

# EXPERIMENT NO: - 04

**Aim:** To create an interactive Form using form widget.

## Theory

### Forms in Flutter

Forms in Flutter are essential components used to collect and manage user input efficiently. They are widely used in login screens, registration pages, and feedback forms. Flutter provides a Form widget that works alongside TextFormField and other input elements, offering features such as validation, error handling, and state management to improve user experience.

### Key Components of a Form in Flutter

#### 1. Form Widget

The Form widget acts as a container that groups multiple input fields and manages their validation.

- Requires a GlobalKey<FormState> to uniquely identify the form and interact with it.
- Helps in structuring form fields and handling user input efficiently.

#### 2. Form Fields (TextFormField)

The TextFormField widget is used for user input, such as entering names, emails, or phone numbers.

- It supports input validation using the validator property.
- Allows customization with InputDecoration (e.g., labels, icons, borders, hint text).
- Different TextInputType options can be set for appropriate keyboard input (e.g., TextInputType.emailAddress for emails).

#### 3. Validation in Forms

Ensuring valid user input is crucial. The validator property in TextFormField helps check whether the entered data meets specified criteria before submission.

- Validation can be triggered manually using formKey.currentState!.validate().
- The autovalidateMode property can enable automatic validation during user input.

#### 4. State Management in Forms

To ensure data persistence and processing, proper state management is required.

- The FormState class provides methods like validate(), save(), and reset() to manage form behavior.
- The save() method stores user input when validation is successful.
- The reset() method clears the form fields and restores the initial state.

## 5.Submit Button

A submit button is necessary to trigger form validation and submit user data.

- When pressed, it checks validation using `formKey.currentState!.validate()`.
- If validation succeeds, the form data is saved and processed accordingly.

## Important Properties & Methods of Form Widget

### Properties

- `key` → A `GlobalKey<FormState>` that uniquely identifies the form.
- `child` → Contains form fields, typically wrapped in a `Column` or `ListView`.
- `autovalidateMode` → Defines when the form should auto-validate.

### Methods

- `validate()` → Checks if all form fields are valid and returns true or false.
- `save()` → Stores the current values of form fields after successful validation.
- `reset()` → Clears user input and resets the form to its initial state.
- `currentState` → Provides access to the form's state for validation, saving, or resetting.

**Code:****1. Sign\_in\_page.dart**

```

import 'package:flutter/material.dart';

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

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

class _SignInPageState extends
State<SignInPage> {
  bool _obscurePassword = true;

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      body: SingleChildScrollView(
        child: Padding(
          padding: const
EdgeInsets.symmetric(horizontal: 24.0,
vertical: 50),
          child: Column(
            crossAxisAlignment:
CrossAxisAlignment.center,
            children: [
              SizedBox(height: 100),

              // LinkedIn Logo
              Row(
                mainAxisAlignment:
MainAxisAlignment.center,
                children: [
                  Text(
                    "Linked",
                    style: TextStyle(fontSize: 32,
fontWeight: FontWeight.bold, color:
Colors.blue),
                  ),
                  Container(
                    color: Colors.blue,
                    padding:
EdgeInsets.symmetric(horizontal: 4, vertical:
2),
                    child: Text(
                      "in",
                      style: TextStyle(fontSize: 32,
fontWeight: FontWeight.bold, color:
Colors.white),
                    ),
                  ),
                ],
              ),

              SizedBox(height: 50),

              Text(
                "Sign in",
                style: TextStyle(fontSize: 24,
fontWeight: FontWeight.bold),
              ),

              SizedBox(height: 40),

              TextField(
                decoration: InputDecoration(
                  labelText: "Email",
                  prefixIcon: Icon(Icons.email,
color: Colors.blue),
                  border:
OutlineInputBorder(borderRadius:
BorderRadius.circular(10)),
                ),
                SizedBox(height: 15),

                TextField(
                  obscureText: _obscurePassword,
                  decoration: InputDecoration(
                    labelText: "Password",
                    prefixIcon: Icon(Icons.lock, color:
Colors.blue),
                    suffixIcon: IconButton(
                      icon: Icon(
                        _obscurePassword ?
Icons.visibility_off : Icons.visibility,
                        color: Colors.grey,
                      ),
                      onPressed: () {
                        setState(() {
                          _obscurePassword =
!_obscurePassword;
                        });
                      },
                    ),
                    border:
OutlineInputBorder(borderRadius:
BorderRadius.circular(10)),
                  ),
                  SizedBox(height: 10),

```

```

Align(
  alignment: Alignment.centerRight,
  child: InkWell(
    onTap: () {},
    child: Text(
      "Forgot password?",
      style: TextStyle(color:
Colors.blue, fontSize: 14),
    ),
  ),
),

  SizedBox(height: 25),

  SizedBox(
    width: double.infinity,
    height: 50,
    child: ElevatedButton(
      style: ElevatedButton.styleFrom(
        backgroundColor: Colors.blue,
        shape:
RoundedRectangleBorder(borderRadius:
BorderRadius.circular(8)),
      ),
      onPressed: () {

Navigator.of(context).pushReplacementNam
ed('/home');
      },
      child: Text("Sign in", style:
TextStyle(fontSize: 18, color: Colors.white)),
    ),
  ),
),

  SizedBox(height: 20),

  Row(
    children: [
      Expanded(child:

```

```

Divider(thickness: 1)),
      Padding(
        padding:
EdgeInsets.symmetric(horizontal: 10),
        child: Text("or", style:
TextStyle(fontSize: 16, color: Colors.grey)),
      ),
      Expanded(child:
Divider(thickness: 1)),
    ],
  ),

  SizedBox(height: 20),

  Row(
    mainAxisAlignment:
MainAxisAlignment.center,
    children: [
      Text("Not yet Signed in?", style:
TextStyle(fontSize: 16, color: Colors.grey)),
      SizedBox(width: 5),
      InkWell(
        onTap: () {

Navigator.of(context).pushNamed('/signup');
        },
        child: Text("Join LinkedIn",
style: TextStyle(fontSize: 16, color:
Colors.blue, fontWeight: FontWeight.bold)),
      ),
    ],
  ),
),
],
),
),
),
),
);
}
}

```

## 2. Sign\_up\_page.dart

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

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

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

class _SignUpPageState extends
  State<SignUpPage> {
  bool _obscurePassword = true;

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      body: SingleChildScrollView(
        child: Padding(
          padding: const
            EdgeInsets.symmetric(horizontal: 24.0,
              vertical: 50),
          child: Column(
            crossAxisAlignment:
              CrossAxisAlignment.center,
            children: [
              SizedBox(height: 100),

              // LinkedIn Logo
              Row(
                mainAxisAlignment:
                  MainAxisAlignment.center,
                children: [
                  Text(
                    "Linked",
                    style: TextStyle(fontSize: 32,
                      fontWeight: FontWeight.bold, color:
                        Colors.blue),
                  ),
                  Container(
                    color: Colors.blue,
                    padding:
                      EdgeInsets.symmetric(horizontal: 4, vertical:
                        2),
                    child: Text(
                      "in",
                      style: TextStyle(fontSize: 32,
                        fontWeight: FontWeight.bold, color:
                          Colors.white),
                    ),
                  ),
                ],
              ),
            ],
          ),
        ),
      ),
    );
  }
}
```

```
SizedBox(height: 50),

    Text(
      "Sign Up",
      style: TextStyle(fontSize: 24,
        fontWeight: FontWeight.bold),
    ),

    SizedBox(height: 40),

    TextField(
      decoration: InputDecoration(
        labelText: "Full Name",
        prefixIcon: Icon(Icons.person,
          color: Colors.blue),
        border:
          OutlineInputBorder(borderRadius:
            BorderRadius.circular(10)),
      ),
    ),

    SizedBox(height: 15),

    TextField(
      decoration: InputDecoration(
        labelText: "Email",
        prefixIcon: Icon(Icons.email, color:
          Colors.blue),
        border:
          OutlineInputBorder(borderRadius:
            BorderRadius.circular(10)),
      ),
    ),

    SizedBox(height: 15),

    TextField(
      obscureText: _obscurePassword,
      decoration: InputDecoration(
        labelText: "Password",
        prefixIcon: Icon(Icons.lock, color:
          Colors.blue),
        suffixIcon: IconButton(
          icon: Icon(
            _obscurePassword ?
              Icons.visibility_off : Icons.visibility,
            color: Colors.grey,
          ),
          onPressed: () {
            setState(() {
              _obscurePassword =
                !_obscurePassword;
            });
          },
        ),
        border:

```

```

OutlineInputBorder(borderRadius:
BorderRadius.circular(10)),
),
),

    SizedBox(height: 25),

    SizedBox(
      width: double.infinity,
      height: 50,
      child: ElevatedButton(
        style: ElevatedButton.styleFrom(
          backgroundColor: Colors.blue,
          shape:
RoundedRectangleBorder(borderRadius:
BorderRadius.circular(8)),
        ),
        onPressed: () {
          .
          grey)),
          SizedBox(width: 5),
          InkWell(
            onTap: () {
              Navigator.of(context).pushNamed('/');
            },
            child: Text("Sign In", style:
TextStyle(fontSize: 16, color: Colors.blue,
fontWeight: FontWeight.bold)),

```


```

Navigator.of(context).pushReplacementNam
ed('/home');
      },
      child: Text("Sign Up", style:
TextStyle(fontSize: 18, color: Colors.white)),
    ),
    ),
    SizedBox(height: 20),


    Row(
      mainAxisAlignment:
MainAxisAlignment.center,
      children: [
        Text("Already have an account?",
style: TextStyle(fontSize: 16, color: Colors
      ),
    ],
  ),
),
),
),
),
);
}
}


```


**Output:**



**Sign in**

 Email

 Password




[Forgot password?](#)

**Sign in**


or


Not yet Signed in? [Join LinkedIn](#)


SignIn page




**Sign Up**

 Full Name

 Email

 Password



**Sign Up**

Already have an account? [Sign In](#)

SignUp page