

EXPERIMENT NO: - 04

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AIM: - To create an interactive Form using form widget.

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 **TextField** 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 (TextField)

The **TextField** 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 **TextField** 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:-

Sign_in_page.dart

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

class SignInPage extends StatefulWidget {
  @override
  _SignInPageState createState() =>
  _SignInPageState();
}

class _SignInPageState extends
State<SignInPage> {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      body: Container(
        padding: EdgeInsets.symmetric(horizontal:
15, vertical: 15),
        child: Column(
          children: [
            _headerWidget(),
            SizedBox(
              height: 10,
            ),
            _formWidget(),
          ],
        ),
      );
    }
}

Widget _headerWidget() {
  return Row(
    children: [
      InkWell(
        onTap: () {
          Navigator.pop(context);
        },
        child: Icon(Icons.arrow_back),
      ),
      SizedBox(
        width: 10,
      ),
      Container(
        height: 40,
        child: Image.asset('assets/logo.png'),
      )
    ],
  );
}

Widget _formWidget() {
  return Expanded(
    child: Column(
      mainAxisAlignment:
MainAxisAlignment.center,
      children: [
        Container(
          padding:
EdgeInsets.symmetric(horizontal: 8),
          decoration: BoxDecoration(
            color: Colors.grey[800],
            borderRadius: BorderRadius.all(
              Radius.circular(5),
            ),
          ),
          child: TextFormField(
            decoration: InputDecoration(
              labelStyle: TextStyle(
                fontSize: 14,
                color: Colors.white,
              ),
              border: InputBorder.none,
              labelText: "Email or phone
number"),
            ),
        ),
        SizedBox(
          height: 10,
        ),
        Container(
          padding:
EdgeInsets.symmetric(horizontal: 8),
          decoration: BoxDecoration(
            color: Colors.grey[800],
            borderRadius: BorderRadius.all(
              Radius.circular(5),
            ),
          ),
          child: TextFormField(

```

```
        obscureText: true,
        decoration: InputDecoration(
            ),
        );
    }
}

labelStyle: TextStyle(
    fontSize: 14,
    color: Colors.white,
),
border: InputBorder.none,
labelText: "Password"),
),
),
),
SizedBox(
height: 15,
),
Container(
alignment: Alignment.center,
padding: EdgeInsets.symmetric(vertical:
15),
width: double.infinity,
decoration: BoxDecoration(
color: Colors.transparent,
border: Border.all(color:
Colors.grey[600] ?? Colors.grey, width: 2),
),
child: Text("Sign In"),
),
SizedBox(
height: 15,
),
Text("Need Help?"),
SizedBox(
height: 15,
),
Text(
"New to Netflix? Sign up now.",
style: TextStyle(
fontWeight: FontWeight.bold,
),
),
SizedBox(
height: 20,
),
Text(
"Sign-in is protected by Google
reCAPTCHA to ensure you're not a bot. Learn
more.",
style: TextStyle(fontSize: 12,),
textAlign: TextAlign.center,
)
```

),

Sign_up_page.dart

```
import 'package:flutter/material.dart';
import 'package:flutter/rendering.dart';
import
'package:movflix/widgets/header_widget.dart';

class SignUpPage extends StatefulWidget {
  @override
  _SignUpPageState createState() =>
  _SignUpPageState();
}

class _SignUpPageState extends
State<SignUpPage> {
  bool _isCheck=false;
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      body: Container(
        margin: EdgeInsets.symmetric(horizontal:
15, vertical: 10),
        child: Column(
          children: [
            HeaderWidget(),
            _formWidget(),
          ],
        ),
      );
    );
  }

  Widget _formWidget() {
    return Expanded(
      child: Column(
        crossAxisAlignment:
CrossAxisAlignment.start,
        children: [
          Text(
            "STEP 2 OF 3",
            style: TextStyle(
              fontSize: 14,
              color: Colors.grey[400],
            ),
          ),
          SizedBox(
            height: 19,
```

Text(

```
"Sign up to start your\nmembership.",  
style: TextStyle(  
  fontSize: 18,  
  fontWeight: FontWeight.bold,  
  color: Colors.white,  
,  
,  
SizedBox(  
  height: 10,  
,  
Text(  
  "Just Two more steps and you're  
finished!\nwe hate paperwork, too.",  
,  
SizedBox(  
  height: 10,  
,  
Text(  
  "Create your account",  
style: TextStyle(  
  fontSize: 18,  
  fontWeight: FontWeight.bold,  
,  
,  
SizedBox(  
  height: 10,  
,  
Container(  
  padding:  
EdgeInsets.symmetric(horizontal: 8),  
decoration: BoxDecoration(  
  color: Colors.grey[800],  
  borderRadius: BorderRadius.all(  
    Radius.circular(5),  
,  
,  
child: TextFormField(  
  decoration: InputDecoration(  
    labelText: "Email",  
    border: InputBorder.none,  
    labelStyle: TextStyle(  
      fontSize: 14,  
      color: Colors.white,  
,  
,  
),  
,
```

```
borderRadius:  
BorderRadius.all(Radius.circular(5))  
)  
],  
child: Text("Continue"),  
)  
],  
),  
);  
}  
}  
},  
),  
child: TextFormField(  
obscureText: true,  
decoration: InputDecoration(  
labelText: "Password",  
border: InputBorder.none,  
labelStyle: TextStyle(  
fontSize: 14,  
color: Colors.white,  
),  
),  
),  
),  
),  
SizedBox(height: 15,),  
Row(  
children: [  
Checkbox(  
value: _isCheck,  
onChanged: (value) {  
setState(() {  
_isCheck = value ?? false; // ✓  
Ensures non-null value  
});  
},  
),  
Text("Please do not email me Netflix  
special offers.")  
],  
),  
SizedBox(height: 15,),  
Container(  
width: double.maxFinite,  
alignment: Alignment.center,  
padding: EdgeInsets.symmetric(vertical:  
10),  
decoration: BoxDecoration(  
color: Colors.red
```

