

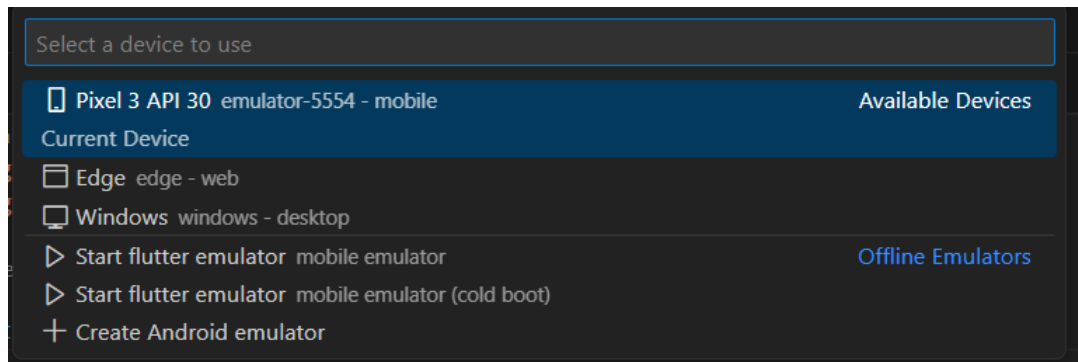
UNIT TESTING APLIKASI ADD CONTACT

Kelompok B5:

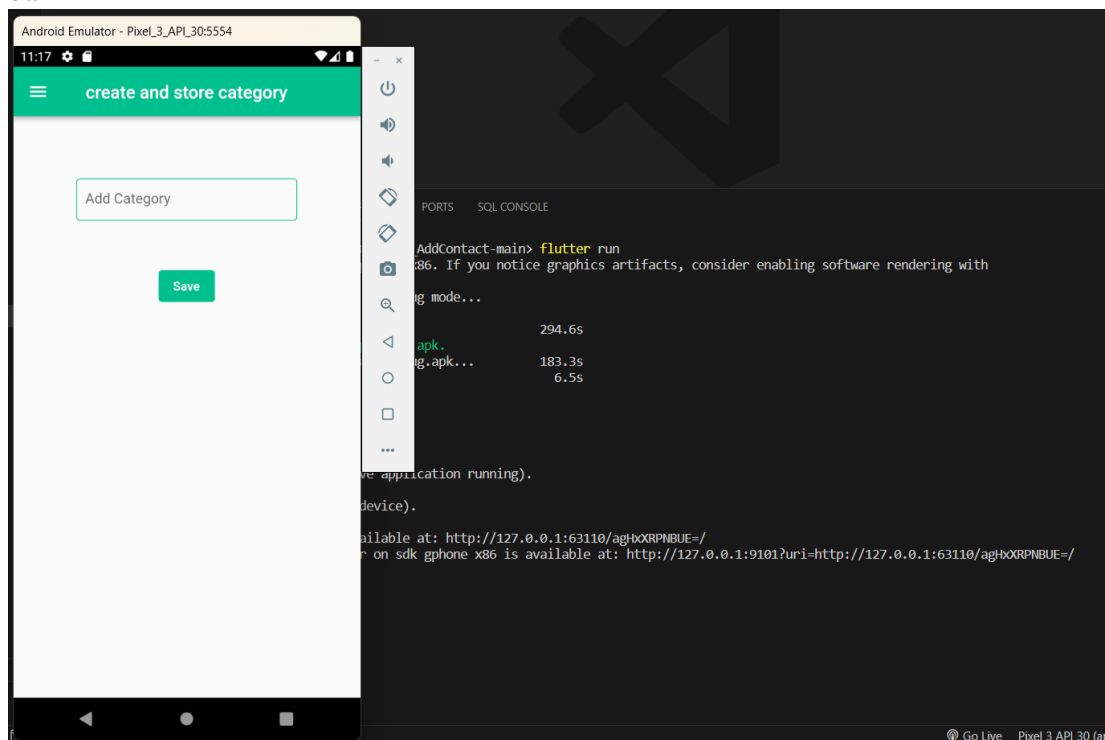
1. Prasetya Agung Prayoga - 20200140012
2. Maulana Alfiansyah - 20200140112
3. Ramadana Winata - 20200140117
4. Annisa Divayu Andriyani - 20200140136

Link GitHub : https://github.com/eunannana/B5_AddContact_UnitTestingKelompok.git

- Untuk melakukan debugging dan testing, run terlebih dahulu aplikasi dengan memilih emulator

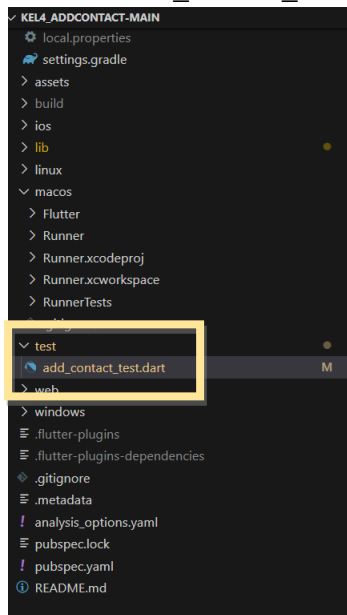


- Buka terminal lalu masukkan “flutter run” dan tunggu hingga aplikasi berjalan dengan baik

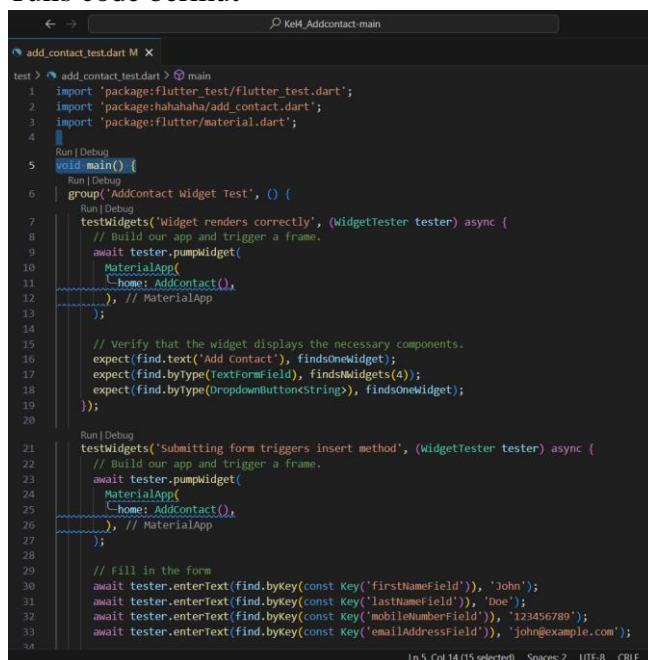


- Untuk melakukan debugging dan testing hentikan aplikasi terlebih dahulu dan mulai debugging dan testing

- Debugging dan flutter test add contact
 1. Buat file add_contact_test.dart pada folder test



2. Tulis code berikut



```
add_contact_test.dart M X
test > add_contact_test.dart > main > group('AddContact Widget Test') > testWidgets('Submitting form triggers insert method')
expect(find.byType(UpcomingEvent), findsOneWidget);
});

Run (Debug)
testWidgets('Submitting form triggers insert method', (WidgetTester tester) async {
  // Build our app and trigger a frame.
  await tester.pumpWidget(
    MaterialApp(
      home: AddContact(),
    ), // MaterialApp
  );

  // Fill in the form
  await tester.enterText(find.byKey(const Key('firstNameField')), 'John');
  await tester.enterText(find.byKey(const Key('lastNameField')), 'Doe');
  await tester.enterText(find.byKey(const Key('mobileNumberField')), '123456789');
  await tester.enterText(find.byKey(const Key('emailAddressField')), 'john@example.com');

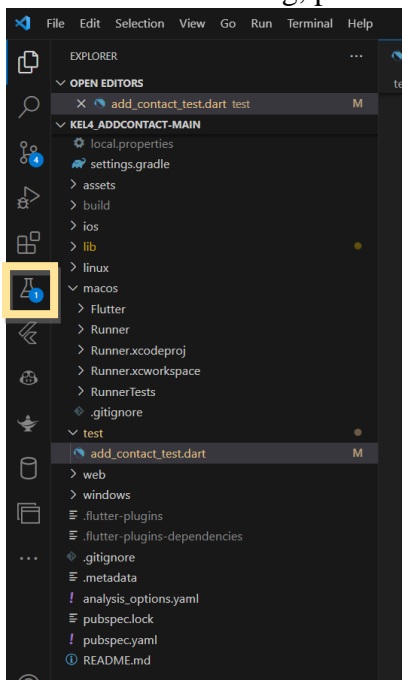
  // Select an item in the dropdown
  await tester.tap(find.byType(DropdownButton<String>));
  await tester.pumpAndSettle();
  await tester.tap(find.text('Category 1'));
  await tester.pumpAndSettle();

  // Tap the save button
  await tester.tap(find.text('Save'));

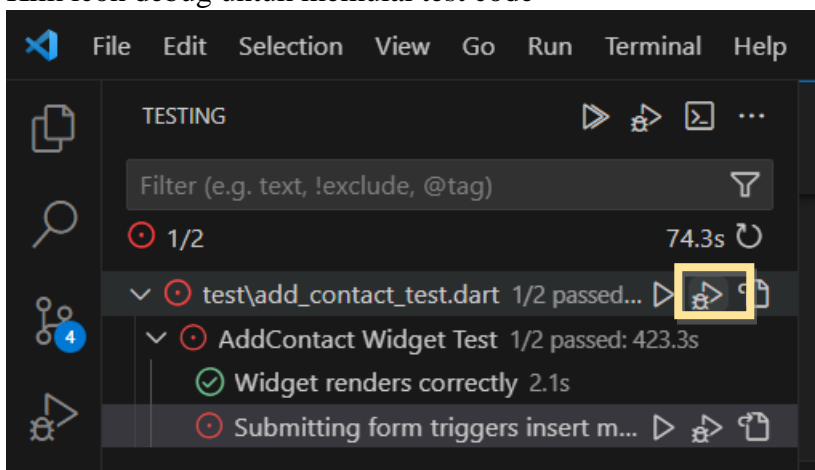
  // Wait for any animations or state changes to complete
  await tester.pumpAndSettle();

  // Verify that the save operation is successful
  expect(find.text('Saved successfully!'), findsOneWidget);
});
```

3. Untuk run code testing, pilih menu Testing pada side menu



4. Klik icon debug untuk memulai test code



5. Pada terminal baru, ketik “flutter test” untuk memastikan flutter test berjalan dengan baik

```
add_contact_test.dart M X  
test > add_contact_test.dart > main > group("AddContact Widget Test")  
  
    // Verify that the widget displays the necessary components.  
    expect(find.text('Add Contact'), findsOneWidget);  
    expect(find.byType(TextFormField), findsNWidgets(4));  
    expect(find.byType(DropdownButton<String>), findsOneWidget);  
  });  
}  
}
```

PROBLEMS 54 OUTPUT DEBUG CONSOLE TERMINAL TEST RESULTS PORTS SQL CONSOLE

PS C:\Users\andri\Documents\Semester 7\STQA\AddContact\Kel4_Addcontact-main> flutter test
00:10 +1: AddContact Widget Test Submitting form triggers insert method
══ EXCEPTION CAUGHT BY FLUTTER TEST FRAMEWORK ══
The following StateError was thrown running a test:
Bad state: No element

When the exception was thrown, this was the stack:
#0 Iterable.single (dart:core/iterable.dart:672:25)
#1 WidgetController.state (package:flutter_test/src/controller.dart:436:42)
#2 WidgetTester.showKeyboard.<anonymous closure> (package:flutter_test/src/widget_tester.dart:1094:42)
#5 TestAsyncUtils.guard (package:flutter_test/src/test_async_utils.dart:68:41)
#6 WidgetTester.showKeyboard (package:flutter_test/src/widget_tester.dart:1093:27)
#7 WidgetTester.enterText.<anonymous closure> (package:flutter_test/src/widget_tester.dart:1129:13)
#10 TestAsyncUtils.guard (package:flutter_test/src/test_async_utils.dart:68:41)
#11 WidgetTester.enterText (package:flutter_test/src/widget_tester.dart:1128:27)
#12 main.<anonymous closure>.<anonymous closure> (file:///C:/Users/andri/Documents/Semester%207/STQA/AddContact/Kel4_Addcontact-main
/test/add_contact_test.dart:30:20)
<asynchronous suspension>
<asynchronous suspension>
(elided 5 frames from dart:async and package:stack_trace)

The test description was:
Submitting form triggers insert method

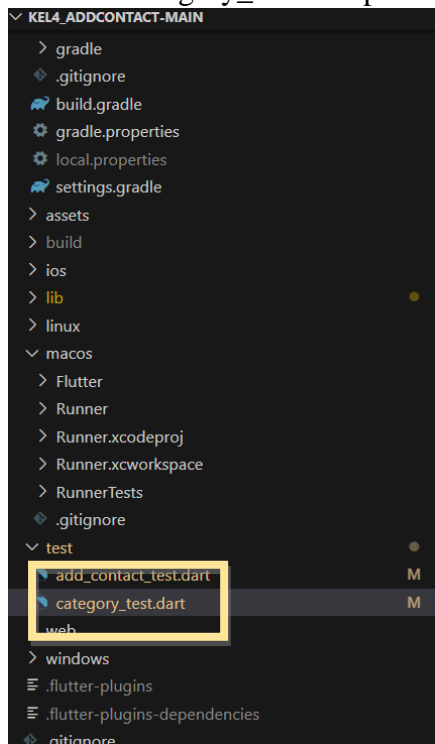
00:10 +1 -1: AddContact Widget Test Submitting form triggers insert method [E]
Test failed. See exception logs above.
The test description was: Submitting form triggers insert method

To run this test again: C:\src\flutter\bin\cache\dart-sdk\bin\dart.exe test C:\Users\andri\Documents\Semester 7\STQA\AddContact\Kel4_Addcontact-main\test\add_contact_test.dart -p vm --plain-name "AddContact Widget Test Submitting form triggers insert method"

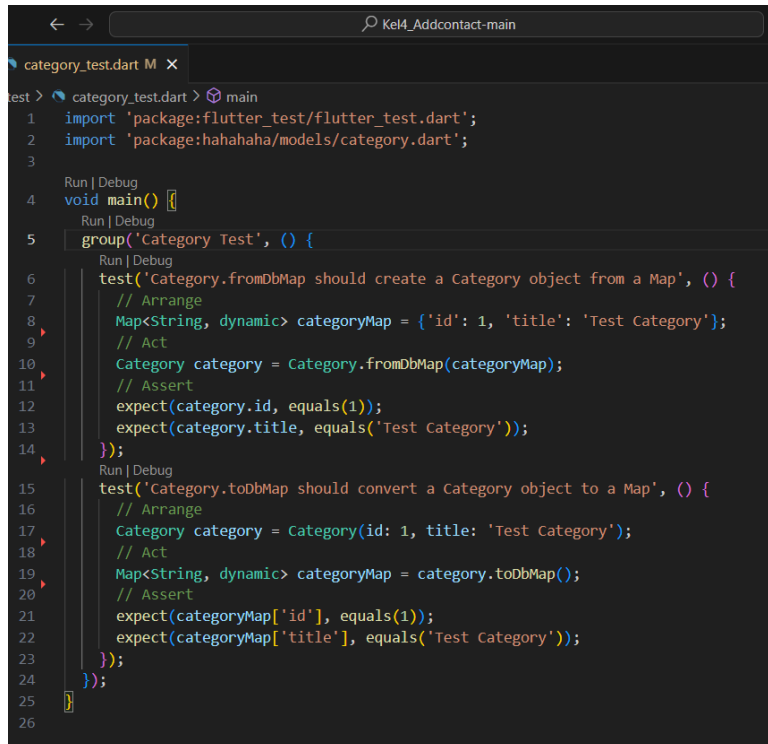
00:10 +1 -1: Some tests failed.

PS C:\Users\andri\Documents\Semester 7\STQA\AddContact\Kel4_Addcontact-main>

- Debugging dan flutter category test
 1. Buat file category_test.dart pada folder test

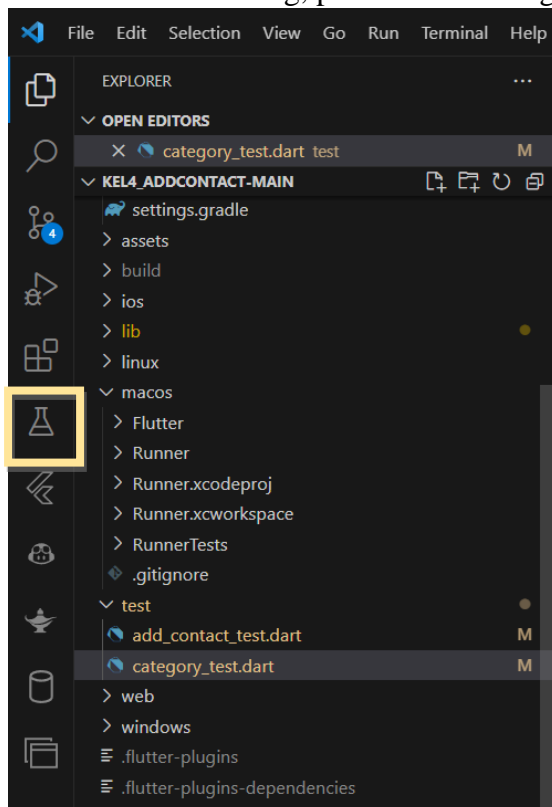


2. Tulis code berikut

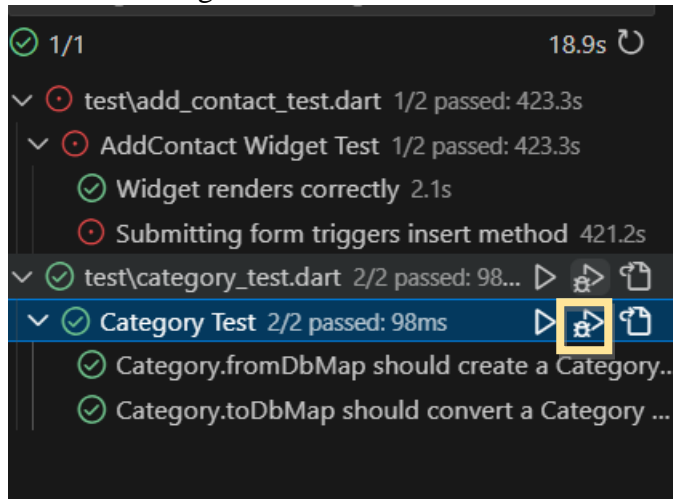


```
category_test.dart M x
test > category_test.dart > main
1 import 'package:flutter_test/flutter_test.dart';
2 import 'package:hahahaha/models/category.dart';
3
4 void main() {
5   group('Category Test', () {
6     test('Category.fromDbMap should create a Category object from a Map', () {
7       // Arrange
8       Map<String, dynamic> categoryMap = {'id': 1, 'title': 'Test Category'};
9       // Act
10      Category category = Category.fromDbMap(categoryMap);
11      // Assert
12      expect(category.id, equals(1));
13      expect(category.title, equals('Test Category'));
14    });
15    test('Category.toDbMap should convert a Category object to a Map', () {
16      // Arrange
17      Category category = Category(id: 1, title: 'Test Category');
18      // Act
19      Map<String, dynamic> categoryMap = category.toDbMap();
20      // Assert
21      expect(categoryMap['id'], equals(1));
22      expect(categoryMap['title'], equals('Test Category'));
23    });
24  });
25
26
```

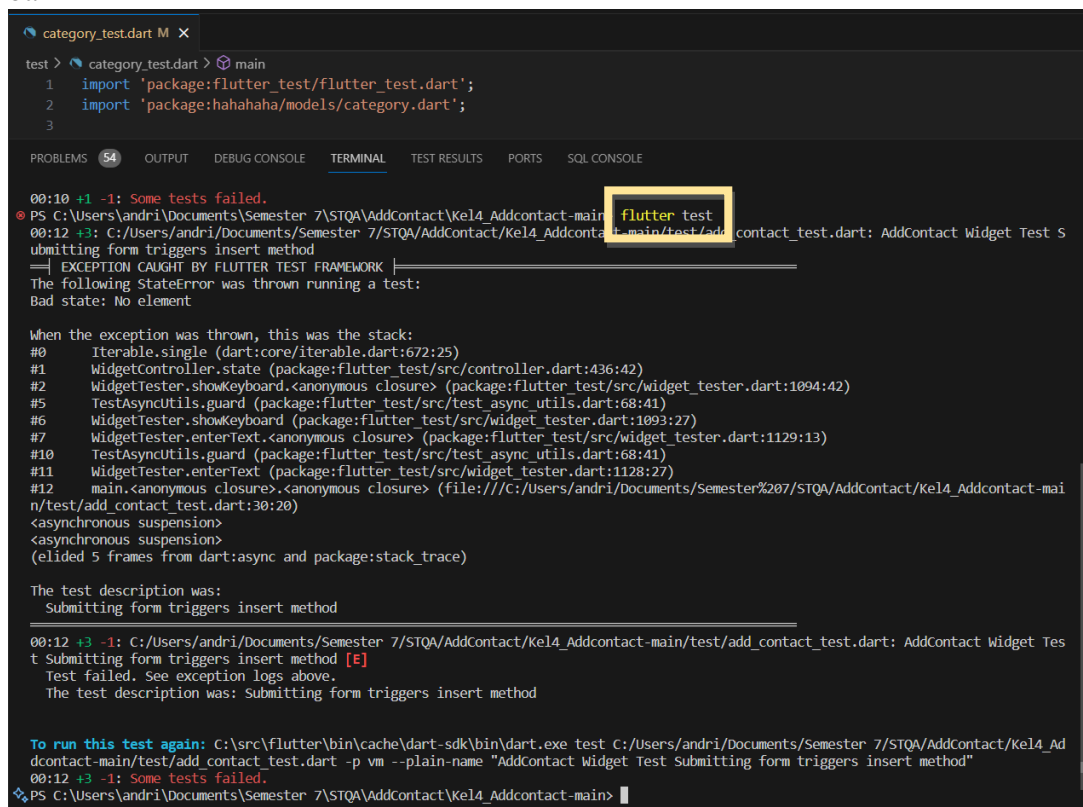
3. Untuk run code testing, pilih menu Testing pada side menu



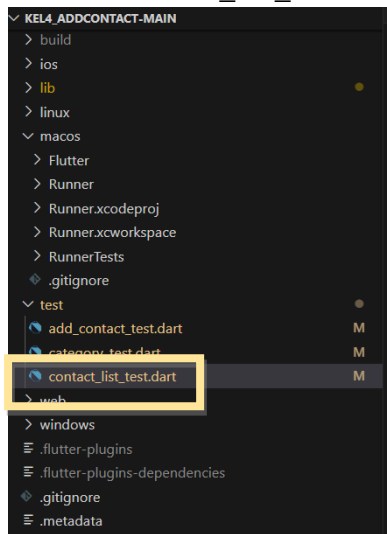
4. Klik icon debug untuk memulai test code



5. Pada terminal baru, ketik “flutter test” untuk memastikan flutter test berjalan dengan baik



- Debugging dan flutter contact list
 1. Buat file contact_list_test.dart pada folder test



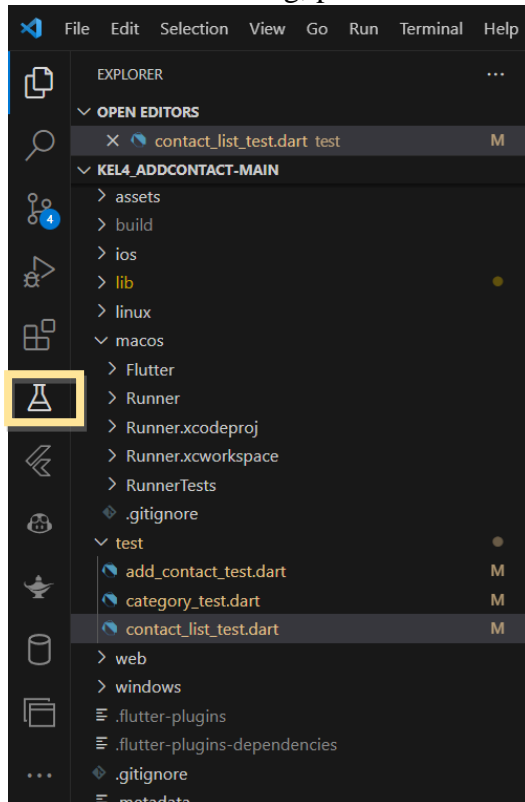
2. Tulis code berikut

```

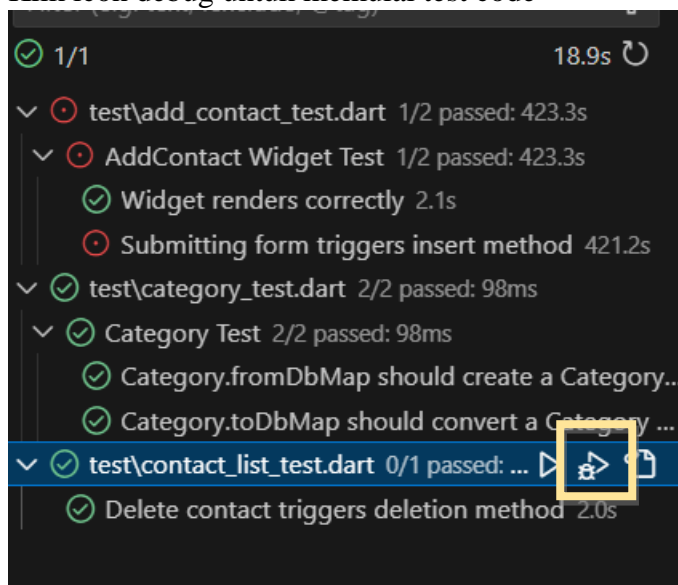
< --> Kel4_Addcontact-main

contact_list_test.dart M X
test > contact_list_test.dart > main > testWidgets("Delete contact triggers deletion method")
1  import 'package:flutter_test/flutter_test.dart';
2  import 'package:hahahaha/contact_list.dart';
3  import 'package:flutter/material.dart';
4
Run | Debug
5  void main() {
Run | Debug
6    testWidgets('Delete contact triggers deletion method',
7      (WidgetTester tester) async {
8      // Build our app and trigger a frame.
9      await tester.pumpWidget(
10        MaterialApp(
11          home: Contactlist(),
12        ), // MaterialApp
13      );
14      // Wait for any animations or state changes to complete
15      await tester.pumpAndSettle();
16
17      // Check if there is at least one contact in the list
18      if (find.byType(ListTile).evaluate().isNotEmpty) {
19        // Tap the delete button of the first contact
20        await tester.tap(find.byIcon(Icons.delete).first);
21
22        // Wait for any animations or state changes to complete
23        await tester.pumpAndSettle();
24
25        // Verify that the contact is deleted
26        expect(find.byType(ListTile), findsNothing);
27      } else {
28        // Handle the case when the list is empty, or take appropriate action
29        print('No contacts found to delete.');
```

3. Untuk run code testing, pilih menu Testing pada side menu



4. Klik icon debug untuk memulai test code



5. Pada terminal baru, ketik “flutter test” untuk memastikan flutter test berjalan dengan baik

contact_list_test.dart M X

```
test > contact_list_test.dart > main > testWidgets("Delete contact triggers deletion method")
1 import 'package:flutter_test/flutter_test.dart':
```

PROBLEMS (57) OUTPUT DEBUG CONSOLE TERMINAL TEST RESULTS PORTS SQL CONSOLE

00:12 +3 -1: Some tests failed.

PS C:\Users\andri\Documents\Semester 7\STQA\AddContact\Kel4_Addcontact-main> flutter test

00:07 +2: C:/Users/andri/Documents/Semester 7/STQA/AddContact/Kel4_Addcontact-main/test/add_contact_test.dart: AddContact Widget Test Submitting form triggers insert method

EXCEPTION CAUGHT BY FLUTTER TEST FRAMEWORK

The following StateError was thrown running a test:

Bad state: No element

When the exception was thrown, this was the stack:

```
#0   Iterable.single (dart:core/iterable.dart:672:25)
#1   WidgetController.state (package:flutter_test/src/controller.dart:436:42)
#2   WidgetTester.showKeyboard.<anonymous closure> (package:flutter_test/src/widget_tester.dart:1094:42)
#5   TestAsyncUtils.guard (package:flutter_test/src/test_async_utils.dart:68:41)
#6   WidgetTester.showKeyboard (package:flutter_test/src/widget_tester.dart:1093:27)
#7   WidgetTester.enterText.<anonymous closure> (package:flutter_test/src/widget_tester.dart:1129:13)
#10  TestAsyncUtils.guard (package:flutter_test/src/test_async_utils.dart:68:41)
#11  WidgetTester.enterText (package:flutter_test/src/widget_tester.dart:1128:27)
#12  main.<anonymous closure>.<anonymous closure> (file:///C:/Users/andri/Documents/Semester 7/STQA/AddContact/Kel4_Addcontact-main/test/add_contact_test.dart:30:20)
<asynchronous suspension>
<asynchronous suspension>
(elided 5 frames from dart:async and package:stack_trace)
```

The test description was:
Submitting form triggers insert method

00:07 +3 -1: C:/Users/andri/Documents/Semester 7/STQA/AddContact/kel4_Addcontact-main/test/add_contact_test.dart: AddContact Widget Test Submitting form triggers insert method [E]

Test failed. See exception logs above.
The test description was: Submitting form triggers insert method

To run this test again: C:\src\flutter\bin\cache\dart-sdk\bin\dart.exe test C:/Users/andri/Documents/Semester 7/STQA/AddContact/Kel4_Addcontact-main/test/add_contact_test.dart -p vm --plain-name "AddContact widget Test Submitting form triggers insert method"

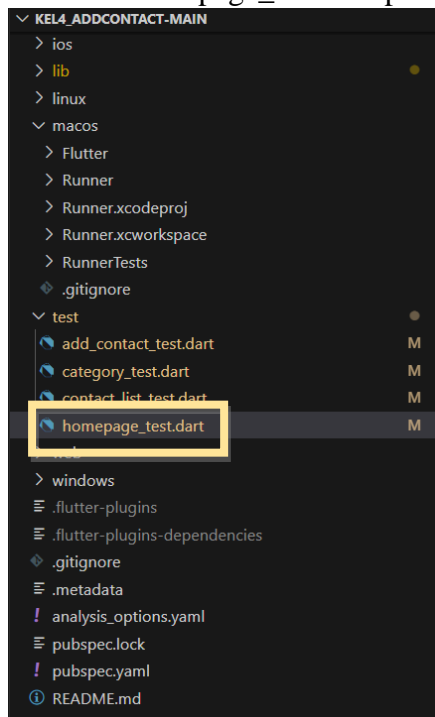
00:07 +3 -1: C:/Users/andri/Documents/Semester 7/STQA/AddContact/Kel4_Addcontact-main/test/contact_list_test.dart: Delete contact triggers deletion method

No contacts found to delete.

00:07 +4 -1: Some tests failed.

PS C:\Users\andri\Documents\Semester 7\STQA\AddContact\Kel4_Addcontact-main>

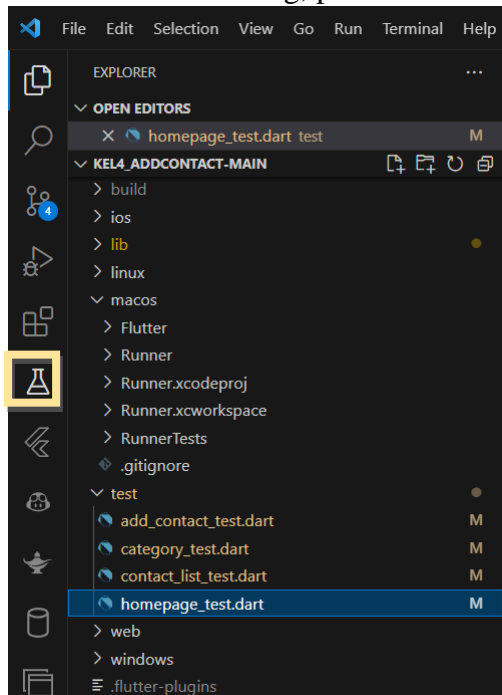
- Debugging dan flutter homepage
 1. Buat file homepage_test.dart pada folder test



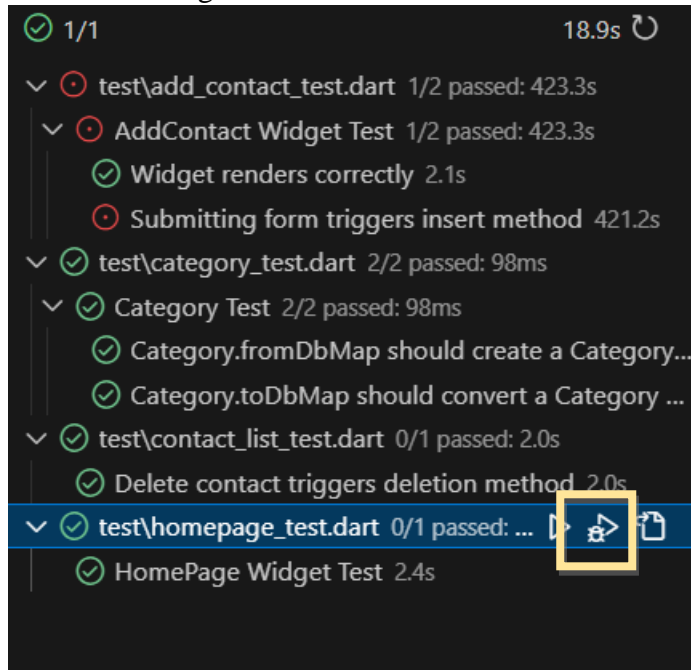
2. Tulis code berikut

```
homepage_test.dart M X
est > homepage_test.dart > ...
1 import 'package:flutter/material.dart';
2 import 'package:flutter_test/flutter_test.dart';
3 import 'package:hahahaha/homepage.dart';
4
5 void main() {
6   testWidgets('HomePage Widget Test', (WidgetTester tester) async {
7     // Build app and trigger a frame.
8     await tester.pumpWidget(
9       MaterialApp(
10        home: HomePage(),
11      ), // MaterialApp
12    );
13    // Verify if the app bar title is present
14    expect(find.text("create and store category"), findsOneWidget);
15    // Verify if the "Save" button is present
16    expect(find.text("Save"), findsOneWidget);
17    // Simulate tapping on the "Save" button
18    await tester.tap(find.text("Save"));
19    await tester.pump();
20    // Verify that the form validation error message is displayed
21    expect(find.text('Enter category name'), findsOneWidget);
22    // Enter text in the TextFormField
23    await tester.enterText(find.byType(TextFormField), 'Test Category');
24    // Verify that the entered text is displayed
25    expect(find.text('Test Category'), findsOneWidget);
26    // Simulate tapping on the "Save" button again
27    await tester.tap(find.text("Save"));
28    await tester.pump();
29    // Verify that the category is added to the list
30    expect(find.text('Test Category'), findsOneWidget);
31  });
32 }
33
```

3. Untuk run code testing, pilih menu Testing pada side menu



4. Klik icon debug untuk memulai test code



5. Pada terminal baru, ketik “flutter test” untuk memastikan flutter test berjalan dengan baik

