

# RUSHABH JAIN

## D15B 23

### 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();

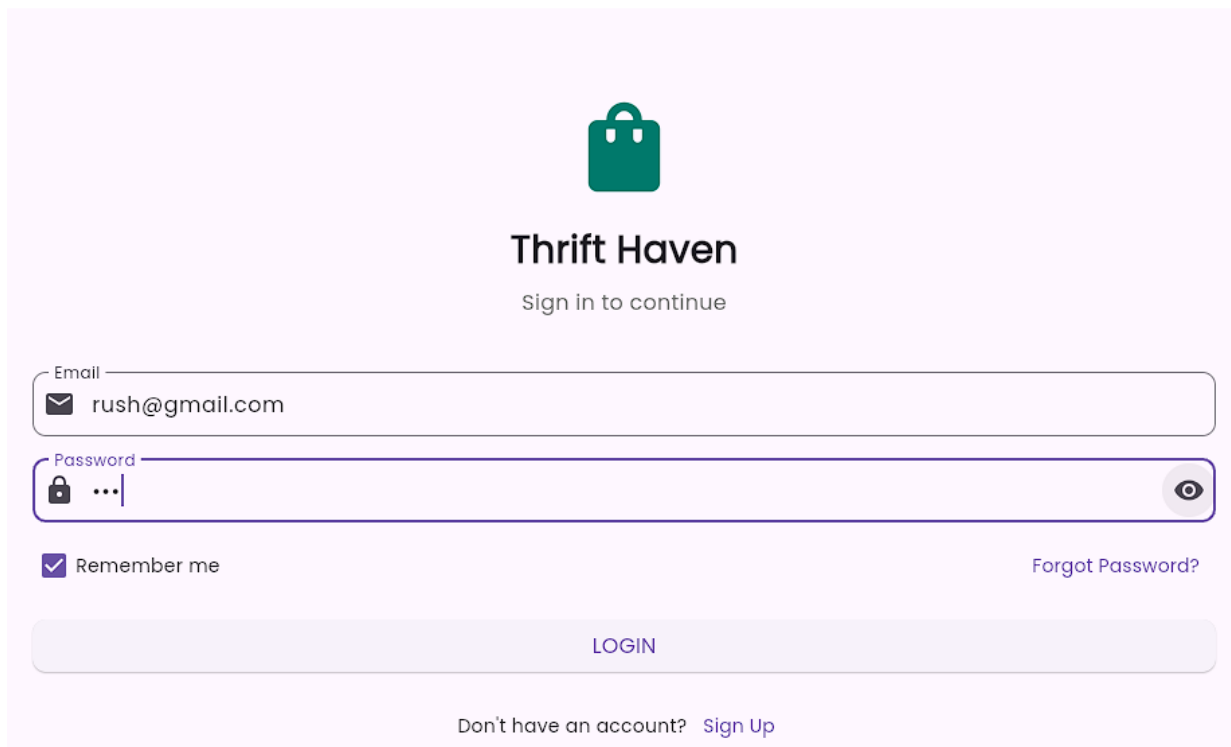
  void _submitForm() {
    if (_formKey.currentState!.validate()) {
      ScaffoldMessenger.of(context).showSnackBar(
        SnackBar(content: Text('Form Submitted Successfully')),
      );
    }
  }


  @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






# Thrift Haven

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## 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.