

Laporan Belajar Minggu ke-1 Flutter

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1. Review Bahasa Pemrograman

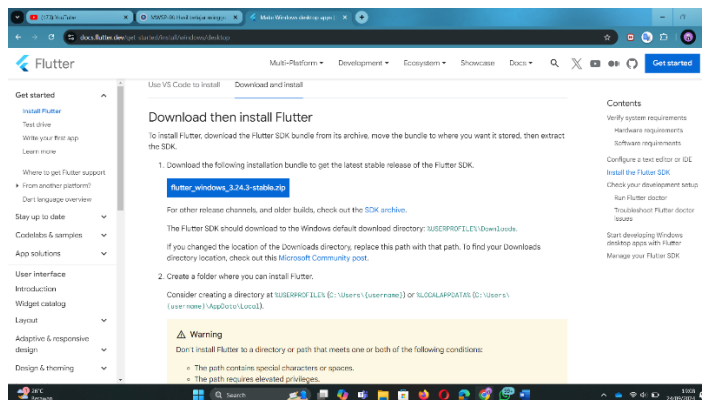
Bahasa pemrograman merupakan sekumpulan instruksi yang diberikan kepada komputer untuk melaksanakan tugas tertentu. Terdapat berbagai jenis bahasa pemrograman, yang secara umum dibagi menjadi dua kategori: bahasa tingkat tinggi, seperti Python, Java, dan C++, yang lebih mudah dipahami oleh manusia; serta bahasa tingkat rendah, seperti Assembly dan bahasa mesin, yang berinteraksi langsung dengan perangkat keras.

Flutter, framework pengembangan aplikasi lintas platform, menggunakan bahasa pemrograman Dart. Dart adalah bahasa open-source yang dikembangkan oleh Google, dirancang untuk memungkinkan pengembangan aplikasi yang cepat dan efisien di berbagai platform.

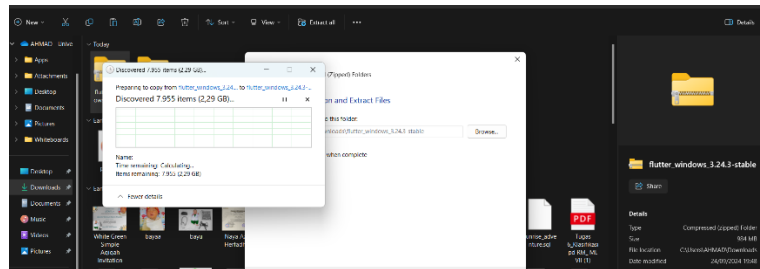
2. Install SDK Flutter, kelengkapan, dan kebutuhannya

a) Download SDK Flutter

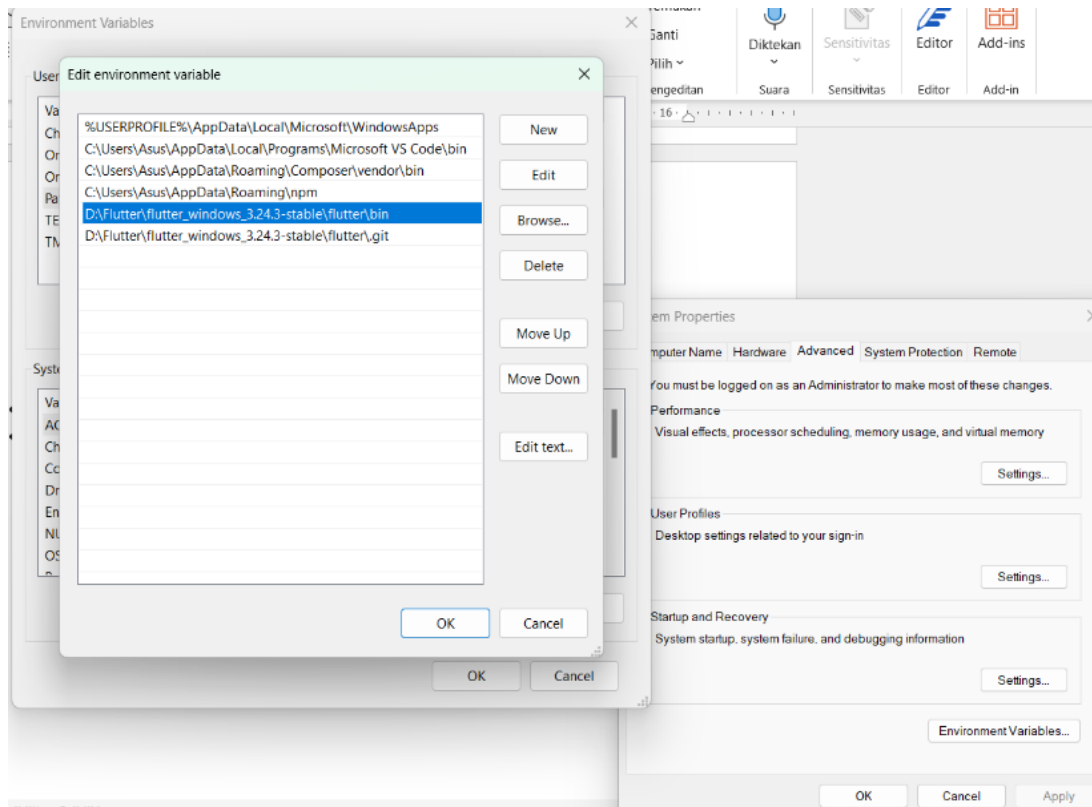
Unduh SDK Flutter pada situs resmi Flutter (<https://flutter.dev>)



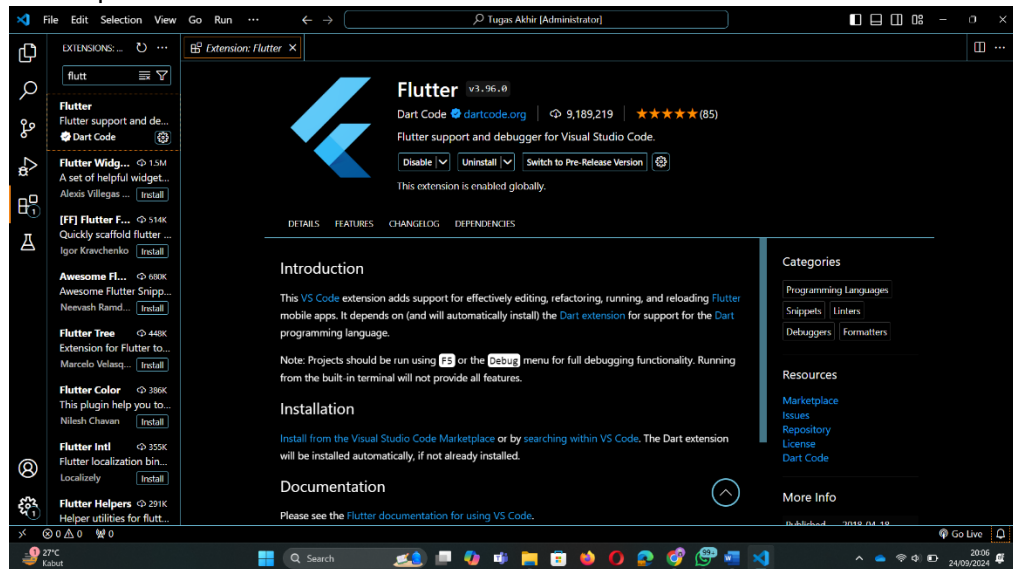
b) Extract file ZIP hasil unduhan



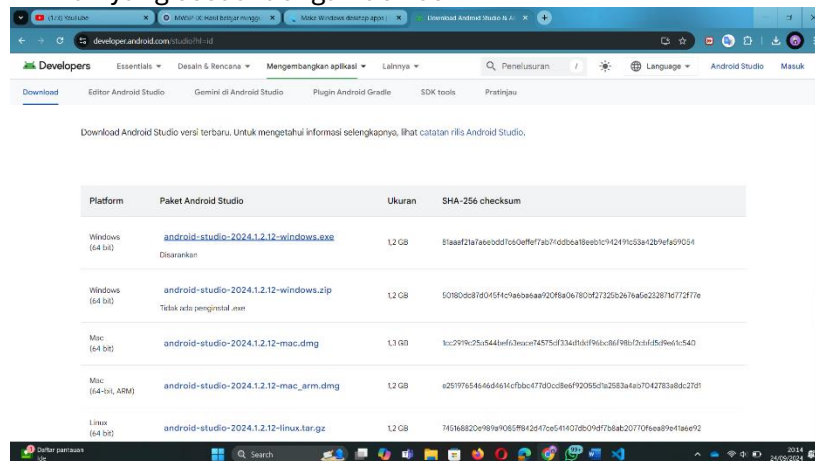
c) Menambahkan Flutter ke path yang terdapat di Control Panel

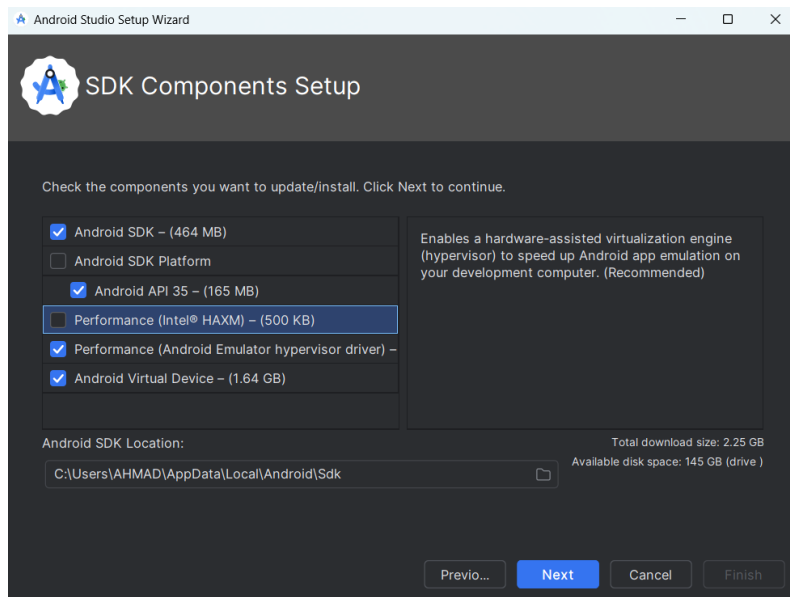


- d) Menambahkan ekstensi flutter pada VS Code dengan Extensions Marketplace VS Code



- e) Menginstall Android Studio pada (<https://developer.android.com/studio>)
Pilihlah yang sesuai dengan device.





3. Cek hasil instalasi dan penjelasannya

Cek pada cmd dengan mengetikan **flutter doctor -v**. Dengan perintah tersebut dapat menampilkan apakah kebutuhan dalam pengembangan fullter sudah terinstal semua

```
Administrator: Windows Pow...
PS D:\Aplikasi\flutter_windows_3.24.3-stable> flutter doctor -v
[✓] Flutter (Channel stable, 3.24.3, on Microsoft Windows [Version 10.0.22631.4169], locale en-ID)
    • Flutter version 3.24.3 on channel stable at D:\Aplikasi\flutter_windows_3.24.3-stable\flutter
    • Upstream repository https://github.com/flutter/flutter.git
    • Framework revision 2663184aa7 (13 days ago), 2024-09-11 16:27:48 -0500
    • Engine revision 36335819a8
    • Dart version 3.5.3
    • DevTools version 2.37.3

[✓] Windows Version (Installed version of Windows is version 10 or higher)

[✓] Android toolchain - develop for Android devices (Android SDK version 35.0.0)
    • Android SDK at D:\Aplikasi\Ndk\Ndk
    • Platform android-35, build-tools 35.0.0
    • Java binary at: C:\Program Files\Android\Android Studio\jbr\bin\java
    • Java version OpenJDK Runtime Environment (build 17.0.11+0--11852314)
    • All Android licenses accepted.

[✓] Chrome - develop for the web
    • Chrome at C:\Program Files\Google\Chrome\Application\chrome.exe

[X] Visual Studio - develop Windows apps
    X Visual Studio not installed; this is necessary to develop Windows apps.
      Download at https://visualstudio.microsoft.com/downloads/
      Please install the "Desktop development with C++" workload, including all of its default components

[✓] Android Studio (version 2024.1)
    • Android Studio at C:\Program Files\Android\Android Studio
    • Flutter plugin can be installed from:
      ✎ https://plugins.jetbrains.com/plugin/9212-flutter
    • Dart plugin can be installed from:
      ✎ https://plugins.jetbrains.com/plugin/6351-dart
    • Java version OpenJDK Runtime Environment (build 17.0.11+0--11852314)

[✓] VS Code, 64-bit edition (version 1.93.1)
    • VS Code at C:\Program Files\Microsoft VS Code
    • Flutter extension version 3.96.0

[✓] Connected device (3 available)
    • Windows (desktop) • windows • windows-x64 • Microsoft Windows [Version 10.0.22631.4169]
    • Chrome (web)      • chrome  • web-javascript • Google Chrome 128.0.6613.139
```

4. Membuat Hello World dan penjelasnya

a) Menggunakan kode di bawah ini :

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

void main() {
  runApp(const MyApp());
}

class MyApp extends StatelessWidget {
  const MyApp({super.key});

  // This widget is the root of your application.
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Flutter Demo',
      theme: ThemeData(
        colorScheme: ColorScheme.fromSeed(seedColor: Colors.deepPurple),
        useMaterial3: true,
      ),
      home: const MyHomePage(title: 'Flutter AHMAD'),
    );
  }
}

class MyHomePage extends StatefulWidget {
  const MyHomePage({super.key, required this.title});
  final String title;

  @override
  State<MyHomePage> createState() => _MyHomePageState();
}

class _MyHomePageState extends State<MyHomePage> {
  int _counter = 0;

  void _incrementCounter() {
    setState(() {
      _counter++;
    });
  }

  @override
```

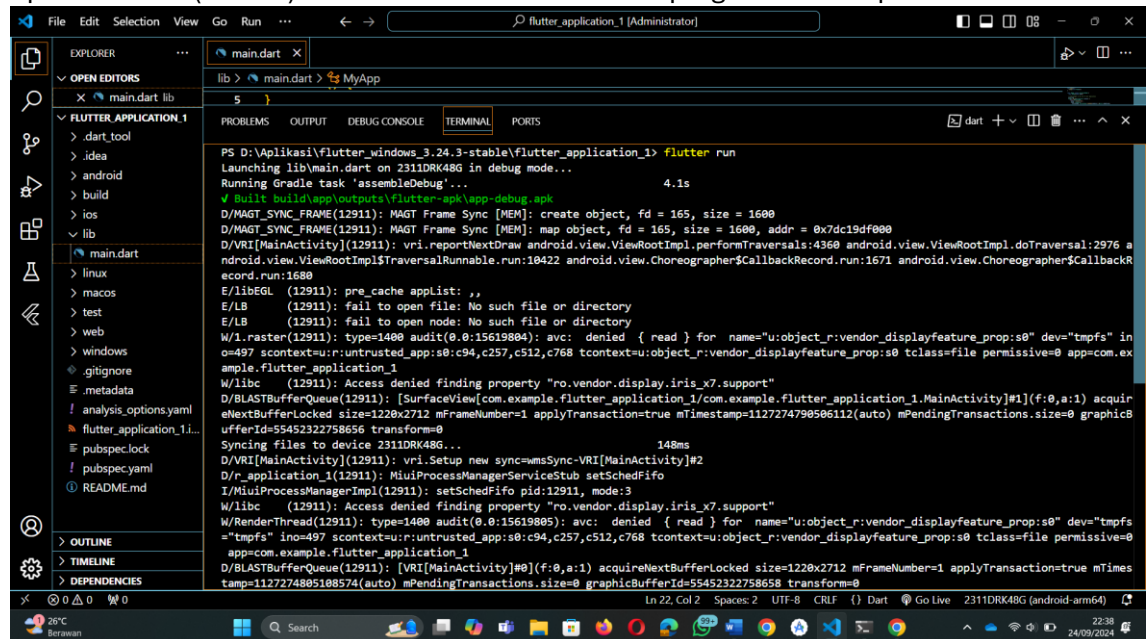
```

Widget build(BuildContext context) {
  return Scaffold(
    appBar: AppBar(
      backgroundColor: Theme.of(context).colorScheme.inversePrimary,
      title: Text(widget.title),
    ),
    body: Center(
      child: Column(
        mainAxisAlignment: MainAxisAlignment.center,
        children: <Widget>[
          const Text(
            'HELLO WORLD',
          ),
          Text(
            '$_counter',
            style: Theme.of(context).textTheme.headlineMedium,
          ),
        ],
      ),
    ),
    floatingActionButton: FloatingActionButton(
      onPressed: _incrementCounter,
      tooltip: 'Increment',
      child: const Icon(Icons.add),
    ), // This trailing comma makes auto-formatting nicer for build
methods.
  );
}
}

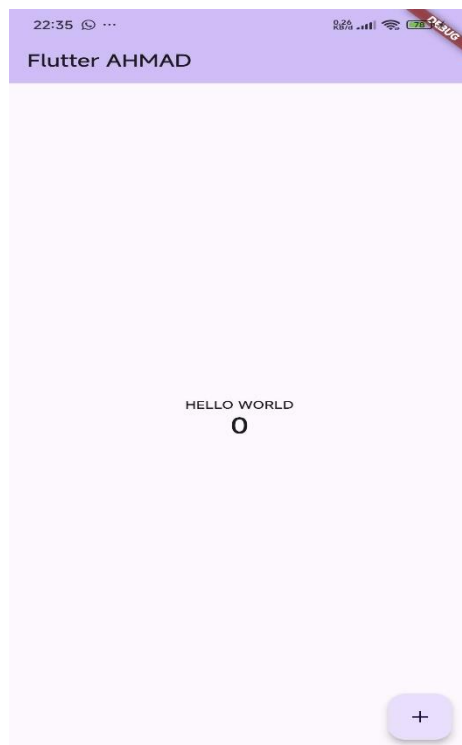
```

- b) Saya menghubungkan hp dengan laptop menggunakan kabel USB. Lalu saya mengaktifkan opsi pengembang yang ada di hp saya.

Setelah memasukkan kode tersebut, lalu Running program dengan cara open terminal (ctrl + `). Lalu ketikan **Flutter run** dan program akan di proses



```
PS D:\Aplikasi\Flutter_windows_3.24.3-stable\flutter_application_1> flutter run
Launching lib/main.dart on 2311DRK48G in debug mode...
Running Gradle task 'assembleDebug'...
✓ Built build/app/outputs/flutter-apk/app-debug.apk
D/MAGT_SYNC_FRAME(12911): MAGT Frame Sync [MEM]: create object, fd = 165, size = 1600
D/MAGT_SYNC_FRAME(12911): MAGT Frame Sync [MEM]: map object, fd = 165, size = 1600, addr = 0x7dc19df000
D/VRI[MainActivity](12911): vri.reportNextDraw android.view.ViewRootImpl.performTraversals:4360 android.view.ViewRootImpl.doTraversal:2976 a
ndroid.view.ViewRootImpl$TraversalRunnable.run:10422 android.view.Choreographer$CallbackRecord.run:1671 android.view.Choreographer$CallbackR
ecord.run:1680
E/libEGL (12911): pre_cache applit: , ,
E/LB (12911): fail to open file: No such file or directory
E/LB (12911): fail to open node: No such file or directory
W/1.raster(12911): type=1400 audit(0.0:15619804): avc: denied { read } for name="u:object_r:vendor_displayfeature_prop:s0" dev="tmpfs" in
o=497 scontext=u:r:untrusted_app:s0:c94,c257,c512,c768 tcontext=u:object_r:vendor_displayfeature_prop:s0 tclass=file permissive=0 app=com.ex
ample.flutter_application_1
W/libc (12911): Access denied finding property "ro.vendor.display.iris_x7.support"
D/BLASTBufferQueue(12911): [SurfaceView[com.example.flutter_application_1/com.example.flutter_application_1.MainActivity]#1](f:0,a:1) acquir
eNextBufferLocked size=1228x2712 mFrameNumber=1 applyTransaction=true mTimestamp=1127274790506112(auto) mPendingTransactions.size=0 graphicB
ufferId=55452322758656 transform=0
Syncing files to device 2311DRK48G... 148ms
D/VRI[MainActivity](12911): vri.Setup new sync=wmsSync-VRI[MainActivity]#2
D/r_application_1(12911): MiuiProcessManagerServiceStub setSchedFifo
I/MiuiProcessManagerImpl(12911): setSchedFifo pid:12911, mode:3
W/libc (12911): Access denied finding property "ro.vendor.display.iris_x7.support"
W/RenderThread(12911): type=1400 audit(0.0:15619805): avc: denied { read } for name="u:object_r:vendor_displayfeature_prop:s0" dev="tmpfs"
="tmpfs" ino=497 scontext=u:r:untrusted_app:s0:c94,c257,c512,c768 tcontext=u:object_r:vendor_displayfeature_prop:s0 tclass=file permissive=0
app=com.example.flutter_application_1
D/BLASTBufferQueue(12911): [VRI[MainActivity]#0](f:0,a:1) acquireNextBufferLocked size=1228x2712 mFrameNumber=1 applyTransaction=true mTimes
tamp=1127274805108574(auto) mPendingTransactions.size=0 graphicBufferId=55452322758658 transform=0
```



Dan ini merupakan hasil tampilan dari layar smartphone

Jika tidak menggunakan smartphone, bisa memilih beberapa browser yang di sediakan. Di sini saya menggunakan chrome

