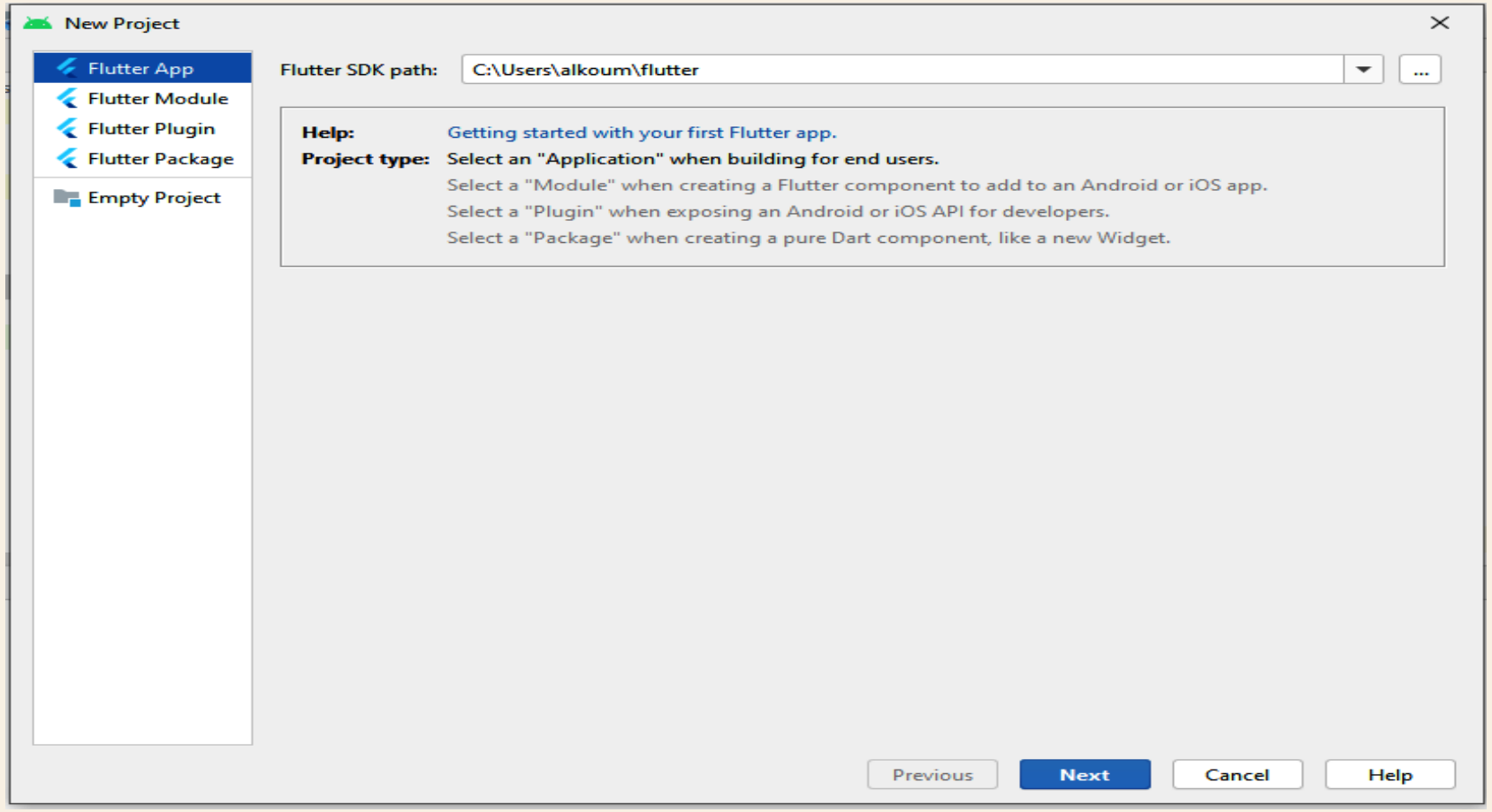
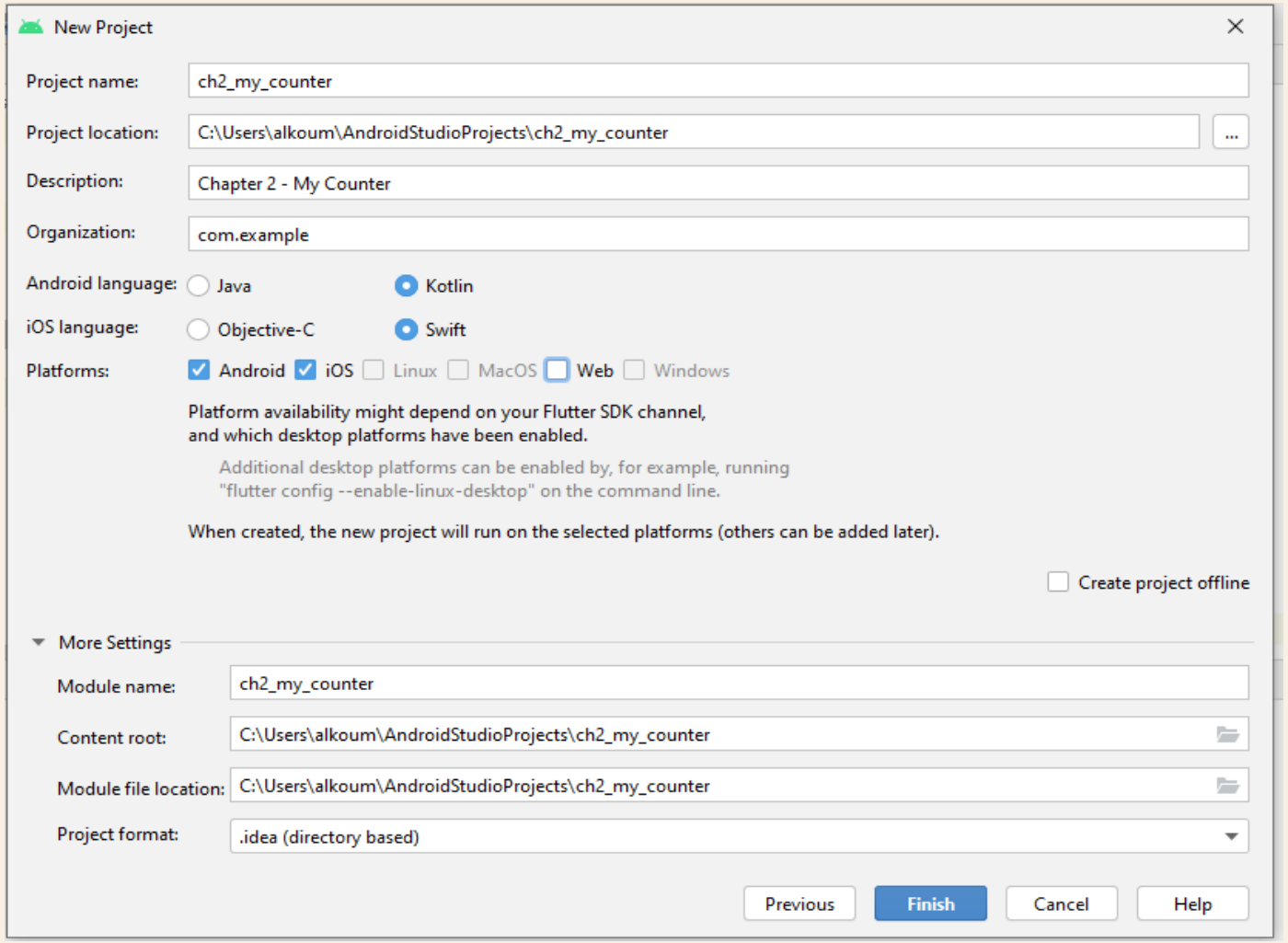
Creating a Hello World App

Creating a New App

1. Start **Android Studio**.
2. Select **File** ⇨ **New** ⇨ **New Flutter Project**. (Start A New Flutter Project).
3. Select **Flutter Application**.

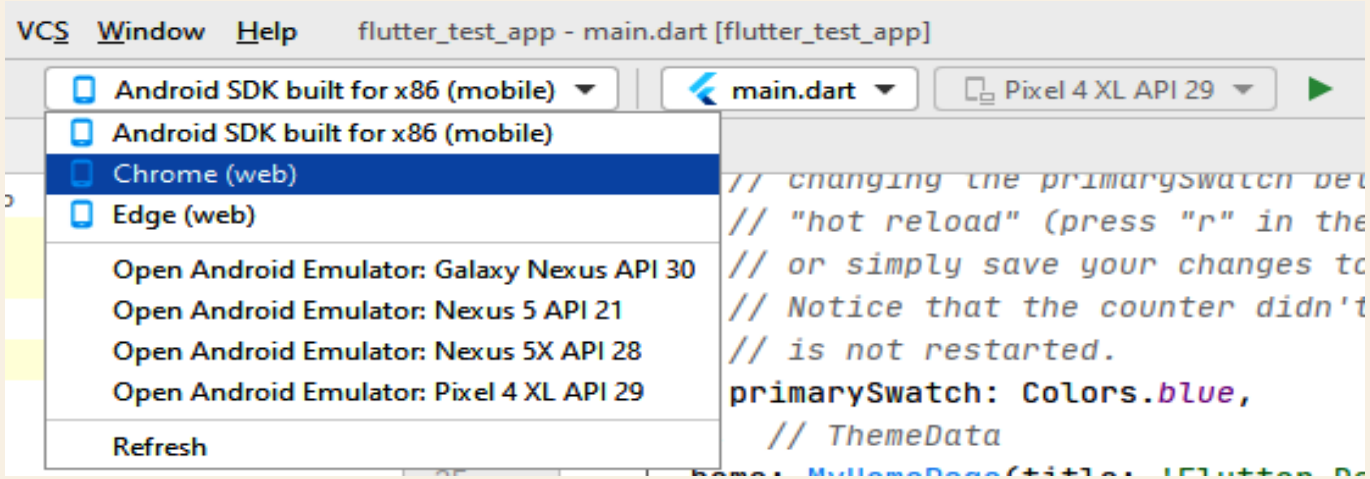


1. **Enter** the project **name ch2_my_counter** and click **Next**.
2. For the **Platform Channel Language**, select both the options for **Kotlin** and **Swift**.
3. Click the **Finish** button.

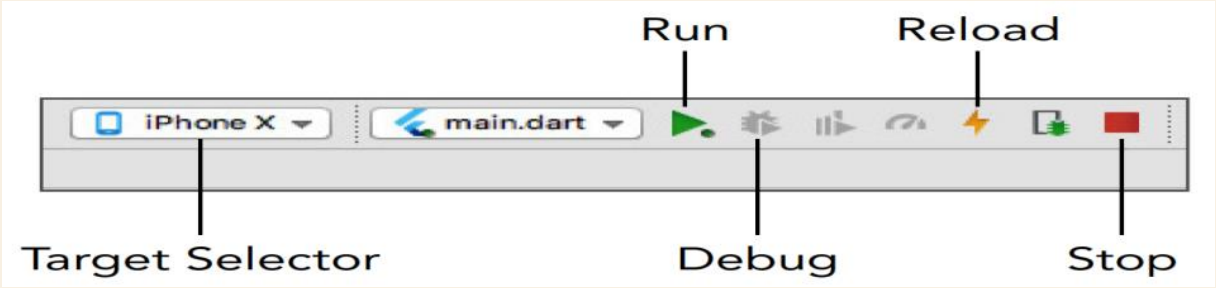


Running the App

1. click the Flutter **device selection button** on the right of the toolbar.



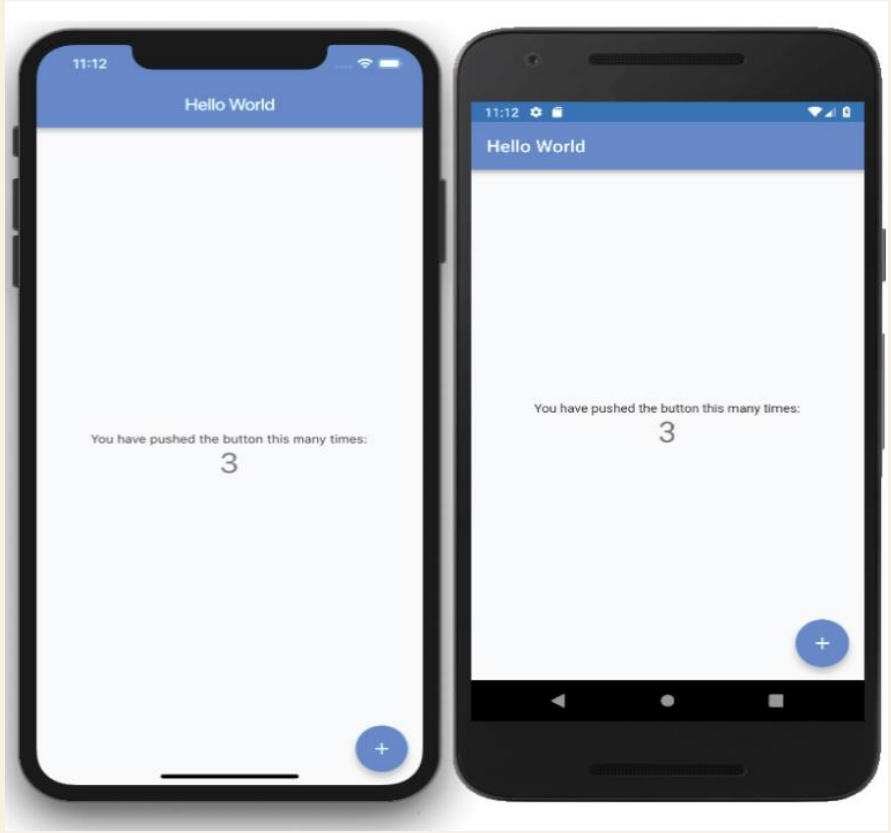
2. Select the **Android emulator**.
3. Click the **Run** icon in the toolbar.



4. Click the **+ floating action button** on the bottom right, and you will see the **counter** increase each time you click it.

5. In the **main.dart** file, **change MyHomePage** (**title**: **'Flutter Demo Home Page'**) to **MyHomePage**(**title**: **'Hello World'**) and **save**.

6. Click **hot reload** button you will see that the **app bar title changes** and the state of the counter remains the same.



USING THEMES TO STYLE YOUR APP

There are two ways to use theme widgets:

- To style the look and feel **globally**.
- To style just a **portion** of the app.

Using a Global App Theme

- let's change it to **light green**.
- Add a **new line** below the **primarySwatch** and add code to change the background color (**canvasColor**) to **lightGreen**.

```
primarySwatch: Colors.blue,
// Change it to
primarySwatch: Colors.lightGreen,
canvasColor: Colors.lightGreen.shade100,
```

- **Save** by pressing (in Windows). Hot reload is invoked.

- To show a little Flutter awesomeness, add a platform property of **TargetPlatform.iOS** after the **canvasColor** property, and run the app from the Android emulator.
- **Suddenly**, the **iOS traits** are running on **Android**. The app bar's title is not left aligned but changed to the center, which is the customary **iOS style**.

```
primarySwatch: Colors.blue,
// Change it to
primarySwatch: Colors.lightGreen,
canvasColor: Colors.lightGreen.shade100,
platform: TargetPlatform.iOS
```

- This can be done in **reverse** by using **TargetPlatform**. to show **Android** traits on **iOS**, change the platform property to **TargetPlatform.android**.

```
primarySwatch: Colors.blue,
// Change it to
primarySwatch: Colors.lightGreen,
canvasColor: Colors.lightGreen.shade100,
platform: TargetPlatform.android
```


11:34
Hello World
You have pushed the button this many times:
3
11:35
Hello World
You have pushed the button this many times:
3

Searching for Packages

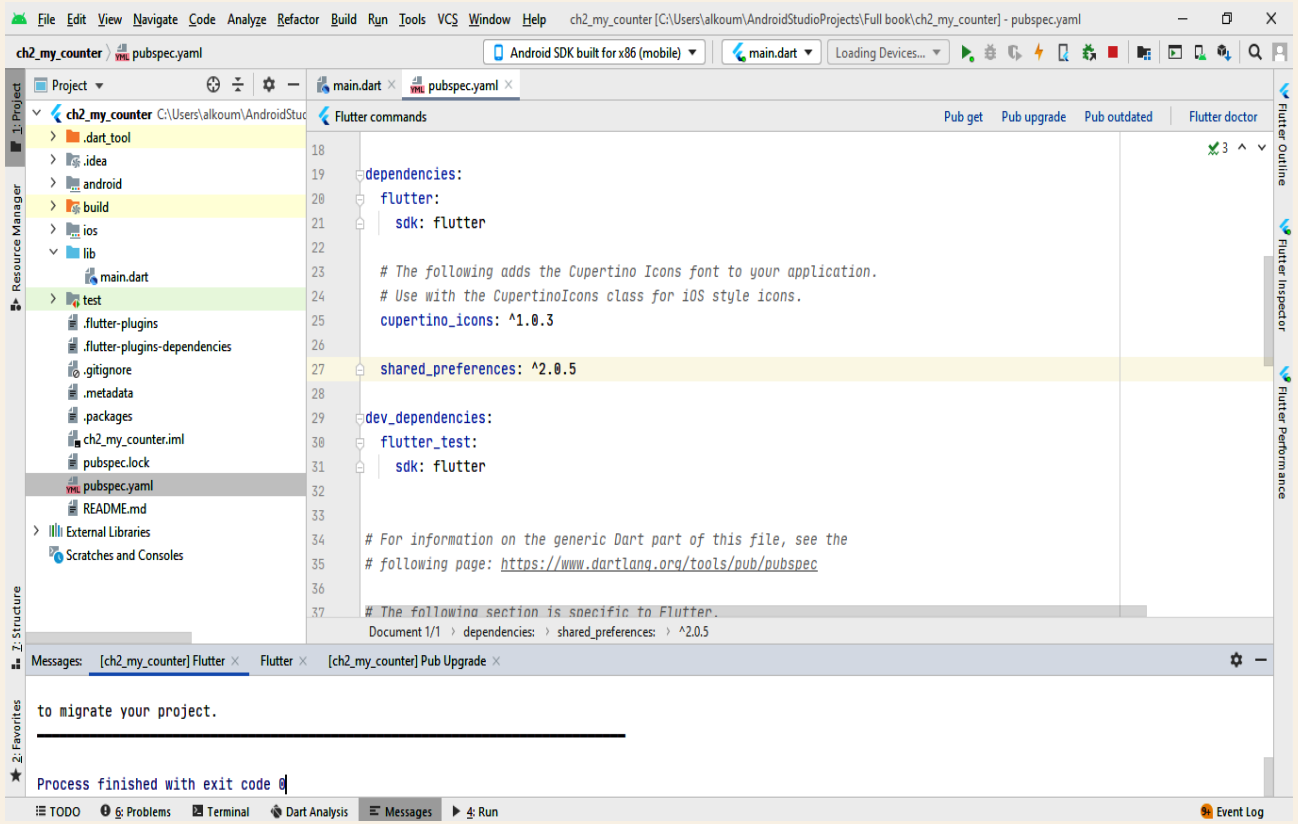
In the app, if you need to store the **user preferences** on both **iOS** and **Android** and want to find a **package** to do that for you.

1. Start your web browser and navigate to https://pub.dartlang.org/flutter **Packages** are published often by other **developers** and **Google**.
2. Click the search bar. Enter **shared preferences**.
3. Click the link for the **shared_preferences** package. (The direct link is https://pub.dev/flutter/packages?q=shared+preferences)
4. Details on how to install and use the **shared_preferences** package are available at this location.

Installing Packages

how to implement the **shared_preferences** external package in your app?

1. Open the **ch2_my_counter** app with Android Studio.
2. Open the **pubspec.yaml** file.
3. In the **dependencies** section: add **shared_preferences: ^2.0.5** . (Your version might be **higher**.)
4. **Save** the file, and the **package will install**. the message will say **Process finished with exit code 0**.



5. Import the package in the **main.dart** file after the **material.dart** import line. **Save the changes**.

```
import 'package:flutter/material.dart';
import 'package:shared_preferences/shared_preferences.dart';
```

Using Packages

- Each package has its **unique way** of being **implemented**.
- It's always good to read the **documentation**.
- For the **shared_preferences** package, you need to add a **few lines** to implement it.
- The main point here **is not how to use this package** but **how to add external packages to your app** in general.

- **Implementing and Initializing a Package**

  In the _**MyHomePageState** class, add a **function** called **_updateSharedPreferences()**.

```
class _MyHomePageState extends State<MyHomePage> {
  // ...
  void _updateSharedPreferences() async {
    SharedPreferences prefs = await SharedPreferences.getInstance();
    int counter = (prefs.getInt('counter') ?? 0) + 1;
      print('Pressed $counter times.');
      await prefs.setInt('counter', counter);
  }
 // ...
}
```

- **How It Works**

  This package saves users' preferences in both **iOS** and **Android** with a few lines of **Dart** code, There's no need to write native code for iOS or Android. This is the power of using packages, but be careful of overdoing it because you are relying on the authors of the packages to keep them up-to-date.