Assignment: Login Page using Flutter Widgets

This document explains the different Flutter widgets used to create a Login/Signup page. The widgets include Scaffold, Container, Column, Row, Text, and Icon. Additional supporting widgets like TextField and GestureDetector are also used. Screenshots of the output and a GitHub link to the source code are provided at the end.

# 1. Scaffold Widget

Code Example:

Scaffold(  
 backgroundColor: Colors.grey[100],  
 appBar: AppBar(...),  
 body: Center(...),  
)

Explanation:

* • Used as the main structural element
* • Provides basic app structure with AppBar and body
* • Implements the basic material design layout
* • Used in both screens to maintain consistency

# 2. Container Widget

Code Example:

Container(  
 padding: const EdgeInsets.all(20),  
 margin: const EdgeInsets.all(20),  
 decoration: BoxDecoration(  
 color: Colors.white,  
 borderRadius: BorderRadius.circular(12),  
 boxShadow: [...]  
 ),  
 child: Column(...),  
)

Explanation:

* • Acts as a wrapper for other widgets
* • Provides padding, margins, and decoration
* • Used to create the card-like appearance
* • Adds visual appeal with shadows and rounded corners

# 3. Column Widget

Code Example:

Column(  
 mainAxisSize: MainAxisSize.min,  
 children: [  
 // Title  
 // Email Field  
 // Password Field  
 // Buttons  
 ],  
)

Explanation:

* • Arranges widgets vertically
* • Used as main layout structure
* • mainAxisSize.min makes it take minimum required space
* • Organizes form elements in a vertical layout

# 4. Row Widget

Code Example:

Row(  
 mainAxisAlignment: MainAxisAlignment.center,  
 children: const [  
 Text("Don't have an account? "),  
 Text("Sign Up", ...),  
 ],  
)

Explanation:

* • Arranges widgets horizontally
* • Used for the signup/login prompt at bottom
* • Centers the text elements horizontally
* • Combines regular and styled text

# 5. Text Widget

Code Example:

Text(  
 "Welcome Back!",  
 style: TextStyle(  
 fontSize: 22,  
 fontWeight: FontWeight.bold  
 ),  
)

Explanation:

* • Displays text content
* • Used for titles, labels, and links
* • Customizable with different styles
* • Different variations used for different purposes

# 6. Icon Widget

Code Example:

Icon(  
 Icons.email,  
 color: Colors.blue  
)

Explanation:

* • Displays material design icons
* • Used in text fields as prefixIcons
* • Enhances visual understanding
* • Provides better user experience

# Additional Important Widgets Used

## TextField

TextField(  
 controller: emailController,  
 decoration: InputDecoration(  
 prefixIcon: Icon(...),  
 hintText: "Email Address",  
 border: OutlineInputBorder(...),  
 ),  
)

Explanation:

* • Handles user input
* • Used for email and password fields
* • Includes decorative elements
* • Controllers manage text input

## GestureDetector

GestureDetector(  
 onTap: () {  
 // Handle tap events  
 },  
 child: Container(...),  
)

Explanation:

* • Handles user interactions
* • Used for buttons and links
* • Makes widgets interactive
* • Provides tap functionality

# GitHub Link and Screenshots

GitHub Repository: [Add your GitHub link here]

Screenshots of the output are attached below:

[Insert your screenshots of Login and Signup pages here]