

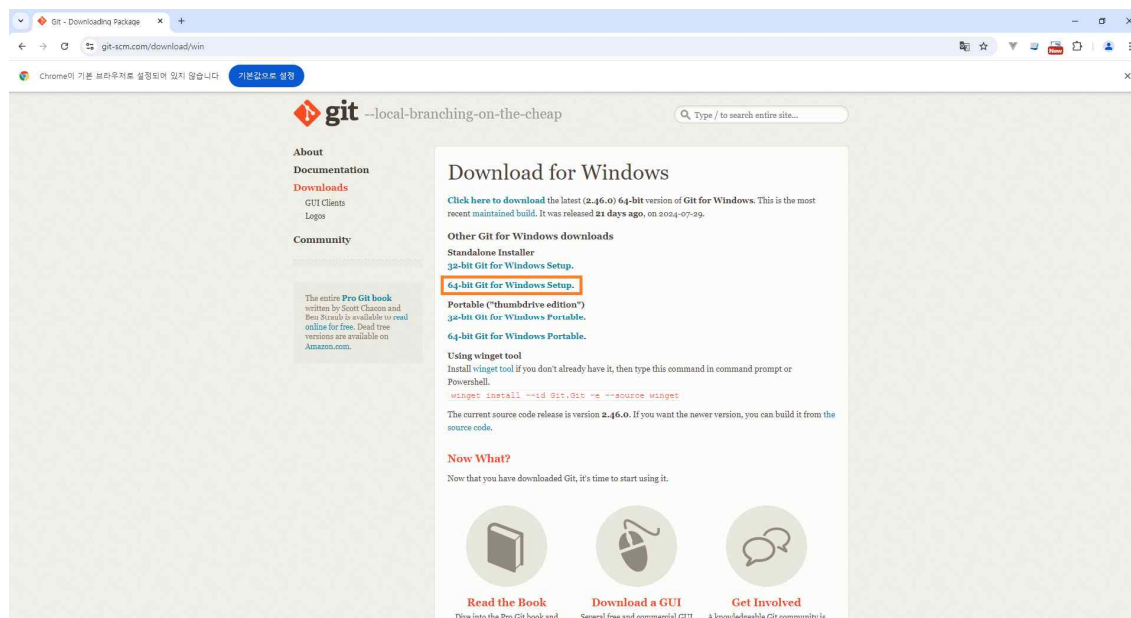
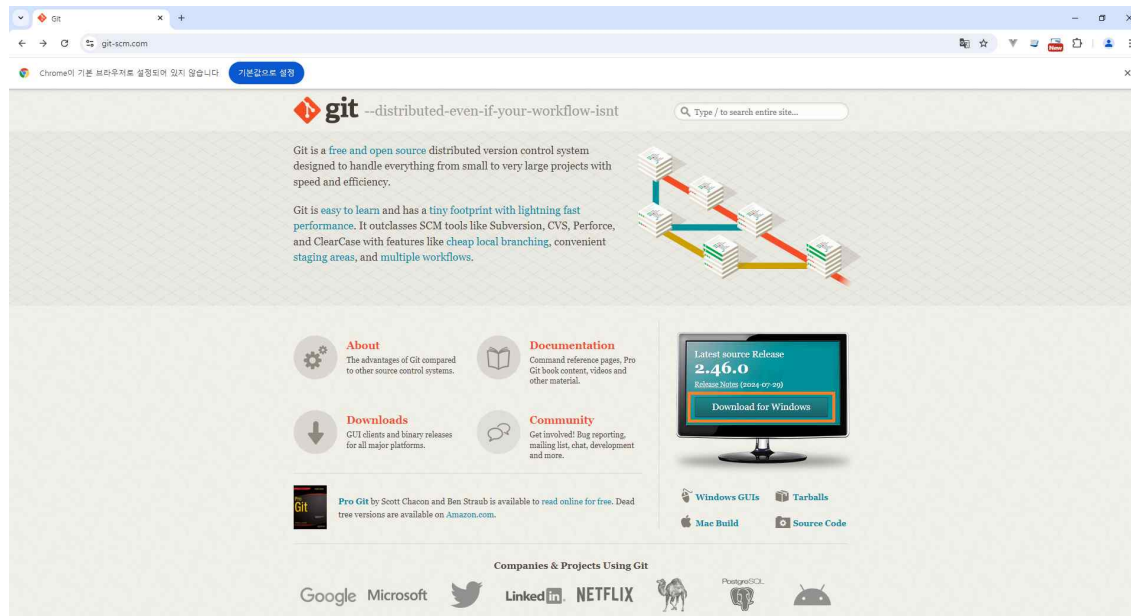
0. 개발환경 구축

- 참고사이트 : <https://docs.flutter.dev/get-started/install/windows/mobile>

1. Git

- 공식 사이트 : <https://git-scm.com>

1.1 다운로드



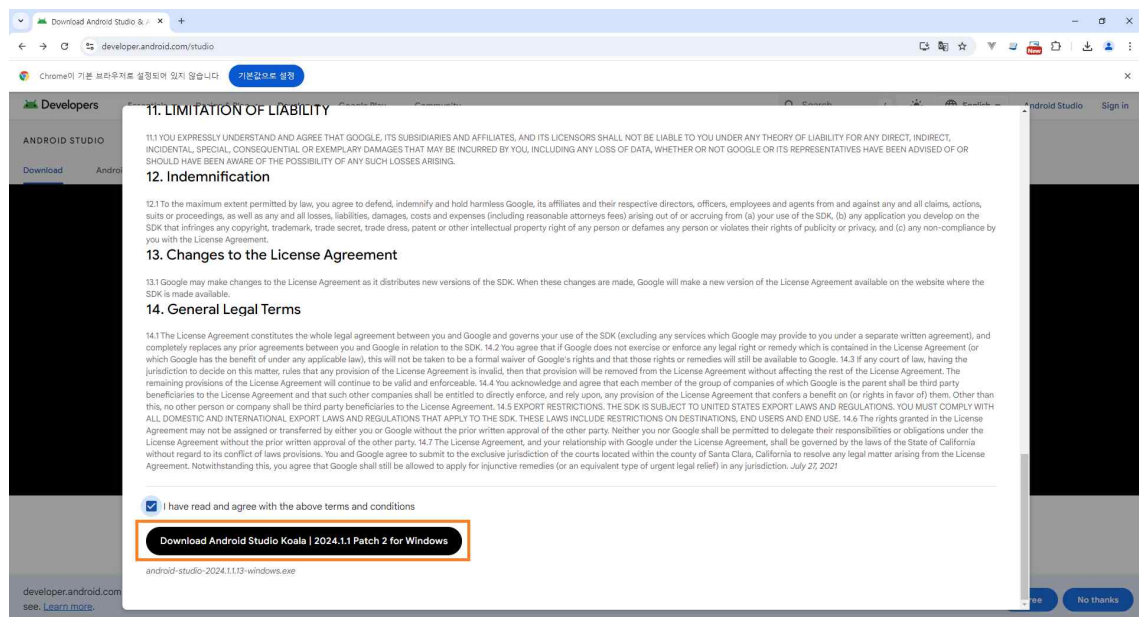
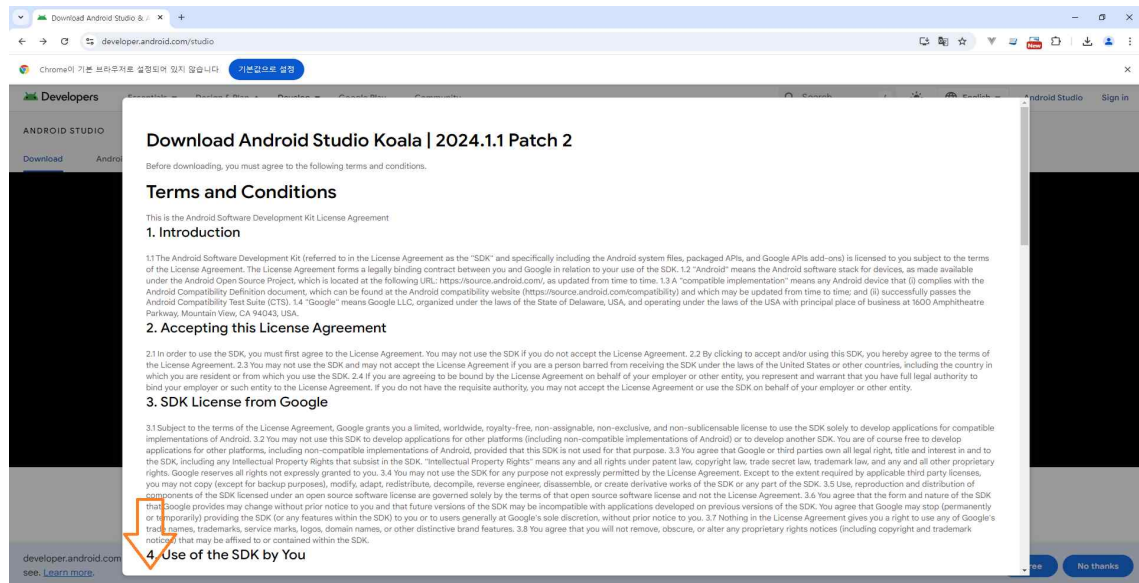
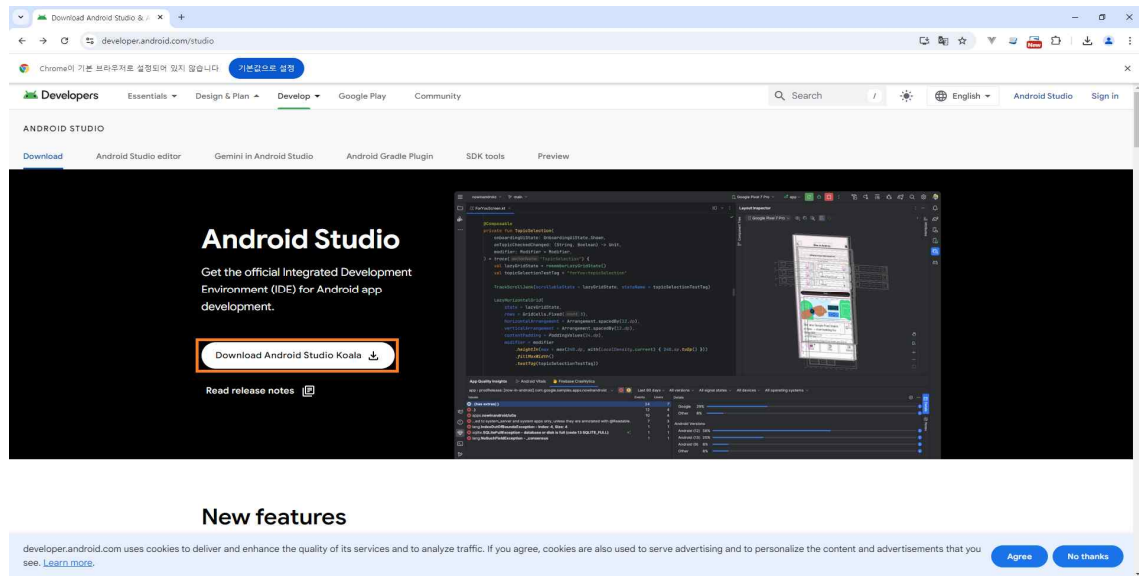
1.2 설치

- 기본 설정으로 진행하므로 계속 NEXT.

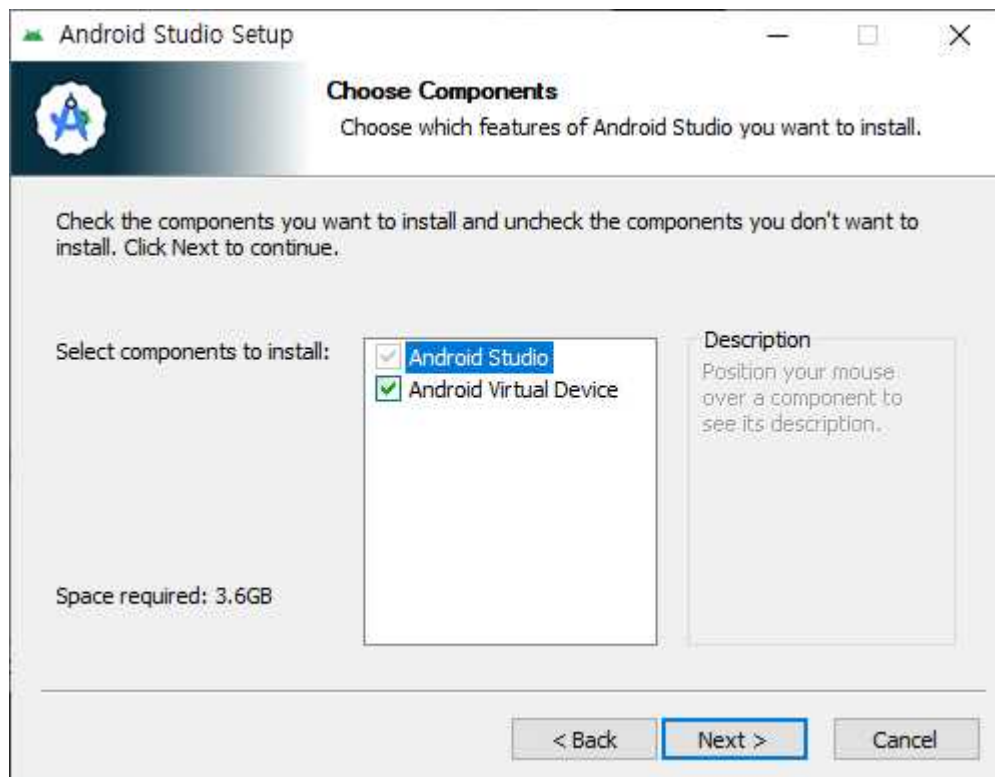
2. Android Studio

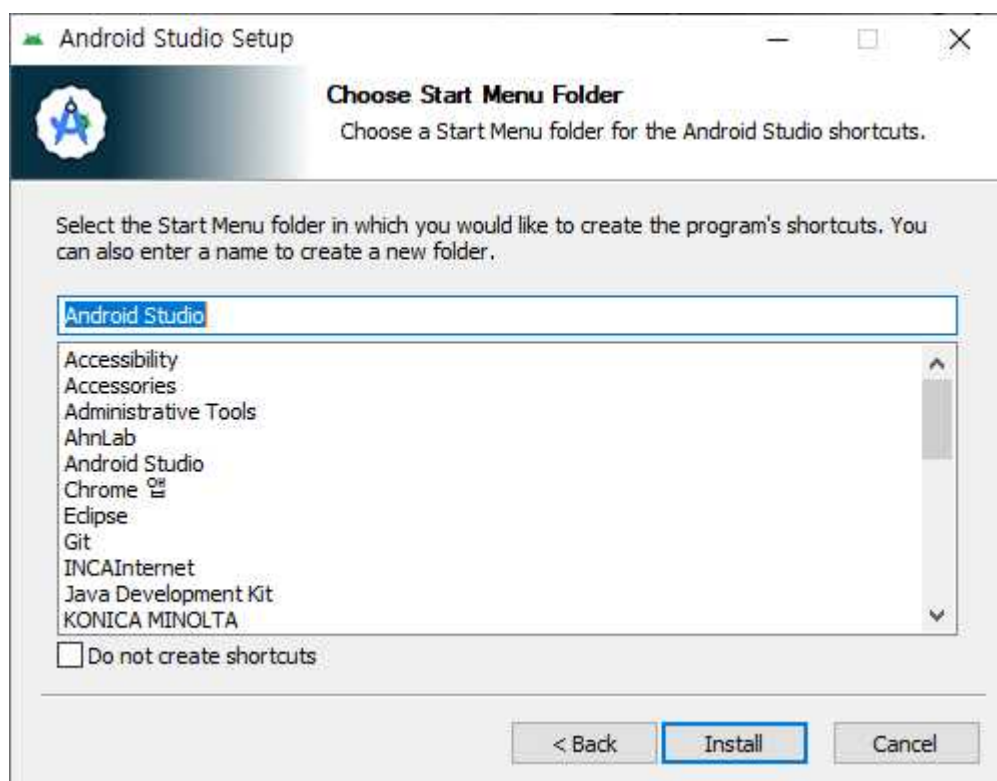
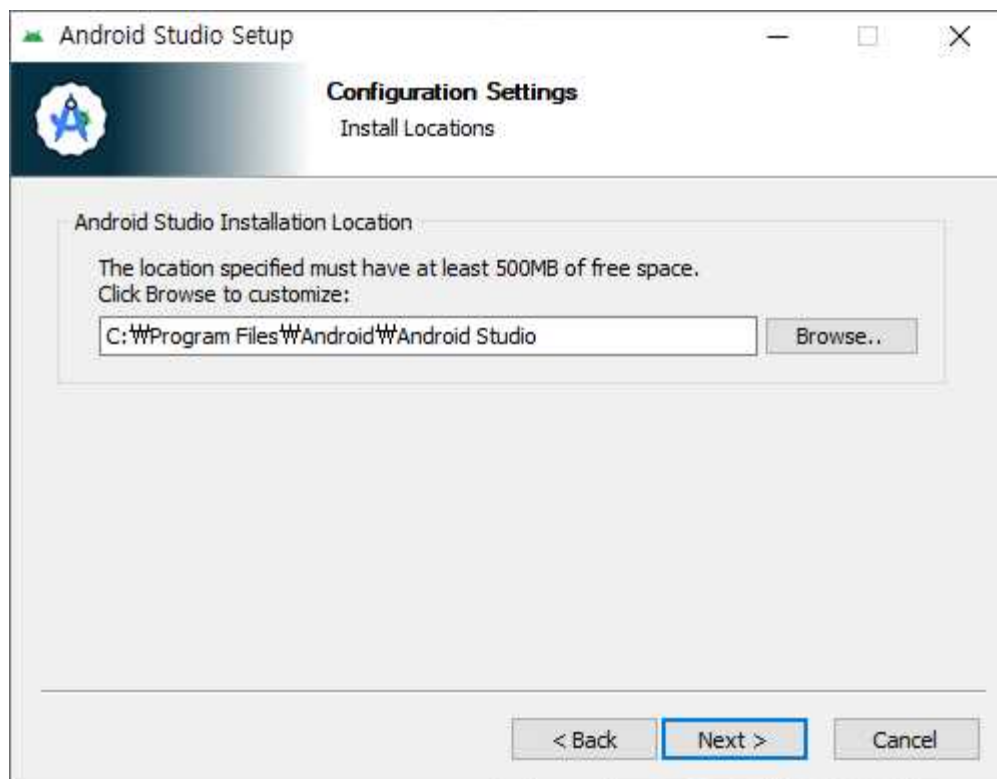
- 공식 사이트 : <https://developer.android.com/studio>

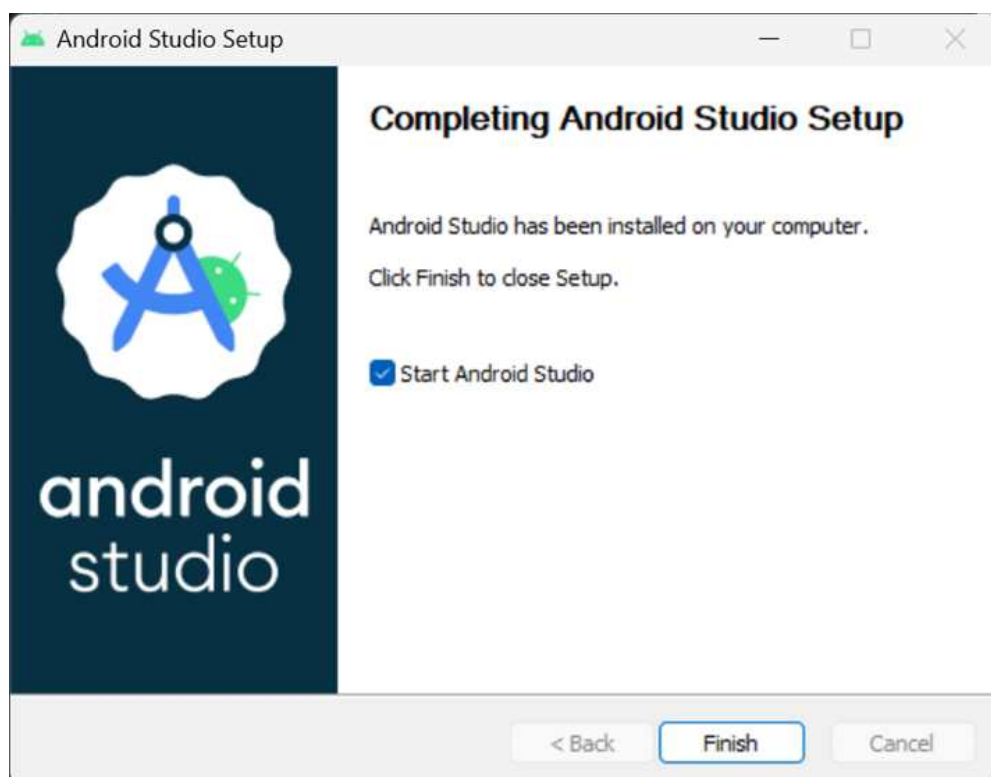
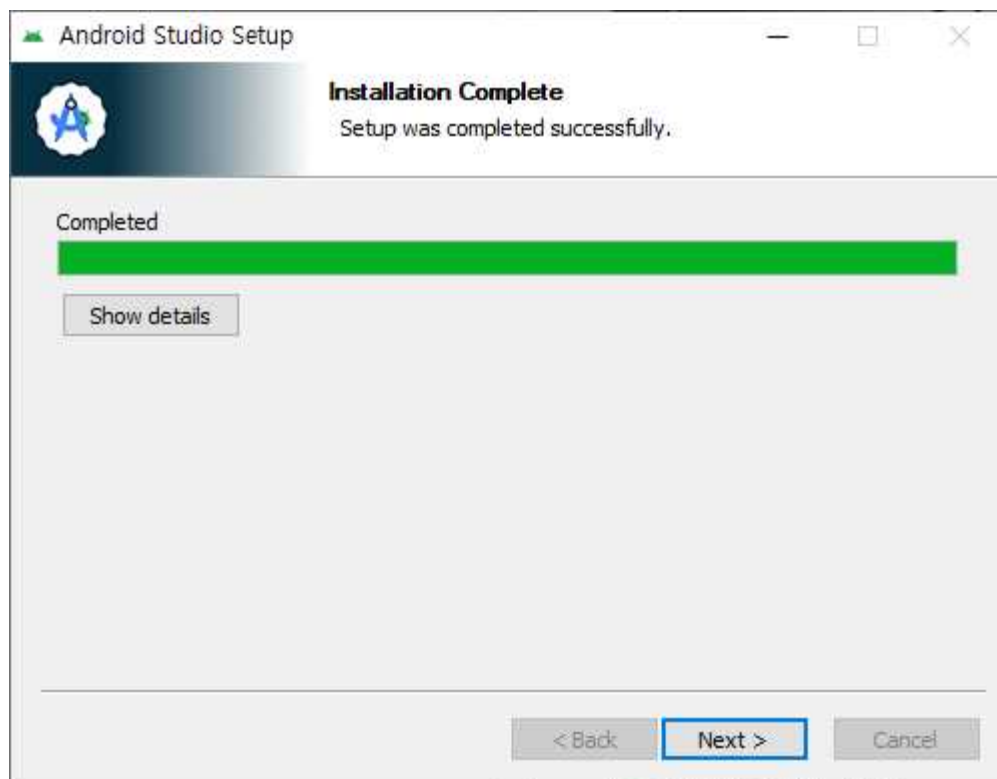
1.1 다운로드



2.2 설치

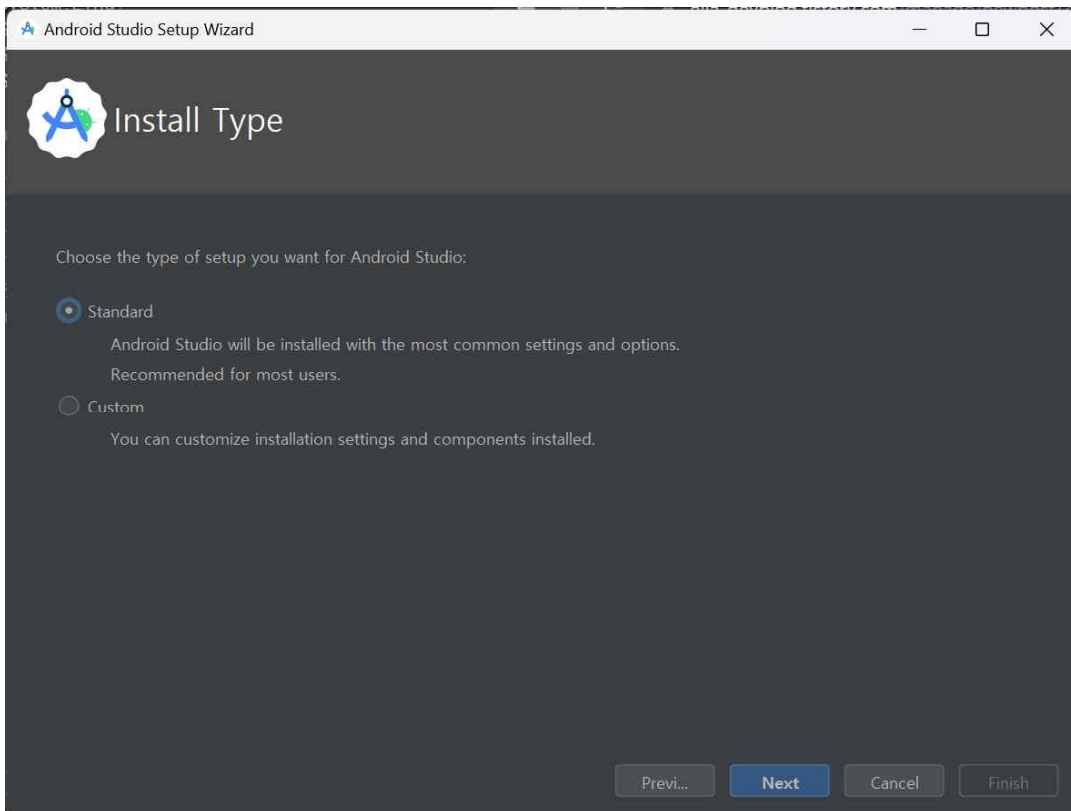
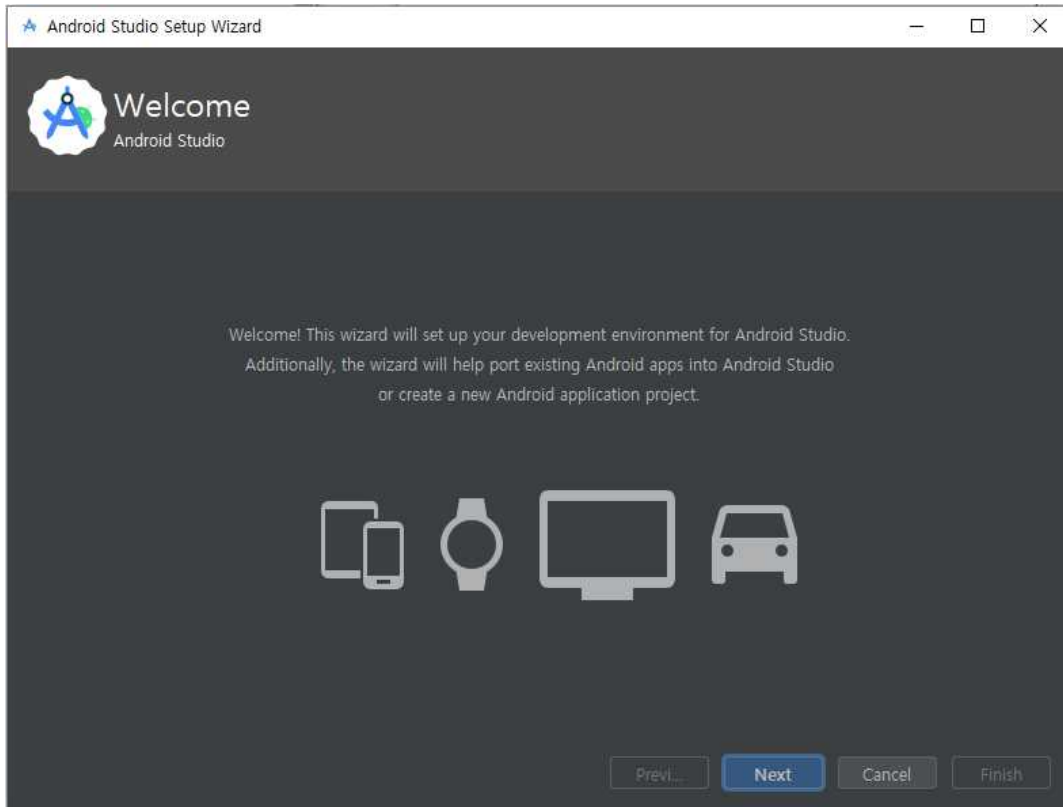






2.3 설정

- 기본 설정





Verify Settings

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

Current Settings:

Android Emulator hypervisor driver (installer)	165 KB
Android SDK Build-Tools 34	55.6 MB
Android SDK Platform 34	60.3 MB
Android SDK Platform-Tools	5.64 MB
Google APIs Intel x86_64 Atom System Image	1.44 GB
Sources for Android 34	43.4 MB

Previ...

Next

Cancel

Finish



Downloading Components

Starting download...

https://dl.google.com/android/repository/emulator-windows_x64-11150993.zip

Show Details

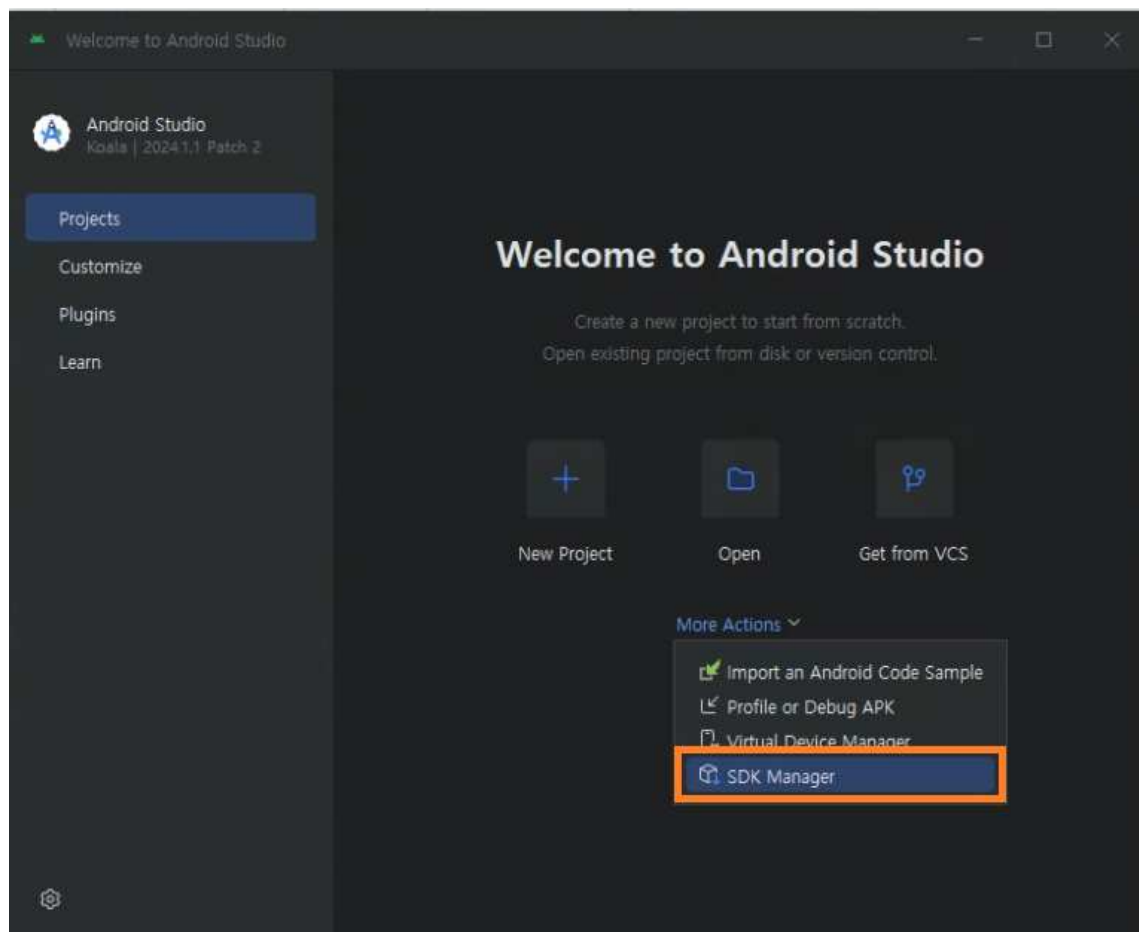
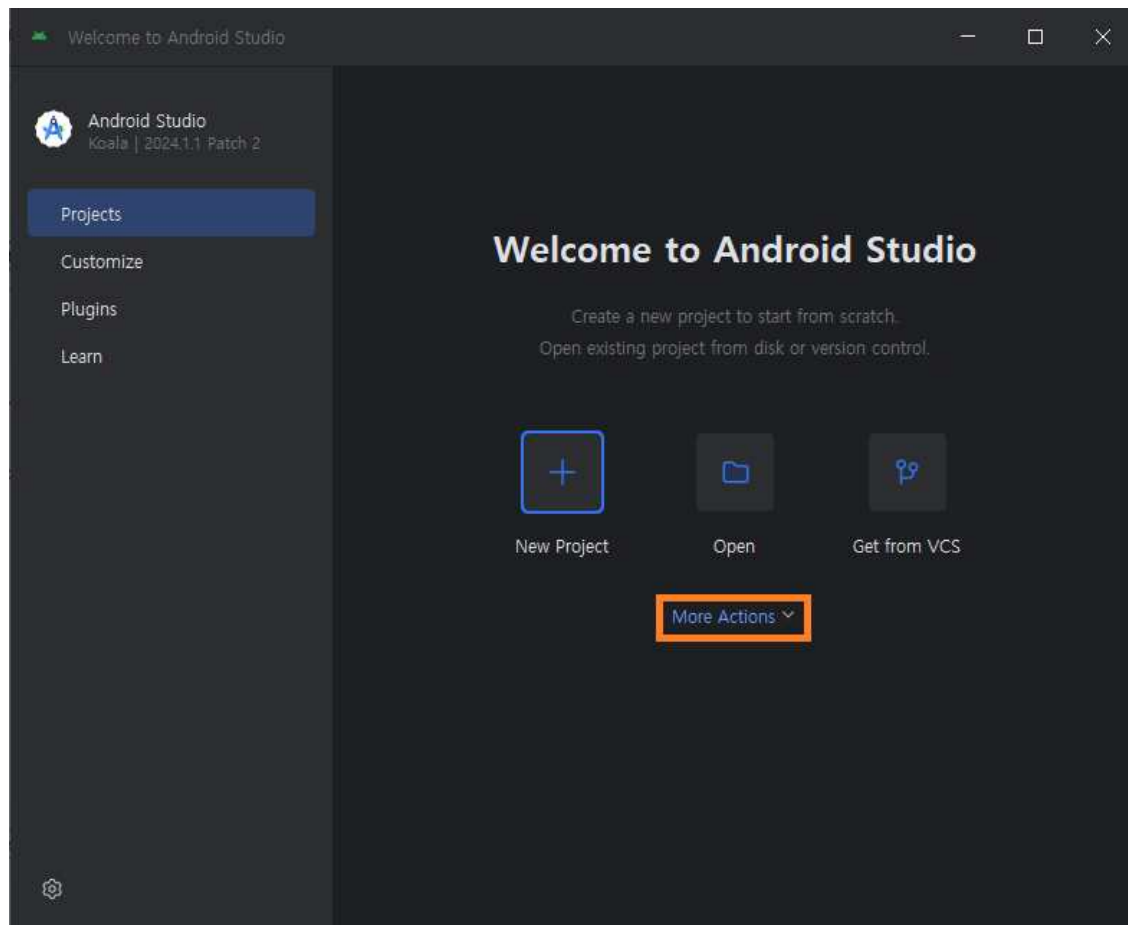
Previ...

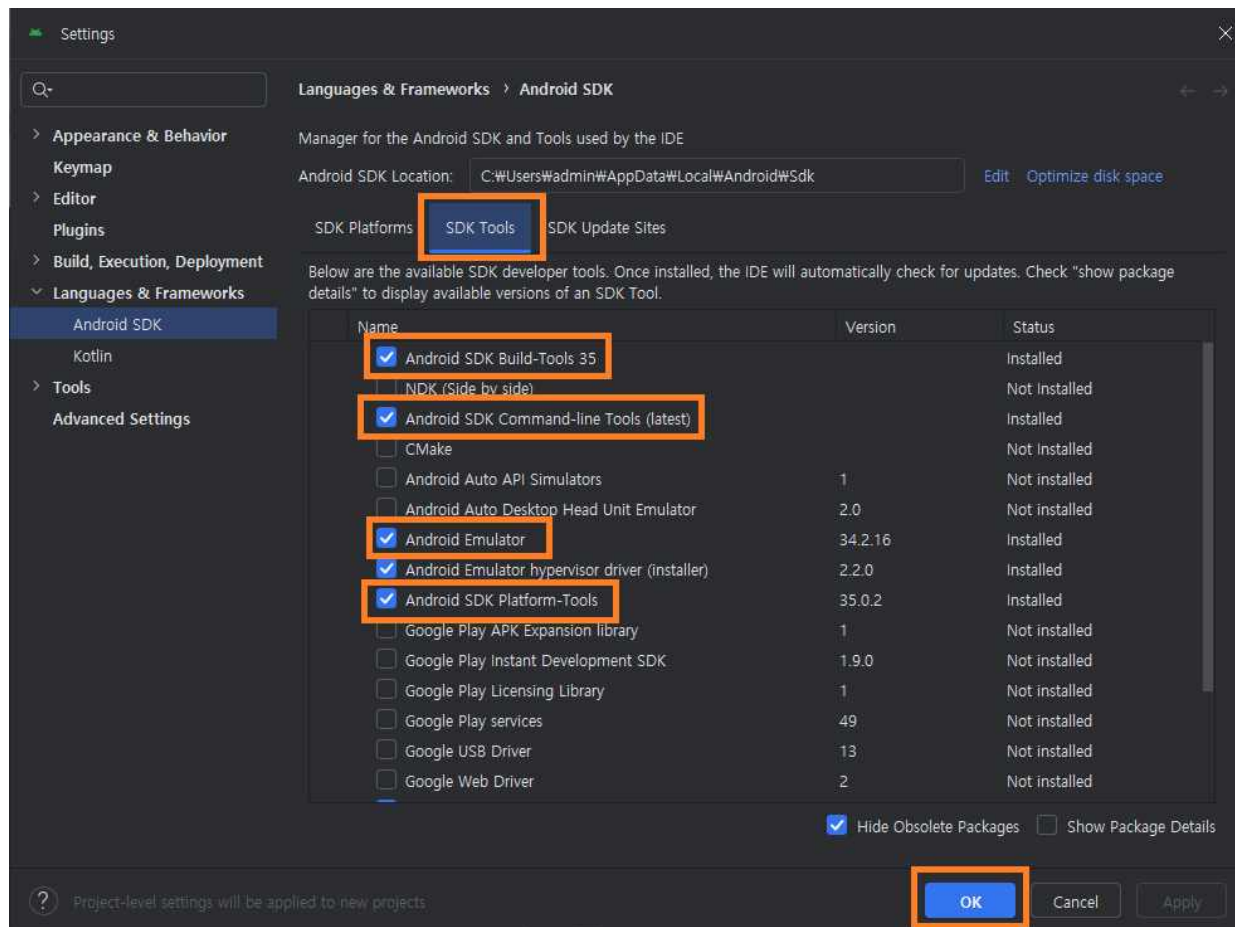
Next

Cancel

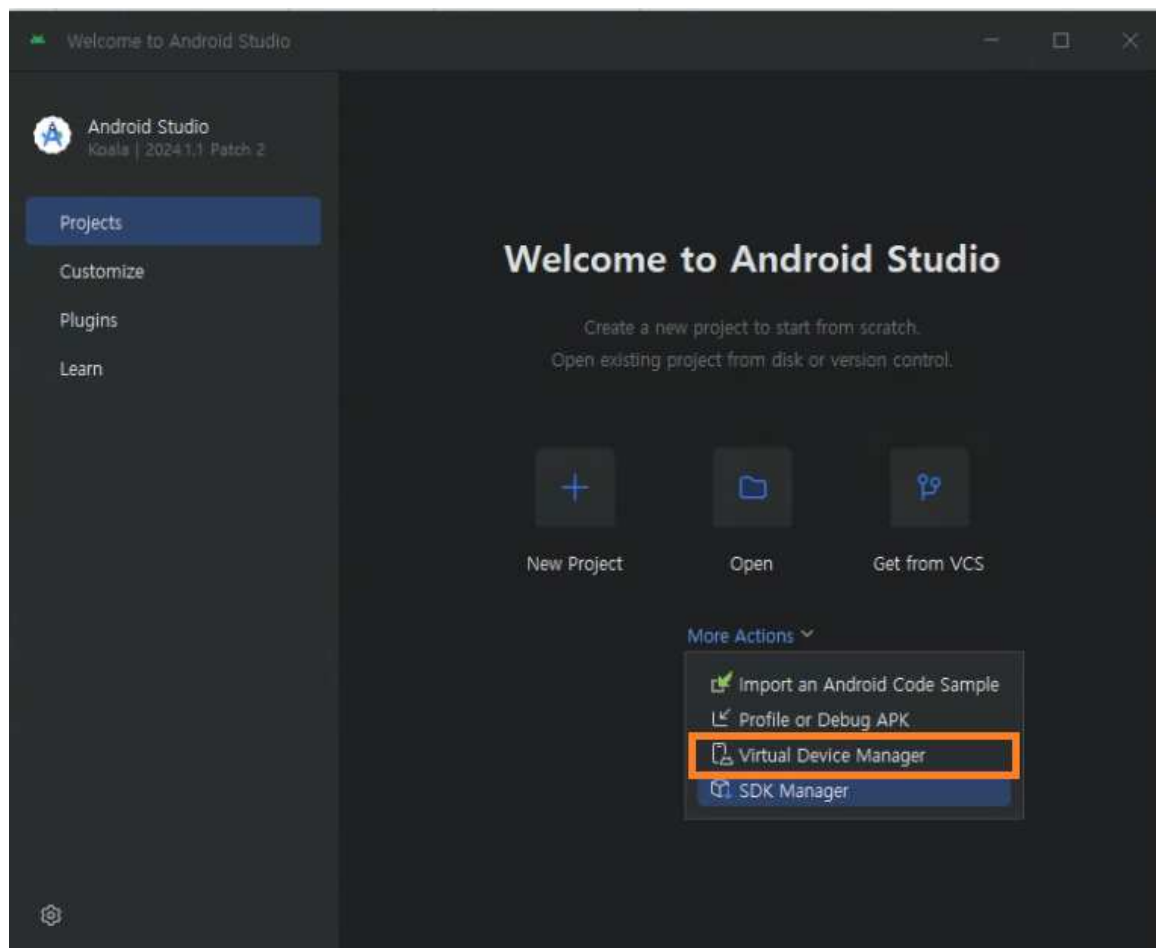
Finish

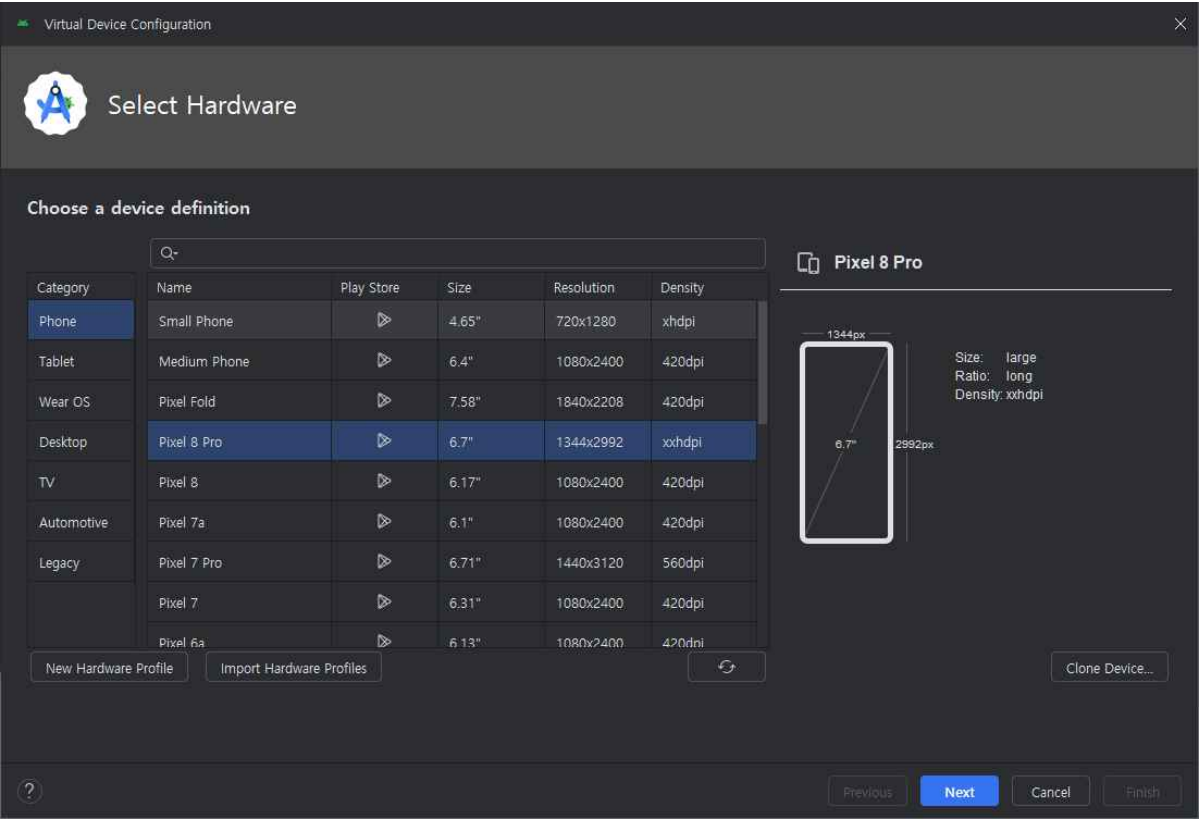
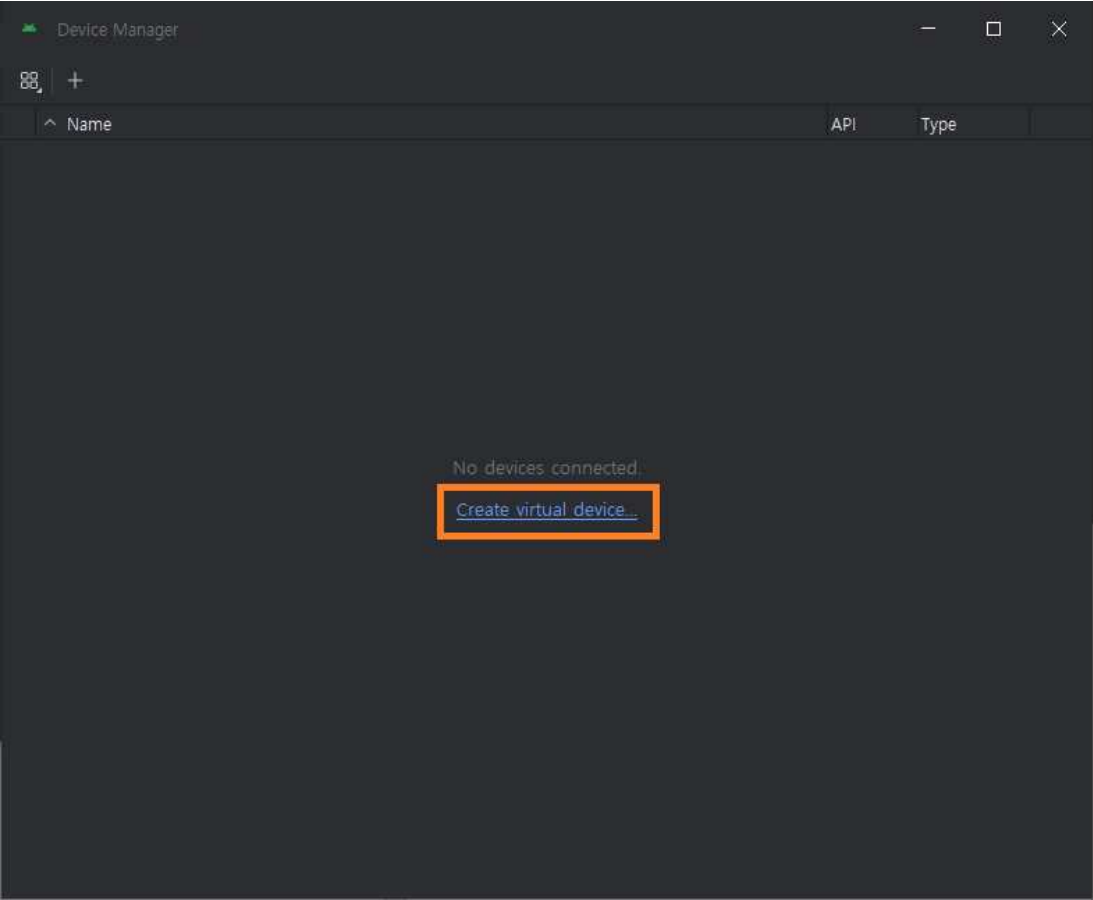
- SDK Manager 설정

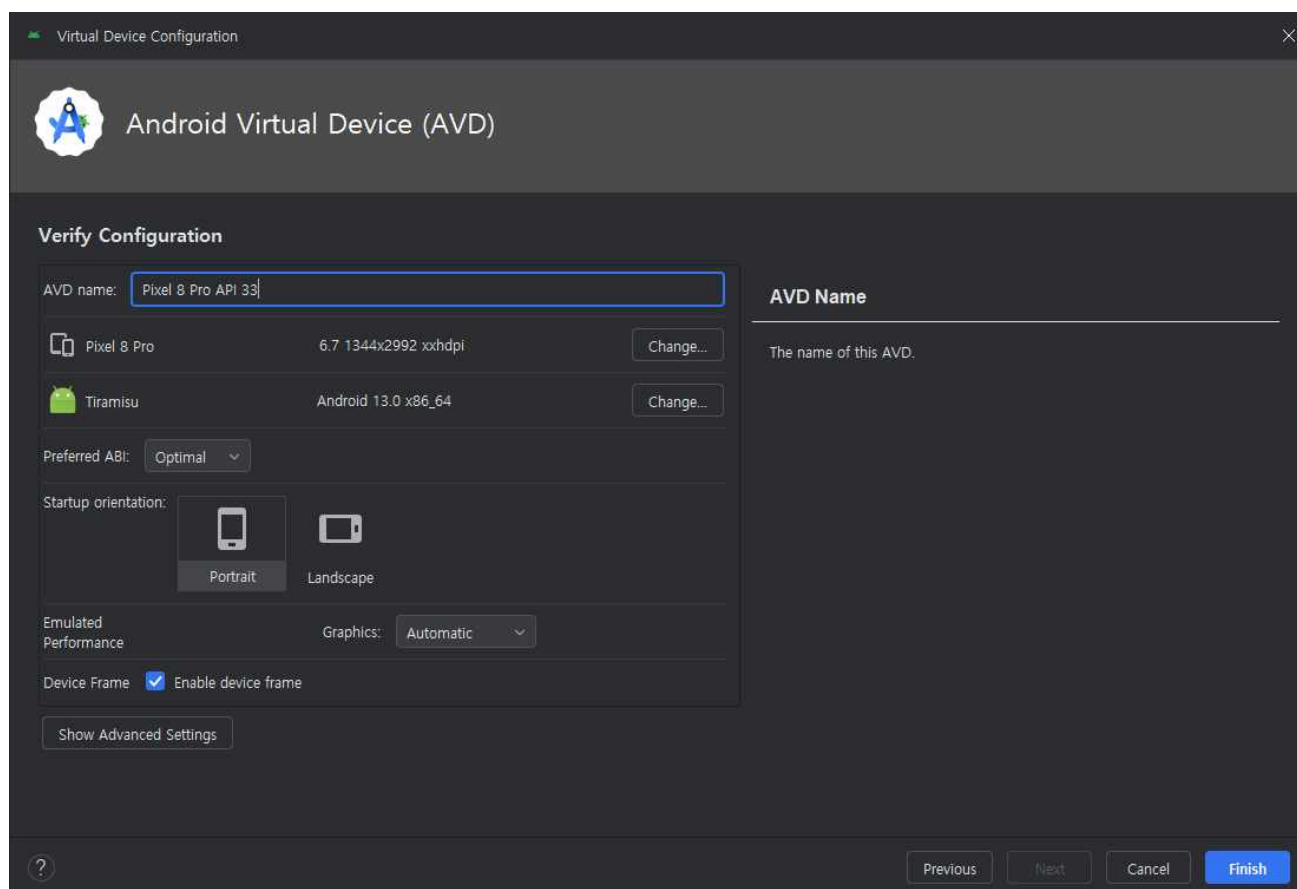
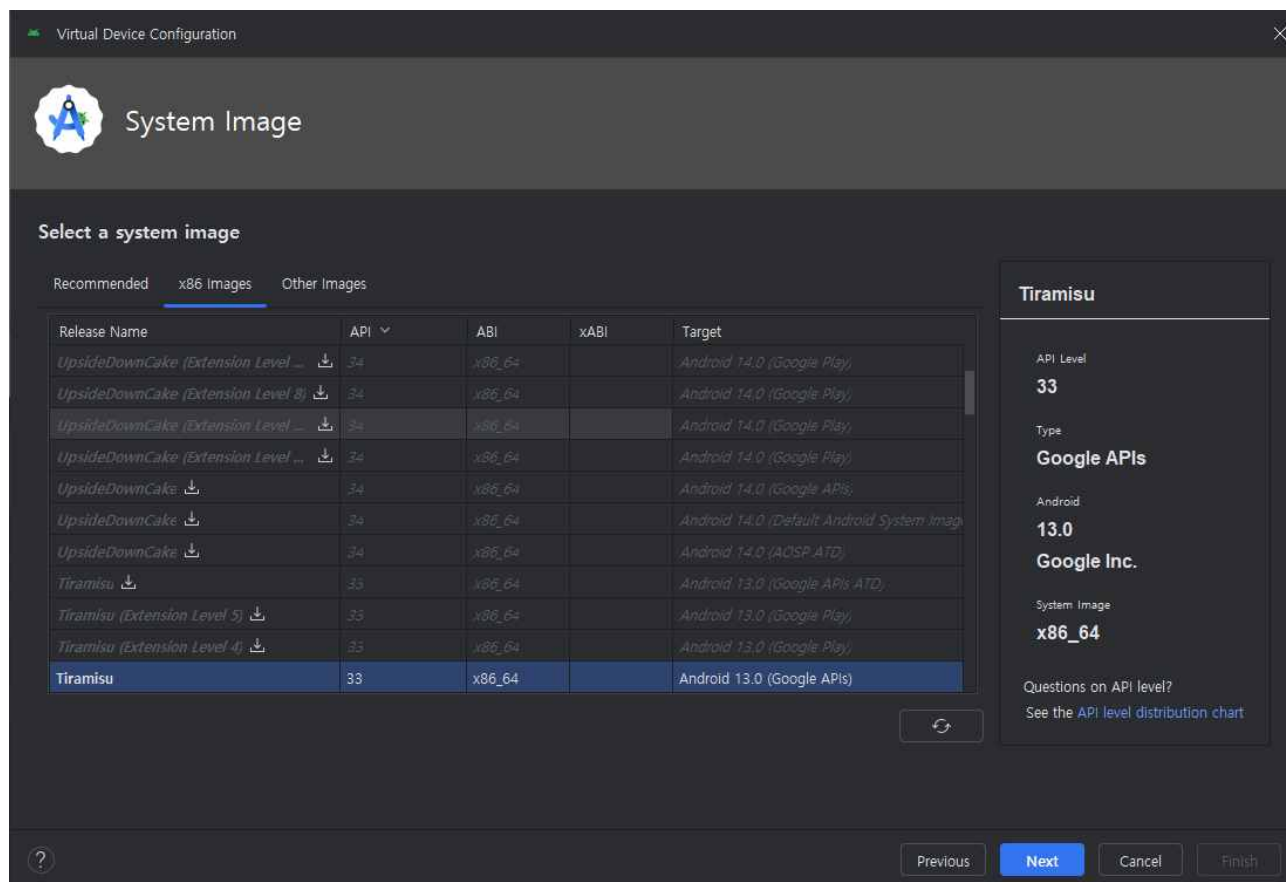




- Virtual Device Manager 설정 (Emulator)

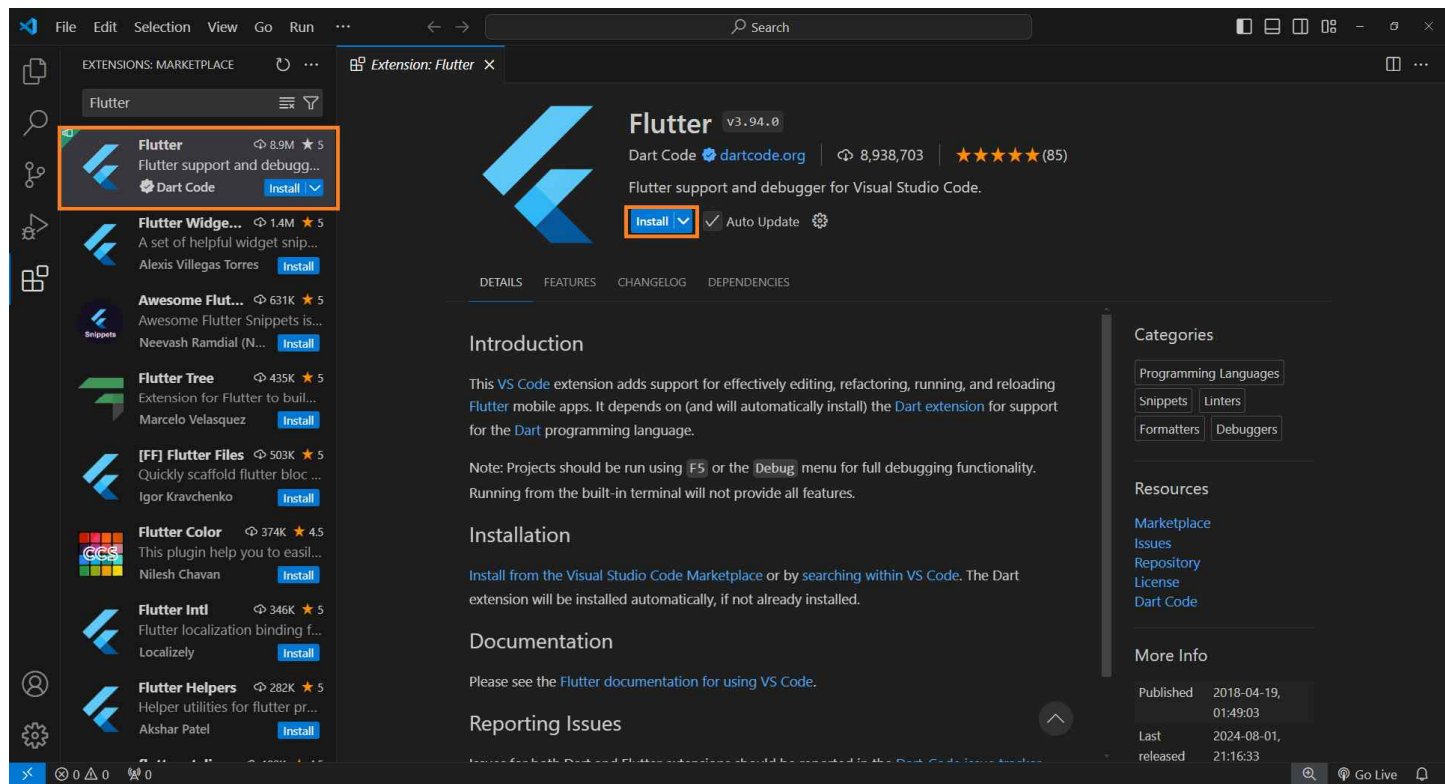




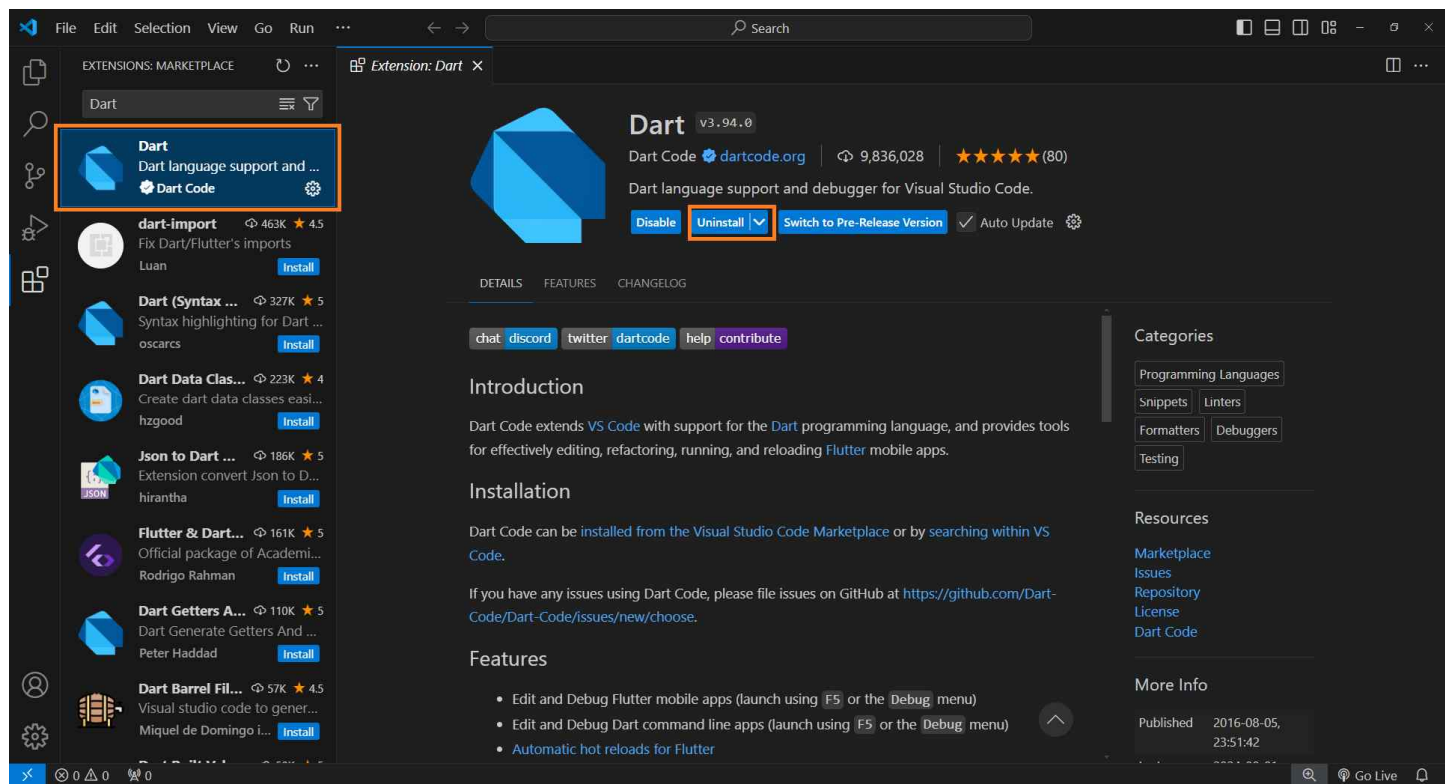


3. Visual Studio Code Extensions

3.1 Flutter



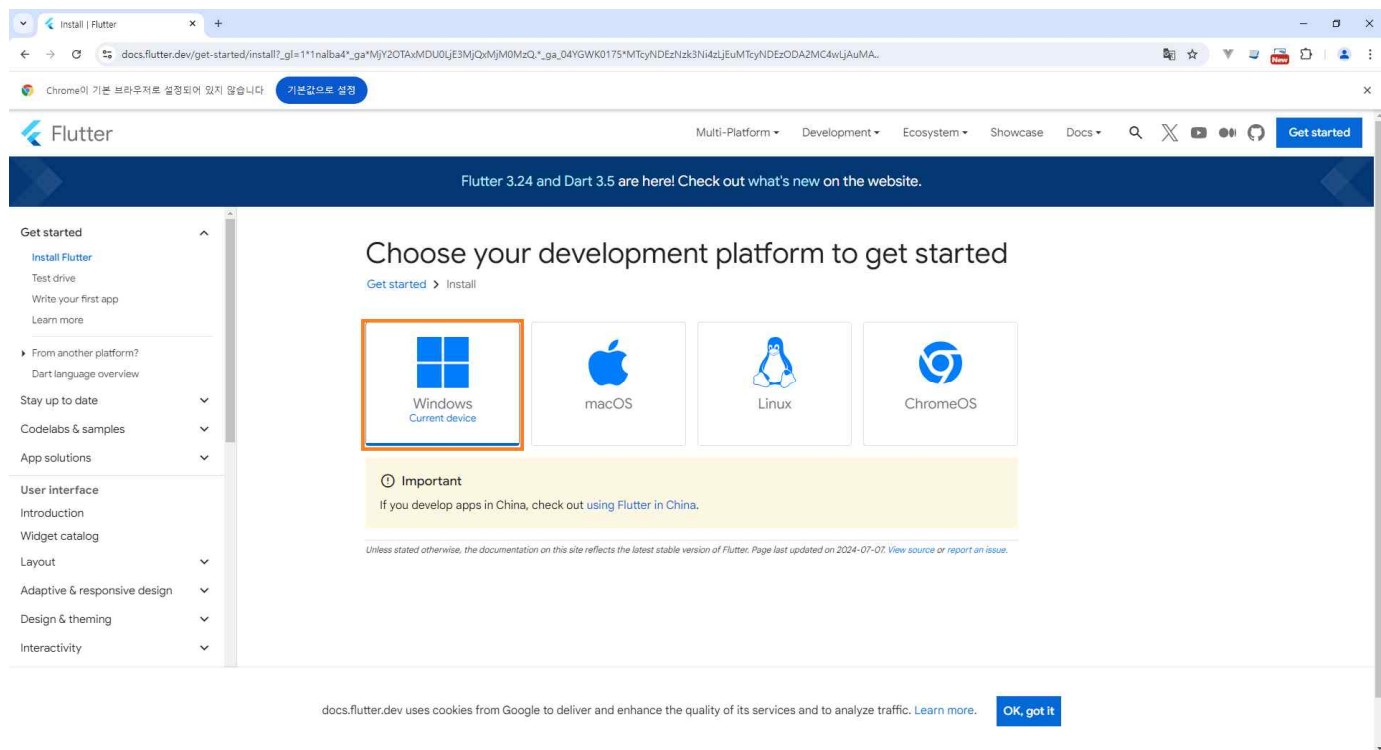
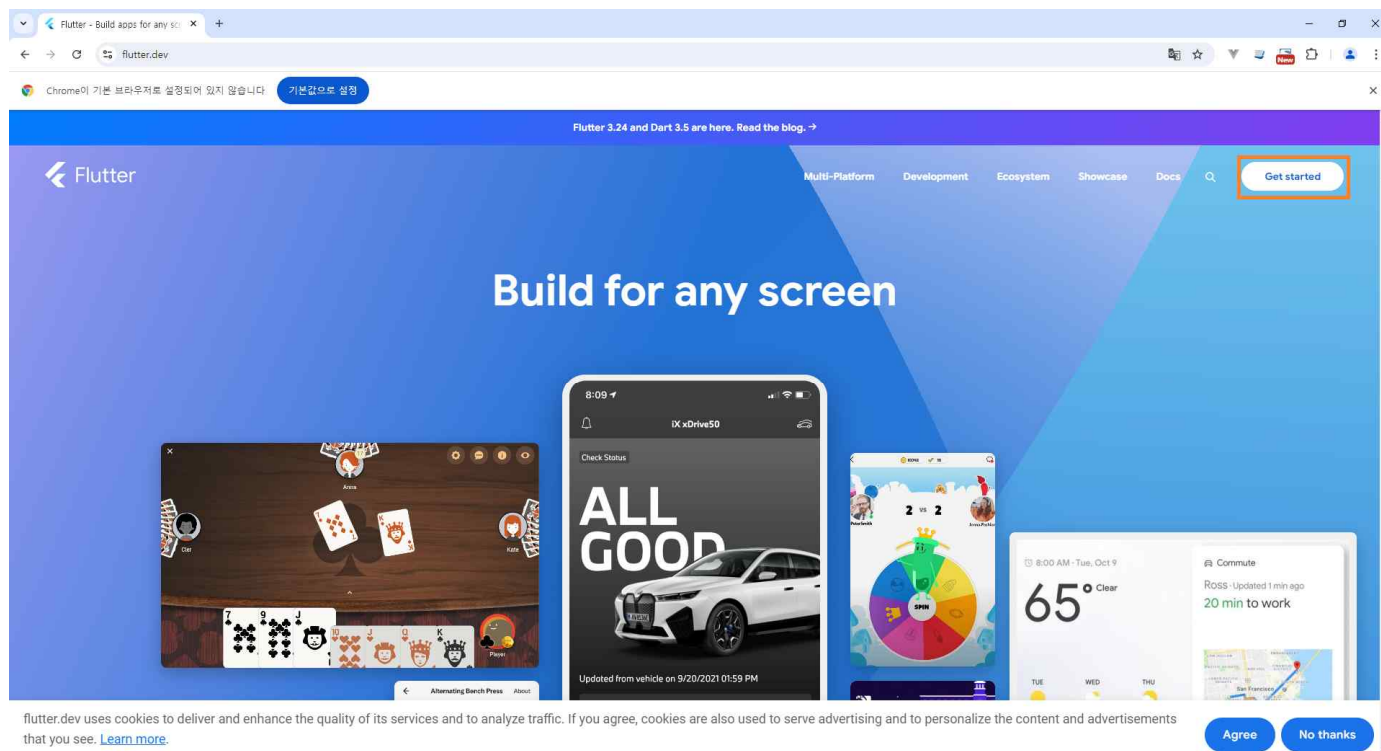
3.2 Dart



4. flutter

- 공식사이트 : <https://flutter.dev/>

4.1 다운로드



Flutter

Multi-PlatformDevelopmentEcosystemShowcaseDocs

Flutter 3.24 and Dart 3.5 are here! Check out what's new on the website.

Get started

Install Flutter

Test drive

Write your first app

Learn more

From another platform?

Dart language overview

Stay up to date

Codelabs & samples

App solutions

User interface

Introduction

Widget catalog

Layout

Adaptive & responsive design

Design & theming

Interactivity

Choose your first type of app

AndroidRecommended

Web

Desktop

Your choice informs which parts of Flutter tooling you configure to run your first Flutter app. You can set up additional platforms later. *If you don't have a preference, choose **Android**.*

Important

If you develop apps in China, check out [Flutter in China](#).

Unless stated otherwise, the documentation on this site reflects the latest stable version of Flutter. Page last updated on 2024-08-19. [View source or report an issue.](#)

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Flutter

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Interactivity

Create a test app

Start building Flutter Android apps on Windows

[Get started](#) > [Install](#) > [Windows](#) > [Make Android apps](#)

Verify system requirements

To install and run Flutter, your Windows environment must meet the following hardware and software requirements.

Hardware requirements

Your Windows Flutter development environment must meet the following minimal hardware requirements.

Requirement	Minimum	Recommended
x86_64 CPU Cores	4	8
Memory in GB	8	16
Display resolution in pixels	WXGA (1366 x 768)	FHD (1920 x 1080)
Free disk space in GB	11.0	60.0

Contents

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

Check your development setup

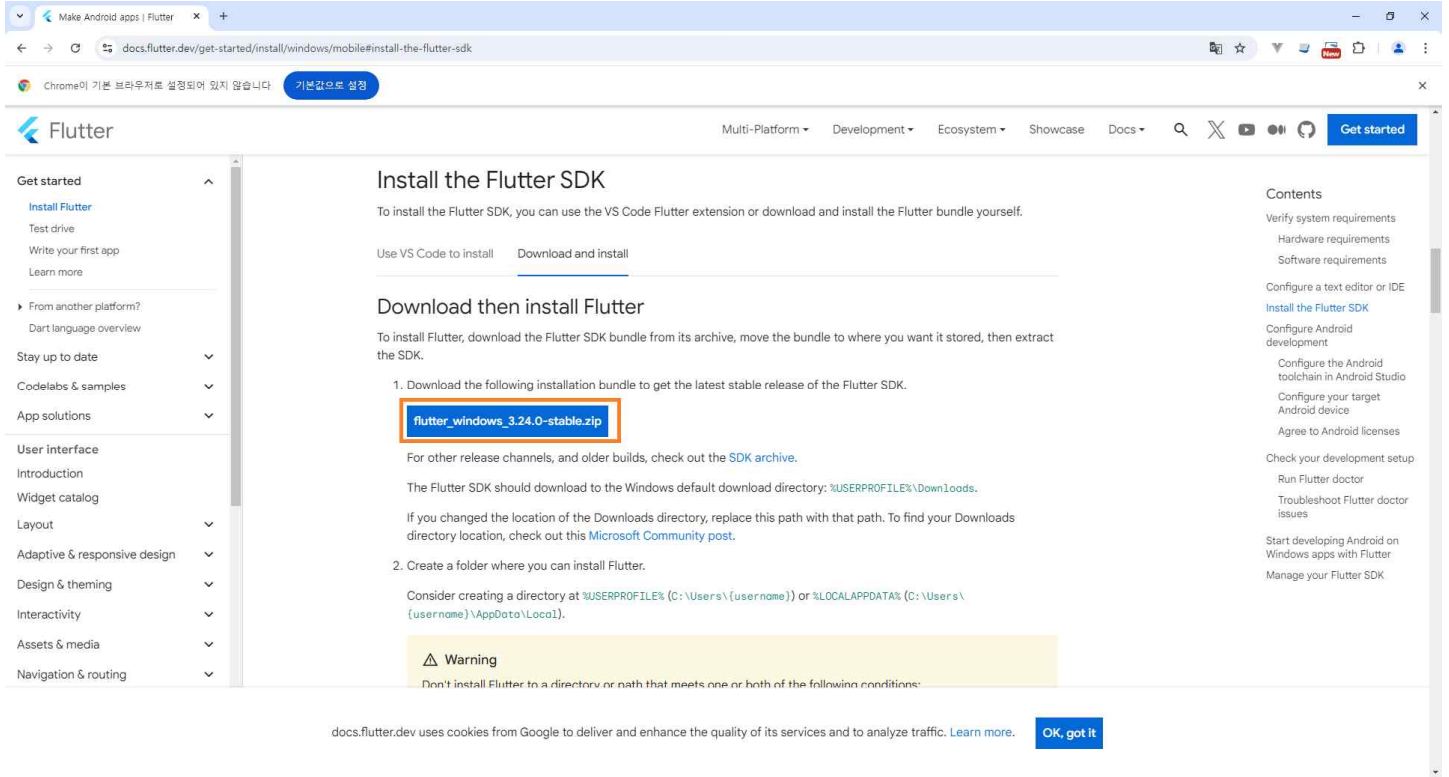
Run Flutter doctor

Troubleshoot Flutter doctor issues

Start developing Android on Windows apps with Flutter

Manage your Flutter SDK

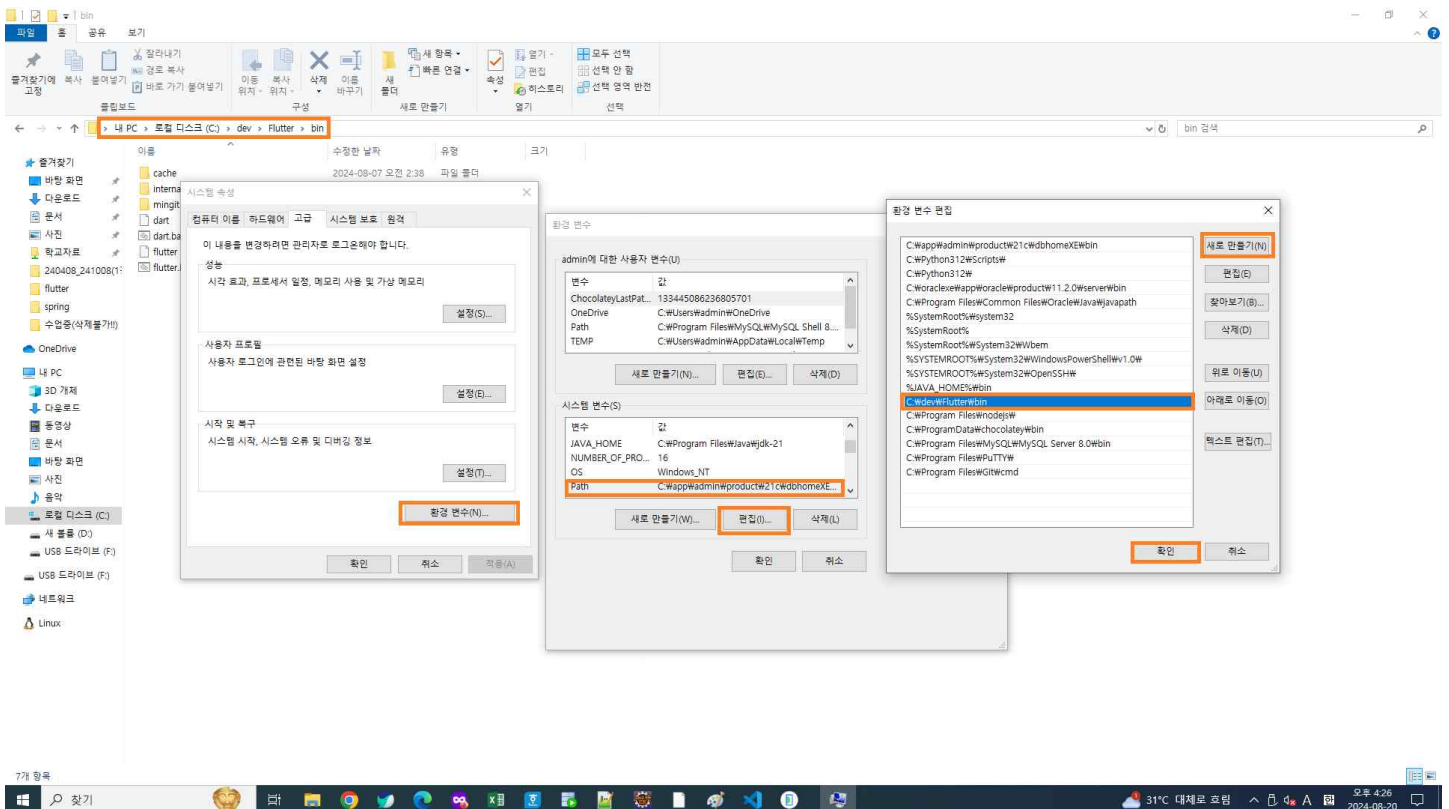
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4.2 설치

4.2.1 C:\dev\Flutter 에 압축풀기

4.2.2 환경변수 설정하기



4.2.3 설정

- 라이선스 등록하기

The screenshot shows the Flutter documentation page for 'Agree to Android licenses'. The page is in Korean and provides instructions on how to accept the Android SDK licenses. The main content area includes a list of steps: 1. Open an elevated console window. 2. Run the following command to enable signing licenses. The command is shown in a code block: `C:> flutter doctor --android-licenses`. Below the command, it states: 'If you accepted the Android Studio licenses at another time, this command returns: [=====] 100% Computing updates... All SDK package licenses accepted.' The page also includes links to 'Check your development setup' and 'Run Flutter doctor'. The right sidebar contains a 'Contents' section with links to various Flutter documentation topics. The bottom of the page has a cookie notice and a 'Get started' button.

The screenshot shows a Windows command prompt window titled '명령 프롬프트 - flutter doctor --android-licenses'. The window displays the output of the command `flutter doctor --android-licenses`. The output is as follows:
Microsoft Windows [Version 10.0.19045.4780]
(c) Microsoft Corporation. All rights reserved.
C:\Users\Wadmin>flutter doctor --android-licenses
[=====] 100% Computing updates...
All SDK package licenses accepted.
C:\Users\Wadmin>

- flutter 설치 최종 확인하기

```
명령 프롬프트 - flutter doctor --android-licenses - flutter doctor
Microsoft Windows [Version 10.0.19045.4780]
(c) Microsoft Corporation. All rights reserved.

C:\Users\admin>flutter doctor --android-licenses
[=====] 100% Computing updates...
All SDK package licenses accepted.

C:\Users\admin>flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 3.24.0, on Microsoft Windows [Version 10.0.19045.4780], locale ko-KR)
[✓] 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 Build Tools 2019 16.11.32)
[✓] Android Studio (version 2024.1)
[✓] VS Code (version 1.92.2)
[✓] Connected device (4 available)
[✓] Network resources

• No issues found!

C:\Users\admin>
```

5. flutter 프로젝트 생성 및 실행

- 참고사이트 : <https://westpl4.tistory.com/246>

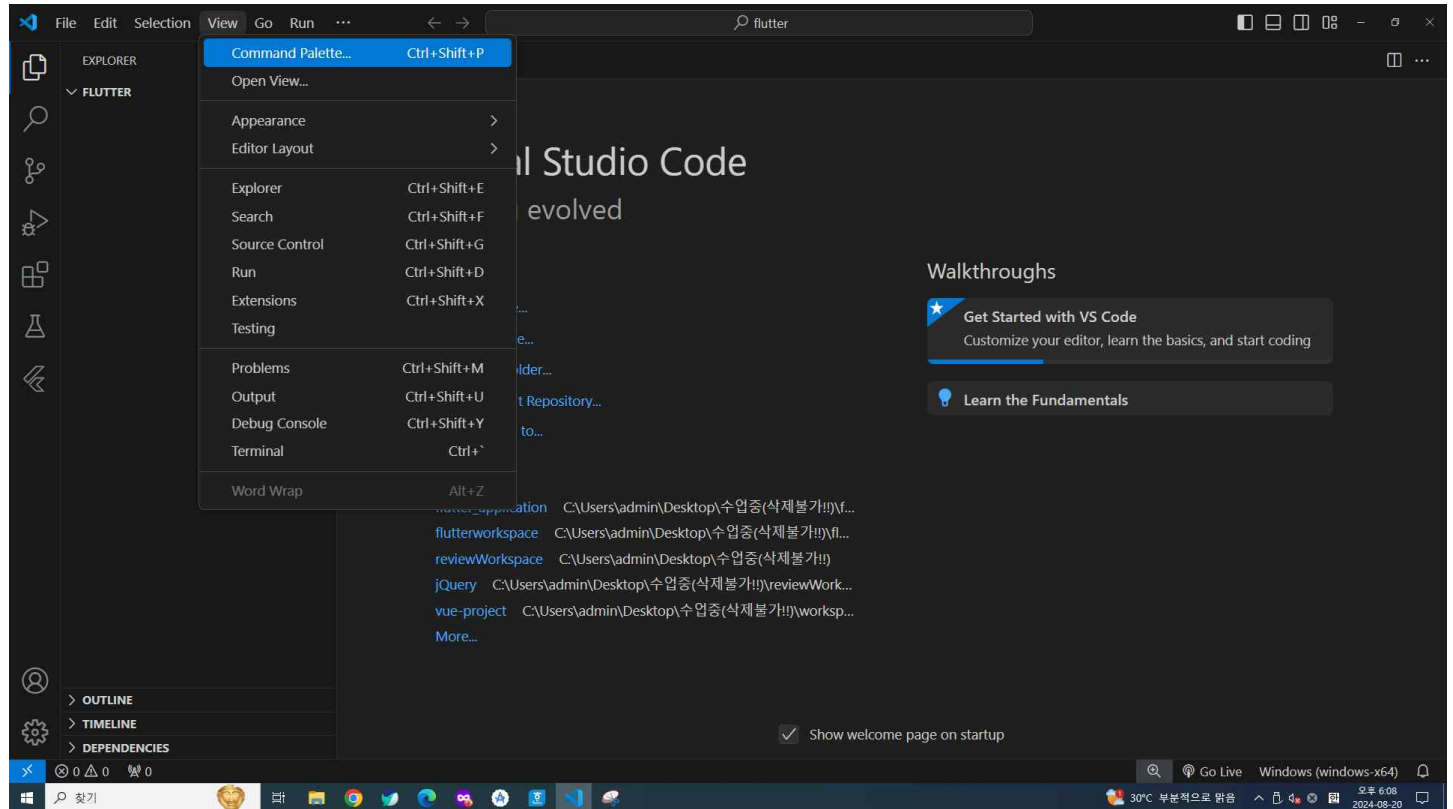
5.1 flutter 프로젝트 생성

**** 주의 사항 ****

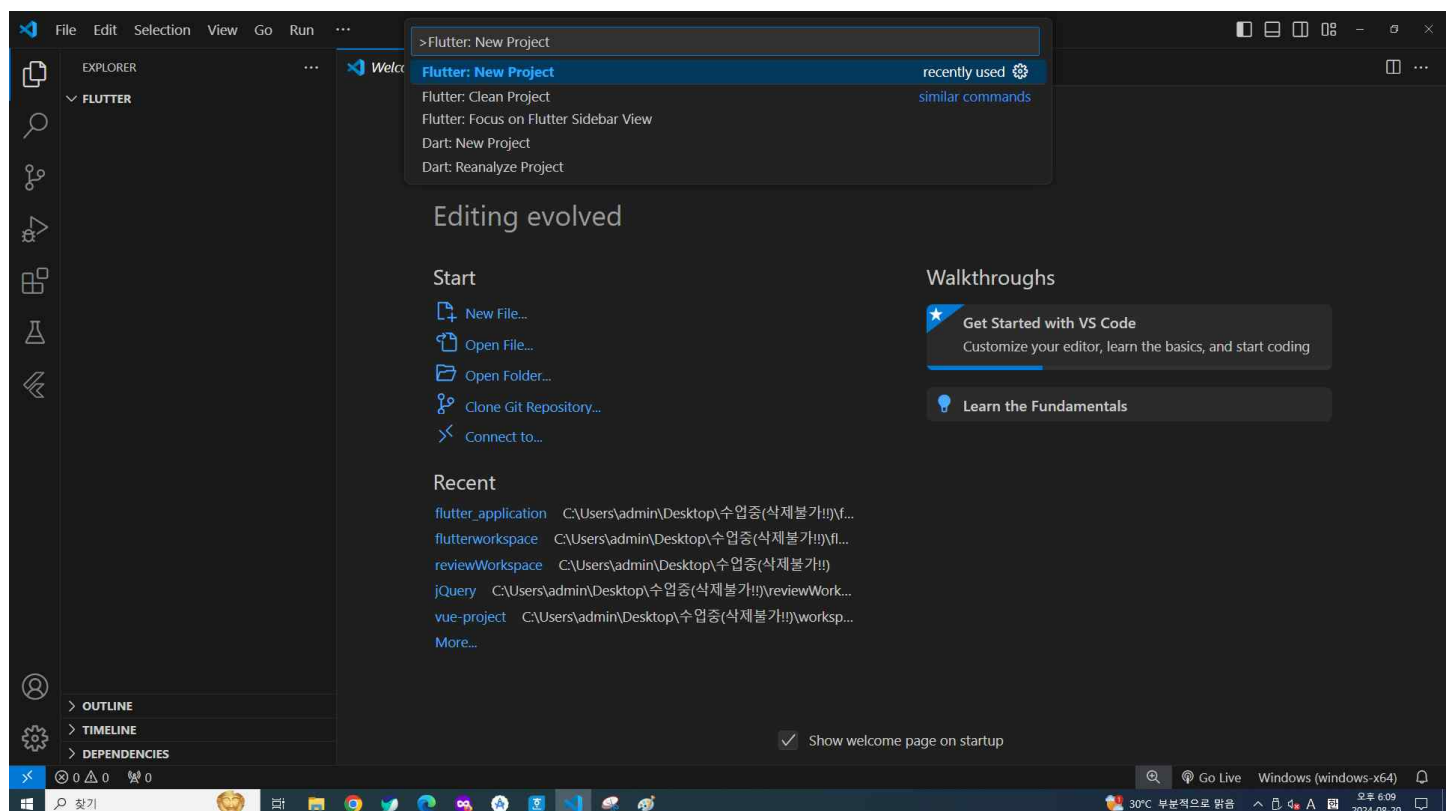
- flutter 관련 설치 경로에 한글이 포함될 경우 정상적으로 실행되지 않음.

- 프로젝트 생성 시에도 동일하게 적용되므로 주의!!!

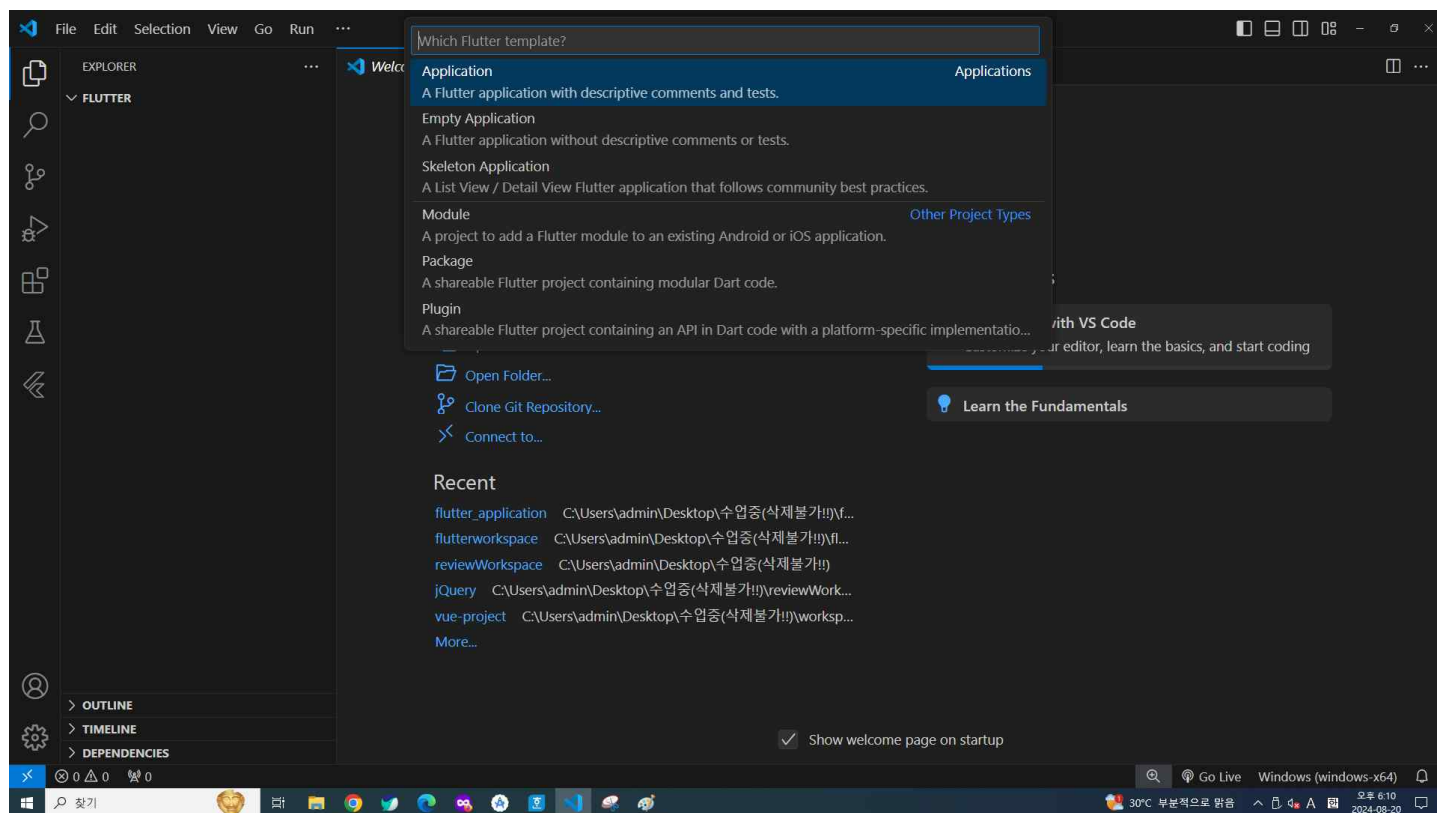
1) View -> Command Palette (ctrl + shift + p) 실행



2) Flutter: New Project

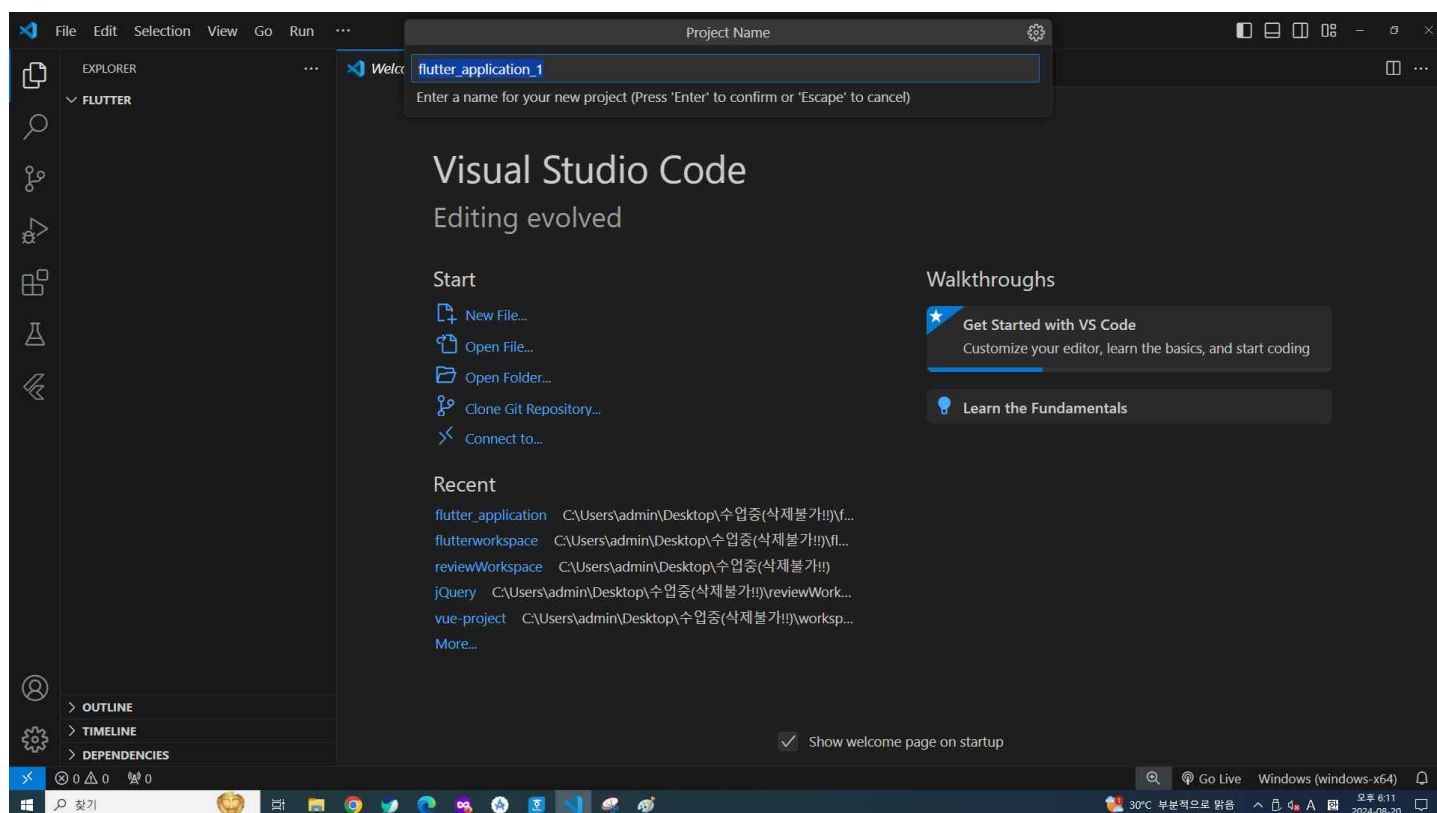


3) Application



4) workspace 선택

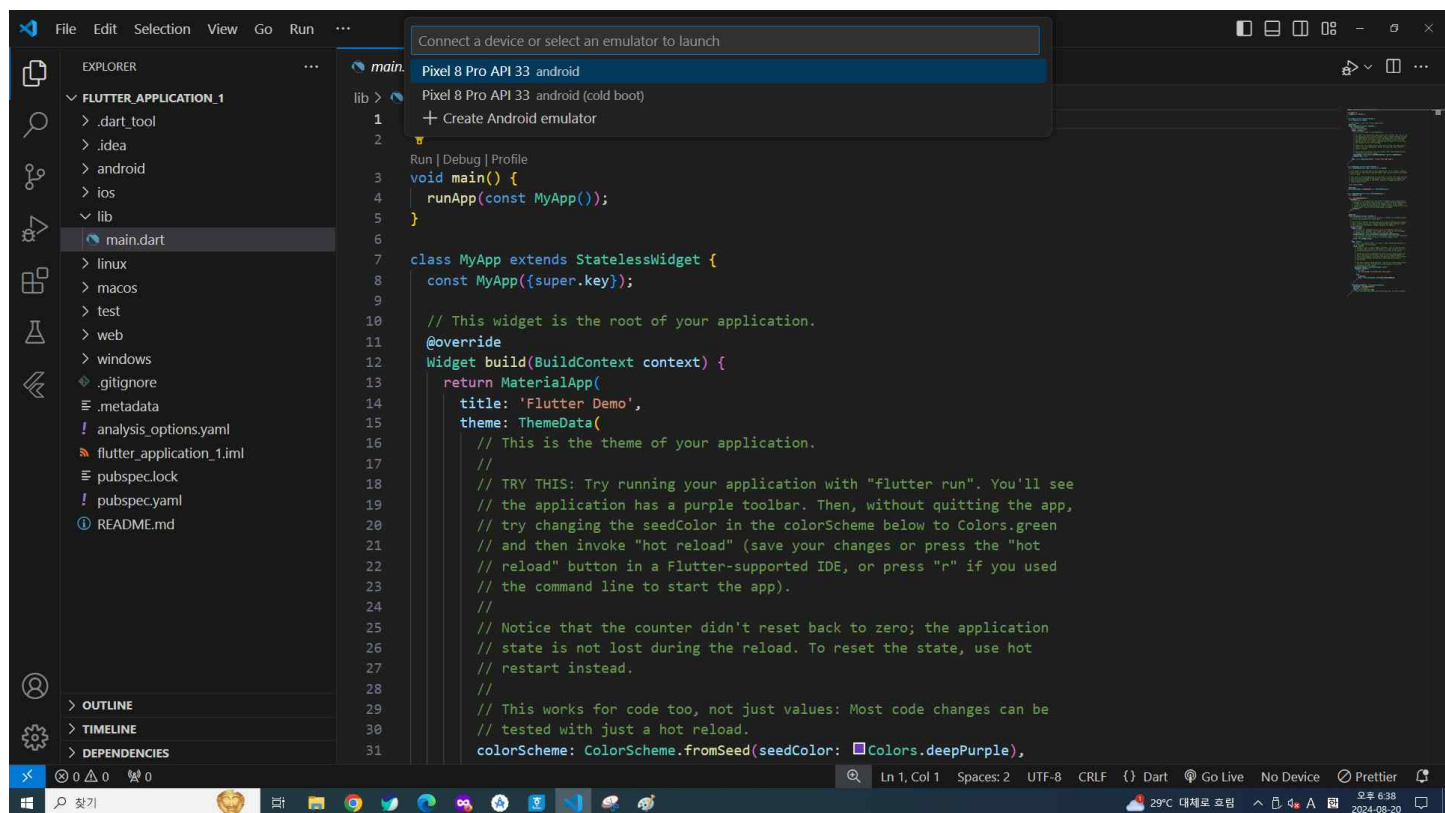
5) 프로젝트 이름 설정



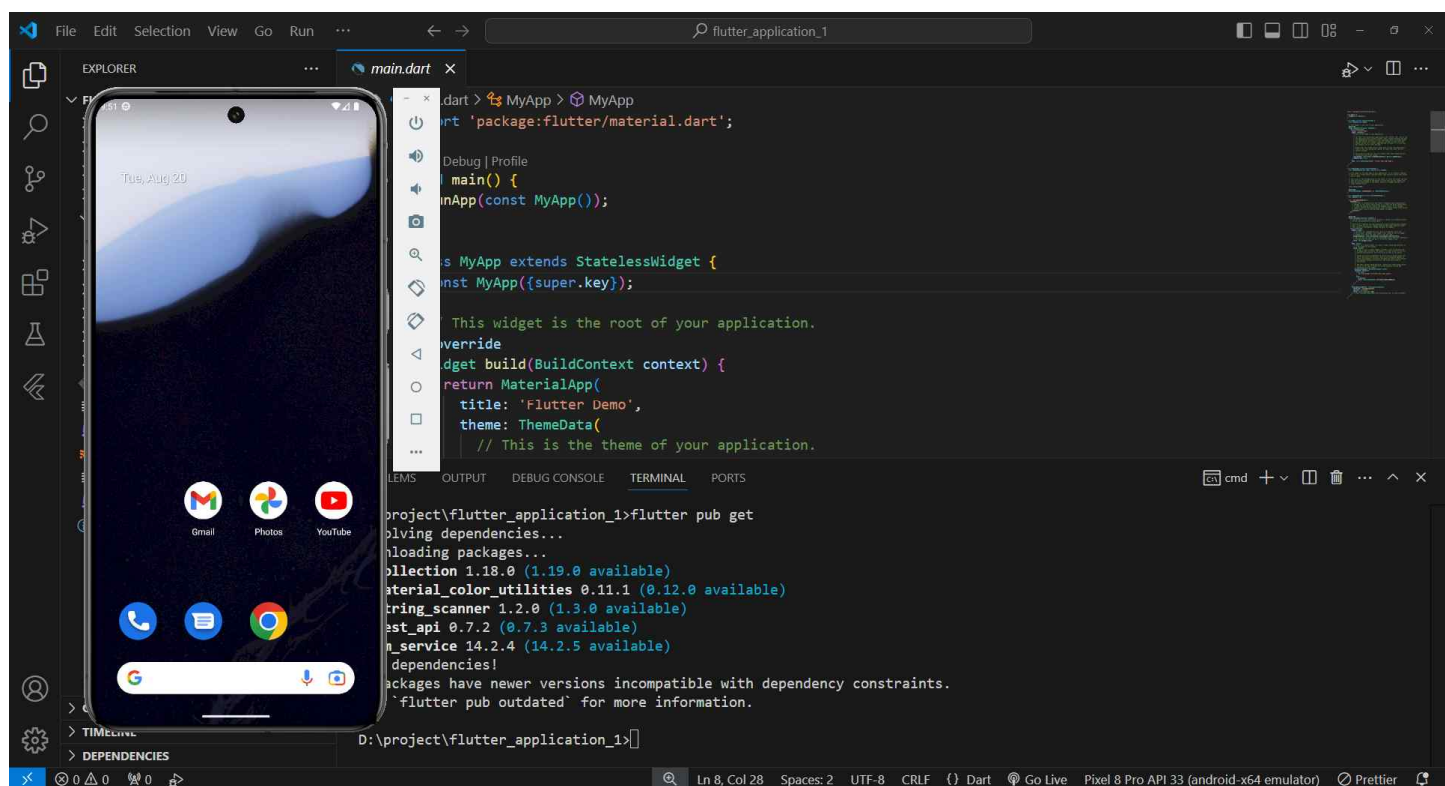
1) View -> Command Palette (ctrl + shift + p) 실행

The screenshot shows the Visual Studio Code application window. The 'View' menu is open, displaying the 'Command Palette...' option at the top, which is highlighted in blue. Below it are 'Open View...', 'Appearance', and 'Editor Layout'. A list of views follows: Explorer (Ctrl+Shift+E), Search (Ctrl+Shift+F), Source Control (Ctrl+Shift+G), Run (Ctrl+Shift+D), Extensions (Ctrl+Shift+X), Testing, Problems (Ctrl+Shift+M), Output (Ctrl+Shift+U), Debug Console (Ctrl+Shift+Y), Terminal (Ctrl+`), and Word Wrap (Alt+Z). The background shows the VS Code editor with a Flutter project open, displaying a 'Walkthroughs' panel on the right with options like 'Get Started with VS Code' and 'Learn the Fundamentals'.

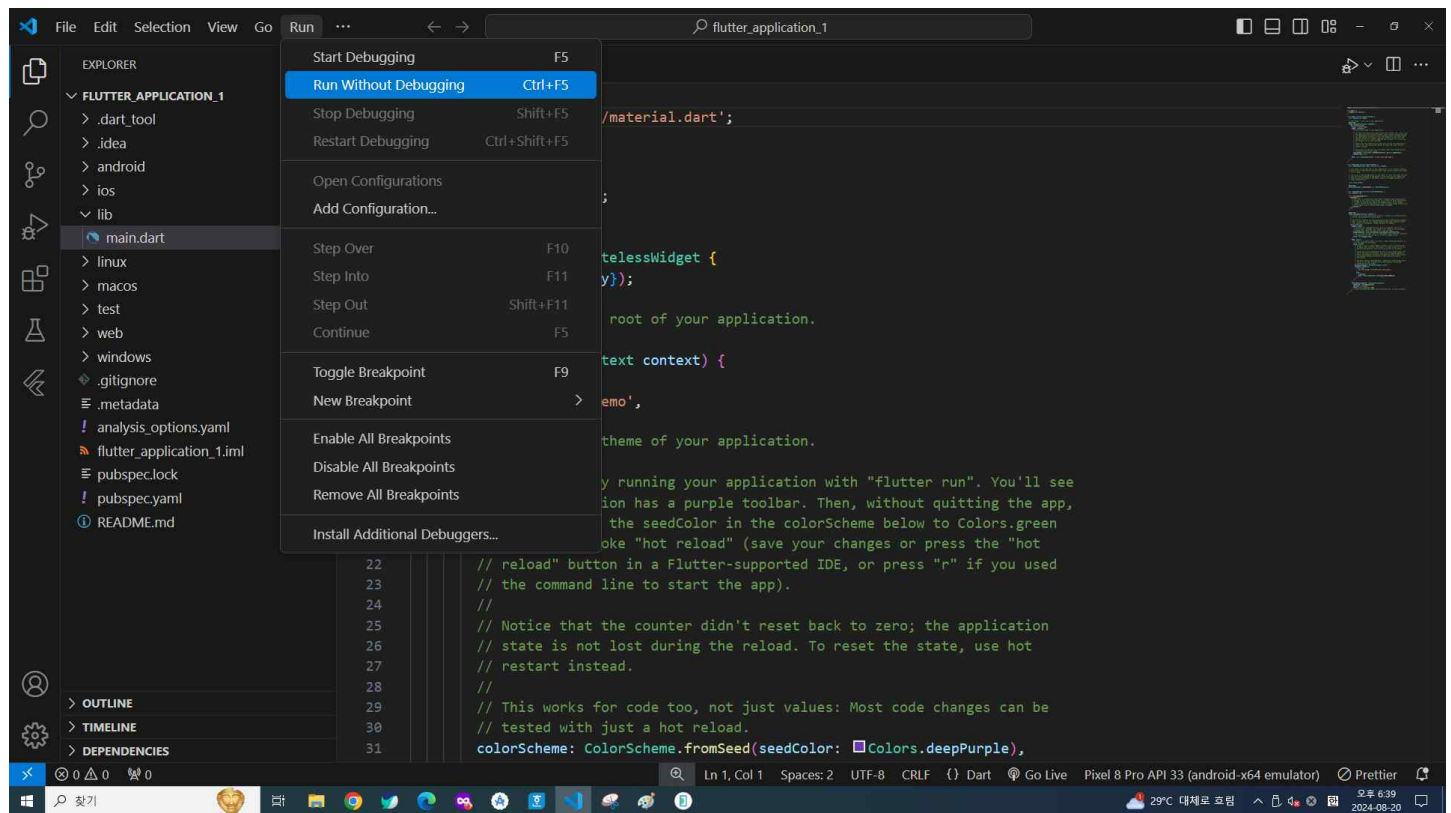
3) Emulator 선택



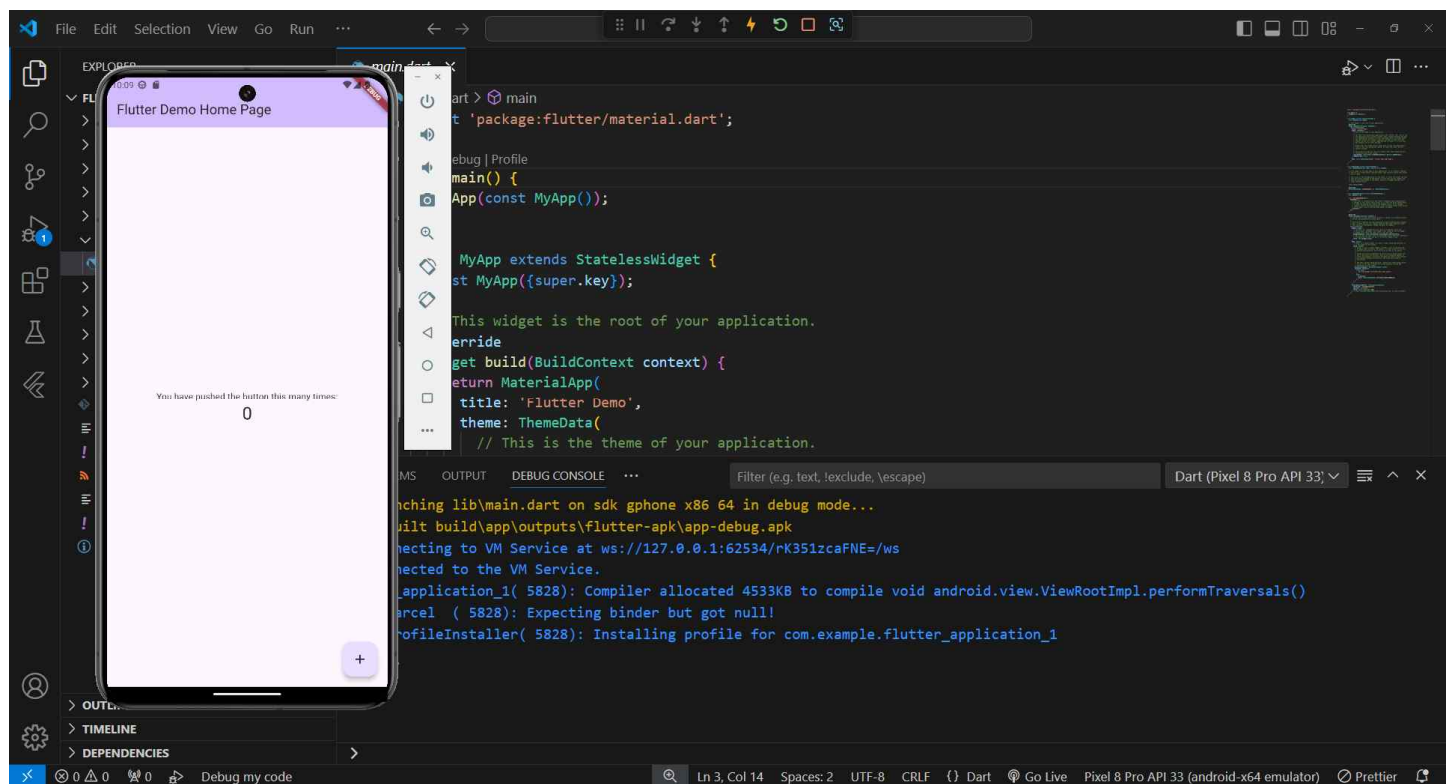
4) Emulator 실행



5) 프로젝트 실행 : Run -> Run with Debuging (ctrl + F5)



6) 실행결과



PS) 에뮬레이터에 빈 화면이 출력될 경우

