PRAKTIKUM_7

-

Daftar Isi

1 ECOMMERCE_APP

1.1 lib/models/product.dart

```dart
class Product {
  final String id;
  final String name;
  final String imageUrl;
  final String description;
  final double price;

  Product({
    required this.id,
    required this.name,
    required this.imageUrl,
    required this.description,
    required this.price,
  });

  factory Product.fromJson(Map<String, dynamic> json) {
    return Product(
      id: json['id'],
      name: json['name'],
      imageUrl: json['imageUrl'],
      description: json['description'],
      price: json['price'].toDouble(), // Pastikan untuk mengonversi ke
          double
    );
  }
}
```

1.2 lib/main.dart

```dart
import 'package:flutter/material.dart';
import 'pages/splash_page.dart';
import 'package:flutter_driver/driver_extension.dart';

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

class MyApp extends StatelessWidget {
  const MyApp({super.key});

  @override
  Widget build(BuildContext context) {
    return MaterialApp(
```

```
16        title: 'E-Commerce App',
17        theme: ThemeData(
18          primarySwatch: Colors.blue,
19        ),
20        home: const SplashPage(),
21      );
22    }
23  }
```

1.3 lib/main_copy.dart

```
 1  import 'package:flutter/material.dart';
 2  import 'pages/splash_page.dart';
 3  import 'package:flutter_driver/driver_extension.dart';
 4
 5  void main() {
 6    enableFlutterDriverExtension();
 7    runApp(const MyApp());
 8  }
 9
10  class MyApp extends StatelessWidget {
11    const MyApp({super.key});
12
13    @override
14    Widget build(BuildContext context) {
15      return MaterialApp(
16        title: 'E-Commerce App',
17        theme: ThemeData(
18          primarySwatch: Colors.blue,
19        ),
20        home: const SplashPage(),
21      );
22    }
23  }
```

1.4 lib/pages/product_detail_page.dart

```
 1  import 'package:flutter/material.dart';
 2  import '../models/product.dart';
 3
 4
 5  class ProductDetailPage extends StatelessWidget {
 6    final Product product;
 7
 8    const ProductDetailPage({super.key, required this.product});
 9
10    @override
```

```dart
11    Widget build(BuildContext context) {
12      return Scaffold(
13        appBar: AppBar(
14          title: Text(product.name),
15        ),
16        body: Padding(
17          padding: const EdgeInsets.all(16.0),
18          child: Column(
19            crossAxisAlignment: CrossAxisAlignment.start,
20            children: [
21              Image.asset(product.imageUrl, fit: BoxFit.cover),
22              const SizedBox(height: 16),
23              Text(
24                product.name,
25                style: const TextStyle(fontSize: 24, fontWeight:
                      FontWeight.bold),
26              ),
27              const SizedBox(height: 8),
28              Text('Harga: Rp ${product.price.toString()}', style: const
                      TextStyle(fontSize: 18)),
29              const SizedBox(height: 8),
30              Text(product.description),
31            ],
32          ),
33        ),
34      );
35    }
36  }
```

1.5 lib/pages/splash_page.dart

```dart
1  import 'package:flutter/material.dart';
2  import 'login_page.dart';
3
4  class SplashPage extends StatelessWidget {
5    const SplashPage({super.key});
6
7    @override
8    Widget build(BuildContext context) {
9      Future.delayed(const Duration(seconds: 3), () {
10       Navigator.pushReplacement(
11         context,
12         MaterialPageRoute(builder: (context) => const LoginPage()),
13       );
14     });
15
16     return const Scaffold(
17       body: Center(
18         child: Text(
```

```
19          'E-Commerce App',
20          style: TextStyle(fontSize: 24, fontWeight: FontWeight.bold),
21        ),
22      ),
23    );
24  }
25 }
```

1.6 lib/pages/login_page.dart

```
 1  import 'package:flutter/material.dart';
 2  import 'package:shared_preferences/shared_preferences.dart';
 3  import 'dashboard_page.dart';
 4
 5  class LoginPage extends StatefulWidget {
 6    const LoginPage({super.key});
 7
 8    @override
 9    _LoginPageState createState() => _LoginPageState();
10  }
11
12  class _LoginPageState extends State<LoginPage> {
13    final _usernameController = TextEditingController();
14    final _passwordController = TextEditingController();
15    String? _savedUsername;
16    String? _savedPassword;
17
18    @override
19    void initState() {
20      super.initState();
21      _loadUserData();
22    }
23
24    _loadUserData() async {
25      SharedPreferences prefs = await SharedPreferences.getInstance();
26      setState(() {
27        _savedUsername = prefs.getString('username');
28        _savedPassword = prefs.getString('password');
29      });
30    }
31
32    _login() async {
33      if (_usernameController.text == _savedUsername &&
34          _passwordController.text == _savedPassword) {
35        Navigator.pushReplacement(
36          context,
37          MaterialPageRoute(builder: (context) => const DashboardPage()),
38        );
39      } else {
```

```dart
40          _showCreateUserDialog();
41        }
42      }
43
44      _createUser() async {
45        SharedPreferences prefs = await SharedPreferences.getInstance();
46        prefs.setString('username', _usernameController.text);
47        prefs.setString('password', _passwordController.text);
48        Navigator.pushReplacement(
49          context,
50          MaterialPageRoute(builder: (context) => const DashboardPage()),
51        );
52      }
53
54      _showCreateUserDialog() {
55        showDialog(
56          context: context,
57          builder: (context) {
58            return AlertDialog(
59              title: const Text('Create User'),
60              content: const Text('User not found. Do you want to create a
                    new user?'),
61              actions: [
62                TextButton(
63                  key: const ValueKey('btn_register'),
64                  onPressed: () {
65                    _createUser();
66                    Navigator.of(context).pop();
67                  },
68                  child: const Text('Yes'),
69                ),
70                TextButton(
71                  onPressed: () {
72                    Navigator.of(context).pop();
73                  },
74                  child: const Text('No'),
75                ),
76              ],
77            );
78          },
79        );
80      }
81
82      @override
83      Widget build(BuildContext context) {
84        return Scaffold(
85          appBar: AppBar(title: const Text('Login')),
86          body: Padding(
87            padding: const EdgeInsets.all(16.0),
88            child: Column(
89              children: [
```

```
 90              TextField(
 91                controller: _usernameController,
 92                decoration: const InputDecoration(labelText: 'Username'),
 93              ),
 94              TextField(
 95                controller: _passwordController,
 96                decoration: const InputDecoration(labelText: 'Password'),
 97                obscureText: true,
 98              ),
 99              const SizedBox(height: 20),
100              ElevatedButton(
101                key: const ValueKey('btn_login'),
102                onPressed: _login,
103                child: const Text('Login'),
104              ),
105            ],
106          ),
107        ),
108      );
109    }
110  }
```
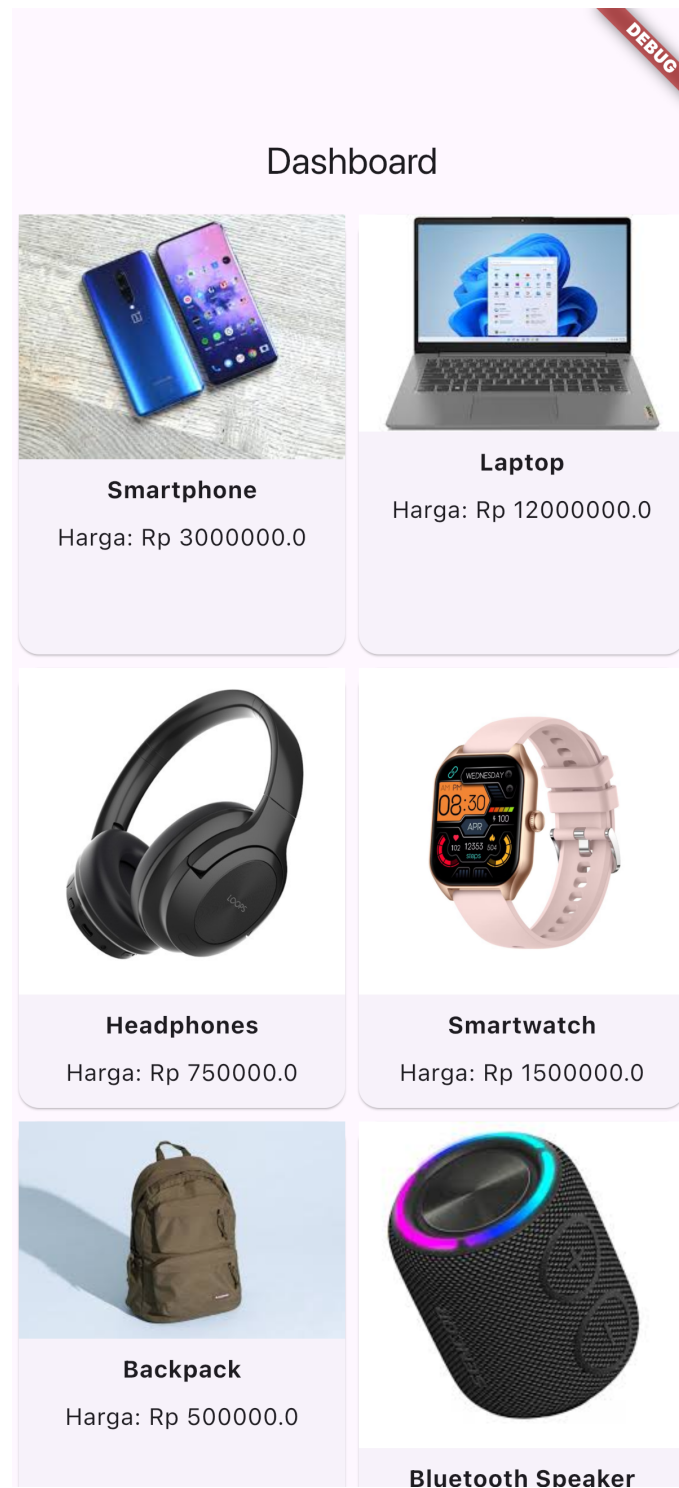
1.7 lib/pages/dashboard_page.dart

```
 1  import 'package:ecommerce_app/pages/product_detail_page.dart';
 2  import 'package:flutter/material.dart';
 3  import 'package:flutter/services.dart';
 4  import 'dart:convert';
 5  import 'package:ecommerce_app/models/product.dart';
 6
 7  class DashboardPage extends StatefulWidget {
 8    const DashboardPage({super.key});
 9
10    @override
11    _DashboardPageState createState() => _DashboardPageState();
12  }
13
14  class _DashboardPageState extends State<DashboardPage> {
15    List<Product> products = [];
16
17    @override
18    void initState() {
19      super.initState();
20      _loadProducts();
21    }
22
23    Future<void> _loadProducts() async {
24      try {
```
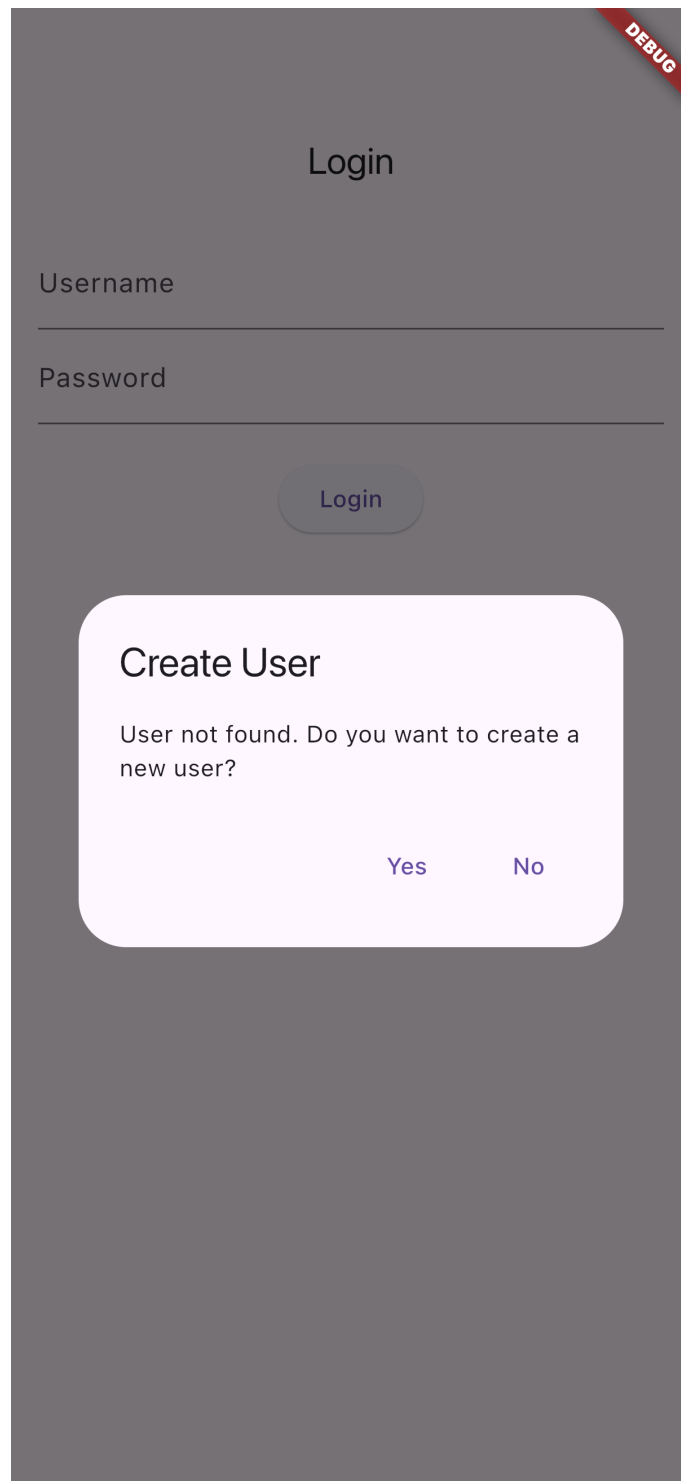
```dart
25        String data = await rootBundle.loadString('assets/products.json')
             ;
26        final List<dynamic> jsonResult = json.decode(data);
27        setState(() {
28          products = jsonResult.map((json) => Product.fromJson(json)).
             toList();
29        });
30      } catch (e) {
31        print('Error loading products: $e');
32      }
33    }
34
35    @override
36    Widget build(BuildContext context) {
37      return Scaffold(
38        appBar: AppBar(
39          title: const Text('Dashboard'),
40        ),
41        body: GridView.builder(
42          gridDelegate: const SliverGridDelegateWithFixedCrossAxisCount(
43            crossAxisCount: 2,
44            childAspectRatio: 0.75,
45          ),
46          itemCount: products.length,
47          itemBuilder: (context, index) {
48            final product = products[index];
49            return Card(
50              key: ValueKey('product_item_$index'),
51              child: GestureDetector(
52                onTap: () {
53                  Navigator.push(
54                    context,
55                    MaterialPageRoute(
56                      builder: (context) => ProductDetailPage(product:
                        product),
57                    ),
58                  );
59                },
60                child: Column(
61                  children: [
62                    Image.asset(product.imageUrl, fit: BoxFit.cover),
63                    Padding(
64                      padding: const EdgeInsets.all(8.0),
65                      child: Text(
66                        product.name,
67                        style: const TextStyle(fontWeight: FontWeight.
                          bold),
68                      ),
69                    ),
70                    Text('Harga: Rp ${product.price.toString()}'),
71                  ],
```

```
72                    ),
73                  ),
74                );
75              },
76            ),
77          );
78      }
79  }
```
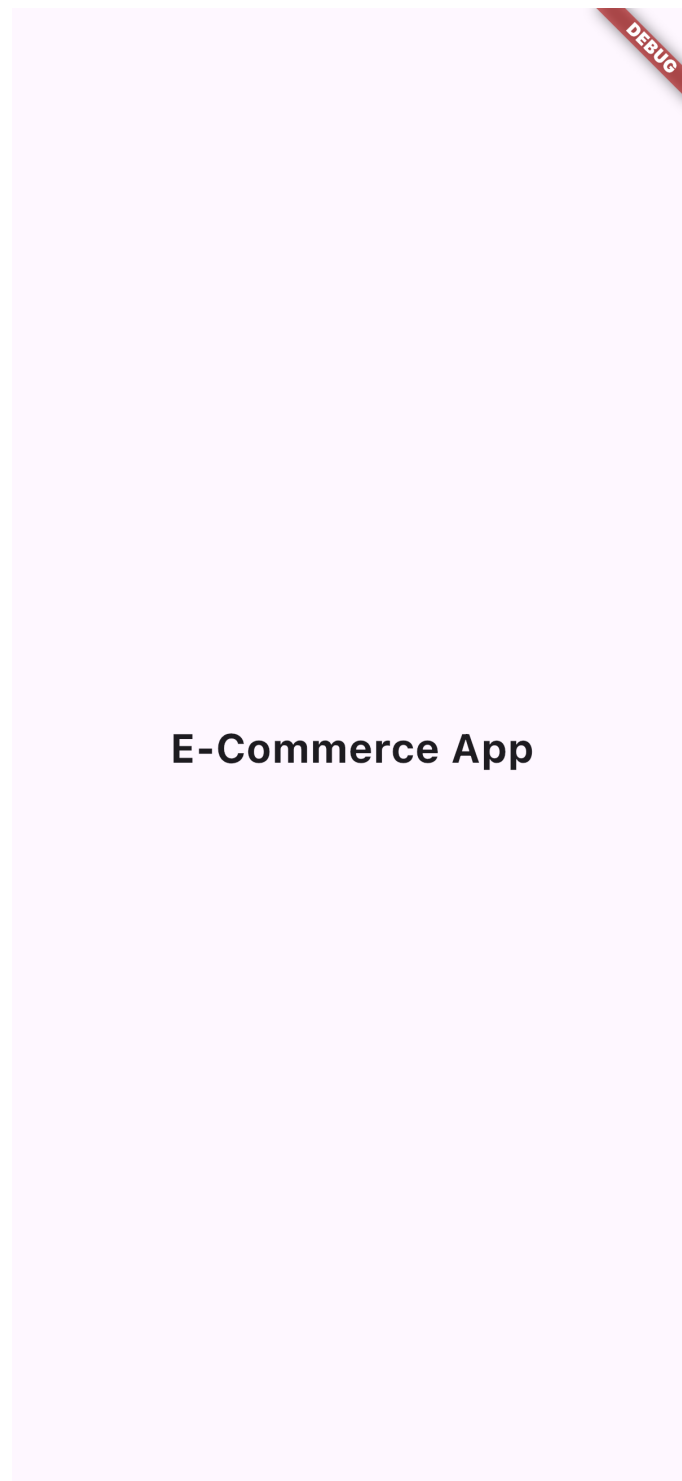
1.8 screenshot
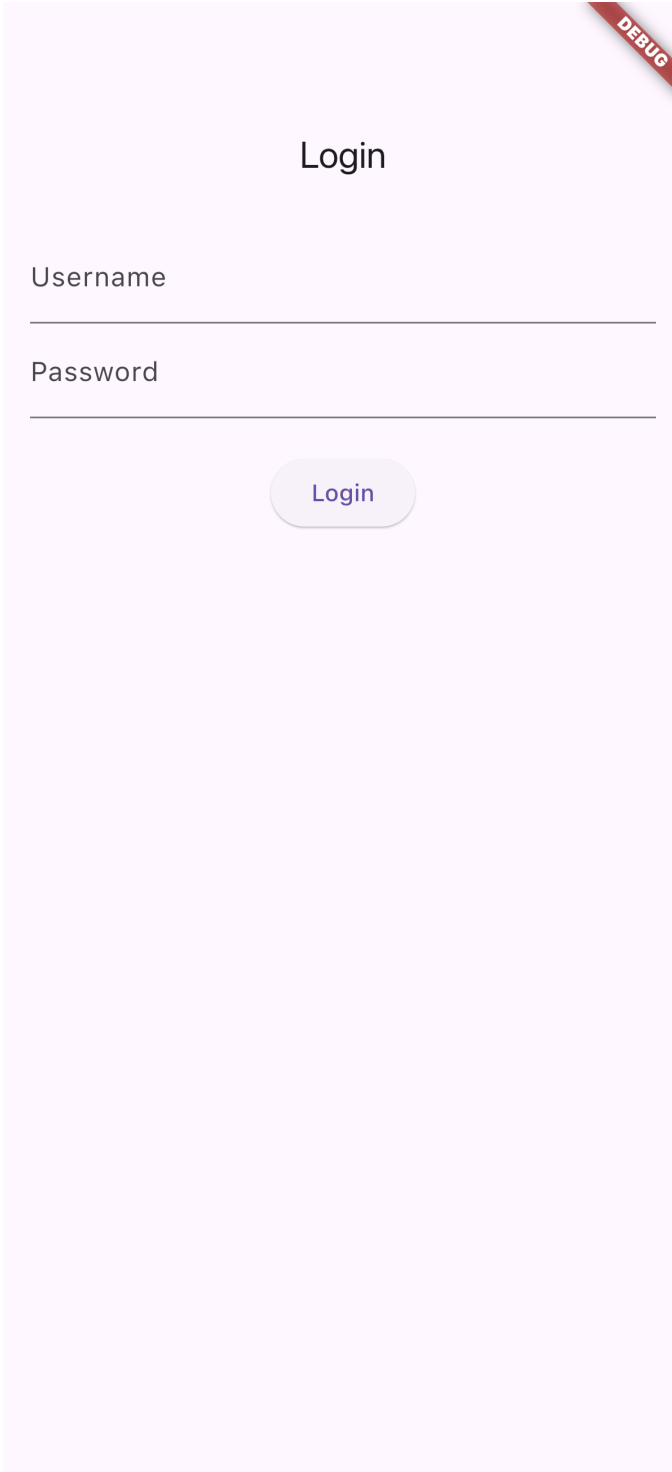
Screenshot 1: product-detail

DEBUG

Login

Username
_____

Password
_____

Login

Create User

User not found. Do you want to create a
new user?

Yes   No

Screenshot 2: register-dialog

DEBUG

E-Commerce App

Screenshot 3: splash-screen

Screenshot 4: login-page

2 LOGIN_APP

2.1 lib/register_page.dart

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

class RegisterPage extends StatefulWidget {
  const RegisterPage({super.key});

  @override
  _RegisterPageState createState() => _RegisterPageState();
}

class _RegisterPageState extends State<RegisterPage> {
  final TextEditingController _usernameController =
      TextEditingController();
  final TextEditingController _passwordController =
      TextEditingController();
  String _message = '';

  Future<void> _createUser() async {
    SharedPreferences prefs = await SharedPreferences.getInstance();
    String? storedPassword = prefs.getString(_usernameController.text);

    if (storedPassword == null) {
      await prefs.setString(_usernameController.text,
          _passwordController.text);
      _message = 'Akun berhasil dibuat!';
    } else {
      _message = 'Username sudah terdaftar.';
    }

    setState(() {});
  }

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(title: const Text('Buat Akun')),
      body: Padding(
        padding: const EdgeInsets.all(16.0),
        child: Column(
          children: [
            TextField(
              controller: _usernameController,
              decoration: const InputDecoration(labelText: 'Username'),
            ),
            TextField(
              controller: _passwordController,
```

```
44              decoration: const InputDecoration(labelText: 'Password'),
45              obscureText: true,
46            ),
47            const SizedBox(height: 20),
48            ElevatedButton(
49              onPressed: _createUser,
50              child: const Text('Buat Akun'),
51            ),
52            const SizedBox(height: 20),
53            Text(_message, style: const TextStyle(color: Colors.red)),
54          ],
55        ),
56      ),
57    );
58  }
59 }
```

2.2 lib/success_page.dart

```
1  import 'package:flutter/material.dart';
2
3  class SuccessPage extends StatelessWidget {
4    const SuccessPage({super.key});
5
6    @override
7    Widget build(BuildContext context) {
8      return Scaffold(
9        appBar: AppBar(title: const Text('Login Berhasil')),
10       body: const Center(
11         child: Text(
12           'Login Berhasil!',
13           style: TextStyle(fontSize: 24),
14         ),
15       ),
16     );
17   }
18 }
```

2.3 lib/main.dart

```
1  import 'package:flutter/material.dart';
2  import 'login_page.dart';
3
4  void main() {
5    runApp(const MyApp());
6  }
7
```

```
 8  class MyApp extends StatelessWidget {
 9    const MyApp({super.key});
10
11    @override
12    Widget build(BuildContext context) {
13      return MaterialApp(
14        title: 'Flutter Login',
15        theme: ThemeData(
16          primarySwatch: Colors.blue,
17        ),
18        home: const LoginPage(),
19      );
20    }
21  }
```

2.4 lib/login_page.dart

```
 1  import 'package:flutter/material.dart';
 2  import 'package:shared_preferences/shared_preferences.dart';
 3  import 'register_page.dart';
 4  import 'success_page.dart'; // Import halaman sukses
 5
 6  class LoginPage extends StatefulWidget {
 7    const LoginPage({super.key});
 8
 9    @override
10    _LoginPageState createState() => _LoginPageState();
11  }
12
13  class _LoginPageState extends State<LoginPage> {
14    final TextEditingController _usernameController =
         TextEditingController();
15    final TextEditingController _passwordController =
         TextEditingController();
16    String _message = '';
17
18    Future<void> _login() async {
19      SharedPreferences prefs = await SharedPreferences.getInstance();
20      String? storedPassword = prefs.getString(_usernameController.text);
21
22      if (storedPassword == null) {
23        _message = 'User tidak ada. Silakan buat akun.';
24      } else if (storedPassword == _passwordController.text) {
25        Navigator.pushReplacement(
26          context,
27          MaterialPageRoute(builder: (context) => const SuccessPage()),
28        );
29      } else {
30        _message = 'Password salah. Silakan coba lagi.';
```

```
31        }
32
33      setState(() {});
34    }
35
36    @override
37    Widget build(BuildContext context) {
38      return Scaffold(
39        appBar: AppBar(title: const Text('Login')),
40        body: Padding(
41          padding: const EdgeInsets.all(16.0),
42          child: Column(
43            children: [
44              TextField(
45                controller: _usernameController,
46                decoration: const InputDecoration(labelText: 'Username'),
47              ),
48              TextField(
49                controller: _passwordController,
50                decoration: const InputDecoration(labelText: 'Password'),
51                obscureText: true,
52              ),
53              const SizedBox(height: 20),
54              ElevatedButton(
55                onPressed: _login,
56                child: const Text('Login'),
57              ),
58              ElevatedButton(
59                onPressed: () {
60                  Navigator.push(
61                    context,
62                    MaterialPageRoute(builder: (context) => const
                        RegisterPage()),
63                  );
64                },
65                child: const Text('Buat Akun'),
66              ),
67              const SizedBox(height: 20),
68              Text(_message, style: const TextStyle(color: Colors.red)),
69            ],
70          ),
71        ),
72      );
73    }
74  }
```

2.5 screenshot

3 ESTEHAJIB

3.1 lib/blank_screen.dart

```dart
1  import 'package:flutter/material.dart';
2
3  class Blankscreen extends StatelessWidget {
4    const Blankscreen({super.key});
5    @override
6    Widget build(BuildContext context) {
7      return const Scaffold(
8        backgroundColor: Color(0xff65005C),
9        body: Column(
10         mainAxisAlignment: MainAxisAlignment.center,
11         crossAxisAlignment: CrossAxisAlignment.center,
12         children: [
13           Center(
14             child: SizedBox(
15               height: 24.0,
16             ),
17           ),
18           Text(
19             "Es Teh Ajib",
20             textAlign: TextAlign.center,
21             style: TextStyle(
22               color: Colors.white,
23               fontWeight: FontWeight.bold,
24               fontSize: 35.0,
25             ),
26           ),
27           Text(
28             "Menu segar menyegarkan #estehajib",
29             textAlign: TextAlign.center,
30             style: TextStyle(
31               color: Colors.white,
32               fontWeight: FontWeight.bold,
33               fontSize: 20.0,
34             ),
35           ),
36         ],
37       ),
38     );
39   }
40 }
```

3.2 lib/main.dart

```dart
1  import 'package:flutter/material.dart';
2  import 'package:estehajib/splash_screen.dart';
3
4  void main() {
5    runApp(const MyApp());
6  }
7
8  class MyApp extends StatelessWidget {
9    const MyApp({super.key});
10   // This widget is the root of your application.
11   @override
12   Widget build(BuildContext context) {
13     return MaterialApp(
14       debugShowCheckedModeBanner: false,
15       title: 'Aplikasi Es Teh Ajib',
16       theme: ThemeData(
17         primarySwatch: Colors.blue,
18       ),
19       home: const SplashScreen(),
20     );
21   }
22 }
```

3.3 lib/oke.dart

```dart
1  final binding = IntegrationTestWidgetsFlutterBinding();
```

3.4 lib/splash_screen.dart

```dart
1  import 'dart:async';
2  import 'package:estehajib/blank_screen.dart';
3  import 'package:flutter/material.dart';
4
5  class SplashScreen extends StatefulWidget {
6    const SplashScreen({super.key});
7    @override
8    State<SplashScreen> createState() => _SplashScreenState();
9  }
10
11 class _SplashScreenState extends State<SplashScreen> {
12   startSplashScreen() async {
13     var duration = const Duration(seconds: 5);
14     return Timer(duration, () {
15       Navigator.pushReplacement(context,
16           MaterialPageRoute(builder: (context) => const Blankscreen()))
17             ;
18     });
```

```
18    }
19
20    @override
21    void initState() {
22      super.initState();
23      startSplashScreen();
24    }
25
26    @override
27    Widget build(BuildContext context) {
28      return Scaffold(
29        backgroundColor: Colors.blueGrey,
30        body: Column(
31          mainAxisAlignment: MainAxisAlignment.center,
32          crossAxisAlignment: CrossAxisAlignment.center,
33          children: [
34            Center(
35              child: Image.asset(
36                "assets/Estehajib-Jumbo.png",
37                width: 200.0,
38                height: 100.0,
39                fit: BoxFit.contain,
40              ),
41            ),
42            const SizedBox(
43              height: 24.0,
44            ),
45            const Text(
46              "Es Teh Ajib",
47              style: TextStyle(
48                color: Colors.white,
49                fontWeight: FontWeight.bold,
50                fontSize: 35.0,
51              ),
52            ),
53          ],
54        ),
55      );
56    }
57  }
```

3.5 screenshot

4 FLUTTER_SHARED_PREFERENCES

4.1 lib/main.dart

```dart
1  import 'package:flutter/material.dart';
2  import 'package:shared_preferences/shared_preferences.dart';
3
4  void main() => runApp(const MyApp());
5
6  class MyApp extends StatelessWidget {
7    const MyApp({super.key});
8    @override
9    Widget build(BuildContext context) {
10     return MaterialApp(
11       title: 'Shared Preferences',
12       theme: ThemeData(
13         primarySwatch: Colors.blue,
14       ),
15       home: const MyHomePage(),
16     );
17   }
18 }
19
20 class MyHomePage extends StatefulWidget {
21   const MyHomePage({super.key});
22   @override
23   State<MyHomePage> createState() => _MyHomePageState();
24 }
25
26 class _MyHomePageState extends State<MyHomePage> {
27   String? email = "";
28   String? password = "";
29   TextEditingController emailController = TextEditingController();
30   TextEditingController passwordController = TextEditingController();
31   @override
32   Widget build(BuildContext context) {
33     return Scaffold(
34       appBar: AppBar(title: const Text('Flutter Shared Preferences')),
35       body: ListView(
36         padding: const EdgeInsets.all(8.0),
37         children: [
38           // input email
39           TextField(
40             controller: emailController,
41             decoration: InputDecoration(
42               labelText: "Email",
43               border: OutlineInputBorder(
44                 borderRadius: BorderRadius.circular(5.0)))),
45           const Padding(padding: EdgeInsets.only(top: 4)),
46           // input password
```

```
47          TextField(
48              controller: passwordController,
49              decoration: InputDecoration(
50                  labelText: "Password",
51                  border: OutlineInputBorder(
52                      borderRadius: BorderRadius.circular(5.0)))),
53 // button untuk menyimpan email dan password ke dalam Shared
     Preferences melalui method
54          // setIntoSharedPreferences()
55          ElevatedButton(
56            child: const Text("Set"),
57            onPressed: () {
58              setIntoSharedPreferences();
59            },
60          ),
61          const Padding(padding: EdgeInsets.only(top: 8)),
62          // Menampilkan Email pada Text Widget
63          Text(
64            "Your Email : $email",
65            style: const TextStyle(fontSize: 20),
66          ),
67          // Menampilkan password pada Text Widget
68          Text(
69            "Your Password : $password",
70            style: const TextStyle(fontSize: 20),
71          ),
72 // Button yang berfungsi memanggil method getFromSharedPreferences()
     untuk menampilkan
73          // Email dan Password pada Text Widget
74          ElevatedButton(
75            child: const Text("Get"),
76            onPressed: () {
77              getFromSharedPreferences();
78            },
79          ),
80        ],
81      ),
82    );
83  }
84
85 // method ini berfungsi untuk memasukkan data ke dalam
     SharedPreferences
86  void setIntoSharedPreferences() async {
87    SharedPreferences prefs = await SharedPreferences.getInstance();
88    await prefs.setString("email", emailController.text);
89    await prefs.setString("password", passwordController.text);
90  }
91
92 // Method ini berfungsi untuk mengambil data Email dan Password dari
     SharedPreferences
93 // kemudian dimasukkan ke variable email dan password
```

```
94    void getFromSharedPreferences() async {
95      SharedPreferences prefs = await SharedPreferences.getInstance();
96      setState(() {
97        email = prefs.getString("email");
98        password = prefs.getString("password");
99      });
100   }
101 }
```

4.2 screenshot

5 LATIHAN_JSON

5.1 lib/book_model.dart

```
1  class BookModel {
2    final String judul;
3    final int halaman;
4    final bool isBestSeller;
5    BookModel({
6      required this.judul,
7      required this.halaman,
8      required this.isBestSeller,
9    });
10   factory BookModel.fromJSON(Map<String, dynamic> json) => BookModel(
11       judul: json['judul'],
12       halaman: json['halaman'],
13       isBestSeller: json['best_seller'],
14     );
15 }
```

5.2 lib/main.dart

```
1  import 'package:flutter/material.dart';
2  import 'package:latihan_json/book_model.dart';
3  import 'package:latihan_json/book_services.dart';
4
5  void main() {
6    runApp(const MyApp());
7  }
8
9  class MyApp extends StatelessWidget {
10   const MyApp({super.key});
11   // This widget is the root of your application.
12   @override
13   Widget build(BuildContext context) {
14     return MaterialApp(
15       title: 'Flutter Demo',
16       theme: ThemeData(
17 // This is the theme of your application. //
18 // Try running your application with "flutter run". You'll see the
19 // application has a blue toolbar. Then, without quitting the app, try
20 // changing the primarySwatch below to Colors.green and then invoke
21 // "hot reload" (press "r" in the console where you ran "flutter run",
22 // or simply save your changes to "hot reload" in a Flutter IDE).
23 // Notice that the counter didn't reset back to zero; the application
      // is not restarted.
24       primarySwatch: Colors.blue,
25     ),
```

```dart
26          home: const BookPage(),
27        );
28      }
29    }
30
31    class BookPage extends StatefulWidget {
32      const BookPage({super.key});
33      @override
34      State<BookPage> createState() =>
35          _BookPageState(); //_BookPageState createState() =>
                _BookPageState();
36    }
37
38    class _BookPageState extends State<BookPage> {
39      @override
40      Widget build(BuildContext context) {
41        return Scaffold(
42          appBar: AppBar(
43            title: const Text('Halaman Buku'),
44          ),
45          body: FutureBuilder<List<BookModel>>(
46              future: BookServices.getBooksFromJSON(),
47              builder: (context, snapshoot) {
48                if (snapshoot.connectionState == ConnectionState.done) {
49                  return ListView.builder(
50                      itemCount: snapshoot.data!.length,
51                      itemBuilder: (context, index) {
52                        final book = snapshoot.data![index];
53                        return ListTile(
54                          title: Text(book.judul),
55                          subtitle: Text(
56                            'Jumlah halaman : ${book.halaman}',
57                          ),
58                          trailing: book.isBestSeller
59                              ? Chip(
60                                  label: Text(
61                                    'Best Seller',
62                                    style: Theme.of(context)
63                                        .textTheme
64                                        .labelLarge!
65                                        .copyWith(
66                                          color: Colors.white,
67                                        ),
68                                  ),
69                                  backgroundColor: Colors.blue)
70                              : const SizedBox.shrink(),
71                        );
72                      });
73                } else {
74                  return const Center(
75                    child: CircularProgressIndicator(),
```

```
76                    );
77                }
78            }),
79        );
80    }
81 }
```

5.3 lib/book_services.dart

```dart
1  import 'dart:convert';
2  //untuk mengakses file assets
3  import 'package:flutter/services.dart';
4  import 'book_model.dart';
5
6  class BookServices {
7    static Future<List<BookModel>> getBooksFromJSON() async {
8      try {
9        final result =
10            jsonDecode(await rootBundle.loadString('assets/book.json'))
                 as List;
11        return result.map((book) => BookModel.fromJSON(book)).toList();
12      } catch (e) {
13        throw Exception(e);
14      }
15    }
16 }
```

5.4 screenshot