install the Flutter SDK, Check your development setup, Run Flutter doctor, Troubleshoot Flutter doctor issues, and Manage your Flutter SDK. At the bottom right, there is a 'Activate Windows' watermark.

Step 2 : Next, to download the latest Flutter SDK, click on the Windows icon. Here, you will find the download link for SDK.

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.

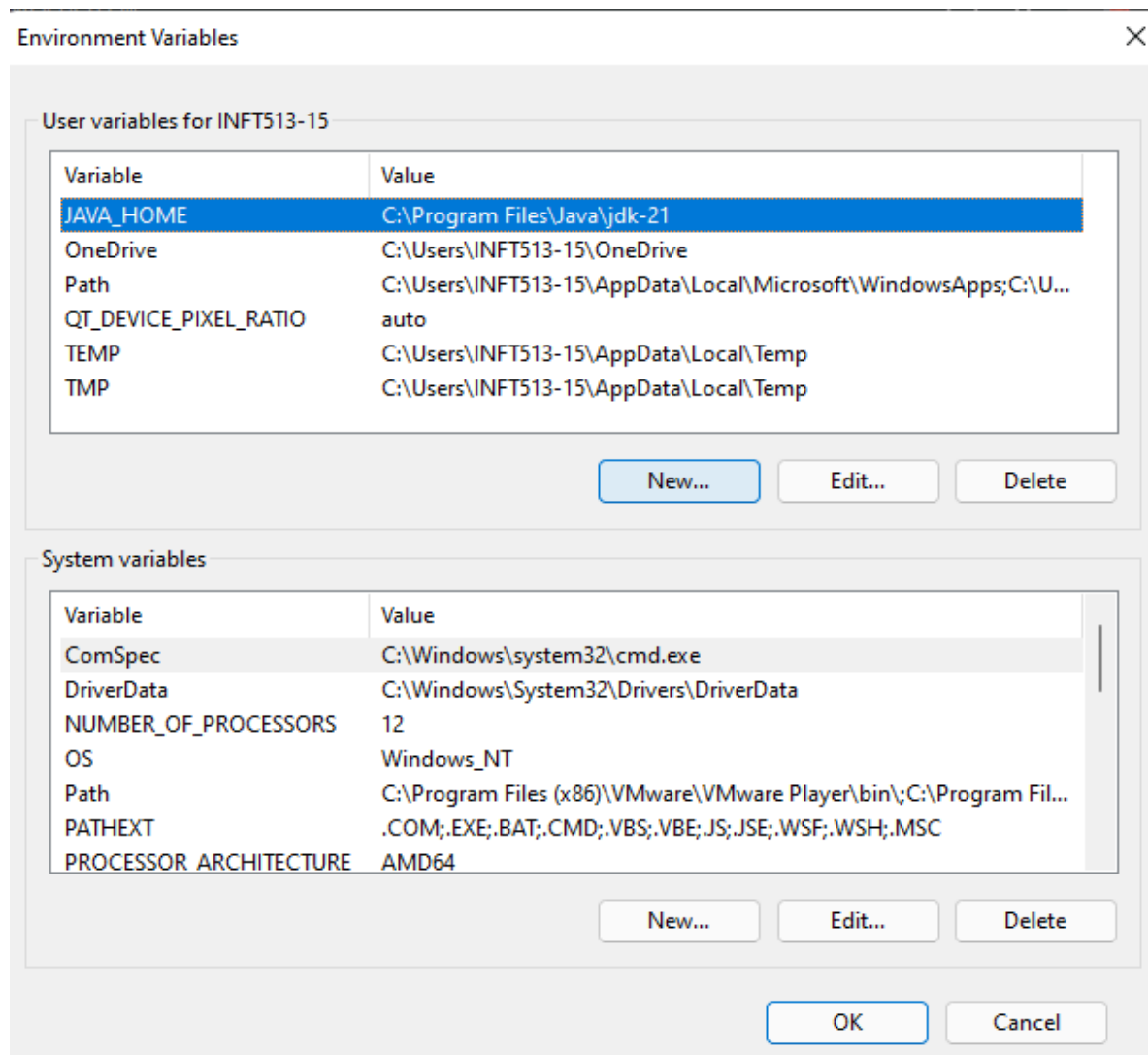


Step 4 : To run the Flutter command in regular windows console, you need to update the system path to include the flutter bin directory. The following steps are required to do this:

Step 4.1 : Go to MyComputer properties -> advanced tab -> environment variables. You will get the following screen.

Step 4.2 : Now, select path -> click on edit. The following screen appears

Step 4.3: In the above window, click on New -> write path of Flutter bin folder in variable value -> ok -> ok -> ok.



Step 5 : Now, run the \$ flutter command in the command prompt.

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.

```

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/docs/reference/crash-reporting

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

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

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.
```

Step 6 : 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 required to run Flutter as well as the development tools that are available but not connected with the device.

```
C:\Users\student>flutter --version
Flutter 3.16.8 • channel stable • https://github.com/flutter/flutter.git
Framework • revision 67457e669f (6 days ago) • 2024-01-16 16:22:29 -0800
Engine • revision 6e2ea58a5c
Tools • Dart 3.2.5 • DevTools 2.28.5

C:\Users\student>
```

Note * : Before installing android studio check whether you have the java installed in your pc or not?

```
Microsoft Windows [Version 10.0.22000.2713]
(c) Microsoft Corporation. All rights reserved.

C:\Users\student>javac -version
javac 21.0.2

C:\Users\student>_
```

Step 7 : 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 7.1 : Download the latest Android Studio executable or zip file from the official site.

Developers

Essentials ▾

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Android Studio

K

ANDROID STUDIO

Download

Android Studio editor

Android Gradle Plugin

SDK tools

Preview

Android Studio

Get the official Integrated Development Environment (IDE) for Android app development.

Download Android Studio Hedgehog

Read release notes

newandroid - main

Google Pixel 7 Pro

app

Layout Inspector

[[PortAudioCxx.kt]]

```
@Kotlinable
private fun TopicSelection(
    onboardingInstanceState: OnboardingInstanceState,
    onTopicChangeChanged: (String, Boolean) -> Unit,
    modifier: Modifier = Modifier,
) : BoxScope {
    val lazyGridState = rememberLazyGridState()
    val topicSelectionTestTag = "forYouTopicSelection"

    TrackScrollLimits(scrollableState = lazyGridState, stateName = topicSelectionTestTag)

    LazyHorizontalList(
        state = lazyGridState,
        rows = GridCells.Fixed(3),
        horizontalArrangement = Arrangement.spacedBy(12.dp),
        verticalArrangement = Arrangement.spacedBy(12.dp),
        contentPadding = PaddingValues(14.dp),
        modifier = modifier
            .heightInMax = max(248.dp, with(LocalDensity.current) { 248.sp.toDp() })
            .fillMaxWidth()
            .testTag(topicSelectionTestTag)
    )
```

App Quality Insights

Android Vitals

Feature Crashes

app / profileview [show in android.com/google.com/apps/android-studio/newandroid] ▾ Last 60 days ▾ All versions ▾ All signal states ▾ All devices ▾ All operating systems ▾

Issues	Errors	Warnings	Dates
(Show details)	24	7	
1	12	4	Google 25%
apps.newandroid.studio	10	4	Other 8%
used to system_server and system apps only, unless they are associated with @SuppressLint.	7	3	Android Versions
long instanceof OffboardException - Index: 4, Size: 4	1	1	Android Studio 4.1

Activate Windows[®]

Go to Settings to activate Windows.

14.1 The License Agreement constitutes the whole legal agreement between you and Google and governs your use of the SDK (excluding any services which Google may provide to you under a separate written agreement), and completely replaces any prior agreements between you and Google in relation to the SDK. 14.2 You agree that if Google does not exercise or enforce any legal right or remedy which is contained in the License Agreement (or which Google has the benefit of under any applicable law), this will not be taken to be a formal waiver of Google's rights and that those rights or remedies will still be available to Google. 14.3 If any court of law, having the jurisdiction to decide on this matter, rules that any provision of the License Agreement is invalid, then that provision will be removed from the License Agreement without affecting the rest of the License Agreement. The remaining provisions of the License Agreement will continue to be valid and enforceable. 14.4 You acknowledge and agree that each member of the group of companies of which Google is the parent shall be third party beneficiaries to the License Agreement and that such other companies shall be entitled to directly enforce, and rely upon, any provision of the License Agreement that confers a benefit on (or rights in favor of) them. Other than this, no other person or company shall be third party beneficiaries to the License Agreement. 14.5 EXPORT RESTRICTIONS. THE SDK IS SUBJECT TO UNITED STATES EXPORT LAWS AND REGULATIONS. YOU MUST COMPLY WITH ALL DOMESTIC AND INTERNATIONAL EXPORT LAWS AND REGULATIONS THAT APPLY TO THE SDK. THESE LAWS INCLUDE RESTRICTIONS ON DESTINATIONS, END USERS AND END USE. 14.6 The rights granted in the License Agreement may not be assigned or transferred by either you or Google without the prior written approval of the other party. Neither you nor Google shall be permitted to delegate their responsibilities or obligations under the License Agreement without the prior written approval of the other party. 14.7 The License Agreement, and your relationship with Google under the License Agreement, shall be governed by the laws of the State of California without regard to its conflict of laws provisions. You and Google agree to submit to the exclusive jurisdiction of the courts located within the county of Santa Clara, California to resolve any legal matter arising from the License Agreement. Notwithstanding this, you agree that Google shall still be allowed to apply for injunctive remedies (or an equivalent type of urgent legal relief) in any jurisdiction. July 27, 2021

☒ I have read and agree with the above terms and conditions

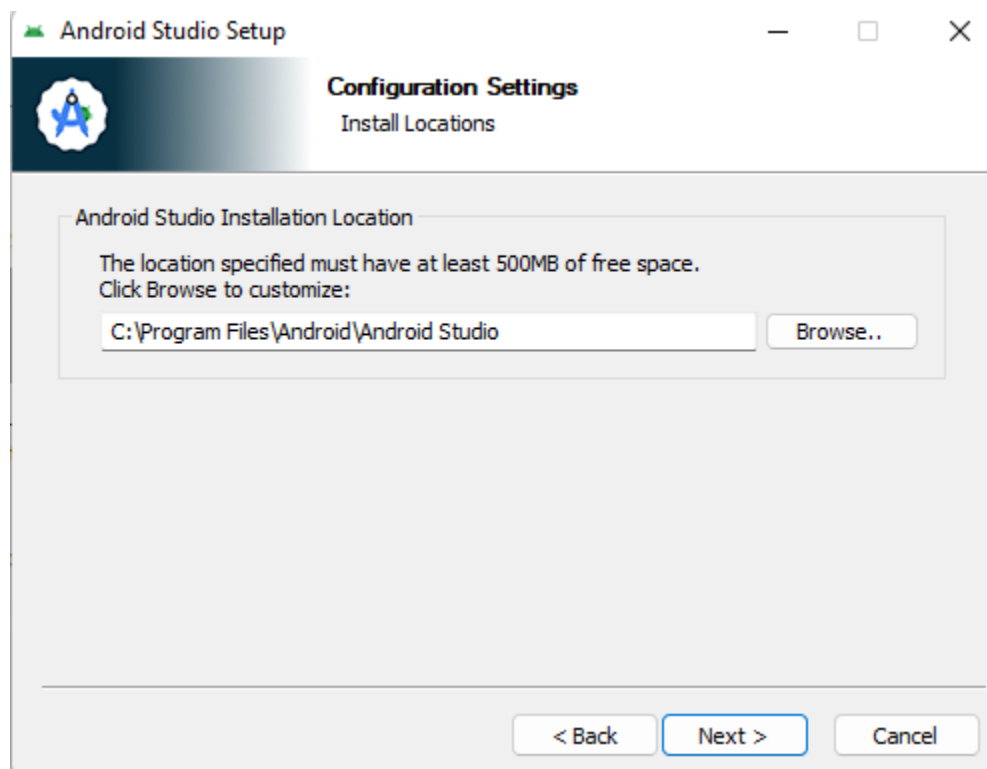
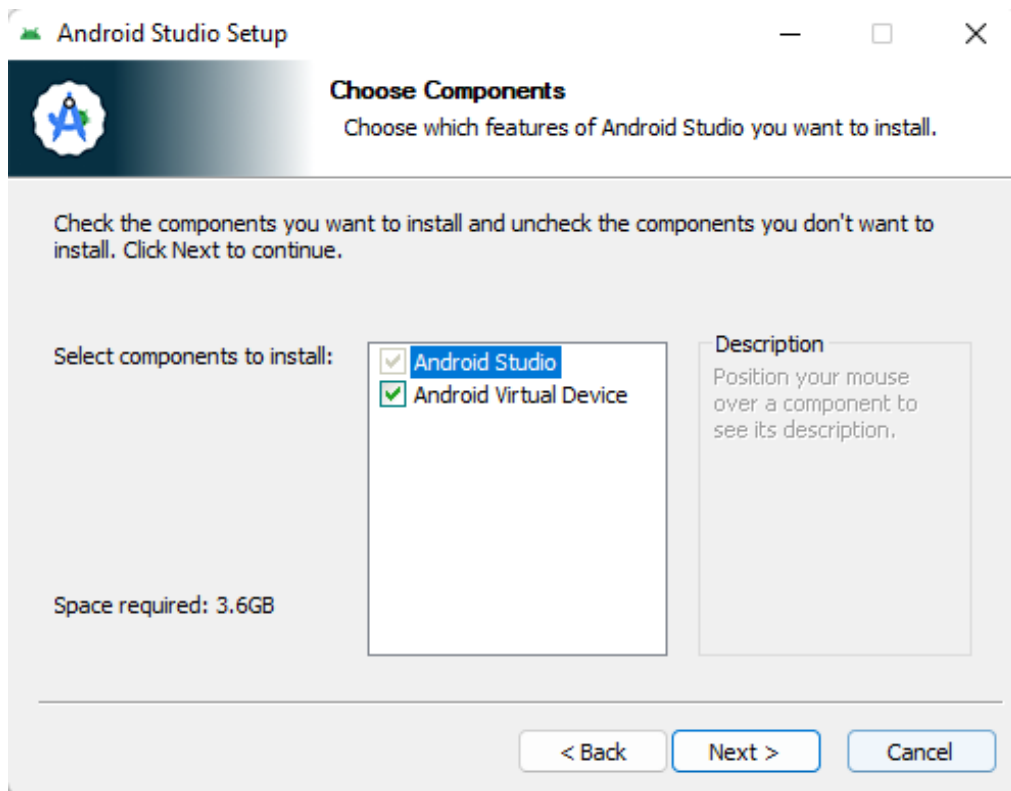
Download Android Studio Hedgehog | 2023.1.1 Patch 1 for Windows

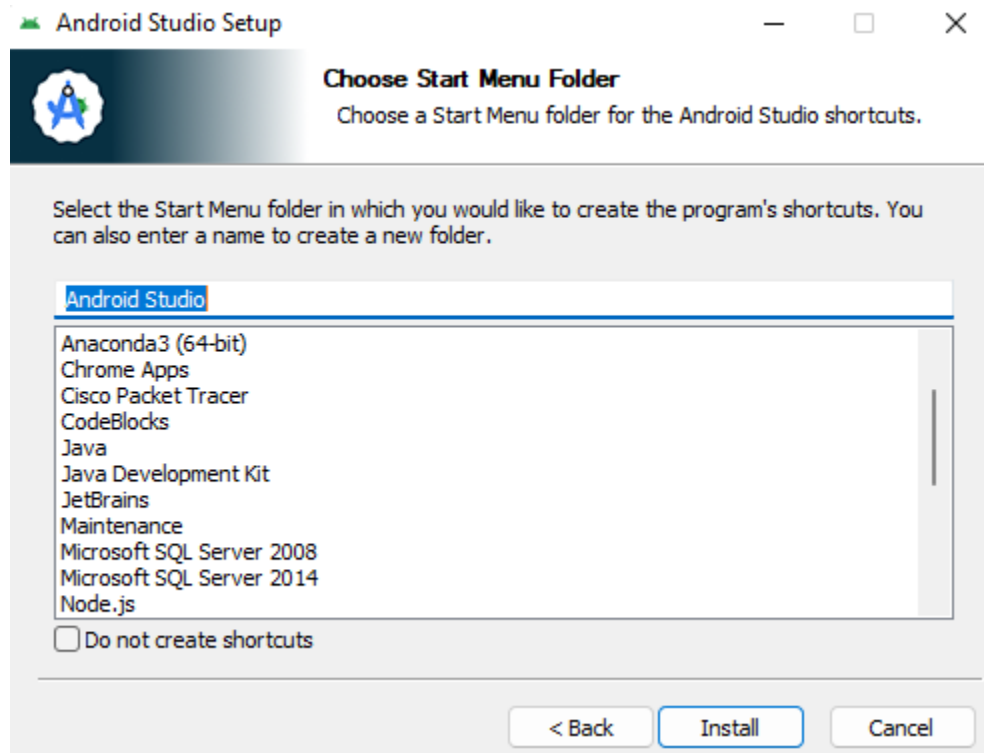
android-studio-2023.1.1.27-windows.exe

Activate Windows
Go to Settings to activate Windows.

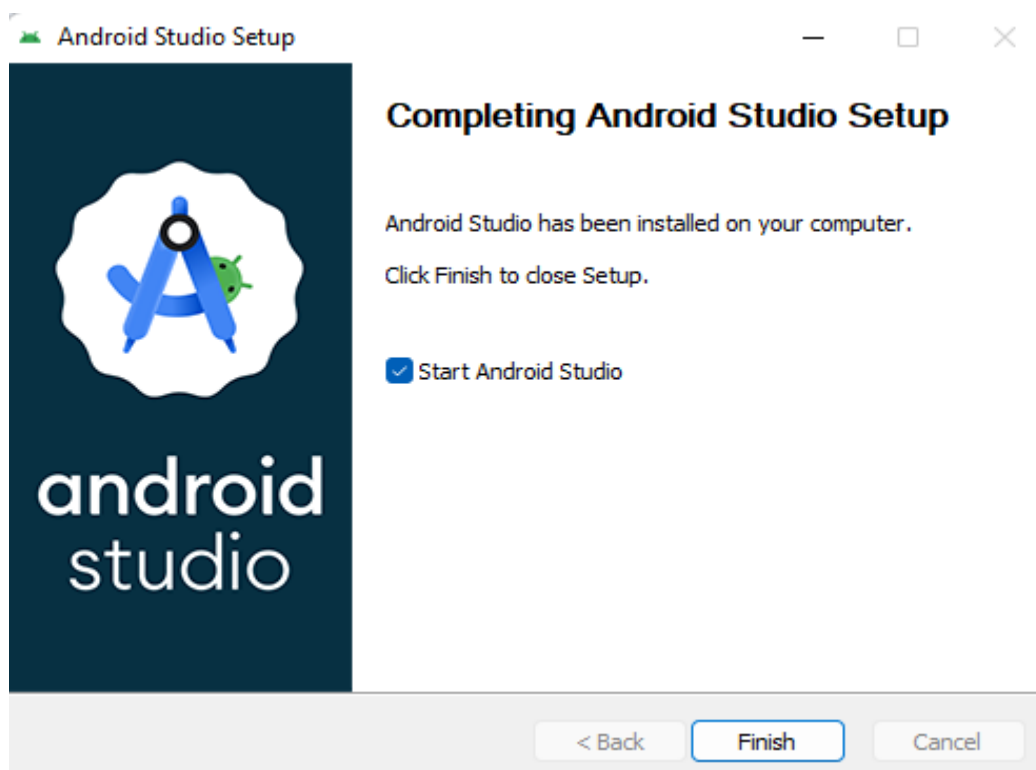
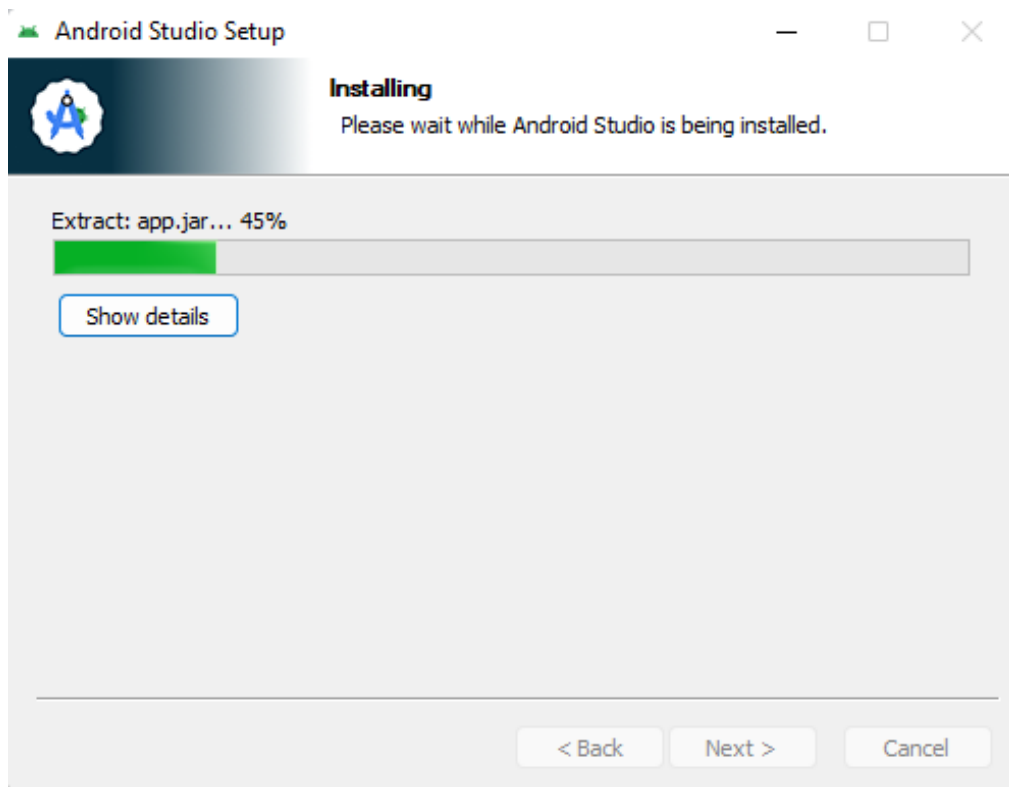
Step 7.2 : When the download is complete, open the .exe file and run it. You will get the following dialog box.



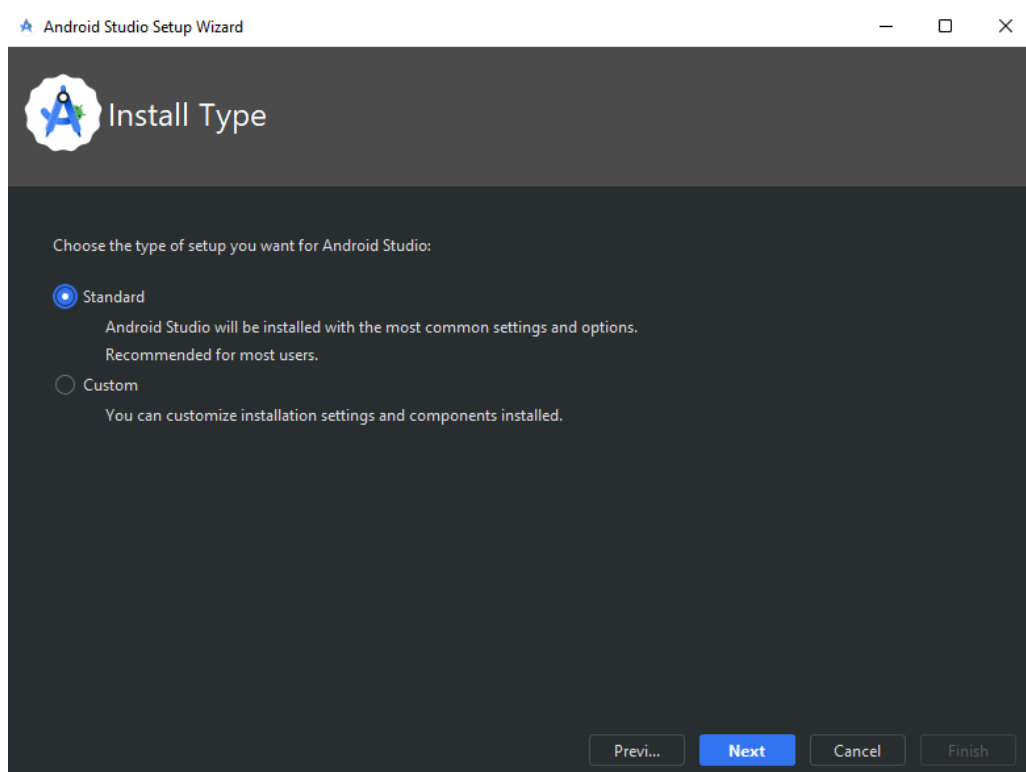
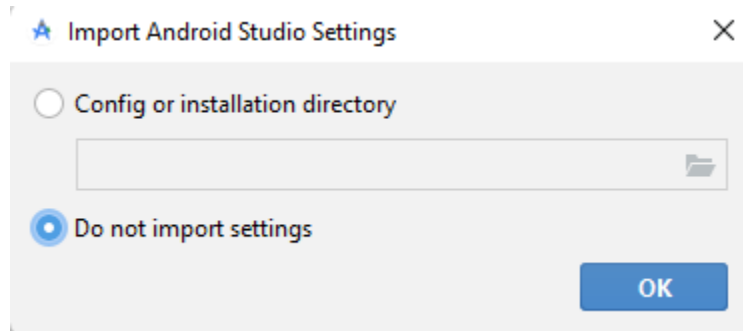




Step 7.3 : Follow the steps of the installation wizard. Once the installation wizard completes, you will get the following screen.



Step 7.4 : 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.



Step 7.5 : run the \$ flutter doctor command and Run flutter doctor --android-licenses command.



Verify Settings

If you want to review or change any of your installation settings, click Previous.

Current Settings:

Setup Type:

Standard

SDK Folder:

C:\Users\student\AppData\Local\Android\Sdk

Total Download Size:

1.93 GB

SDK Components to Download:

Android Emulator	345 MB
Android Emulator hypervisor driver (installer)	165 KB
Android SDK Build-Tools 34	55.6 MB
Android SDK Platform 34	60.3 MB

Previ...

Next

Cancel

Finish



License Agreement

Read and agree to the licenses for the components which will be installed

Licenses

▼ android-sdk-license

- Android Emulator
- Android Emulator hypervisor
- Sources for Android 34
- Android SDK Platform 34
- Android SDK Build-Tools 34
- Android SDK Platform-Tools

▼ android-sdk-arm-dbt-license

- Google APIs Intel x86_64 Ator
- ▼ intel-android-extra-license
- Intel x86 Emulator Accelerator

Intel (R) Hardware Accelerated Execution Manager End-User License Agreement

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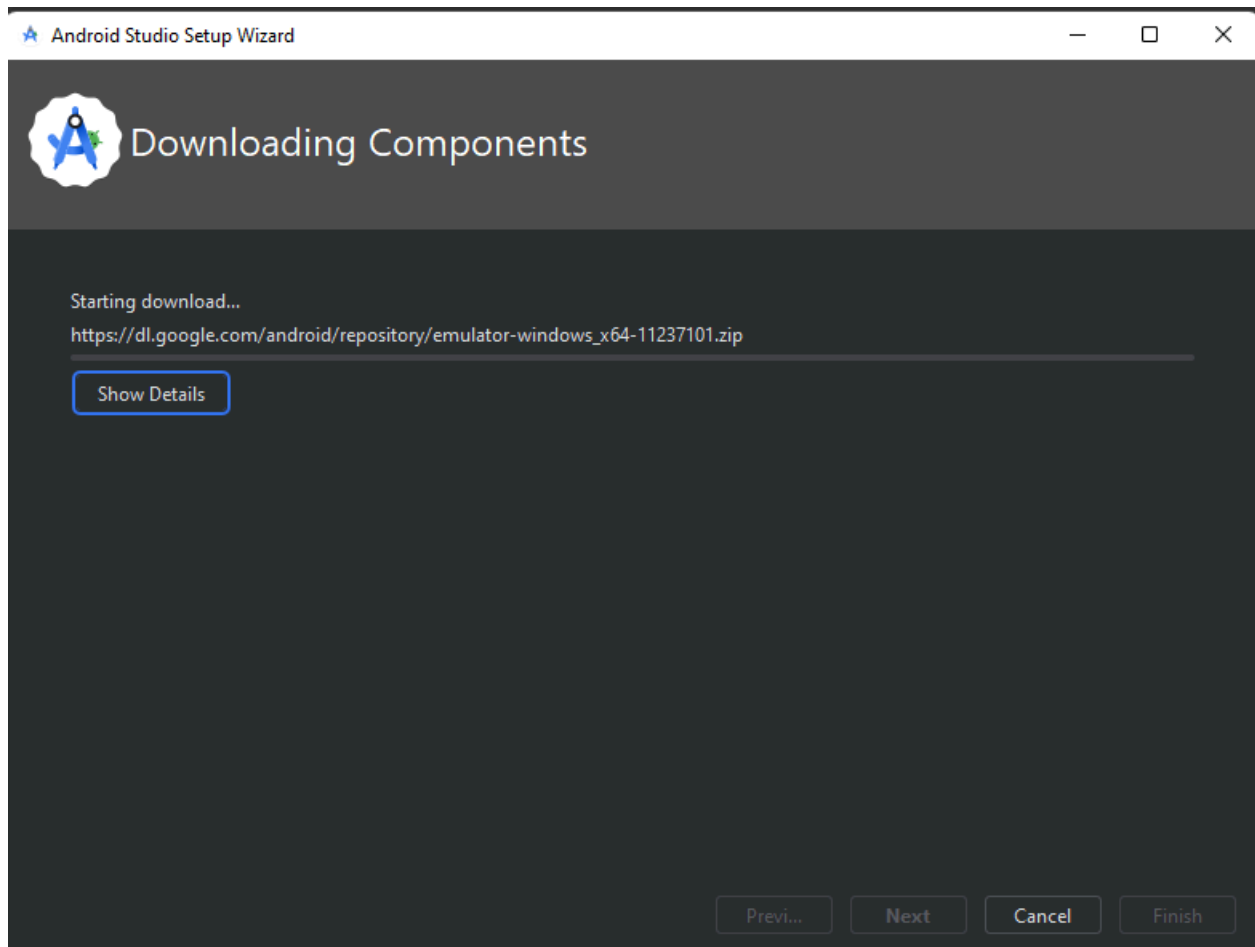
☐ Decline ☒ Accept

Previ...

Next

Cancel

Finish



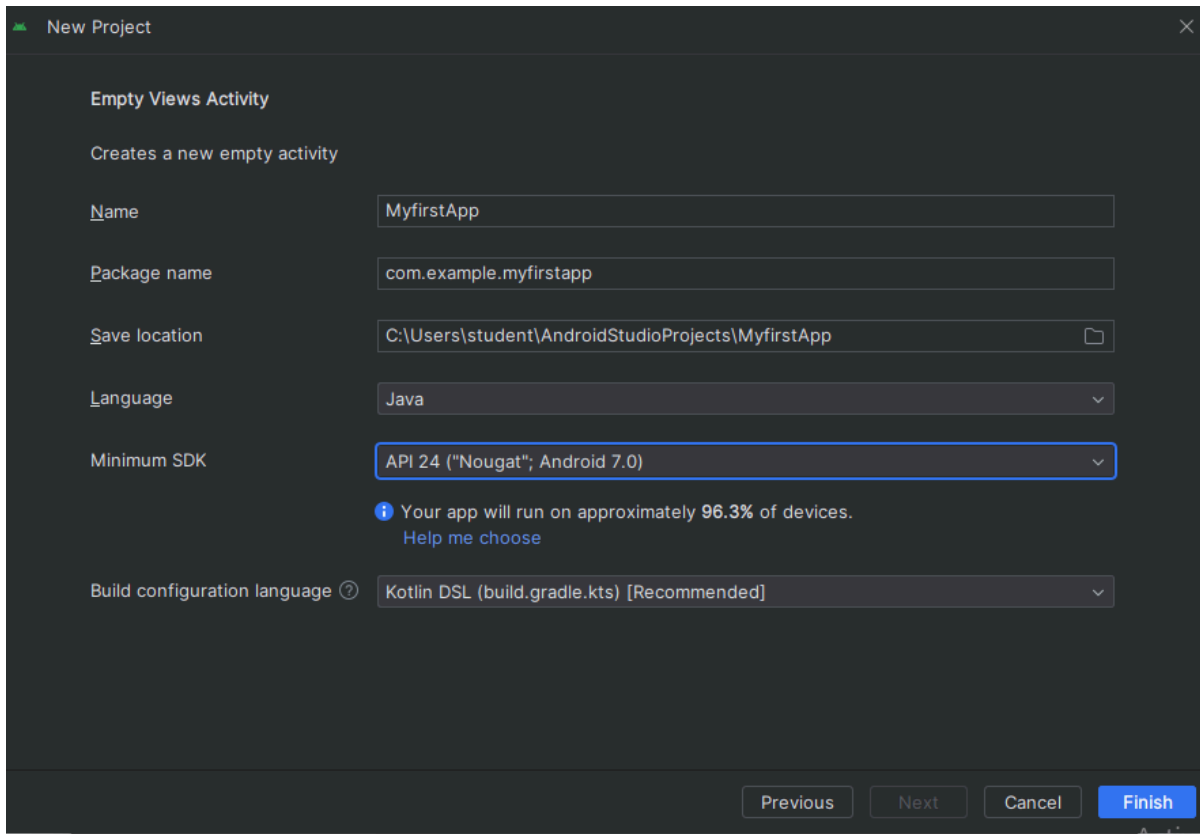
Step 8 : Next, you need to set up an Android emulator. It is responsible for running and testing the Flutter application.

Step 8.1 : 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.

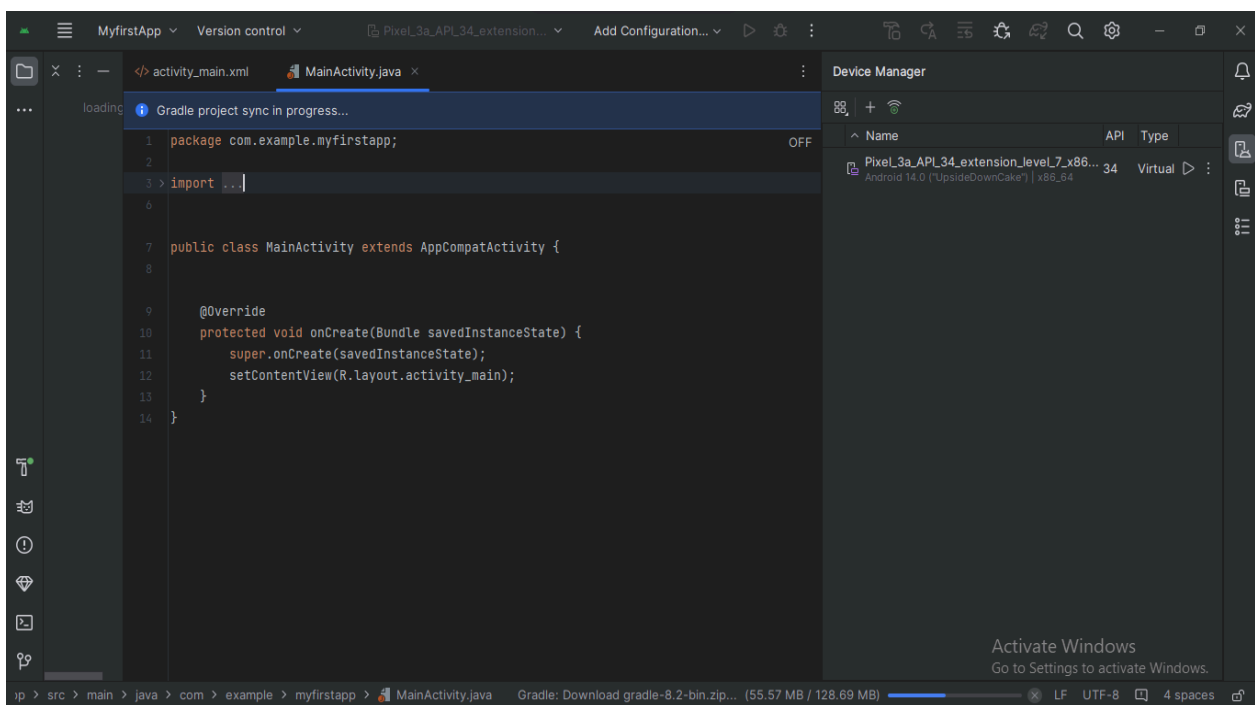
Step 8.2 : Choose your device definition and click on Next.

Step 8.3 : Select the system image for the latest Android version and click on Next.

Step 8.4: Now, verify the all AVD configuration. If it is correct, click on Finish. The following screen appears.

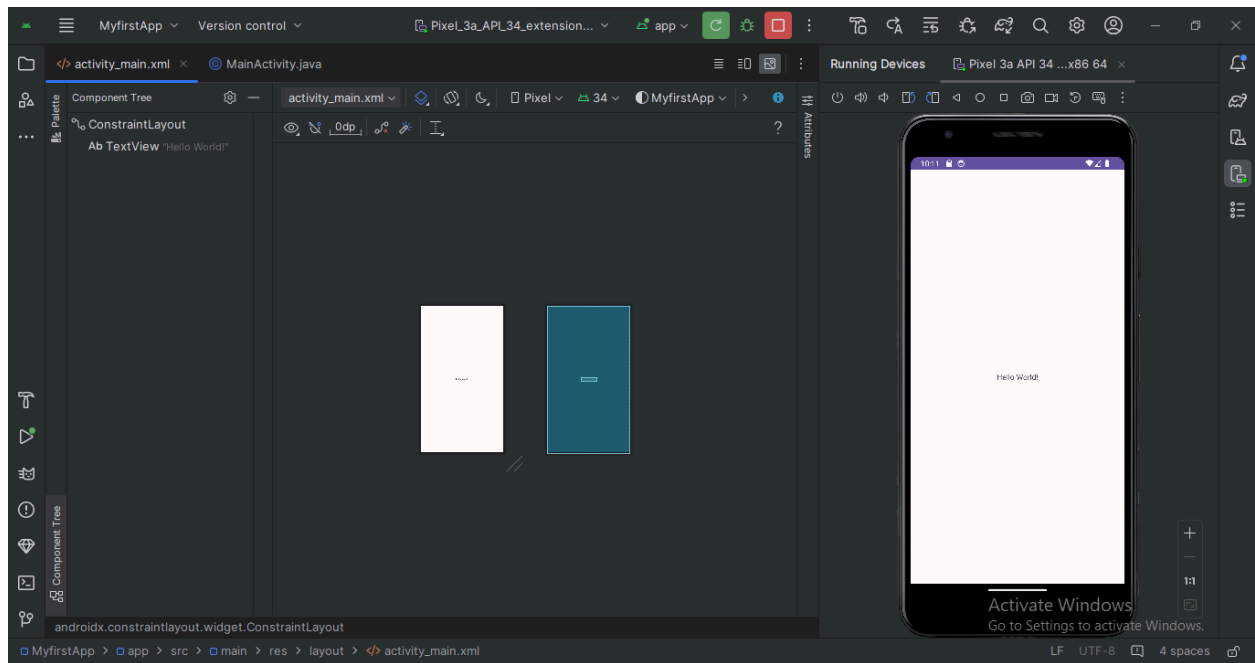


Step 8.5 : Last, click on the icon pointed into the red color rectangle. The Android emulator displayed as below screen.



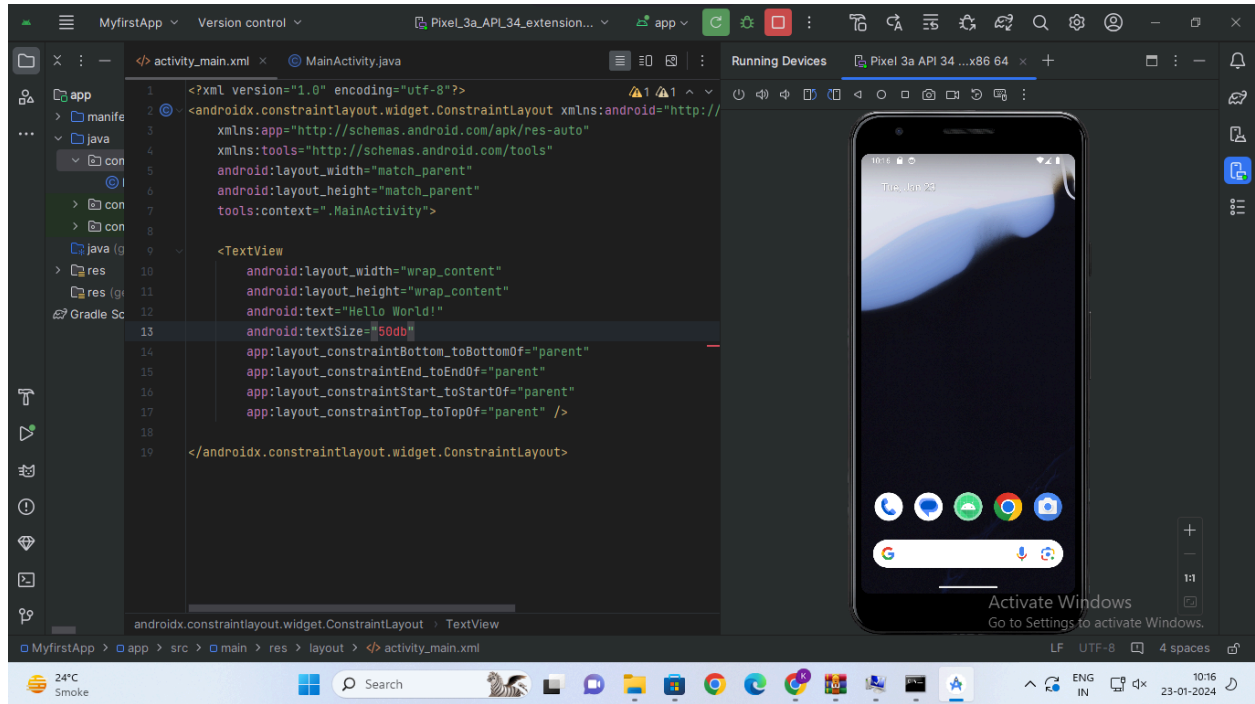
Step 9 : Now, install the Flutter and Dart plugin for building Flutter applications in Android Studio. These plugins provide a template to create a Flutter application, give an option to run and debug Flutter application in the Android Studio itself. Do the following steps to install these plugins.

Step 9.1 : Open the Android Studio and then go to File -> Settings -> Plugins.



Step 9.2 : Now, search the Flutter plugin. If found, select Flutter plugin and click install. When you click on install, it will ask you to install Dart plugin as below screen. Click yes to proceed.

Step 9.3 : Restart the Android Studio.



Conclusion : Having successfully executed each step, I've gained a comprehensive understanding of installing Flutter on Windows 11. Navigating the intricacies of Android Studio setup on our device enhances our capability for seamless development .