

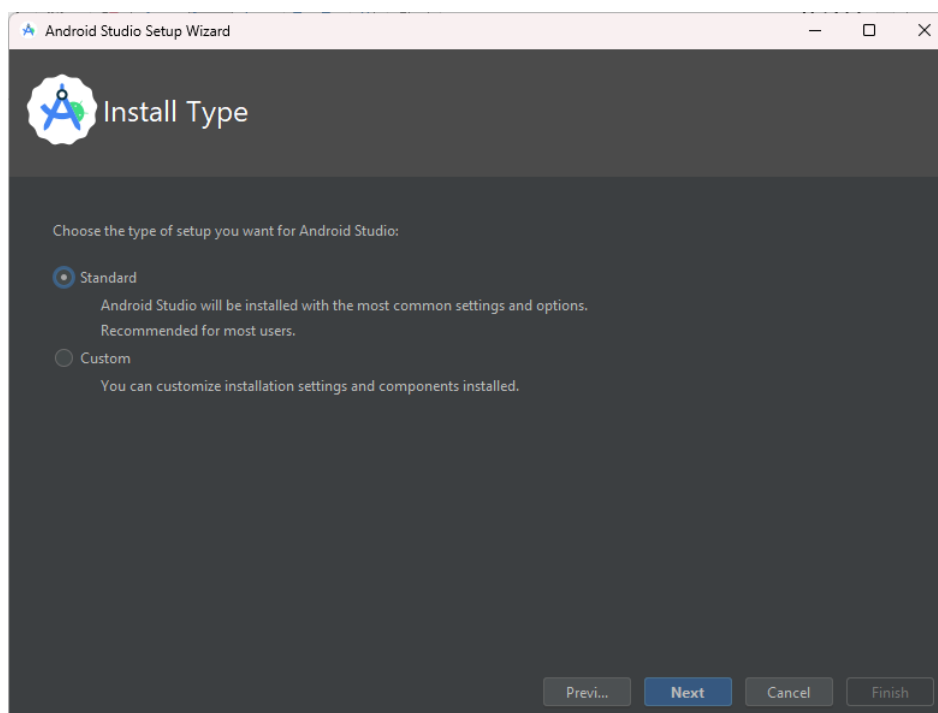
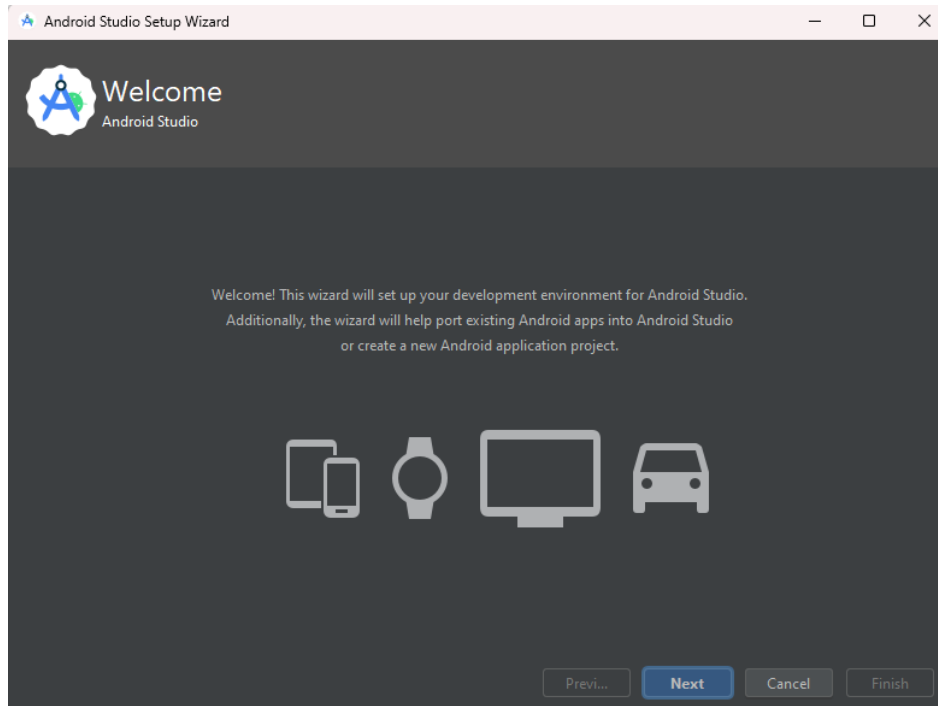
Lab session 1: Flutter Installation and UI Design using Flutter

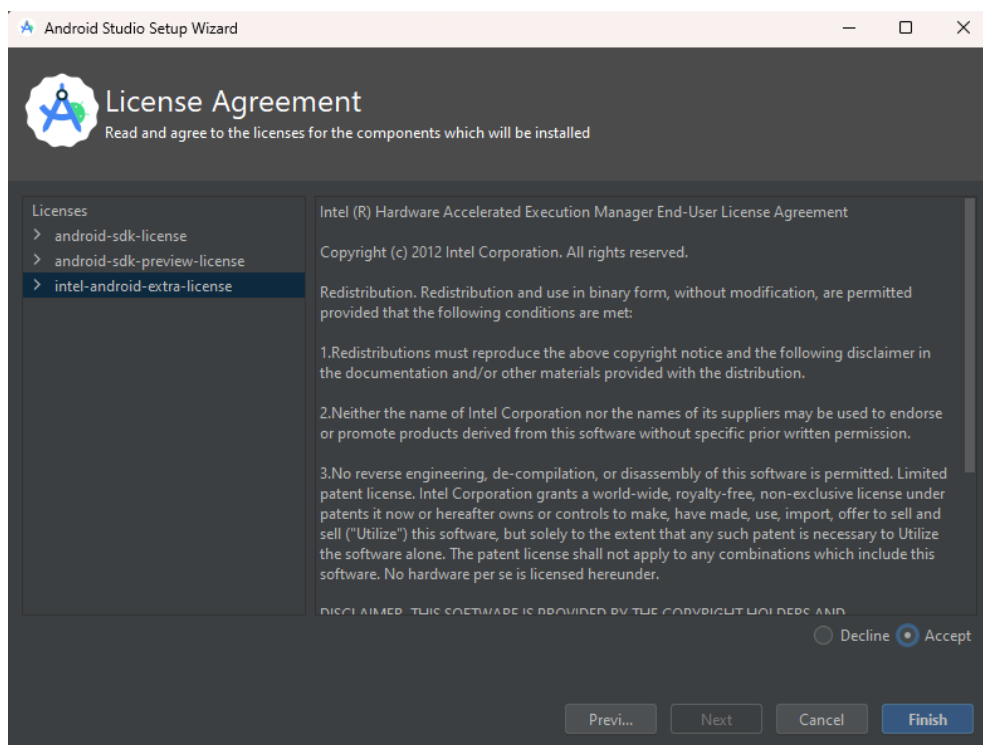
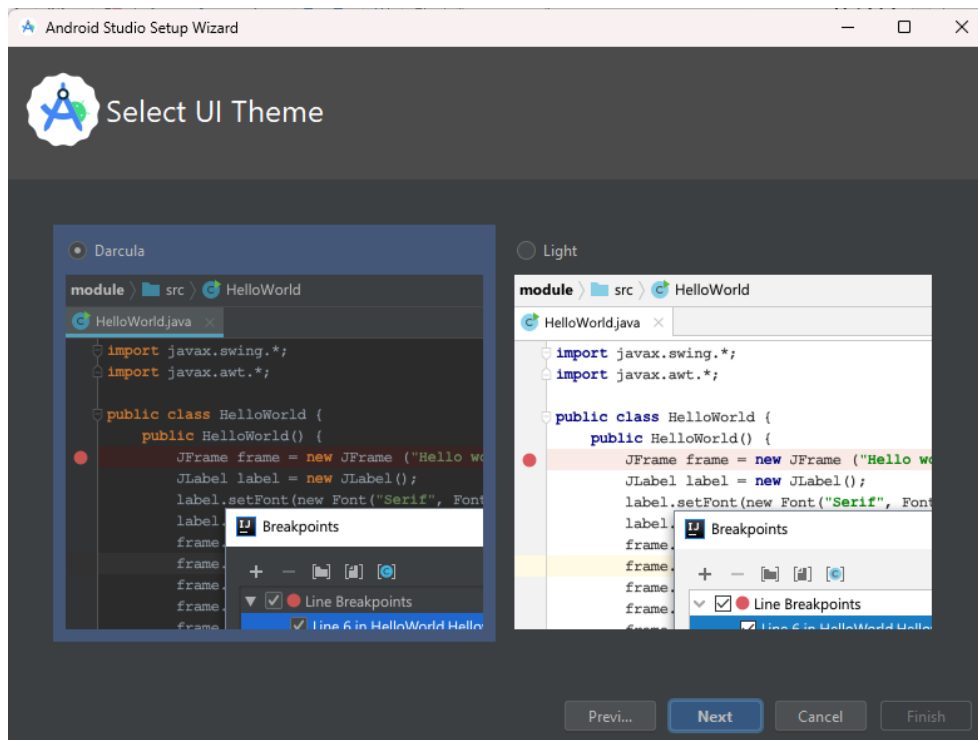
Task-1 Flutter environment Installation

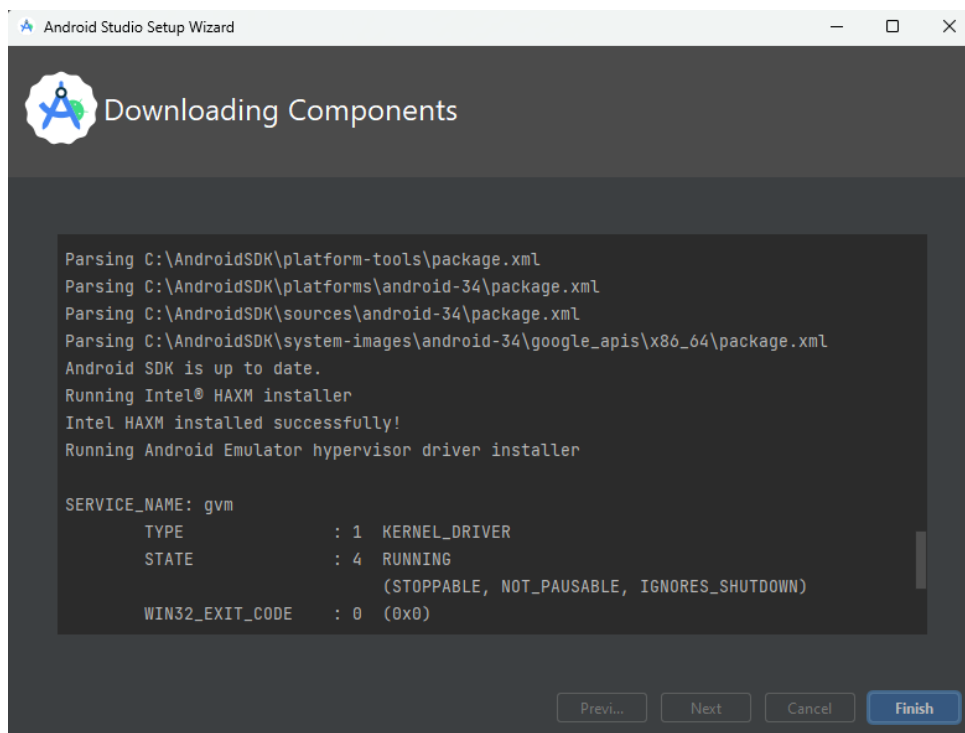
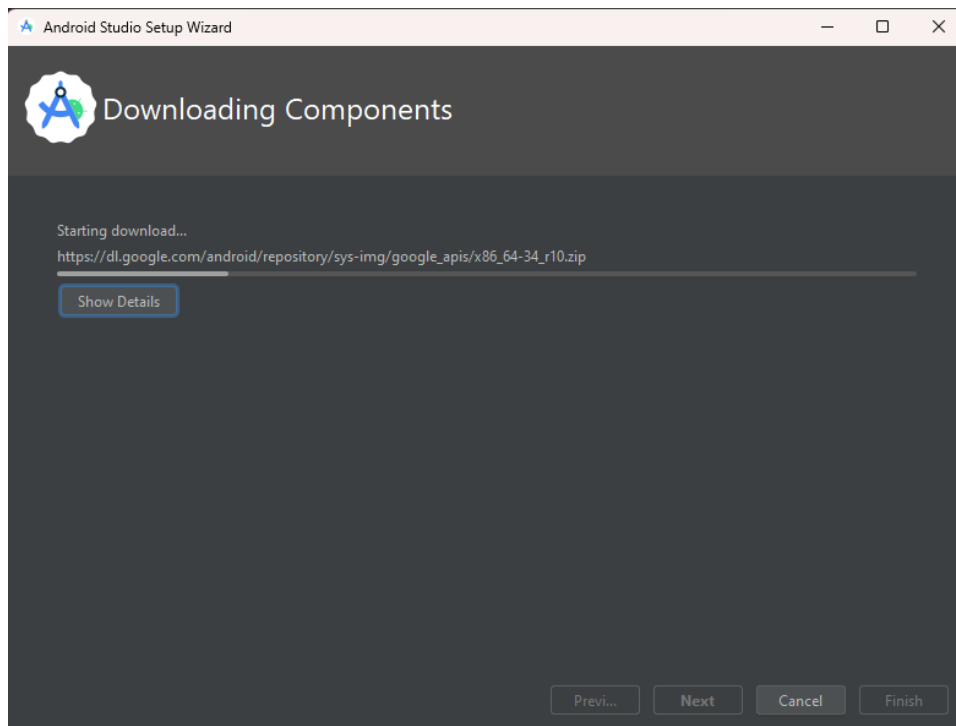
The aim of this task is to setup the flutter environment installation.

1. Android Studio Installation

After downloading the last version of Android Studio, launching the .exe file led to the following steps:







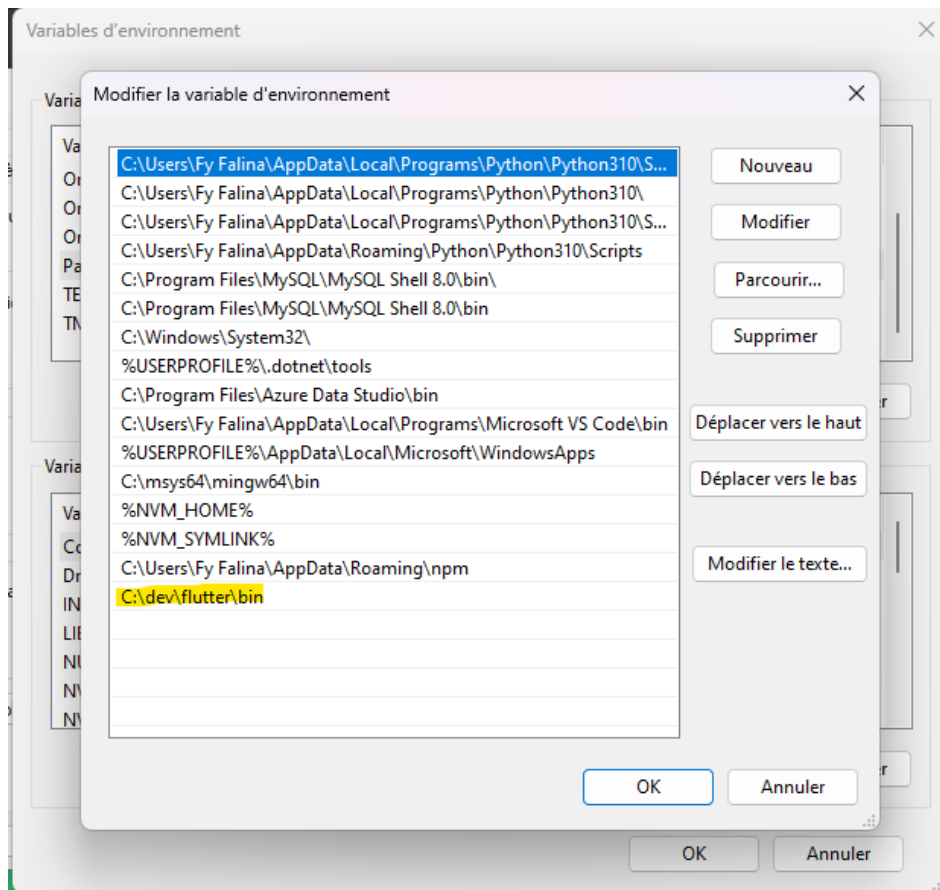
Android Studio is successfully installed.

2. Flutter installation

Next, I proceeded to the installation of Flutter.

After extracting the zip file, I moved the contained Flutter in C:\dev\.

And then, I updated the PATH environment variable as follow:



Then, I checked if Flutter is correctly installed using the “where flutter dart” command which provided the output below:

```

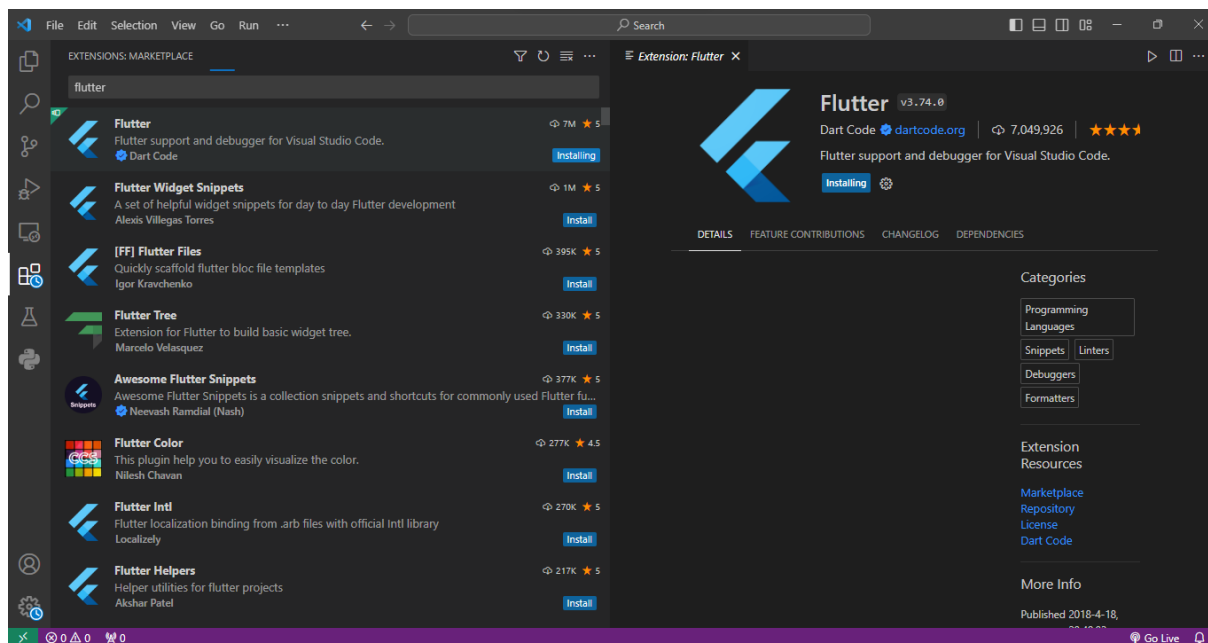
C:\Users\Fy Falina>where flutter dart
C:\dev\flutter\bin\flutter
C:\dev\flutter\bin\flutter.bat
C:\dev\flutter\bin\dart
C:\dev\flutter\bin\dart.bat

C:\Users\Fy Falina>

```

3. Flutter and Dart installation in VS code

Last step is installing Flutter extension in VS Code.



After successful installation, the “flutter doctor -v” command helped to check any error that may occurred during the process.

```
PS C:\dev\flutter\bin> flutter doctor -v
```

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.
Note: 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:

```
[✓] Flutter (Channel stable, 3.13.8, on Microsoft Windows [version 10.0.22621.2428], locale fr-FR)
    • Flutter version 3.13.8 on channel stable at C:\dev\flutter
    • Upstream repository https://github.com/flutter/flutter.git
    • Framework revision 6c4938c4ac (4 days ago), 2023-10-18 10:57:55 -0500
    • Engine revision 767d8c75e8
    • Dart version 3.1.4
    • DevTools version 2.25.0

[✓] 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/docs/get-started/install/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
    • Chrome at C:\Program Files\Google\Chrome\Application\chrome.exe

[✓] Visual Studio - develop Windows apps (Visual Studio Community 2019 16.11.18)
    • Visual Studio at C:\Program Files (x86)\Microsoft Visual Studio\2019\Community
    • Visual Studio Community 2019 version 16.11.32802.440
    • Windows 10 SDK version 10.0.19041.0

[✓] Android Studio (version 2022.3)
    • Android Studio at C:\Program Files\Android\Android Studio
    • Flutter plugin can be installed from:
      https://plugins.jetbrains.com/plugin/9212-flutter
    • Dart plugin can be installed from:
      https://plugins.jetbrains.com/plugin/6351-dart
    • Java version OpenJDK Runtime Environment (build 17.0.6+0-b2043.56-10027231)
```

Flutter doctor showed that flutter cannot find the previously installed Android Studio. This is due the fact that I have used a customized location as the default one contained spaces.

The command “flutter config --android-sdk C:\AndroidSDK” is used to indicate where the Android Studio is located:

```
PS C:\dev\flutter\bin> flutter config --android-sdk C:\AndroidSDK
Setting "android-sdk" value to "C:\AndroidSDK".

You may need to restart any open editors for them to read new settings.
PS C:\dev\flutter\bin>
```

Once done, I checked a second time if there is any error, and flutter doctor indicated 2 errors:

```

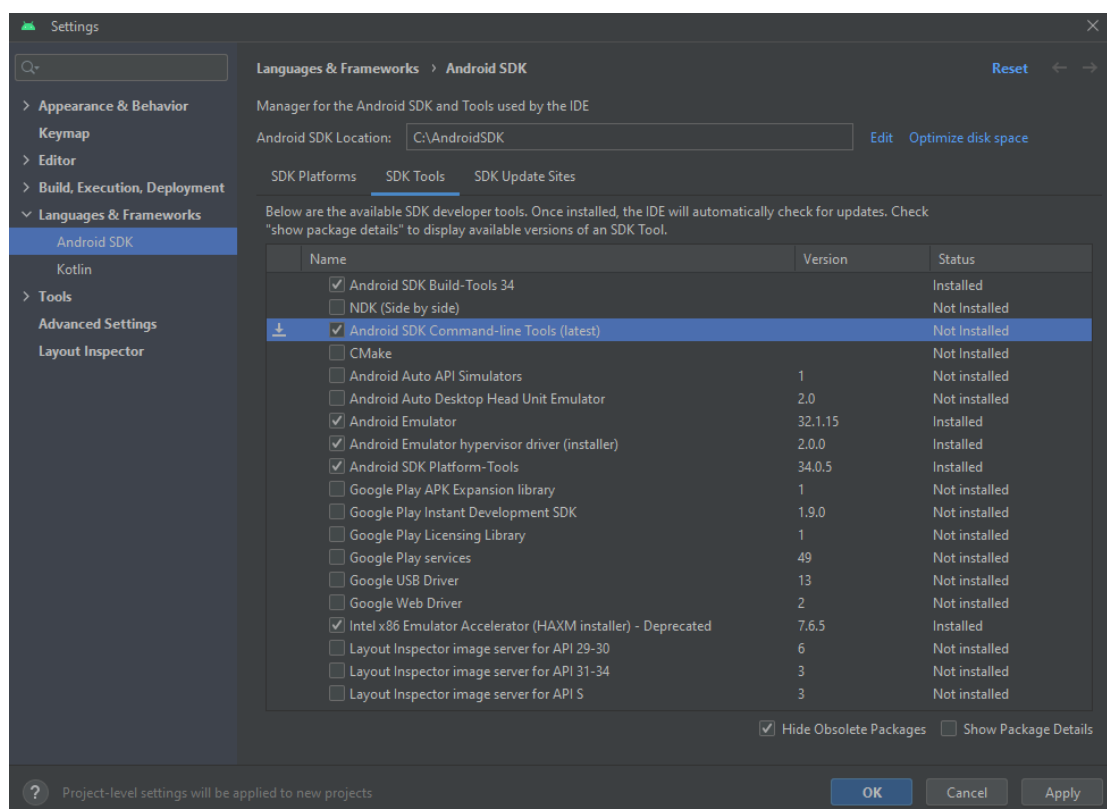
PS C:\Users\Fy Falina> cd ..\..\dev\flutter\bin
PS C:\dev\flutter\bin> flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 3.13.8, on Microsoft Windows [version 10.0.22621.2428], locale fr-FR)
[✓] Windows Version (Installed version of Windows is version 10 or higher)
[!] Android toolchain - develop for Android devices (Android SDK version 34.0.0)
    ✗ cmdline-tools component is missing
      Run `path/to/sdkmanager --install "cmdline-tools;latest"`
      See https://developer.android.com/studio/command-line for more details.
    ✗ Android license status unknown.
      Run `flutter doctor --android-licenses` to accept the SDK licenses.
      See https://flutter.dev/docs/get-started/install/windows#android-setup for more details.
[✓] Chrome - develop for the web
[✓] Visual Studio - develop Windows apps (Visual Studio Community 2019 16.11.18)
[✓] Android Studio (version 2022.3)
[✓] VS Code (version 1.83.1)
[✓] Connected device (3 available)
[✓] Network resources

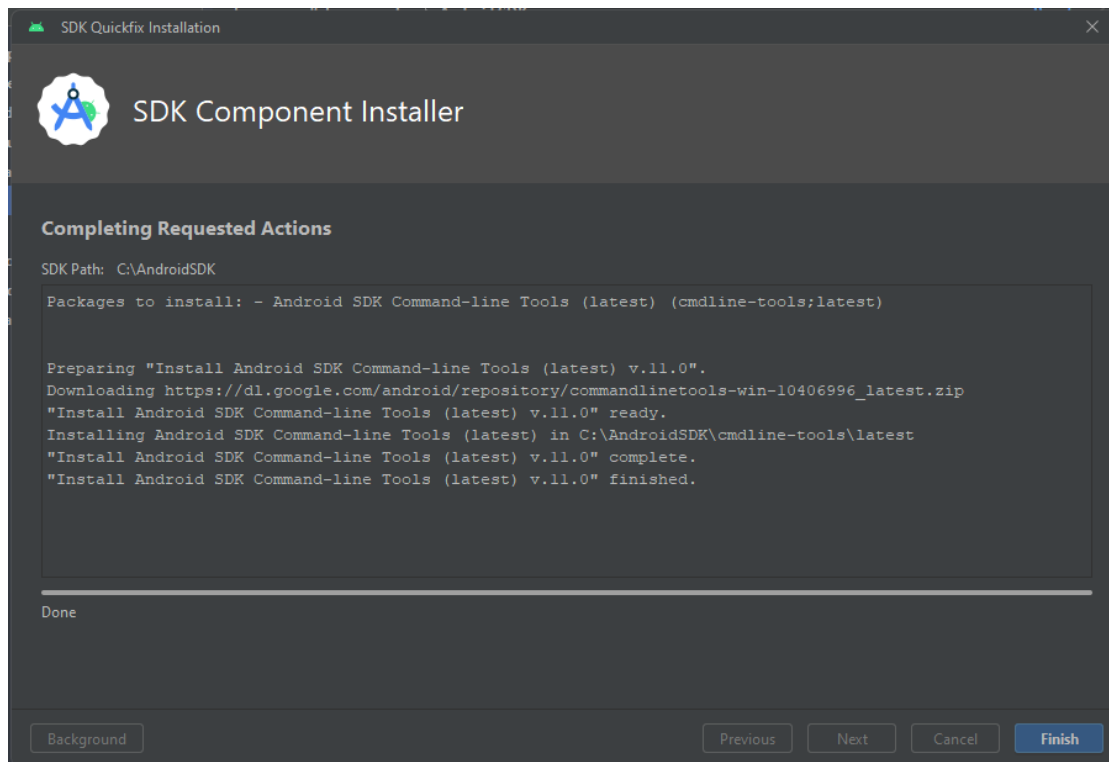
! Doctor found issues in 1 category.
PS C:\dev\flutter\bin>

```

Needed to install Command-line Tools and accept the SDK licenses.

The following screenshots show all the installation process of the Command-line Tools :





The command “flutter doctor –android-licenses” shows all the licenses that have not been accepted yet.

```
PS C:\dev\flutter\bin> flutter doctor --android-licenses
[=====] 100% Computing updates...
4 of 7 SDK package licenses not accepted.
Review licenses that have not been accepted (y/N)? y
```

After accepting all the licenses, a last flutter doctor showed that there is no issue found.

```
All SDK package licenses accepted

PS C:\dev\flutter\bin> flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 3.13.8, on Microsoft Windows [version 10.0.22621.2428], locale fr-FR)
[✓] Windows Version (Installed version of Windows is version 10 or higher)
[✓] Android toolchain - develop for Android devices (Android SDK version 34.0.0)
[✓] Chrome - develop for the web
[✓] Visual Studio - develop Windows apps (Visual Studio Community 2019 16.11.18)
[✓] Android Studio (version 2022.3)
[✓] VS Code (version 1.83.1)
[✓] Connected device (3 available)
[✓] Network resources

• No issues found!
PS C:\dev\flutter\bin>
```

In summary, the flutter environment has been successfully installed.