

MPL EXPERIMENT : 2
D15A-30
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Login_page UI:

Theory:

The page has a minimalistic and clean design, focusing on user experience.

Uses consistent theming with teal and white colors.

Easy navigation is implemented using `Navigator.pushNamed()`.

The shopping cart icon and "Buy or Sell" text immediately communicate the app's purpose.

The full-width login button ensures accessibility and ease of use.

Widgets Used in the Login Page:

Widget & properties

Scaffold

The Scaffold widget provides the basic layout structure of the screen, including background color, body, and overall design.

Padding

The Padding widget is used to ensure that the content inside the screen doesn't stick to the edges and maintains a visually appealing layout.

`padding: EdgeInsets.symmetric(horizontal: 24.0)`: This ensures uniform horizontal spacing on both sides.

Column

The Column widget is used to arrange UI elements vertically.

It has properties:

`mainAxisAlignment: MainAxisAlignment.center` → Centers all child widgets in the middle of the screen.

`crossAxisAlignment: CrossAxisAlignment.center` → Aligns the content to the center horizontally.
Icon

`Icon(Icons.shopping_cart, size: 100.0, color: Colors.white)`

This displays a shopping cart icon at the top of the page, representing an e-commerce or marketplace app.

SizedBox

Used to create spacing between widgets.

SizedBox(height: 20) → Adds space between the icon and text.
SizedBox(height: 40) → Adds space between the text and the button.
Text

Text('Buy or Sell') → Displays a heading in bold with a larger font.

TextStyle properties:

color: Colors.white → Makes the text color white.
fontSize: 32.0 → Sets the font size to 32 for emphasis.
fontWeight: FontWeight.bold → Makes the text bold.

ElevatedButton

This is the primary login button that allows users to navigate to the Sign-In page.
onPressed: Defines what happens when the button is clicked (it navigates to the SignInPage).
Navigator.pushNamed(context, '/signin', arguments: 'abc@gmail.com'); → Sends the user to the Sign-In page while passing an email argument.
Button Styling (using ElevatedButton.styleFrom):
backgroundColor: Colors.white → Button background is white.
foregroundColor: Colors.teal → Button text is teal.
minimumSize: Size(double.infinity, 50) → Button stretches across the screen with a height of 50px.
shape: RoundedRectangleBorder(borderRadius: BorderRadius.circular(8.0)) → Rounds the button corners for a modern look.

CODE:

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

class LoginPage extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: Colors.teal, // Green background
      body: Padding(
        padding: const EdgeInsets.symmetric(horizontal: 24.0),
        child: Column(
          mainAxisAlignment: MainAxisAlignment.center,
          crossAxisAlignment: CrossAxisAlignment.center,
          children: [
            Icon(
              Icons.shopping_cart,
              size: 100.0,
              color: Colors.white,
            ),
          ],
        ),
      ),
    );
  }
}
```

```

    SizedBox(height: 20),
    Text(
      'Buy or Sell',
      style: TextStyle(
        color: Colors.white,
        fontSize: 32.0,
        fontWeight: FontWeight.bold,
      ),
    ),
    SizedBox(height: 40),
    ElevatedButton(
      onPressed: () {
        // Navigate to SignInPage with the email argument
        Navigator.pushNamed(
          context,
          '/signin',
          arguments: 'abc@gmail.com',
        );
      },
      style: ElevatedButton.styleFrom(
        backgroundColor: Colors.white,
        foregroundColor: Colors.teal,
        minimumSize: Size(double.infinity, 50), // Full width button
        shape: RoundedRectangleBorder(
          borderRadius: BorderRadius.circular(8.0),
        ),
      ),
      child: Text(
        "Login with Email",
        style: TextStyle(fontSize: 16.0, fontWeight: FontWeight.bold),
      ),
    ),
  ],
),
);
}
}

```

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Buy or Sell

Login with Email



Signin_page UI:

Theory:

1. Scaffold

- The Scaffold widget is the root structure of the page, providing the AppBar and body content.

2. AppBar

- Title: Displays "Sign In", helping users understand the current screen.
- Background Color: Colors.teal, maintaining a consistent theme.
- Leading Button:
 - IconButton(icon: Icon(Icons.arrow_back), onPressed: () { Navigator.pop(context); })
 - Allows users to go back to the previous page (LoginPage).

3. Padding

- The entire page content is wrapped in a Padding widget with EdgeInsets.all(16.0), ensuring proper spacing around elements.

4. Column

- Used for vertical alignment of elements (email field, password field, and button).
- mainAxisAlignment: MainAxisAlignment.center → Ensures content stays centered on the page.

5. TextField (Email Input Field)

- controller: emailController → Captures user input for email.
- labelText: 'Email' → Adds a label inside the input box.
- Styling:
 - labelStyle: TextStyle(color: Colors.teal): The label is in teal.
 - border: OutlineInputBorder(): Adds a border around the input box.
 - enabledBorder: OutlineInputBorder(borderSide: BorderSide(color: Colors.teal)): Ensures a teal border when inactive.
 - focusedBorder: OutlineInputBorder(borderSide: BorderSide(color: Colors.teal, width: 2.0)): Thicker teal border when focused.

6. SizedBox (Spacing)

- SizedBox(height: 20): Creates spacing between elements (email, password, and button).

7. TextField (Password Input Field)

- controller: passwordController → Captures user input for password.
- obscureText: true → Hides the password for security.
- Styled similarly to the email input field.

8. ElevatedButton (Sign-In Button)

- onPressed: Defines the authentication logic.
 - If credentials are correct (abc@gmail.com and 123), the user is redirected to the HomePage (Navigator.pushReplacementNamed(context, '/home');).
 - If credentials are incorrect, an error message appears using ScaffoldMessenger.of(context).showSnackBar().
- Button Styling (ElevatedButton.styleFrom):
 - backgroundColor: Colors.teal: Button color is teal.
 - foregroundColor: Colors.white: Text color is white.
 - minimumSize: Size(double.infinity, 50): Full-width button for better usability.
 - borderRadius: BorderRadius.circular(8.0): Rounded corners for a modern look.

Code:

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

class SignInPage extends StatelessWidget {
  final TextEditingController emailController = TextEditingController();
  final TextEditingController passwordController = TextEditingController();

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: Text("Sign In"),
        backgroundColor: Colors.teal, // Green theme
        leading: IconButton(
          icon: Icon(Icons.arrow_back),
          onPressed: () {
            Navigator.pop(context); // Go back to LoginPage
          },
        ),
      ),
      body: Padding(
        padding: const EdgeInsets.all(16.0),
        child: Column(
          mainAxisAlignment: MainAxisAlignment.center,
          children: [
```

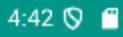
[illegible]

```

        content: Text('Invalid email or password'),
        backgroundColor: Colors.red,
      ),
    );
  }
},
style: ElevatedButton.styleFrom(
  backgroundColor: Colors.teal,
  foregroundColor: Colors.white,
  minimumSize: Size(double.infinity, 50), // Full width button
  shape: RoundedRectangleBorder(
    borderRadius: BorderRadius.circular(8.0),
  ),
),
child: Text(
  "Sign In",
  style: TextStyle(fontSize: 16.0, fontWeight: FontWeight.bold),
),
),
],
),
),
);
}
}

```


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DEBUG



Sign In



Email

abc@gmail.com

Password

...

Sign In