

CSM3504 Lab 1

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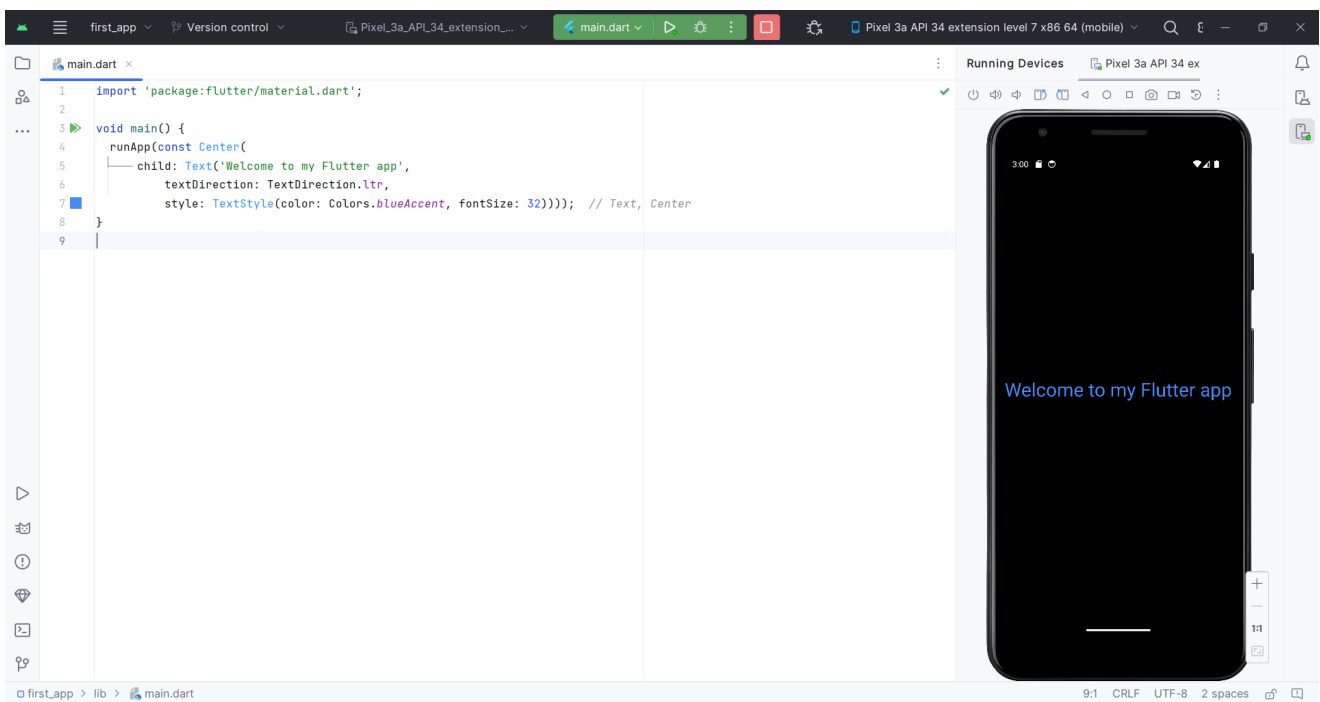
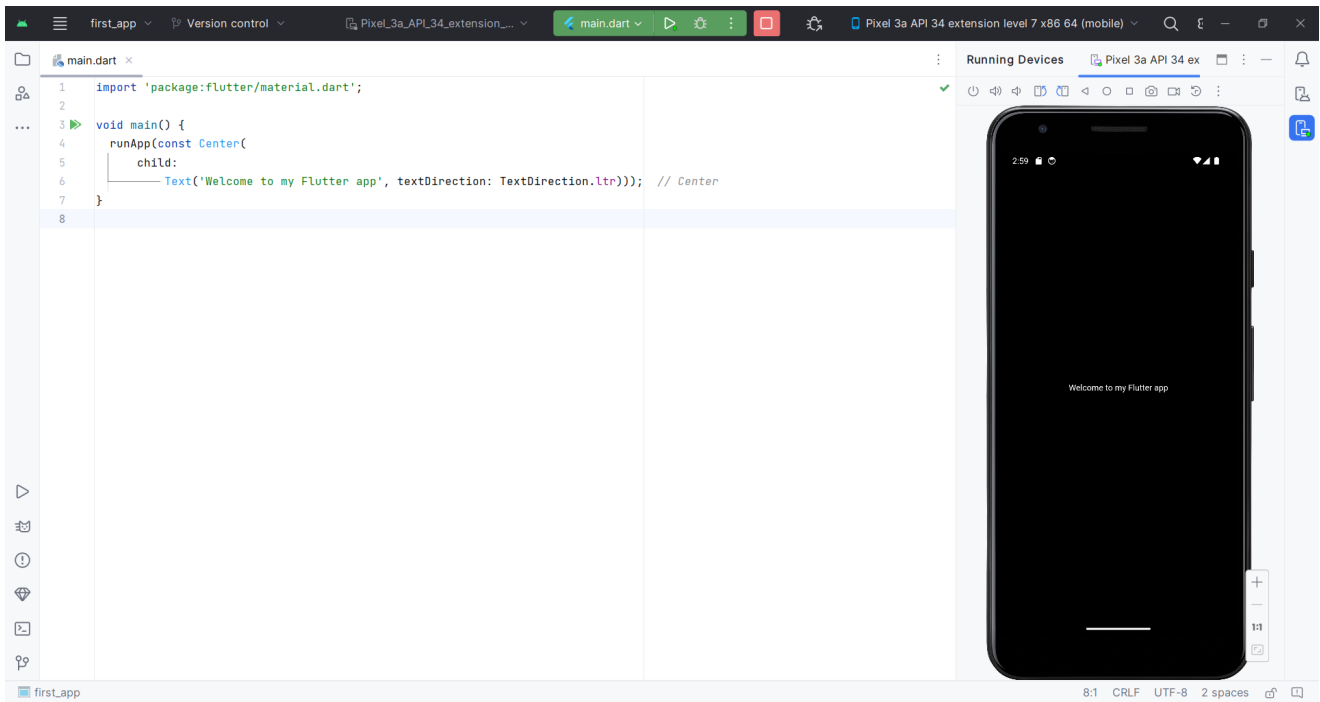
1 Flutter Basic Installation and Development

1.1 Flutter Configuration

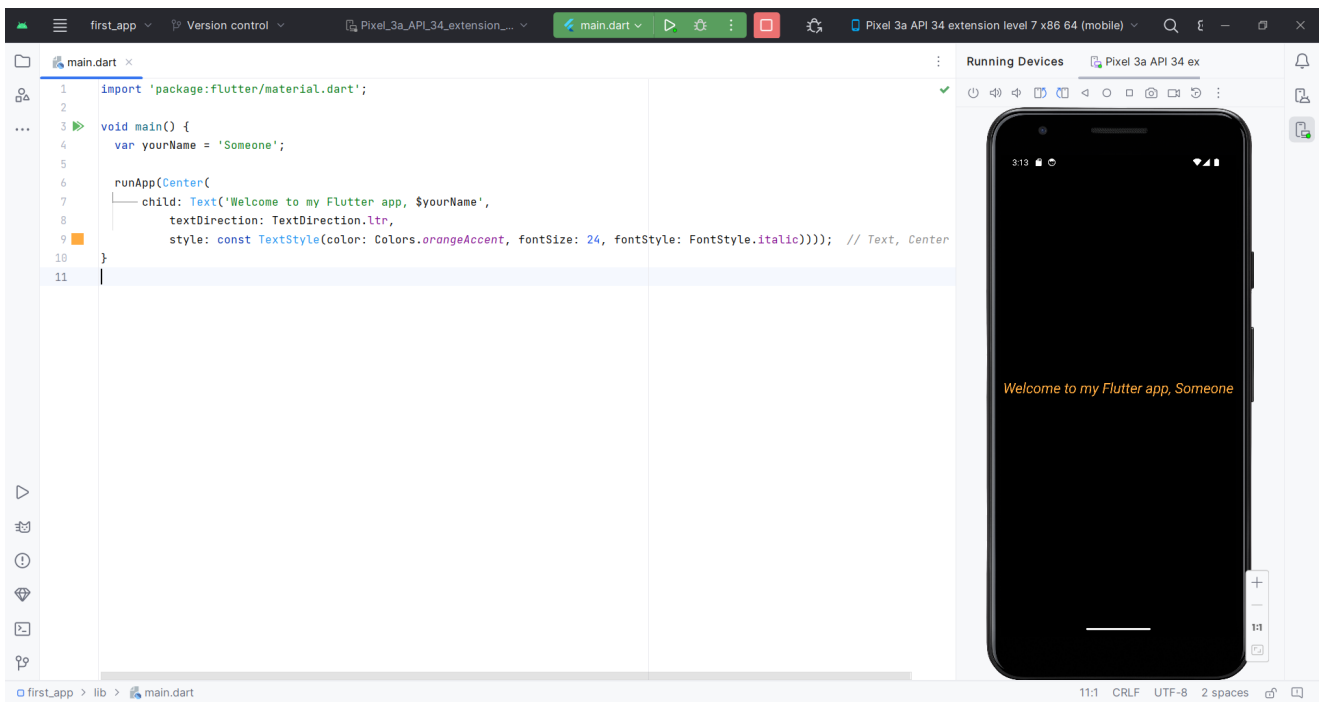
1. Describe the steps-by-step process for performing the Flutter configuration?
 1. Download Flutter SDK from [the official site](#).
 2. Add the SDK bin file to system PATH.
2. Describe the actions required to ensure the Flutter configuration is successfully deployed and setup on your machine.
 1. Run `flutter doctor` to check for requirements.
 - For Android SDK, *due to laziness*, just installing Android Studio and using it's Android SDK manager to install Command-Line Tools and Android Virtual Device (AVD) would do.
 2. Run `flutter create app_name` to verify whether the SDK is working.
 3. Run the app with Android Studio or Visual Studio Code with AVD to verify if everything is working well.
3. Write a command line to update the Android licenses when performing the health checking on the Flutter configuration.
 - `flutter doctor --android-licenses`
 - `sdkmanager --licenses`

2 The First Basic Flutter Project

2.1 Creating the basic Flutter Apps by using Text widget

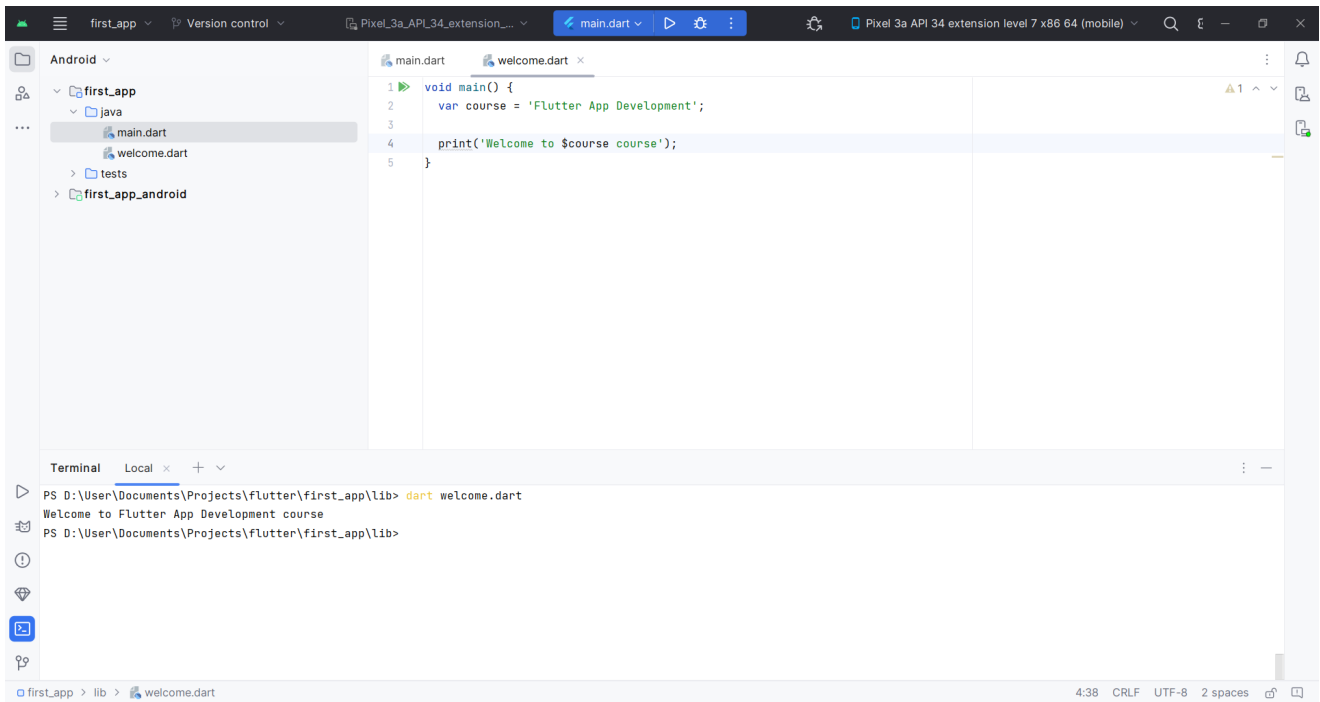


2.2 Exercise 1



3 Dart Basic Programming

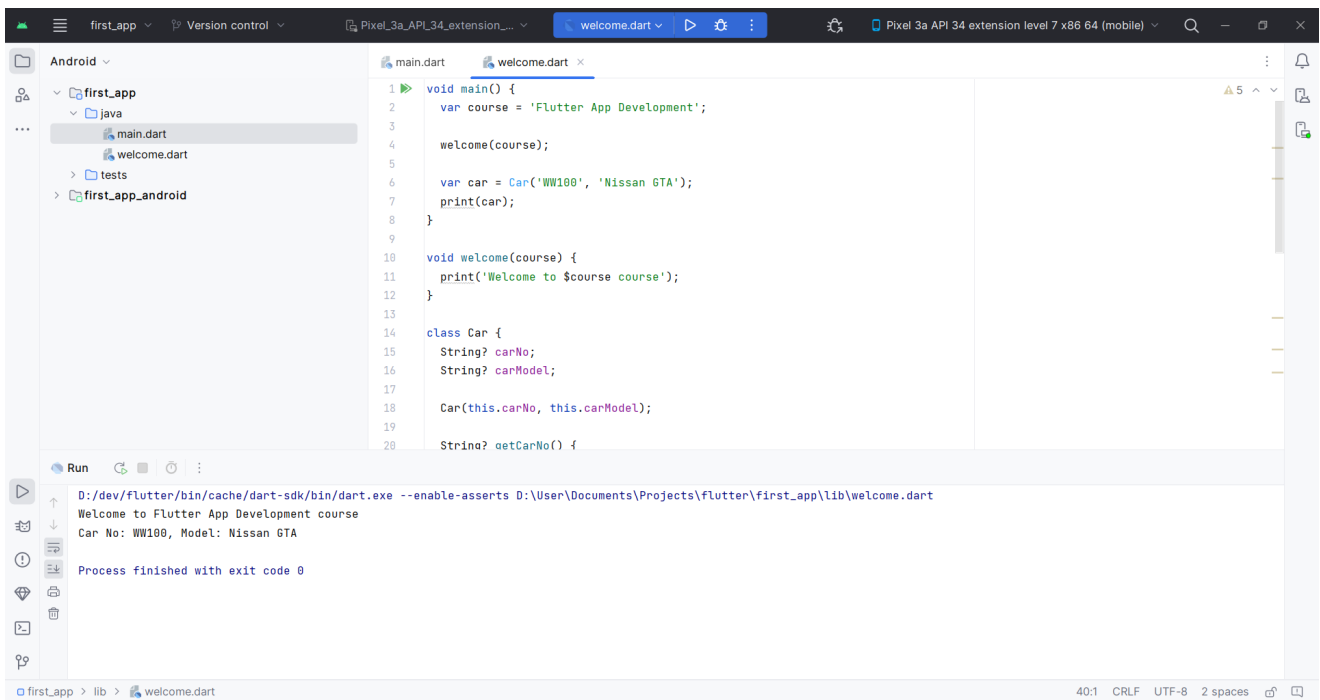
3.1 Basic Dart Program



The screenshot shows an IDE window with a file explorer on the left, a code editor in the center, and a terminal at the bottom. The file explorer shows a project named 'first_app' with a 'lib' directory containing 'main.dart' and 'welcome.dart'. The code editor shows the 'welcome.dart' file with the following code:

```
1 void main() {  
2   var course = 'Flutter App Development';  
3  
4   print('Welcome to $course course');  
5 }
```

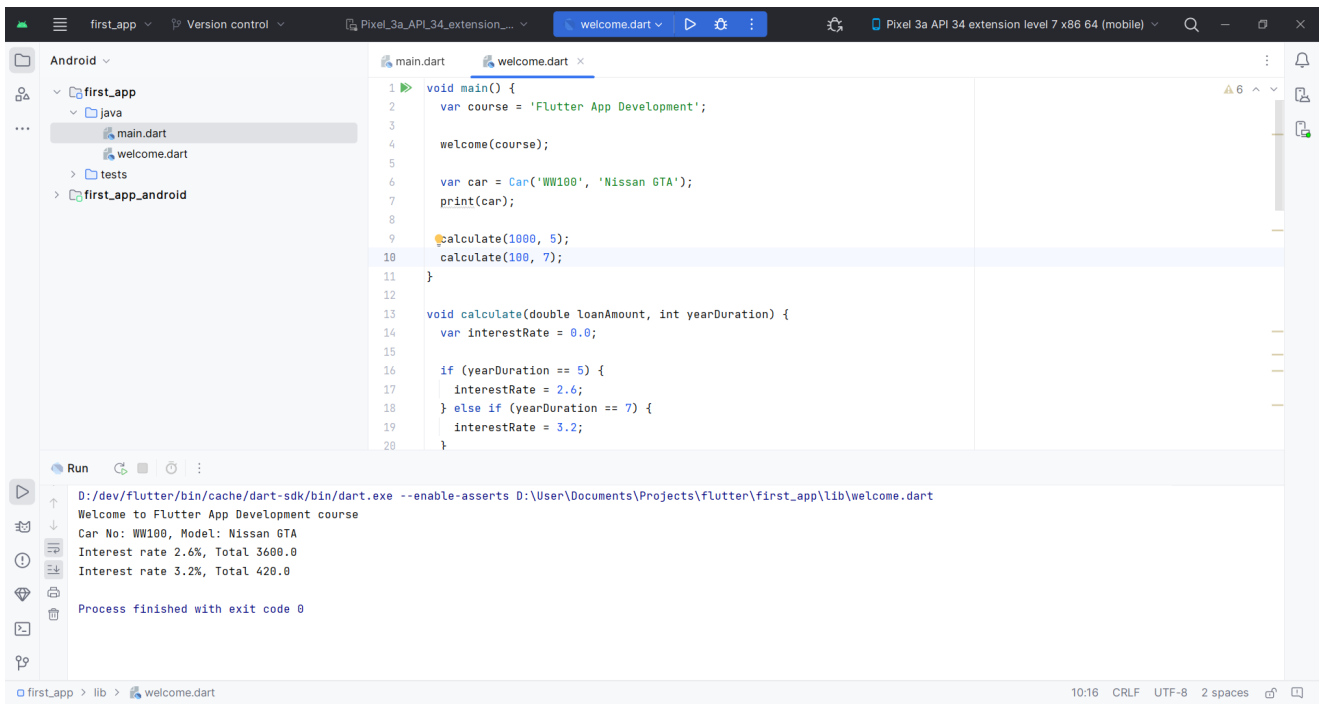
The terminal shows the command 'dart welcome.dart' being executed, resulting in the output 'Welcome to Flutter App Development course'.



The screenshot shows the same IDE window with the 'welcome.dart' file. The code editor now shows the following code:

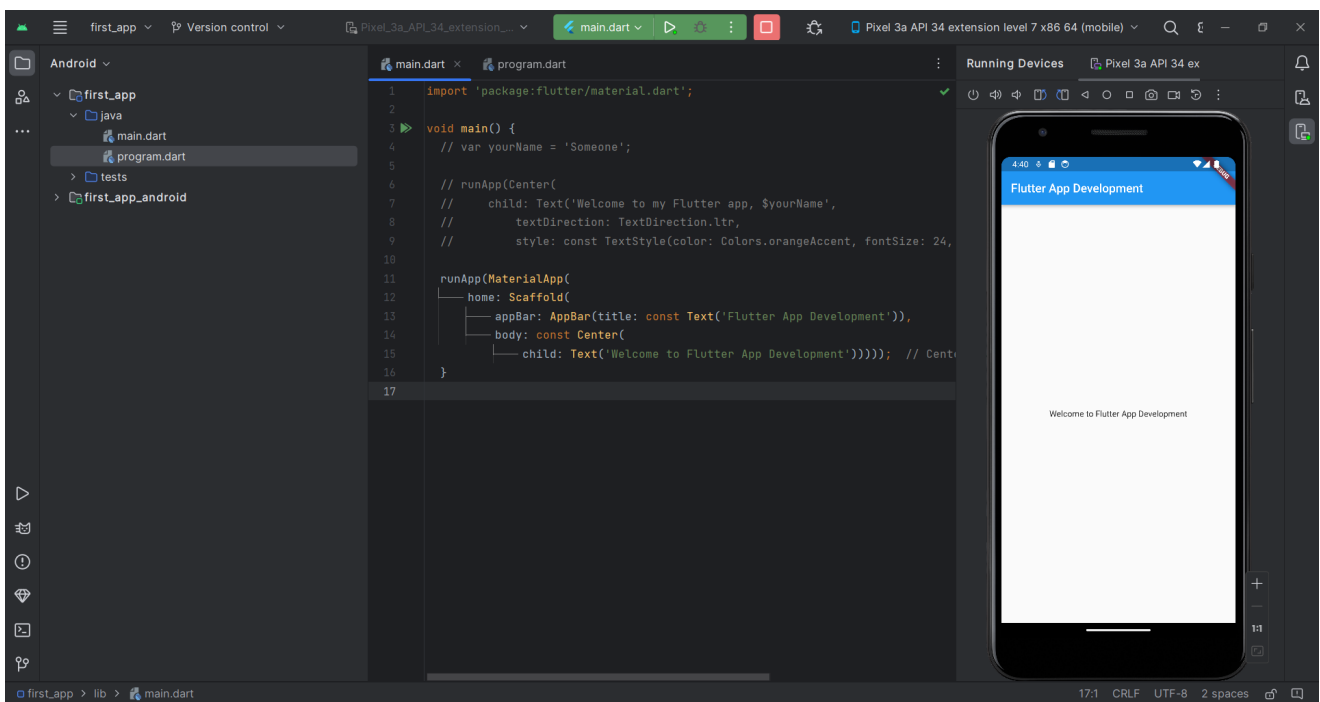
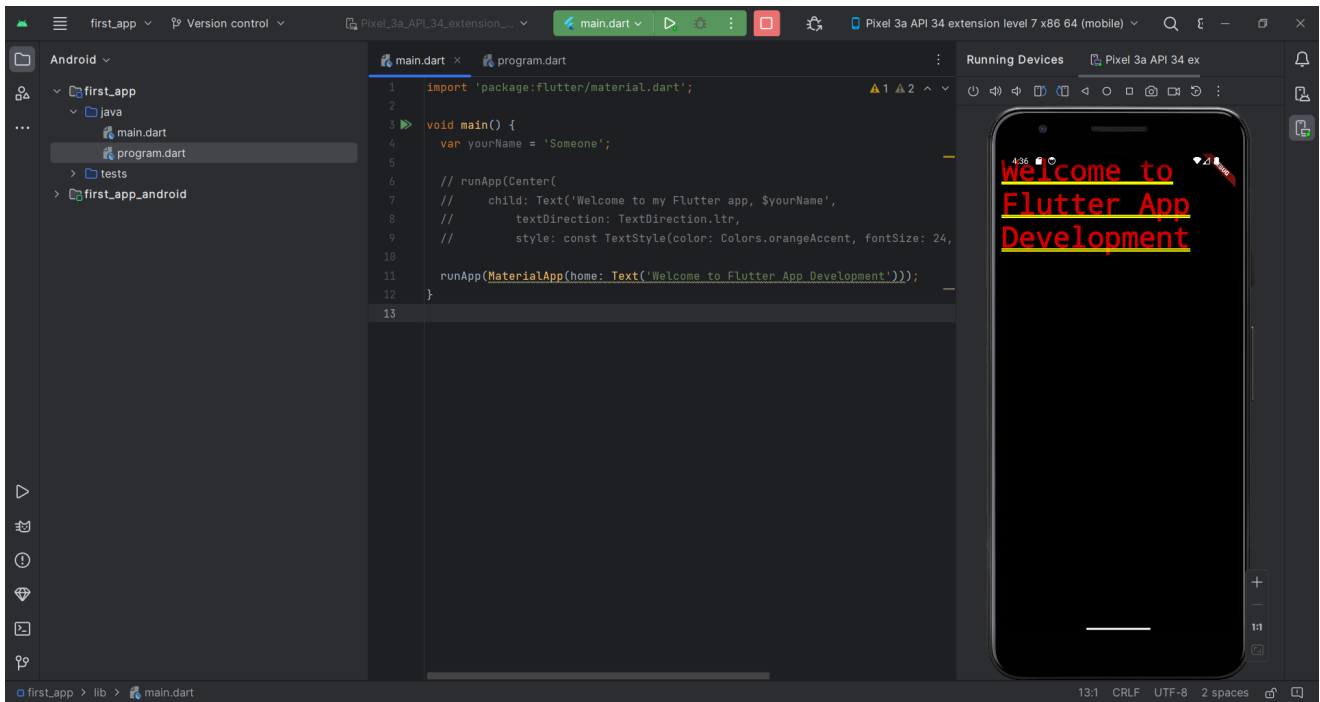
```
1 void main() {  
2   var course = 'Flutter App Development';  
3  
4   welcome(course);  
5  
6   var car = Car('WW100', 'Nissan GTA');  
7   print(car);  
8 }  
9  
10 void welcome(course) {  
11   print('Welcome to $course course');  
12 }  
13  
14 class Car {  
15   String? carNo;  
16   String? carModel;  
17  
18   Car(this.carNo, this.carModel);  
19  
20   String? getCarNo() {
```

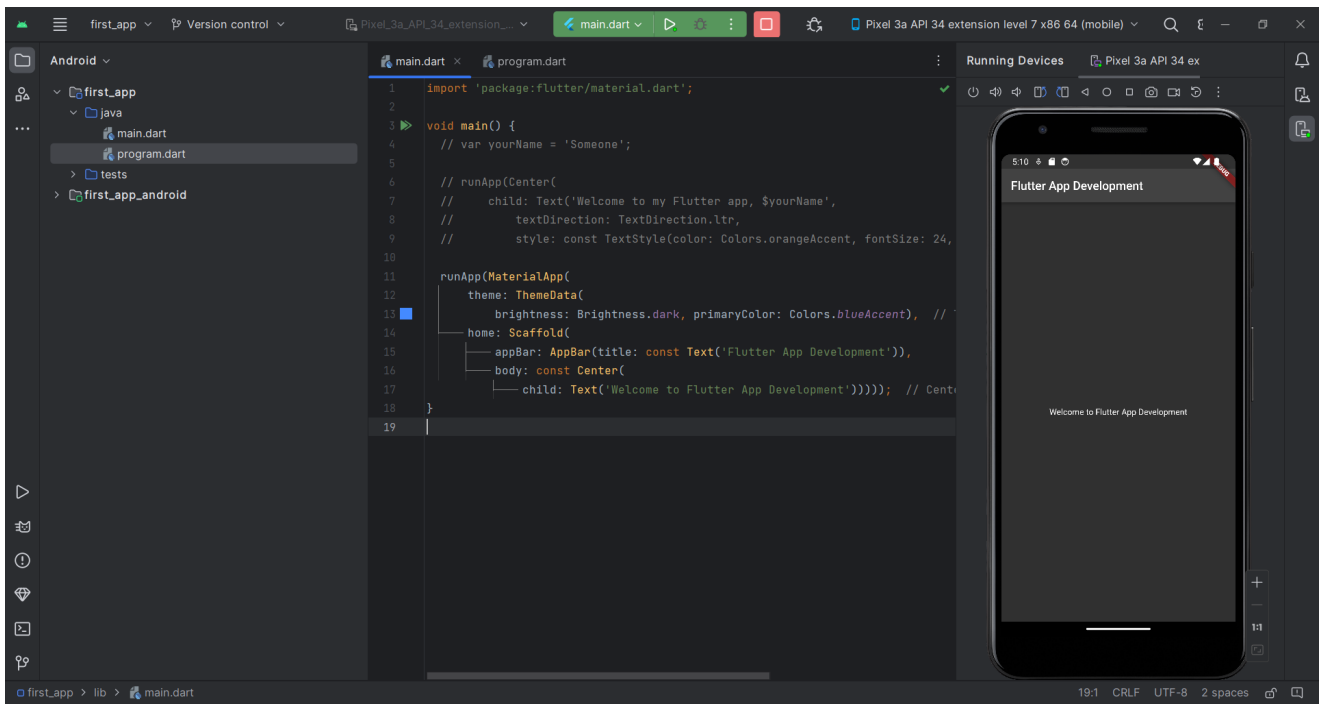
The terminal shows the command 'D:\dev\flutter\bin\cache\dart-sdk\bin\dart.exe --enable-asserts D:\User\Documents\Projects\flutter\first_app\lib\welcome.dart' being executed, resulting in the output 'Welcome to Flutter App Development course' and 'Car No: WW100, Model: Nissan GTA'. The terminal also shows 'Process finished with exit code 0'.



4 Using the MaterialApp and Scaffold

4.2 Implement MaterialApp and Scaffold widgets





4.3 Exercise 2

