

**7 a) Design a form with various input fields.**

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

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

class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Form Example',
      theme: ThemeData(
        primarySwatch: Colors.blue,
      ),
      home: MyForm(),
    );
  }
}

class MyForm extends StatefulWidget {
  @override
  _MyFormState createState() => _MyFormState();
}

class _MyFormState extends State<MyForm> {
  final _formKey = GlobalKey<FormState>();
  TextEditingController _nameController = TextEditingController();
  TextEditingController _emailController = TextEditingController();
  TextEditingController _passwordController = TextEditingController();

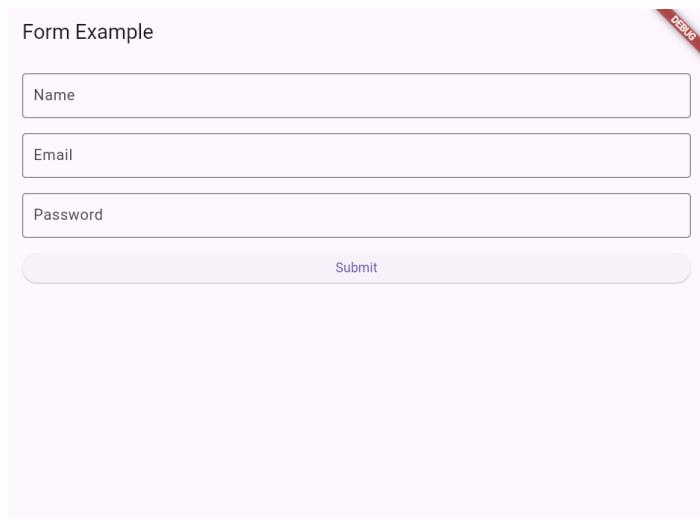
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
```

```
title: Text('Form Example'),  
,  
body: Padding(  
padding: EdgeInsets.all(16.0),  
child: Form(  
key: _formKey,  
child: Column(  
crossAxisAlignment: CrossAxisAlignment.stretch,  
children: <Widget>[  
TextFormField(  
controller: _nameController,  
decoration: InputDecoration(  
labelText: 'Name',  
border: OutlineInputBorder(),  
,  
validator: (value) {  
if (value == null || value.isEmpty) {  
return 'Please enter your name';  
}  
return null;  
},  
),  
SizedBox(height: 16),  
TextFormField(  
controller: _emailController,  
keyboardType: TextInputType.emailAddress,  
decoration: InputDecoration(  
labelText: 'Email',  
border: OutlineInputBorder(),  
,
```

```
validator: (value) {
  if (value == null || value.isEmpty) {
    return 'Please enter your email';
  } else if (!RegExp(r'^[\w-]+(\.[\w-]+)*@[\w-]+(\.[\w-]+)+$')
    .hasMatch(value)) {
    return 'Please enter a valid email address';
  }
  return null;
},
),
SizedBox(height: 16),
TextField(
  controller: _passwordController,
  obscureText: true,
  decoration: InputDecoration(
    labelText: 'Password',
    border: OutlineInputBorder(),
  ),
  validator: (value) {
    if (value == null || value.isEmpty) {
      return 'Please enter your password';
    } else if (value.length < 6) {
      return 'Password must be at least 6 characters long';
    }
    return null;
},
),
SizedBox(height: 16),
ElevatedButton(
  onPressed: () {
```

```
if (_formKey.currentState!.validate()) {  
    // Form is valid, process the data  
    print('Name: ${_nameController.text}');  
    print('Email: ${_emailController.text}');  
    print('Password: ${_passwordController.text}');  
}  
},  
child: Text('Submit'),  
,  
],  
,  
,  
,  
,  
);  
}  
}  
}
```

### Output:



**7 b) Implement form validation and error handling.**

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

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

class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Simple Form Validation',
      home: SimpleFormValidation(),
    );
  }
}

class SimpleFormValidation extends StatefulWidget {
  @override
  _SimpleFormValidationState createState() => _SimpleFormValidationState();
}

class _SimpleFormValidationState extends State<SimpleFormValidation> {
  final GlobalKey<FormState> _formKey = GlobalKey<FormState>();
  String _name = "";
  String _email = "";
  String _pword = "";

  @override
  Widget build(BuildContext context) {
    return Scaffold(
```

```
appBar: AppBar(  
    title: Text('Simple Form Validation'),  
,)  
body: Padding(  
    padding: const EdgeInsets.all(20.0),  
    child: Form(  
        key: _formKey,  
        child: Column(  
            children: [  
                TextFormField(  
                    decoration: InputDecoration(labelText: 'Name'),  
                    validator: (value) => value!.isEmpty ? 'Enter your name' : null,  
                    onSaved: (value) => _name = value!,  
,  
                TextFormField(  
                    decoration: InputDecoration(labelText: 'Email'),  
                    validator: (value) => !value!.contains('@') ? 'Invalid email' : null,  
                    onSaved: (value) => _email = value!,  
,  
                TextFormField(  
                    decoration: InputDecoration(labelText: 'Password'),  
                    validator: (value) => value!.isEmpty ? 'Enter Password' : null,  
                    onSaved: (value) => _pword = value!,  
,  
                ElevatedButton(  
                    onPressed: () {  
                        if (_formKey.currentState!.validate()) {  
                            print('Name: $_name');  
                            print('Email: $_email');  
                            print('Password: $_pword');  
                        }  
                    },  
                ),  
            ],  
        ),  
    ),  
);
```

```
        },  
        },  
        child: Text('Submit'),  
    ),  
],  
,  
,  
),  
),  
);  
}  
}
```

### Output:

Simple Form Validation

Name  
sushmitha

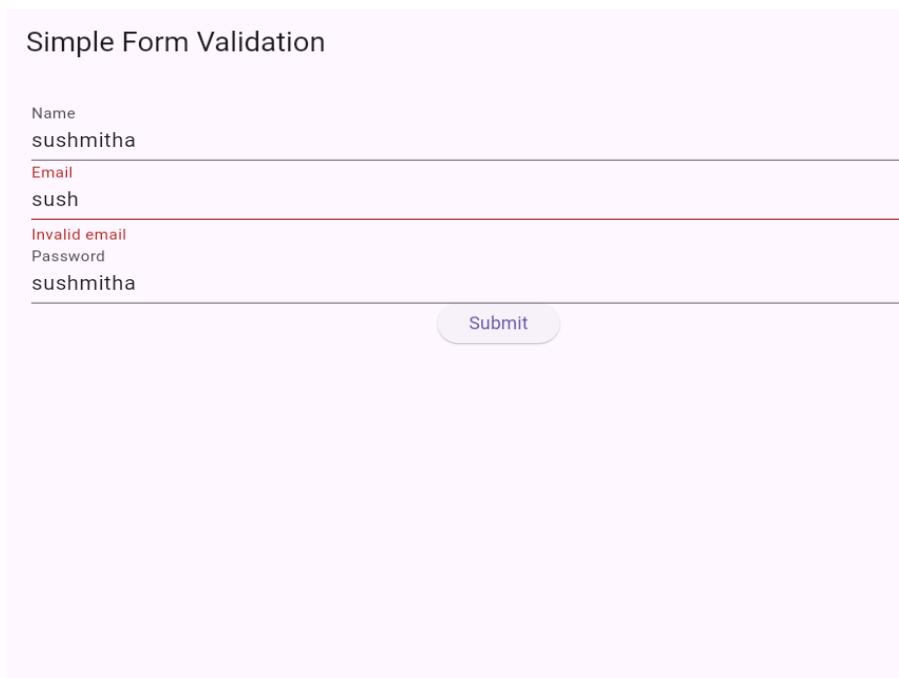
---

Email  
sush

Invalid email

Password  
sushmitha

---



## Simple Form Validation

Name

Enter your name  
Email  
sushmitha@gmail.com

Password

Enter Password

Submit

## Simple Form Validation

Name

sushmitha

Email

sushmitha@gmail.com

Password

123456

Submit