DOCUMENT TYPE:

USER MANUAL

DOCUMENT TITLE:

COHERENTPLUS – Guideline – Flutter User Manual

TARGET AUDIENCE:

Project management team, software, and hardware development team. Internal use only

(PRIVATE AND CONFIDENTIAL)

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Table of Contents

DOCUMENT VERSION

Version	Date	Name of Author	Description
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1 Abstract

This document provides step-by-step guidance for configuring Flutter on your system to develop and run Flutter applications using Visual Studio Code (VS Code).

SCOPE:

1) Installation of the Flutter SDK
2) Environment setup
3) Verification to ensure the development environment is properly configured.

2 Overview

2.1 Setup Flutter SDK

2.1.1 Download and Install Flutter SDK

Flutter SDK can be installed on the following platforms:

- **Windows**
- **macOS**
- **Linux**
- **ChromeOS**

Here, we will be configuring with windows.

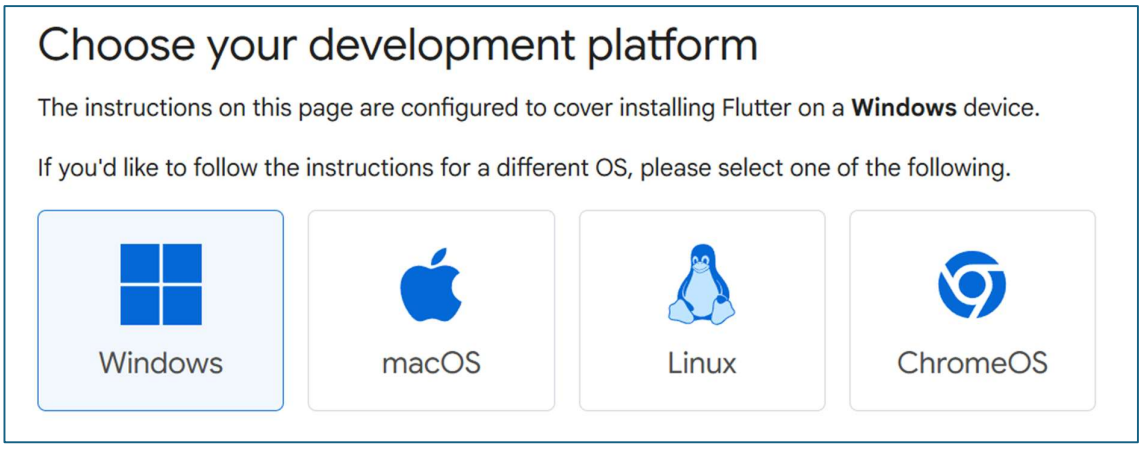

Figure 2.1.1 Flutter Docs page

2.1.2 Setup Steps

You may refer to their official flutter sdk website docs for the installation:

https://docs.flutter.dev/install/with-vs-code

Since we are using VSCode IDE, we will be referring to this document, else you can configure it manually with this:

https://docs.flutter.dev/install/manual

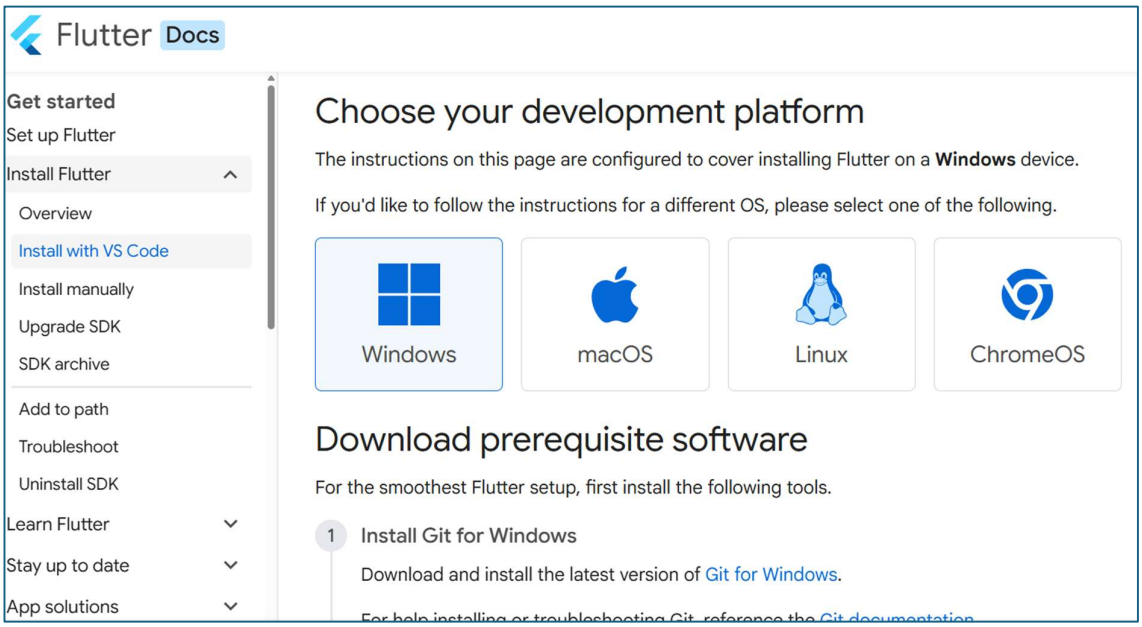

Figure 2.1.2 flutter docs for windows in vscode IDE

2.1.3 Verify installation

After installation by following steps in the flutter docs, you can verify whether everything is successfully integrated by typing “flutter doctor” in your terminal

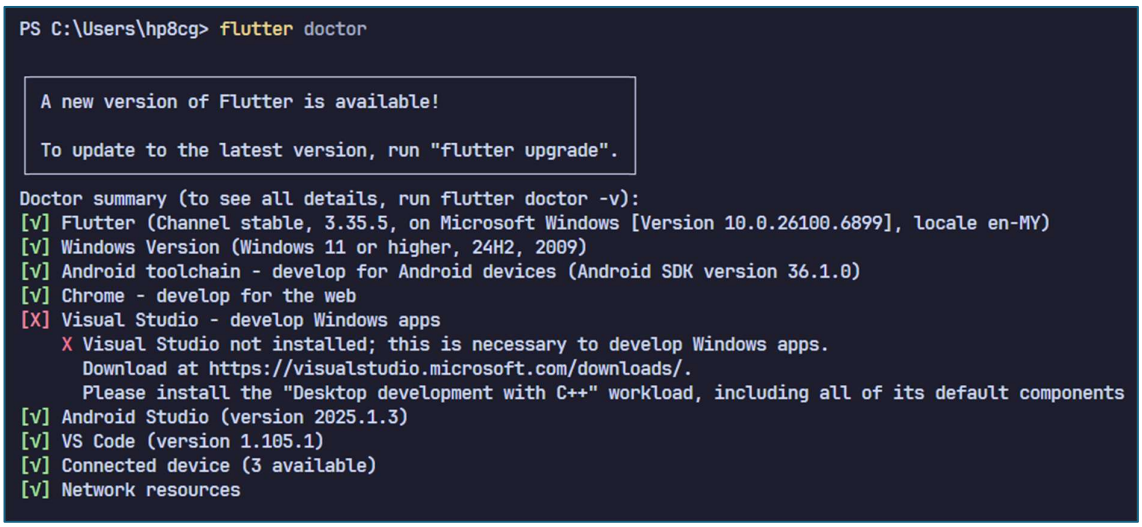

Figure 2.1.3 flutter doctor

Make sure that all required components in Flutter Doctor are ticked. You can ignore the Visual Studio section, as it may appear unticked even if Visual Studio is already installed.

Although Android Studio is optional, it is highly recommended to install it to ensure compatibility and to access additional Flutter tools such as the Android emulator and SDK manager.

Having Android Studio installed helps avoid configuration issues during Flutter development.

2.1.4 Testing Configuration

Every time a new project is created or a new file is created, we use ‘Flutter: New Project”

Click on view > command palette or “ctrl+shift+p” > Flutter : New project

Then click on your preferred type, in this case application.

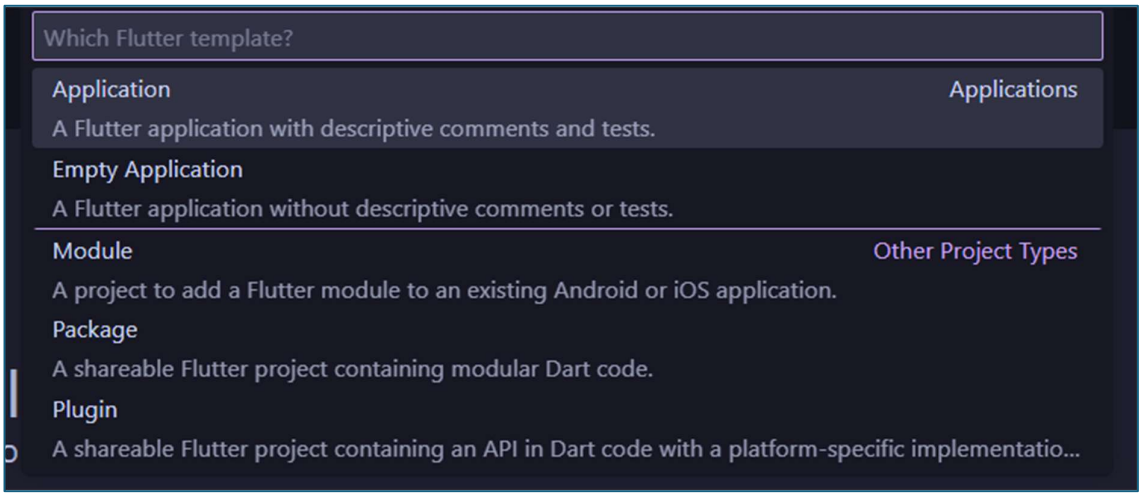

Figure 2.1.4 creating new project

The application is a premade test file, you can run that to test whether you flutter configuration is completed.

2.2 Launching Flutter Project

2.2.1 Json configuration

Before launching a Flutter project, ensure that the necessary JSON configuration files are properly set up. These files are typically used to store project settings, API keys, or environment variables that the app requires during runtime.

Click ".vscode" and then launch Json and copy this code in

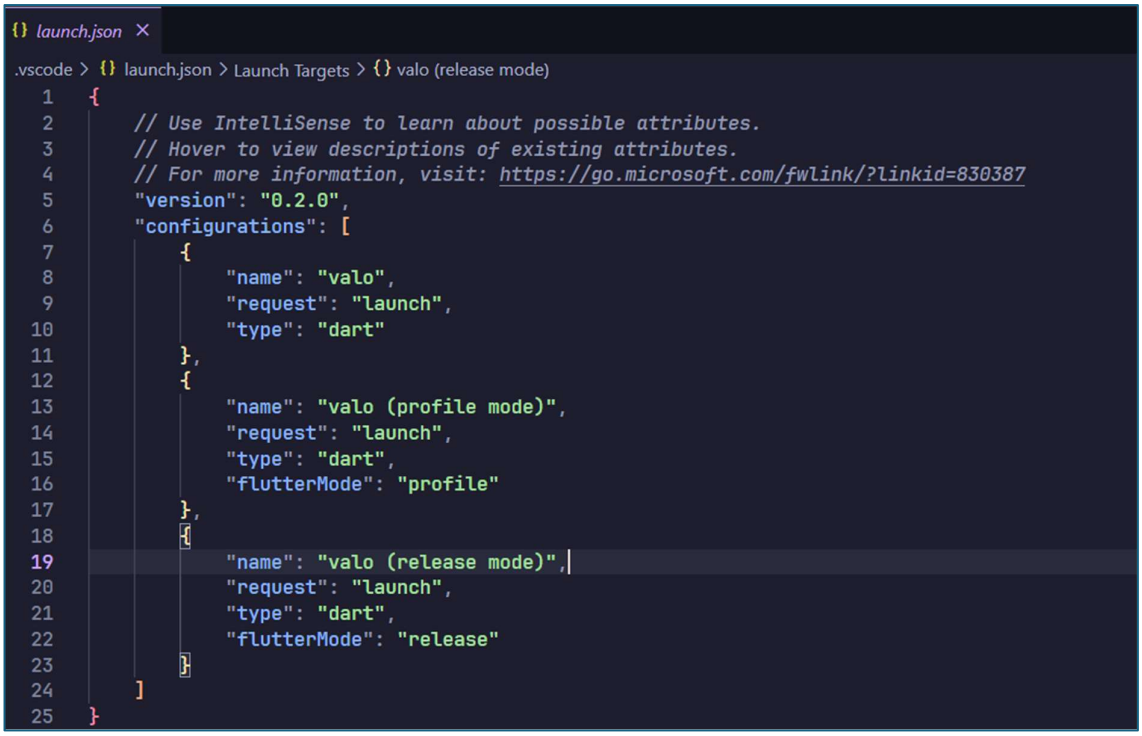

Figure 2.2.1 Json configuration

You can now just click the debug and run and every else will be set for you.

3 Flutter Files and Commands

3.1 Project Files

These files are files that are important during the testing as all these make up the entire application.

Files	Description
Assets	Storage of images
Build	When flutter run, it builds your build file which creates your application
Lib	Contains all your code files
Analysis_options.yaml	Rules and linting guidelines for your Flutter project, helps maintain code quality and consistency by detecting potential issues during development
Pubspec.yaml	Contains all dependencies and version of every imported widget

3.2 Command lines

Use command lines in terminal for testing and running.

Commands	Description
Flutter create project_name	Create project
Flutter run	Run flutter project, run and debug
Flutter pub get	Get dependencies
Flutter doctor	Check installation and configuration
Flutter run --hot	Hot reload (to not run and debug every time)
Flutter upgrade	Auto upgrade your flutter

4 Dart

Dart is the language that is used by flutter, hence all files are ‘file_name.dart’.

4.1 Dart Configuration

There is nothing much for Dart. However, there are documentations and overview for you to refer when learning Dart language and its versions.

Dart documentation https://dart.dev/docs

Dart packages https://dart.dev/tools/pub/packages

Package repository https://pub.dev/

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