Lab session 1: Flutter Installation and UI Design using Flutter
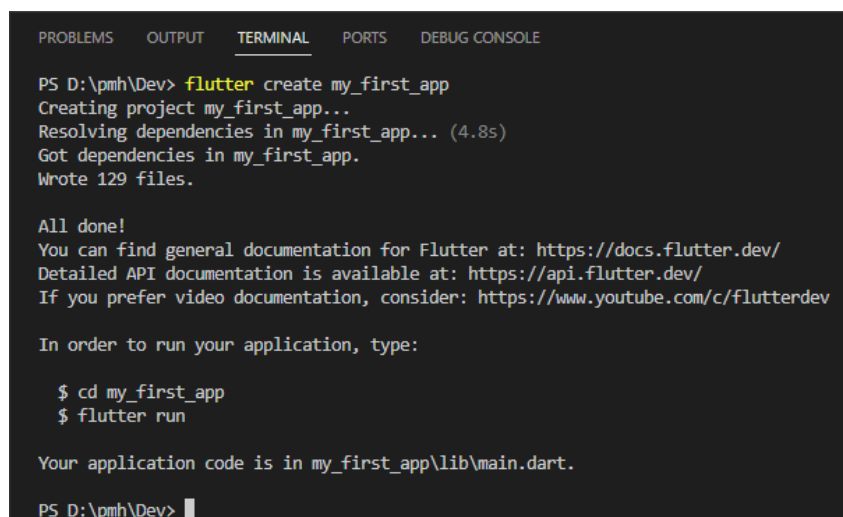
Task-5 Create your first Flutter App in VSCode

To create my first flutter app, I opted for VS Code as an editor instead of Android Studio because my laptop does not have the necessary properties to run Android Studio. Besides, I have used VS code since the beginning of my programming journey so I am likely more used to all the features.

This TP is the result of our first session in "Programation Mobile Hybride", so at this moment, I do not have enough knowledge about Dart language to create a complex flutter app.

To create my first flutter app, I applied the steps learned during the session 1.

I run the command "flutter create my_first_app" in VS code terminal to create to project "my_first_app" which is already set up with all the necessary dependencies to create a flutter app.

Next, I opened the created folder in VS code
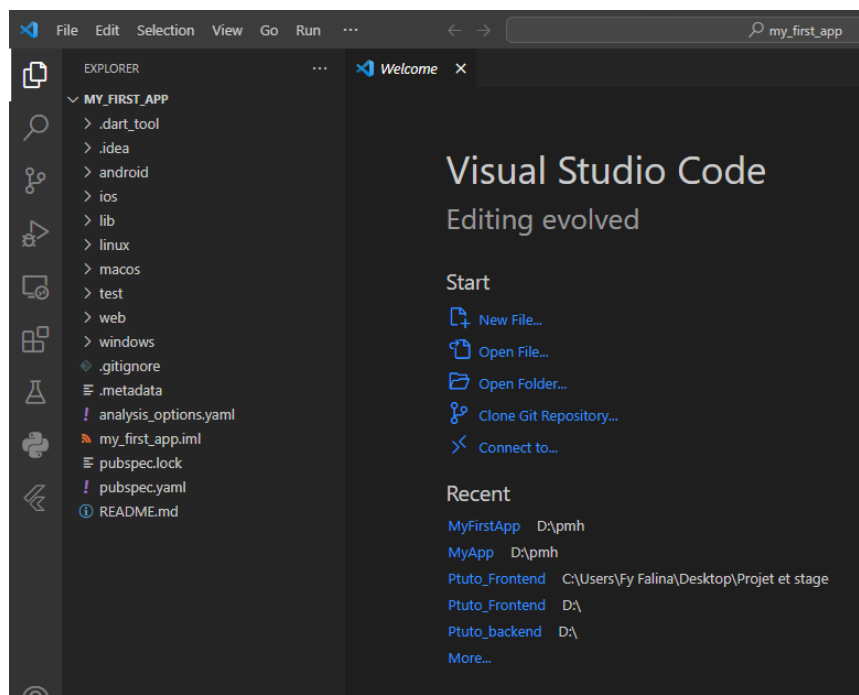
VS Code immediately detected the presence of Dart and the use of flutter, I opted to use its recommended settings.
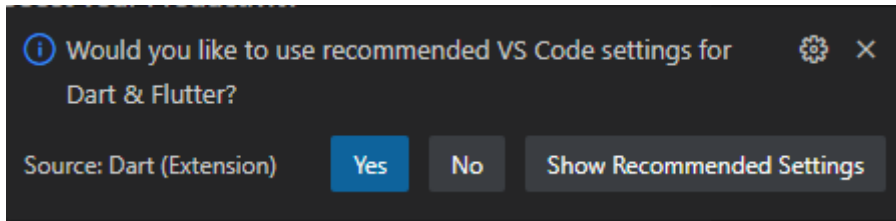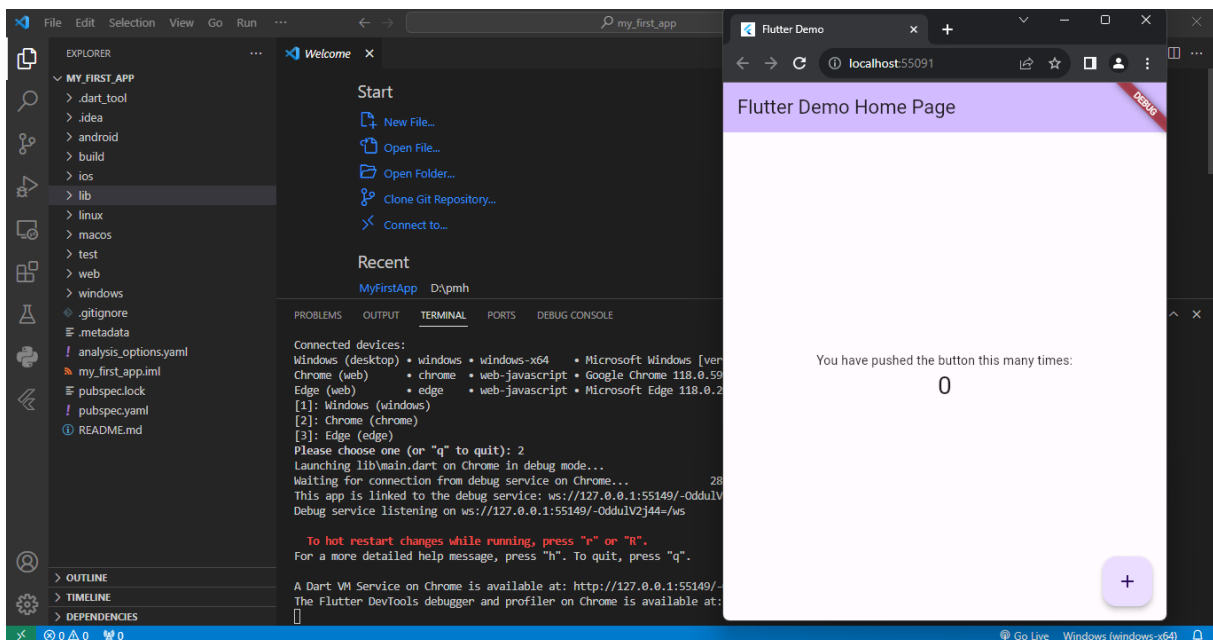

As the created flutter app already contains a basic (default) app, I used the command "flutter run" to test and run the app using Chrome :

The successfully run in chrome, showing a basic app with a header, one action button and message to show the results of the action.
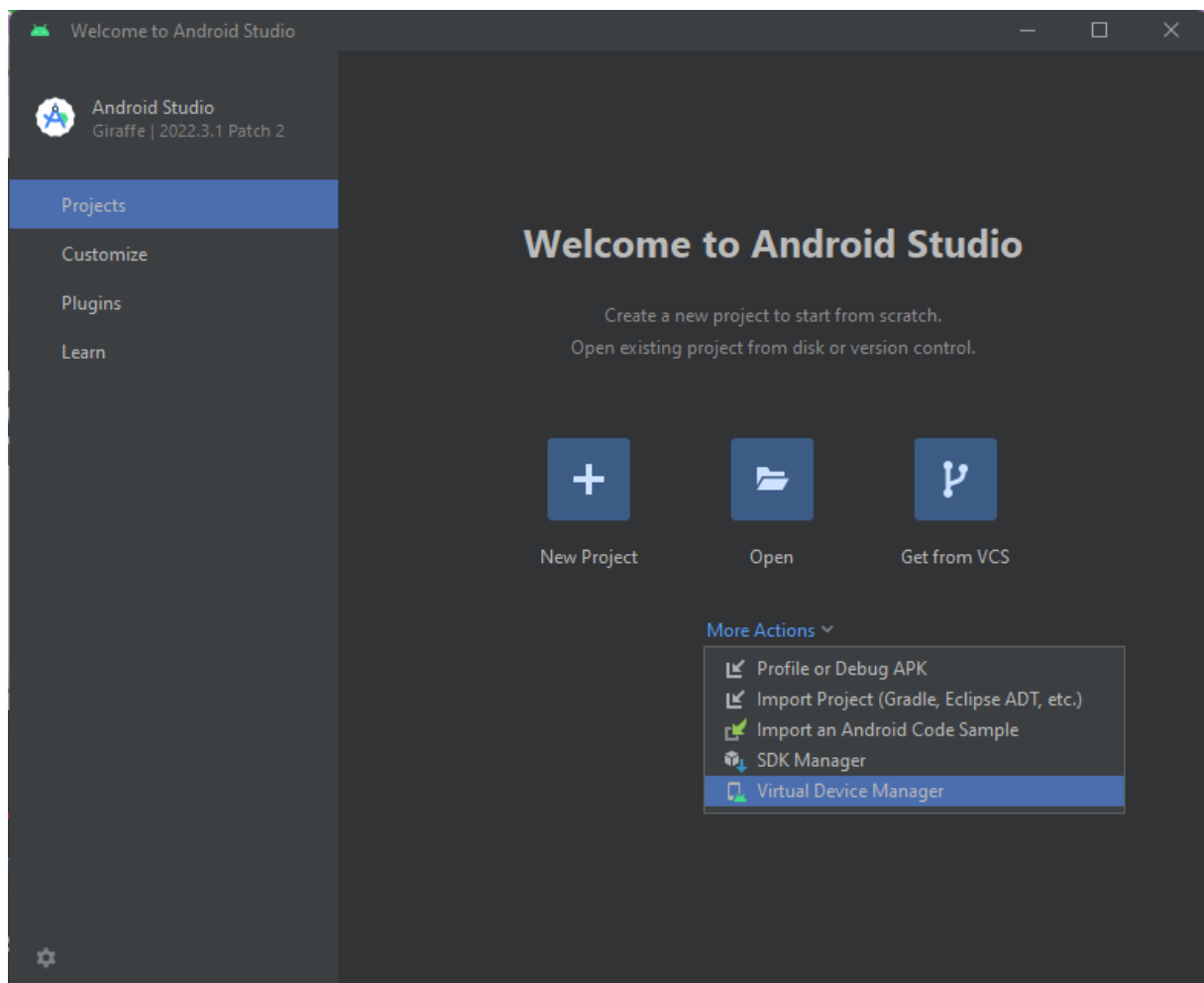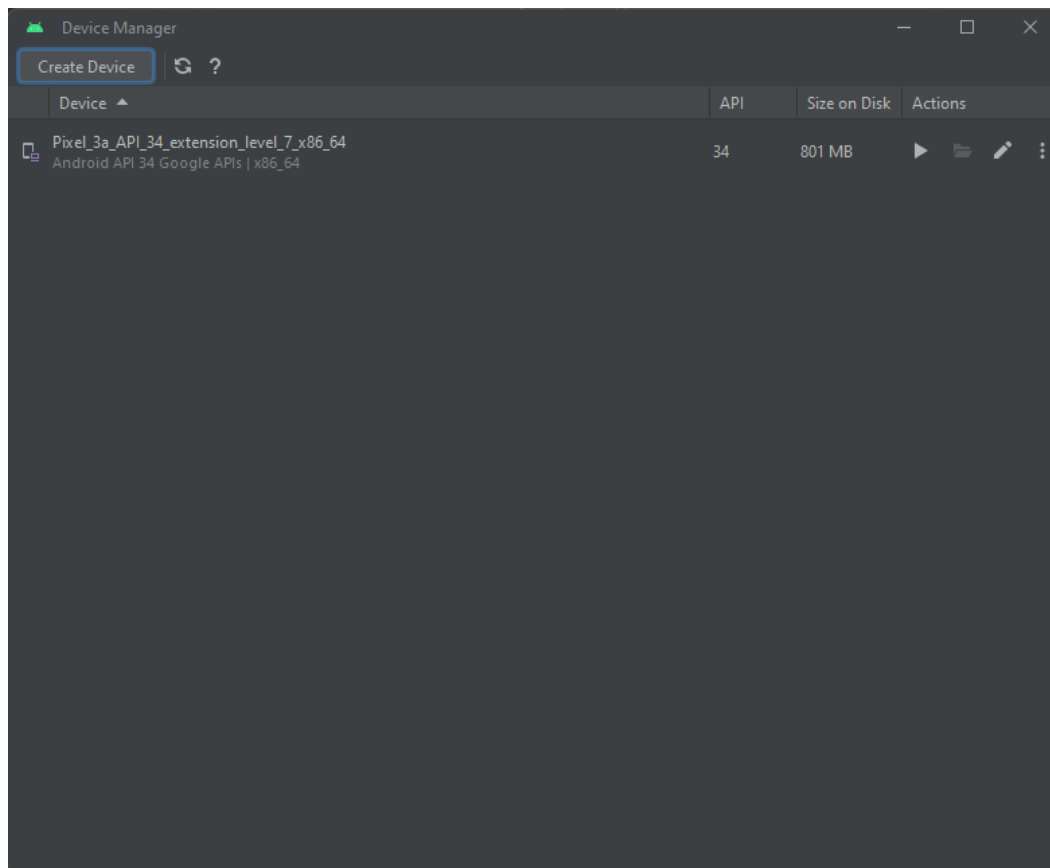

I tried to understand the content of the code and tried to modify some point to view how it will be displayed. I changed the header and the action so it turns out like this:
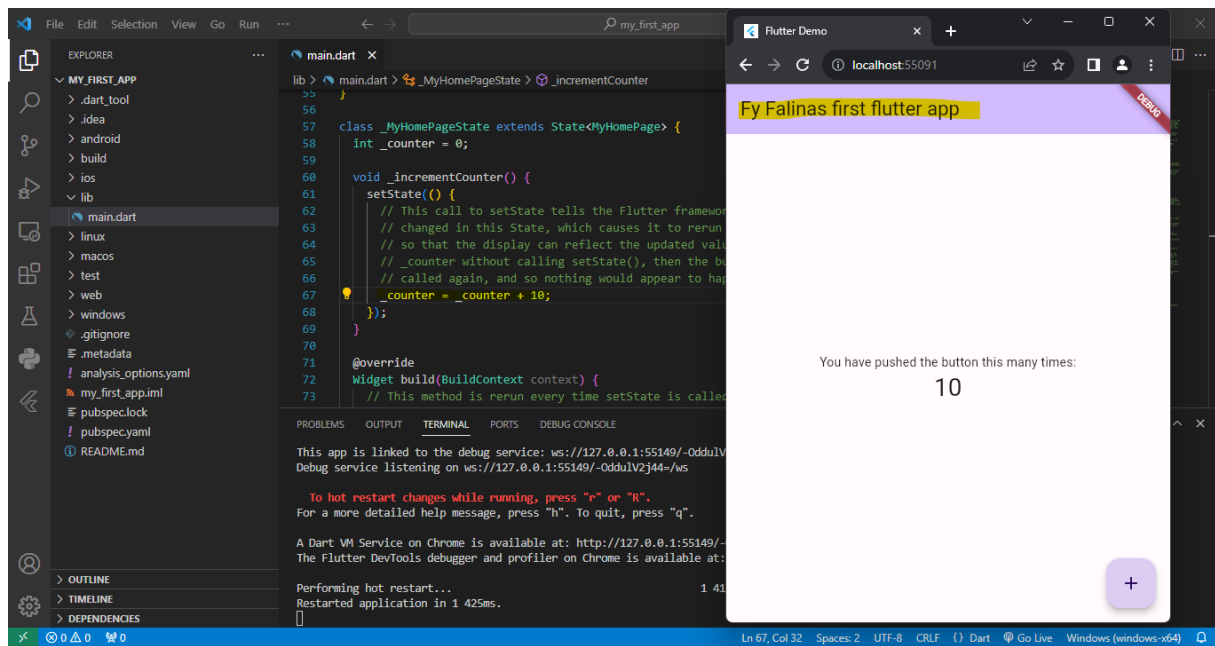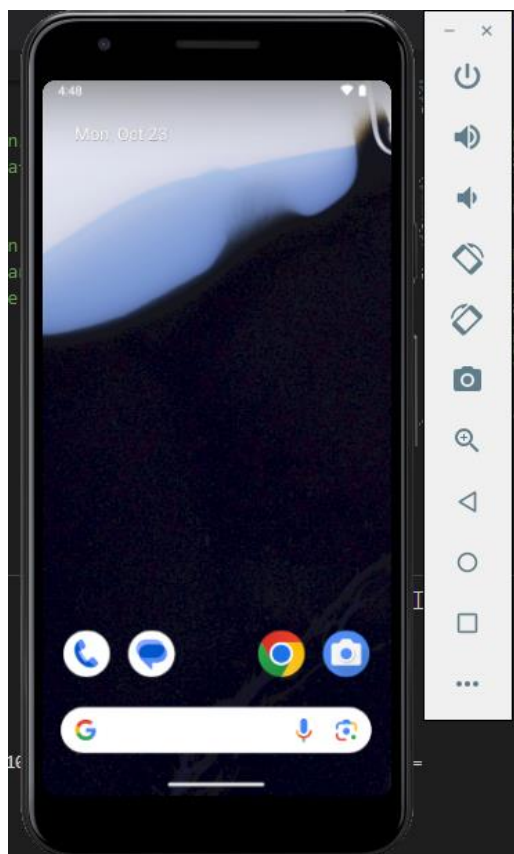
The next step was to run the app using android studio emulator.

First I launched the virtual device through the following steps :

The emulator took a long time to be totally loaded but it was finally launched.

And then, I went back to the VS Code terminal to run the app. This time, VS code directly detected the emulator and directly launched the app there.

Unfortunately, as seen in the screenshot below, I got an error "Out of memory".

```
PS D:\pmh\Dev\my_first_app> flutter run
Using hardware rendering with device sdk gphone64 x86 64. If you notice graphics artifacts, consider enabling software rendering with
"--enable-software-rendering".
Launching lib\main.dart on sdk gphone64 x86 64 in debug mode...
../../runtime/vm/zone.cc: 96: error: Out of memory.
version=3.1.4 (stable) (Tue Oct 17 14:55:53 2023 +0000) on "windows_x64"
pid=16108, thread=14576, isolate_group=main(0000015DF505AE50), isolate=(nil)(0000000000000000)
os=windows, arch=x64, comp=no, sim=no
isolate_instructions=15df72b0000, vm_instructions=7ff632d46cb0
fp=13bf4fdd80, sp=13bf4fdd80, pc=7ff632f4b5c2
  pc 0x00007ff632f4b5c2 fp 0x00000013bf4fdd80 Dart_IsPrecompiledRuntime+0x219e42
-- End of DumpStackTrace
=== Crash occurred when compiling package:front_end/src/fasta/kernel/constant_evaluator.dart_ConstantsTransformer_visitPatternSwitchStatement in
optimizing JIT mode in CSE pass
../../runtime/vm/zone.cc: 96: error: Out of memory.
Aborting reentrant request for stack trace.
the Dart compiler exited unexpectedly.
Running Gradle task 'assembleDebug'...
PS D:\pmh\Dev\my_first_app>
```

My research suggested that maybe the virtual device lack of memory, so I tried to increase it.

I tried to run the app again, but got a second error :

```
../../runtime/platform/allocation.cc: 22: error: Out of memory.

===== CRASH =====
ExceptionCode=-1073741819, ExceptionFlags=0, ExceptionAddress=00007FFA47D07810
Aborting reentrant request for stack trace.

FAILURE: Build failed with an exception.

* What went wrong:
Execution failed for task ':app:compileFlutterBuildDebug'.
> Process 'command 'C:\dev\flutter\bin\flutter.bat'' finished with non-zero exit value -1073740791

* Try:
> Run with --stacktrace option to get the stack trace.
> Run with --info or --debug option to get more log output.
> Run with --scan to get full insights.

* Get more help at https://help.gradle.org

BUILD FAILED in 8m 30s
Running Gradle task 'assembleDebug'...                          514,0s
```

I finally understood that the problem was in my laptop's characteristics. I am using a laptop with 8go of RAM, and observing the use of memory in Task Manager confirmed that launching the app using Android Studio Emulator need too much memory than available.

That's why, unfortunately, I cannot not use the Android Studio Emulator for this task. I will do needful to have appropriate machine, but it will take time.