Experiment No : 05

Aim : To create an interactive sign in Form using form widget.

Theory :

Form Widget :
In Flutter, a form widget is a special widget that allows you to collect user input and validate it. A form widget can contain multiple form fields, such as text input fields, checkboxes, radio buttons, and dropdown menus.

The Form widget provides several important features, including:

1. Validation: You can validate user input by defining validators for each form field. These validators can check if the input is valid, such as if the user entered a valid email address or if the input is required.
2. Saving Form Data: Once the user submits the form, the form widget will automatically collect all the data entered by the user and store it in a map.
3. Submitting Form Data: The Form widget also provides a built-in way to submit the form data to a server or other backend system.

TextFormField :

In Flutter, a TextFormField widget is a type of form field widget that allows users to enter text input. TextFormField is a stateful widget that provides built-in features like input validation, error messages, and text formatting options.

To use a TextFormField widget, you need to provide it with a TextEditingController and define a validator function. The controller is used to control the text input in the text field and the validator is used to validate the input.

Validation of form:
In Flutter, validation of a form refers to the process of checking user input to ensure that it meets certain requirements or constraints. For example, you might want to ensure that a user enters a valid email address, or that a required field is not left blank.

Code :

Main.dart

```
import 'package:flutter/material.dart';
import 'package:login_signup_page/login.dart';
import 'package:login_signup_page/register.dart';


void main() {
  runApp(MaterialApp(
        debugShowCheckedModeBanner: false,
        home: MyLogin(),
        routes: {
        'register': (context) => MyRegister(),


        'login': (context) => MyLogin(),



        },
  ));
}
```

Login.dart

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

class MyLogin extends StatefulWidget {
  const MyLogin({Key? key}) : super(key: key);

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

class _MyLoginState extends State<MyLogin> {
  @override
  Widget build(BuildContext context) {
        return Container(
        decoration: BoxDecoration(
        image: DecorationImage(
        image: AssetImage('assets/login.png'), fit: BoxFit.cover),
        ),
        child: Scaffold(
```

```dart
backgroundColor: Colors.transparent,
body: Stack(
children: [
Container(),
Container(
padding: EdgeInsets.only(left: 35, top: 130),
child: Text(
        'Welcome\nBack',
        style: TextStyle(color: Colors.white, fontSize: 33),
),
),
SingleChildScrollView(
child: Container(
        padding: EdgeInsets.only(
        top: MediaQuery.of(context).size.height * 0.5),
        child: Column(
        crossAxisAlignment: CrossAxisAlignment.start,
        children: [
        Container(
        margin: EdgeInsets.only(left: 35, right: 35),
        child: Column(
        children: [
                TextField(
                style: TextStyle(color: Colors.black),
                decoration: InputDecoration(
                fillColor: Colors.grey.shade100,
                filled: true,
                hintText: "Email",
                border: OutlineInputBorder(
                borderRadius: BorderRadius.circular(10),
                )),
                ),
                SizedBox(
                height: 30,
                ),
                TextField(
                style: TextStyle(),
                obscureText: true,
                decoration: InputDecoration(
                fillColor: Colors.grey.shade100,
                filled: true,
```

```dart
hintText: "Password",
border: OutlineInputBorder(
borderRadius: BorderRadius.circular(10),
)),
),
SizedBox(
height: 40,
),
Row(
mainAxisAlignment: MainAxisAlignment.spaceBetween,
children: [
Text(
'Sign in',
style: TextStyle(
fontSize: 27, fontWeight: FontWeight.w700),
),
CircleAvatar(
radius: 30,
backgroundColor: Color(0xff4c505b),
child: IconButton(
color: Colors.white,
onPressed: () {},
icon: Icon(
        Icons.arrow_forward,
)),
)
],
),
SizedBox(
height: 40,
),
Row(
mainAxisAlignment: MainAxisAlignment.spaceBetween,
children: [
TextButton(
onPressed: () {
Navigator.pushNamed(context, 'register');
},
child: Text(
'Sign Up',
textAlign: TextAlign.left,
```

```
                    style: TextStyle(
                            decoration: TextDecoration.underline,
                            color: Color(0xff4c505b),
                            fontSize: 18),
                    ),
                    style: ButtonStyle(),
                    ),
                    TextButton(
                    onPressed: () {},
                    child: Text(
                    'Forgot Password',
                    style: TextStyle(
                            decoration: TextDecoration.underline,
                            color: Color(0xff4c505b),
                            fontSize: 18,
                    ),
                    )),
                    ],
                    )
                ],
                ),
                )
                ],
                ),
        ),
        ),
        ],
        ),
        ),
        );
  }
}


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

class MyRegister extends StatefulWidget {
  const MyRegister({Key? key}) : super(key: key);

  @override
  _MyRegisterState createState() => _MyRegisterState();
```

```dart
}

class _MyRegisterState extends State<MyRegister> {
  @override
  Widget build(BuildContext context) {
    return Container(
    decoration: BoxDecoration(
    image: DecorationImage(
    image: AssetImage('assets/register.png'), fit: BoxFit.cover),
    ),
    child: Scaffold(
    backgroundColor: Colors.transparent,
    appBar: AppBar(
    backgroundColor: Colors.transparent,
    elevation: 0,
    ),
    body: Stack(
    children: [
    Container(
    padding: EdgeInsets.only(left: 35, top: 30),
    child: Text(
        'Create\nAccount',
        style: TextStyle(color: Colors.white, fontSize: 33),
    ),
    ),
    SingleChildScrollView(
    child: Container(
        padding: EdgeInsets.only(
        top: MediaQuery.of(context).size.height * 0.28),
        child: Column(
        crossAxisAlignment: CrossAxisAlignment.start,
        children: [
        Container(
        margin: EdgeInsets.only(left: 35, right: 35),
        child: Column(
        children: [
            TextField(
            style: TextStyle(color: Colors.white),
            decoration: InputDecoration(
            enabledBorder: OutlineInputBorder(
            borderRadius: BorderRadius.circular(10),
```

```
              borderSide: BorderSide(
              color: Colors.white,
              ),
              ),
              focusedBorder: OutlineInputBorder(
              borderRadius: BorderRadius.circular(10),
              borderSide: BorderSide(
              color: Colors.black,
              ),
              ),
              hintText: "Name",
              hintStyle: TextStyle(color: Colors.white),
              border: OutlineInputBorder(
              borderRadius: BorderRadius.circular(10),
              )),
              ),
              SizedBox(
              height: 30,
              ),
              TextField(
              style: TextStyle(color: Colors.white),
              decoration: InputDecoration(
              enabledBorder: OutlineInputBorder(
              borderRadius: BorderRadius.circular(10),
              borderSide: BorderSide(
              color: Colors.white,
              ),
              ),
              focusedBorder: OutlineInputBorder(
              borderRadius: BorderRadius.circular(10),
              borderSide: BorderSide(
              color: Colors.black,
              ),
              ),
              hintText: "Email",
              hintStyle: TextStyle(color: Colors.white),
              border: OutlineInputBorder(
              borderRadius: BorderRadius.circular(10),
              )),
              ),
              SizedBox(
```

```dart
height: 30,
),
TextField(
style: TextStyle(color: Colors.white),
obscureText: true,
decoration: InputDecoration(
enabledBorder: OutlineInputBorder(
borderRadius: BorderRadius.circular(10),
borderSide: BorderSide(
color: Colors.white,
),
),
focusedBorder: OutlineInputBorder(
borderRadius: BorderRadius.circular(10),
borderSide: BorderSide(
color: Colors.black,
),
),
hintText: "Password",
hintStyle: TextStyle(color: Colors.white),
border: OutlineInputBorder(
borderRadius: BorderRadius.circular(10),
)),
),
SizedBox(
height: 40,
),
Row(
mainAxisAlignment: MainAxisAlignment.spaceBetween,
children: [
Text(
'Sign Up',
style: TextStyle(
color: Colors.white,
fontSize: 27,
fontWeight: FontWeight.w700),
),
CircleAvatar(
radius: 30,
backgroundColor: Color(0xff4c505b),
child: IconButton(
```
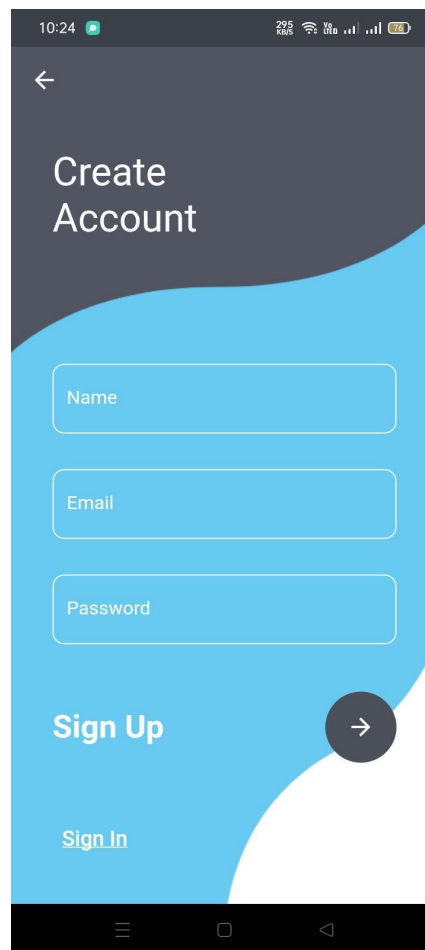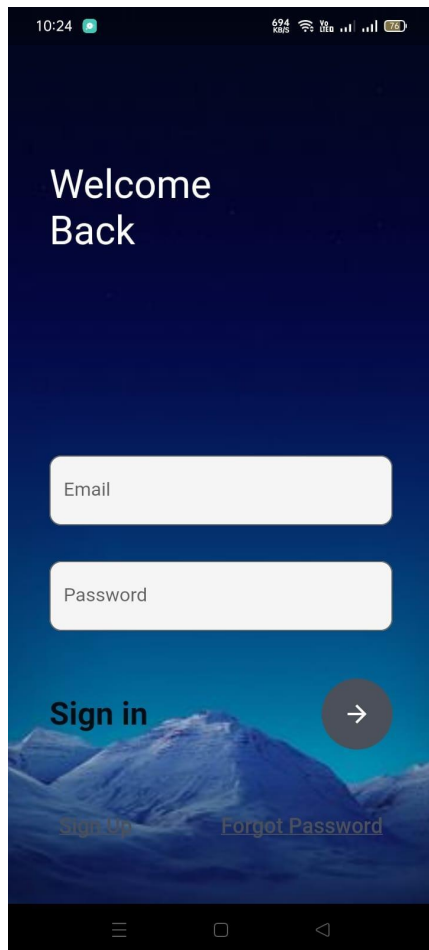
```dart
                color: Colors.white,
                onPressed: () {},
                icon: Icon(
                        Icons.arrow_forward,
                )),
            )
        ],
        ),
        SizedBox(
        height: 40,
        ),
        Row(
        mainAxisAlignment: MainAxisAlignment.spaceBetween,
        children: [
        TextButton(
        onPressed: () {
        Navigator.pushNamed(context, 'login');
        },
        child: Text(
        'Sign In',
        textAlign: TextAlign.left,
        style: TextStyle(
                decoration: TextDecoration.underline,
                color: Colors.white,
                fontSize: 18),
        ),
        style: ButtonStyle(),
        ),
        ],
        )
    ],
    ),
    )
    ],
    ),
),
),
],
),
),
),
);
```

```
  }
}
```

Output :

Conclusion : Therefore we have successfully created an interactive sign in Form using form widget.