
PRAKTIKUM_7

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1 ecommerce_app

1.1 lib/models/product.dart

```
1 class Product {
2   final String id;
3   final String name;
4   final String imageUrl;
5   final String description;
6   final double price;
7
8   Product({
9     required this.id,
10    required this.name,
11    required this.imageUrl,
12    required this.description,
13    required this.price,
14  });
15
16  factory Product.fromJson(Map<String, dynamic> json) {
17    return Product(
18      id: json['id'],
19      name: json['name'],
20      imageUrl: json['imageUrl'],
21      description: json['description'],
22      price: json['price'].toDouble(), // Pastikan untuk mengonversi ke
        double
23    );
24  }
25 }
```

1.2 lib/main.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 }
```

1.3 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
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:
26                 FontWeight.bold),
27             ),
28             const SizedBox(height: 8),
29             Text('Harga: Rp ${product.price.toString()}', style: const
30               TextStyle(fontSize: 18)),
31             const SizedBox(height: 8),
32             Text(product.description),
33           ],
34         ),
35       ),
36     );
37   }
38 }
```

1.4 lib/pages/splash_page.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 }
```

1.5 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 {
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
61            new user?'),
62          actions: [
63            TextButton(
64              key: const ValueKey('btn_register'),
65              onPressed: () {
66                _createUser();
67                Navigator.of(context).pop();
68              },
69              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 }
```

1.6 lib/pages/dashboard_page.dart

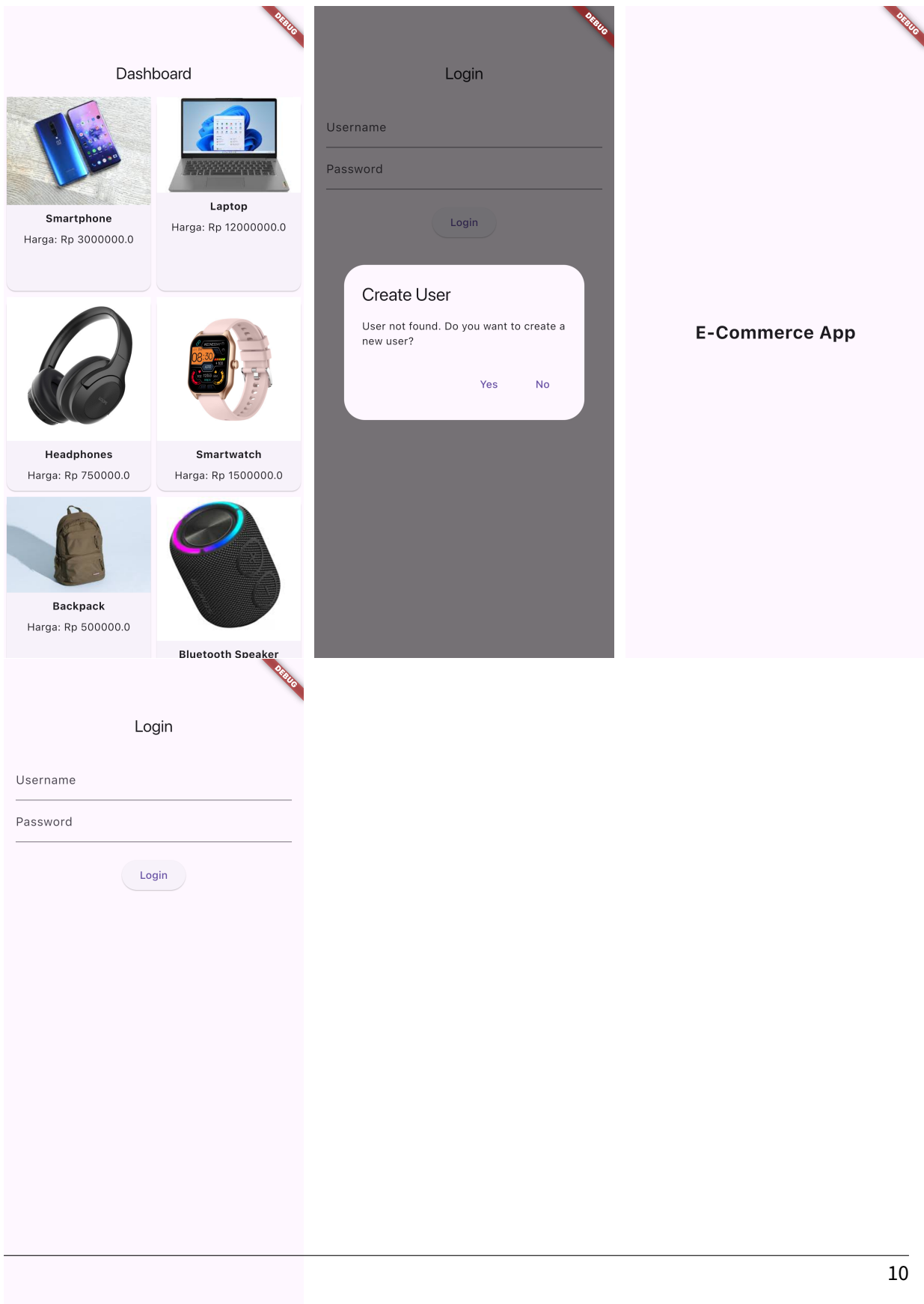
```
1 import 'package:ecommerce_app/pages/product_detail_page.dart';
2 import 'package:flutter/material.dart';
3 import 'package:flutter/services.dart';
4 import 'dart:convert';
```

```
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 {
25       String data = await rootBundle.loadString('assets/products.json')
26       ;
27       final List<dynamic> jsonResult = json.decode(data);
28       setState(() {
29         products = jsonResult.map((json) => Product.fromJson(json)).
30           toList();
31       });
32     } catch (e) {
33       print('Error loading products: $e');
34     }
35   }
36
37   @override
38   Widget build(BuildContext context) {
39     return Scaffold(
40       appBar: AppBar(
41         title: const Text('Dashboard'),
42       ),
43       body: GridView.builder(
44         gridDelegate: const SliverGridDelegateWithFixedCrossAxisCount(
45           crossAxisCount: 2,
46           childAspectRatio: 0.75,
47         ),
48         itemCount: products.length,
49         itemBuilder: (context, index) {
50           final product = products[index];
51           return Card(
52             key: ValueKey('product_item_$index'),
53             child: GestureDetector(
54               onTap: () {
55                 Navigator.push(
```



```
54         context,
55         MaterialPageRoute(
56             builder: (context) => ProductDetailPage(product:
57                 product),
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.
68                         bold),
69                 ),
70             Text('Harga: Rp ${product.price.toString()}'),
71         ],
72     ),
73 ),
74 );
75 },
76 ),
77 );
78 }
79 }
```


1.7 OUTPUT



2 login_app

2.1 lib/register_page.dart

```
1 import 'package:flutter/material.dart';
2 import 'package:shared_preferences/shared_preferences.dart';
3
4 class RegisterPage extends StatefulWidget {
5   const RegisterPage({super.key});
6
7   @override
8   _RegisterPageState createState() => _RegisterPageState();
9 }
10
11 class _RegisterPageState extends State<RegisterPage> {
12   final TextEditingController _usernameController =
13     TextEditingController();
14   final TextEditingController _passwordController =
15     TextEditingController();
16   String _message = '';
17
18   Future<void> _createUser() async {
19     SharedPreferences prefs = await SharedPreferences.getInstance();
20     String? storedPassword = prefs.getString(_usernameController.text);
21
22     if (storedPassword == null) {
23       await prefs.setString(_usernameController.text,
24         _passwordController.text);
25       _message = 'Akun berhasil dibuat!';
26     } else {
27       _message = 'Username sudah terdaftar.';
28     }
29
30     setState(() {});
31   }
32
33   @override
34   Widget build(BuildContext context) {
35     return Scaffold(
36       appBar: AppBar(title: const Text('Buat Akun')),
37       body: Padding(
38         padding: const EdgeInsets.all(16.0),
39         child: Column(
40           children: [
41             TextField(
42               controller: _usernameController,
43               decoration: const InputDecoration(labelText: 'Username'),
44             ),
45             TextField(
46               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 =
15     TextEditingController();
16   final TextEditingController _passwordController =
17     TextEditingController();
18   String _message = '';
19
20   Future<void> _login() async {
21     SharedPreferences prefs = await SharedPreferences.getInstance();
22     String? storedPassword = prefs.getString(_usernameController.text);
23
24     if (storedPassword == null) {
25       _message = 'User tidak ada. Silakan buat akun.';
26     } else if (storedPassword == _passwordController.text) {
27       Navigator.pushReplacement(
28         context,
29         MaterialPageRoute(builder: (context) => const SuccessPage()),
30       );
31     } else {
32       _message = 'Password salah. Silakan coba lagi.';
33     }
34   }
35 }
```

```
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
63                     RegisterPage()),
64                 );
65               },
66               child: const Text('Buat Akun'),
67             ),
68             const SizedBox(height: 20),
69             Text(_message, style: const TextStyle(color: Colors.red)),
70           ],
71         ),
72       ),
73     );
74 }
```

2.5 OUTPUT

3 estehajib

3.1 lib/blank_screen.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

```
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/splash_screen.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     });
19   }
20   @override
21   void initState() {
22     super.initState();
23     startSplashScreen();
24   }
25 }
```

```
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 }
```

3.4 OUTPUT

4 flutter_shared_preferences

4.1 lib/main.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 OUTPUT

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
24         // is not restarted.
25         primarySwatch: Colors.blue,
```

```
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() =>
36     _BookPageState();
37 }
38
39 class _BookPageState extends State<BookPage> {
40   @override
41   Widget build(BuildContext context) {
42     return Scaffold(
43       appBar: AppBar(
44         title: const Text('Halaman Buku'),
45       ),
46       body: FutureBuilder<List<BookModel>>(
47         future: BookServices.getBooksFromJSON(),
48         builder: (context, snapshot) {
49           if (snapshot.connectionState == ConnectionState.done) {
50             return ListView.builder(
51               itemCount: snapshot.data!.length,
52               itemBuilder: (context, index) {
53                 final book = snapshot.data![index];
54                 return ListTile(
55                   title: Text(book.judul),
56                   subtitle: Text(
57                     'Jumlah halaman : ${book.halaman}',
58                   ),
59                   trailing: book.isBestSeller
60                     ? Chip(
61                       label: Text(
62                         'Best Seller',
63                         style: Theme.of(context)
64                           .textTheme
65                           .labelLarge!
66                           .copyWith(
67                             color: Colors.white,
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

```
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'))  
11                 as List;  
12                 return result.map((book) => BookModel.fromJSON(book)).toList();  
13             } catch (e) {  
14                 throw Exception(e);  
15             }  
16         }
```

5.4 OUTPUT