RESPONSI 1 PRAKTIKUM PEMROGRAMAN MOBILE

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H1D021077

Shift F

A. Database

Ketentuan :

Nama Tabel : riwayat_alergi

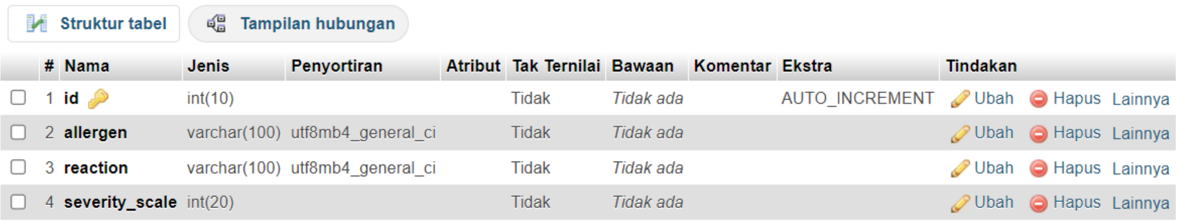
Kolom 1 : id (int, PK, increment)

Kolom 2 : allergen (String)

Kolom 3 : reaction (String)

Kolom 4 : severity_scale (Integer)

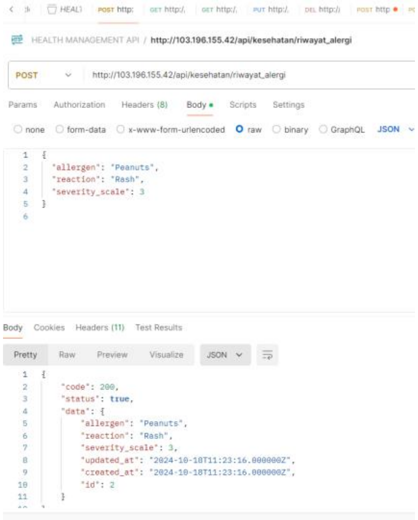
Screenshoot Database :



	#	Nama	Jenis	Penyortiran	Atribut	Tak Ternilai	Bawaan	Komentar	Ekstra	Tindakan
□	1	**id** 🔑	int(10)			Tidak	*Tidak ada*		AUTO_INCREMENT	Ubah Hapus Lainnya
□	2	**allergen**	varchar(100)	utf8mb4_general_ci		Tidak	*Tidak ada*			Ubah Hapus Lainnya
□	3	**reaction**	varchar(100)	utf8mb4_general_ci		Tidak	*Tidak ada*			Ubah Hapus Lainnya
□	4	**severity_scale**	int(20)			Tidak	*Tidak ada*			Ubah Hapus Lainnya

B. POSTMAN

Untuk postman, saya membuat postman untuk login, registrasi dan riwayat alergi



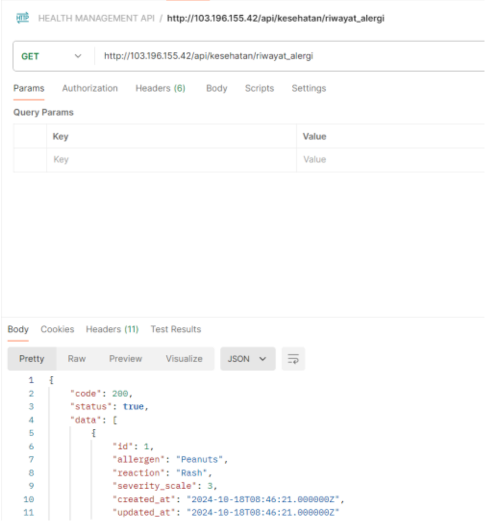
HEALTH MANAGEMENT API / http://103.196.155.42/api/kesehatan/riwayat_alergi

POST http://103.196.155.42/api/kesehatan/riwayat_alergi

○ none ○ form-data ○ x-www-form-urlencoded ● raw ○ binary ○ GraphQL JSON

```
{
  "allergen": "Peanuts",
  "reaction": "Rash",
  "severity_scale": 3
}
```

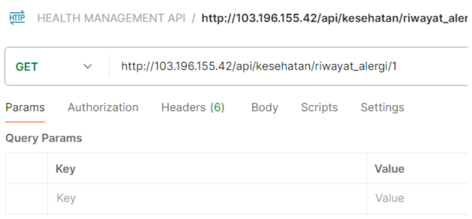
```
{
    "code": 200,
    "status": true,
    "data": {
        "allergen": "Peanuts",
        "reaction": "Rash",
        "severity_scale": 3,
        "updated_at": "2024-10-18T11:23:16.000000Z",
        "created_at": "2024-10-18T11:23:16.000000Z",
        "id": 2
    }
```



HEALTH MANAGEMENT API / http://103.196.155.42/api/kesehatan/riwayat_alergi

GET http://103.196.155.42/api/kesehatan/riwayat_alergi

```
{
    "code": 200,
    "status": true,
    "data": [
        {
            "id": 1,
            "allergen": "Peanuts",
            "reaction": "Rash",
            "severity_scale": 3,
            "created_at": "2024-10-18T08:46:21.000000Z",
            "updated_at": "2024-10-18T08:46:21.000000Z"
```

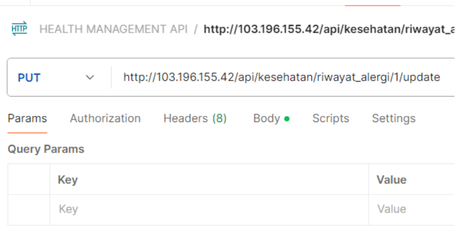


HEALTH MANAGEMENT API / http://103.196.155.42/api/kesehatan/riwayat_aler

GET http://103.196.155.42/api/kesehatan/riwayat_alergi/1

Query Params

	Key	Value
	Key	Value

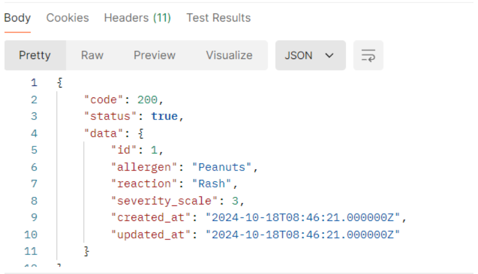


HEALTH MANAGEMENT API / http://103.196.155.42/api/kesehatan/riwayat_a

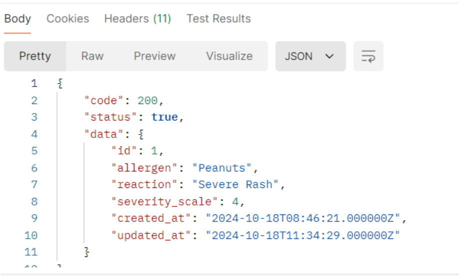
PUT http://103.196.155.42/api/kesehatan/riwayat_alergi/1/update

Query Params

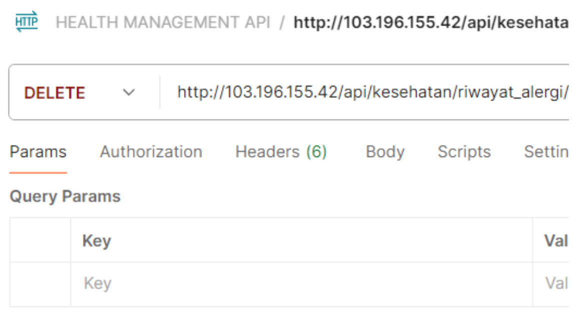
	Key	Value
	Key	Value



```
{
    "code": 200,
    "status": true,
    "data": {
        "id": 1,
        "allergen": "Peanuts",
        "reaction": "Rash",
        "severity_scale": 3,
        "created_at": "2024-10-18T08:46:21.000000Z",
        "updated_at": "2024-10-18T08:46:21.000000Z"
    }
```



```
{
    "code": 200,
    "status": true,
    "data": {
        "id": 1,
        "allergen": "Peanuts",
        "reaction": "Severe Rash",
        "severity_scale": 4,
        "created_at": "2024-10-18T08:46:21.000000Z",
        "updated_at": "2024-10-18T11:34:29.000000Z"
    }
```

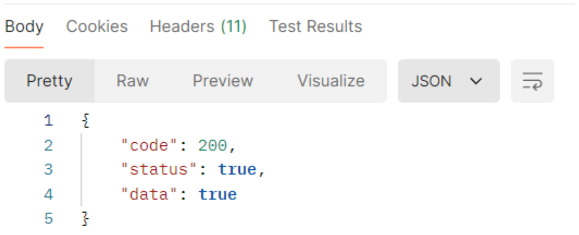


HEALTH MANAGEMENT API / http://103.196.155.42/api/kesehata

DELETE http://103.196.155.42/api/kesehatan/riwayat_alergi/

Query Params

	Key	Val
	Key	Val



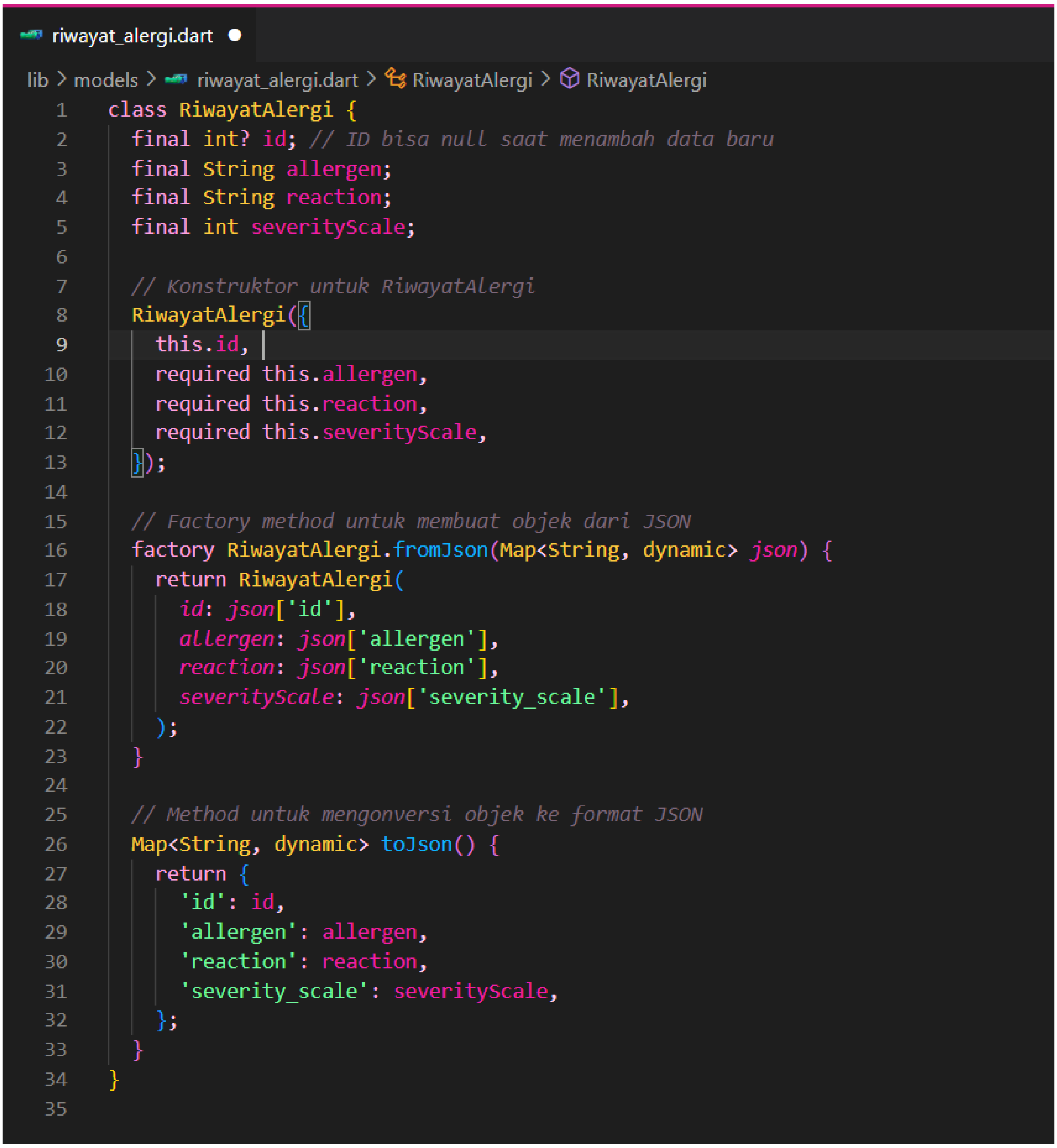
```
{
    "code": 200,
    "status": true,
    "data": true
}
```

C. Source Code

Saya membuat beberapa folder di dalam folder lib yakni folder models, services, screens dan widgets.

Untuk penggunaan fonts calibri saya meletakkannya di folder assets.

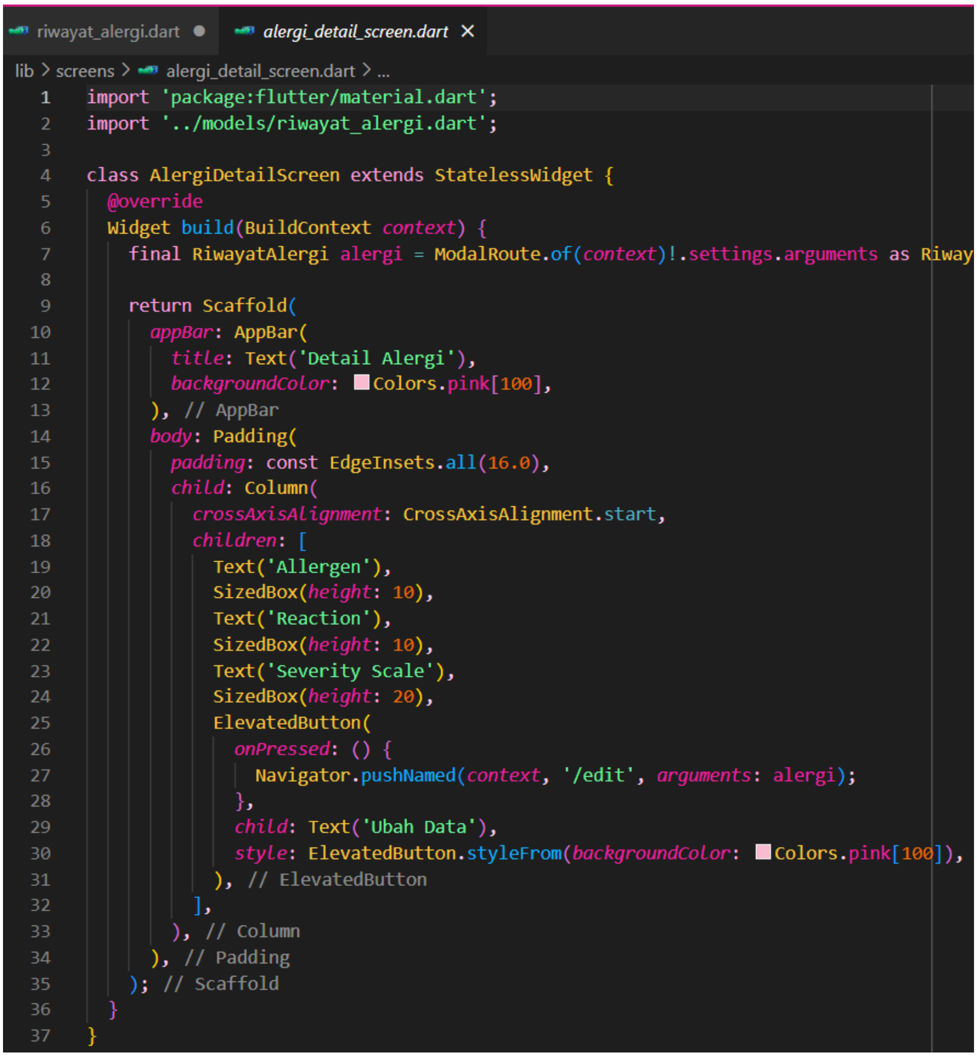
Folder models yakni file **Riwayat_alergi.dart** :


riwayat_alergi.dart ●
lib > models > riwayat_alergi.dart > RiwayatAlergi > RiwayatAlergi

```dart
class RiwayatAlergi {
  final int? id; // ID bisa null saat menambah data baru
  final String allergen;
  final String reaction;
  final int severityScale;

  // Konstruktor untuk RiwayatAlergi
  RiwayatAlergi({
    this.id, 
    required this.allergen,
    required this.reaction,
    required this.severityScale,
  });

  // Factory method untuk membuat objek dari JSON
  factory RiwayatAlergi.fromJson(Map<String, dynamic> json) {
    return RiwayatAlergi(
      id: json['id'],
      allergen: json['allergen'],
      reaction: json['reaction'],
      severityScale: json['severity_scale'],
    );
  }

  // Method untuk mengonversi objek ke format JSON
  Map<String, dynamic> toJson() {
    return {
      'id': id,
      'allergen': allergen,
      'reaction': reaction,
      'severity_scale': severityScale,
    };
  }
}

```

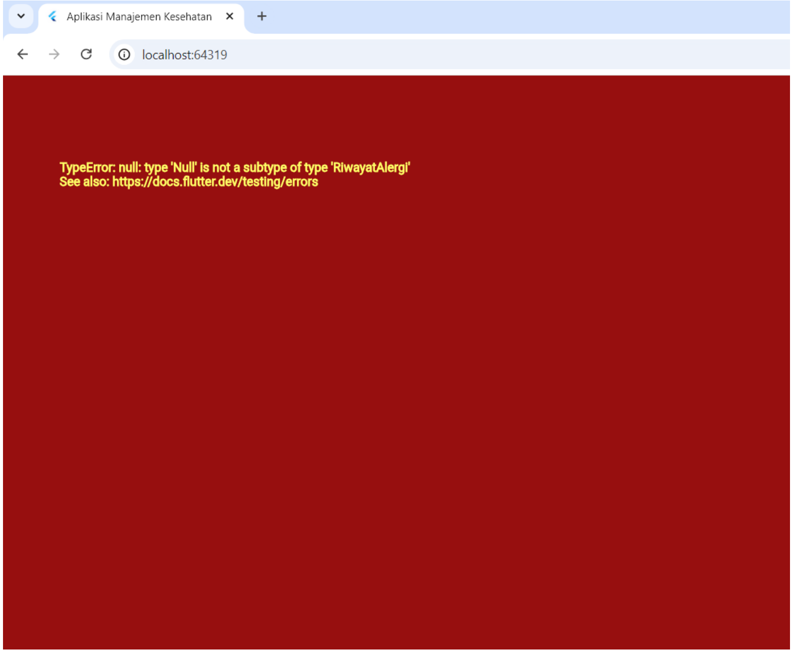
Folder Screens

1. **alergi_detail_screen.dart**


riwayat_alergi.dart
alergi_detail_screen.dart
lib > screens > alergi_detail_screen.dart > ...

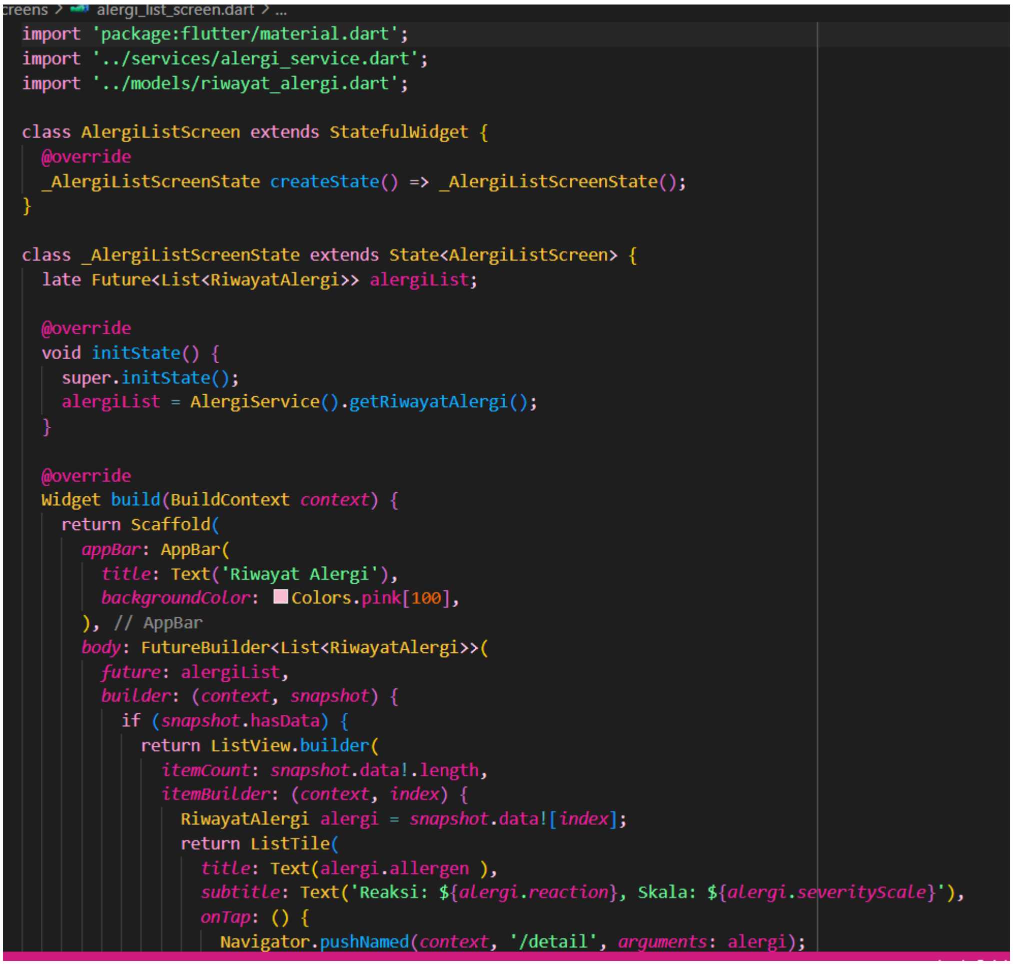
```dart
import 'package:flutter/material.dart';
import '../models/riwayat_alergi.dart';

class AlergiDetailScreen extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    final RiwayatAlergi alergi = ModalRoute.of(context)!.settings.arguments as Riway

    return Scaffold(
      appBar: AppBar(
        title: Text('Detail Alergi'),
        backgroundColor: Colors.pink[100],
      ), // AppBar
      body: Padding(
        padding: const EdgeInsets.all(16.0),
        child: Column(
          crossAxisAlignment: CrossAxisAlignment.start,
          children: [
            Text('Allergen'),
            SizedBox(height: 10),
            Text('Reaction'),
            SizedBox(height: 10),
            Text('Severity Scale'),
            SizedBox(height: 20),
            ElevatedButton(
              onPressed: () {
                Navigator.pushNamed(context, '/edit', arguments: alergi);
              },
              child: Text('Ubah Data'),
              style: ElevatedButton.styleFrom(backgroundColor: Colors.pink[100]),
            ), // ElevatedButton
          ],
        ), // Column
      ), // Padding
    ); // Scaffold
  }
}
```

Screenshoot hasil :



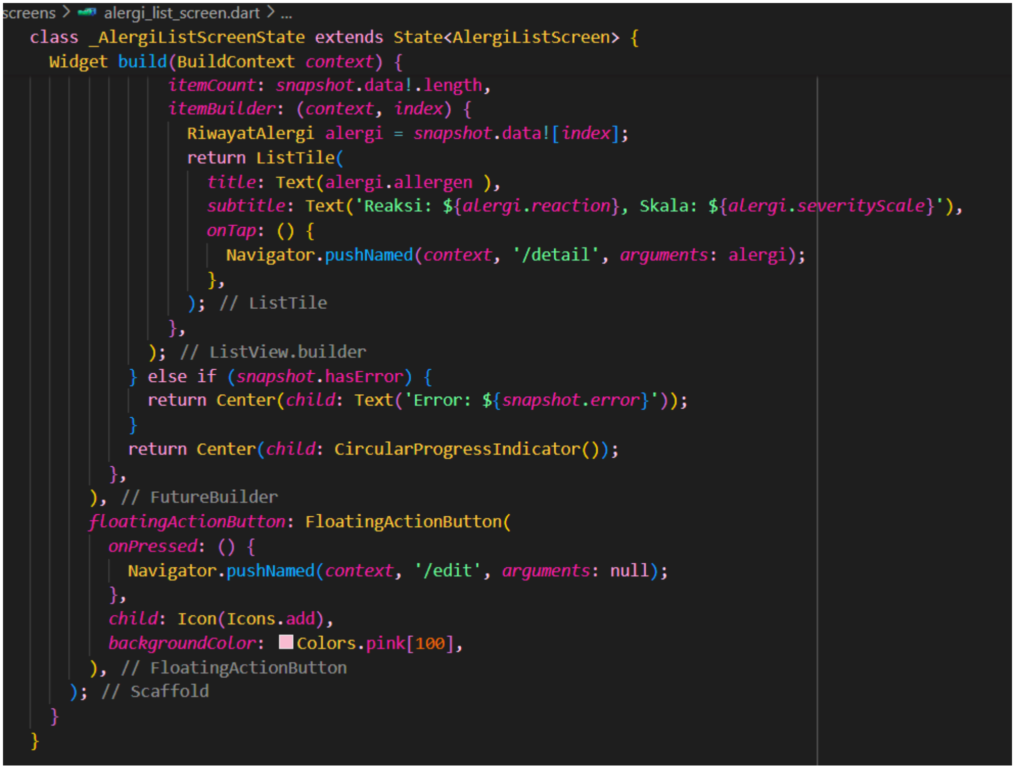
TypeError: null: type 'Null' is not a subtype of type 'RiwayatAlergi'
See also: https://docs.flutter.dev/testing/errors

2. alergi_list_screen



reens > alergi_list_screen.dart > ...

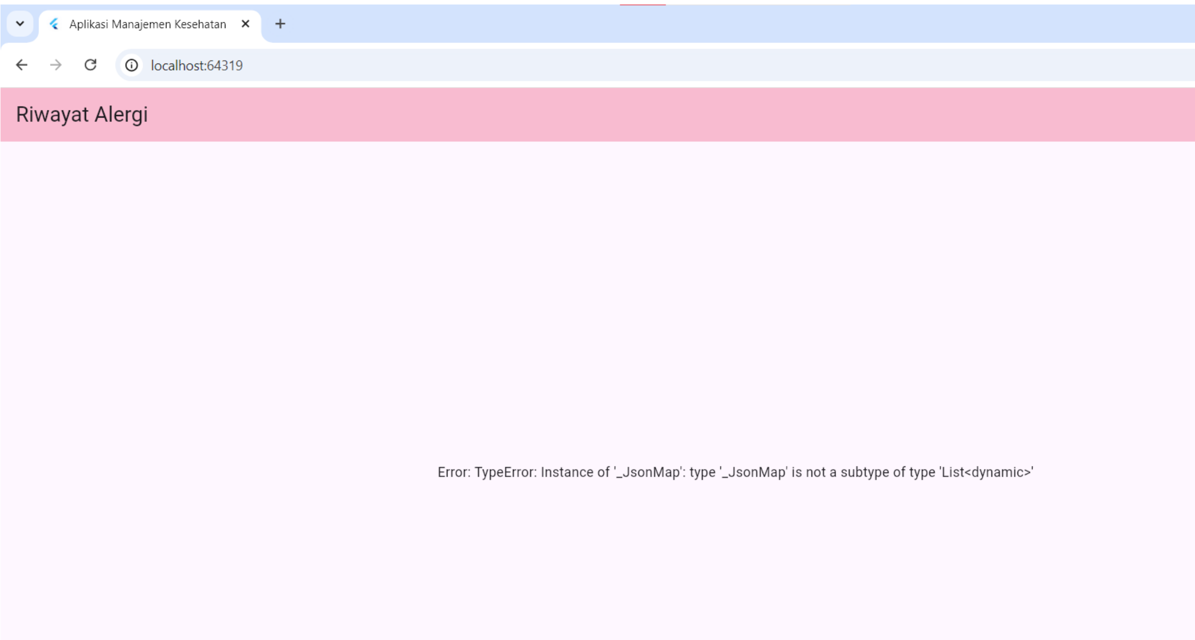
```dart
import 'package:flutter/material.dart';
import '../services/alergi_service.dart';
import '../models/riwayat_alergi.dart';

class AlergiListScreen extends StatefulWidget {
  @override
  _AlergiListScreenState createState() => _AlergiListScreenState();
}

class _AlergiListScreenState extends State<AlergiListScreen> {
  late Future<List<RiwayatAlergi>> alergiList;

  @override
  void initState() {
    super.initState();
    alergiList = AlergiService().getRiwayatAlergi();
  }

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: Text('Riwayat Alergi'),
        backgroundColor: Colors.pink[100],
      ), // AppBar
      body: FutureBuilder<List<RiwayatAlergi>>(
        future: alergiList,
        builder: (context, snapshot) {
          if (snapshot.hasData) {
            return ListView.builder(
              itemCount: snapshot.data!.length,
              itemBuilder: (context, index) {
                RiwayatAlergi alergi = snapshot.data![index];
                return ListTile(
                  title: Text(alergi.allergen ),
                  subtitle: Text('Reaksi: ${alergi.reaction}, Skala: ${alergi.severityScale}'),
                  onTap: () {
                    Navigator.pushNamed(context, '/detail', arguments: alergi);
```



screens > alergi_list_screen.dart > ...

```dart
class _AlergiListScreenState extends State<AlergiListScreen> {
  Widget build(BuildContext context) {
              itemCount: snapshot.data!.length,
              itemBuilder: (context, index) {
                RiwayatAlergi alergi = snapshot.data![index];
                return ListTile(
                  title: Text(alergi.allergen ),
                  subtitle: Text('Reaksi: ${alergi.reaction}, Skala: ${alergi.severityScale}'),
                  onTap: () {
                    Navigator.pushNamed(context, '/detail', arguments: alergi);
                  },
                ); // ListTile
              },
            ); // ListView.builder
          } else if (snapshot.hasError) {
            return Center(child: Text('Error: ${snapshot.error}'));
          }
          return Center(child: CircularProgressIndicator());
        },
      ), // FutureBuilder
      floatingActionButton: FloatingActionButton(
        onPressed: () {
          Navigator.pushNamed(context, '/edit', arguments: null);
        },
        child: Icon(Icons.add),
        backgroundColor: Colors.pink[100],
      ), // FloatingActionButton
    ); // Scaffold
  }
}
```

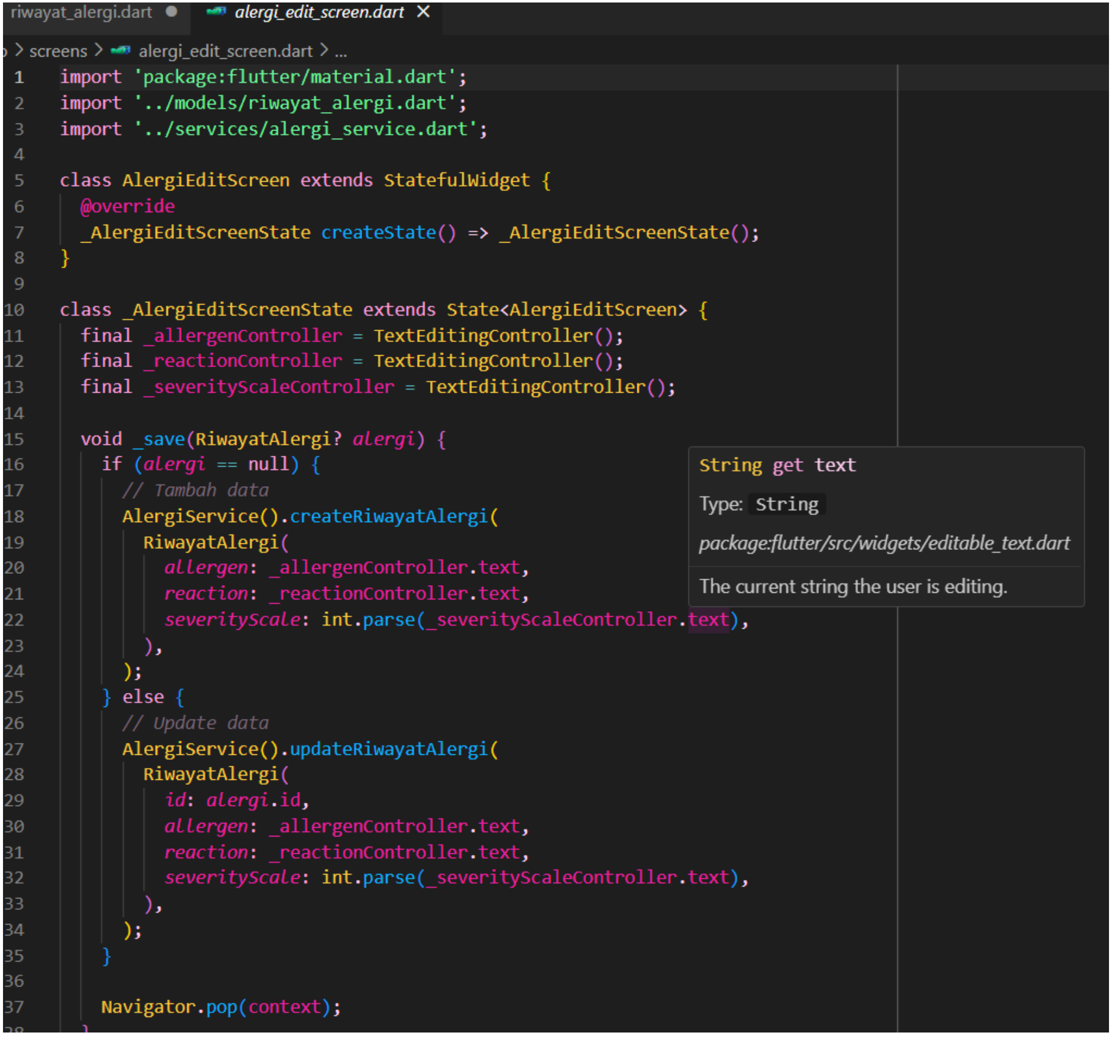
Screenshoot hasil :



Riwayat Alergi

Error: TypeError: Instance of '_JsonMap': type '_JsonMap' is not a subtype of type 'List<dynamic>'

3. alergi_edit_screen.dart



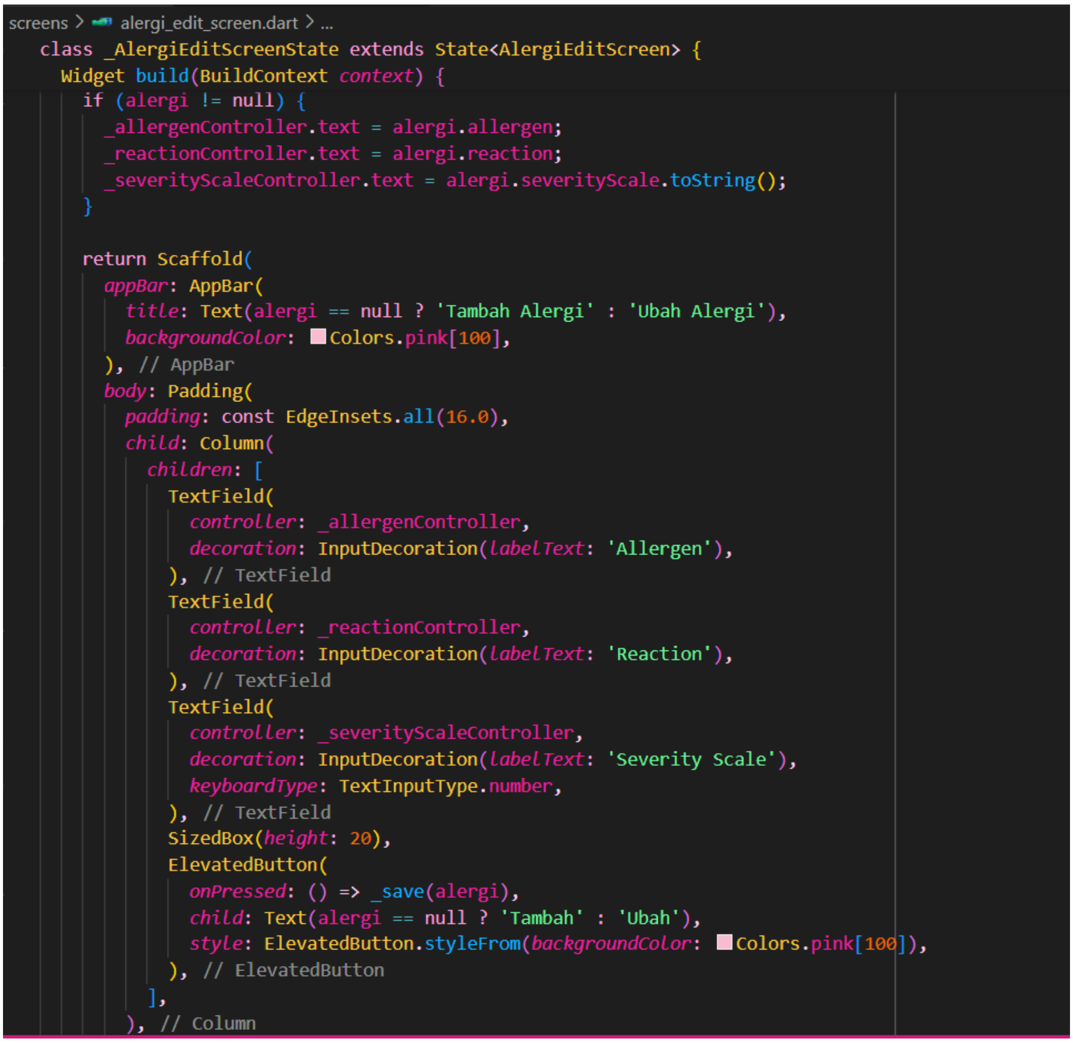
```dart
import 'package:flutter/material.dart';
import '../models/riwayat_alergi.dart';
import '../services/alergi_service.dart';

class AlergiEditScreen extends StatefulWidget {
  @override
  _AlergiEditScreenState createState() => _AlergiEditScreenState();
}

class _AlergiEditScreenState extends State<AlergiEditScreen> {
  final _allergenController = TextEditingController();
  final _reactionController = TextEditingController();
  final _severityScaleController = TextEditingController();

  void _save(RiwayatAlergi? alergi) {
    if (alergi == null) {
      // Tambah data
      AlergiService().createRiwayatAlergi(
        RiwayatAlergi(
          allergen: _allergenController.text,
          reaction: _reactionController.text,
          severityScale: int.parse(_severityScaleController.text),
        ),
      );
    } else {
      // Update data
      AlergiService().updateRiwayatAlergi(
        RiwayatAlergi(
          id: alergi.id,
          allergen: _allergenController.text,
          reaction: _reactionController.text,
          severityScale: int.parse(_severityScaleController.text),
        ),
      );
    }

    Navigator.pop(context);
```

String get text

Type: String

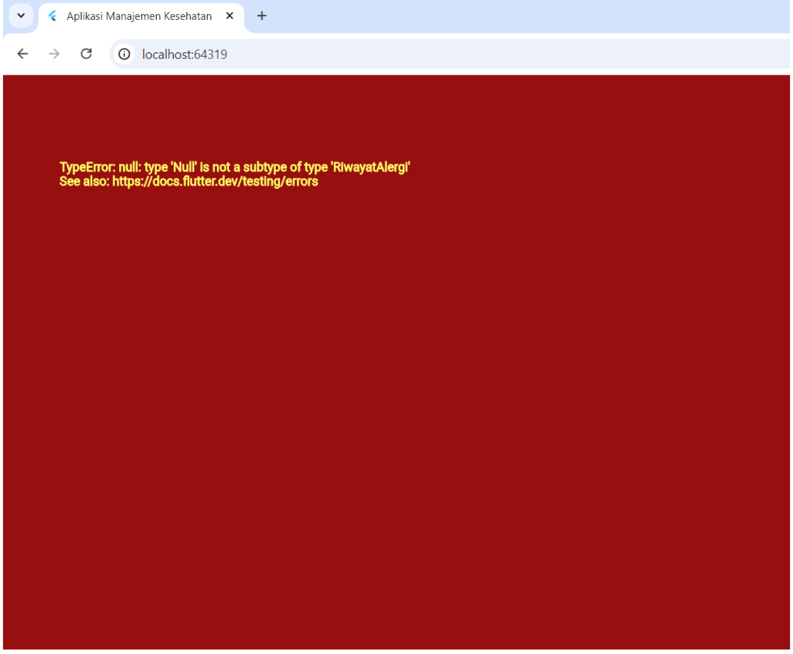
package:flutter/src/widgets/editable_text.dart

The current string the user is editing.



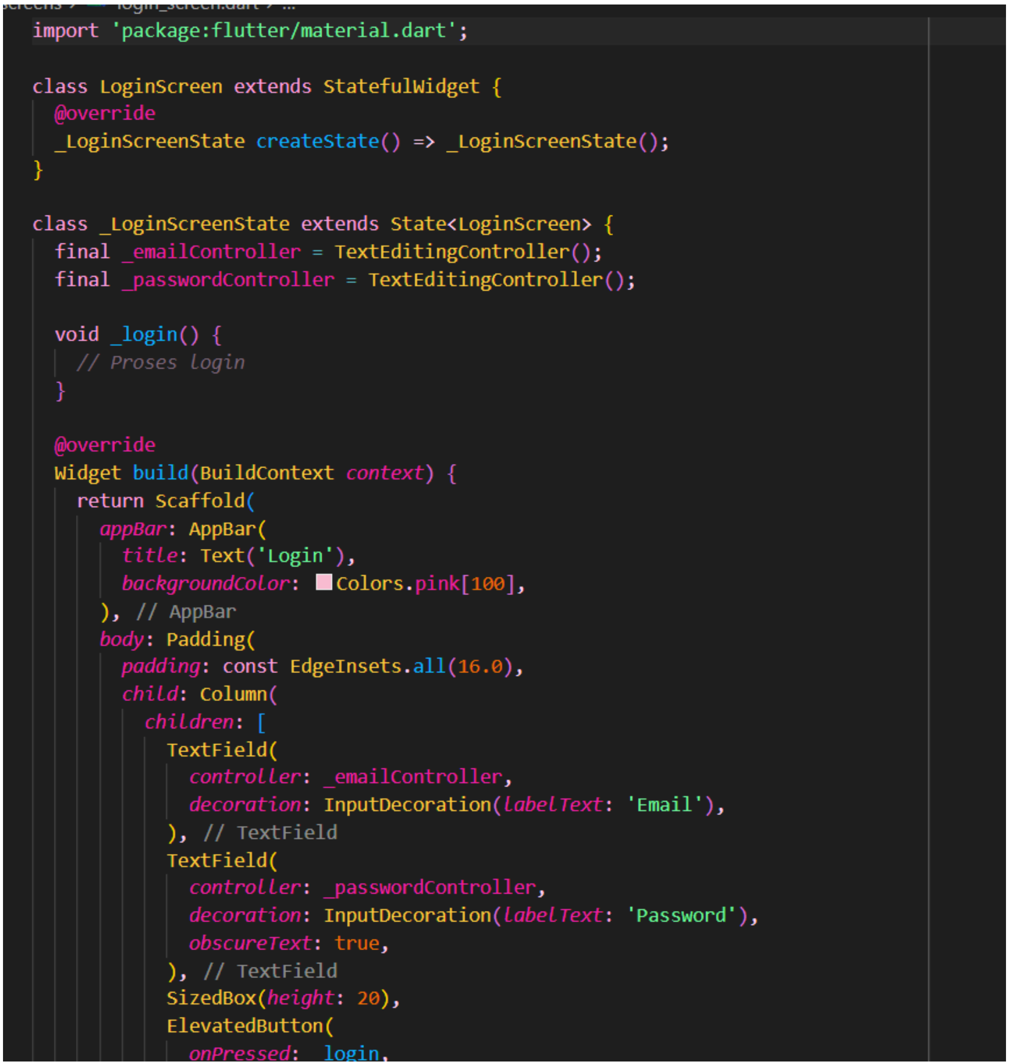
```
screens > alergi_edit_screen.dart > ...
  class _AlergiEditScreenState extends State<AlergiEditScreen> {
    Widget build(BuildContext context) {
      if (alergi != null) {
        _allergenController.text = alergi.allergen;
        _reactionController.text = alergi.reaction;
        _severityScaleController.text = alergi.severityScale.toString();
      }

      return Scaffold(
        appBar: AppBar(
          title: Text(alergi == null ? 'Tambah Alergi' : 'Ubah Alergi'),
          backgroundColor: Colors.pink[100],
        ), // AppBar
        body: Padding(
          padding: const EdgeInsets.all(16.0),
          child: Column(
            children: [
              TextField(
                controller: _allergenController,
                decoration: InputDecoration(labelText: 'Allergen'),
              ), // TextField
              TextField(
                controller: _reactionController,
                decoration: InputDecoration(labelText: 'Reaction'),
              ), // TextField
              TextField(
                controller: _severityScaleController,
                decoration: InputDecoration(labelText: 'Severity Scale'),
                keyboardType: TextInputType.number,
              ), // TextField
              SizedBox(height: 20),
              ElevatedButton(
                onPressed: () => _save(alergi),
                child: Text(alergi == null ? 'Tambah' : 'Ubah'),
                style: ElevatedButton.styleFrom(backgroundColor: Colors.pink[100]),
              ), // ElevatedButton
            ],
          ), // Column
```

Screenshoot hasil :

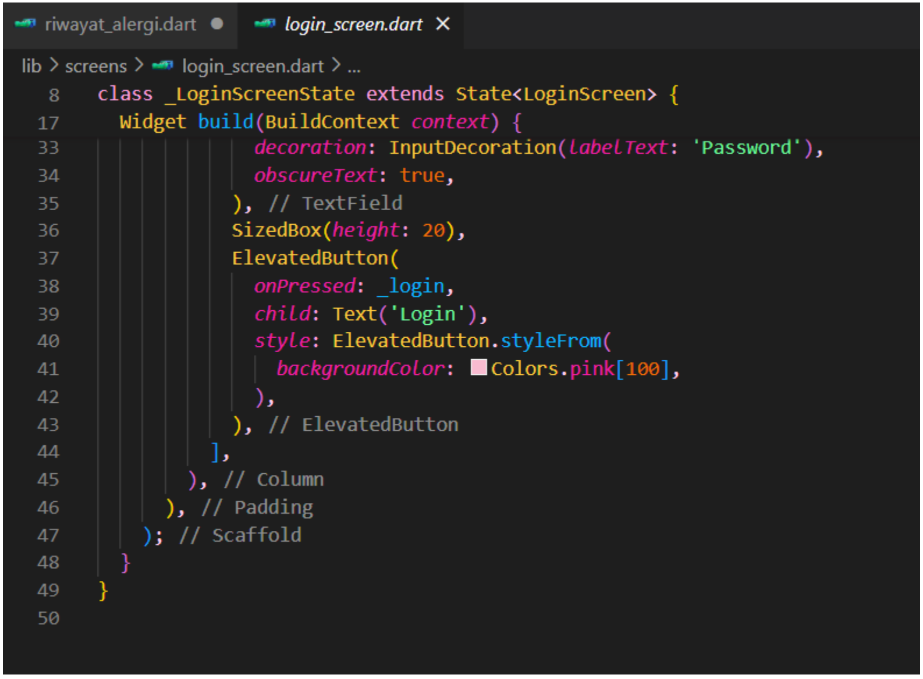


```
TypeError: null: type 'Null' is not a subtype of type 'RiwayatAlergi'
See also: https://docs.flutter.dev/testing/errors
```

4. login_screen.dart

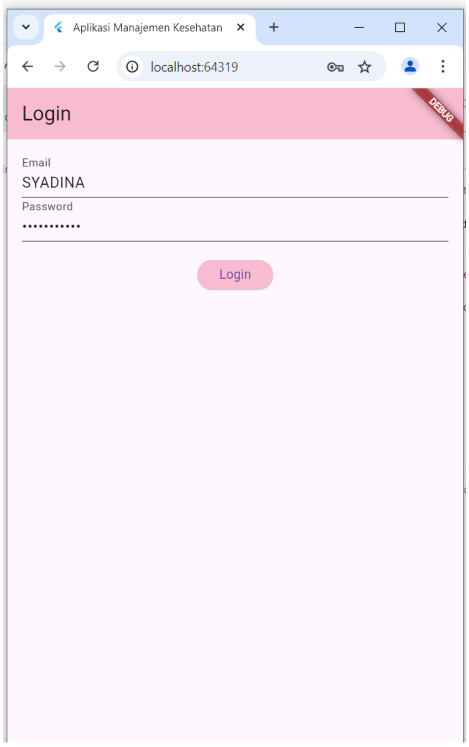


```dart
import 'package:flutter/material.dart';

class LoginScreen extends StatefulWidget {
  @override
  _LoginScreenState createState() => _LoginScreenState();
}

class _LoginScreenState extends State<LoginScreen> {
  final _emailController = TextEditingController();
  final _passwordController = TextEditingController();

  void _login() {
    // Proses login
  }

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: Text('Login'),
        backgroundColor: Colors.pink[100],
      ), // AppBar
      body: Padding(
        padding: const EdgeInsets.all(16.0),
        child: Column(
          children: [
            TextField(
              controller: _emailController,
              decoration: InputDecoration(labelText: 'Email'),
            ), // TextField
            TextField(
              controller: _passwordController,
              decoration: InputDecoration(labelText: 'Password'),
              obscureText: true,
            ), // TextField
            SizedBox(height: 20),
            ElevatedButton(
              onPressed: _login,
```



```dart
class _LoginScreenState extends State<LoginScreen> {
  Widget build(BuildContext context) {
              decoration: InputDecoration(labelText: 'Password'),
              obscureText: true,
            ), // TextField
            SizedBox(height: 20),
            ElevatedButton(
              onPressed: _login,
              child: Text('Login'),
              style: ElevatedButton.styleFrom(
                backgroundColor: Colors.pink[100],
              ),
            ), // ElevatedButton
          ],
        ), // Column
      ), // Padding
    ); // Scaffold
  }
}
```

Screenshoot hasil :



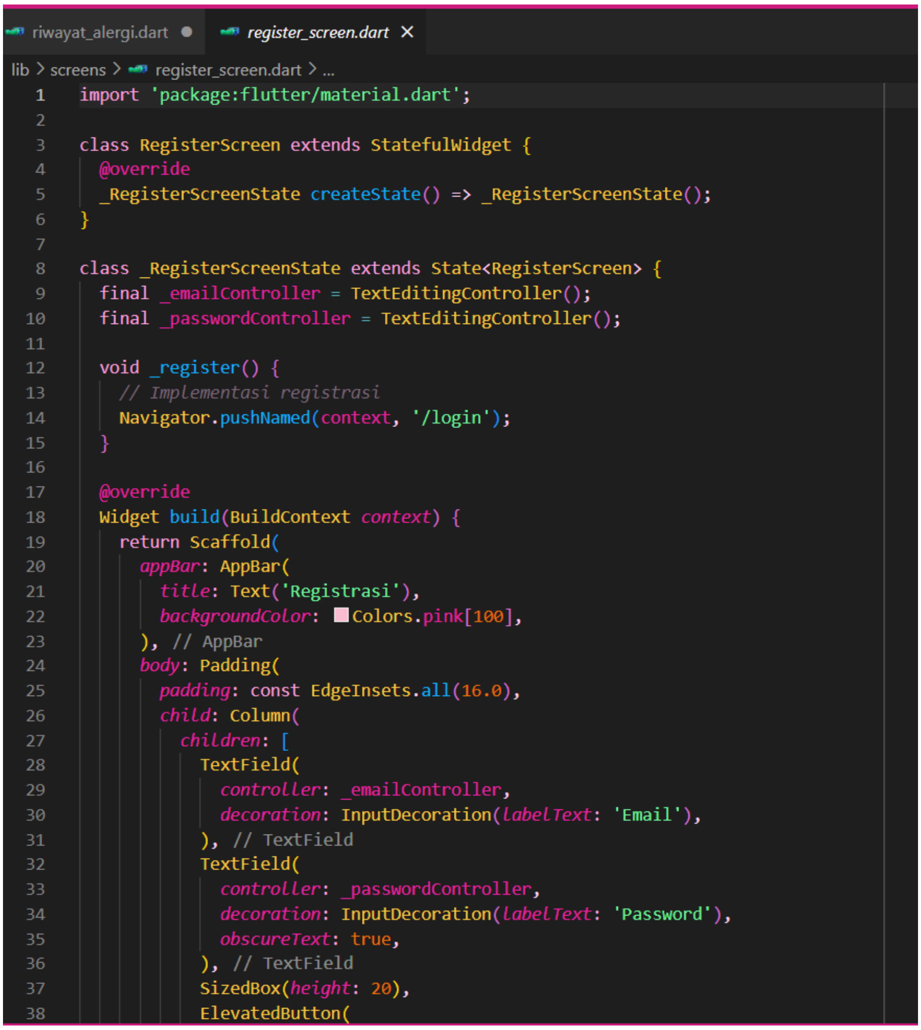
Login

Email
SYADINA

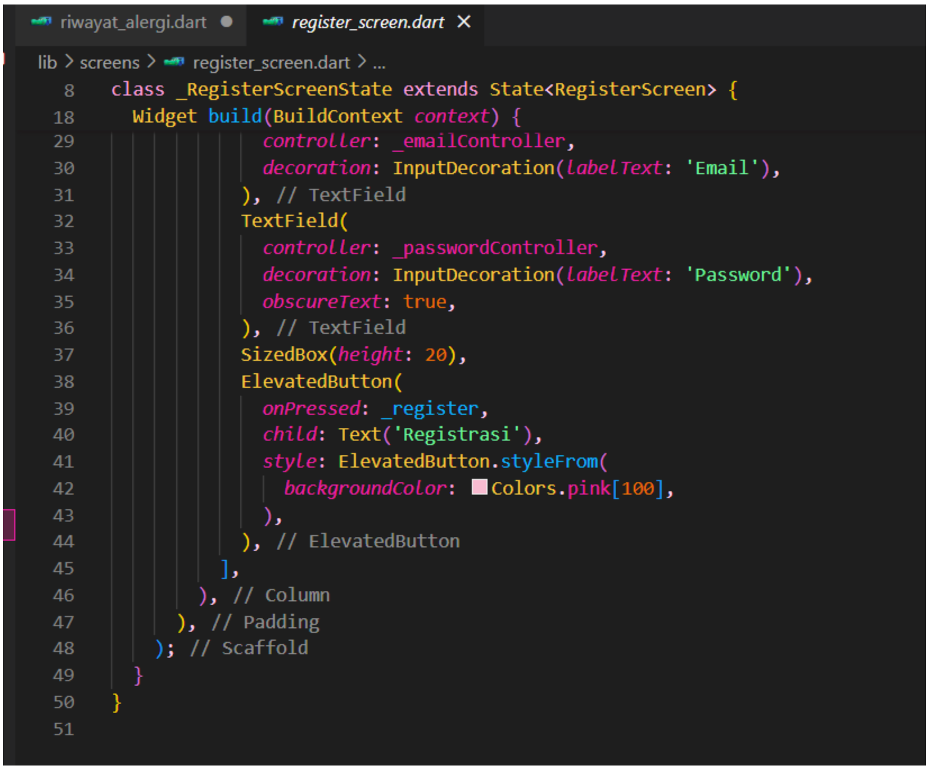
Password
•••••••••••

Login

5. register_screen.dart



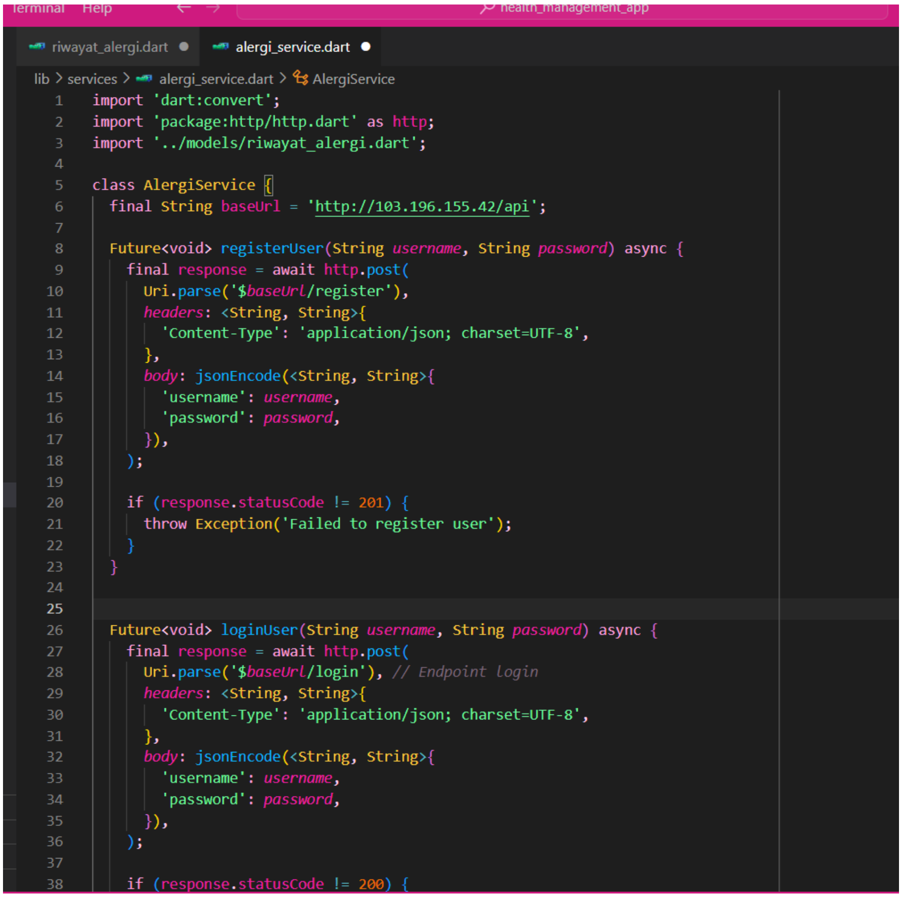
```dart
import 'package:flutter/material.dart';

class RegisterScreen extends StatefulWidget {
  @override
  _RegisterScreenState createState() => _RegisterScreenState();
}

class _RegisterScreenState extends State<RegisterScreen> {
  final _emailController = TextEditingController();
  final _passwordController = TextEditingController();

  void _register() {
    // Implementasi registrasi
    Navigator.pushNamed(context, '/login');
  }

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: Text('Registrasi'),
        backgroundColor: Colors.pink[100],
      ), // AppBar
      body: Padding(
        padding: const EdgeInsets.all(16.0),
        child: Column(
          children: [
            TextField(
              controller: _emailController,
              decoration: InputDecoration(labelText: 'Email'),
            ), // TextField
            TextField(
              controller: _passwordController,
              decoration: InputDecoration(labelText: 'Password'),
              obscureText: true,
            ), // TextField
            SizedBox(height: 20),
            ElevatedButton(
```



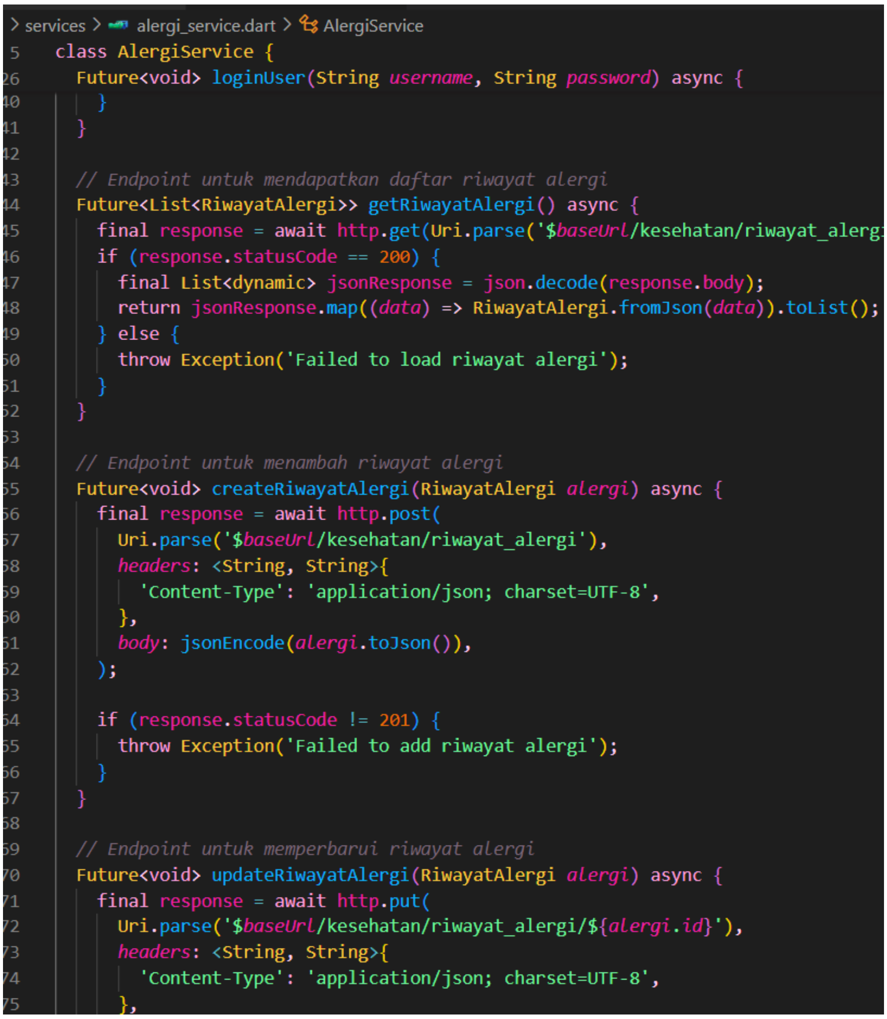
```dart
class _RegisterScreenState extends State<RegisterScreen> {
  Widget build(BuildContext context) {
              controller: _emailController,
              decoration: InputDecoration(labelText: 'Email'),
            ), // TextField
            TextField(
              controller: _passwordController,
              decoration: InputDecoration(labelText: 'Password'),
              obscureText: true,
            ), // TextField
            SizedBox(height: 20),
            ElevatedButton(
              onPressed: _register,
              child: Text('Registrasi'),
              style: ElevatedButton.styleFrom(
                backgroundColor: Colors.pink[100],
              ),
            ), // ElevatedButton
          ],
        ), // Column
      ), // Padding
    ); // Scaffold
  }
}

```

Folder services

1. alergi_service.dart

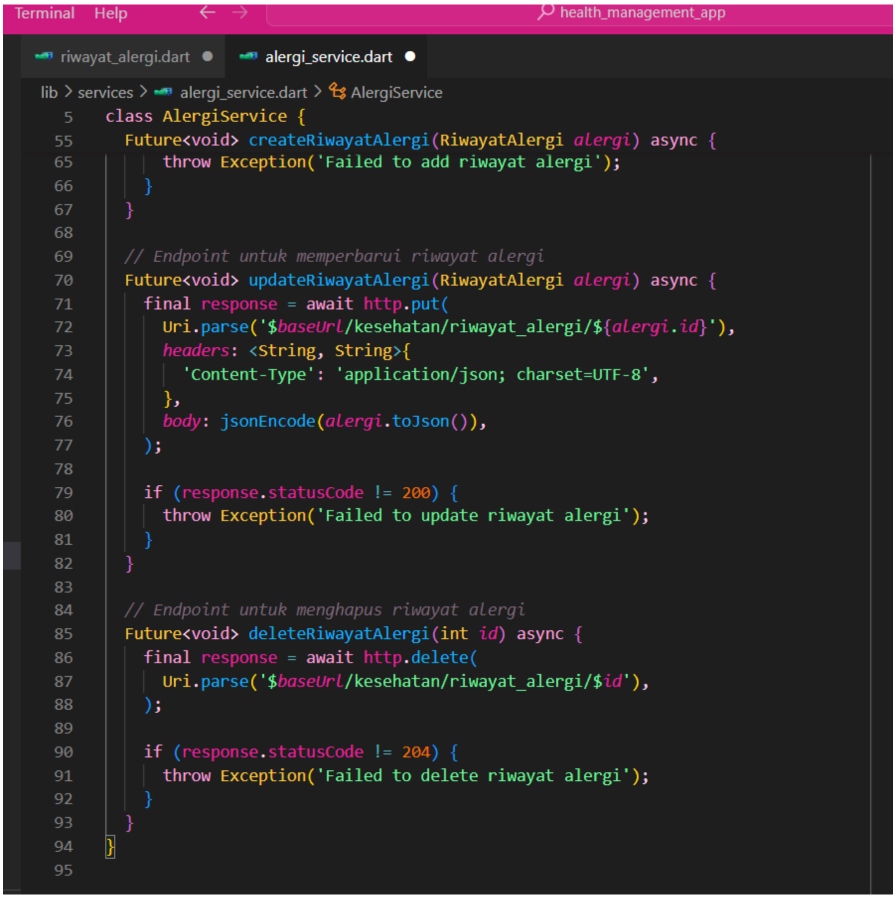


```dart
import 'dart:convert';
import 'package:http/http.dart' as http;
import '../models/riwayat_alergi.dart';

class AlergiService {
  final String baseUrl = 'http://103.196.155.42/api';

  Future<void> registerUser(String username, String password) async {
    final response = await http.post(
      Uri.parse('$baseUrl/register'),
      headers: <String, String>{
        'Content-Type': 'application/json; charset=UTF-8',
      },
      body: jsonEncode(<String, String>{
        'username': username,
        'password': password,
      }),
    );

    if (response.statusCode != 201) {
      throw Exception('Failed to register user');
    }
  }


  Future<void> loginUser(String username, String password) async {
    final response = await http.post(
      Uri.parse('$baseUrl/login'), // Endpoint login
      headers: <String, String>{
        'Content-Type': 'application/json; charset=UTF-8',
      },
      body: jsonEncode(<String, String>{
        'username': username,
        'password': password,
      }),
    );

    if (response.statusCode != 200) {
```



> services > alergi_service.dart > AlergiService

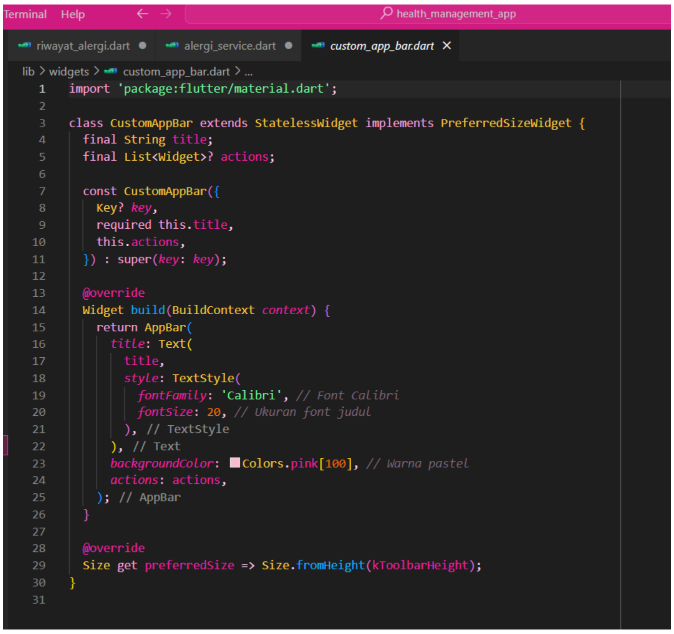
```dart
class AlergiService {
  Future<void> loginUser(String username, String password) async {
    }
  }

  // Endpoint untuk mendapatkan daftar riwayat alergi
  Future<List<RiwayatAlergi>> getRiwayatAlergi() async {
    final response = await http.get(Uri.parse('$baseUrl/kesehatan/riwayat_alerg
    if (response.statusCode == 200) {
      final List<dynamic> jsonResponse = json.decode(response.body);
      return jsonResponse.map((data) => RiwayatAlergi.fromJson(data)).toList();
    } else {
      throw Exception('Failed to load riwayat alergi');
    }
  }

  // Endpoint untuk menambah riwayat alergi
  Future<void> createRiwayatAlergi(RiwayatAlergi alergi) async {
    final response = await http.post(
      Uri.parse('$baseUrl/kesehatan/riwayat_alergi'),
      headers: <String, String>{
        'Content-Type': 'application/json; charset=UTF-8',
      },
      body: jsonEncode(alergi.toJson()),
    );

    if (response.statusCode != 201) {
      throw Exception('Failed to add riwayat alergi');
    }
  }

  // Endpoint untuk memperbarui riwayat alergi
  Future<void> updateRiwayatAlergi(RiwayatAlergi alergi) async {
    final response = await http.put(
      Uri.parse('$baseUrl/kesehatan/riwayat_alergi/${alergi.id}'),
      headers: <String, String>{
        'Content-Type': 'application/json; charset=UTF-8',
      },
```



```dart
class AlergiService {
  Future<void> createRiwayatAlergi(RiwayatAlergi alergi) async {
      throw Exception('Failed to add riwayat alergi');
    }
  }

  // Endpoint untuk memperbarui riwayat alergi
  Future<void> updateRiwayatAlergi(RiwayatAlergi alergi) async {
    final response = await http.put(
      Uri.parse('$baseUrl/kesehatan/riwayat_alergi/${alergi.id}'),
      headers: <String, String>{
        'Content-Type': 'application/json; charset=UTF-8',
      },
      body: jsonEncode(alergi.toJson()),
    );

    if (response.statusCode != 200) {
      throw Exception('Failed to update riwayat alergi');
    }
  }

  // Endpoint untuk menghapus riwayat alergi
  Future<void> deleteRiwayatAlergi(int id) async {
    final response = await http.delete(
      Uri.parse('$baseUrl/kesehatan/riwayat_alergi/$id'),
    );

    if (response.statusCode != 204) {
      throw Exception('Failed to delete riwayat alergi');
    }
  }
}
```

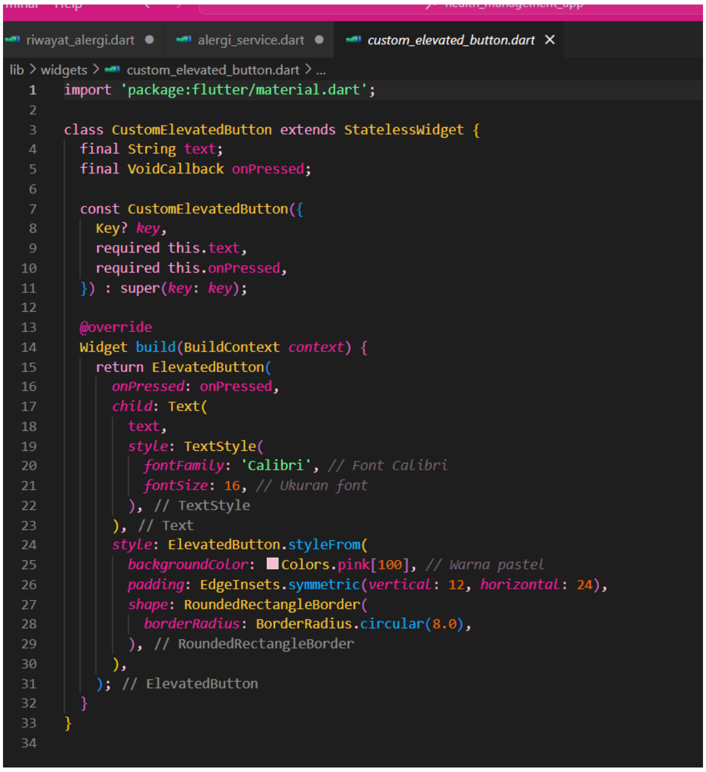
Folder widgets

1. custom_app_bar.dart



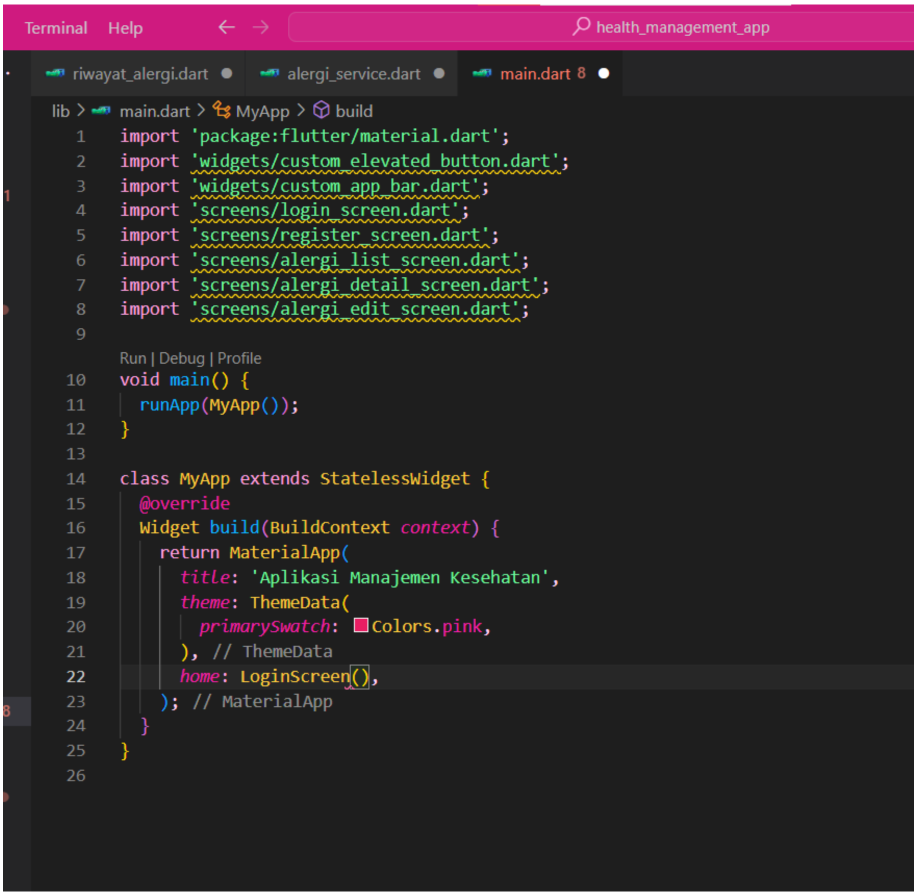
```dart
import 'package:flutter/material.dart';

class CustomAppBar extends StatelessWidget implements PreferredSizeWidget {
  final String title;
  final List<Widget>? actions;

  const CustomAppBar({
    Key? key,
    required this.title,
    this.actions,
  }) : super(key: key);

  @override
  Widget build(BuildContext context) {
    return AppBar(
      title: Text(
        title,
        style: TextStyle(
          fontFamily: 'Calibri', // Font Calibri
          fontSize: 20, // Ukuran font judul
        ), // TextStyle
      ), // Text
      backgroundColor: Colors.pink[100], // Warna pastel
      actions: actions,
    ); // AppBar
  }

  @override
  Size get preferredSize => Size.fromHeight(kToolbarHeight);
}
```

2. custom_elevated_button.dart


riwayat_alergi.dart
alergi_service.dart
custom_elevated_button.dart
lib > widgets > custom_elevated_button.dart > ...

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

class CustomElevatedButton extends StatelessWidget {
  final String text;
  final VoidCallback onPressed;

  const CustomElevatedButton({
    Key? key,
    required this.text,
    required this.onPressed,
  }) : super(key: key);

  @override
  Widget build(BuildContext context) {
    return ElevatedButton(
      onPressed: onPressed,
      child: Text(
        text,
        style: TextStyle(
          fontFamily: 'Calibri', // Font Calibri
          fontSize: 16, // Ukuran font
        ), // TextStyle
      ), // Text
      style: ElevatedButton.styleFrom(
        backgroundColor: Colors.pink[100], // Warna pastel
        padding: EdgeInsets.symmetric(vertical: 12, horizontal: 24),
        shape: RoundedRectangleBorder(
          borderRadius: BorderRadius.circular(8.0),
        ), // RoundedRectangleBorder
      ),
    ); // ElevatedButton
  }
}

```

Main.dart



```dart
import 'package:flutter/material.dart';
import 'widgets/custom_elevated_button.dart';
import 'widgets/custom_app_bar.dart';
import 'screens/login_screen.dart';
import 'screens/register_screen.dart';
import 'screens/alergi_list_screen.dart';
import 'screens/alergi_detail_screen.dart';
import 'screens/alergi_edit_screen.dart';

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

class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Aplikasi Manajemen Kesehatan',
      theme: ThemeData(
        primarySwatch: Colors.pink,
      ), // ThemeData
      home: LoginScreen(),
    ); // MaterialApp
  }
}

```