

Experiment 4

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Aim: To create an interactive form using the form widget

Theory:

1. Form Widget:

- The Form widget is a container used to group multiple form fields together.
- It helps manage the state of the form, including validation, submission, and resetting.
- The Form widget maintains a `FormState` object that holds the current state of the form fields.
- Form widgets facilitate form submission, validation, and error handling.

2. FormField Widget:

- A `FormField` widget represents a single form field within a `Form`.
- Flutter provides various subclasses of the `FormField` widget for different types of input fields, such as `TextFormField`, `CheckboxFormField`, `RadioFormField`, `DropdownButtonFormField`, etc.
- Each form field widget encapsulates the logic for validating user input and managing its state.
- Form fields can be customized with properties to specify validation rules, error messages, initial values, input formatting, and more.
- Form fields automatically register themselves with the `Form` widget and handle validation and state management transparently.

3. Validation:

- Flutter's form widgets include built-in support for validation to ensure that user input meets specific criteria.
- Form fields can be configured with validation functions or validators to check the correctness of user input.
- Validators can be synchronous or asynchronous functions that return error messages if the input is invalid.
- Flutter provides a `FormFieldState` class associated with each form field, which exposes methods to validate the field's value and retrieve validation errors if any.

4. Submission:

- The `Form` widget provides a mechanism to submit the form data once it's been filled out by the user.
- Developers can define an `onSaved` callback for each form field to specify how the field's value should be processed when the form is submitted.

- When the form is submitted, the onSaved callbacks for all form fields are invoked, allowing developers to collect, process, and submit the form data to a backend server or perform other actions.

signup_page.dart

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

class SignupPage extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      body: SingleChildScrollView( // Wrap with SingleChildScrollView
        child: Container(
          padding: EdgeInsets.symmetric(horizontal: 20.0, vertical: 100),
          decoration: BoxDecoration(
            gradient: LinearGradient(
              begin: Alignment.topLeft,
              end: Alignment.bottomRight,
              colors: [Colors.black12, Colors.white12],
            ),
          ),
        ),
        child: Center(
          child: Column(
            mainAxisAlignment: MainAxisAlignment.center,
            children: [
              Image.asset(
                'assets/dribbble_logo.png', // Replace with your image file path
                width: 150.0,
                height: 150.0,
              ),
              SizedBox(height: 16.0),
              RichText(
                text: TextSpan(
                  text: 'Welcome to ',
                  style: TextStyle(
                    color: Colors.black,
                    fontSize: 30.0,
                    fontWeight: FontWeight.bold,
                  ),
                ),
                children: [
                  TextSpan(
                    text: 'Dribbble',
                    style: TextStyle(

```

[illegible]

```

border: OutlineInputBorder(
  borderRadius: BorderRadius.circular(12.0),
  borderSide: BorderSide.none,
),
),
style: TextStyle(color: Colors.black54),
),
SizedBox(height:
20.0), ElevatedButton(
onPressed: () {
  // Add your login logic here
},
child: Text(
  'Continue',
  style: TextStyle(
    color: Colors.white,
    fontSize: 18,
  ),
),
),
style: ElevatedButton.styleFrom(
  backgroundColor: Colors.red,
  padding: EdgeInsets.symmetric(horizontal:
80.0), shape: RoundedRectangleBorder(
  borderRadius: BorderRadius.circular(20.0),
),
),
),
SizedBox(height: 16.0),

TextButton(
  onPressed: () {
    Navigator.push(
      context,
      MaterialPageRoute(builder: (context) => LoginPage()),
    );
  },
  child: RichText(
    text: TextSpan(
      text: 'Already have an account? ',
      style: TextStyle(color: Colors.black54, fontSize: 16),
      children: <TextSpan>[
        TextSpan(
          text: 'Login',
          style: TextStyle(color: Colors.red, fontSize: 16),
        ),
      ],
    ),
  ),

```

```

    ),
  ),
),
],
),
),
),
),
),
);
}
}

```

login_page.dart

```

import 'package:flutter/material.dart';
import 'package:dribbble/main_page.dart';
import './signup_page.dart';

```

```

class LoginPage extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      body: SingleChildScrollView( // Wrap with SingleChildScrollView
        child: Container(
          padding: EdgeInsets.symmetric(horizontal: 20.0, vertical: 150),
          decoration: BoxDecoration(
            gradient: LinearGradient(
              begin: Alignment.topLeft,
              end: Alignment.bottomRight,
              colors: [Colors.black12, Colors.white12],
            ),
          ),
        ),
        child: Center(
          child: Column(
            mainAxisAlignment: MainAxisAlignment.center,
            children: [
              Image.asset(
                'assets/dribbble_logo.png', // Replace with your image file path
                width: 150.0,
                height: 150.0,
              ),
              SizedBox(height:
                16.0), RichText(
                text: TextSpan(

```

```

      text: 'Welcome to ',
      style: TextStyle(
        color: Colors.black,
        fontSize: 30.0,
        fontWeight: FontWeight.bold,
      ),
      children: [
        TextSpan(
          text: 'Dribbble',
          style: TextStyle(
            color: Colors.red, // Change the color of "Dribbble" to red
            fontSize: 30.0,
            fontWeight: FontWeight.bold,
          ),
        ),
      ],
    ),
  ),
  SizedBox(height:
16.0), TextField(
    decoration: InputDecoration(
      prefixIcon: Icon(Icons.email, color: Colors.black54),
      hintText: 'Email',
      hintStyle: TextStyle(color: Colors.black54),
      filled: true,
      fillColor: Colors.white.withOpacity(0.8),
      border: OutlineInputBorder(
        borderRadius: BorderRadius.circular(12.0),
        borderSide: BorderSide.none,
      ),
    ),
    style: TextStyle(color: Colors.black54),
  ),
  SizedBox(height:
12.0), TextField(
    obscureText: true,
    decoration: InputDecoration(
      prefixIcon: Icon(Icons.lock, color: Colors.black54),
      hintText: 'Password',
      hintStyle: TextStyle(color: Colors.black54),
      filled: true,
      fillColor: Colors.white.withOpacity(0.8),
      border: OutlineInputBorder(
        borderRadius: BorderRadius.circular(12.0),
        borderSide: BorderSide.none,
      ),
    ),

```

```

    ),
    style: TextStyle(color: Colors.black54),
  ),
  SizedBox(height:
20.0), ElevatedButton(
onPressed: () {
  Navigator.push(
    context,
    MaterialPageRoute(builder: (context) => MainPage()),
  );
},
child: Text(
  'Continue',
  style: TextStyle(
    color: Colors.white,
    fontSize: 18,
  ),
),
),
style: ElevatedButton.styleFrom(
  backgroundColor: Colors.red,
  padding: EdgeInsets.symmetric(horizontal:
80.0), shape: RoundedRectangleBorder(
borderRadius: BorderRadius.circular(20.0),
),
),
),
SizedBox(height: 16.0),

SizedBox(height: 5.0),
TextButton(
onPressed: () {
  Navigator.push(
    context,
    MaterialPageRoute(builder: (context) => SignupPage()),
  );
},
child: RichText(
  text: TextSpan(
    text: 'Don\'t have an account? ',
    style: TextStyle(color: Colors.black54, fontSize: 16),
    children: <TextSpan>[
      TextSpan(
        text: 'Sign up',
        style: TextStyle(color: Colors.red, fontSize: 16),
      ),
    ],
  ),
),

```

```

    ),
  ),
),
],
),
),
),
),
);
}
}

```

Code:

```

import 'package:cached_network_image/cached_network_image.dart';
import 'package:faker/faker.dart';
import
'package:flutter/cupertino.dart';
import 'package:flutter/material.dart';
import 'package:font_awesome_flutter/font_awesome_flutter.dart';
import 'package:google_fonts/google_fonts.dart';

```

```

class DetailPage extends StatelessWidget {
  const DetailPage({super.key, required
  this.imageUrl}); final String imageUrl;

```

@override

```

Widget build(BuildContext context) {
  return Scaffold(
    body: Column(
      children: [
        Expanded(
          child: Container(
            decoration:
              BoxDecoration( image:
                DecorationImage(
                  image: CachedNetworkImageProvider(imageUrl),
                  fit: BoxFit.cover,
                ),
          ),
          child: SafeArea(
            child: Padding(
              padding: const EdgeInsets.symmetric(horizontal: 18),
              child: Column(
                mainAxisAlignment: MainAxisAlignment.spaceBetween,
                crossAxisAlignment: CrossAxisAlignment.end,

```



```

children: [
  Row(
    mainAxisAlignment: MainAxisAlignment.spaceBetween,
    children: [
      InkWell(
        onTap: () => Navigator.pop(context),
        child: CircleAvatar(
          backgroundColor:
            Colors.black.withOpacity(0.2), child: const Icon(
              CupertinoIcons.chevron_back,
              color: Colors.white,
              size: 28,
            ),
        ),
      ),
      InkWell(
        onTap: () {
          showModalBottomSheet
            ( context: context,
              builder: (context) {
                return SizedBox(
                  height: 330,
                  child: Padding(
                    padding: const EdgeInsets.symmetric(
                      horizontal: 12, vertical: 16),
                    child: Column(
                      crossAxisAlignment:
                        CrossAxisAlignment.start,
                      children: [
                        Row(
                          crossAxisAlignment:
                            CrossAxisAlignment.center,
                          children: [
                            const Icon(
                              FontAwesomeIcons.xmark),
                            const SizedBox(
                              width: 12,
                            ),
                            Text(
                              'Options',
                              style: GoogleFonts. notoSans(),
                            ),
                          ],
                        ),
                      ],
                    ),
                    const SizedBox(
                      height: 30,

```

```
),
Text(
  'Follow ${Faker().internet.userName()}',
  style: GoogleFonts.notoSans(
    fontSize: 18,
    fontWeight: FontWeight.w500,
  ),
),
const SizedBox(
  height: 15,
),
Text(
  'Copy link',
  style: GoogleFonts.notoSans(
    fontSize: 18,
    fontWeight: FontWeight.w500,
  ),
),
const SizedBox(
  height: 15,
),
Text(
  'Download image',
  style: GoogleFonts.notoSans(
    fontSize: 18,
    fontWeight: FontWeight.w500,
  ),
),
const SizedBox(
  height: 15,
),
Text(
  'Hide Pin',
  style: GoogleFonts.notoSans(
    fontSize: 18,
    fontWeight: FontWeight.w500,
  ),
),
const SizedBox(
  height: 15,
),
Text(
  'Report Pin',
  style: GoogleFonts.notoSans(
    fontSize: 18,
    fontWeight: FontWeight.w500,
```

```

    ),
  ),
  Text(
    "This goes against Dribbble's community guidelines",
    style: GoogleFonts.notoSans(
      fontSize: 14,
    ),
  ),
],
),
),
);
},
shape: RoundedRectangleBorder(
  borderRadius: BorderRadius.circular(20.0),
),
);
},
child: const Icon(
  CupertinoIcons.ellipsis,
  color: Colors.white,
  size: 28,
),
),
],
),
CircleAvatar(
  backgroundColor: Colors.white.withOpacity(0.8),
  child: const Icon(
    CupertinoIcons.viewfinder,
    color: Colors.black,
  ),
)
],
),
),
),
),
),
),
Container(
  padding: const EdgeInsets.only(
    top: 10,
    bottom: 30,
    left: 18,
    right: 18,
  ),
),

```

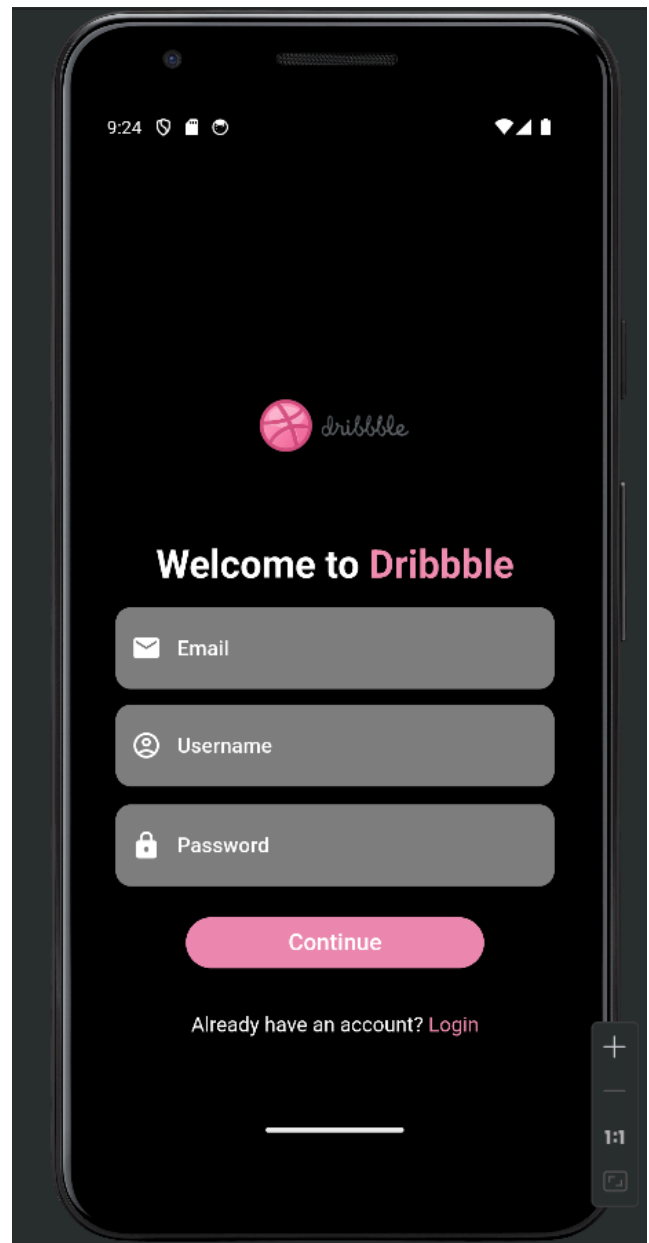
```

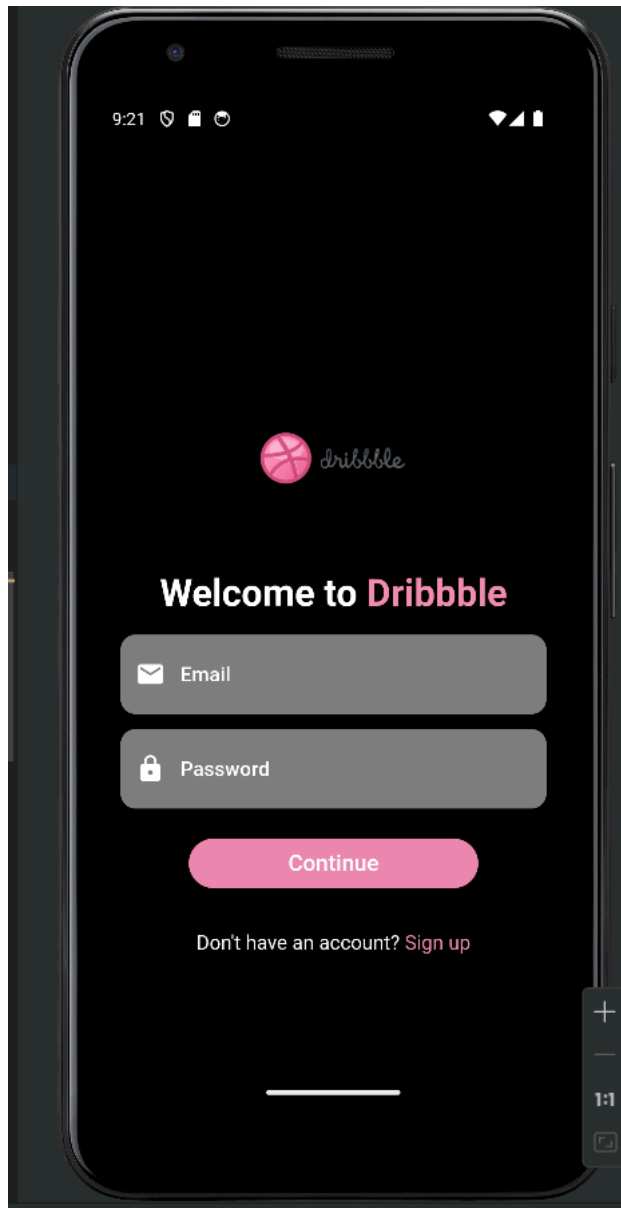
color: Colors.white,
child: Row(
  mainAxisAlignment: MainAxisAlignment.spaceBetween,
  children: [
    const Icon(CupertinoIcons.heart_circle_fill),
    Row(
      children: [
        Container(
          padding: const EdgeInsets.symmetric(
            horizontal: 17, vertical: 15),
          decoration: BoxDecoration(
            color: const Color(0xFFFF1F1F1),
            borderRadius: BorderRadius.circular(30),
          ),
          child: Text(
            'View',
            style: GoogleFonts.notoSans(
              fontWeight: FontWeight.w500,
            ),
          ),
        ),
        const SizedBox(
          width: 6,
        ),
        Container(
          padding: const EdgeInsets.symmetric(
            horizontal: 17, vertical: 15),
          decoration: BoxDecoration(
            color: Theme.of(context).colorScheme.secondary,
            borderRadius: BorderRadius.circular(30),
          ),
          child: Text(
            'Save',
            style: GoogleFonts.notoSans(
              fontWeight: FontWeight.w500,
              color: Colors.white,
            ),
          ),
        ),
      ],
    ),
    const Icon(Icons.share),
  ],
),
],

```

```
),  
);  
}  
}
```

App UI:





Signup page

Login page

Widgets used: Form Widget, Form
Widget Fields

Conclusion: Therefore understood the use of form widget in Flutter. Implemented signup and login page using form widget in my Flutter application.