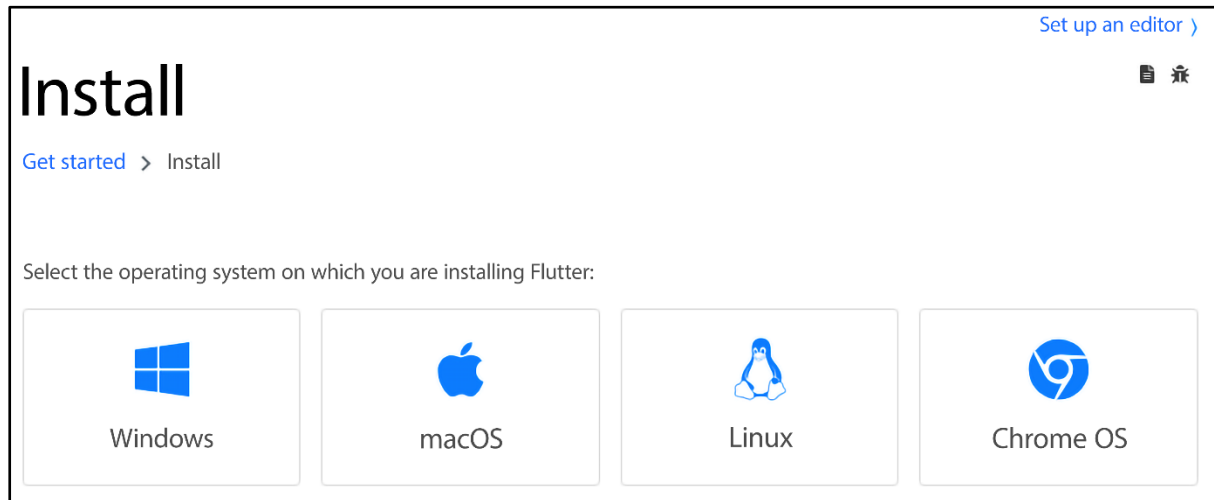


Chapter 1: Getting Started with Flutter



```
simonealessandria@MacBook-Air-di-Simone ~ % which flutter
/Users/Shared/flutter/bin/flutter
simonealessandria@MacBook-Air-di-Simone ~ %
```

System Properties



Computer Name Hardware **Advanced** System Protection Remote

You must be logged on as an Administrator to make most of these changes.

Performance

Visual effects, processor scheduling, memory usage, and virtual memory

[Settings...](#)

User Profiles

Desktop settings related to your sign-in

[Settings...](#)

Startup and Recovery

System startup, system failure, and debugging information

[Settings...](#)

[Environment Variables...](#)

OK

Cancel

[Apply](#)

Environment Variables



User variables for sales

Variable	Value
ChocolateyLastPathUpdate	132590632900344200
OneDrive	C:\Users\sales\OneDrive
OneDriveConsumer	C:\Users\sales\OneDrive
Path	C:\Ruby27-x64\bin;C:\Users\sales\AppData\Local\Microsoft\...
PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC;.RB;.RB...
RUBYOPT	-Eutf-8
TEMP	C:\Users\sales\AppData\Local\Temp

New...

Edit...

Delete

System variables

Variable	Value
OS	Windows_NT
Path	C:\Program Files\ImageMagick-7.0.11-Q16-HDRI;C:\Windows...
PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC
PROCESSOR_ARCHITECTU...	AMD64
PROCESSOR_IDENTIFIER	Intel64 Family 6 Model 158 Stepping 10, GenuineIntel
PROCESSOR_LEVEL	6
PROCESSOR_REVISION	9e0a

New...

Edit...

Delete

OK

Cancel

Edit environment variable



C:\Ruby27-x64\bin
%USERPROFILE%\AppData\Local\Microsoft\WindowsApps
C:\Users\sales\AppData\Local\Programs\Microsoft VS Code\bin
c:\flutter\bin
c:\flutter\pub-cache\bin
C:\flutter\bin\cache\dart-sdk\bin
%USERPROFILE%\dotnet\tools
C:\Users\sales\AppData\Roaming\npm
C:\Users\Sales\AppData\Local\Pub\Cache\bin
C:\Program Files\Azure Data Studio\bin

New

Edit

Browse...

Delete

Move Up

Move Down

Edit text...

OK

Cancel

🔍 app store



📱 App Store — Applications

📱 App Store — Wikipedia



🔍 App Store



🔍 app store iphone



🔍 app store connect



🔍 app store non funziona

🔍 app store

Siri Suggested Websites

🐦 App Store (@AppStore) / Twitter — twitter.com/AppStore

🍏 App Store — apple.com/it/app-store/

📱 AppGallery — appgallery.huawei.com

Folders

📁 com.apple.AppStoreDaemon.ASDAskPermissionExtension — Folder • Modified 12/12/20, 15:11



Welcome to Xcode

Version 13.4.1 (13F100)



Create a new Xcode project

Create an app for iPhone, iPad, Mac, Apple Watch, or Apple TV.



Clone an existing project

Start working on something from a Git repository.



Open a project or file

Open an existing project or file on your Mac.



Show this window when Xcode launches

```
bkayfitz — -bash — 81x23
[✓] Xcode - develop for iOS and macOS (Xcode 10.3)
[!] iOS tools - develop for iOS devices
✗ Verify that all connected devices have been paired with this computer in
  Xcode.
  If all devices have been paired, libimobiledevice and ideviceinstaller may
  require updating.
  To update with Brew, run:
    brew update
    brew uninstall --ignore-dependencies libimobiledevice
    brew uninstall --ignore-dependencies usbmuxd
    brew install --HEAD usbmuxd
    brew unlink usbmuxd
    brew link usbmuxd
    brew install --HEAD libimobiledevice
    brew install ideviceinstaller
```

android studio



Android Studio provides the fastest tools for building apps on every type of Android device.

Download Android Studio

Android Studio Dolphin | 2021.3.1 Patch 1 for Windows 64-bit (912 MiB)

Download options

Release notes

Settings

Q

▼ Appearance & Behavior

Appearance

Menus and Toolbars

▼ System Settings

Passwords

HTTP Proxy

Data Sharing

Date Formats

Updates

Android SDK

Memory Settings

File Colors

Scopes

Notifications

Quick Lists

Path Variables

Keymap

► Editor

Plugins

► Version Control

► Build, Execution, Deployment

► Languages & Frameworks

► Tools

► Other Settings

Appearance & Behavior > System Settings > Android SDK

Manager for the Android SDK and Tools used by Android Studio

Android SDK Location: C:\Users\sales\AppData\Local\Android\Sdk Edit Optimize disk space

SDK Platforms SDK Tools SDK Update Sites

Each Android SDK Platform package includes the Android platform and sources pertaining to an API level by default. Once installed, Android Studio will automatically check for updates. Check "show package details" to display individual SDK components.

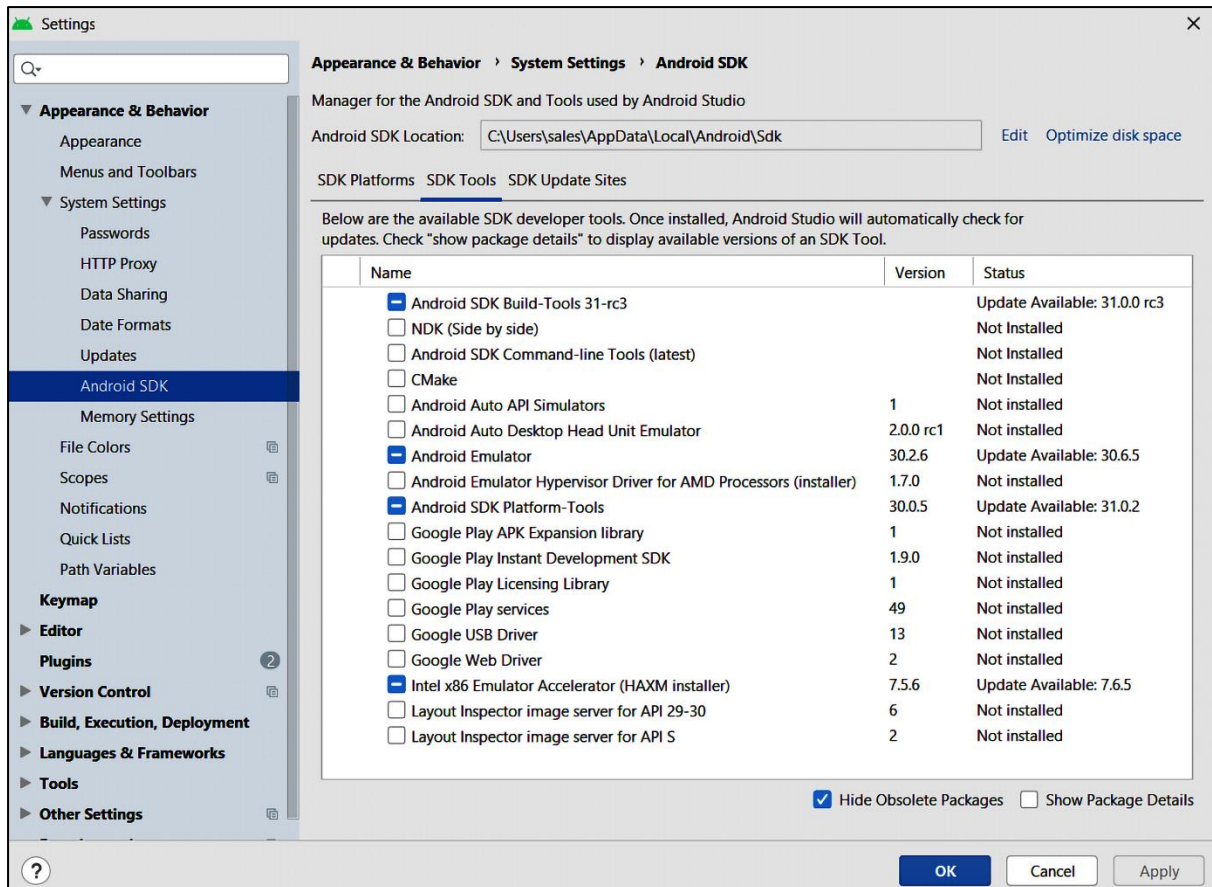
Name	API Level	Revision	Status
☐ Android S Preview	S	3	Not installed
☒ Android 11.0 (R)	30	3	Installed
☐ Android 10.0 (Q)	29	5	Partially installed
☐ Android 9.0 (Pie)	28	6	Partially installed
☐ Android 8.1 (Oreo)	27	3	Not installed
☐ Android 8.0 (Oreo)	26	2	Not installed
☐ Android 7.1.1 (Nougat)	25	3	Not installed
☐ Android 7.0 (Nougat)	24	2	Not installed
☐ Android 6.0 (Marshmal)	23	3	Not installed
☐ Android 5.1 (Lollipop)	22	2	Not installed
☐ Android 5.0 (Lollipop)	21	2	Not installed
☐ Android 4.4W (KitKat V)	20	2	Not installed
☐ Android 4.4 (KitKat)	19	4	Not installed
☐ Android 4.3 (Jelly Bean)	18	3	Not installed
☐ Android 4.2 (Jelly Bean)	17	3	Not installed
☐ Android 4.1 (Jelly Bean)	16	5	Not installed
☐ Android 4.0.3 (IceCream)	15	5	Not installed
☐ Android 4.0 (IceCream)	14	4	Not installed

Looking for updates...

☒ Hide Obsolete Packages ☐ Show Package Details

?

OK Cancel Apply





Your Virtual Devices

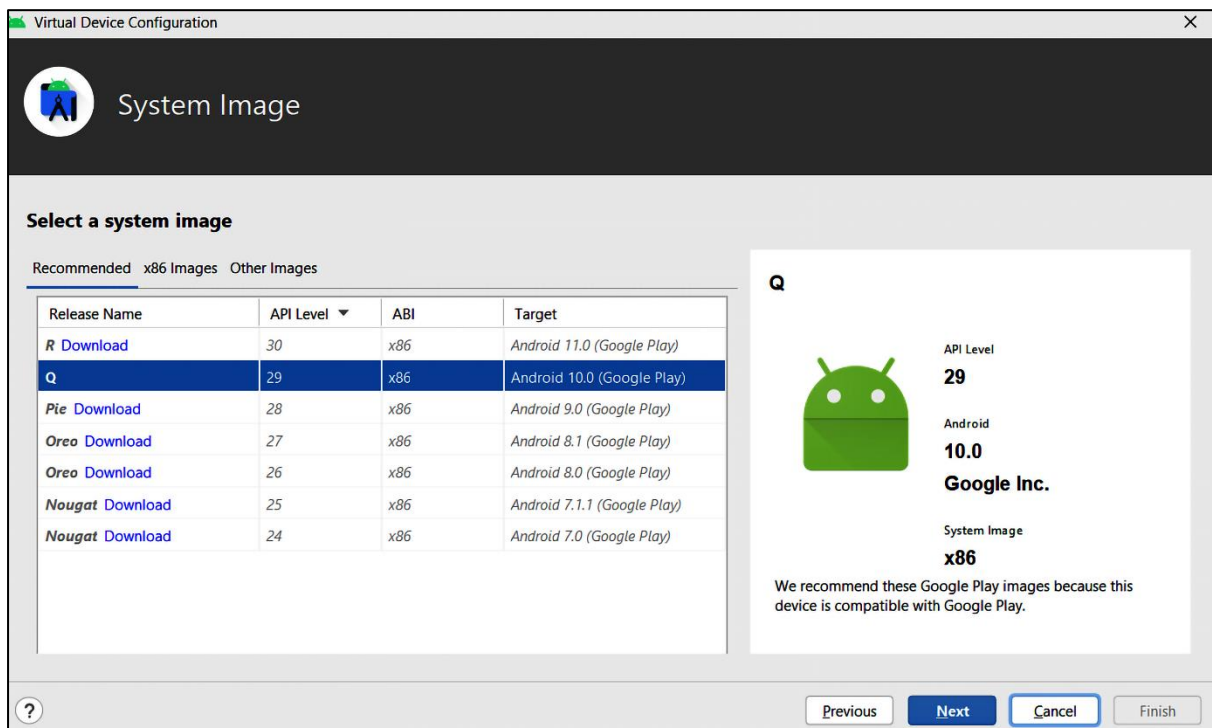
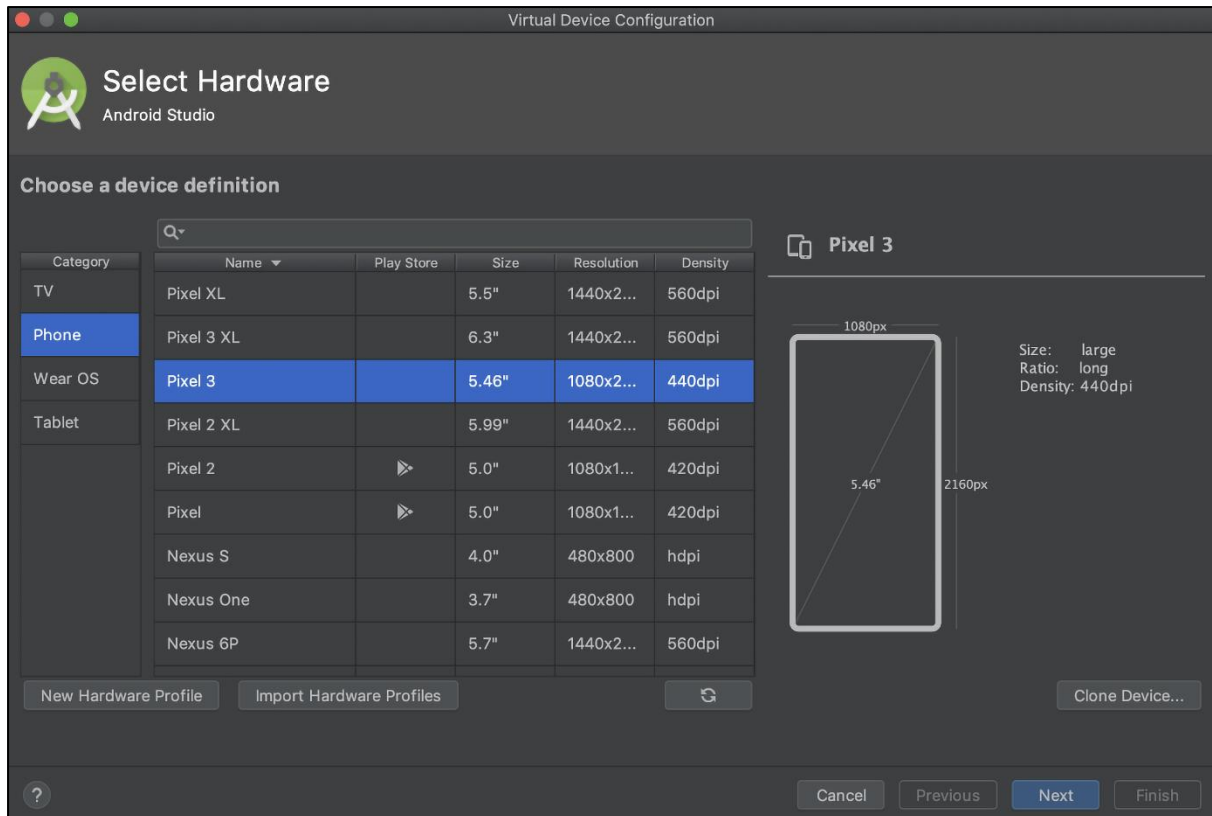
Android Studio



Virtual devices allow you to test your application without having to own the physical devices.

[+ Create Virtual Device...](#)

To prioritize which devices to test your application on, visit the [Android Dashboards](#), where you can get up-to-date information on which devices are active in the Android and Google Play ecosystem.



Settings

Appearance & Behavior

Keymap

Editor

Plugins2

Version Control

Build, Execution, Deployment

Languages & Frameworks

Tools

Other Settings

Clang-Tidy

Clangd

Kotlin Compiler

Experimental

Plugins

Marketpl

Flutter

Search Results (48)Sort By: Relevance

Flutter

9M4.3flutter.dev

Installed

flutter-img-sync

45,6K4.6Lihaha

Install

FlutterJsonBeanFactory

184,4K4.8ruiyu-QQGroup(963752388)

Install

Flutter Enhancement Suite

112,2K4.8Marius Höfler

Install

FlutterAssetAutoCompletion

53K4.5ixigua.com

Install

Flutter Pub Version Checker

60,3K4.7Paulina Szklarska

Install

Flutter Intl

154,3K4.9Localizely

Install

flutter_add_image

Install



Flutter

v3.56.0

Dart Code

Flutter support and debugger for Visual Studio Code.

Disable Uninstall Refresh Settings

This extension is enabled globally.

Details

Feature Contributions

Changelog

Dependencies

Runtime Status

Introduction

This [VS Code](#) extension adds support for effectively editing, refactoring, running, and reloading [Flutter](#) mobile apps. It depends on (and will automatically install) the [Dart extension](#) for support for the [Dart](#) programming language.

Note: Projects should be run using **F5** or the **Debug** menu for full debugging functionality. Running from the built-in terminal will not provide all features.

Installation

[Install from the Visual Studio Code Marketplace](#) or by [searching within VS Code](#). The Dart extension will be installed automatically, if not already installed.

Documentation

Please see the [Flutter documentation for using VS Code](#).

Reporting Issues

Issues for both Dart and Flutter extensions should be reported in the [Dart-Code issue tracker](#).

>Flutter|

Flutter: Run Flutter Doctor

recently used

Flutter: New Project

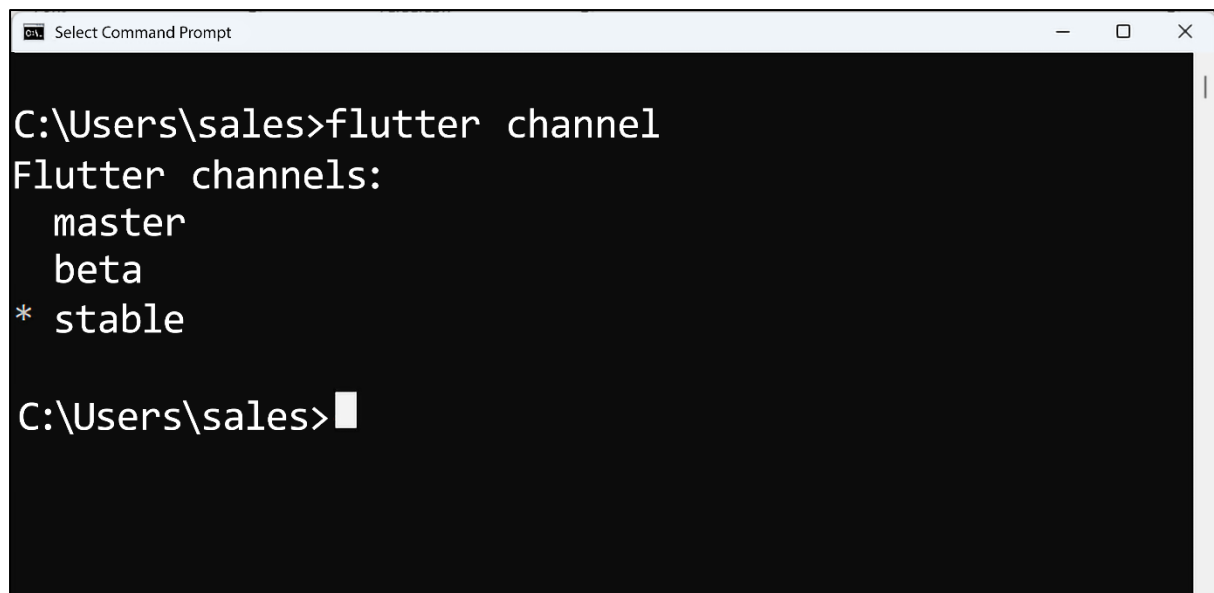
other commands

Flutter: New Project From Docs

Flutter: New Web Project

Flutter: Run Flutter Upgrade

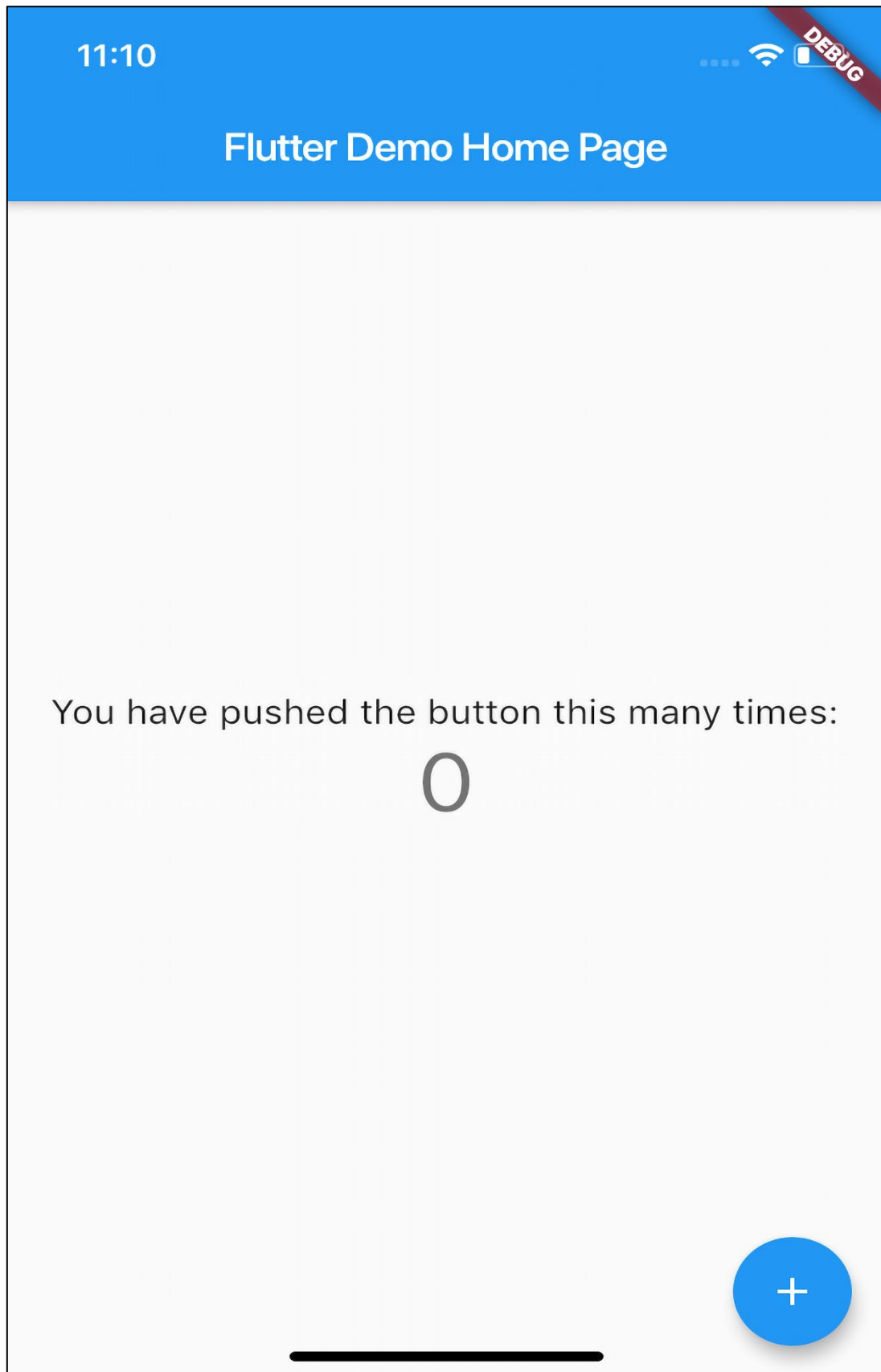
Test: Focus on Dart & Flutter View



```
C:\Users\sales>flutter channel
Flutter channels:
  master
  beta
* stable

C:\Users\sales>
```

Chapter 2: Creating Your First Flutter App



✓ **HELLO_FLUTTER**

> .dart_tool

> .idea

> android

> build

> ios

✓ lib

 main.dart

> linux

> macos

> test

> web

> windows

 .gitignore

≡ .metadata

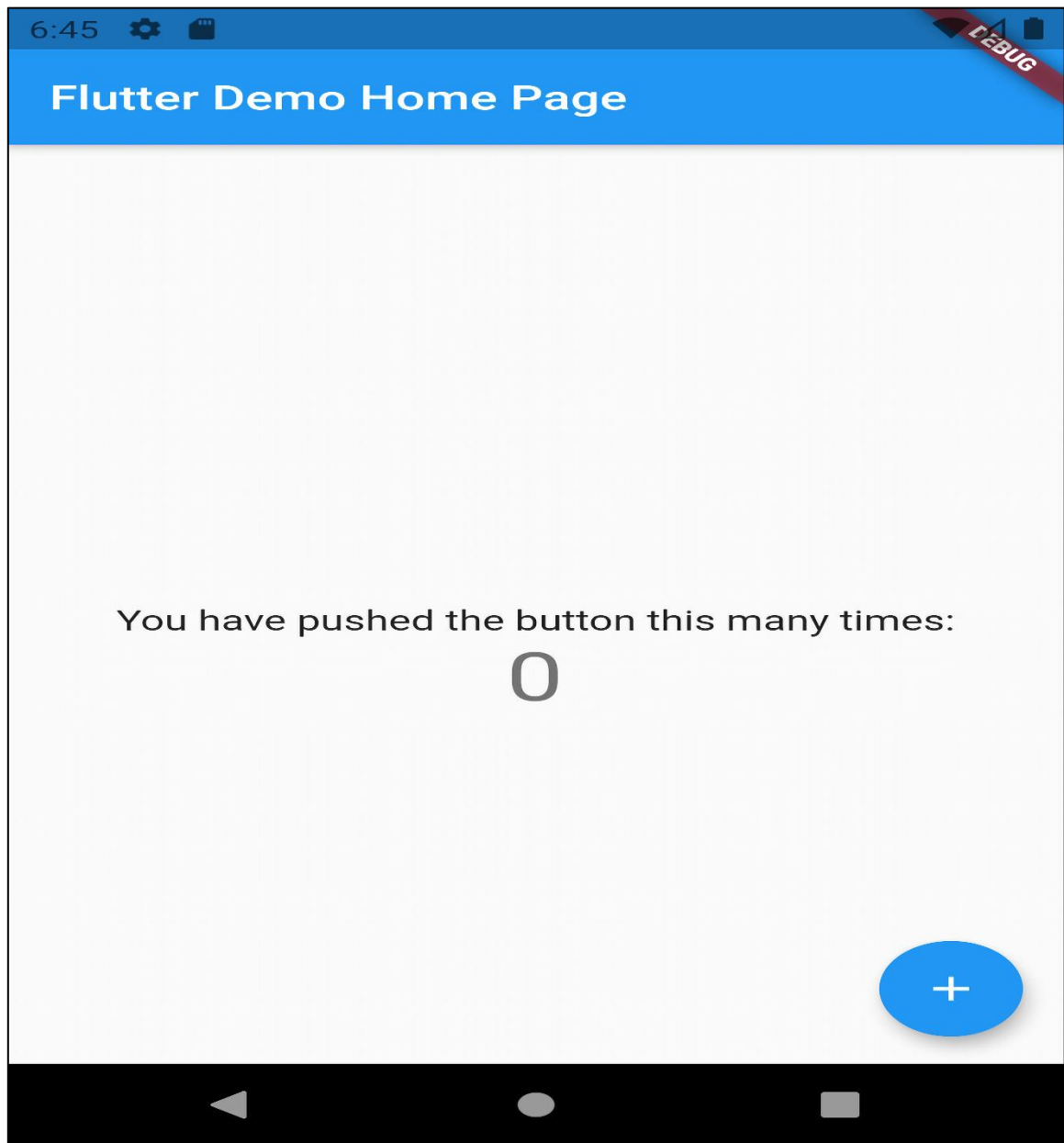
! analysis_options.yaml

 hello_flutter.iml

≡ pubspec.lock

! pubspec.yaml

 README.md



6:46

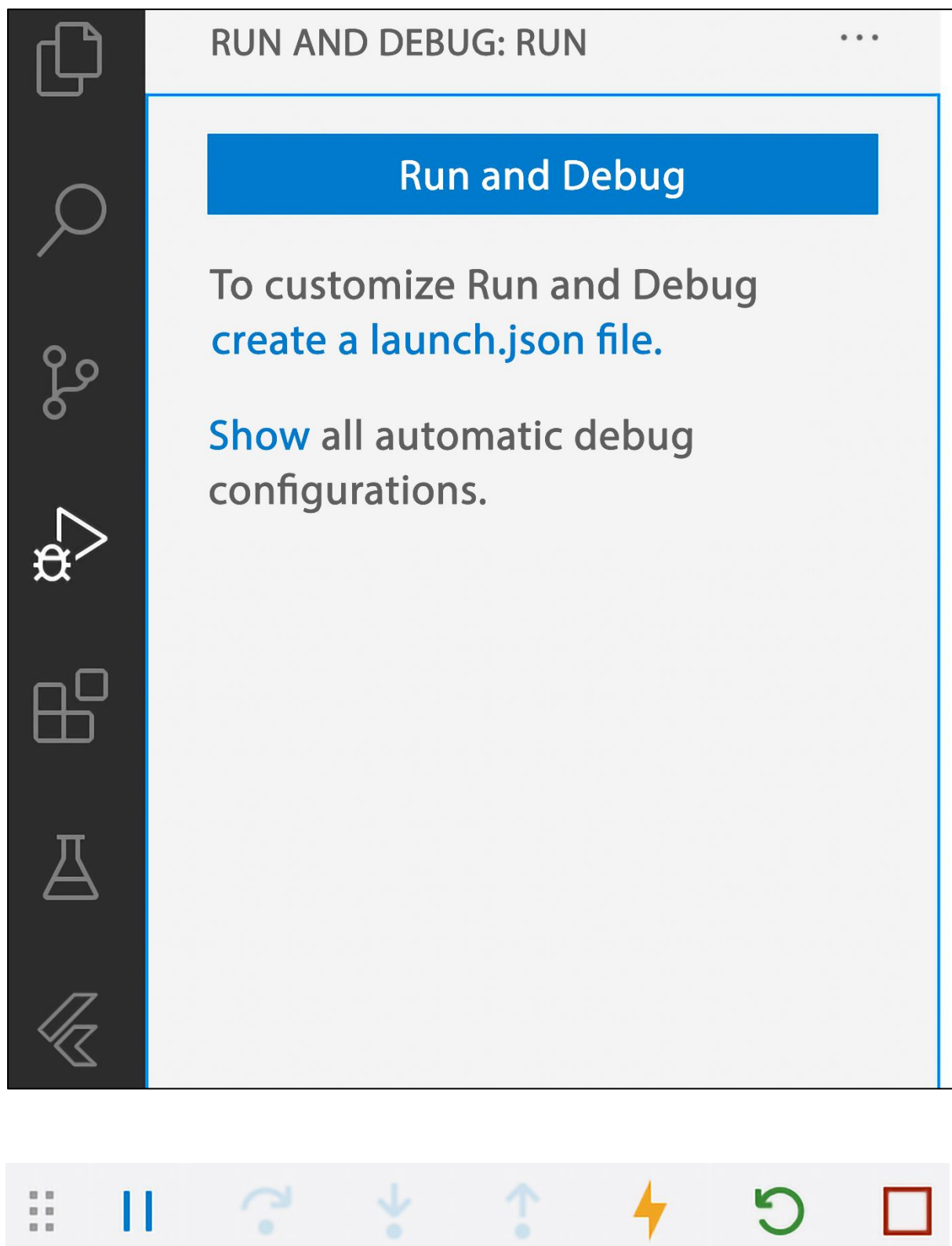


Flutter Demo Home Page

You have pushed the button this many times:

0





5:19

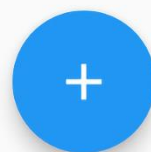


DEBUG

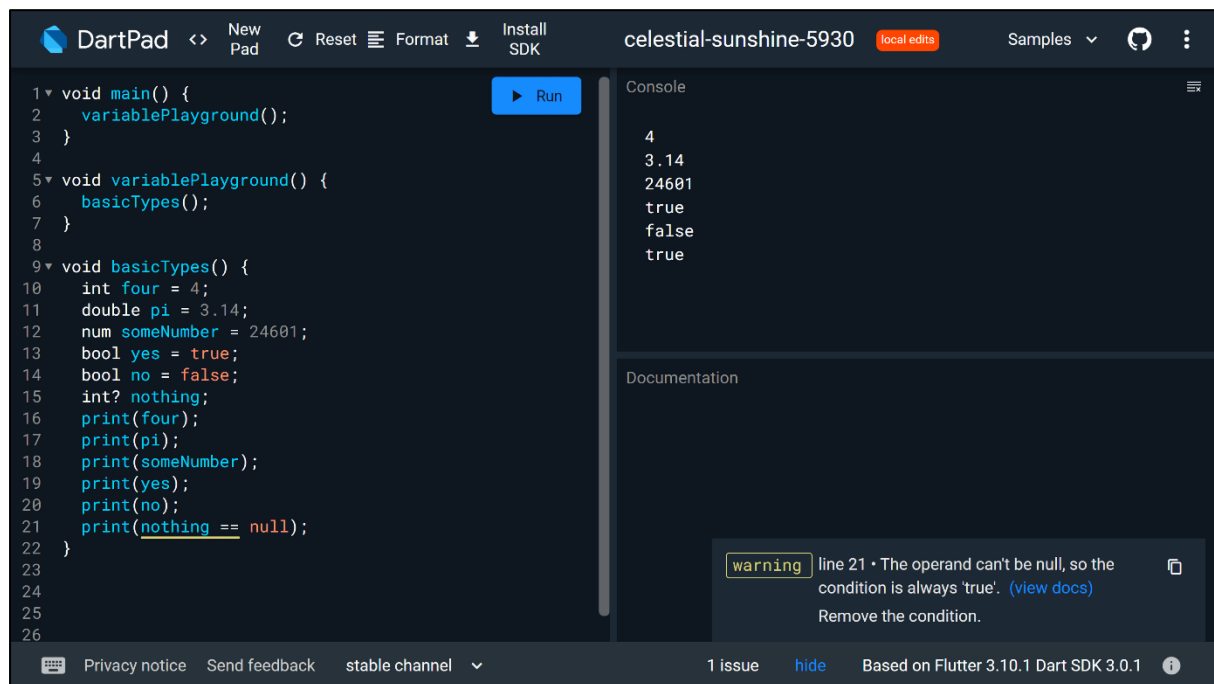
Flutter Demo Home Page

You have pushed the button this many times:

2



Chapter 3: Dart: A Language You Already Know



The screenshot shows the DartPad IDE interface. The code editor on the left contains the following Dart code:

```
1 void main() {  
2   variablePlayground();  
3 }  
4  
5 void variablePlayground() {  
6   basicTypes();  
7 }  
8  
9 void basicTypes() {  
10  int four = 4;  
11  double pi = 3.14;  
12  num someNumber = 24601;  
13  bool yes = true;  
14  bool no = false;  
15  int? nothing;  
16  print(four);  
17  print(pi);  
18  print(someNumber);  
19  print(yes);  
20  print(no);  
21  print(nothing == null);  
22 }  
23  
24  
25  
26
```

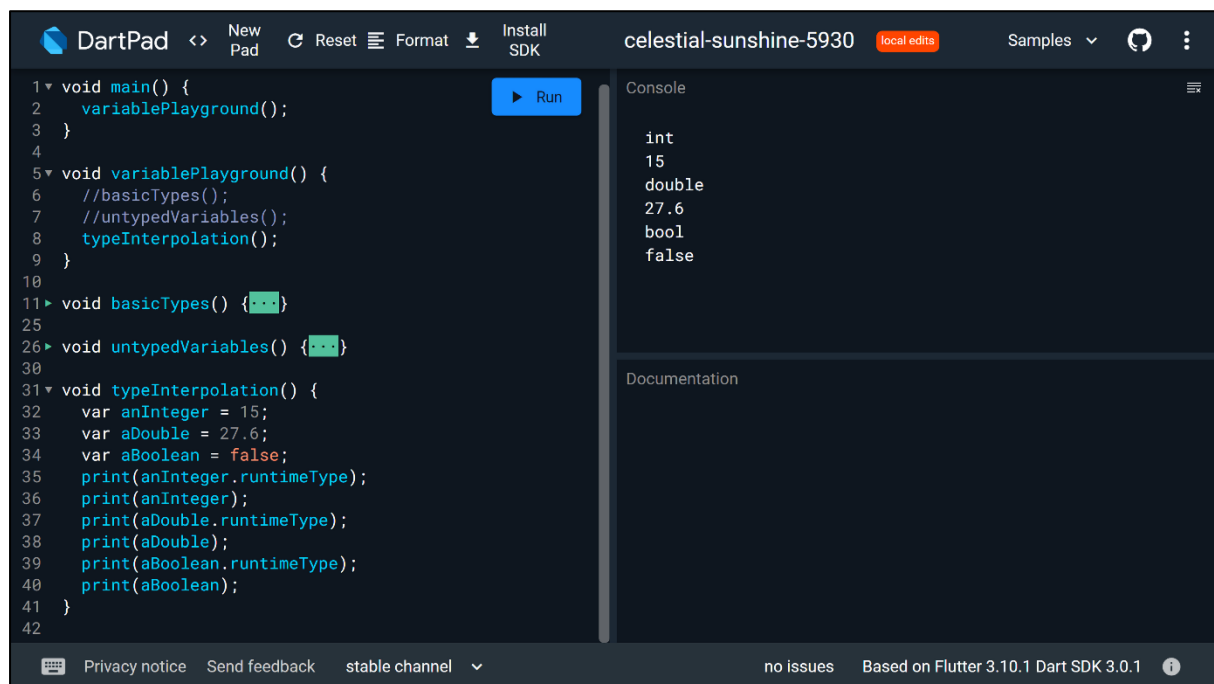
The right sidebar shows the Console output:

```
4  
3.14  
24601  
true  
false  
true
```

Below the console is a warning message:

```
warning line 21 • The operand can't be null, so the  
condition is always 'true'. (view docs)  
Remove the condition.
```

The bottom status bar indicates "1 issue", "hide", and "Based on Flutter 3.10.1 Dart SDK 3.0.1".



The screenshot shows the DartPad IDE interface. The code editor on the left contains the following Dart code:

```
1 void main() {  
2   variablePlayground();  
3 }  
4  
5 void variablePlayground() {  
6   //basicTypes();  
7   //untypedVariables();  
8   typeInterpolation();  
9 }  
10  
11 void basicTypes() { ... }  
25  
26 void untypedVariables() { ... }  
30  
31 void typeInterpolation() {  
32  var anInteger = 15;  
33  var aDouble = 27.6;  
34  var aBoolean = false;  
35  print(anInteger.runtimeType);  
36  print(anInteger);  
37  print(aDouble.runtimeType);  
38  print(aDouble);  
39  print(aBoolean.runtimeType);  
40  print(aBoolean);  
41 }  
42
```

The right sidebar shows the Console output:

```
int  
15  
double  
27.6  
bool  
false
```

The bottom status bar indicates "no issues" and "Based on Flutter 3.10.1 Dart SDK 3.0.1".

DartPad

<>

New Pad

Reset

Format

Install SDK

celestial-sunshine-5930

local edits

Samples

1 void main() {
2 classPlayground();
3 }
4 void classPlayground() {
5 final name = OfficialName('Mr', 'Clark', 'Kent');
6 final message = name.toString();
7 print(message);
8 }
9 class Name {
10 final String first;
11 final String last;
12 Name(this.first, this.last);
13 @override
14 String toString() {
15 return '\$first \$last';
16 }
17 }
18 class OfficialName extends Name {
19 // Private properties begin with an underscore
20 final String _title;
21 OfficialName(this._title, String first, String last)
22 @override
23 String toString() {
24 return '\$_title. \${super.toString()}';
25 }
26 }

Run

Console

Mr. Clark Kent

Documentation

Privacy notice Send feedback stable channel

no issues Based on Flutter 3.10.1 Dart SDK 3.0.1

DartPad

<>

New Pad

Reset

Format

Install SDK

celestial-sunshine-5930

local edits

Samples

1 void main() {
2 testExtension();
3 }
4
5 extension StringExtensions on String {
6 bool toBool() {
7 return isEmpty;
8 }
9 }
10
11 void testExtension() {
12 String emptyString = "";
13 String nonEmptyString = "Hello Extensions!";
14 print(emptyString.toBool()); //--> false
15 print(nonEmptyString.toBool()); //--> true
16 }
17

Run

Console

false
true

Documentation

Privacy notice Send feedback stable channel

no issues Based on Flutter 3.10.1 Dart SDK 3.0.1

 DartPad

<>

New Pad

Reset

Format

Install SDK

celestial-sunshine-5930

local edits

Samples

1 void main() {
2 int someNumber;
3 increaseValue(someNumber);
4 }
5
6 void increaseValue(int value) {
7 value++;
8 print(value);
9 }

Run

Console

Documentation

error

line 3 • The non-nullable local variable 'someNumber' must be assigned before it can be used. [\(view docs\)](#)
Try giving it an initializer expression, or ensure that it's assigned on every execution path.

Privacy notice

Send feedback

stable channel

1 issue

hide

Based on Flutter 3.10.1 Dart SDK 3.0.1

Chapter 4: Introduction to Widgets

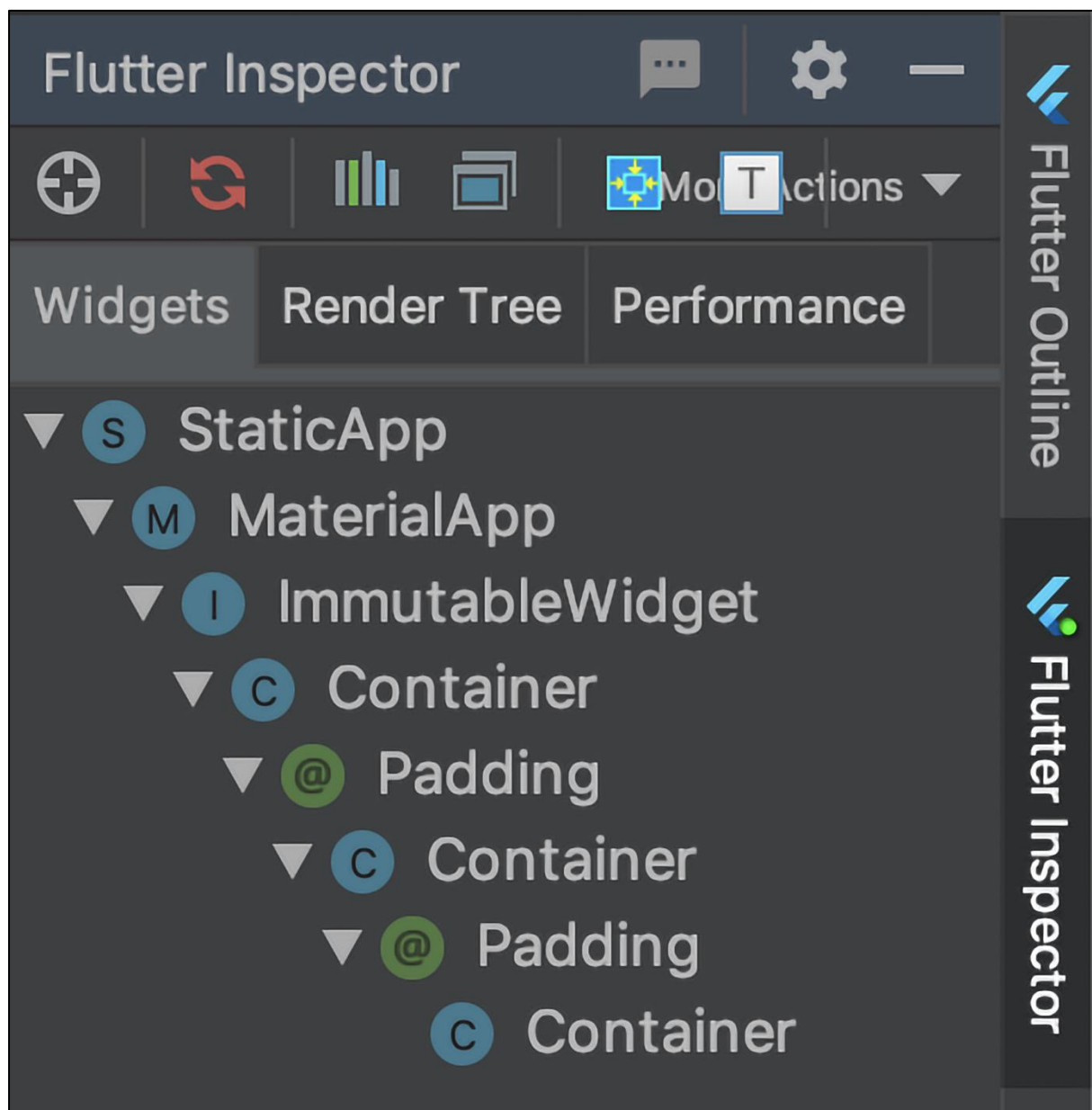
```
void main() => runApp(StaticApp());

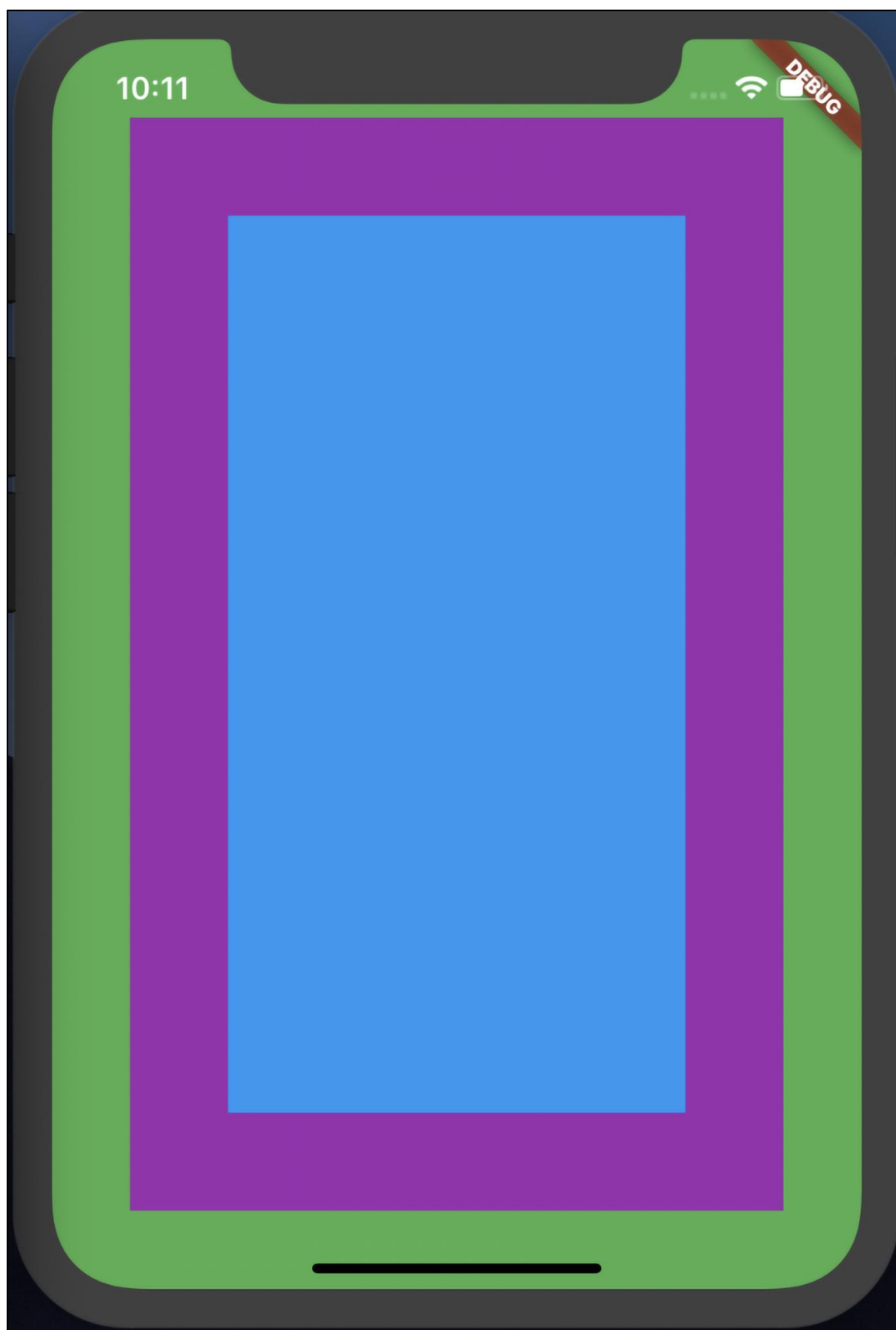
class StaticApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      home: ImmutableWidget(),
    );
  }
}
```

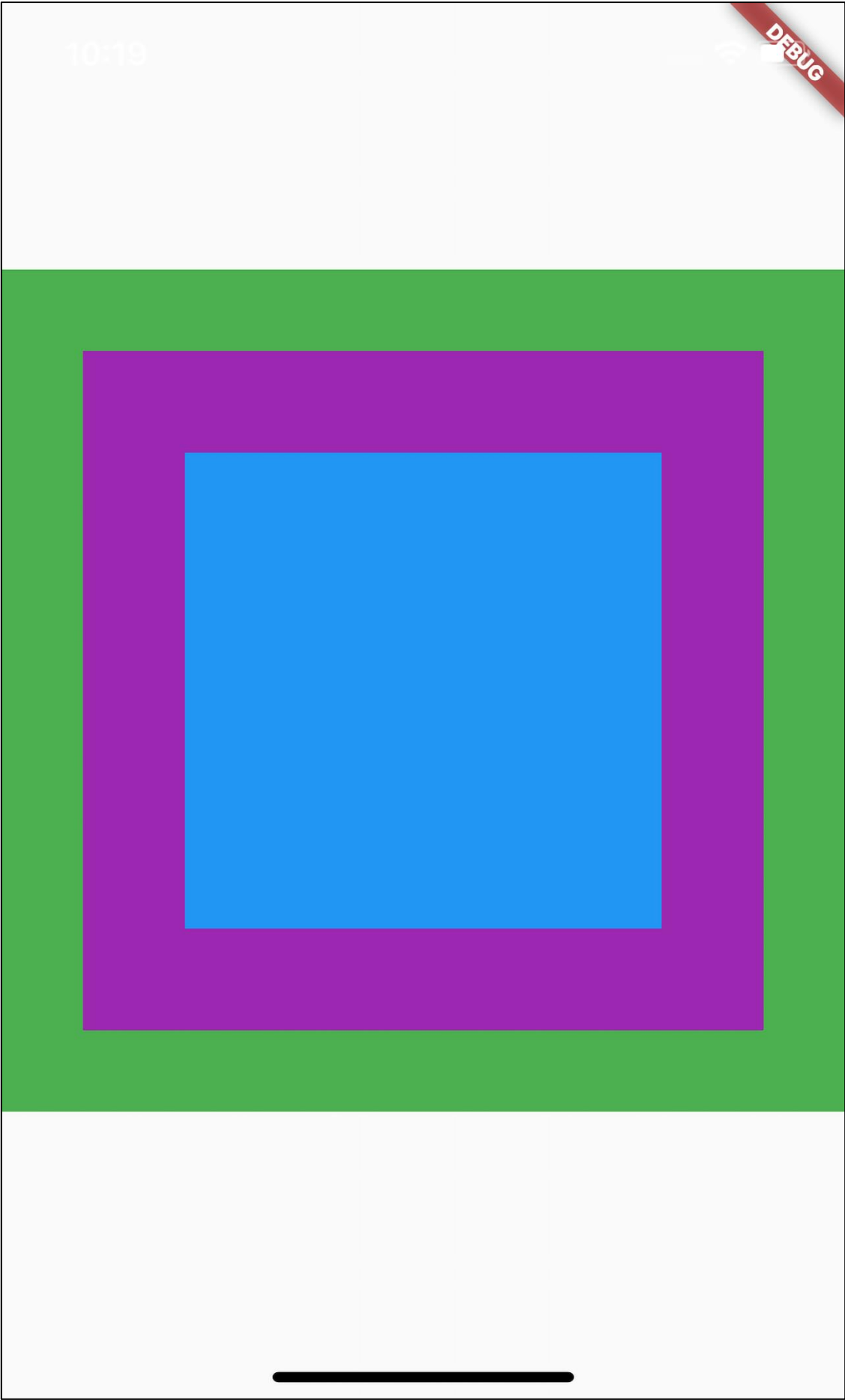
- Import library 'package:flutter/cupertino.dart'
- Import library 'package:flutter/material.dart'
- Import library 'package:flutter/widgets.dart'
- Create class 'StatelessWidget'
- Create mixin 'StatelessWidget'

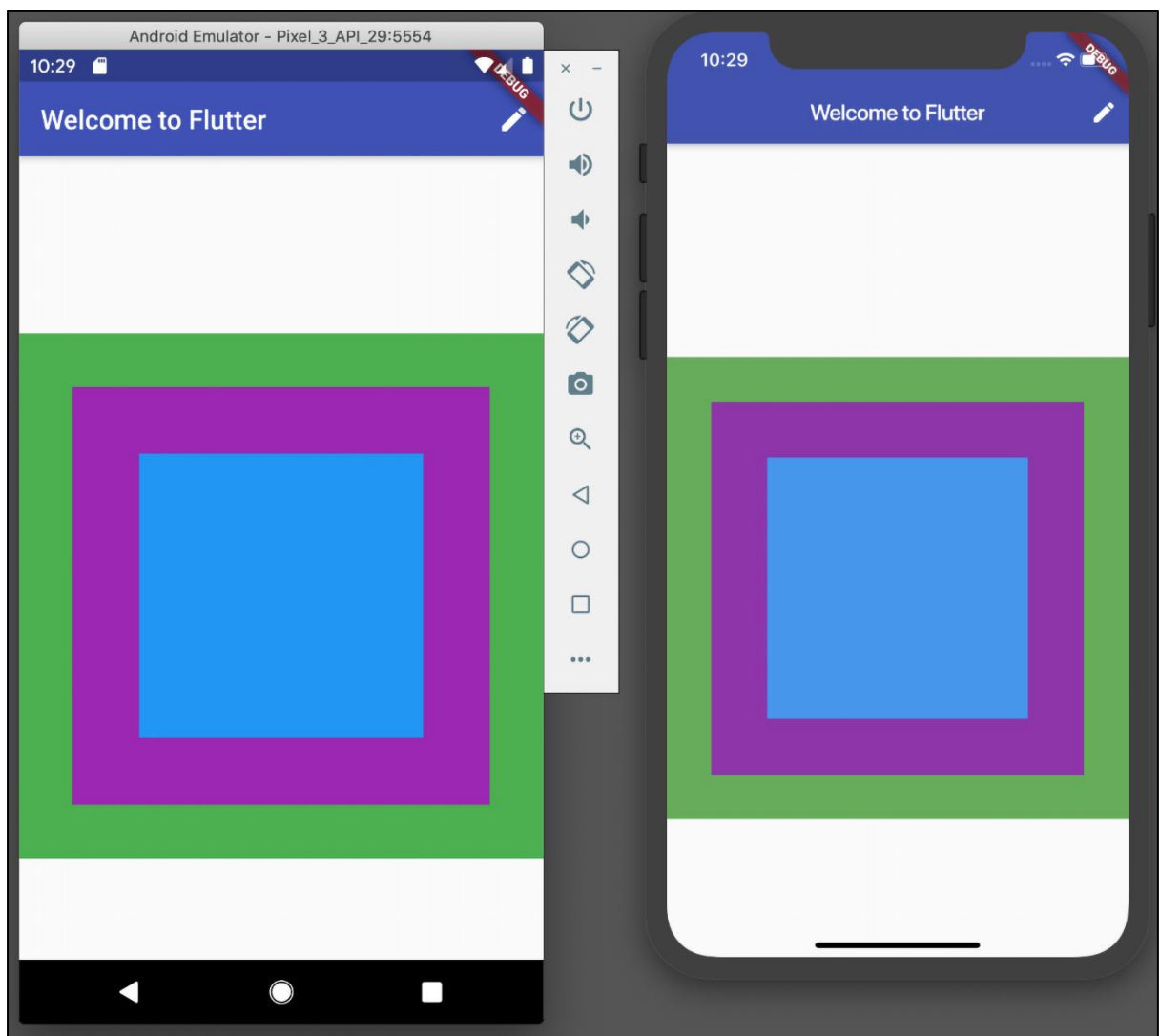
```
st|
stless      New Stateless widget
stful       New Stateful widget
stanim      New Stateful widget with AnimationController
const
abstract
^↓ and ^↑ will move caret down and up in the editor >>> π
```

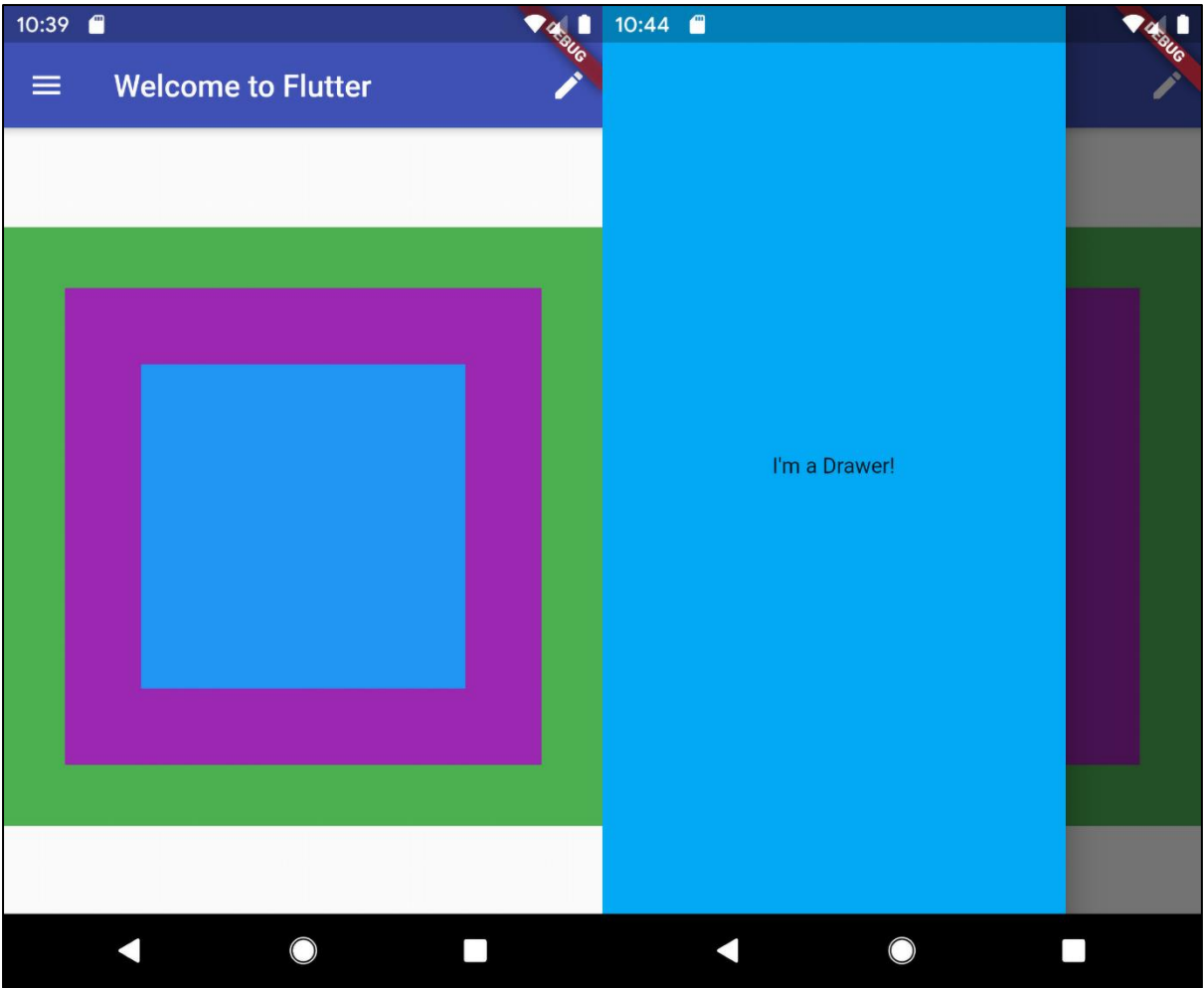












10:26



DEBUG



Welcome to Flutter



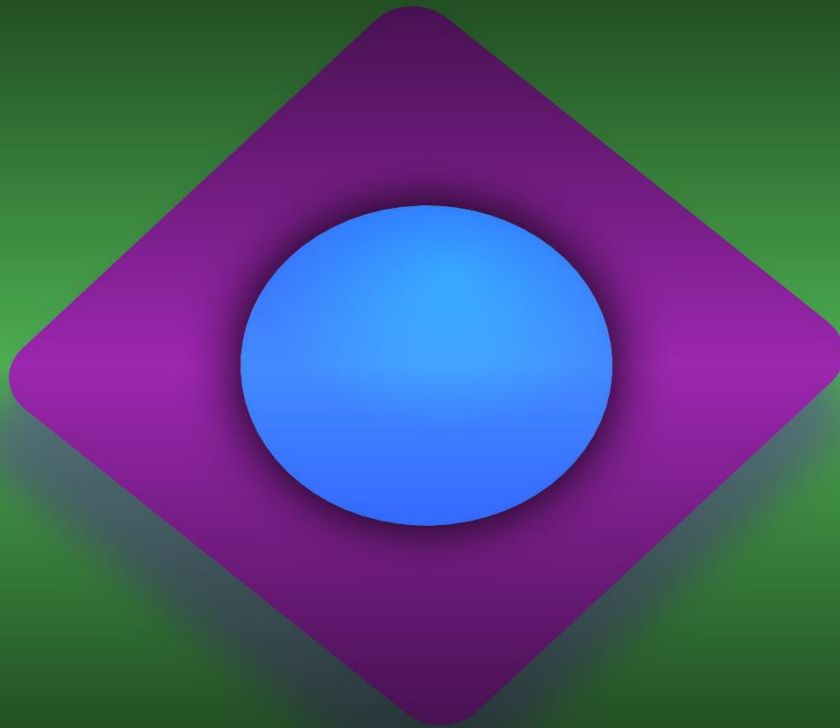
10:09



DEBUG



Welcome to Flutter



Hello, World!

Text can wrap without issue

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam at mauris massa. Suspendisse potenti. Aenean aliquet eu nisl vitae tempus.

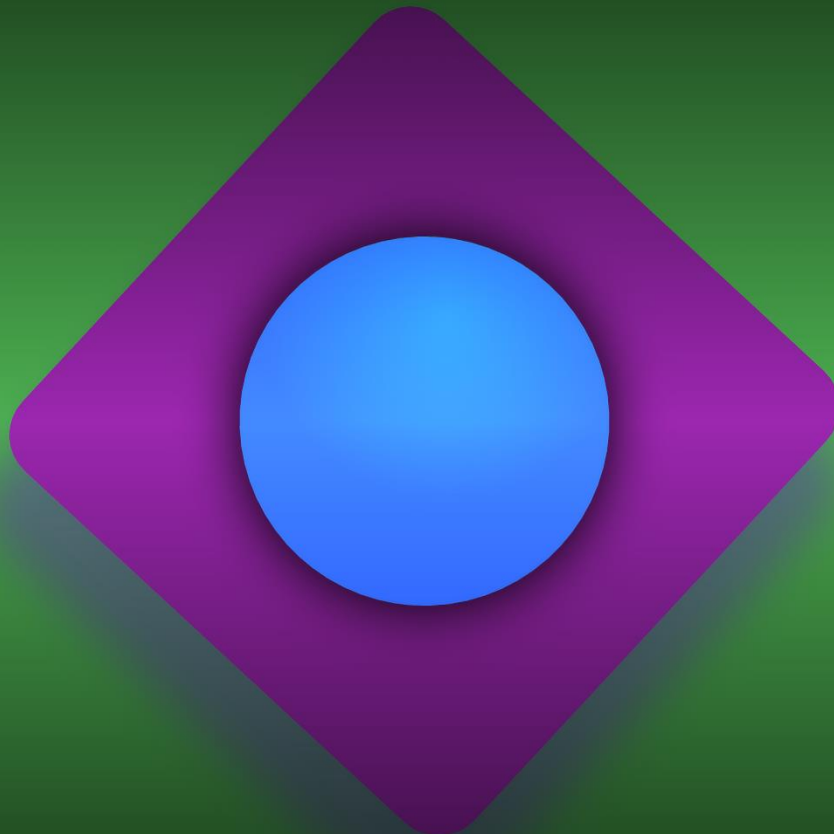
11:15



DEBUG



Welcome to Flutter

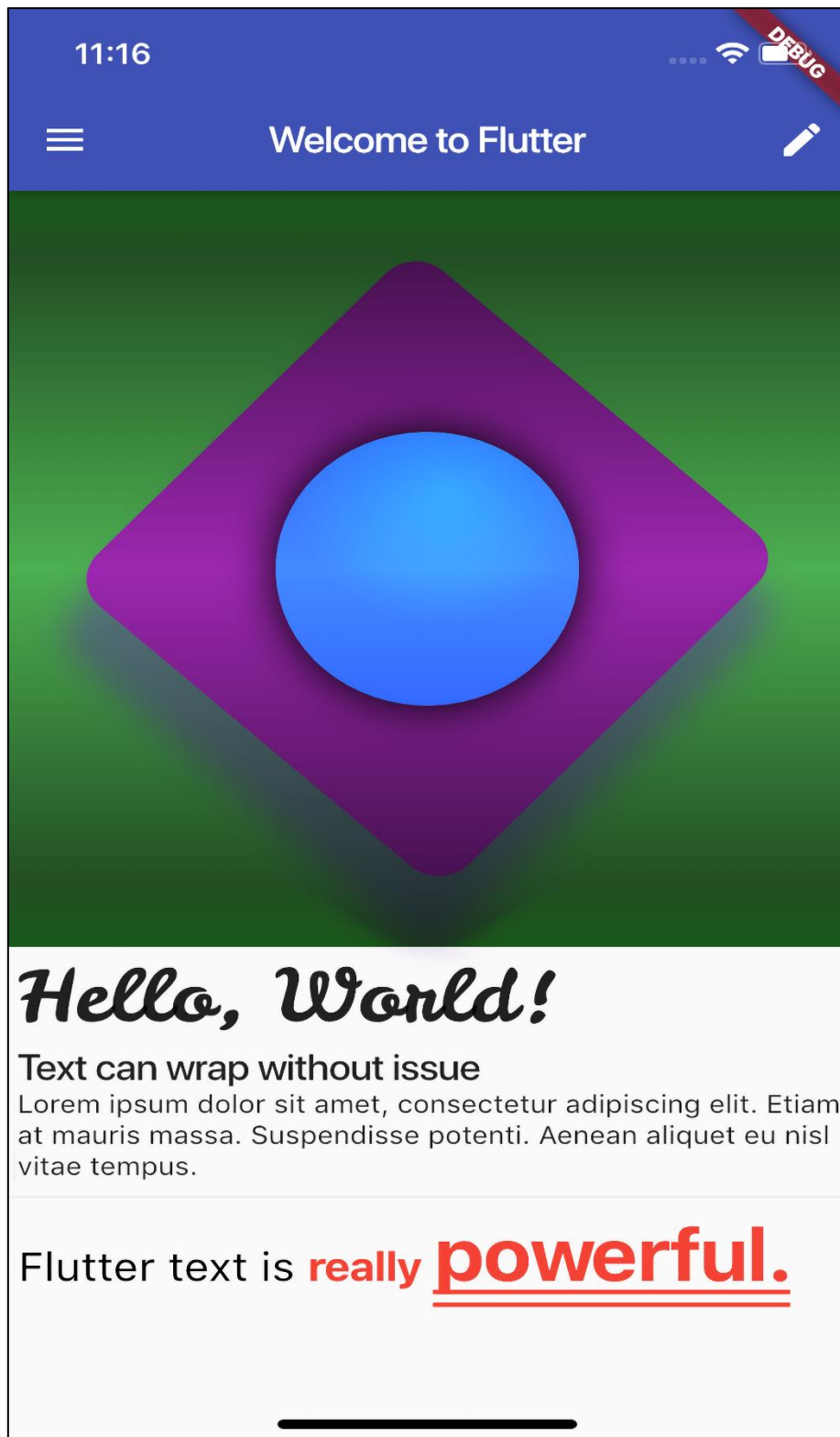


Hello, World!

Text can wrap without issue

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam at mauris massa. Suspendisse potenti. Aenean aliquet eu nisl vitae tempus.

Flutter text is **really powerful.**



11:33



Welcome to Flutter



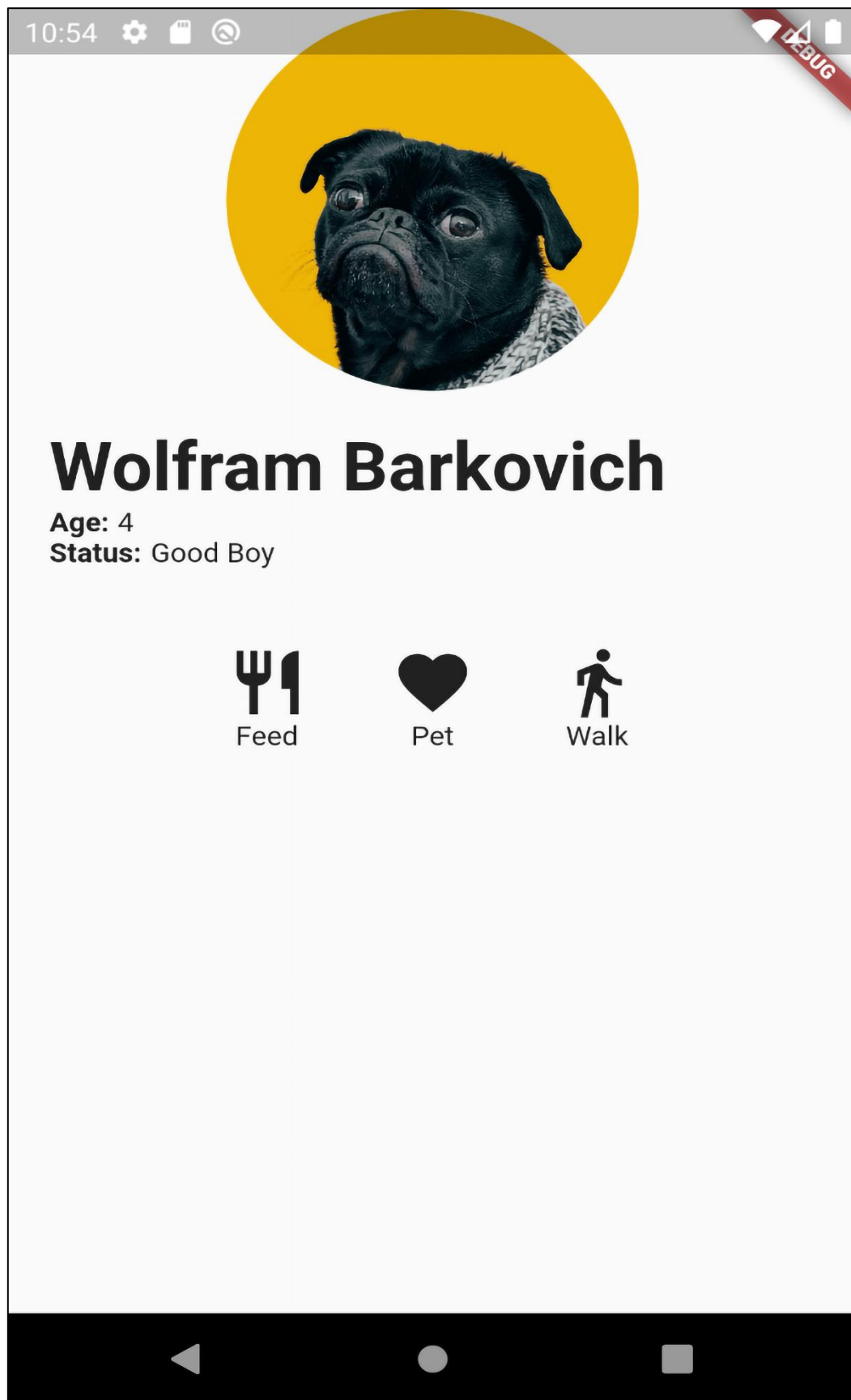
Hello, World!

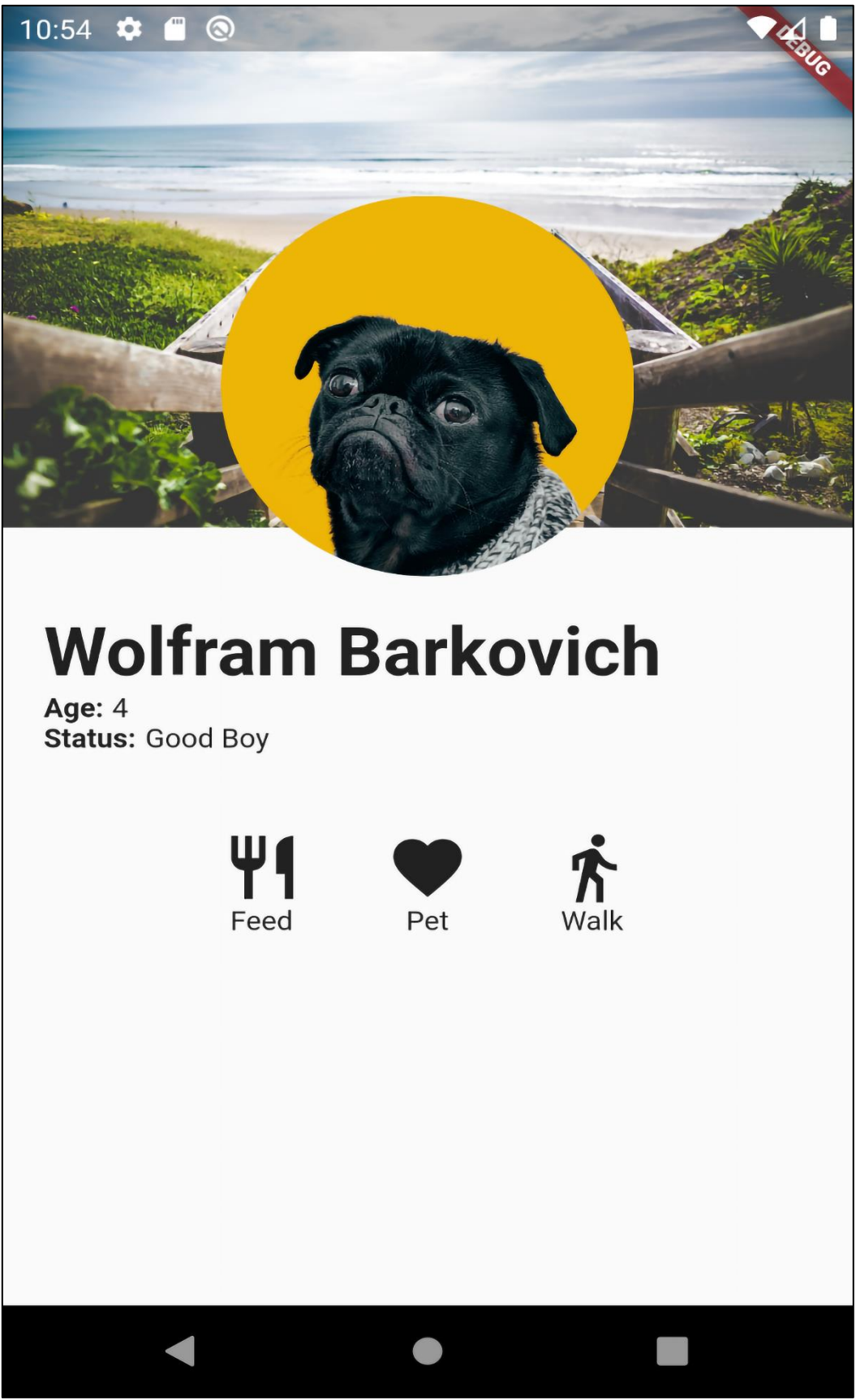
Text can wrap without issue

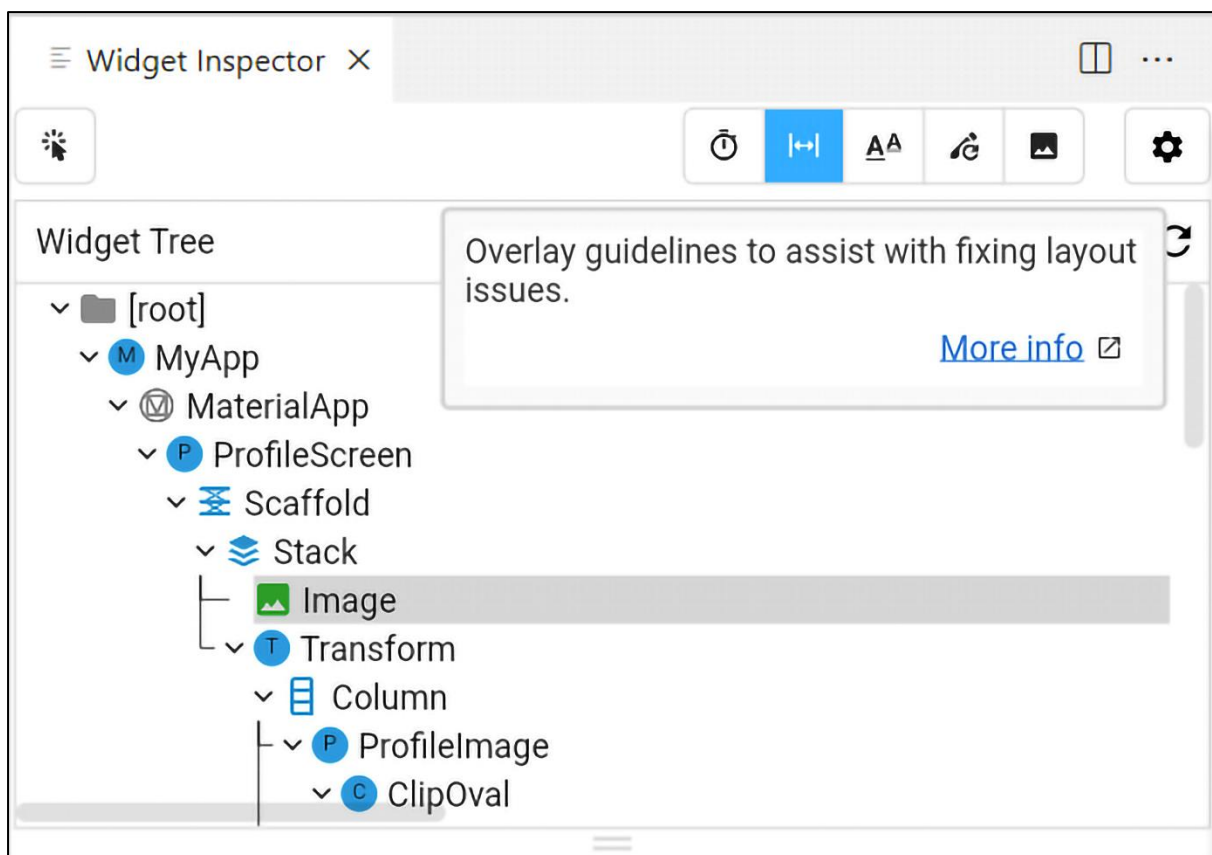
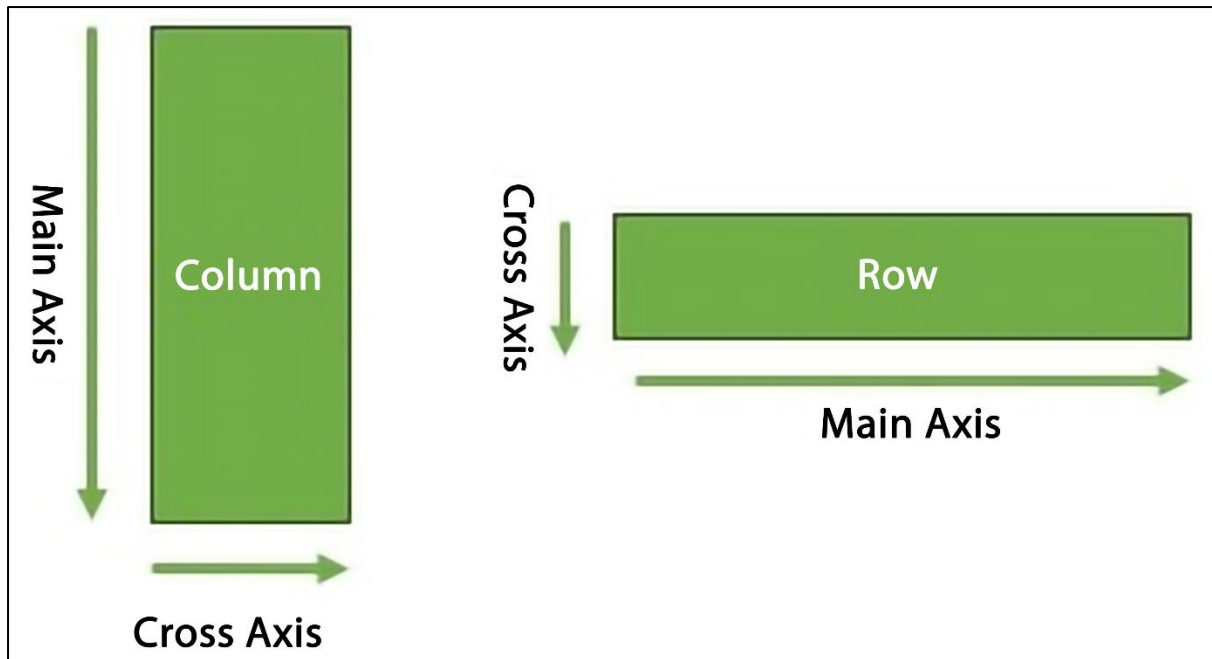
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam at mauris massa. Suspendisse potenti. Aenean aliquet eu nisl vitae tempus.

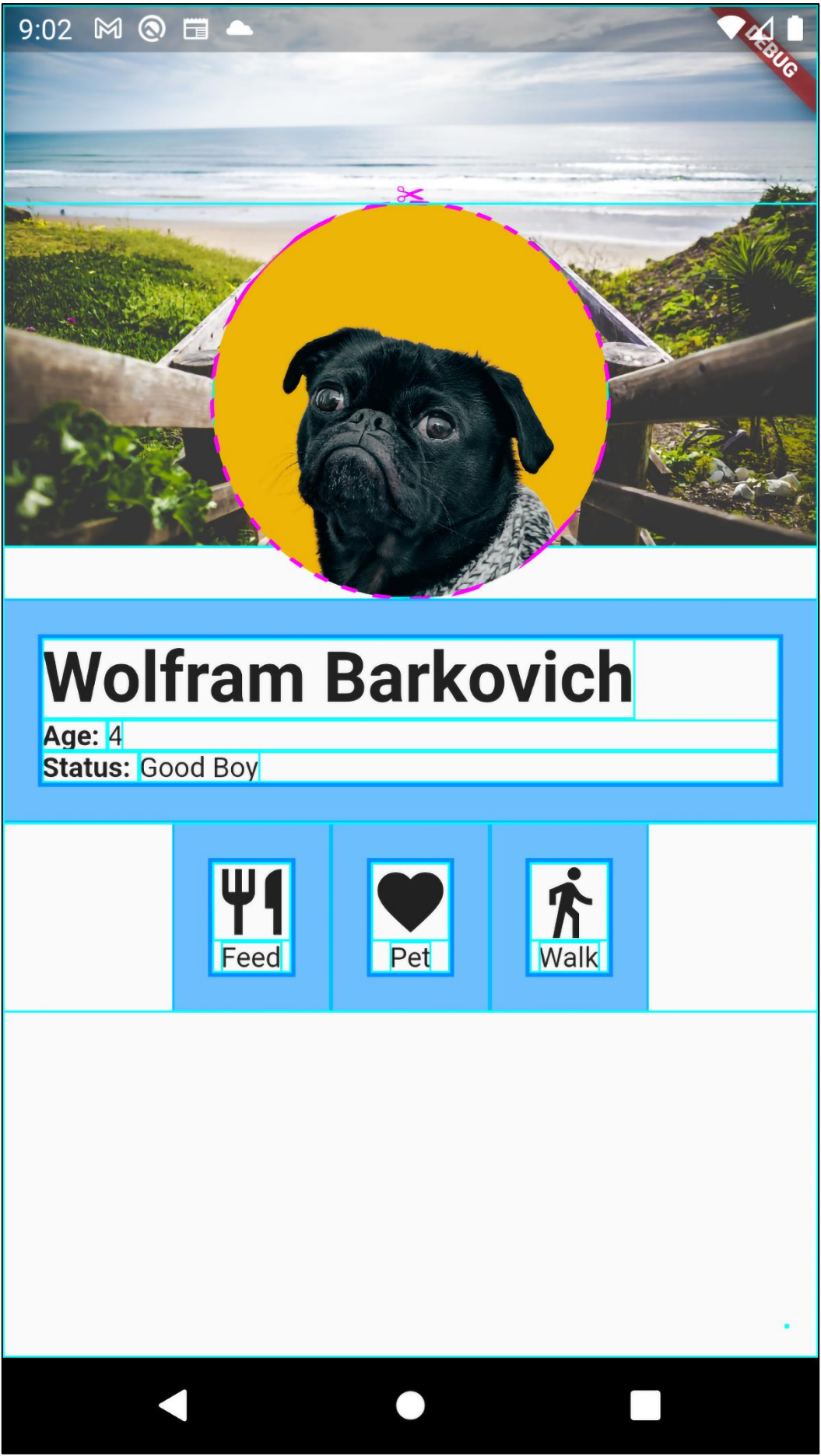
Flutter text is **really powerful.**

Chapter 5: Mastering Layout and Taming the Widget Tree









9:37



Flexible and Expanded

Expanded

100

The Remainder

40

Flexible

25%

25%

50%

Pinned to the Bottom

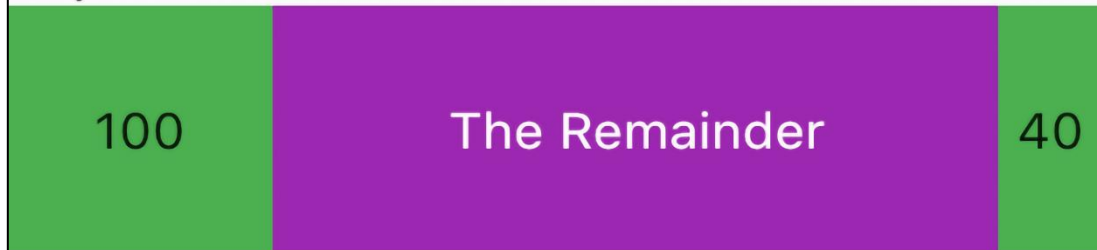
9:43



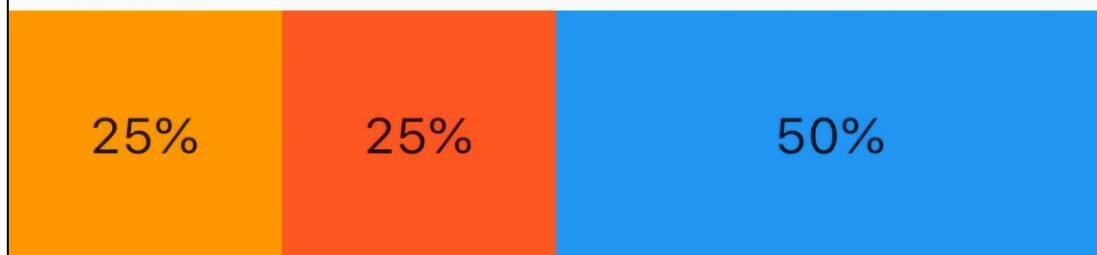
DEBUG

Flexible and Expanded

Expanded

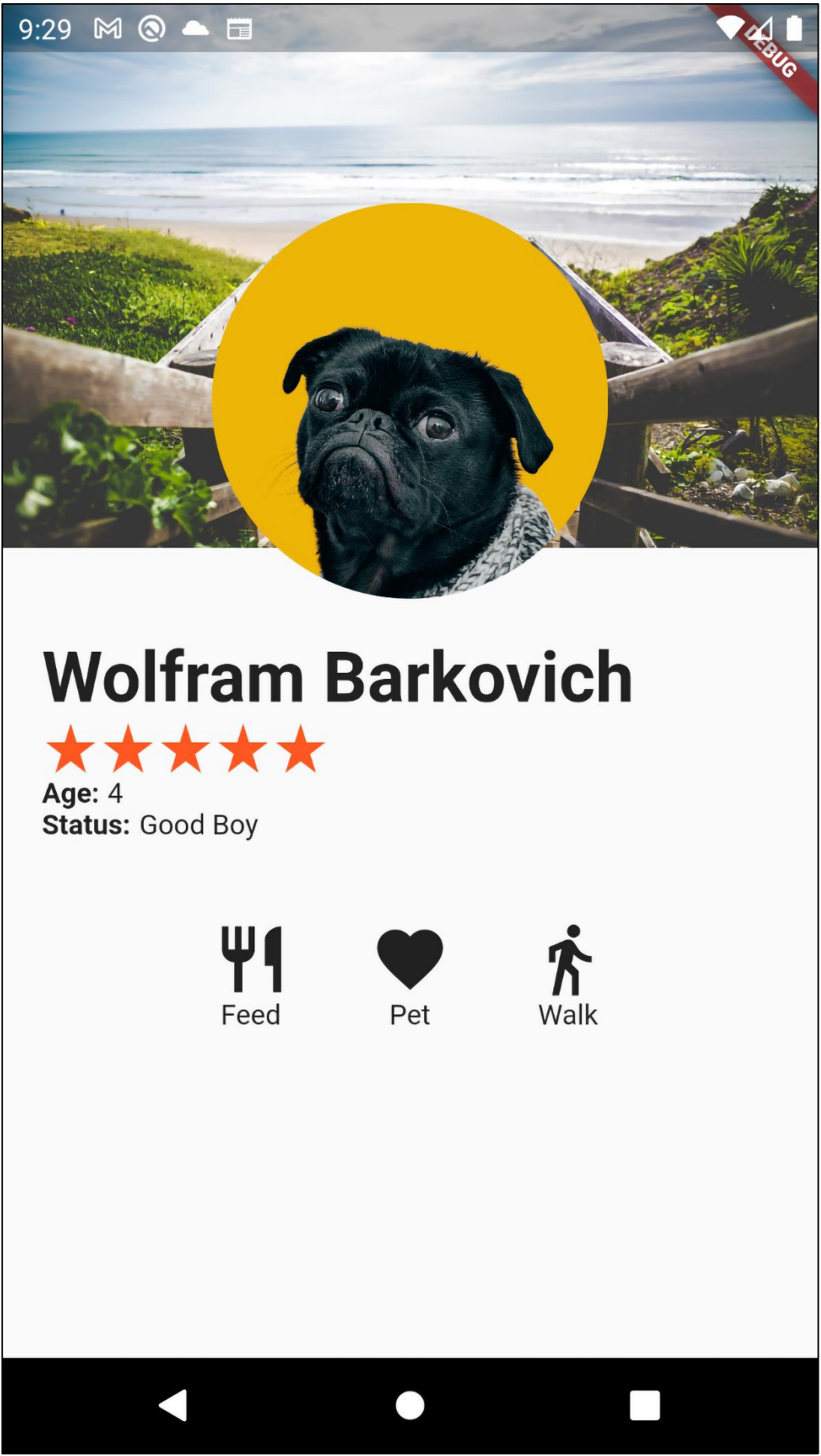


Flexible



Pinned to the Bottom





9:29 M

DEBUG



Wolfram Barkovich



Age: 4

Status: Good Boy



Feed



Pet



Walk

Its all widgets!
7:02



```

class DeepTree extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      body: Center(
        child: Column(
          mainAxisAlignment: MainAxisAlignment.center,
          children: <Widget>[
            Text('Its all widgets!'),
            Row(
              // rabbit hole goes.'),
            ],
          ),
        ),
      ); //
  }
}

```

Add padding
 Center widget
 Move widget down
 Move widget up
 Replace widget with its children
 Wrap with Column
 Wrap with Container
 Wrap with Row
 Wrap with StreamBuilder
 Wrap with new widget

```

class DeepTree extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      body: widget(
        child: Center(
          child: Column(

```

```
14 Image.asset('assets/woman_shopping.jpg'),
15 SizedBox(height: 15),
16 Row(
17   children: <Widget>[
18     Expanded(
19       child: Container(
20         height: 80,
```

```
Image.asset('assets/woman_shopping.jpg'),
SizedBox(height: 15),
Row(...), // Row
SizedBox(height: 15),
Row(...), // Row
SizedBox(height: 15),
Container(
  height: 200,
  color: Colors
  child: Row(
    children:
      Image.asset(
```

- Wrap with Column
- Flip ','
- Wrap with Row
- Adjust code style settings

9:52



Debug



Let's go shopping!



Recommended

Formal Wear

Casual Wear



Best Sellers

Daily Deals

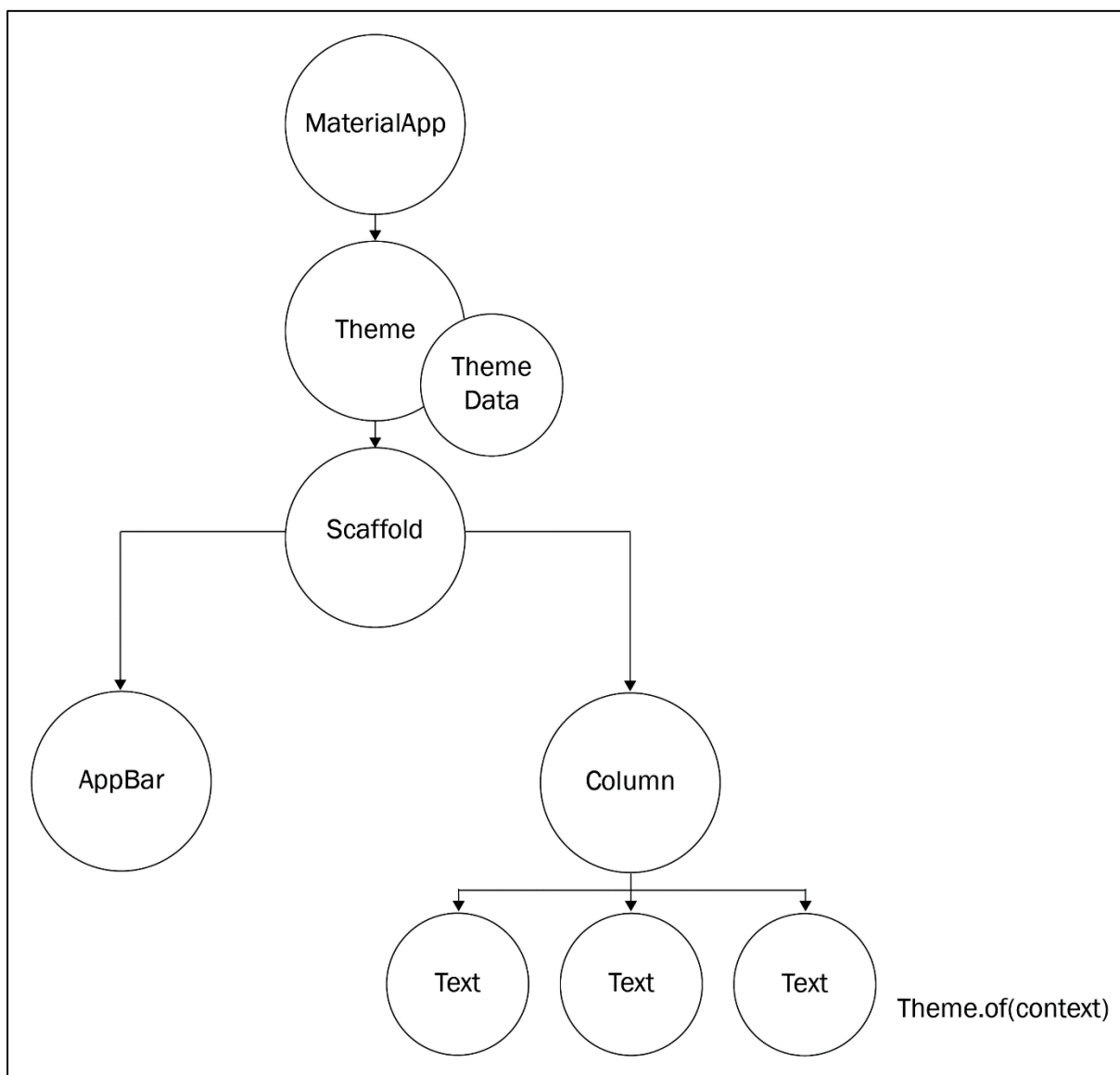
**Must buy in
summer**

Last Chance

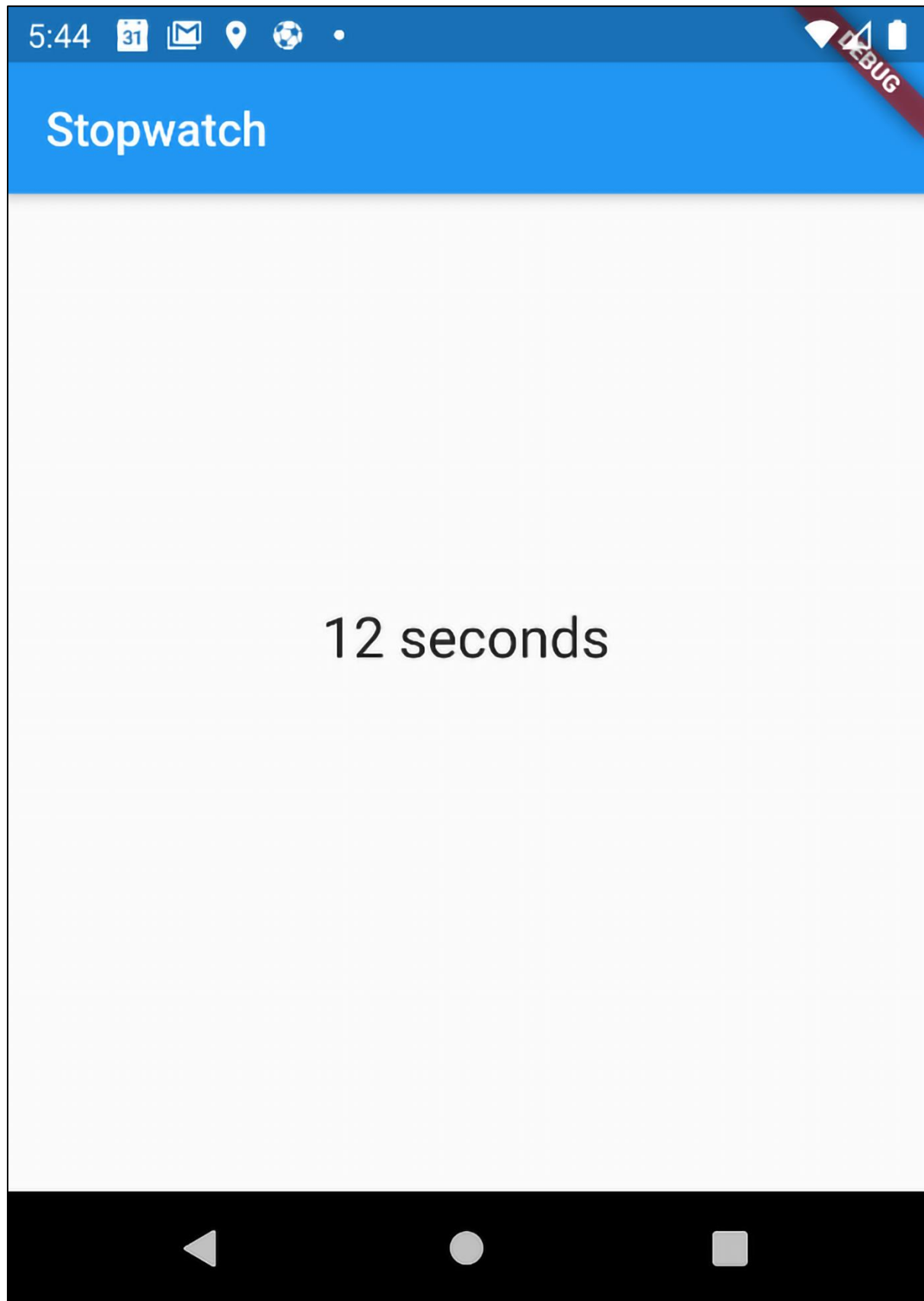


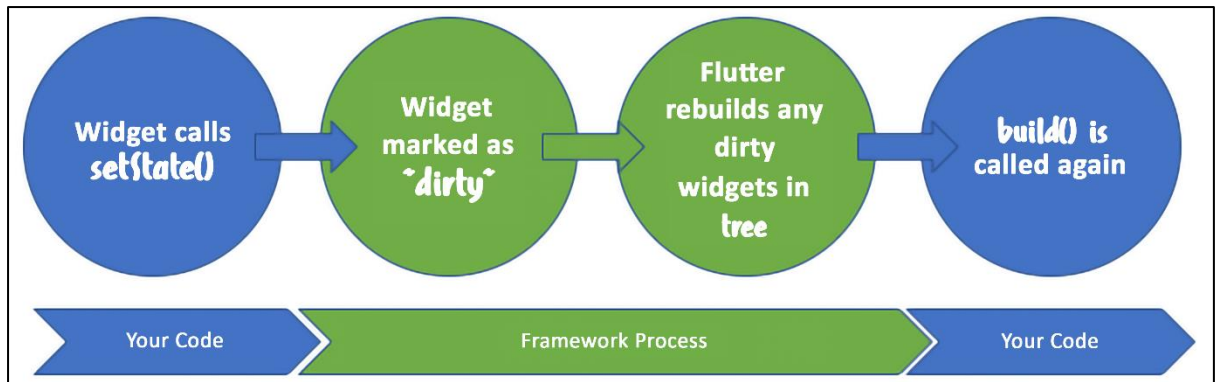
Lorem Ipsum

Dolor sit amet, consectetur
adipiscing elit. Quisque faucibus.



Chapter 6: Adding Interactivity and Navigation to Your app





Buttons Demo

Default ElevatedButton

Custom ElevatedButton

+ ElevatedButton with Icon

Disabled ElevatedButton

Default TextButton

Custom TextButton

♥ TextButton with Icon

Disabled TextButton

1:06



Stopwatch

8 seconds

Start

Stop

Stopwatch

Lap 9
4.9 seconds

Start

Lap

Stop

1.9 seconds

2.6 seconds

2.6 seconds

3.9 seconds

1.2 seconds

1.0 seconds

Login

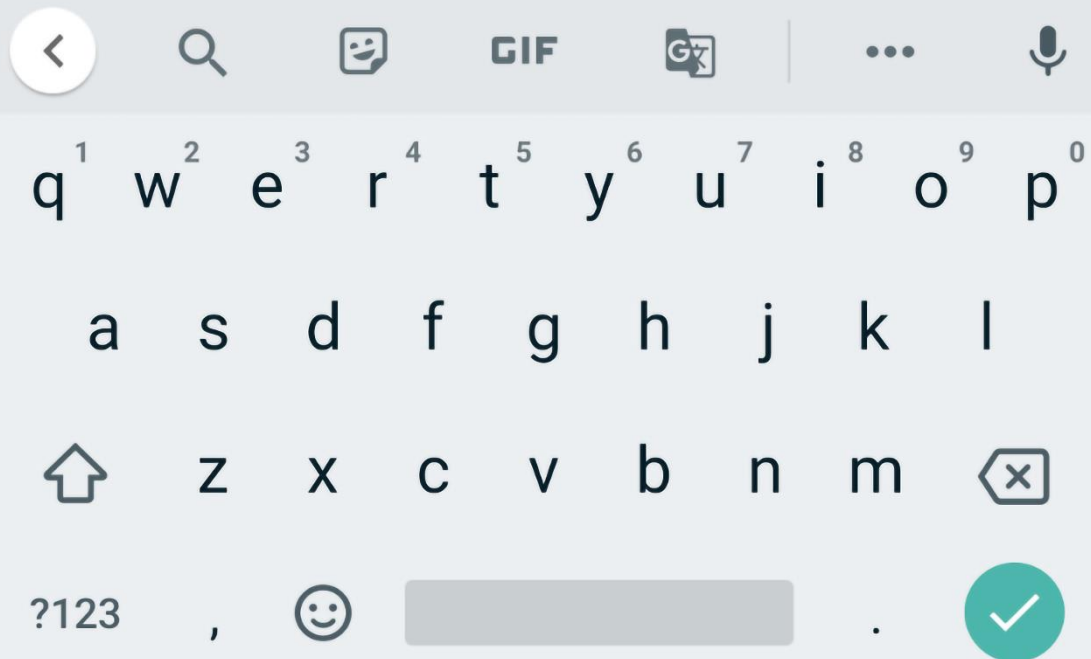
Runner
Brian

Email

not_a_email

Enter a valid email

Continue



Android

Android Default Alert

Uh Oh, something has gone wrong!

Close

Material Design

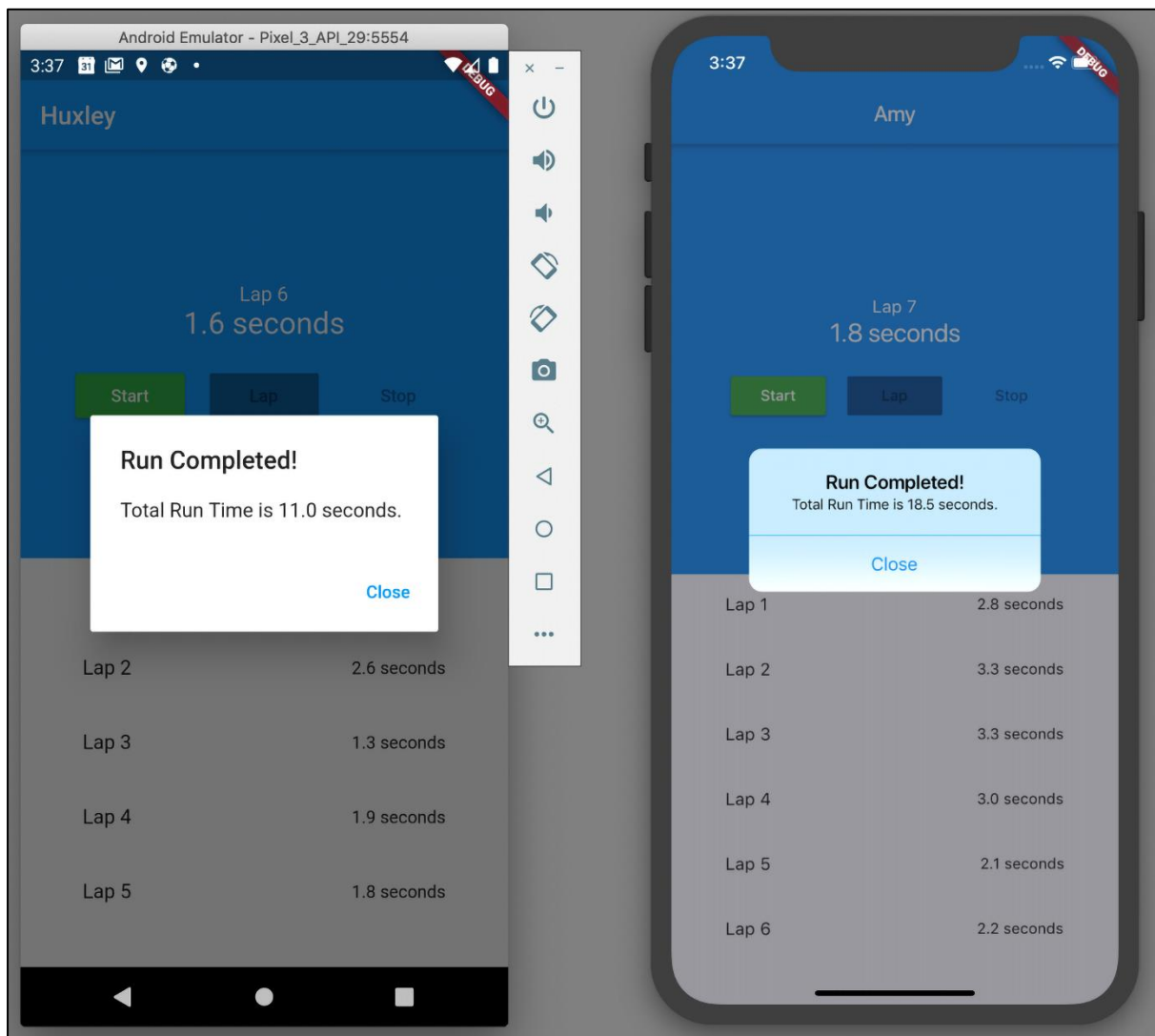
iOS

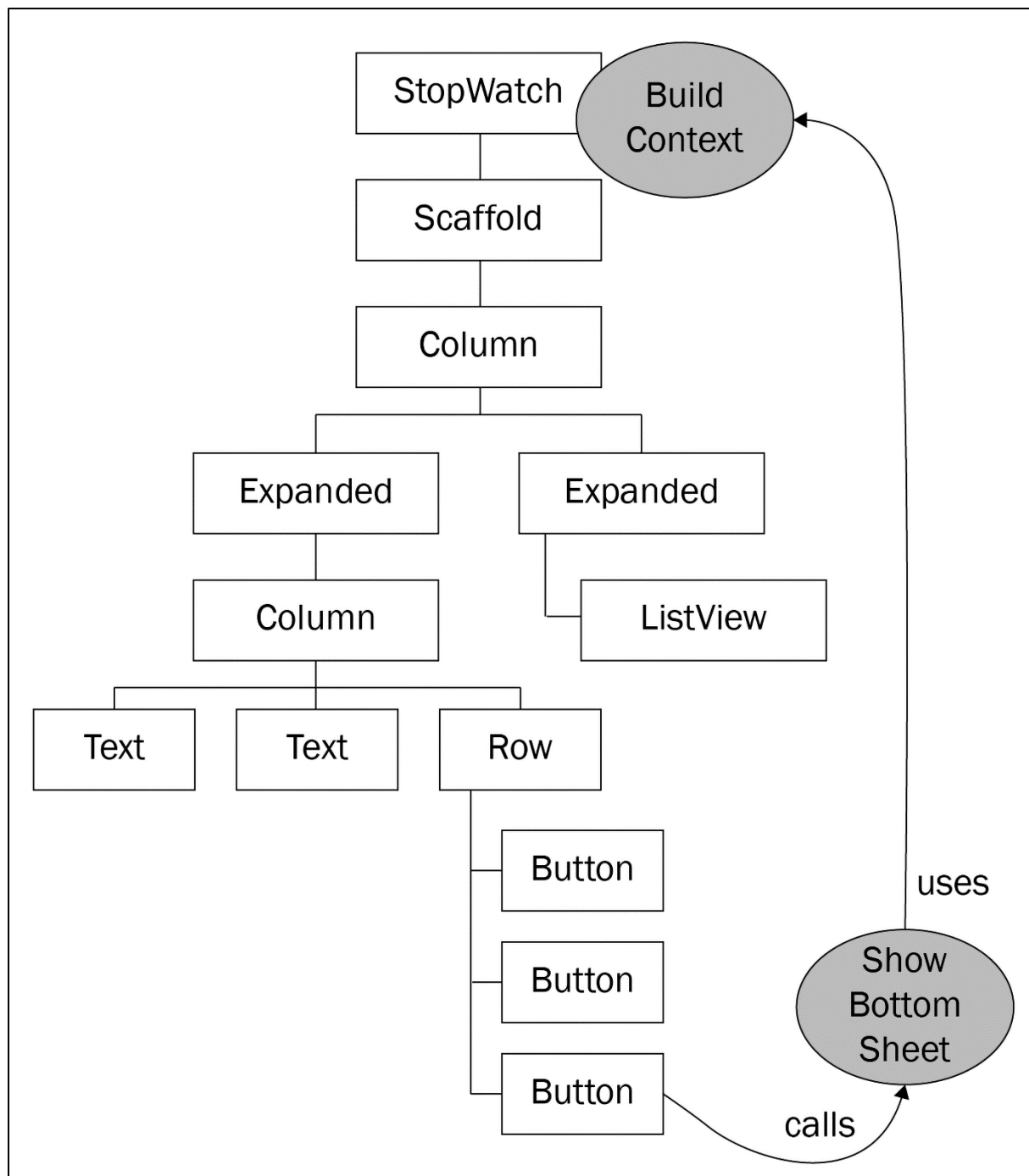
iOS Default Alert

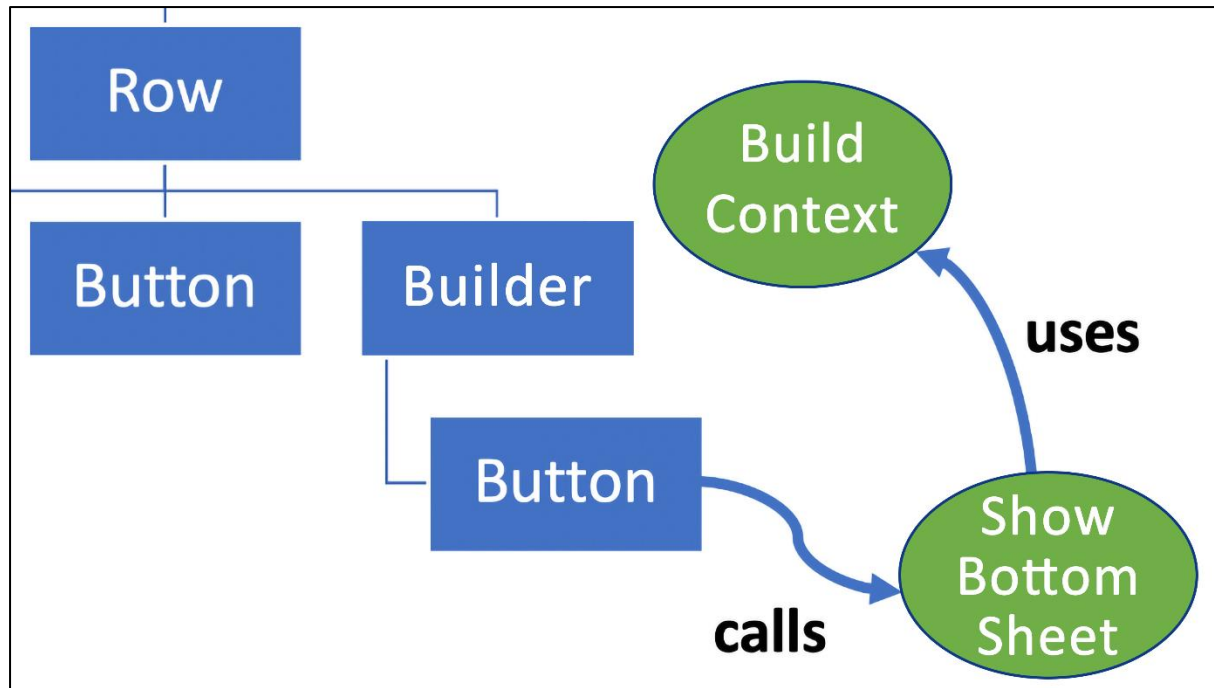
Uh Oh, something has gone wrong!

Close

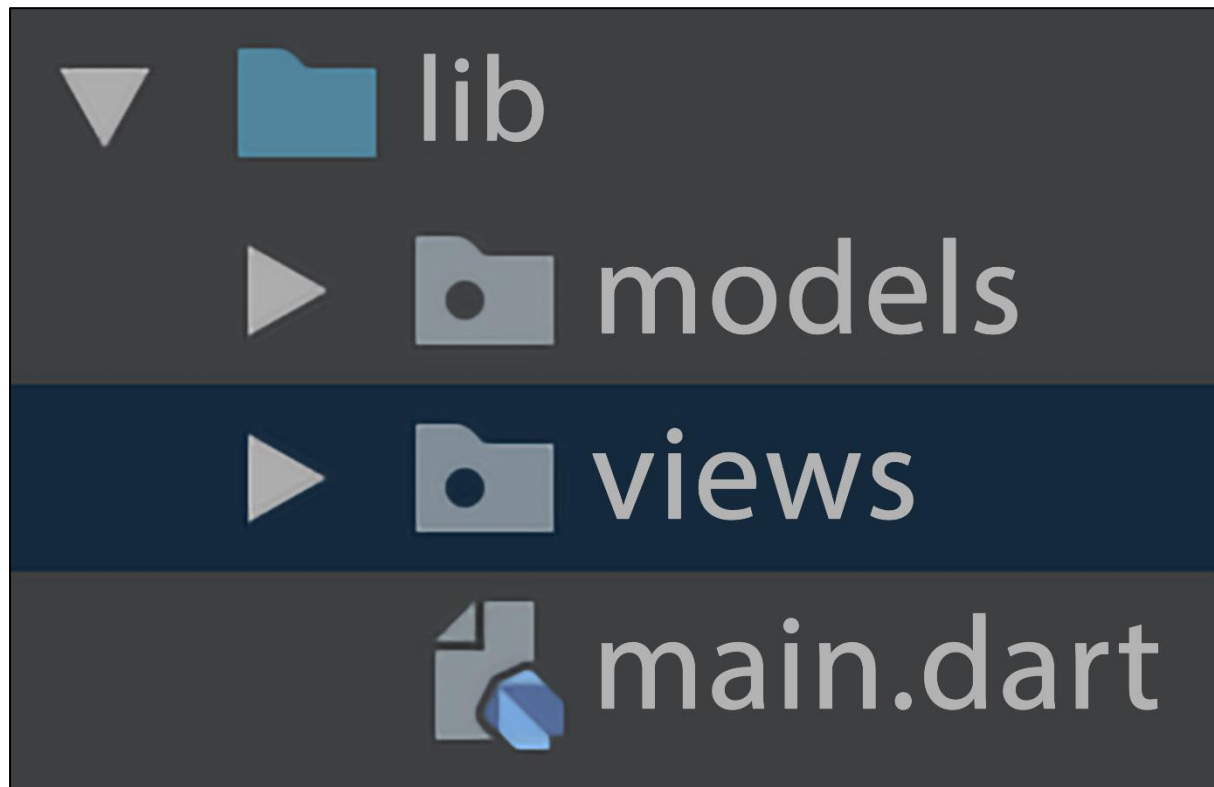
Cupertino Design







Chapter 7: Basic State Management



10:32



DEBUG

Master Plan



Learn Dart



Conquer the Widget Tree



Create Stateful Widgets



Separate Models and View



Try to take over the world!



GIF



q¹ w² e³ r⁴ t⁵ y⁶ u⁷ i⁸ o⁹ p⁰

a s d f g h j k l



z

x

c

v

b

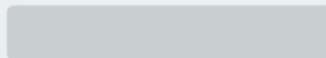
n

m



?123

,



.



9:50



Master Plans

Add a plan

Try to take over the world

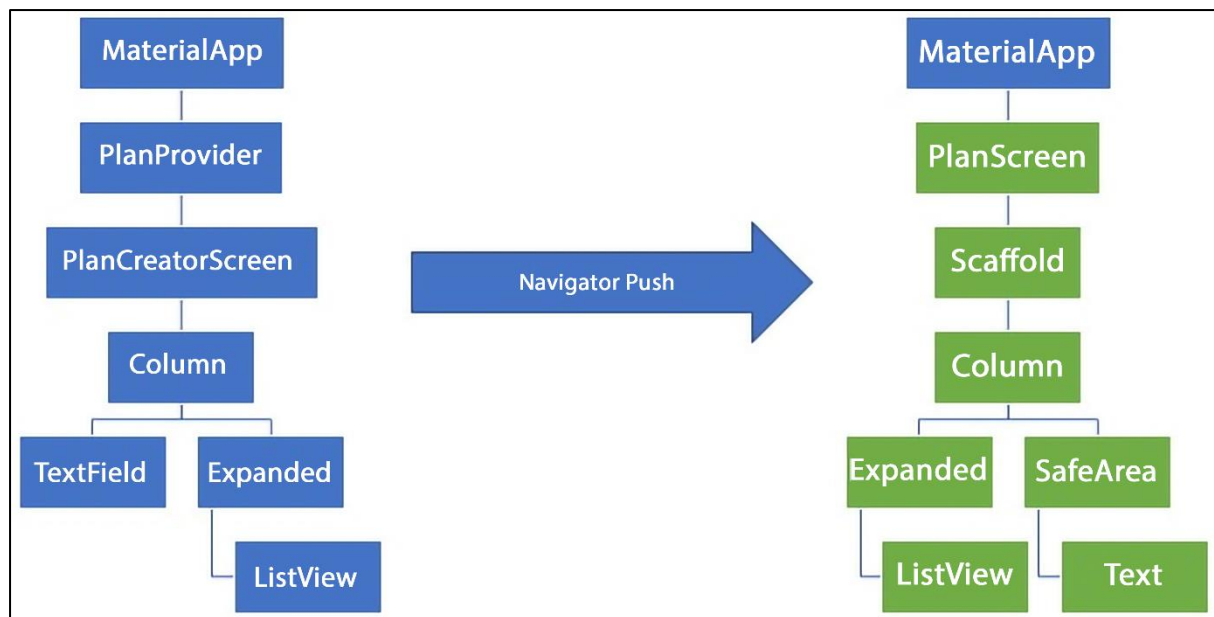
1 out of 3 tasks

Invent New Form of Cheese

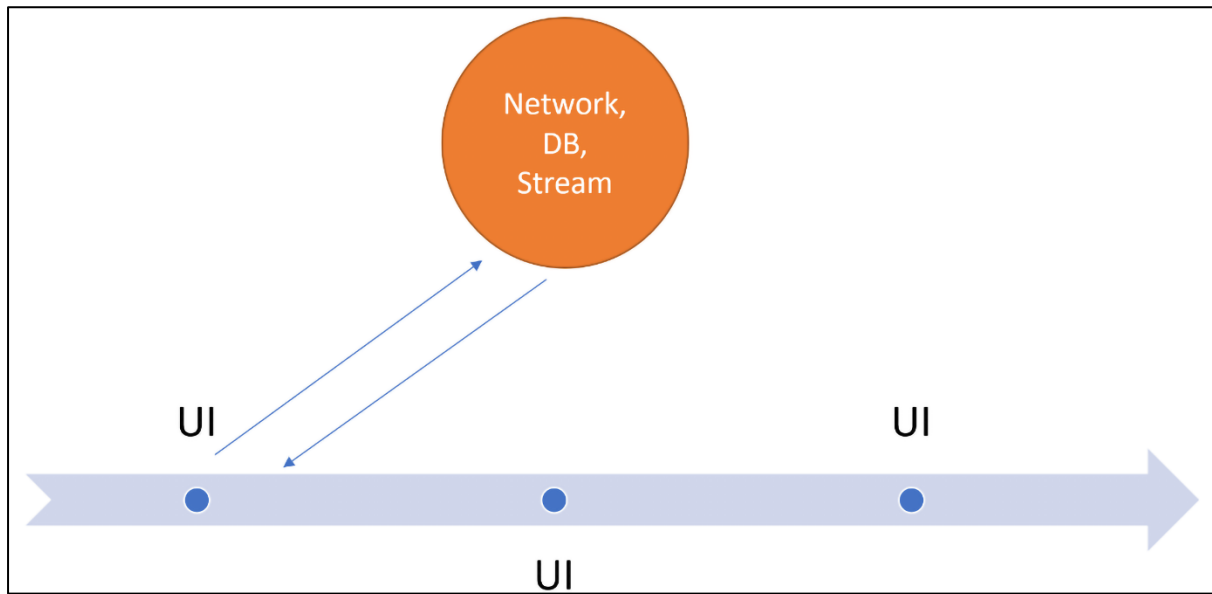
0 out of 14 tasks

Learn Flutter

6 out of 14 tasks



Chapter 8: The Future is Now: Introduction to Asynchronous Programming





DEBUG

Back from the Future

GO!

```
{
  "kind": "books#volume",
  "id": "junbDwAAQBAJ",
  "etag": "sgn2Z6tP5LY",
  "selfLink":
  "https://www.googleapis.com/books/v1/volumes
  /junbDwAAQBAJ",
  "volumeInfo": {
    "title": "Flutter Projects",
    "subtitle": "A practical, project-based guide to building real-world
cross-platform mobile applications and games",
    "authors": [
      "Simone Alessandria"
    ],
    "publisher": "Packt Publishing Ltd",
    "publishedDate": "2020-04-07",
```

//Future with then

```
Future<Response> getData() {  
    String url = 'https://myaddress.com';  
    return http.get(url);  
}
```

```
void someMethod() {  
    getData()  
        .then((value) {  
            //do something with value  
        });  
}
```

//Future with async / await

```
Future<Response> getData() {  
    String url = 'https://myaddress.com';  
    return http.get(url);  
}
```

```
Future someMethod() async {  
    var value = await getData();  
    //do something with value  
}
```



DEBUG

Back from the Future

GO!

6



Back from the Future

GO!

42





DEBUG

Back from the Future

Go!

Something terrible happened!



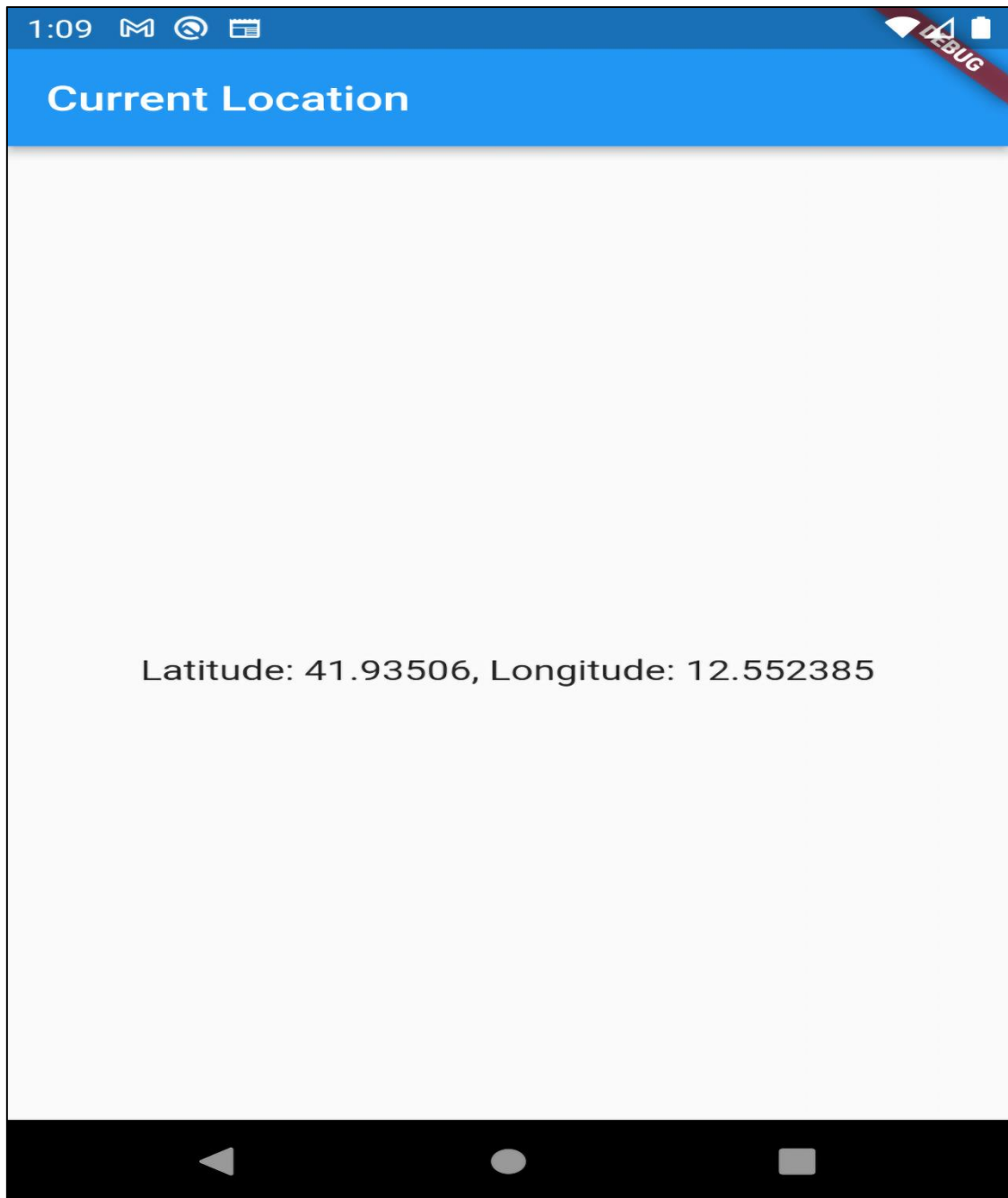
PROBLEMS

OUTPUT

TERMINAL

DEBUG CONSOLE

I/flutter (27854): Complete





DEBUG

Navigation First Screen

Change Color





DEBUG



Navigation Second Screen

Red

Green

Blue





DEBUG

Navigation First Screen

Very important question

Please choose a color

Red

Green

Blue



Chapter 9: Data Persistence and Communicating with the Internet

[	Opening square bracket: begin array / list
{	Opening curly bracket: begin object
"id": 1,	Key – Value Pairs: keys and string values are included in quotes
"pizzaName": "Margherita",	
"description": "Pizza with tomato, fresh mozzarella and basil",	
"price": 8.75,	
"imageUrl": "images/margherita.png"	
},	Closing curly bracket: end of object;
{	Use commas to separate objects
"id": 2,	
"pizzaName": "Marinara",	
"description": "Pizza with tomato, garlic and oregano",	
"price": 7.50,	
"imageUrl": "images/marinara.png"	
}	
]	Closing square bracket: end array/list



8:36

DEBUG

JSON

```
[
  {
    "id": 1,
    "pizzaName": "Margherita",
    "description": "Pizza with tomato, fresh mozzarella and basil",
    "price": 8.75,
    "imageUrl": "images/margherita.png"
  },
  {
    "id": 2,
    "pizzaName": "Marinara",
    "description": "Pizza with tomato, garlic and oregano",
    "price": 7.50,
    "imageUrl": "images/marinara.png"
  },
  {
    "id": 3,
    "pizzaName": "Napoli",
    "description": "Pizza with tomato, garlic and anchovies",
    "price": 9.50,
    "imageUrl": "images/marinara.png"
  },
  {
    "id": 4,
    "pizzaName": "Carciofi",
    "description": "Pizza with tomato, fresh mozzarella and
artichokes",
    "price": 8.80,
    "imageUrl": "images/marinara.png"
  },
  {
    "id": 5,
    "pizzaName": "Bufala",
    "description": "Pizza with tomato, buffalo mozzarella and
basil",
    "price": 12.50,
    "imageUrl": "images/marinara.png"
  }
]
```



9:22

DEBUG

JSON

Margherita

Pizza with tomato, fresh mozzarella and basil - € 8.75

Marinara

Pizza with tomato, garlic and oregano - € 7.5

Napoli

Pizza with tomato, garlic and anchovies - € 9.5

Carciofi

Pizza with tomato, fresh mozzarella and artichokes - € 8.8

Bufala

Pizza with tomato, buffalo mozzarella and basil - € 12.5



```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  Filter (e.g. text, lexclude)  ⌵  ⌵  ✕

Restarted application in 1.863ms.
I/flutter ( 5353): [{id: 1, pizzaName: Margherita, description: Pizza with tomato, fresh mozzarella and
  basil, price: 8.75, imageUrl: images/margherita.png}, {id: 2, pizzaName: Marinara, description: Pizza w
  ith tomato, garlic and oregano, price: 7.5, imageUrl: images/marinara.png}, {id: 3, pizzaName: Napoli,
  description: Pizza with tomato, garlic and anchovies, price: 9.5, imageUrl: images/marinara.png}, {id:
  4, pizzaName: Carciofi, description: Pizza with tomato, fresh mozzarella and artichokes, price: 8.8, im
  ageUrl: images/marinara.png}, {id: 5, pizzaName: Bufala, description: Pizza with tomato, buffalo mozzar
  ella and basil, price: 12.5, imageUrl: images/marinara.png}]
```

```
16  Pizza.fromJson(Map<String, dynamic> json) {
17  this.id = json['id'];
```

Exception has occurred. ✕
_TypeError (type 'String' is not a subtype of type 'int')

```
8  Pizza.fromJson(Map<String, dynamic> json) {
9  id = int.tryParse(json['id']) ?? 0;
10  pizzaName = json['pizzaName'];
11  description = json['description'];
12  price = json['price'];
13  imageUrl = json['imageUrl'];
```

Exception has occurred. ✕
_TypeError (type 'Null' is not a subtype of type 'String')

```
10  pizzaName = json['pizzaName'];
```

Exception has occurred.
_TypeError (type 'Null' is not a subtype of type 'String')

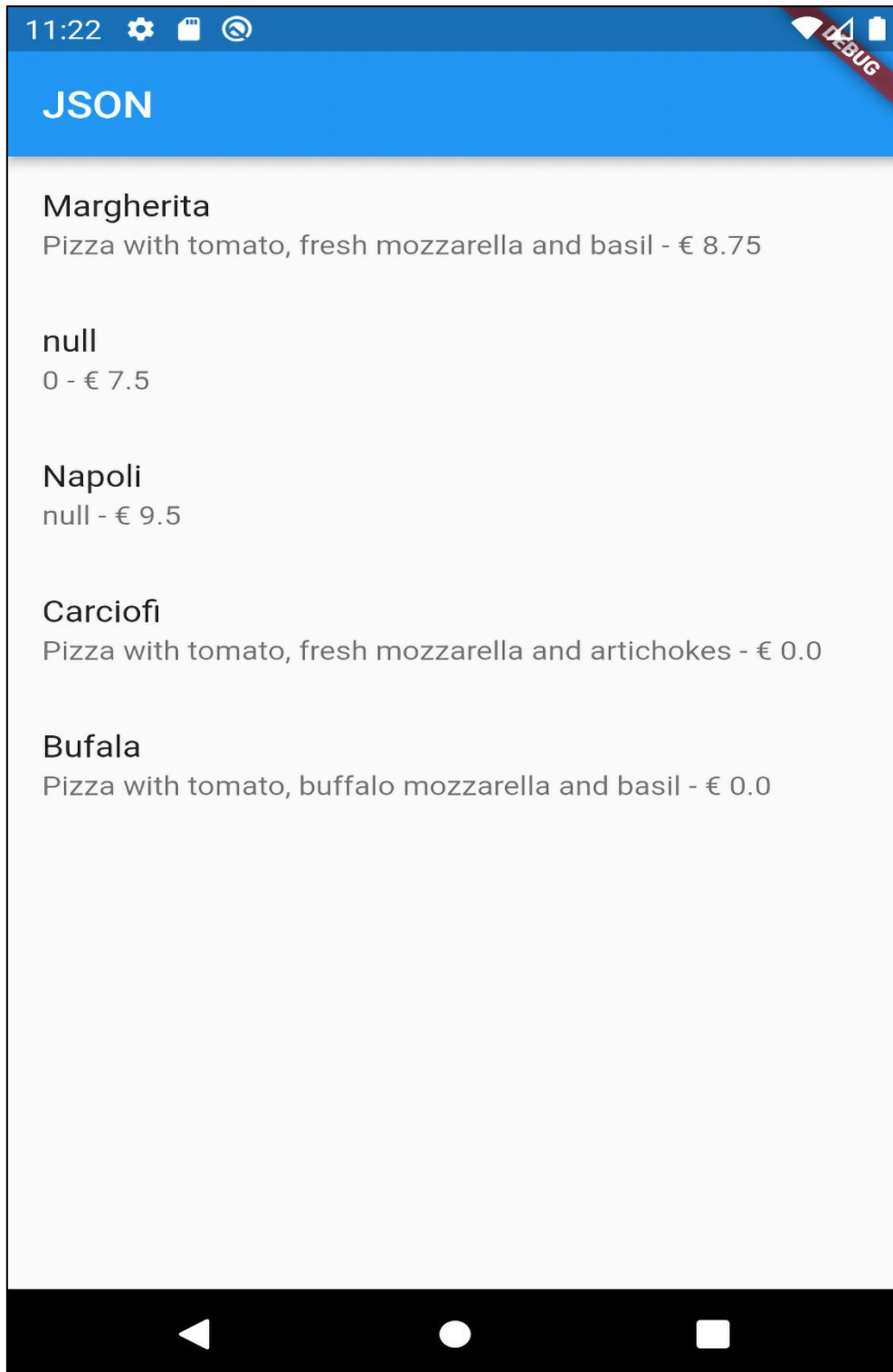
```
11  description = json['description'];
12  price = json['price'];
13  imageUrl = json['imageUrl'] ?? '';
14  }
```

26

```
this.price = json[keyPrice];
```

Exception has occurred. ×

_TypeError (type 'String' is not a subtype of type 'double')





DEBUG

Shared Preferences

You have opened the app 1 times.

Reset counter



10:34



Path Provider

Doc path: /data/user/0/com.example.shared/app_flutter

Temp path /data/user/0/com.example.shared/cache

10:39



Path Provider

Doc path: /data/user/0/com.example.shared/app_flutter

Temp path /data/user/0/com.example.shared/cache

Read File

Margherita, Capricciosa, Napoli



4:00

DEBUG

Path Provider

Super Secret String!

Save Value

Read Value

Super Secret String!



GIF



q¹ w² e³ r⁴ t⁵ y⁶ u⁷ i⁸ o⁹ p⁰

a s d f g h j k l



z

x

c

v

b

n

m



?123

,



.





DEBUG

JSON

Margherita

Pizza with tomato, fresh mozzarella and basil - € 8.75

Marinara

Pizza with tomato, garlic and oregano - € 7.5

Napoli

Pizza with tomato, garlic and anchovies - € 9.5

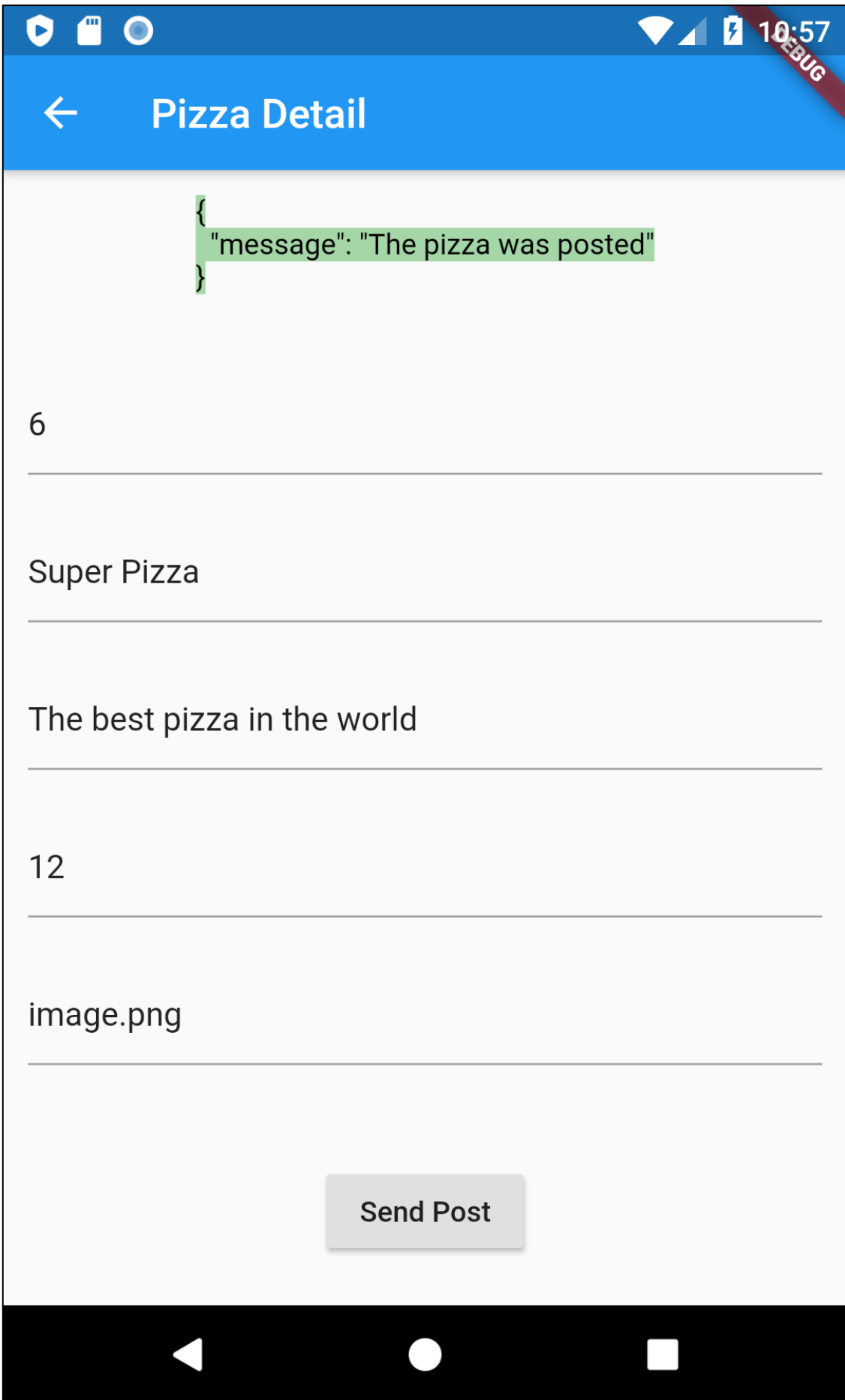
Carciofi

Pizza with tomato, fresh mozzarella and artichokes - € 8.8

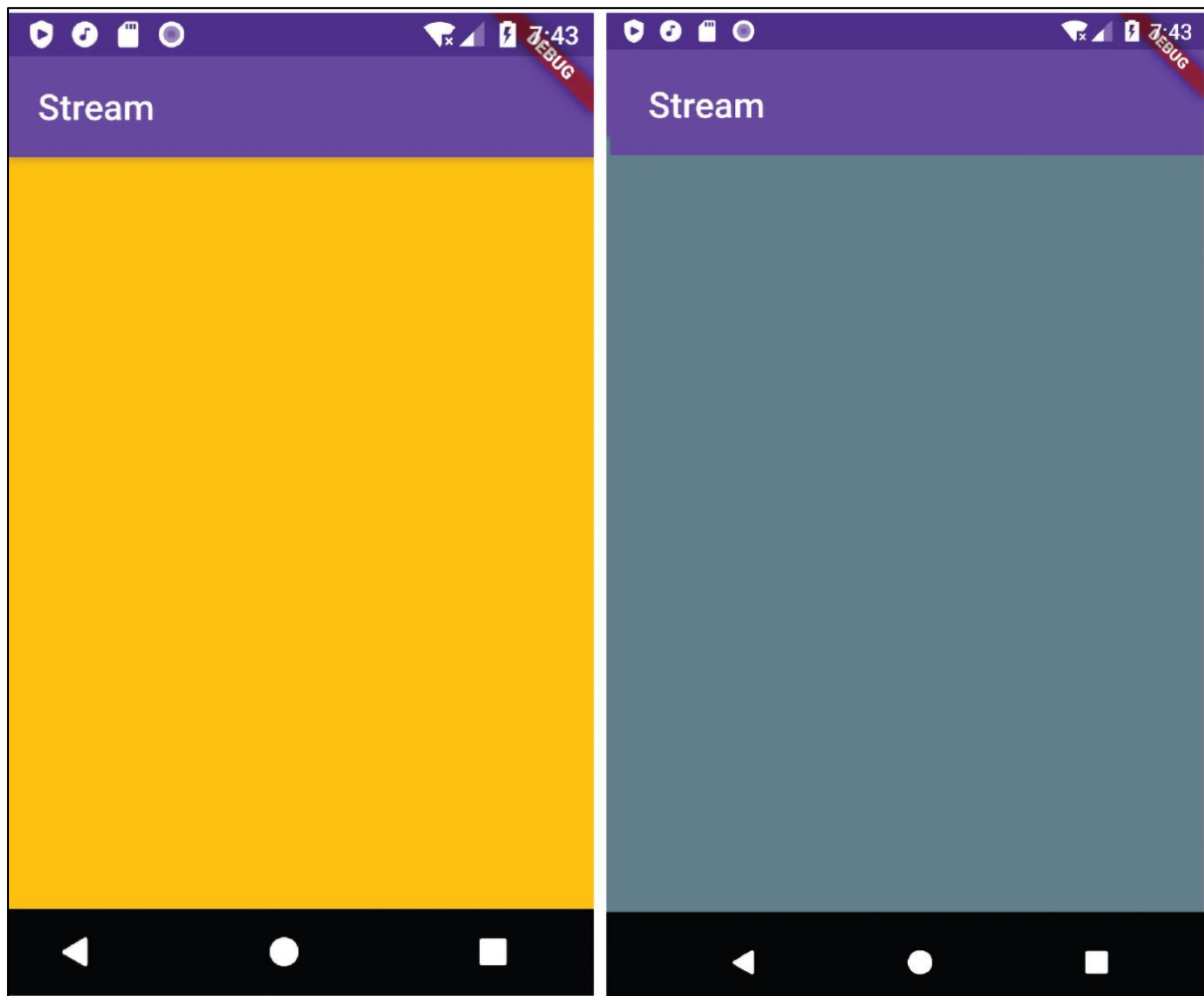
Bufala

Pizza with tomato, buffalo mozzarella and basil - € 12.5





Chapter 10: Advanced State Management with Streams





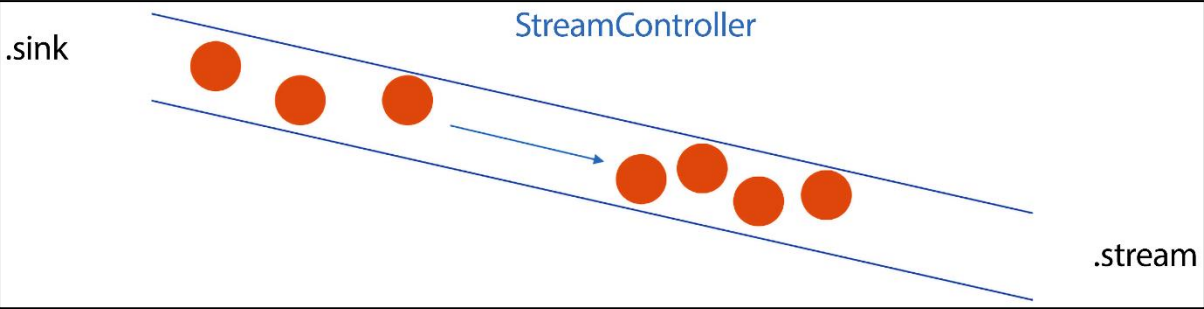
DEBUG

Stream

8

New Random Number







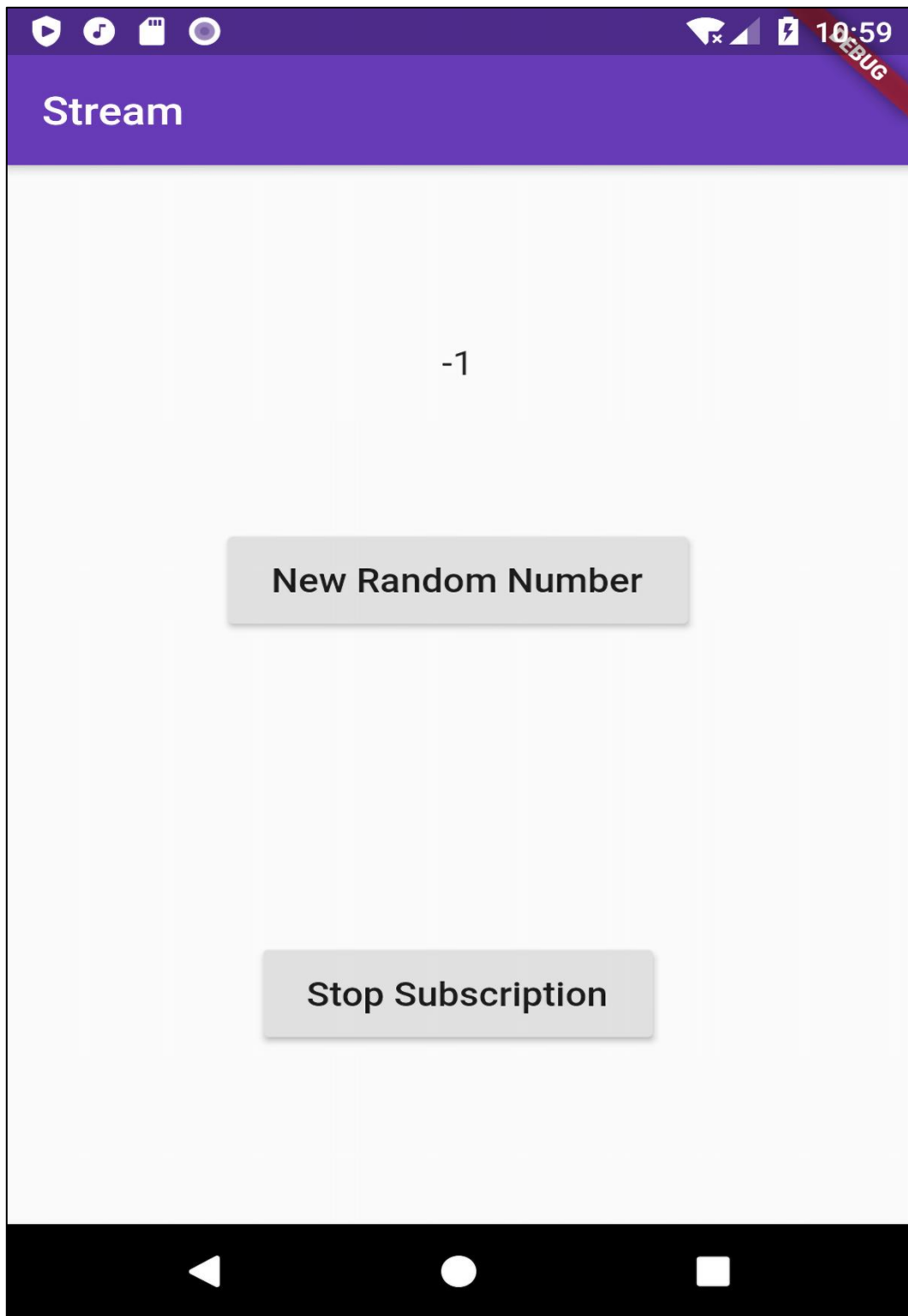
DEBUG

Stream

90

New Random Number





PROBLEMS

3

OUTPUT

TERMINAL

DEBUG CONSOLE

Restarted application in 1,009ms.

I/flutter (5570): OnDone was called



DEBUG

Bad state: Stream has already
been listened to.
See also:
[https://flutter.dev/docs/testing
/errors](https://flutter.dev/docs/testing/errors)





DEBUG

Stream

0-0-4-4-9-9-0-0-2-2-6-6-0-0-7-7-5-5-0-0-5-5-
6-6-1-1-9-9-8-8-8-8-7-7-5-5-4-4-9-9-8-8-4-4-
0-0-1-1-8-8-3-3-0-0-6-6-5-5-9-9-3-3-3-3-9-9-

New Random Number

Stop Stream



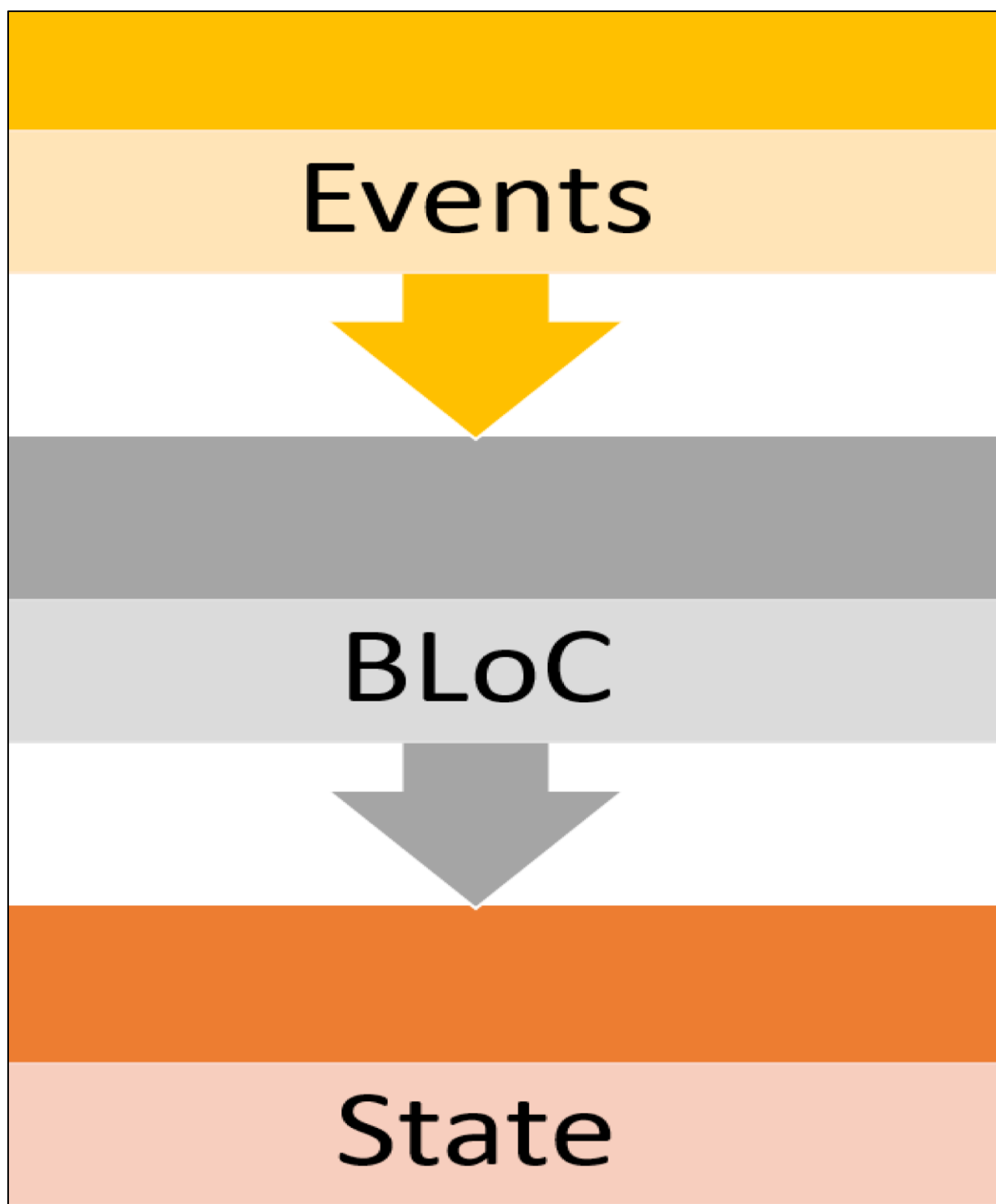


DEBUG

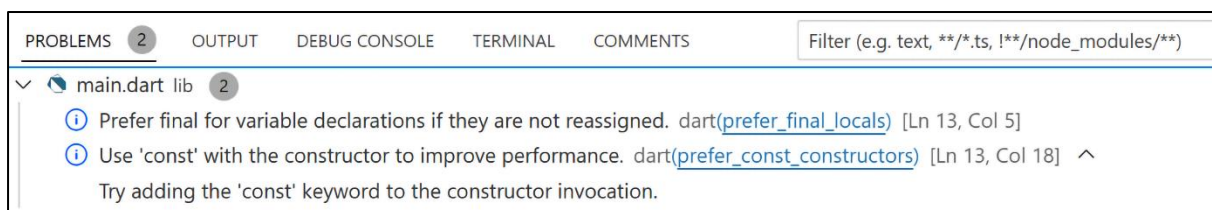
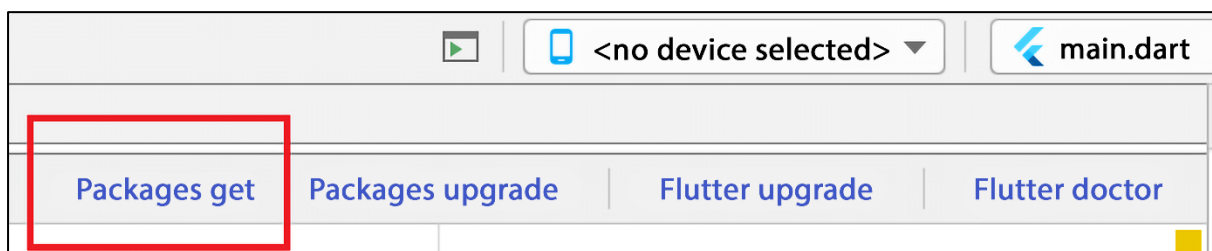
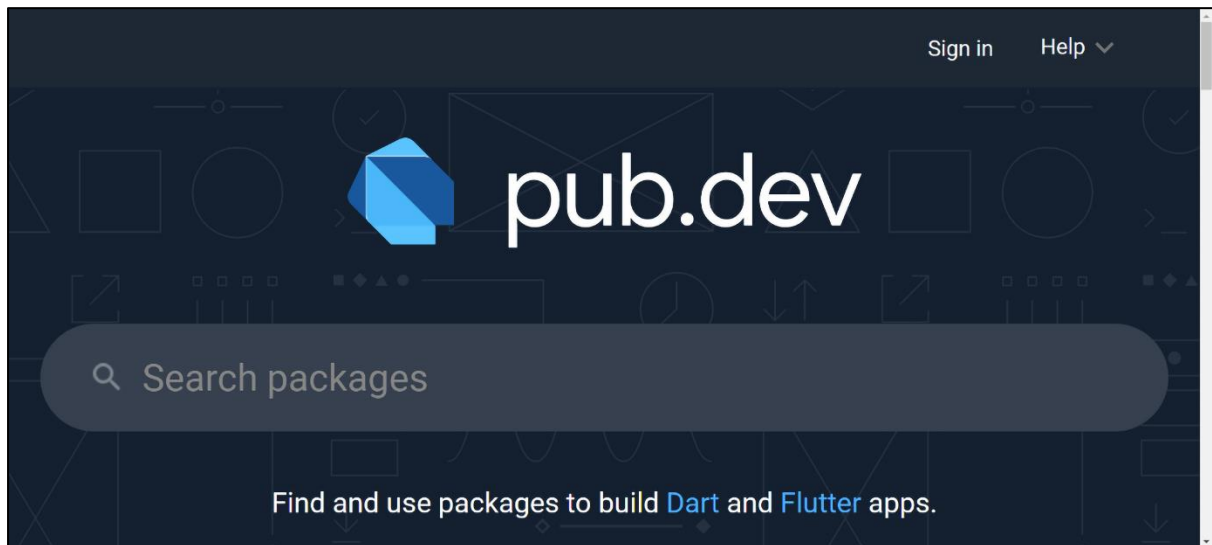
Stream

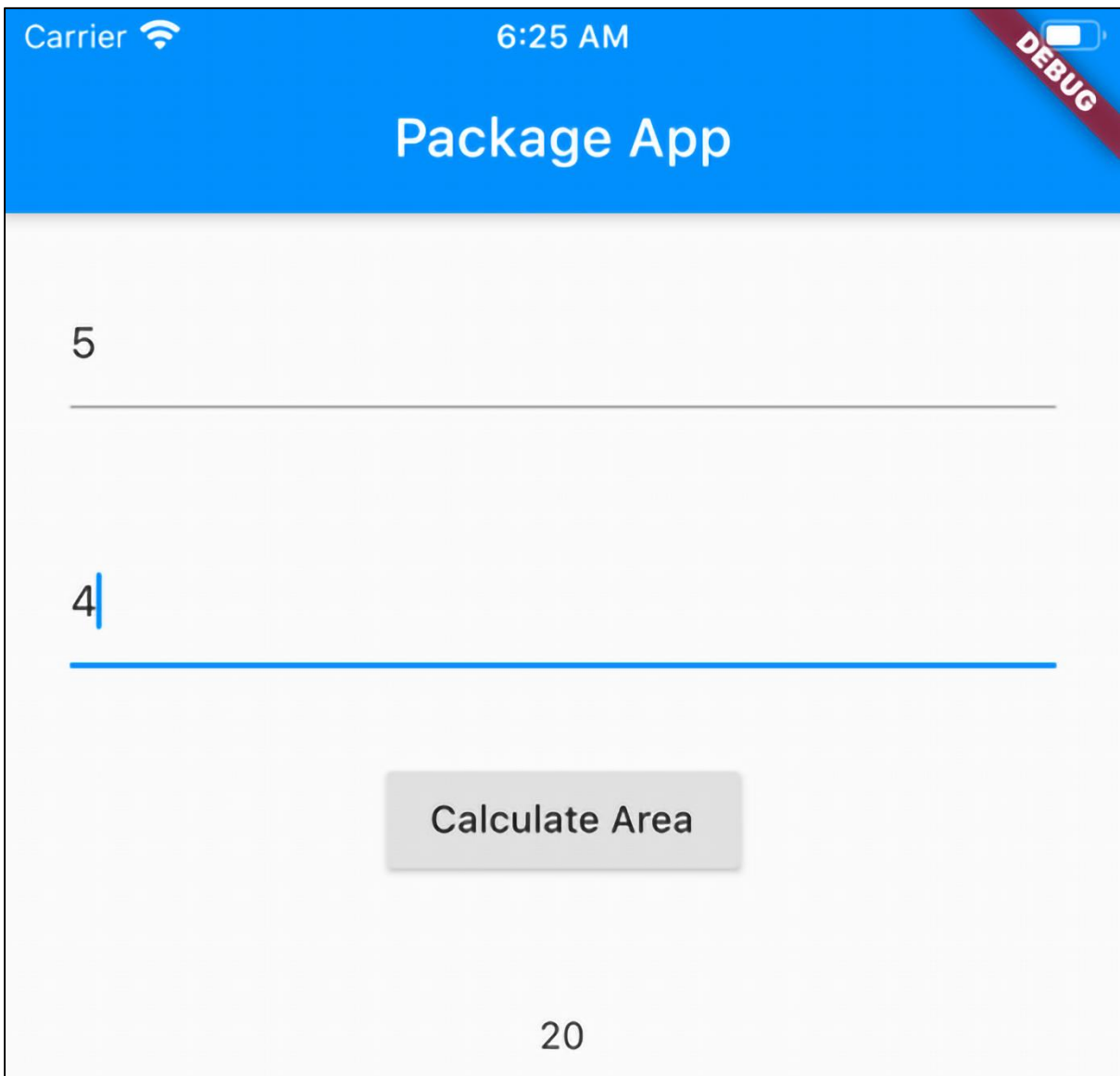
6





Chapter 11: Using Flutter Packages





Enabled APIs

Select an API to view details. Figures are for the last 30 days.

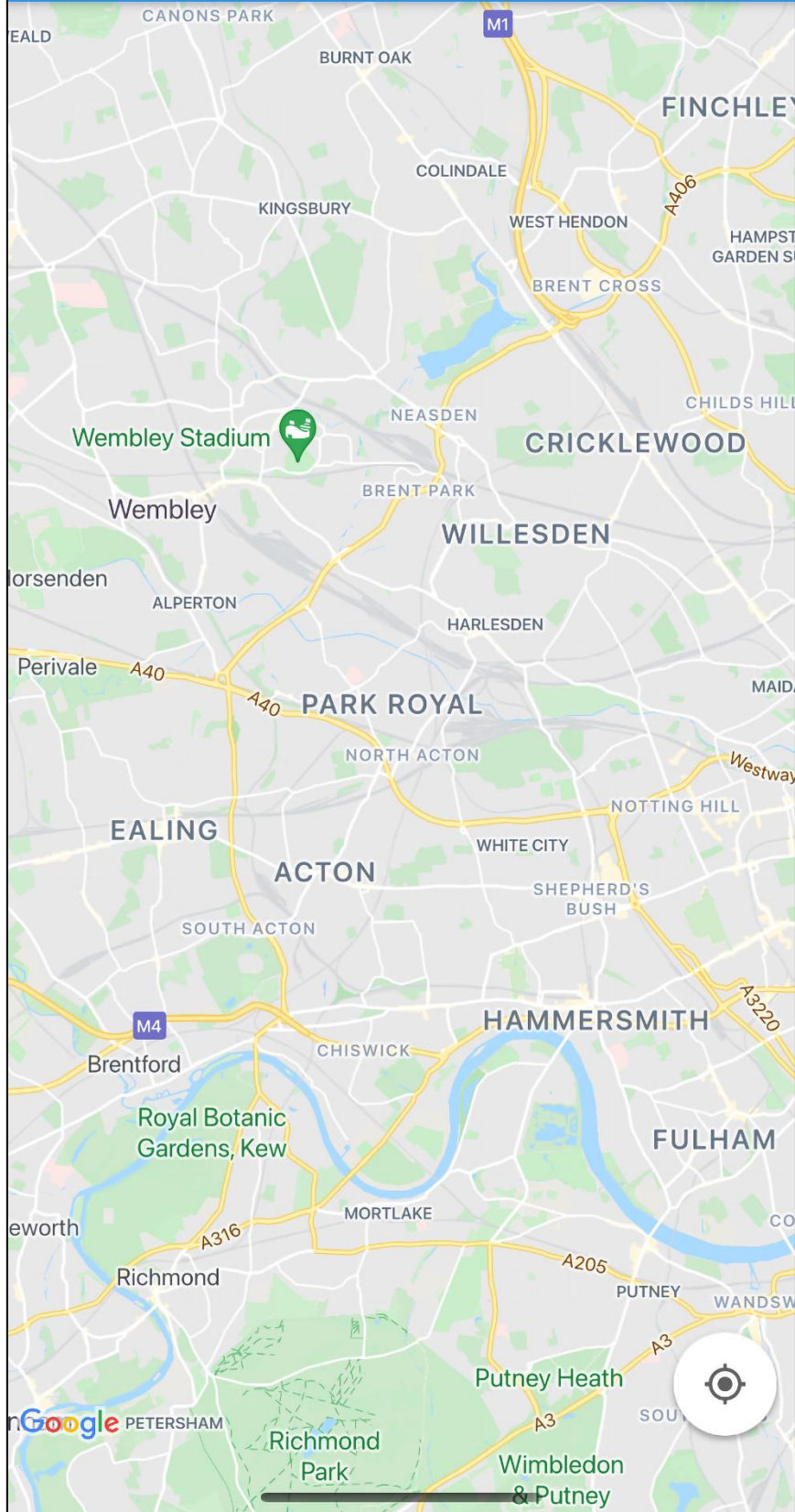
API ↑	Requests	Errors	Avg latency (ms)	
Maps SDK for Android	0	0	-	Details
Maps SDK for iOS	0	0	-	Details

9:04

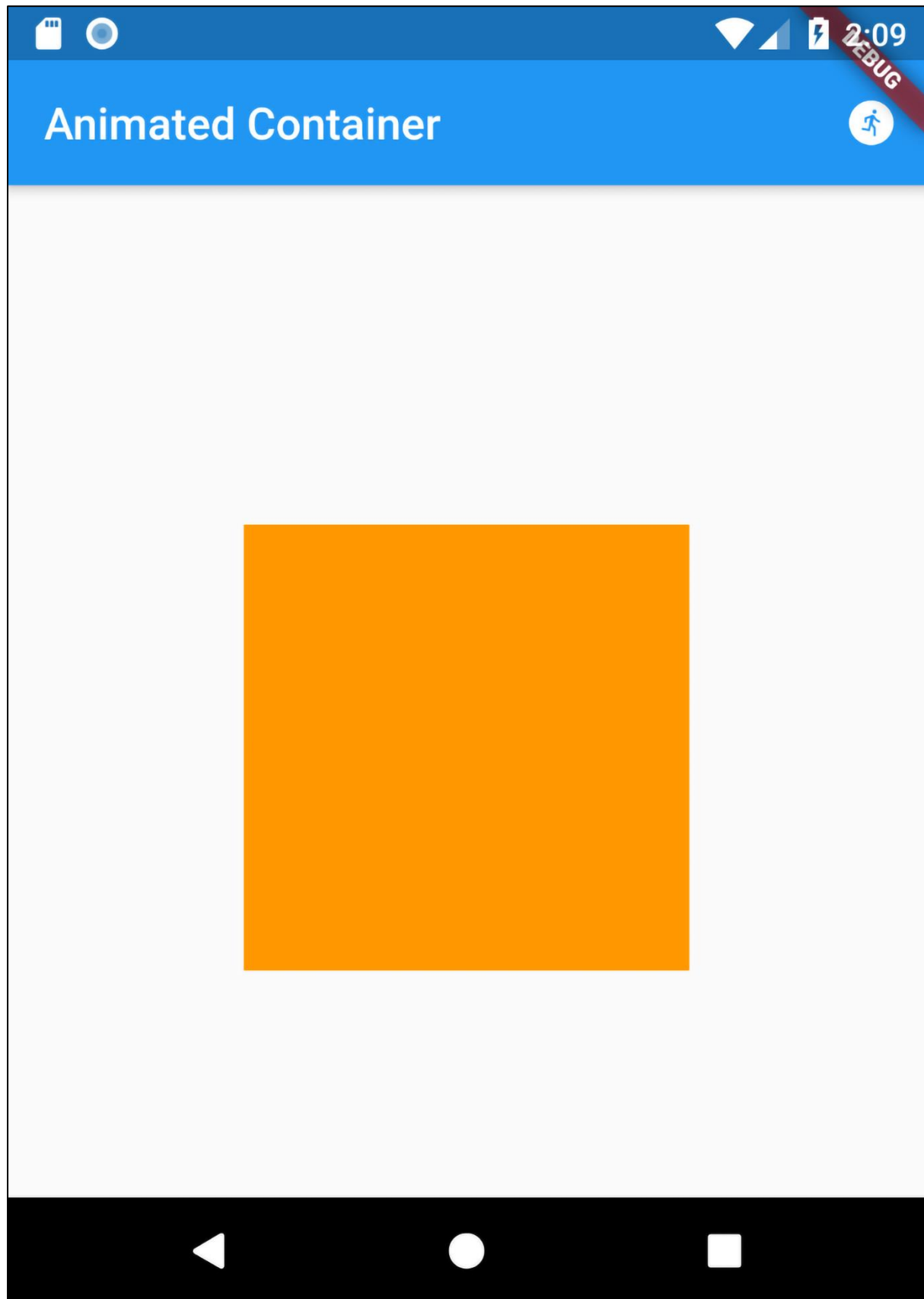


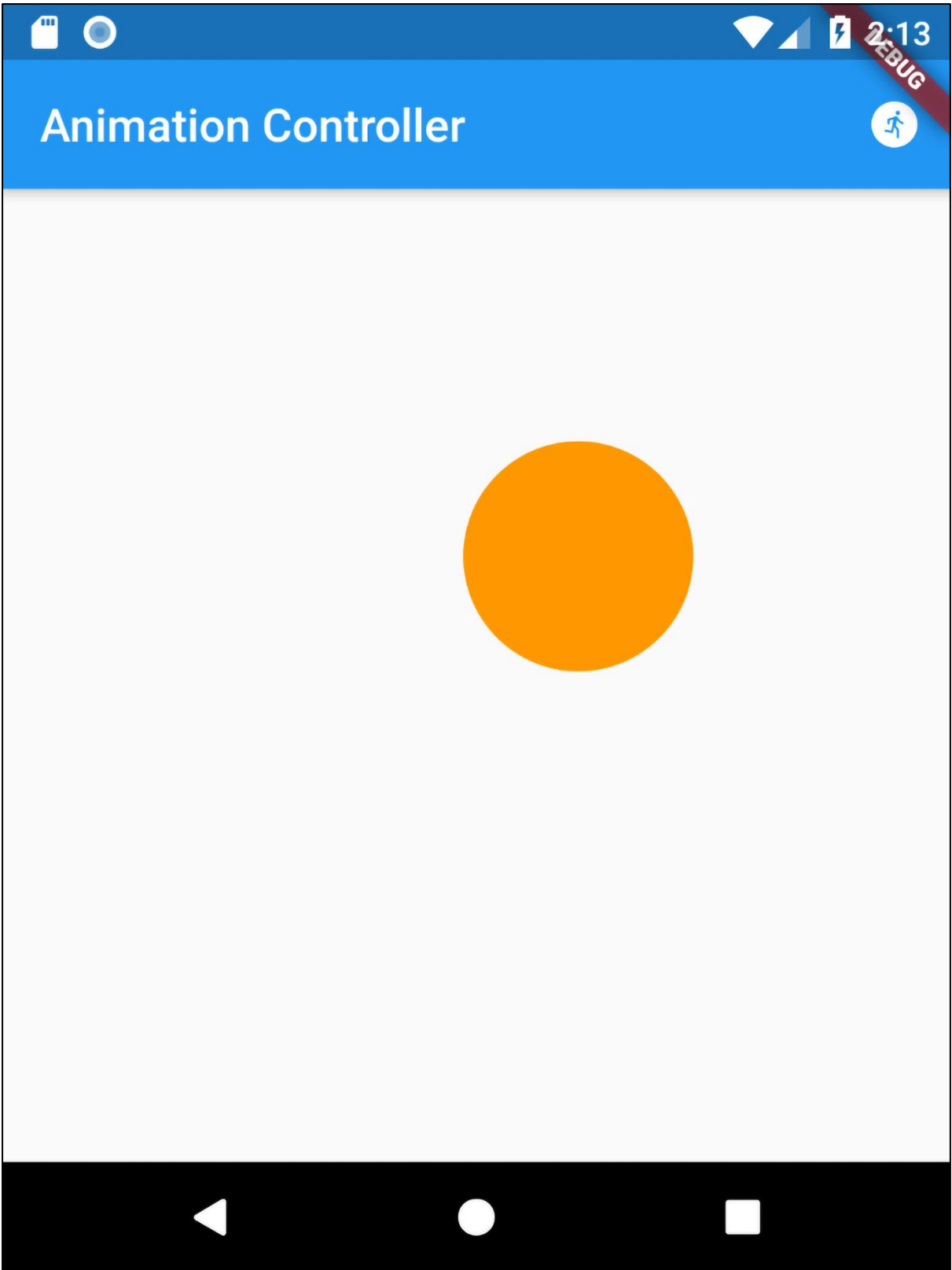
DEBUG

Google Maps



Chapter 12: Adding Animations to Your app



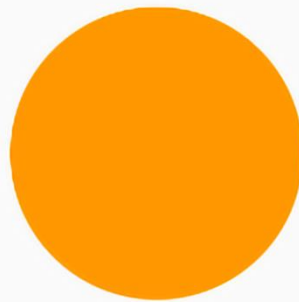


1:19



DEBUG

Animation Controller





DEBUG

Hero Animation



Coffee



Tea



Cappuccino



Espresso





2:20

DEBUG



Detail Screen

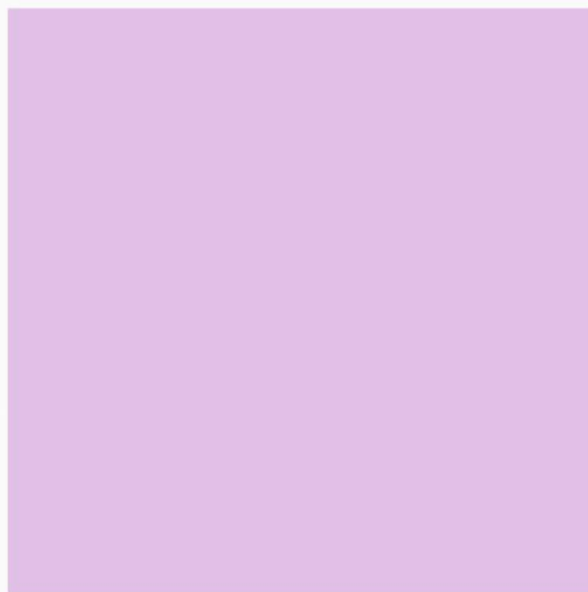




2:24

DEBUG

Fade Transition Recipe





2:31

DEBUG

Animated List

Pizza 1

Pizza 2

Pizza 4

Pizza 5

Pizza 6

Pizza 7





2:35

DEBUG

Dismissible Example

Petit Four



Cupcake



Gingerbread



Gingerbread



Gingerbread

Jelly Bean



KitKat



Chapter 13: Using Firebase

×

Create a project (Step 1 of 3)

Let's start with a name for your project[®]

Project name

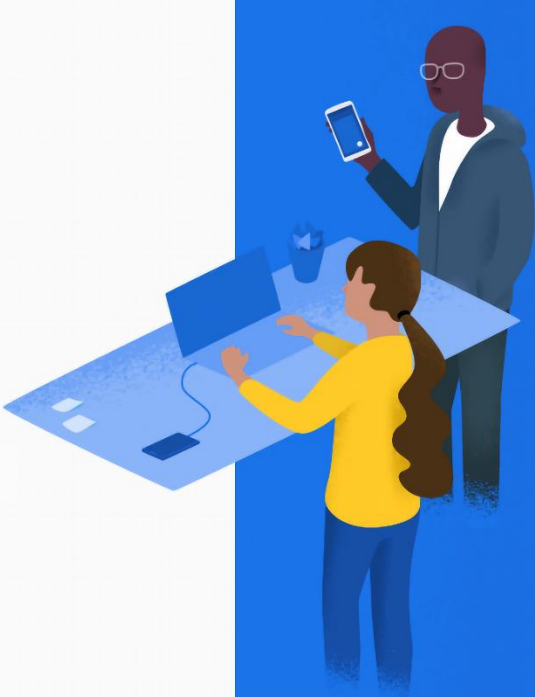
Flutter Cookbook

flutter-cookbook

☒

I confirm that I will use Firebase exclusively for purposes relating to my trade, business, craft, or profession.

Continue



Flutter Cookbook

Spark plan

Get started by adding Firebase to your app

ios

Add an app to get started

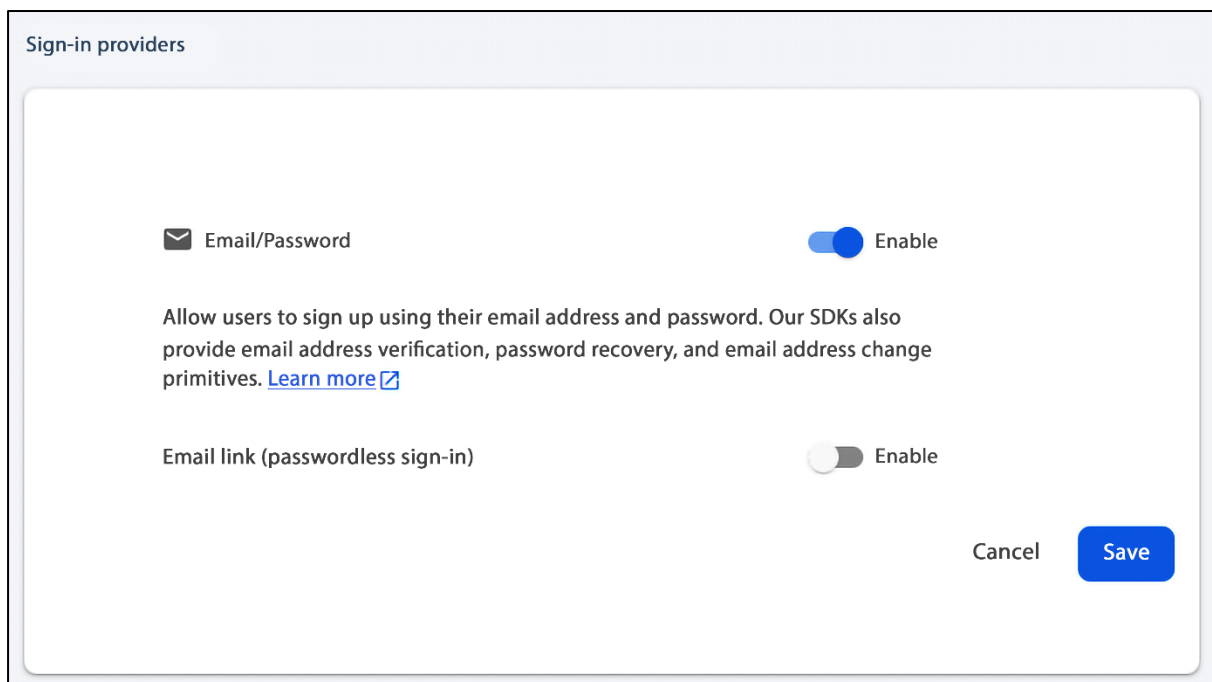
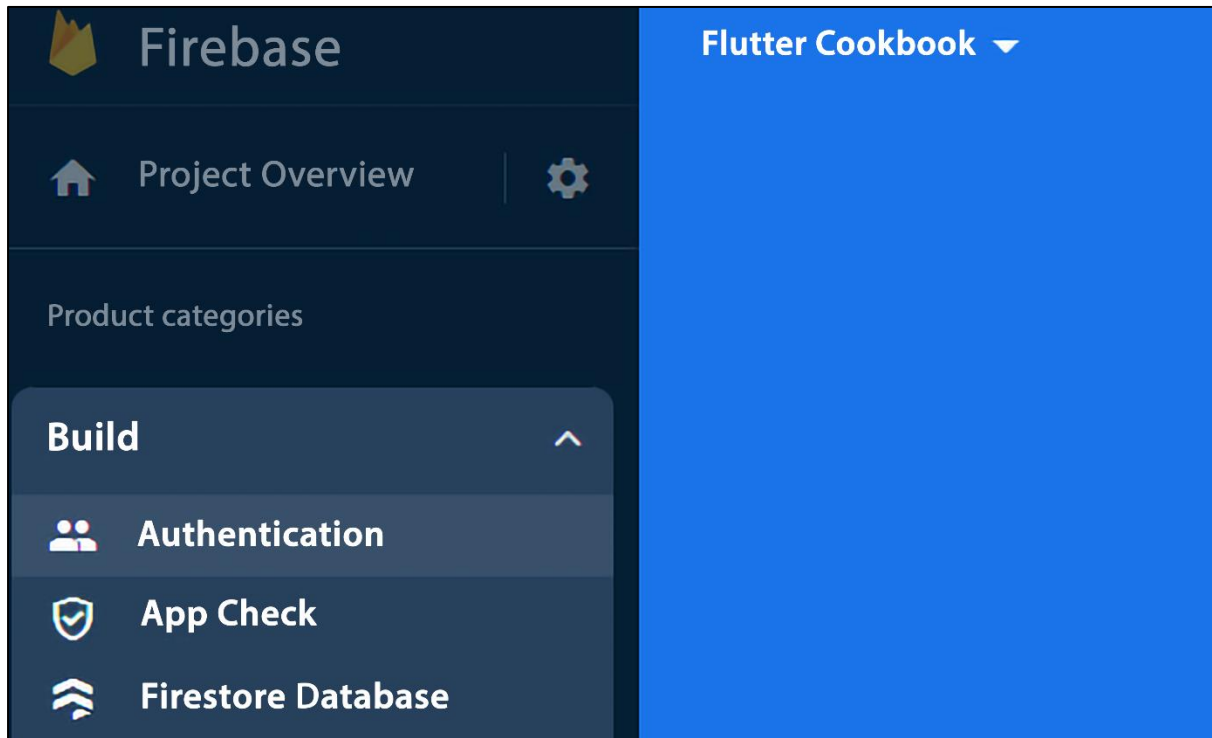


Store and sync app data in milliseconds

×



```
i Found 4 Firebase projects.  
✓ Select a Firebase project to configure your Flutter application with • flutter-cookbook-1  
? Which platforms should your configuration support (use arrow keys & space to select)? >  
✓ android  
✓ ios  
  macos  
  web
```



Sign in

Don't have an account? [Register](#)

Email

Password

[Forgotten password?](#)

[Sign in](#)



Flutter CookBook

S

Authentication

Users

Sign-in method

Templates

Usage

Search by email address, phone number, or user UID

Add user

Identifier	Providers	Created	Signed In	User UID ↑
s.alessandria@inwin...		Apr 29, 2...	Apr 29, 2...	EAuC05N1SmODxbVD4a6B...
simone@softwarehou...		Jan 4, 20...	Jan 12, 2...	UgZloabFtKfmHsnh8rTfgnE...

Google

Enable

Google sign-in is automatically configured on your connected Apple and web apps. To set up Google sign-in for your Android apps, you need to add the [SHA1 fingerprint](#) for each app on your [Project Settings](#).

Update the [project-level setting](#) below to continue

Project public-facing name ?

The CookBook Project

Project support email ?

softwarehouse.it@gmail.com

[illegible]

Certificate fingerprint

[illegible]

SHA1

SHA256

Cancel

Save



Sign in

Don't have an account? [Register](#)

Email

Password

[Forgotten password?](#)

[Sign in](#)



Sign in with Google





Sign in

Don't have an account? [Register](#)

Email

Password

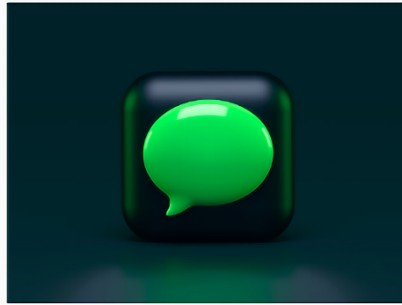
[Forgotten password?](#)

[Sign in](#)



Sign in with Google

5:56



Sign in

Welcome to the Cookbook App! Sign in to continue.

Don't have an account? [Register](#)

Email

Password

[Forgotten password?](#)

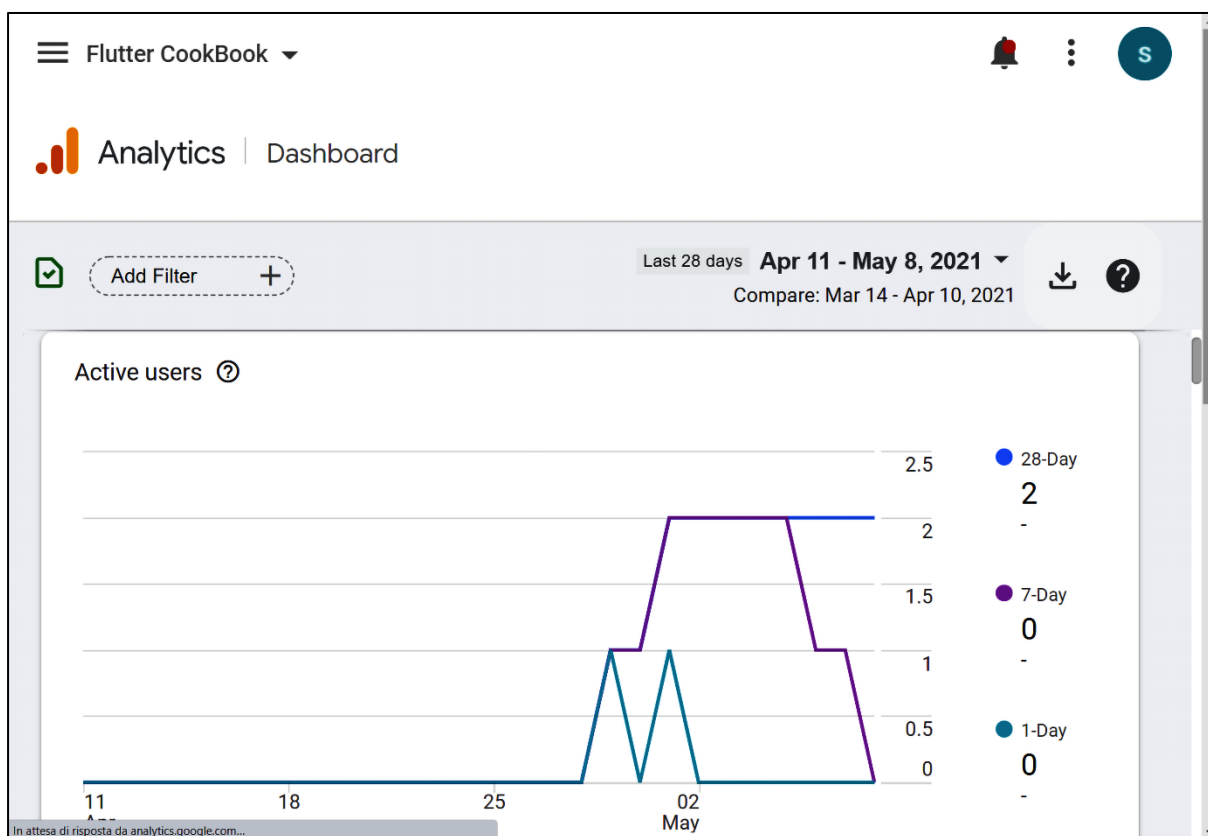
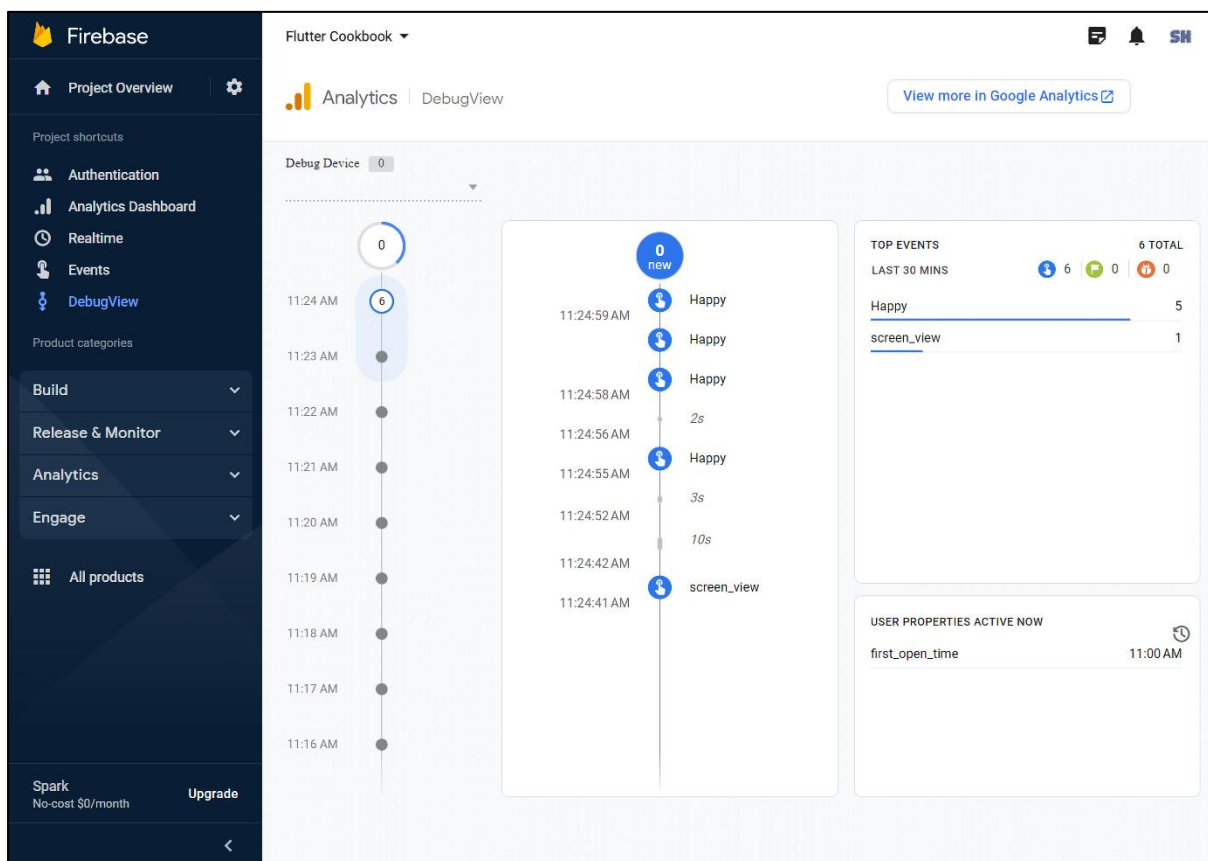
[Sign in](#)



Sign in with Google

Powered by me!





Cloud Firestore

Realtime updates, powerful queries, and automatic scaling

Create database



Is Cloud Firestore right for you? [Compare Databases](#)

Learn more



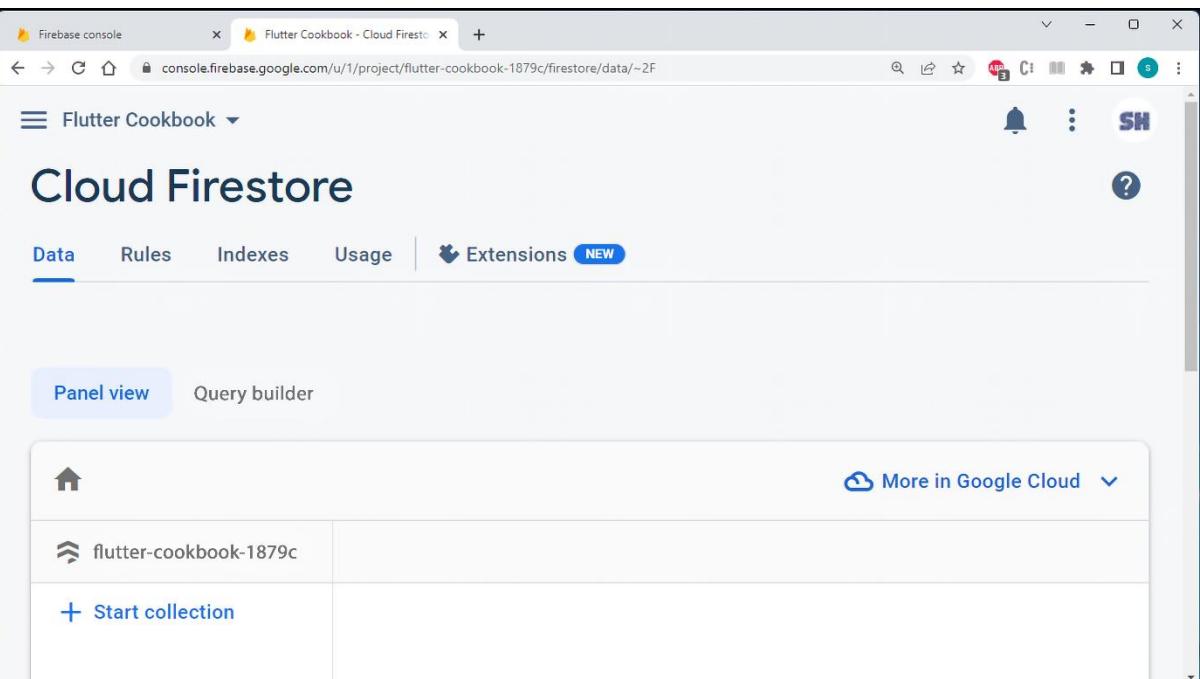
How do I get started?
[View the docs](#)



How much will Cloud
Firestore cost?
[View pricing](#)



What can Cloud Firestore
do for me?
[Learn more](#)



Start a collection

- ✓ Give the collection an ID ——— 2 Add its first document

Document parent path

/poll

Document ID

jRp7PQcFhOVUMICIJg03

A collection must contain at least one document, Cloud Firestore's unit of storage. Use an auto-generated ID or enter a custom ID if needed. Documents store your data as fields.

Field	Type	Value
icecream	= number	0

Field	Type	Value
pizza	= number	0



Cancel

Save

Cloud Firestore

Data Rules Indexes Usage

✦ Prototype and test end-to-end with the Local Emulator Suite, now with Firebase Authentication [Get started](#)

🏠 > poll > jRp7PQcFhOVU...

flutter-cookbook-43242	poll	jRp7PQcFhOVUMICIJg03
------------------------	------	----------------------

+ Start collection	+ Add document	+ Start collection
--------------------	----------------	--------------------

poll >	jRp7PQcFhOVUMICIJg03 >	+ Add field
--------	------------------------	-------------

icecream: 7
pizza: 10

1

Notification

Notification title 

Your First Notification

Notification text

Flutter is your friend!

Notification image (optional) 

Example: <https://yourapp.com/image.png>



Notification name (optional) 

Enter optional name

Next

Android

100%  11:53



Tue, Jan 19



cookbook_ch_12 • 1m ^

Your First Notification

Flutter is your friend!



Android System

USB debugging connected

Tap to disable USB debugging.



Android System • USB charging this device v

CLEAR ALL



Maps



Play Store



4:37



Upload To FireStore

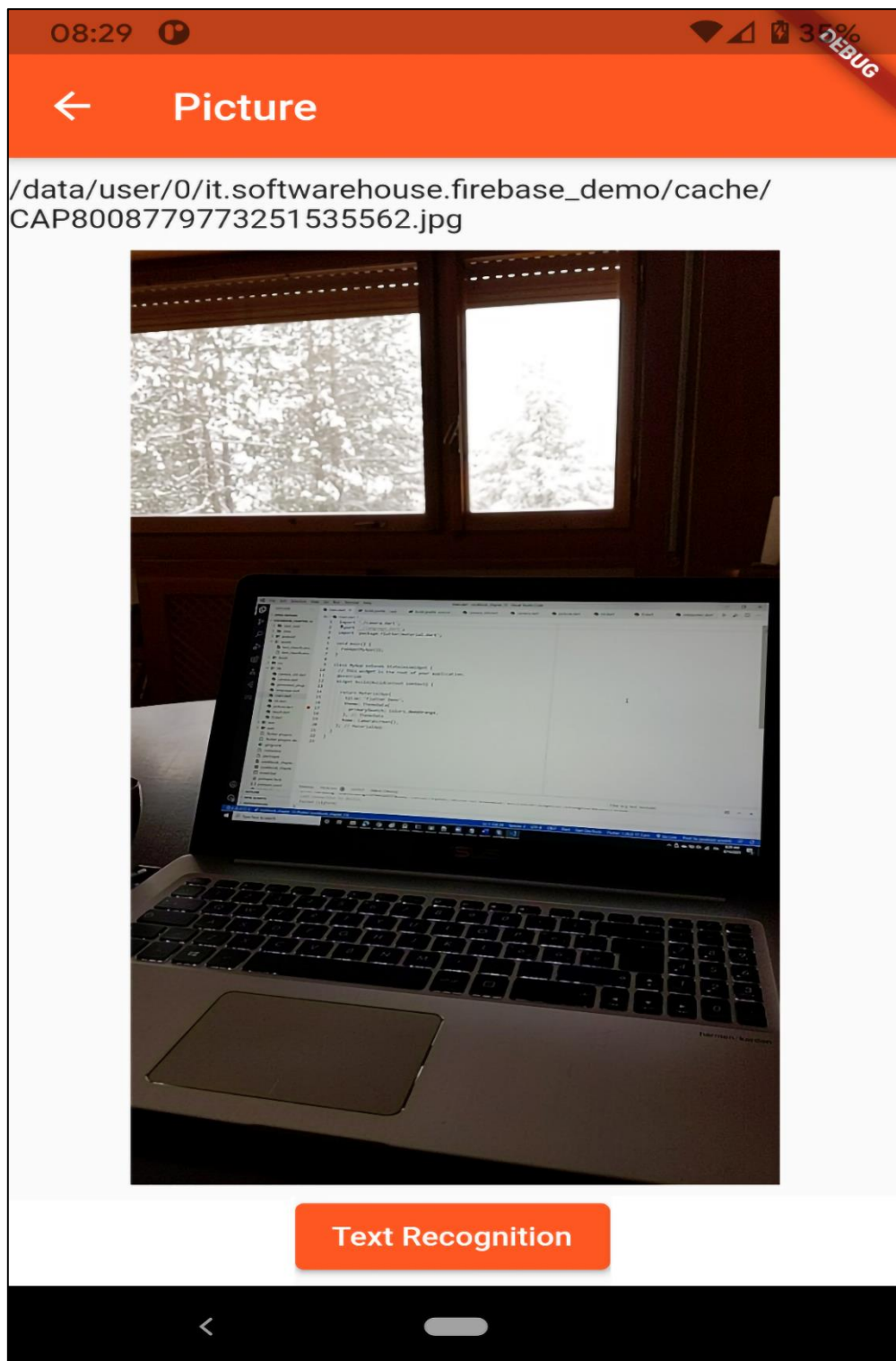
Choose Image



Upload Image

File Uploaded Successfully

Chapter 14: Firebase Machine Learning



08:39 M

32%

DEBUG



Result

Utled- Notepad
ile Edit Format View Help
Flutter is
Google's UI
toolkit for
building
beautiful,
natively
Compiled
applications
Desktop
0180517
4 tems
DType here to search



17:16



74%



DEBUG



Result

9798699322091



18:11



100%

DEBUG



Result

236: Tableware - 94.20831799507141%

315: Cup - 93.30531358718872%

26: Porcelain - 78.54384779930115%

215: Saucer - 66.637521982193%

391: Flowerpot - 66.00725054740906%



10:36



69%

DEBUG



Result

There are 1 face(s) in your picture

Face #1:

Smiling: 99.37315583229065%Left Eye Open:

94.72037553787231%Right Eye Open:

8.88165831565857%Height: 706.0Width: 706.0



08:27



35%

DEBUG

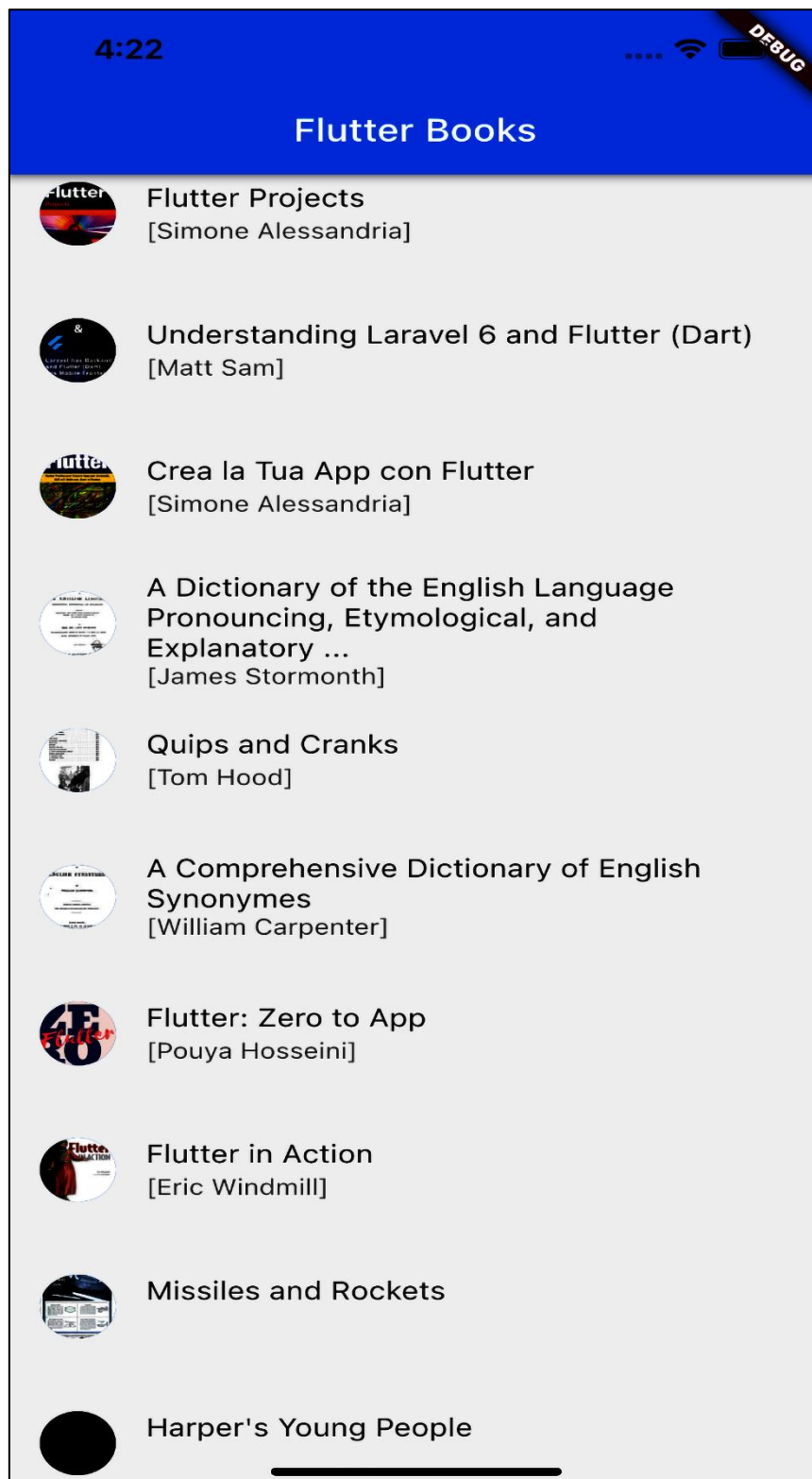


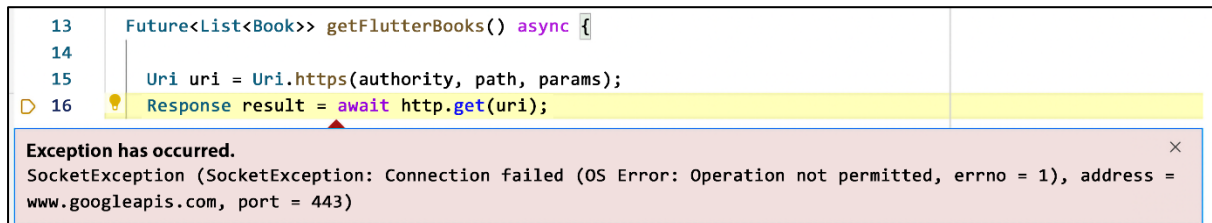
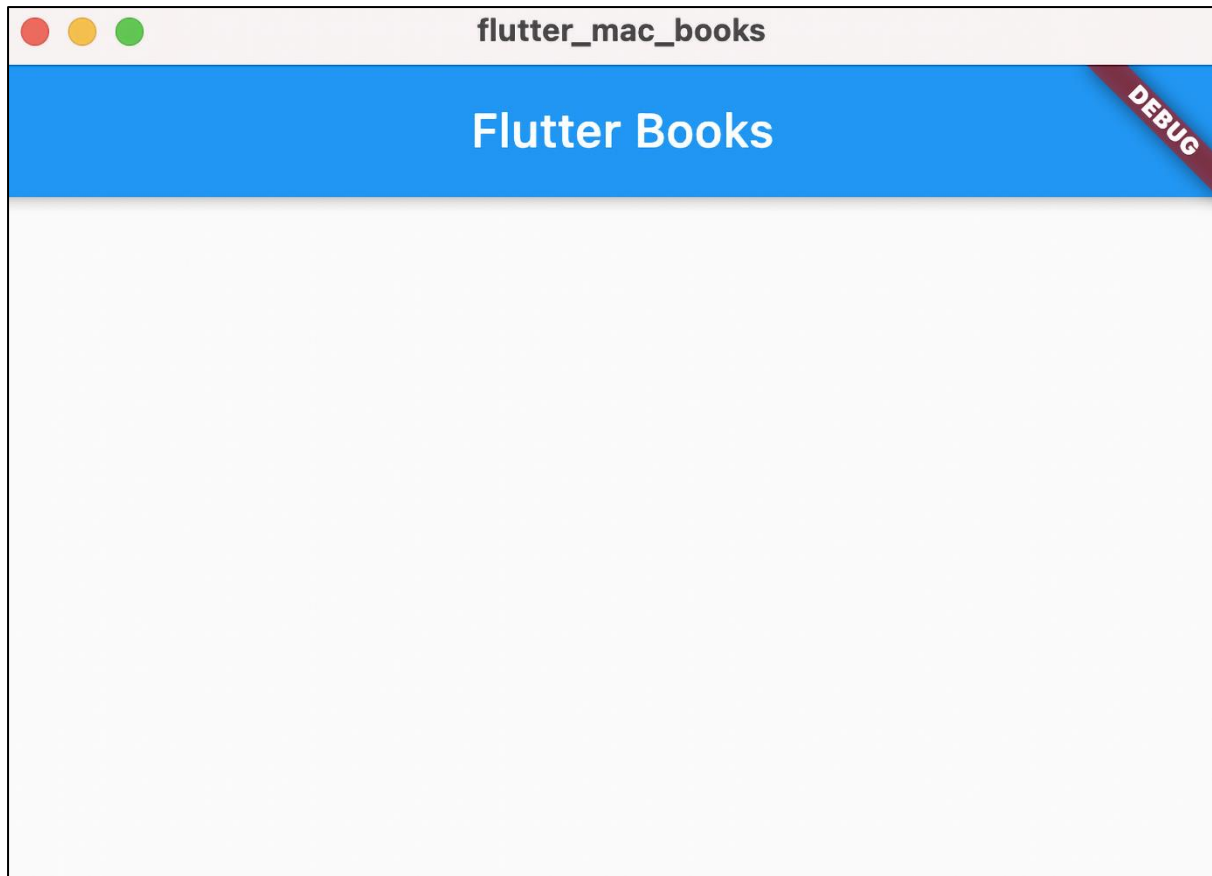
Result

Language: it - Confidence: 99.8610258102417%



Chapter 15: Flutter Web and Desktop





```
Microsoft Windows [Version 10.0.18363.1440]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\sales>flutter devices
3 connected devices:

Windows (desktop) • windows • windows-x64 • Microsoft Windows [Version 10.0.18363.1440]
Chrome (web) • chrome • web-javascript • Google Chrome 89.0.4389.90
Edge (web) • edge • web-javascript • Microsoft Edge 89.0.774.54

C:\Users\sales>flutter doctor
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel beta, 2.1.0-12.2.pre, on Microsoft Windows [Version 10.0.18363.1440], locale en-US)
[✓] Android toolchain - develop for Android devices (Android SDK version 29.0.0)
[✓] Chrome - develop for the web
[✓] Visual Studio - develop for Windows (Visual Studio Community 2019 16.4.3)
[✓] Android Studio (version 3.4)
[✓] VS Code, 64-bit edition (version 1.54.3)
[✓] Connected device (3 available)

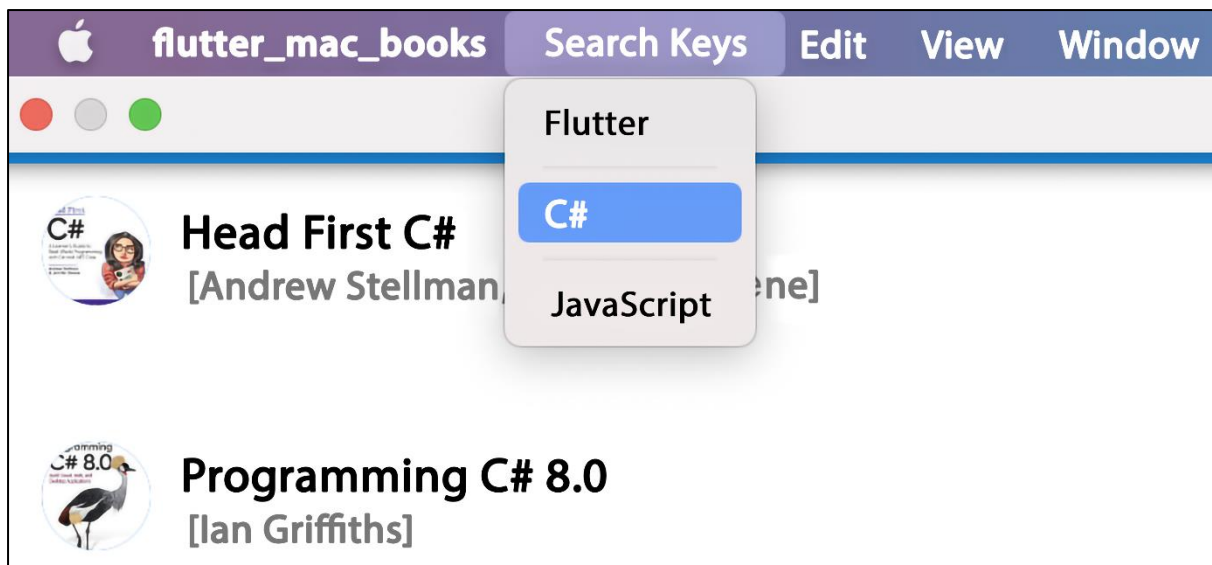
• No issues found!

C:\Users\sales>
```

Woohoo!

Firebase CLI Login Successful

You are logged in to the Firebase Command-Line interface. You can immediately close this window and continue using the CLI.





books_windows

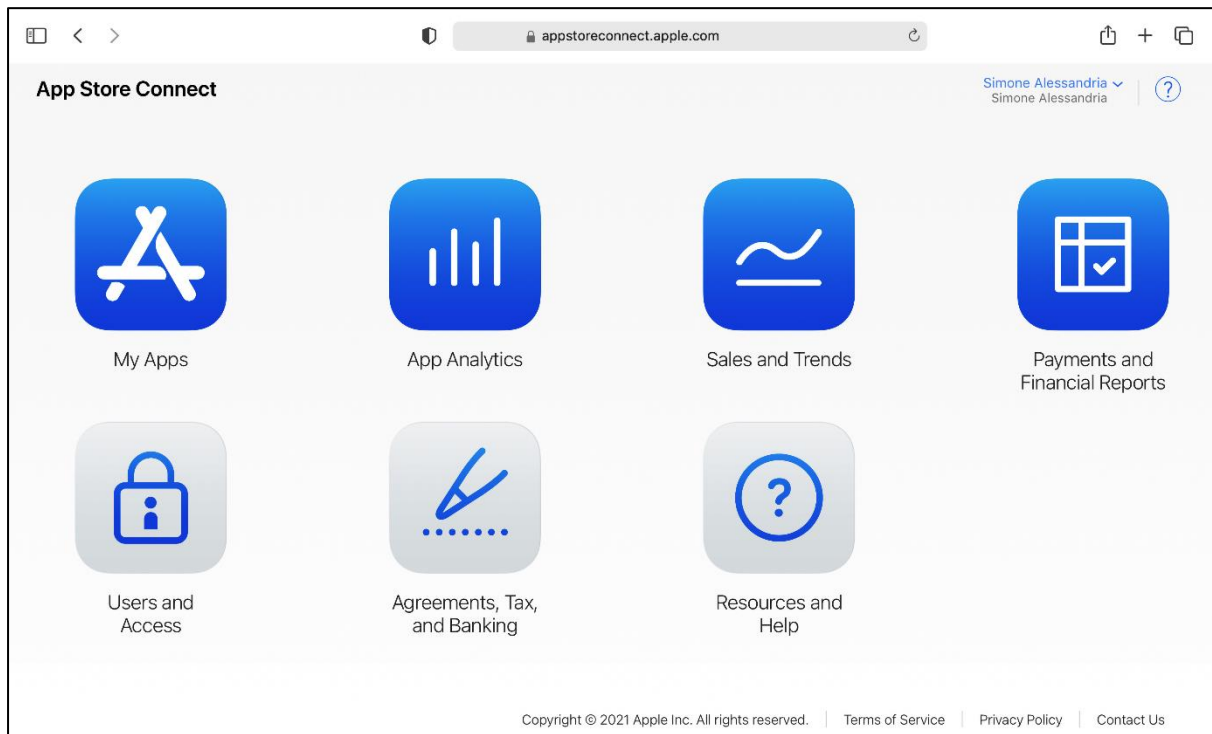
Search Keys

Flutter

C#

JavaScript

Chapter 16: Distributing Your Mobile app



Register a new identifier

Continue

☒ **App IDs**

Register an App ID to enable your app, app extensions, or App Clip to access available services and identify your app in a provisioning profile. You can enable app services when you create an App ID or modify these settings later.

☐ **Services IDs**

For each website that uses Sign in with Apple, register a services identifier (Services ID), configure your domain and return URL, and create an associated private key.

☐ **Pass Type IDs**

Register a pass type identifier (Pass Type ID) for each kind of pass you create (i.e. gift cards). Registering your Pass Type IDs lets you generate Apple-issued certificates which are used to digitally sign and send updates to your passes, and allow your passes to be recognized by Wallet.

☐ **Website Push IDs**

Register a Website Push Identifier (Website Push ID). Registering your Website Push IDs lets you generate Apple-issued certificates which are used to digitally sign and send push notifications from your website to macOS.

☐ **iCloud Containers**

Registering your iCloud Container lets you use the iCloud Storage APIs to enable your apps to store data and documents in iCloud, keeping your apps up to date automatically.

Certificates, Identifiers & Profiles

[< All Identifiers](#)

Register an App ID

Back

Continue

Platform

iOS, macOS, tvOS, watchOS

App ID Prefix

MRHET26894 (Team ID)

Description

BMI Calculator

You cannot use special characters such as @, &, *, ', ", -, .

Bundle ID ☒ Explicit ☐ Wildcard

it.softwarehouse.bmicalculator

We recommend using a reverse-domain name style string (i.e., com.domainname.appname). It cannot contain an asterisk (*).

Capabilities

ENABLED

NAME

☐

Access WiFi Information ⓘ

☐

App Attest ⓘ

☐

App Groups ⓘ

☐

Apple Pay Payment Processing ⓘ

New App

Platforms ?

☒ iOS ☐ macOS ☐ tvOS

Name ?

BMI Calculator

16

Primary Language ?

English (U.S.)



Bundle ID ?

BMI Calculator - it.softwarehouse.bmicalculator



SKU ?

it.softwarehouse.bmicalculator

User Access ?

Cancel

Create

Google Play Console

Search Play Console

All apps

Inbox19

Policy status

Users and permissions

Order management

Download reports

Settings

Developer account

Account details

Developer page

Activity log

API access

Linked accounts

Payments settings

Benchmarking preferences

Preferences

Email lists

License testing

Create app

App details

App name

it.softwarehouse.fluttercookbook

This is how your app will appear on Google Play. It should be concise and not include price, rank, any emoji or repetitive symbols.32 / 50

Default language

English (United States) – en-US

App or game

You can change this later in Store settings

☒ App

☐ Game

Free or paid

You can edit this later on the Paid app page

☒ Free

☐ Paid

You can edit this until you publish your app. Once you've published, you can't change a free app to paid.

Cancel

Create app

Google Cloud Platform

firebase demo

IAM & Admin

IAM

Identity & Organization

Policy Troubleshooter

Policy Analyzer

Organization Policies

Service Accounts

Labels

Settings

Privacy & Security

Identity-Aware Proxy

Roles

Audit Logs

←

publish_sa

DETAILS

PERMISSIONS

Service account details

Name

publish_sa

Description

Publishing Service Account

Email

publish-sa@firebase-demo-305209.iam.gserviceaccount.com

Unique ID

108784229501087015862

Service account status

Disabling your account allows you to preserve your policies without having to delete it

✓

Account currently active

DISABLE SERVICE ACCOUNT

```
Removed unused resources: Binary resource data reduced from 125KB to 100KB: Removed 19%
Running Gradle task 'bundleRelease'...
Running Gradle task 'bundleRelease'... Done 32,6s
✓ Built build\app\outputs\bundle\release\app-release.aab (80.6MB).
```

Google Play Console

Search Play Console

SH BMI Calculator

All apps

Create open testing release

App signing preferences

Let Google manage and protect your app signing key (recommended)

Use the same key as another app in this developer account

Export and upload a key from Java keystore

Export and upload a key (not using Java Keystore)

Opt out of Play App Signing

Cancel

Update

App signing preferences

Let Google manage and protect your app signing key (recommended)

Use the same key as another app in this developer account

Export and upload a key from Java keystore

Google Play Console

Search Play Console

All apps

Dashboard

Inbox4

Statistics

Publishing overview

Release

Releases overview

Production

Testing

Open testing

Closed testing

Internal testing

Pre-registration

Create open testing release

We found some problems with your release

Prepare

Review and release

Errors, warnings and messages

3 Errors

Show less

Error

Your app cannot be published yet. Complete the steps listed on the Dashboard.

Go to Dashboard

Error

You need to add a full description

Error

No countries or regions have been selected for this track. Add at least 1 country or region to roll out this release. [Learn more](#)

Rollout to open testing?



This release will be available to testers. Anyone can join your tests on Google Play.

Cancel

Rollout

← Releases overview

1 (2.0.0)

Release summary

🕒 Available to unlimited testers • Open testing • Released on Mar 4 11:43 AM • Available on 16,896 devices

App bundles and APKs

Promote release ▾ [View track](#)

Closed testing ▸

Production