



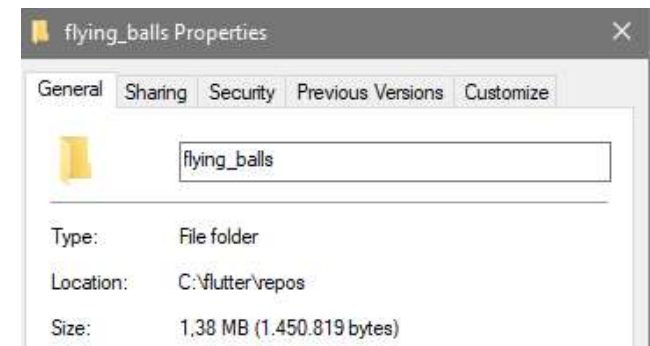
flutter clean

After you have built your Flutter app for Android and Chrome, all the generated files in the project folder take a lot of disk space, e.g. for our flying_balls:



To get rid of all these generated files, run “**flutter clean**”:

```
PS C:\flutter\repos\flying_balls> flutter clean
Deleting build... 168ms
Deleting .dart_tool... 71ms
```





flutter pub get

Once you have run “flutter clean”, your project has a lot of errors:

```
13 class MyApp extends StatelessWidget {
14   const MyApp({super.key});
15
16   @override
17   Widget build(BuildContext context) {
18     return MaterialApp(
19       title: 'FDG Flyung balls',
20       theme: ThemeData(
21         colorScheme: ColorScheme.fromSeed(seedColor: Colors.blue),
22         // ...
23       ),
24     );
25   }
26 }
```

PROBLEMS 132 OUTPUT DEBUG CONSOLE TERMINAL PORTS

main.dart lib 100

The same happens, when you clone a flutter project from GitHub and open it the first time.

To get rid of all these errors, run “flutter pub get”:

```
PS C:\flutter\repos\flyung_balls> flutter pub get
Resolving dependencies...
Downloading packages...
  async 2.11.0 (2.13.0 available)
  boolean_selector 2.1.1 (2.1.2 available)
  characters 1.3.0 (1.4.1 available)
  clock 1.1.1 (1.1.2 available)
```

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
No problems have been detected in the workspace.
```



Build a Release apk and install it on a device

```
PS C:\flutter\repos\whatsapp_ui> flutter build apk --release

Font asset "MaterialIcons-Regular.otf" was tree-shaken, reducing it from 1645184 to 3484 bytes
(99.8% reduction). Tree-shaking can be disabled by providing the --no-tree-shake-icons flag whe
n building your app.
Running Gradle task 'assembleRelease'...                               30,9s
✓ Built build\app\outputs\flutter-apk\app-release.apk (18.9MB)
```

```
PS C:\flutter\repos\whatsapp_ui> flutter devices
Found 5 connected devices:
SM A336B (mobile) • RZCW200FZAW • android-arm64 • Android 14 (API 34)
sdk gphone64 x86 64 (mobile) • emulator-5554 • android-x64 • Android 15 (API 35) (emulator)
Windows (desktop) • windows • windows-x64 • Microsoft Windows [Version 10.0.19045.4291]
Chrome (web) • chrome • web-javascript • Google Chrome 135.0.7049.85
Edge (web) • edge • web-javascript • Microsoft Edge 135.0.3179.73
```

```
PS C:\flutter\repos\whatsapp_ui> flutter install --release -d emulator-5554
Installing app-release.apk to sdk gphone64 x86 64...
Uninstalling old version...
Installing build\app\outputs\flutter-apk\app-release.apk... 1.440ms
```

For copy/paste: `flutter build apk --release`
`flutter install --release -d RZCW200FZAW`



Build a Release web version of your Flutter app

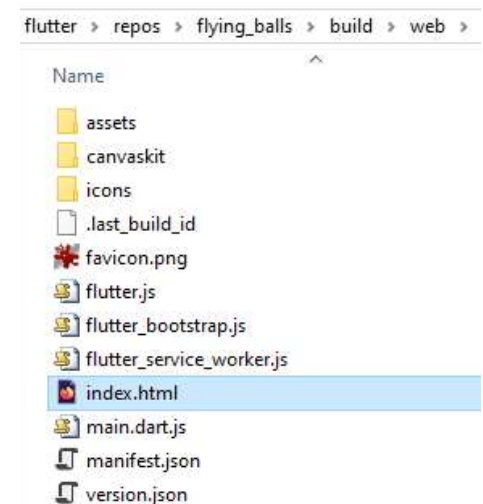
```
PS C:\flutter\repos\flying_balls> flutter build web

Font asset "MaterialIcons-Regular.otf" was tree-shaken, reducing it from 1645184 to 7692 bytes
(99.5% reduction). Tree-shaking can be disabled by providing the --no-tree-shake-icons flag when
building your app.
Font asset "CupertinoIcons.ttf" was tree-shaken, reducing it from 257628 to 1172 bytes (99.5%
reduction). Tree-shaking can be disabled by providing the
--no-tree-shake-icons flag when building your app.
Compiling lib\main.dart for the Web... 36,6s
✓ Built build\web
```

It is not needed to add “--release” (for web, there is no option “--debug” like for apk builds):

`--release` Build a release version of your app (default mode).

It creates the folder:

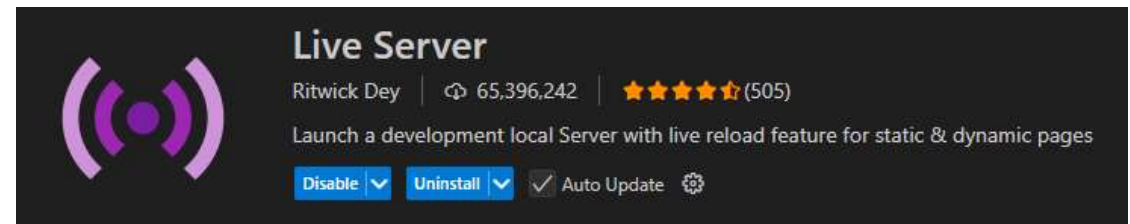
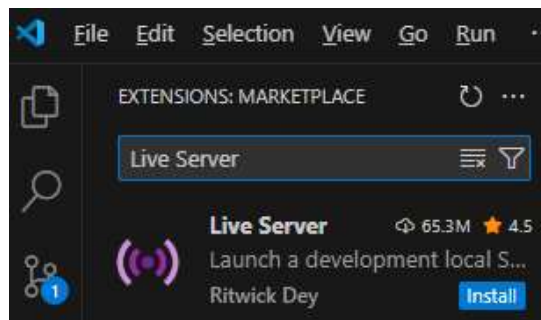


For copy/paste: **flutter build web**


Use extension „Live Server“ to test your web app

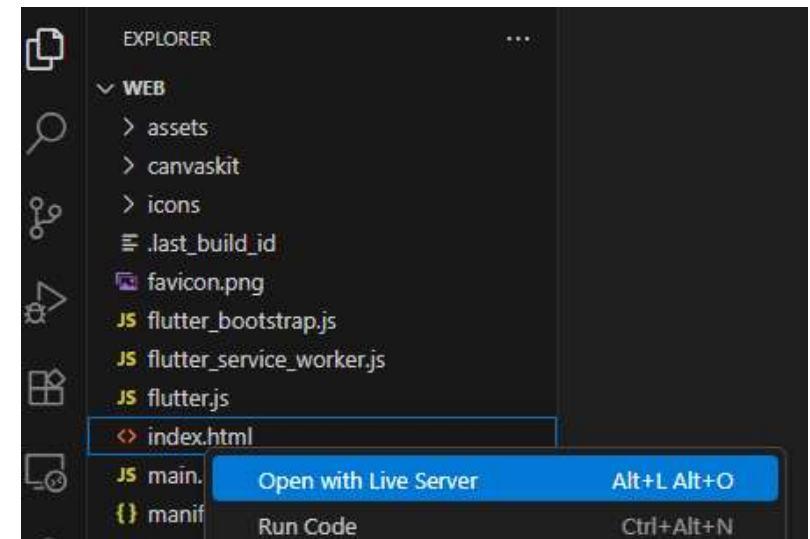


1) Install this extension in VS Code



2) Open the project folder web/build in a new VS Code

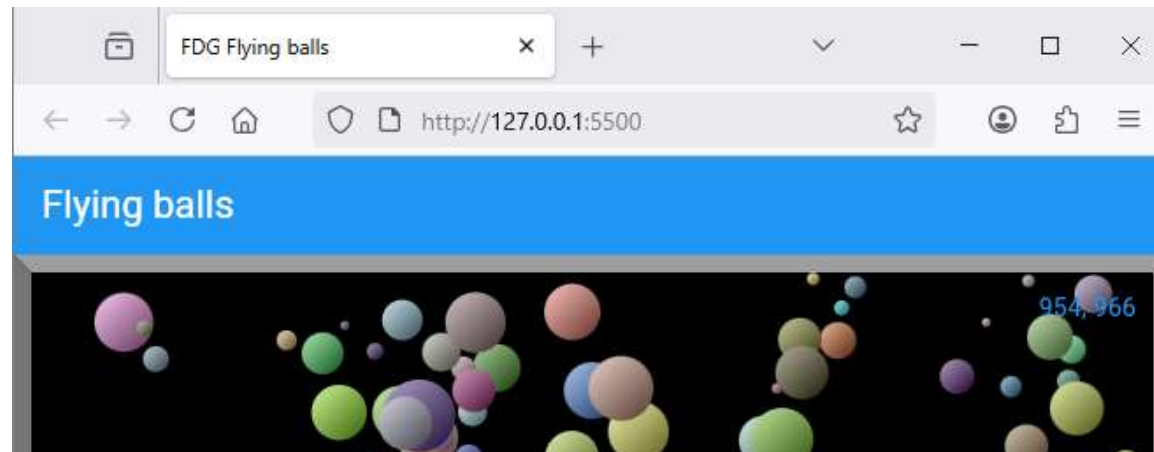
3) Press in VS Code status line on  Go Live or open file “index.html” with Live Server:



Use extension „Live Server“ to test your web app



4) A Chrome browser will start and run your web app:



ChatGPT ▾

which port is used by vs code extension live server

The **Live Server** extension in **Visual Studio Code** typically uses **port 5500** by default.

However, the port number can vary depending on availability or user configuration. If port 5500 is already in use, Live Server will incrementally try higher ports (e.g., 5501, 5502, etc.) until it finds one that's free.



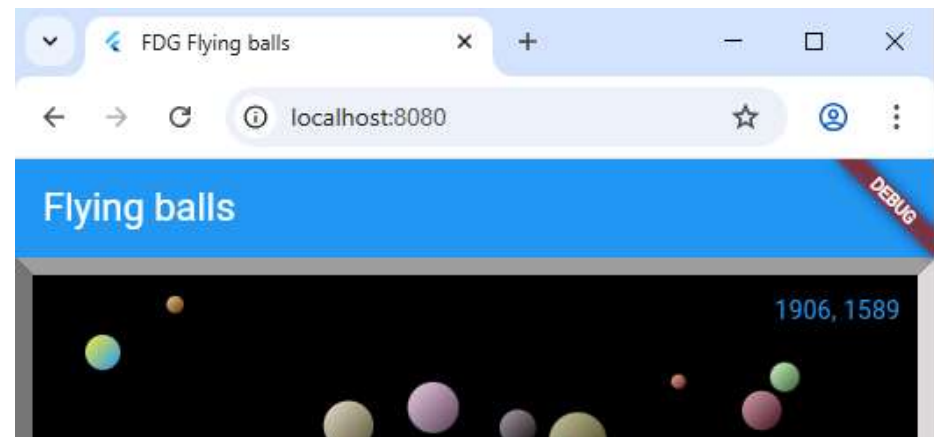
Start debug web app on a certain port

`flutter run -d chrome --web-port port-number`

```
PS C:\flutter\repos\flying_balls> flutter run -d chrome --web-port 8080
Launching lib\main.dart on Chrome in debug mode...
Waiting for connection from debug service on Chrome... 16,1s
This app is linked to the debug service: ws://127.0.0.1:63601/VSKKJB0annY=/ws
Debug service listening on ws://127.0.0.1:63601/VSKKJB0annY=/ws

To hot restart changes while running, press "r" or "R".
For a more detailed help message, press "h". To quit, press "q".

A Dart VM Service on Chrome is available at: http://127.0.0.1:63601/VSKKJB0annY=
The Flutter DevTools debugger and profiler on Chrome is available at: http://127.0.0.1:9101?uri=http://127.0.0.1:63601/VSKKJB0annY=
```





Install packages

flutter pub add *package_name*

E.g. for package “shared_preferences”:

```
PS C:\flutter\repos\_for_powerpoints\bubbleTrouble_flutter_navalnorth_forked> flutter pub add shared_preferences
Resolving dependencies...
Downloading packages...
  async 2.11.0 (2.13.0 available)
  boolean_selector 2.1.1 (2.1.2 available)
  characters 1.3.0 (1.4.1 available)
  clock 1.1.1 (1.1.2 available)
  collection 1.18.0 (1.19.1 available)
```

...

```
  vm_service 14.2.5 (15.0.2 available)
+ web 1.1.1
+ xdg_directories 1.1.0
Changed 17 dependencies!
25 packages have newer versions incompatible with dependency constraints.
Try `flutter pub outdated` for more information.
```

This adds in pubspec.yaml the line

```
pubspec.yaml
dependencies:
  flutter:
    sdk: flutter
  cupertino_icons: ^1.0.8
  shared_preferences: ^2.5.3
```

and performs a “flutter pub get”.



Upgrade Flutter

Before:

```
PS C:\Users\GS> flutter --version
Flutter 3.24.3 • channel stable • https://github.com/flutter/flutter.git
Framework • revision 2663184aa7 (10 months ago) • 2024-09-11 16:27:48 -0500
Engine • revision 36335019a8
Tools • Dart 3.5.3 • DevTools 2.37.3
```

Start it:

```
PS C:\Users\GS> flutter upgrade
Upgrading Flutter to 3.32.5 from 3.24.3 in c:\Flutter\sdk...
Checking Dart SDK version...
Downloading Dart SDK from Flutter engine dd93de6fb1776398bf586cbd477deade1391c7e4...
Expanding downloaded archive with PowerShell...
Building flutter tool...
Running pub upgrade...
Resolving dependencies...
Downloading packages...
Got dependencies.

Upgrading engine...
Downloading android-arm-profile/windows-x64 tools...      837ms
Downloading android-arm-release/windows-x64 tools...      503ms
```



Upgrade Flutter (continued)

```
Downloading windows-x64-profile/windows-x64-flutter tools...    17,2s
Downloading windows-x64-release/windows-x64-flutter tools...    18,4s
Downloading windows-x64/font-subset tools...                    584ms

Flutter 3.32.5 • channel stable • https://github.com/flutter/flutter.git
Framework • revision fcf2c11572 (2 weeks ago) • 2025-06-24 11:44:07 -0700
Engine • revision dd93de6fb1 (2 weeks ago) • 2025-06-24 07:39:37 -0700
Tools • Dart 3.8.1 • DevTools 2.45.1

Running flutter doctor...
Doctor summary (to see all details, run flutter doctor -v):
[v] Flutter (Channel stable, 3.32.5, on Microsoft Windows [Version 10.0.26100.4349], locale de-DE)
[v] Windows Version (11 Home 64-bit, 24H2, 2009)
[v] Android toolchain - develop for Android devices (Android SDK version 35.0.0)
[v] Chrome - develop for the web
[v] Visual Studio - develop Windows apps (Visual Studio Community 2022 17.4.3)
[v] Android Studio (version 2024.1)
[v] VS Code (version 1.101.2)
[v] Connected device (3 available)
[v] Network resources

• No issues found!
```

This took about 8 minutes on my PC.



Take care

After a Flutter Upgrade, the first build for Android takes a lot of time (on my PC about 30 minutes), because several Android packages are installed:

```
Checking the license for package NDK (Side by side) 26.3.11579264 in C:\Users\GS\AppData\Local\Android\sdk\licenses
License for package NDK (Side by side) 26.3.11579264 accepted.
Preparing "Install NDK (Side by side) 26.3.11579264 v.26.3.11579264".
"Install NDK (Side by side) 26.3.11579264 v.26.3.11579264" ready.
Installing NDK (Side by side) 26.3.11579264 in C:\Users\GS\AppData\Local\Android\sdk\ndk\26.3.11579264
"Install NDK (Side by side) 26.3.11579264 v.26.3.11579264" complete.
"Install NDK (Side by side) 26.3.11579264 v.26.3.11579264" finished.
Checking the license for package CMake 3.22.1 in C:\Users\GS\AppData\Local\Android\sdk\licenses
License for package CMake 3.22.1 accepted.
Preparing "Install CMake 3.22.1 v.3.22.1".
"Install CMake 3.22.1 v.3.22.1" ready.
Installing CMake 3.22.1 in C:\Users\GS\AppData\Local\Android\sdk\cmake\3.22.1
"Install CMake 3.22.1 v.3.22.1" complete.
"Install CMake 3.22.1 v.3.22.1" finished.
✓ Built build\app\outputs\flutter-apk\app-debug.apk
```