Name: Dhairyash Jain

Class: D15B

Roll: 22

Lab 04

Aim: To create an interactive Form using form widget

Theory

Form validation is an essential feature in mobile applications to ensure the correctness of user inputs before processing them. In Flutter, `Form` and `TextFormField` widgets are used to create forms with built-in validation capabilities.

Key Concepts:

- 1. GlobalKey: Used to uniquely identify the form and manage its state.
- **2. TextFormField:** A widget that allows users to enter input and supports validation.
- **3. Validation Logic:** Defines conditions to verify the correctness of input.
- **4. Submit Button:** Triggers form validation and processes the input if valid.

Code Implementation

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

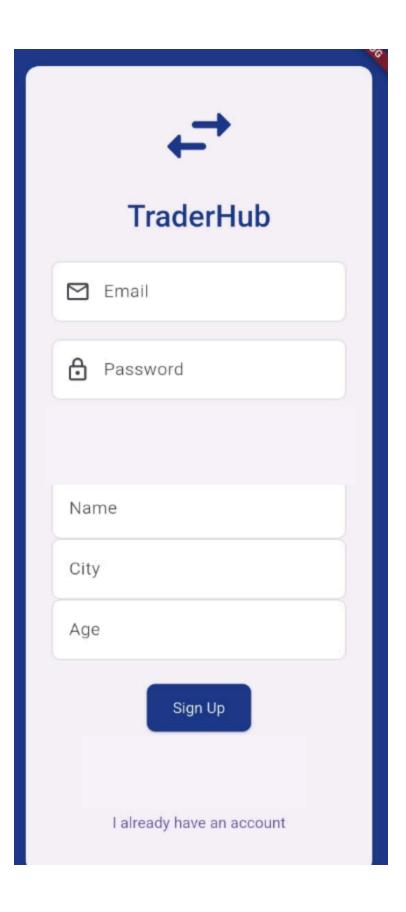
void main() {
   runApp(MyApp());
}

class MyApp extends StatelessWidget {
   @override
   Widget build(BuildContext context) {
    return MaterialApp(
      debugShowCheckedModeBanner: false,
      home: FormScreen(),
   );
   }
```

```
}
class FormScreen extends StatefulWidget {
 @override
 _FormScreenState createState() => _FormScreenState();
class FormScreenState extends State<FormScreen> {
 final formKey = GlobalKey<FormState>();
 final TextEditingController _nameController = TextEditingController();
 void submitForm() {
  if ( formKey.currentState!.validate()) {
   ScaffoldMessenger.of(context).showSnackBar(
    SnackBar(content: Text('Form Submitted Successfully')),
   );
  }
 @override
 Widget build(BuildContext context) {
  return Scaffold(
   appBar: AppBar(title: Text('Form Validation Demo')),
    body: Padding(
    padding: const EdgeInsets.all(16.0),
     child: Form(
      key: _formKey,
      child: Column(
       children: [
        TextFormField(
          controller: nameController,
          decoration: InputDecoration(labelText: 'Enter your name'),
         validator: (value) {
           if (value == null || value.isEmpty) {
            return 'Name cannot be empty';
           return null;
```

```
},
),
SizedBox(height: 20),
ElevatedButton(
    onPressed: _submitForm,
    child: Text('Submit'),
    ),
    ),
    ),
    ),
    ),
    ),
}
```

Output



Conclusion

Form validation in Flutter can be efficiently managed using the `GlobalKey`, `TextFormField`, and validation functions. This ensures user inputs are validated before processing, improving app reliability.