

## Experiment No. 4

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

### **Theory:**

In Flutter, the Form widget plays a vital role in facilitating the creation of interactive user input forms. Acting as a container, it allows developers to group multiple form fields together, manage form state, perform validation, and handle data submission. When a form is submitted, the Form widget triggers a callback function called `onFormSubmitted`, enabling developers to process the submitted data accordingly.

`TextFormField` is a versatile widget commonly used within forms to capture textual input from users. It offers a range of options for text input, including validation, input formatting, and the ability to obscure text, such as for password fields. Developers can apply validators like `required`, `minLength`, `maxLength`, and `email` to ensure the validity of user input.

`DropdownButtonFormField`, another form field widget, presents users with a dropdown menu of items to choose from. It's particularly useful when users need to select from a predefined list of options. Developers can specify an initial value, define the items in the dropdown menu, and handle the user's selection using the `onChanged` callback.

For capturing boolean and single-choice input, Flutter provides `CheckboxListTile` and `RadioListTile` widgets. `CheckboxListTile` presents a checkbox that users can check or uncheck, while `RadioListTile` offers a group of radio buttons for selecting a single option among many.

Form validation is crucial to ensure that user input meets specific criteria before it's accepted as valid. In Flutter, developers implement form validation by providing a validator function for each form field. This function evaluates the current value of the field and returns an error message if the value fails to meet the criteria, enabling the form to display error messages and guide users in correcting their input.

After users have completed filling out the form, they typically submit it to perform an action, such as saving data or sending it to a server. Flutter developers handle form submission by providing an `onSubmit` callback function to the Form widget. This function is triggered when the form is submitted, allowing developers to access the current values of the form fields and proceed with the necessary actions, such as data processing or navigation.

### **Code:**

```
import 'package:flutter/material.dart';
import 'package:bloggtrial/components/round_button.dart';
import 'package:bloggtrial/sceens/blog_page.dart'; // Import your destination screen



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

  @override
  State<RegisterScreen> createState() => _RegisterScreenState();
}
```

```
class _RegisterScreenState extends State<RegisterScreen> {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        backgroundColor: Colors.blueGrey,
        centerTitle: true,
        title: const Text(
          "Create Account",
          style: TextStyle(color: Colors.white),
        ),
      ),
      body: Padding(
        padding: const EdgeInsets.symmetric(horizontal: 20),
        child: Column(
          crossAxisAlignment: CrossAxisAlignment.center,
          mainAxisAlignment: MainAxisAlignment.center,
          children: [
            const Text(
              'Register',
              style: TextStyle(fontWeight: FontWeight.bold, fontSize: 35),
            ),
            Padding(
              padding: const EdgeInsets.symmetric(vertical: 30),
              child: Column(
                children: [
                  TextFormField(
                    keyboardType: TextInputType.text,
                    decoration: const InputDecoration(
                      hintText: 'Username',
                      labelText: 'Username',
                      prefixIcon: Icon(Icons.person),
                      border: OutlineInputBorder(),
                    ),
                  ),
                  SizedBox(height: 15),
                  TextFormField(
                    keyboardType: TextInputType.emailAddress,
                    decoration: const InputDecoration(
                      hintText: 'Email',
                      labelText: 'Email',
                      prefixIcon: Icon(Icons.email),
                      border: OutlineInputBorder(),
                    ),
                  ),
                  SizedBox(height: 15),
                  TextFormField(
                    obscureText: true,
                    decoration: const InputDecoration(
                      hintText: 'Create Password',
                      labelText: 'Create Password',
                      prefixIcon: Icon(Icons.lock),
                      border: OutlineInputBorder(),
                    ),
                  ),
                ],
              ),
            ),
          ],
        ),
      ),
    );
  }
}
```

```
        SizedBox(height: 15),
        TextFormField(
          obscureText: true,
          decoration: const InputDecoration(
            hintText: 'Confirm Password',
            labelText: 'Confirm Password',
            prefixIcon: Icon(Icons.lock),
            border: OutlineInputBorder(),
          ),
        ),
        SizedBox(height: 20),
        ElevatedButton(
          onPressed: () {
            Navigator.push(
              context,
              MaterialPageRoute(builder: (context) => BlogPage()),
            );
          },
          child: Text('Register'),
        ),
      ],
    ),
  ),
],
),
);
}
```


**Output:**

9:31


←

Create Account


Register




Username



Email

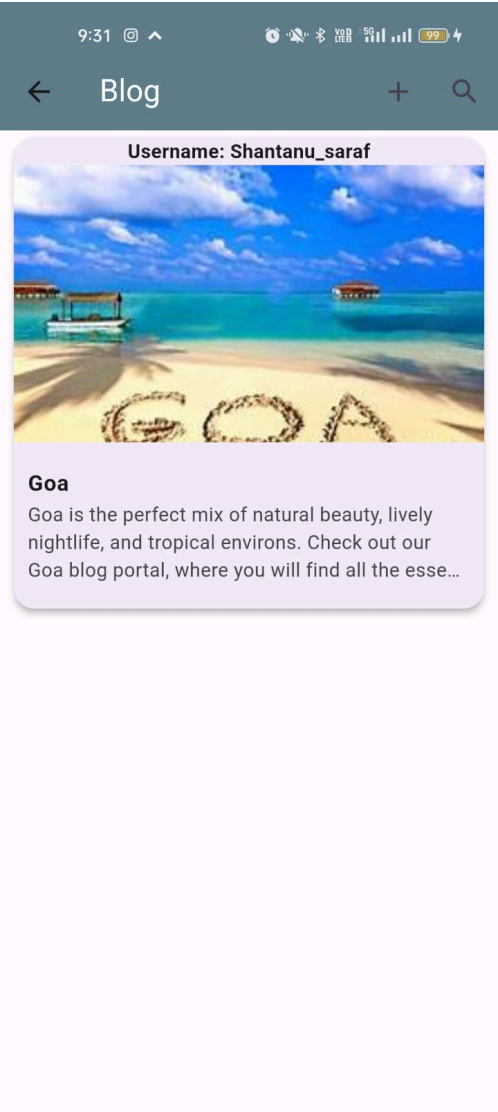




Create Password



Confirm Password

Register




9:31

←


Create Account

Register


Username




Shantanu



Email



Create Password




Confirm Password

Atul

Saraf

Singh



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## 2.Login Form:

```
// login_screen.dart
import 'package:bloggtrial/sceens/blog_page.dart';
import 'package:flutter/material.dart';
// Import the BlogPage

class LoginScreen extends StatefulWidget {
  const LoginScreen({Key? key});

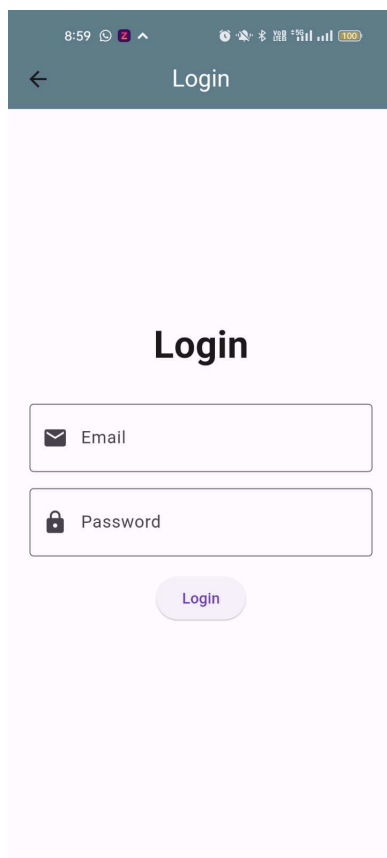
  @override
  State<LoginScreen> createState() => _LoginScreenState();
}

class _LoginScreenState extends State<LoginScreen> {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        backgroundColor: Colors.blueGrey,
        centerTitle: true,
        title: const Text(
          "Login",
          style: TextStyle(color: Colors.white),
        ),
      ),
      body: Padding(
        padding: const EdgeInsets.symmetric(horizontal: 20),
        child: Column(
          crossAxisAlignment: CrossAxisAlignment.center,
          mainAxisAlignment: MainAxisAlignment.center,
          children: [
            const Text(
              'Login',
              style: TextStyle(fontWeight: FontWeight.bold, fontSize: 35),
            ),
            Padding(
              padding: const EdgeInsets.symmetric(vertical: 30),
              child: Column(
                children: [
                  TextFormField(
                    keyboardType: TextInputType.emailAddress,
                    decoration: const InputDecoration(
                      hintText: 'Email',
                      labelText: 'Email',
                      prefixIcon: Icon(Icons.email),
                      border: OutlineInputBorder(),
                    ),
                  ),
                  Padding(
                    padding: const EdgeInsets.symmetric(vertical: 15),
                    child: TextFormField(
                      keyboardType: TextInputType.visiblePassword,
                      decoration: const InputDecoration(
                        hintText: 'Password',
                        labelText: 'Password',
                        prefixIcon: Icon(Icons.lock),

```

```
        border: OutlineInputBorder(),
      ),
    ),
  ),
  ElevatedButton(
    onPressed: () {
      Navigator.push(
        context,
        MaterialPageRoute(builder: (context) => BlogPage()),
      );
    },
    child: Text('Login'),
  ),
],
),
),
),
],
),
),
),
);
}
```

### Output:



### Conclusion:

I have successfully created an interactive Form using form widget in Flutter.