



Flutter

An installation guide

What is Flutter

- Flutter is an open-source UI software development kit created by Google. It is used to develop cross platform applications for Android, iOS, Linux, Mac, Windows, Google Fuchsia, and the web from a single codebase. The first version of Flutter was known as codename "Sky" and ran on the Android operating system.



Language

- Dart

Dart is a programming language designed for client development, such as for the web and mobile apps. It is developed by Google and can also be used to build server and desktop applications. Dart is an object-oriented, class-based, garbage-collected language with C-style syntax.

Why Flutter

- Nowadays, most of the companies are enthusiastic about flutter. It is mainly because **one can develop applications for Android, iOS, Windows, Mac, Linux, and web from a single codebase**. Despite fast development and flexible UI, many developers still want to hold on to the React Native.

Installation

- Go to -> <https://flutter.dev/docs/get-started/install>
- Select OS of the machine you are currently working on

Download Flutter SDK

- Click on the flutter_windows_stable.zip
- Your download will start

Get the Flutter SDK

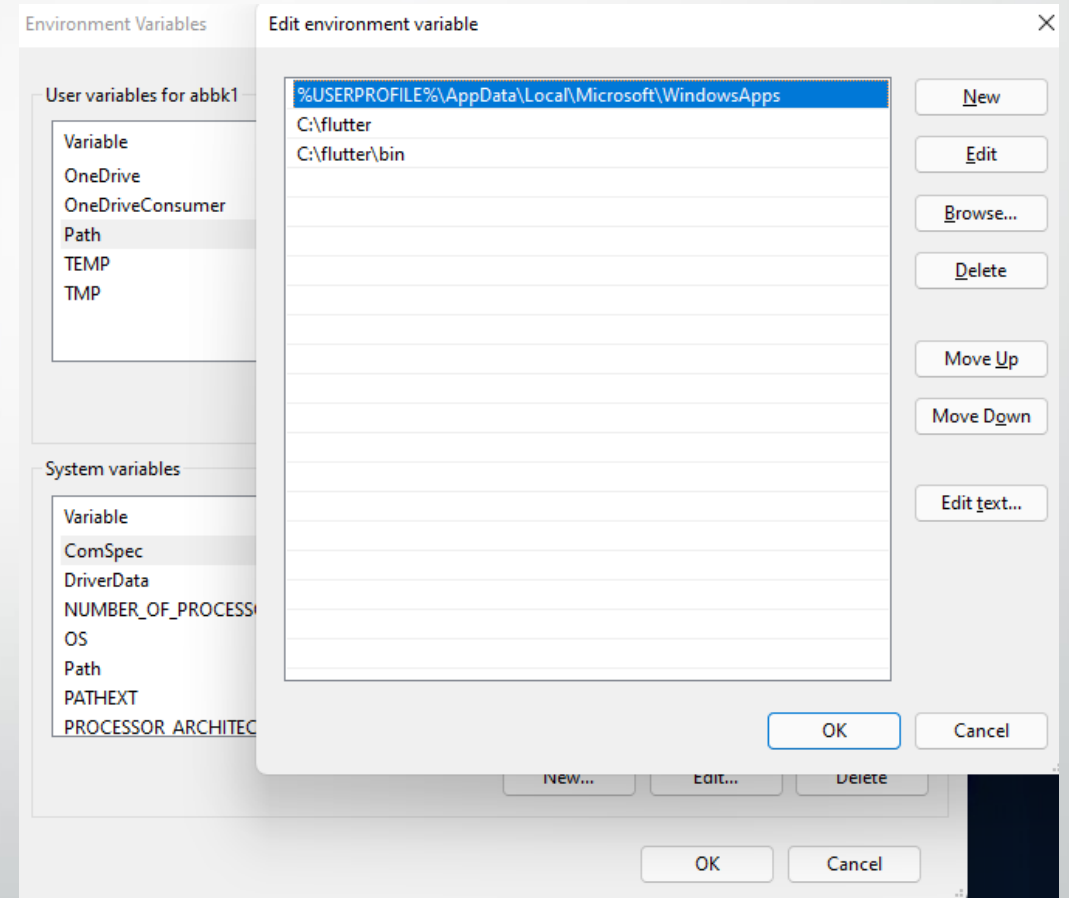
1. Download the following installation bundle to get the latest stable release

`flutter_windows_2.2.3-stable.zip`

For other release channels, and older builds, see the [SDK releases](#) page.

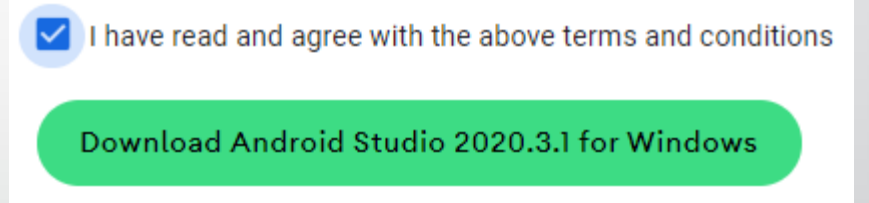
Environment Variable

- From the Start search bar, enter 'env' and select **Edit environment variables for your account**.
- Under **User variables** check if there is an entry called **Path**:
 - If the entry exists, append the full path to flutter\bin using ; as a separator from existing values.
 - If the entry doesn't exist, create a new user variable named Path with the full path to flutter\bin as its value.



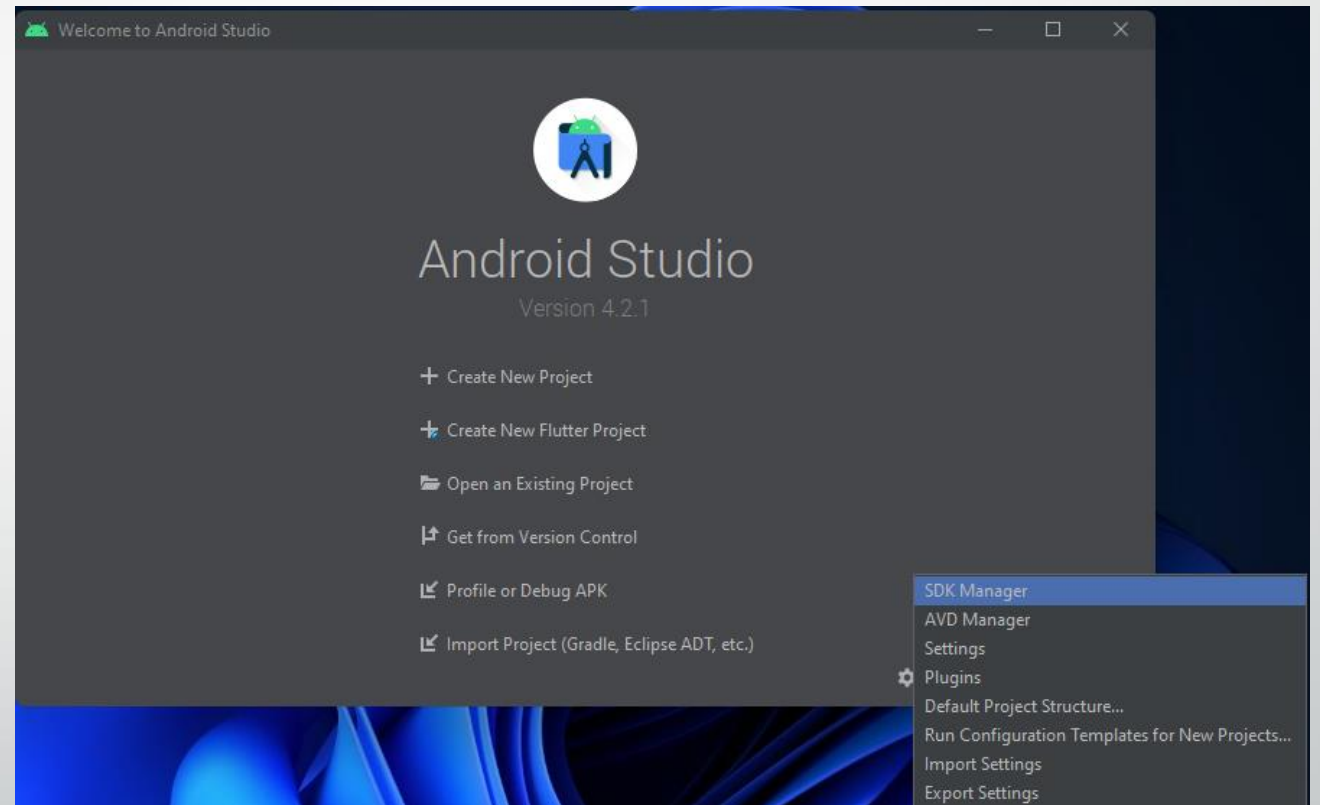
Installation of Android Studio

- Go to -> <https://developer.android.com/studio>
- Click Download Android Studio
- Check I have read and agree with the above terms and conditions
- Click Download android studio for windows



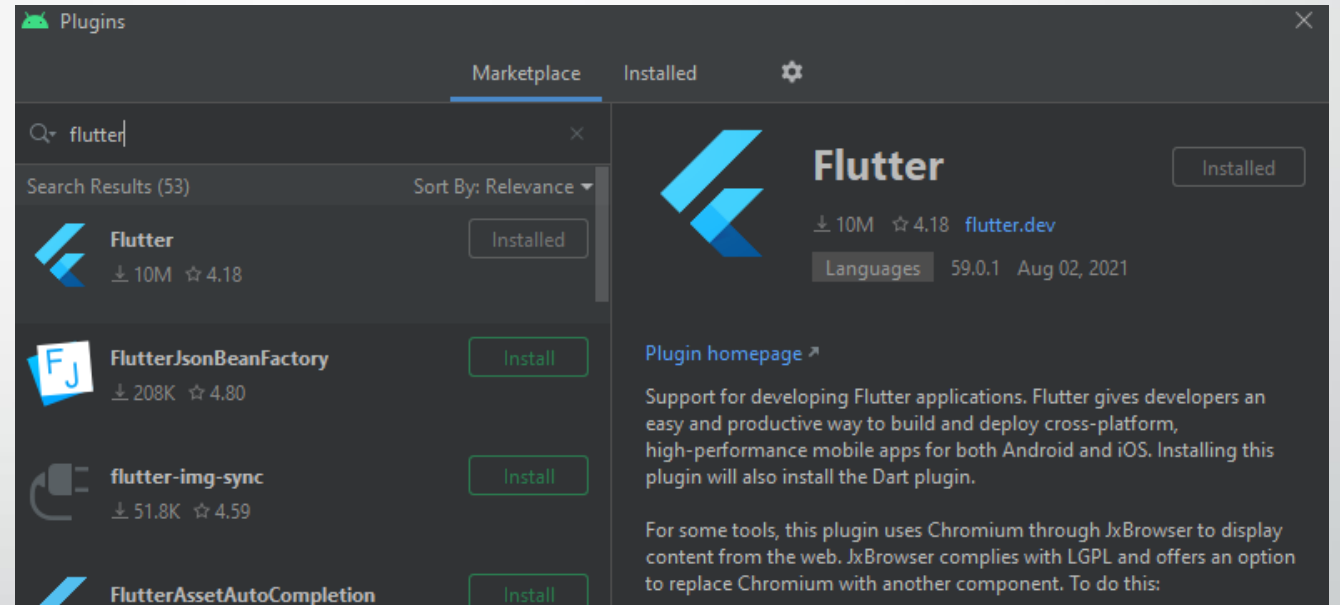
Flutter Configuration in Android Studio

- On the bottom right click Configure then Plugins



Flutter Configuration in Android Studio

- Search for flutter
- Click install
- Then it will prompt to install dart with it
- Click OK
- Now restart Android Studio



Flutter Doctor

- Open Cmd
- Type Flutter doctor
- Press Enter
- You'll see some errors they will be resolved in next few steps

```
[~] Android toolchain - develop for Android devices
• Android SDK at D:\Android\sdk
X Android SDK is missing command line tools; download from https://goo.gl/XxQghQ
• Try re-installing or updating your Android SDK,
  visit https://flutter.dev/setup/#android-setup for detailed instructions.
```



Issues with Flutter Doctor

- Android licenses
- To resolve open CMD, run
- The issue will be resolved

```
flutter doctor --android-licenses
```

```
[!] Android toolchain - develop for Android devices
    • Android SDK at D:\Android\sdk
    X Android SDK is missing command line tools; download from https://goo.gl/XxQghQ
    • Try re-installing or updating your Android SDK,
      visit https://flutter.dev/setup/#android-setup for detailed instructions.
```



Issues with Flutter Doctor

- Android Studio not found
- If Flutter cannot locate it, run
- `flutter config --android-studio-dir <directory>`
- to set the directory that Android Studio is installed to.

```
[✓] Android Studio (version 3.2)
[!] Android Studio
    X Flutter plugin not installed; this adds Flutter specific functionality.
    X Dart plugin not installed; this adds Dart specific functionality.
    X android-studio-dir = /path/to/android/studio
    X Android Studio not found at /path/to/android/studio
```

Android Virtual Device

- To setup the android virtual device download Genymotion
- Go to -> <https://www.genymotion.com/>

Genymotion

- Download with virtual Box



with VirtualBox:

Download for Windows - 141MB

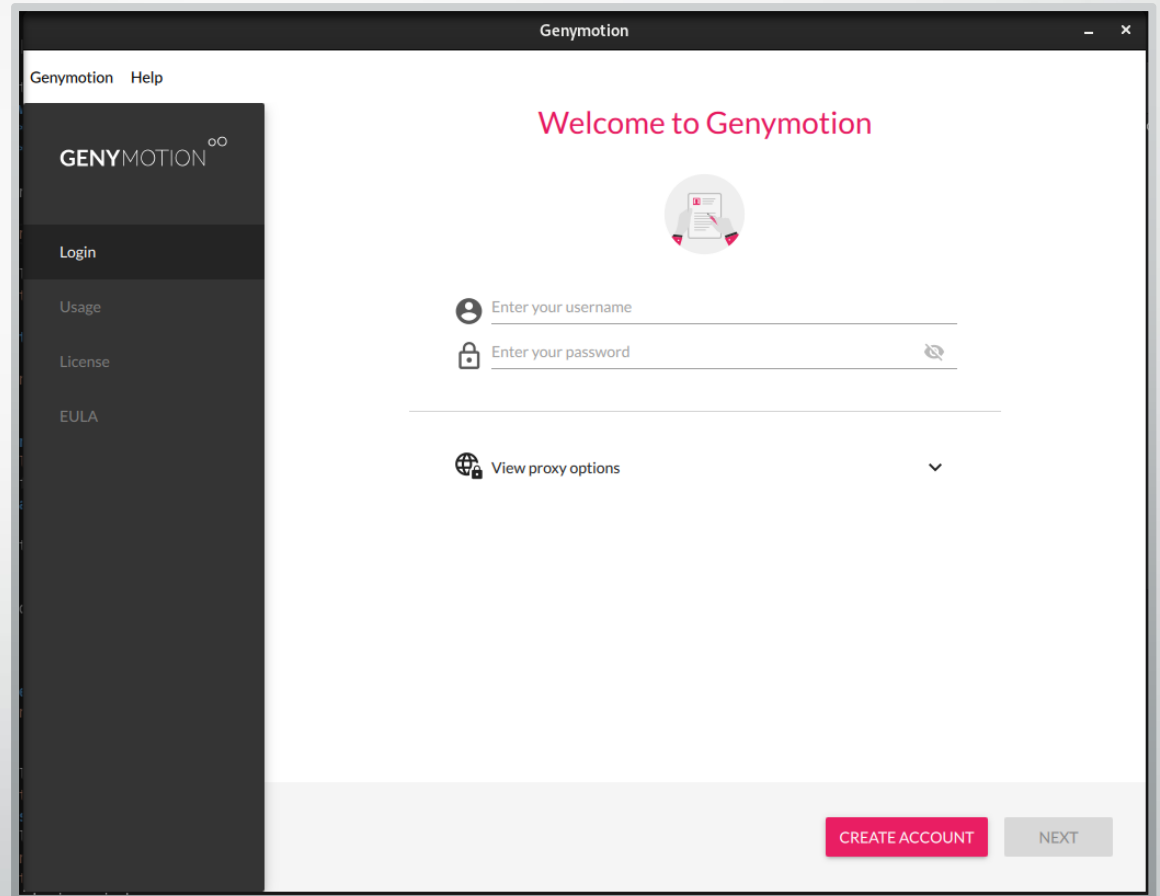
without VirtualBox:

Download for Windows - 39MB

[How to register my license](#)

Create account

- After following the installation steps Create Account
- Login using that account



Create device

- From the top right corner Click Add Device
- After that choose the desired device and select install

Name

Custom Phone

Display

☒ Predefined 768 x 1280 320 - XHDPI

☐ Custom

☐ Start in full-screen mode

System

Android version 4.4

Processor(s) 4

Memory size 2048


Android system options

Show Android navigation bar ☒

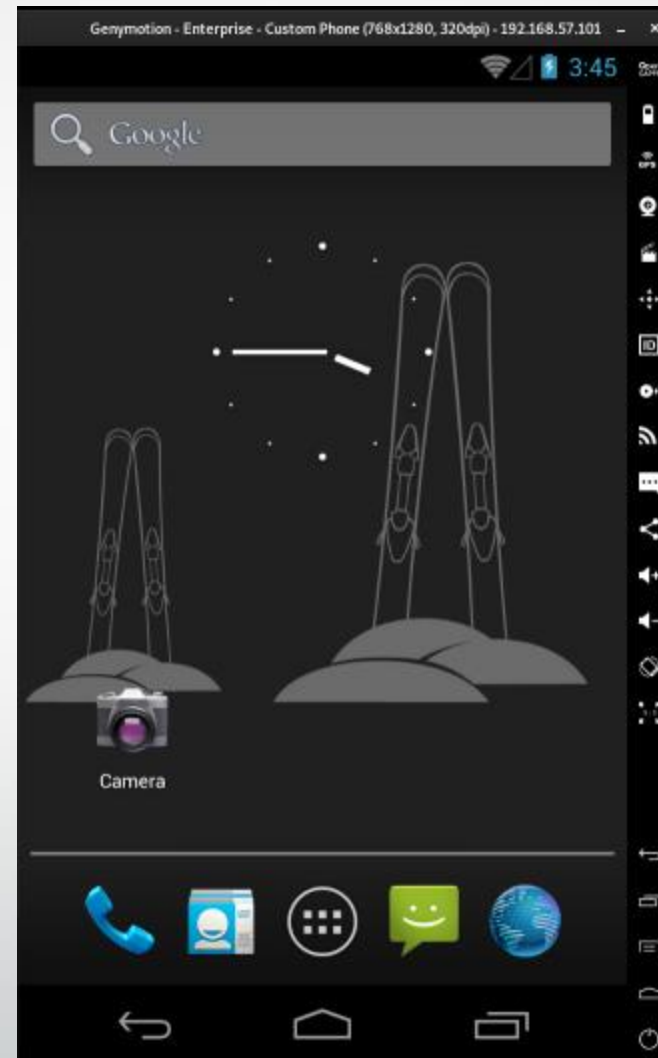
BACK INSTALL

Start device

- Once the device installation is completed, you'll see the device in the main screen
- Click on the 3 dots and select start

My installed devices							1
Type	Device ▲	Android API	Size	Density	Source	Status	
	Custom Phone	4.1 - API 16	768 x 1280	320 - XHDPI	Genymotion	Off	⋮

Your Android Virtual Device
is successfully created

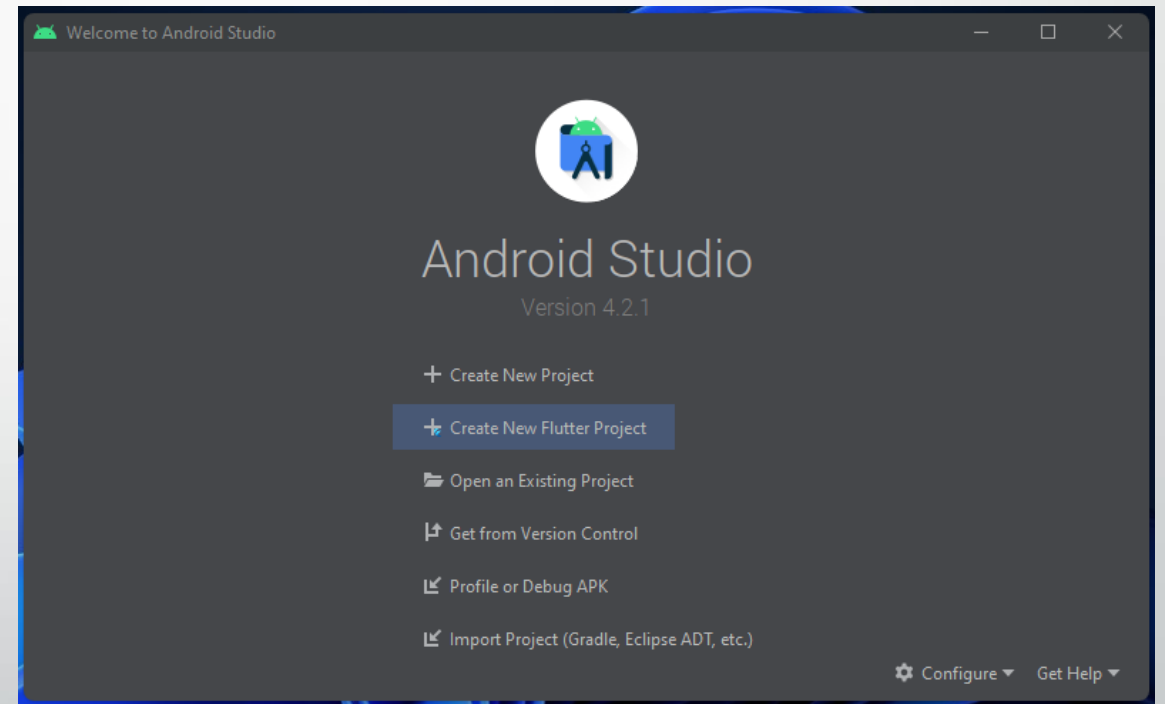


Physical Device

- To Connect a physical device with Android Studio
- Connect the mobile using a cable
- Go to About phone
- Tap build number multiple times until you see "You are now a developer"
- Go to developer options and enable USB debugging.
- Your mobile is now connected

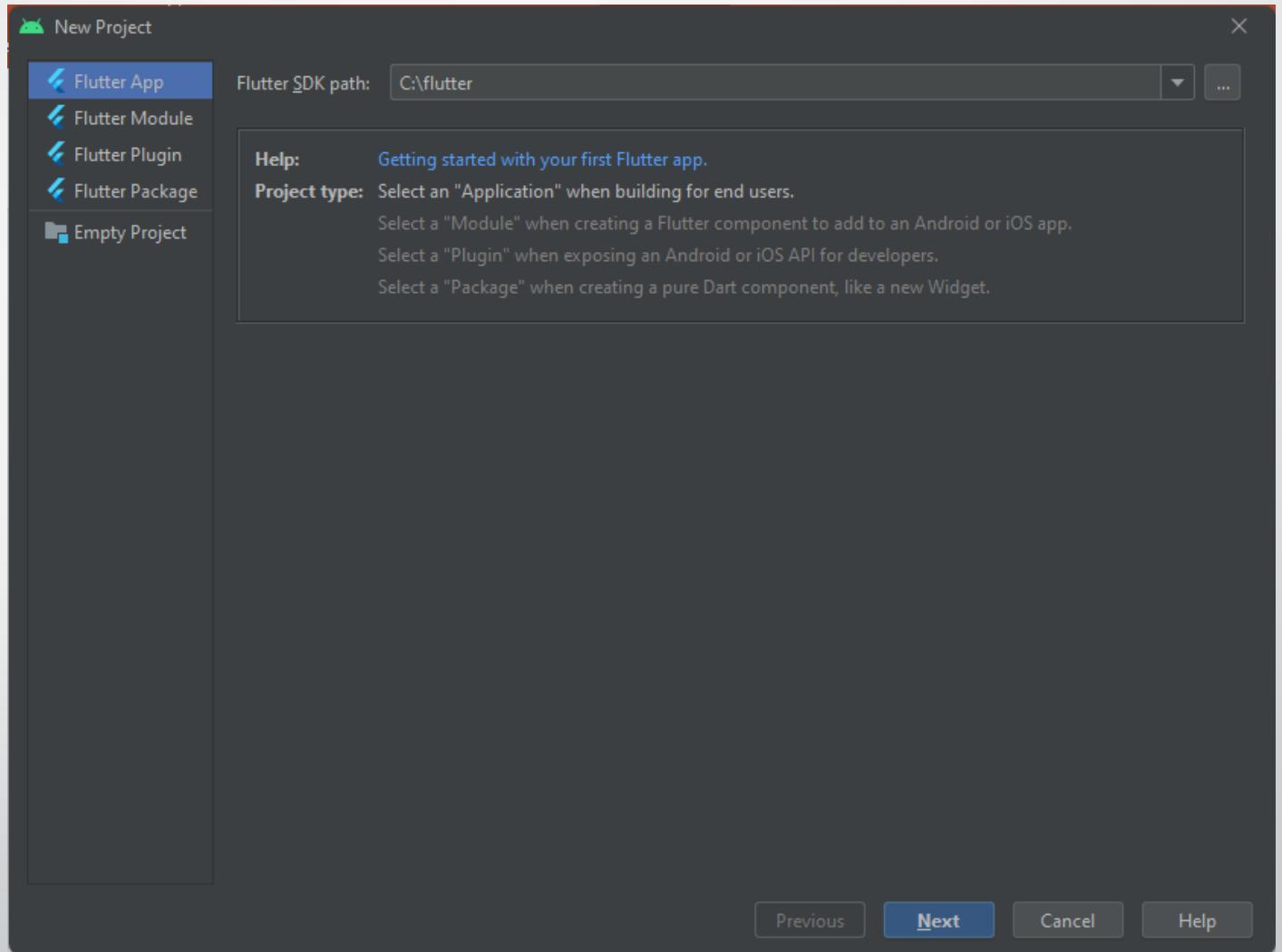
Create first Application

- Open Android Studio
- Click Create a new Flutter project



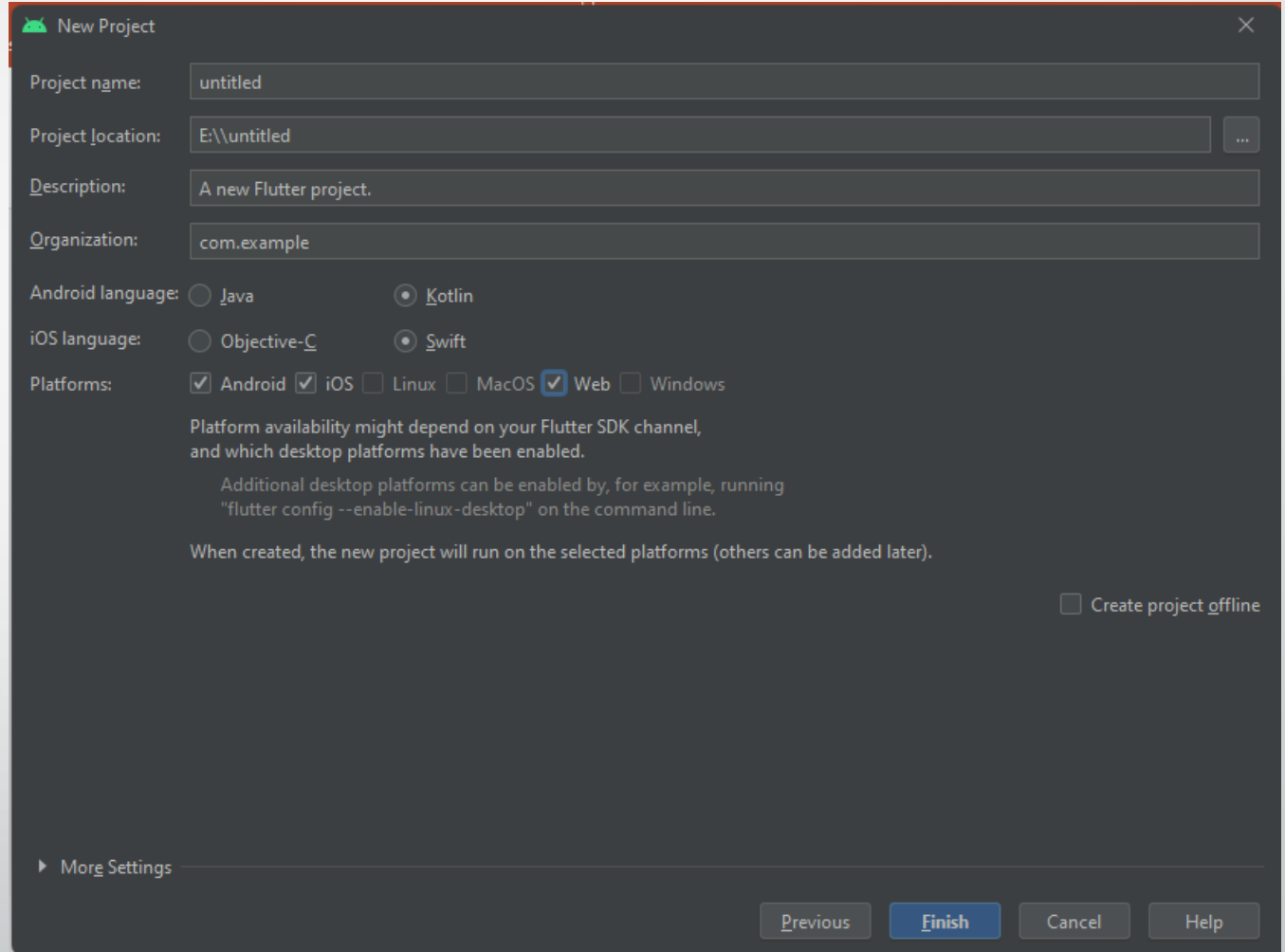
SDK Path

- Give path to Flutter SDK
- Click Next



Project Setting

- Setup the project according to needs
- Click Finish
- And your first App is created



The screenshot shows the 'New Project' dialog box in an IDE. The dialog has a title bar with a Flutter logo and the text 'New Project'. It contains several input fields and a list of platforms.

Project name: untitled

Project location: E:\untitled

Description: A new Flutter project.

Organization: com.example

Android language: ☐ Java ☒ Kotlin

iOS language: ☐ Objective-C ☒ Swift

Platforms: ☒ Android ☒ iOS ☐ Linux ☐ MacOS ☒ Web ☐ Windows

Platform availability might depend on your Flutter SDK channel, and which desktop platforms have been enabled.

Additional desktop platforms can be enabled by, for example, running "flutter config --enable-linux-desktop" on the command line.

When created, the new project will run on the selected platforms (others can be added later).

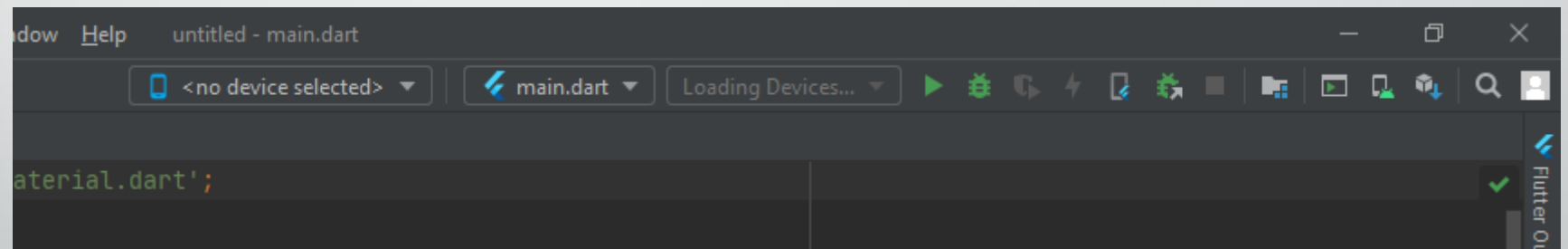
☐ Create project offline

More Settings

Previous Finish Cancel Help

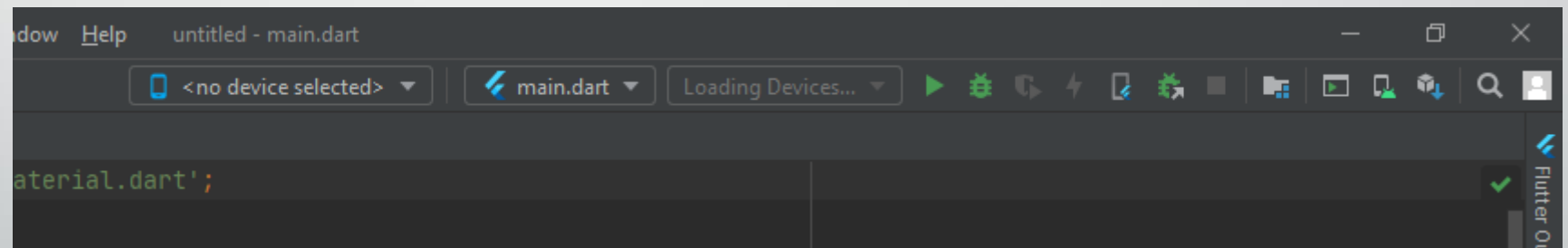
Run App

- To run the app on AVD
 - Start Genymotion
 - You will see the Device name in the Android Studio Window
 - Just hit the Start Button



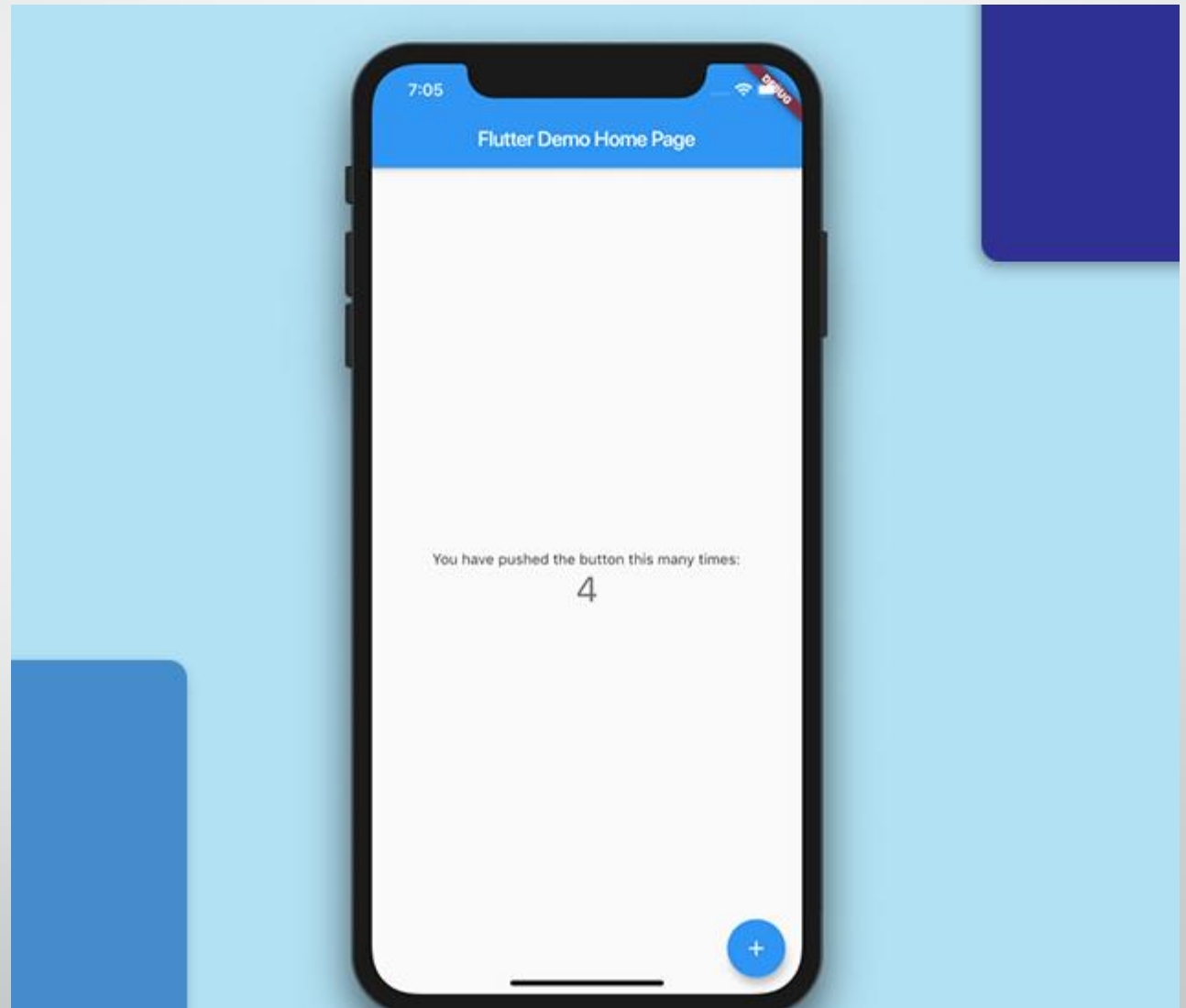
Run App

- To run the app on Physical Device
 - Connect mobile to PC and perform the above mentioned steps (if not)
 - You will see the Device name in the Android Studio Window
 - Just hit the Start Button



Your first App

- This will create an app of Counter
- You can now start coding





THE END 😊