Experiment 2

Aim: To design Flutter UI by including common widgets.

Theory:
Common Widgets in Flutter:

Flutter provides a wide range of widgets that developers can use to build rich and interactive user interfaces. These widgets serve various purposes, from displaying text and images to handling user input and managing layouts. Here's a brief theory on some of the most commonly used widgets in Flutter:

1. Text Widgets:

a. Text: Displays a string of text with customizable styles such as font size, color, and
alignment.

b. RichText: Allows for more complex text formatting, including inline styles and multiple text spans.

2. Input Widgets:

a. TextField: Allows users to input text with options for customization and validation.

b. TextFormField: A specialized version of TextField that integrates with forms and
provides validation and error handling.

3. Button Widgets:

a. ElevatedButton: Represents a button with a raised appearance, typically used for primary
actions.

b. TextButton: Represents a button with text only, suitable for secondary actions.

c. IconButton: Represents a button with an icon, often used for actions like navigation or settings.

d. FloatingActionButton: Represents a circular button, commonly used for prominent
Actions.

4. Selection Widgets:

a. Checkbox: Represents a checkbox that allows users to toggle a binary state.

b. Radio: Represents a radio button that allows users to select one option from

multiple
choices.

c. Switch: Represents an on/off switch toggle.

d. Slider: Represents a slider control for selecting a value from a range.

5. Layout Widgets:

a. Row: Arranges children widgets horizontally in a row.

b. Column: Arranges children widgets vertically in a column.

c. Stack: Overlays widgets on top of each other, allowing for complex UI compositions.

d. Container: A versatile widget that allows customization of its child's position, size, and appearance.

6. Scrolling Widgets:

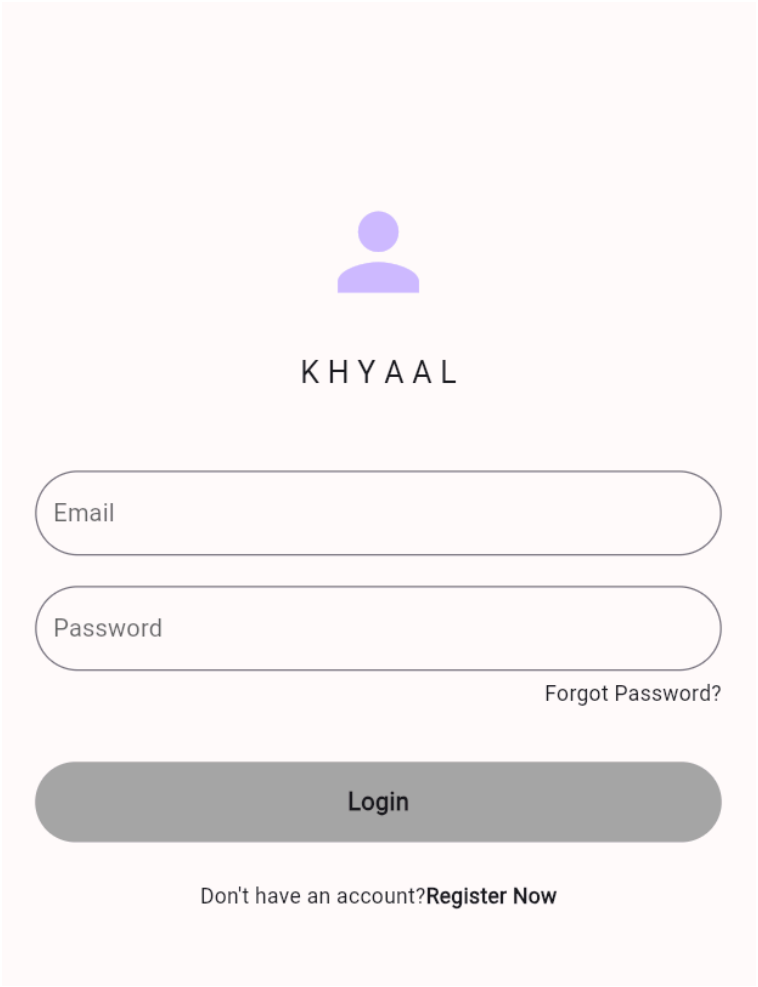
a. ListView: Displays a scrollable list of widgets, either vertically or horizontally.

b. GridView: Displays a grid of widgets in rows and columns, with options for scrolling and item customization.

```
Widget build(BuildContext context) {
   return Scaffold(
     backgroundColor: Theme.of(context).colorScheme.background,
     body: Center(
         child: Padding(
       padding: const EdgeInsets.all(25.0),
       child: Column(
         mainAxisAlignment: MainAxisAlignment.center,
         children: [
           Icon(
             Icons.person,
             size: 80,
             color: Theme.of(context).colorScheme.inversePrimary,
           ),
           const SizedBox(height: 25),

           const Text("K H Y A A L", style: TextStyle(fontSize: 20)),

           const SizedBox(height: 50),
           //email
           MyTextField(
             hintText: "Email",
```

```
    obscureText: false,
    controller: emailController,
  ),

  const SizedBox(height: 20),
  //password
  MyTextField(
    hintText: "Password",
    obscureText: true,
    controller: passwordController,
  ),

  const SizedBox(height: 5),

  //forgetpass
  const Row(
    mainAxisAlignment: MainAxisAlignment.end,
    children: [
      Text(
        "Forgot Password?",
      ),
    ],
  ),
  const SizedBox(height: 35),
  //signin Button

  MyButton(
    text: "Login",
    onTap: login,
  ),
  const SizedBox(height: 25),

  //dont have an account?Register here

  Row(
```

```
              mainAxisAlignment: MainAxisAlignment.center,
              children: [
                const Text(
                  "Don't have an account?",
                  style: TextStyle(fontStyle: FontStyle.normal),
                ),
                GestureDetector(
                  onTap: widget.onTap,
                  child: const Text(
                    "Register Now",
                    style: TextStyle(fontWeight: FontWeight.bold),
                  ),
                ),
              ],
            ),
          ],
        ),
      )),
    );
  }
}
```



Conclusion:Created working Login page for my Flutter Application using different wedges.