

**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(),
),
```

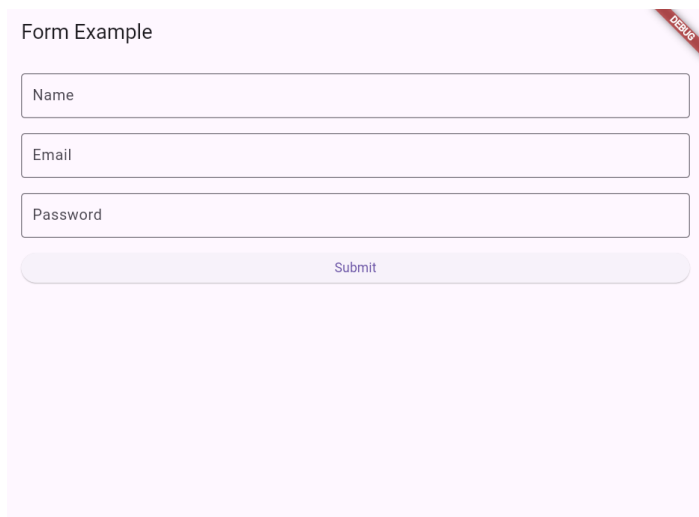
```

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),
 TextFormField(
  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:



Form Example

Name

Email

Password

Submit

### 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 _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,
          onSave: (value) => _name = value!,
        ),
        TextFormField(
          decoration: InputDecoration(labelText: 'Email'),
          validator: (value) => !value!.contains('@') ? 'Invalid email' : null,
          onSave: (value) => _email = value!,
        ),
        TextFormField(
          decoration: InputDecoration(labelText: 'Password'),
          validator: (value) => value!.isEmpty ? 'Enter Password' : null,
          onSave: (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

Submit

## 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