MOBILE APPLICATION DEVELOPMENT LAB (CSL 341)



DEPARTMENT OF COMPUTER SCIENCES BAHRIA UNIVERSITY, ISLAMABAD CAMPUS

CLASS: BS (CS) - 6B

SESSION: SPRING 2025

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LAB 1

Installation of Flutter and setting up the environment

1. Write the main steps involved in Flutter installation.

Step 1: Install Git

- ❖ Download Git from git-scm.com.
- * Run the downloaded .exe file.
- * Keep clicking next for default settings.
- Click Install and wait for the installation to complete.

Step 2: Download and Install Flutter

- 1. Go to the official Flutter website: flutter.dev.
- 2. Click Get Started and then Install Flutter.
- 3. Select operating system (Windows, macOS, or Linux).
- 4. Download the Flutter SDK.
- 5. Extract the downloaded ZIP file to a location. (Avoid spaces in the folder name).

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         FLUTTER_APPLICATION_1
                                                    lib > ७ main.dart > ⁴$_MyHomePageState > ♡ _incrementCounter
 Q
         > .dart tool
         > .idea
                                                             class _MyHomePageState extends State(MyHomePage> {
  int _counter = 0;
         > android
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         > build
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                                                                void _incrementCounter() {
                                                                 ### (70.14 __incrementCounter() {

setState(fn: () {

// This call to setState tells the Flutter framework that something has

// changed in this State, which causes it to rerun the build method below

// so that the display can reflect the updated values. If we changed

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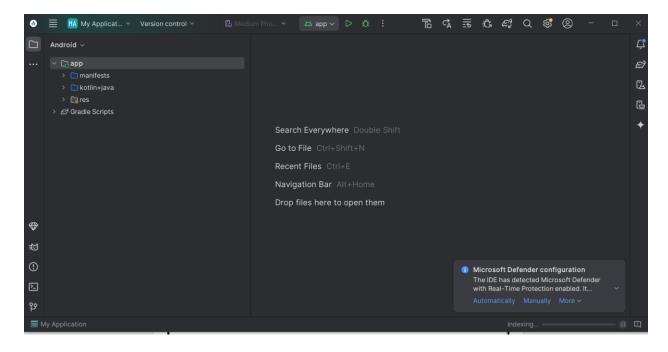
         main.dart
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                                                                     // \_counter without calling setState(), then the build method would not be
                                                                     // called again, and so nothing would appear to happen
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           .gitignore
                                                                @override
           analysis_options.yaml
                                                                Widget build(BuildContext context) {
         flutter_application_1.iml
                                                    56 // This method is rerun every time setState is called for instance as done PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
         ≡ pubspec.lock
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         ! pubspec.yaml
                                                   O PS C:\FLUTTER\flutter_application_1>

    README.md

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       > OUTLINE
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```

Step 4: Install Android Studio (for Emulator Support)

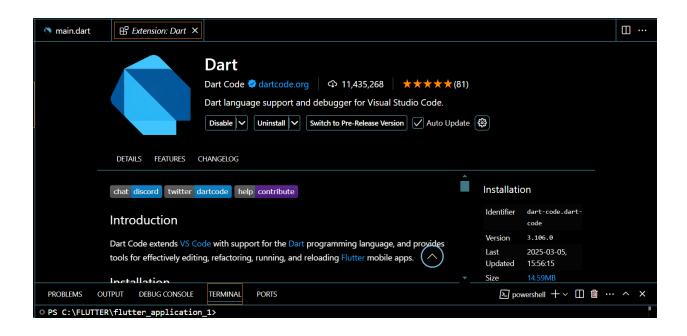
Download Android Studio from developer.android.com.

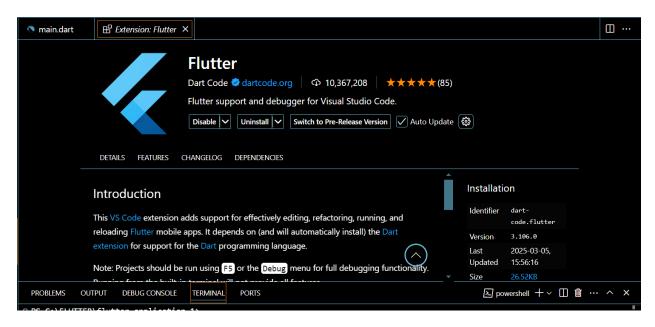


- **2.** How you connect your mobile phone in replacement of Virtual Device? Write step by step procedure.
- **Step 1:** Enable Developer Mode on the phone.
 - ❖ Go to Settings and then About Phone then Tap "Build Number" 7 times until it says "You are now a developer!"
- **Step 2:** Enable USB Debugging.
 - ❖ Go to Settings -> Developer Options -> Turn on USB Debugging.
- **Step 3:** Connect the phone to your PC using a USB cable.
- **Step 4:** Open VS Code and open the terminal.
- **Step 5:** Check if your device is connected by running the command:

Flutter devices

3. In VS Code, which extension you install for flutter and Dart?





4. How can we create a flutter project?

- Step 1: Open VS Code.
- **Step 2:** Open the Command Palette.
- **Step 3:** Type "Flutter: New Project" and select it.
- **Step 4:** Choose "Flutter Application" as the project type.
- **Step 5:** Enter a project name.
- **Step 6:** Select a folder where you want to save the project.
- **Step 7:** Wait for dependencies to install.

5. What is the advantage of setting path in environment variables?

- ➤ You can use flutter commands in any terminal or command prompt without navigating to the Flutter folder.
- No need to manually go to the Flutter installation directory each time.
- Commands like flutter doctor, flutter run, and flutter create work globally.
- ➤ Other tools like VS Code and Android Studio can detect Flutter automatically.
- Without setting the path, the system won't recognize Flutter commands, causing errors.

THE END

