



Using external packages in your app

- Know how to integrate external packages into your project
- Understand the description of external packages on pub.dev
- Be aware that external packages might have licenses
- Use a radial gauge from SyncFusion to visualize lux values
- Learn how to upgrade the Flutter version installed on your PC



Sample light meter on Google Play



Lux Meter (Light Meter)

My Mobile Tools Dev
Contains ads

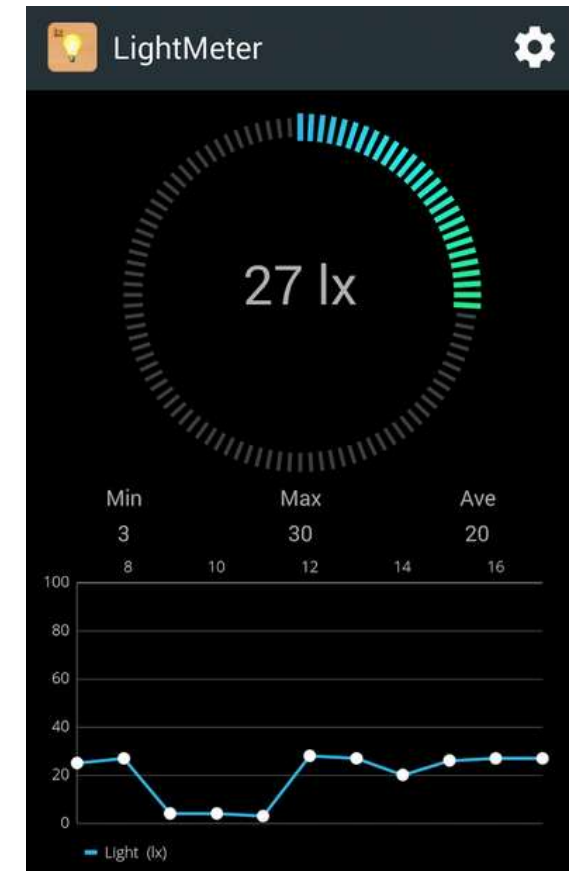
4.3★
39.6K reviews ⓘ

1M+
Downloads

0 ⓘ
USK: All ages ⓘ



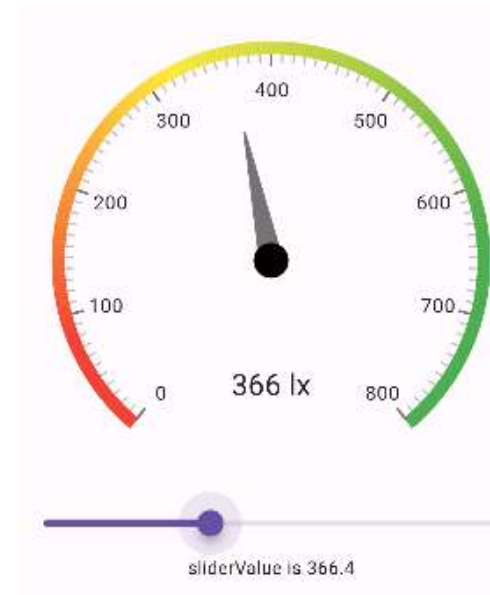
📱 This app is available for some of your devices



See <https://play.google.com/store/apps/details?id=com.tsang.alan.lightmeter>



Our first goal: create the upper part





What to search for in Google ?

Ergebnisse für **gauge** *deutsch*
Stattdessen suchen nach: gauge detsch

Englisch

↔

Deutsch

↔

Französisch

gauge

×

Messgerät

jauge

gāj

gauge gauges gauged

gauge pressure



First result in Google

A screenshot of a Google search interface. The search bar contains the text "flutter gauge". Below the search bar, there are tabs for "All", "Images", "Products", "Videos", "Web", and "More". The "All" tab is selected. Below the tabs, there are several filter buttons: "Example", "Tutorial", "Indicator", "Widget", "Vacuum", "Boost", "Radial", and "Custom". The search results show "About 1.890.000 results (0,28 seconds)". The first result is from "Dart packages" and is titled "syncfusion_flutter_gauges | Flutter package". The description says: "The **Flutter gauges** library includes a linear gauge and radial gauge (a.k.a. circular gauge) to create modern, interactive, animated gauges and radial sliders." The second result is from "GitHub" and is titled "GeekyAnts/GaugesFlutter: A gauge package for Flutter that ...". The description says: "A **gauge** package for **Flutter** that displays progress and can be customized for appearance and behavior. - GeekyAnts/GaugesFlutter."

Google

flutter gauge

All Images Products Videos Web More Tools

Example Tutorial Indicator Widget Vacuum Boost Radial Custom

About 1.890.000 results (0,28 seconds)

Dart packages
https://pub.dev/packages/syncfusion_flutter_gauges

syncfusion_flutter_gauges | Flutter package

The **Flutter gauges** library includes a linear gauge and radial gauge (a.k.a. circular gauge) to create modern, interactive, animated gauges and radial sliders.

GitHub
<https://github.com/GeekyAnts/GaugesFlutter>

GeekyAnts/GaugesFlutter: A gauge package for Flutter that ...

A **gauge** package for **Flutter** that displays progress and can be customized for appearance and behavior. - GeekyAnts/GaugesFlutter.

syncfusion_flutter_gauges 26.1.35

Published 29 hours ago • @syncfusion.com Dart 3 compatible

SDK FLUTTER PLATFORM ANDROID IOS LINUX MACOS WEB WINDOWS

990

Readme Changelog Example Installing Versions Scores



Flutter Gauges library

The Flutter Gauges library includes the data visualization widgets Linear Gauge and Radial Gauge (a.k.a. circular gauge) to create modern, interactive, animated gauges.

Overview

The Linear Gauge is used to display data on a linear scale, while the Radial Gauge is used to display data on a circular scale. Both gauges have a rich set of features, such as axes, ranges, pointers, smooth interactions, and animations that are fully customizable and extendable.

Disclaimer: This is a commercial package. To use this package, you need to have either Syncfusion Commercial License or Free Syncfusion Community license. For more details, please check the [LICENSE](#) file.

990 150 99%
LIKES PUB POINTS POPULARITY

Publisher

@syncfusion.com

Metadata

The Flutter gauges library includes a linear gauge and radial gauge (a.k.a. circular gauge) to create modern, interactive, animated gauges and radial sliders.

[Repository \(GitHub\)](#)[View/report issues](#)

Documentation

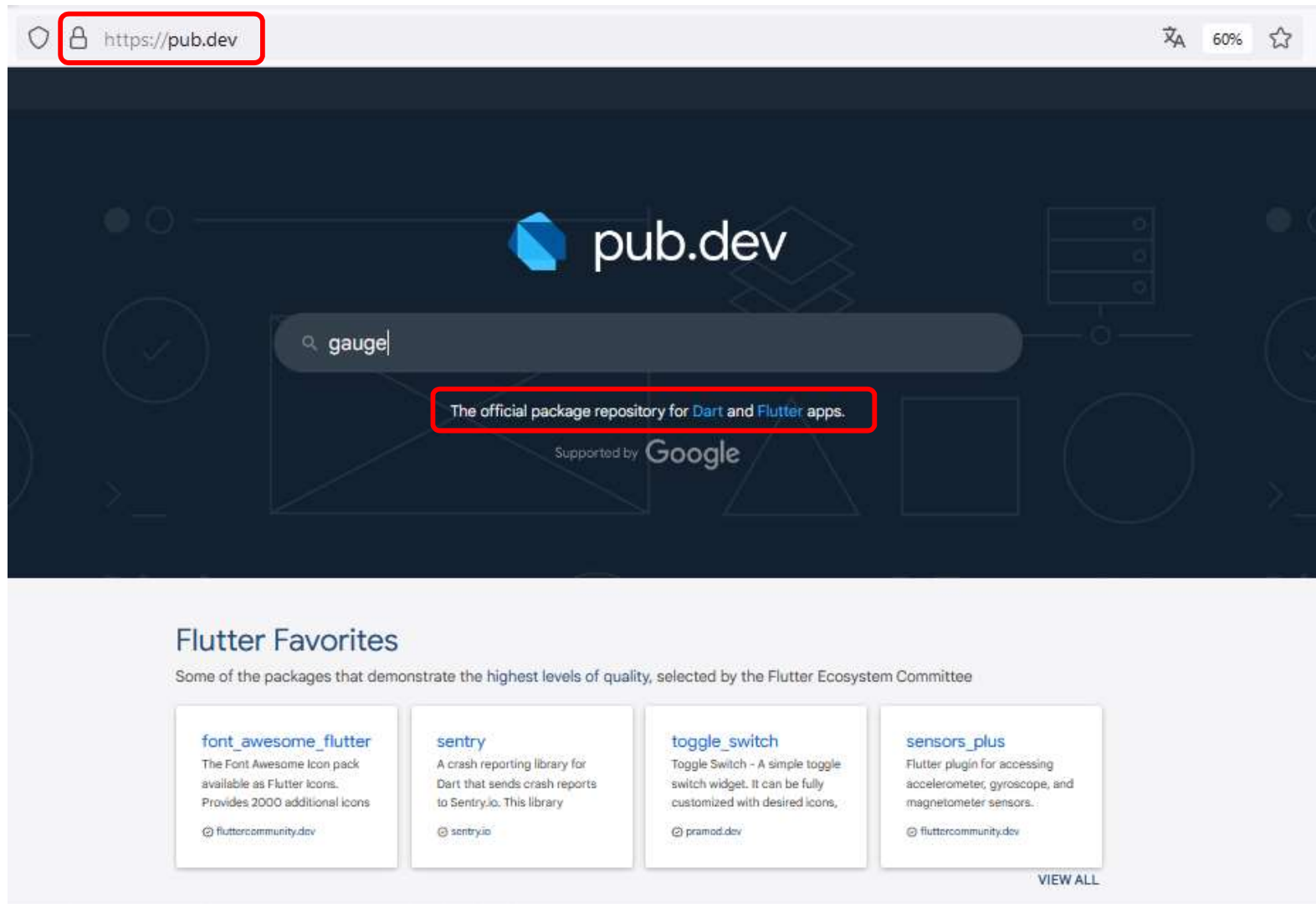
[API reference](#)

License

[unknown \(LICENSE\)](#)

Dependencies

[Flutter Intl](#)



Link: <https://pub.dev/>



Platforms

☐ Android

☐ iOS

☐ Linux

☐ macOS

☐ Web

☐ Windows

SDKs

License

Advanced

RESULTS 121 packages

SORT BY SEARCH RELEVANCE

gauge_indicator

116

160

96%

LIKES

PUB POINTS

POPULARITY

An animated, highly customizable, open source, Flutter gauge widget. #widget #animation #gauge #gauge-indicator #gauges

v 0.4.3 (10 months ago)

klyta.it

MIT

Dart 3 compatible

SDK

FLUTTER

PLATFORM

ANDROID

IOS

LINUX

MACOS

WEB

WINDOWS

API results: ► gauge_indicator/gauge_indicator-library.html

geekyants_flutter_gauges

101

160

91%

LIKES

PUB POINTS

POPULARITY

A linear gauge package for Flutter that displays progress and can be customized for appearance and behavior.

v 1.0.4 (37 days ago)

geekyants.com

MIT

Dart 3 compatible

SDK

FLUTTER

PLATFORM

ANDROID

IOS

LINUX

MACOS

WEB

WINDOWS

API results: ► gauges/RRadialGauge-class.html

syncfusion_flutter_gauges

990

150

99%

LIKES

PUB POINTS

POPULARITY

The Flutter gauges library includes a linear gauge and radial gauge (a.k.a. circular gauge) to create modern, interactive, animated gauges and radial sliders.

v 26.1.35 (2 days ago)

syncfusion.com

unknown

Dart 3 compatible

SDK

FLUTTER

PLATFORM

ANDROID

IOS

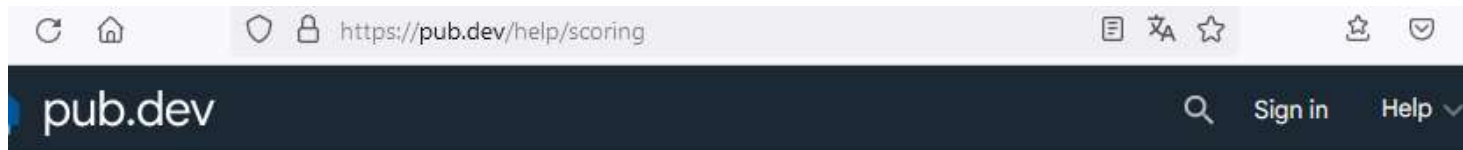
LINUX

MACOS

WEB

WINDOWS

API results: ► gauges/GaugeTitle-class.html



Package scores & pub points

NOTE: The Pub scoring model evolves over time, and is likely to be extended with additional checks in the future.

For each package, this site displays three scoring dimensions. These are displayed in search results, in the sidebar on individual package pages, and in full detail in the scoring report on the 'Scores' tag of an individual package. The three dimensions are:

What means:

990	150	99%
LIKES	PUB POINTS	POPULARITY

- **Likes:** A measure of how many developers have liked a package. This provides a raw measure of the overall sentiment of a package from peer developers.
- **Pub Points:** A new measure of quality. This includes several dimensions of quality such as code style, platform support, and maintainability. More about this below.
- **Popularity:** A measure of how many developers use a package, providing insight into what other developers are using.

Popularity

Popularity measures the number of apps that depend on a package over the past 60 days. We show this as a percentile from 100% (among the top 1% most used packages) to 0% (the least used package). We are investigating if we can provide absolute usage counts in a future version



Readme Changelog Example Installing Versions Scores

990
LIKES

150 / 160
PUB POINTS

99%
POPULARITY

We analyzed this package 1 hour ago, and awarded it 150 pub points (of a possible 160):

✗ Follow Dart file conventions	20/30	⌵
✓ Provide documentation	20/20	⌵
✓ Platform support	20/20	⌵
✓ Pass static analysis	50/50	⌵
✓ Support up-to-date dependencies	40/40	⌵

✗ Follow Dart file conventions	20/30	⌵
✓ 10/10 points: Provide a valid <code>pubspec.yaml</code>		
✓ 5/5 points: Provide a valid <code>README.md</code>		
✓ 5/5 points: Provide a valid <code>CHANGELOG.md</code>		
✗ 0/10 points: Use an OSI-approved license		
▶ No license was recognized.		

Example in pub.dev

[Readme](#) [Changelog](#) [Example](#) [Installing](#) [Versions](#) [Scores](#)



```
import 'package:flutter/material.dart';
import 'package:syncfusion_flutter_gauges/gauges.dart';

void main() {
  return runApp(GaugeApp());
}
```

/// Represents the GaugeApp class

```
class GaugeApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Radial Gauge Demo',
      theme: ThemeData(primarySwatch: Colors.blue),
      home: MyHomePage(),
    );
  }
}
```

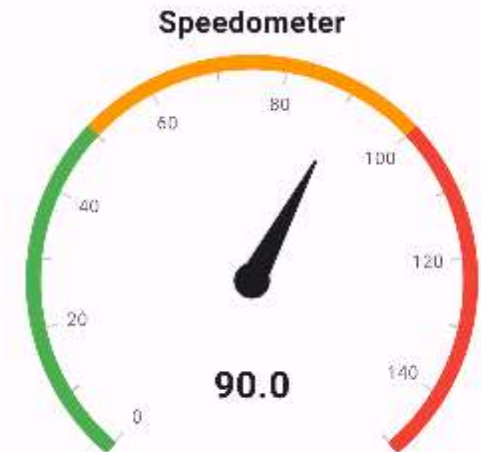
/// Represents MyHomePage class

```
class MyHomePage extends StatefulWidget {
  /// Creates the instance of MyHomePage
  MyHomePage({Key? key}) : super(key: key);
```

```
  @override
  _MyHomePageState createState() => _MyHomePageState();
}
```

```
class _MyHomePageState extends State<MyHomePage> {
  Widget _getGauge({bool isRadialGauge = true}) {
    if (isRadialGauge) {
      return _getRadialGauge();
    } else {
      return _getLinearGauge();
    }
  }
}
```

```
Widget _getRadialGauge() {
  return SfRadialGauge(
    title: GaugeTitle(
      text: 'Speedometer',
      textStyle:
        const TextStyle(fontSize: 20.0, fontWeight: FontWeight.bold)),
    axes: <RadialAxis>[
      RadialAxis(minimum: 0, maximum: 150, ranges: <GaugeRange>[
        GaugeRange(
          startValue: 0,
          endValue: 50,
          color: Colors.green,
          startWidth: 10,
          endWidth: 10),
        GaugeRange(
          startValue: 50,
          endValue: 100,
          color: Colors.orange,
          startWidth: 10,
          endWidth: 10),
        GaugeRange(
          startValue: 100,
          endValue: 150,
          color: Colors.red,
          startWidth: 10,
          endWidth: 10)
      ], pointers: <GaugePointer>[
        NeedlePointer(value: 90)
      ], annotations: <GaugeAnnotation>[
        GaugeAnnotation(
          widget: Container(
            child: const Text('90.0',
              style: TextStyle(
                fontSize: 25, fontWeight: FontWeight.bold))),
            angle: 90,
            positionFactor: 0.5)
      ]
    ));
}
```





```
Widget _getRadialGauge() {  
  return SfRadialGauge(  
    tit The method 'SfRadialGauge' isn't defined for the type '_MyHomePageState'.  
         Try correcting the name to the name of an existing method, or defining a method named  
         'SfRadialGauge'. dart(undefined_method)  
    axe Type: InvalidType
```

External packages have to be installed on your PC



Readme Changelog Example Installing Versions Scores

Use this package as a library

Depend on it

Run this command:

With Flutter:

```
$ flutter pub add syncfusion_flutter_gauges
```

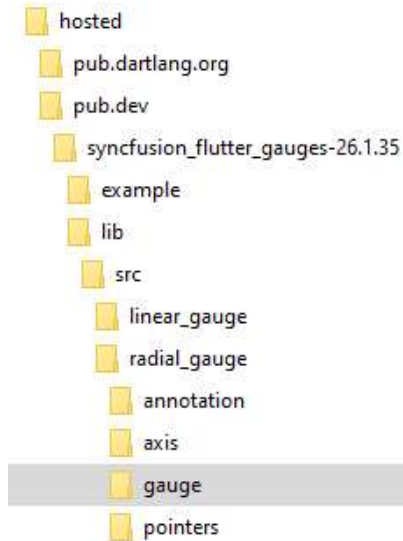
```
PS D:\_tmp\fdg_working\test_gauge_sf> flutter pub add syncfusion_flutter_gauges
Resolving dependencies...
Downloading packages...
  flutter_lints 3.0.2 (4.0.0 available)
+ intl 0.19.0
  leak_tracker 10.0.4 (10.0.5 available)
  leak_tracker_flutter_testing 3.0.3 (3.0.5 available)
  lints 3.0.0 (4.0.0 available)
  material_color_utilities 0.8.0 (0.12.0 available)
  meta 1.12.0 (1.15.0 available)
+ syncfusion_flutter_core 26.1.35
+ syncfusion_flutter_gauges 26.1.35
  test_api 0.7.0 (0.7.2 available)
  vm_service 14.2.1 (14.2.3 available)
Changed 3 dependencies!
8 packages have newer versions incompatible with dependency constraints.
```




Where downloaded packages are stored on your PC

<< Local Disk (C:) > Users > GS > AppData > Local > Pub > Cache > hosted > pub.dev

Name	Date modified	Size
syncfusion_flutter_core-25.2.7	10.06.2024 20:01	
syncfusion_flutter_core-26.1.35	11.06.2024 20:02	
syncfusion_flutter_gauges-25.2.7	10.06.2024 20:01	
syncfusion_flutter_gauges-26.1.35	11.06.2024 20:02	



Name
radial_gauge.dart
radial_gauge_scope.dart

```
class SfRadialGauge extends StatefulWidget {  
  /// Creates a radial gauge with default or required axis.  
  ///  
  /// To enable the loading animation set [enableLoadingAnimation] is true.  
  // ignore: prefer_const_constructors_in_immutables  
  SfRadialGauge(  
    {Key? key,  
     List<RadialAxis>? axes,  
     this.enableLoadingAnimation = false,  
     this.animationDuration = 2000,  
     this.backgroundColor = Colors.transparent,  
     this.title})  
    : axes = axes ?? <RadialAxis>[RadialAxis()],  
      super(key: key);  
}
```



The file “pubspec.yaml”

In addition to downloading the package files to your PC, the command

```
$ flutter pub add syncfusion_flutter_gauges
```

adds the following line in the file “pubspec.yaml” of your project:

```
! pubspec.yaml
1  name: test_gauge_sf
2  description: "A new Flutter project."
3  publish_to: 'none'
4  version: 0.1.0
5
6  environment:
7    sdk: '>=3.4.3 <4.0.0'
8
9  dependencies:
10   flutter:
11     sdk: flutter
12   syncfusion_flutter_gauges: ^26.1.35
13
14  dev_dependencies:
15   flutter_test:
16     sdk: flutter
17   flutter_lints: ^3.0.0
```

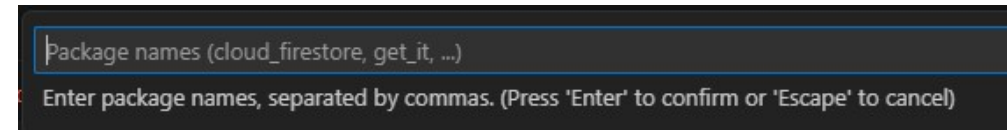
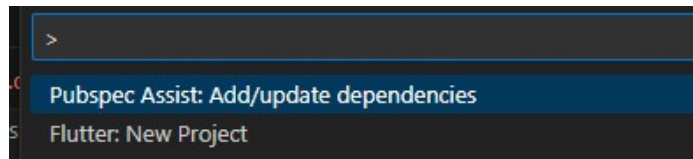
“yaml” stands for “yet another markup language”.

Be careful when editing yaml files, because tabs and indentions are important when the file is interpreted by the flutter framework.

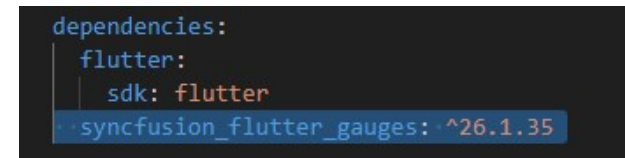
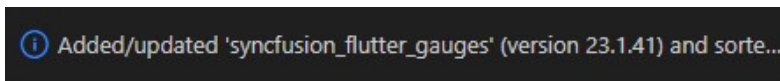


Alternative way to add an external package

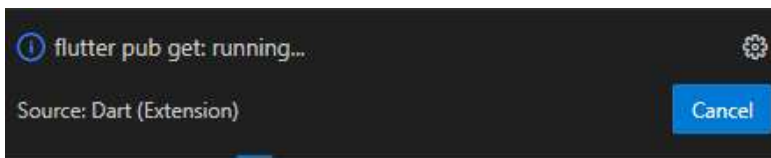
1) Open your pubspec.yaml file in VS Code, press F1 and select



2) Enter the package name, in our case “syncfusion_flutter_gauges” and press enter:



3) Save the pubspec.yaml file in VS Code or enter “flutter pub get” in the VS Code Terminal:



This is often forgotten !



Take care: external packages may have licenses

Syncfusion License

Syncfusion Flutter Gauge package is available under the Syncfusion Essential Studio program, and **can be licensed either under the Syncfusion Community License Program or the Syncfusion commercial license.**

To be qualified for the Syncfusion Community License Program you must have a **gross revenue of less than one (1) million U.S. dollars (\$1,000,000.00 USD) per year and have less than five (5) developers in your organization,** and agree to be bound by Syncfusion's terms and conditions.

Customers who do not qualify for the community license can contact sales@syncfusion.com for commercial licensing options.

Under no circumstances can you use this product without (1) either a Community License or a commercial license and (2) without agreeing and abiding by Syncfusion's license containing all terms and conditions.

The Syncfusion license that contains the terms and conditions can be found at https://www.syncfusion.com/content/downloads/syncfusion_license.pdf



Appendix: Upgrading Flutter on your PC (Part I)

In case the Flutter version on your PC is old, you might have issues when using external packages. To find out the Flutter version currently installed on your PC, enter “**flutter --version**” either in a Command Prompt or in a Visual Studio Code Terminal:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
PS D:\_tmp\fdg_working\canasta\canasta_v04_from_angel> flutter --version
Flutter 3.16.8 • channel stable • https://github.com/flutter/flutter.git
Framework • revision 67457e669f (4 months ago) • 2024-01-16 16:22:29 -0800
Engine • revision 6e2ea58a5c
Tools • Dart 3.2.5 • DevTools 2.28.5
PS D:\_tmp\fdg_working\canasta\canasta_v04_from_angel> |
```

To see the latest available Flutter version from Google, open <https://docs.flutter.dev/release/whats-new> . Beginning of 2024 this was

15 February 2024: Valentine's-Day-adjacent 3.19 release

Flutter 3.19 is live! For more information, check out the [Flutter 3.19 umbrella blog post](#) and the [Flutter 3.19 technical blog post](#).



Appendix: Upgrading Flutter on your PC (Part II)

To upgrade to the latest available stable Flutter version, use command “**flutter upgrade**”

```
PS D:\_tmp\fdg_working\canasta\canasta_v04_from_angel> flutter upgrade
Upgrading Flutter to 3.19.6 from 3.16.8 in C:\FlutterSDK\flutter_windows_3.3.10-stable\flutter...
Checking Dart SDK version...
Downloading Dart SDK from Flutter engine c4cd48e186460b32d44585ce3c103271ab676355...
Expanding downloaded archive with PowerShell...
Building flutter tool...
Running pub upgrade...
Resolving dependencies...
Got dependencies.

Upgrading engine...
Downloading android-arm-profile/windows-x64 tools...      439ms
Downloading android-arm-release/windows-x64 tools...      292ms
Downloading android-arm64-profile/windows-x64 tools...    346ms
Downloading android-arm64-release/windows-x64 tools...    312ms
Downloading android-x64-profile/windows-x64 tools...      341ms
Downloading android-x64-release/windows-x64 tools...      305ms
Downloading android-x86 tools...                          2.635ms
Downloading android-x64 tools...                          2.581ms
Downloading android-arm tools...                          2.151ms
Downloading android-arm-profile tools...                  1.104ms
Downloading android-arm-release tools...                  682ms
Downloading android-arm64 tools...                       11,3s
Downloading android-arm64-profile tools...               1.087ms
Downloading android-arm64-release tools...               796ms
Downloading android-x64-profile tools...                 1.151ms
Downloading android-x64-release tools...                 799ms
```

Appendix: Upgrading Flutter on your PC (Part III)



```
Downloading windows-x64-release/windows-x64-flutter tools... 9,6s
Downloading windows-x64/font-subset tools... 250ms

Flutter 3.19.6 • channel stable • https://github.com/flutter/flutter.git
Framework • revision 54e66469a9 (3 weeks ago) • 2024-04-17 13:08:03 -0700
Engine • revision c4cd48e186
Tools • Dart 3.3.4 • DevTools 2.31.1

Running flutter doctor...
Doctor summary (to see all details, run flutter doctor -v):
[✓] Flutter (Channel stable, 3.19.6, on Microsoft Windows [Version 10.0.19045.4291], locale de-DE)
[✓] Windows Version (Installed version of Windows is version 10 or higher)
[✓] Android toolchain - develop for Android devices (Android SDK version 33.0.1)
[✓] Chrome - develop for the web
[✓] Visual Studio - develop Windows apps (Visual Studio Community 2019 16.11.2)
[✓] Android Studio (version 2021.3)
[✓] VS Code (version 1.89.1)
[✓] Connected device (4 available)
    ! Device RZCW200FZAW is not authorized.
      You might need to check your device for an authorization dialog.
[✓] Network resources

• No issues found!
```

Afterwards restart your VS Code and eventually confirm the upcoming:

