

EXPERIMENT – 7

AIM:

- a) Design a form with various input fields.
 - b) Implement form validation and error handling.

Experiment - 7(a)

AIM: Design a form with various input fields.

DESCRIPTION:

Design a form with various input fields such as text fields, checkboxes, radio buttons, and a dropdown menu.

SOLUTION:

```
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: FormPage(),
    );
  }
}
class FormPage extends StatefulWidget {
  const FormPage({super.key});
  @override
  State<FormPage> createState() => _FormPageState();
}
class _FormPageState extends State<FormPage>
{
  final _formKey = GlobalKey<FormState>();
  String ? _name;
  String ? _email;
  bool ? _subscribeToNewsletter = false;
  String ? _selectedCountry = 'USA';
  @override
  Widget build(BuildContext context)
  {
    return Scaffold(
      appBar: AppBar(
        title: Text('Form Example'),
      ),
    );
  }
}
```



```
),
body: Padding(
  padding: EdgeInsets.all(20.0),
child: Form(
  key: _formKey,
  child: Column(
    crossAxisAlignment: CrossAxisAlignment.start,
    children: <Widget>[
      TextFormField(
        decoration: InputDecoration(
          border: OutlineInputBorder(
            borderRadius: BorderRadius.circular(10.0),
          ),
          labelText: 'Name'),
        onSaved: (value) { _name = value; },
      ),
      SizedBox(height: 20),
      TextFormField(
        decoration: InputDecoration(
          border: OutlineInputBorder(
            borderRadius: BorderRadius.circular(10.0),
          ),
          labelText: 'Email'
        ),
        onSaved: (value) { _email = value; },
      ),
      SizedBox(height: 20),
      Row(
        children: <Widget>[
          Checkbox(
            value: _subscribeToNewsletter,
            onChanged: (value) {
              setState(() { _subscribeToNewsletter = value; })
            },
          ),
          Text('Subscribe to Newsletter'),
        ],
      ),
      SizedBox(height: 20),
      Row(
        children: <Widget>[
          Text('Country: '),
          SizedBox(width: 20),
          DropdownButton<String>(
            value: _selectedCountry,
            onChanged: (value) { setState(() {
              _selectedCountry = value;
            }); },
            items: <String>['USA', 'Canada', 'UK', 'Australia']
              .map<DropdownMenuItem<String>>((String value) {
            return DropdownMenuItem<String>(
              value: value,
            );
          })
        ],
      ),
    ],
  ),
);
```

```
        child: Text(value),
    );
    }).toList(),
),
],
),
SizedBox(height: 20),
ElevatedButton(
    style: ElevatedButton.styleFrom(
        backgroundColor: Colors.blue,
        foregroundColor: Colors.white,
),
 onPressed: () {
    _formKey.currentState!.save();
    // Submit the form data
    print('Name: $_name');
    print('Email: $_email');
    print('Subscribe to Newsletter: $_subscribeToNewsletter');
    print('Country: $_selectedCountry');
},
),
child: Text('Submit'),
),
],
),
),
),
);
}
}
```

OUTPUT:

Form Example

Name

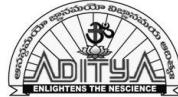
Email

Subscribe to Newsletter

Country:

- USA
- Canada
- UK
- Australia

Submit



Experiment - 7(b)

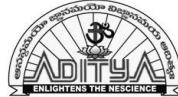
AIM: Implement form validation and error handling.

SOLUTION:

```
import 'package:flutter/material.dart';
void main()
{
  runApp(MyApp());
}
class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      home: Scaffold(
        appBar: AppBar(
          title: Text('Form Example'),
        ),
        body: SingleChildScrollView(
          padding: EdgeInsets.all(16),
          child: FormWidget(),
        ),
      ),
    );
  }
}
class FormWidget extends StatefulWidget
{
  const FormWidget({super.key});
  @override
  State<FormWidget> createState() => _FormWidgetState();
}

class _FormWidgetState extends State<FormWidget>
{
  final _formKey = GlobalKey<FormState>();
  String ? _name;
  String ? _email;
  String ? _password;
  String ? _phone;
  String ? _address;
  @override
  Widget build(BuildContext context)
  {
    return Form(
      key: _formKey,
      child: Column(
```

```
crossAxisAlignment: CrossAxisAlignment.start,  
children: <Widget>[  
  TextFormField(  
    decoration: InputDecoration(  
      border: OutlineInputBorder(  
        borderRadius: BorderRadius.circular(10.0),  
      ),  
      labelText: 'Name'),  
    validator: (value) {  
      if (value!.isEmpty) {  
        return 'Please enter your name';  
      }  
      return null;  
    },  
    onSaved: (value) => _name = value,  
>),  
  SizedBox(height: 16),  
  TextFormField(  
    decoration: InputDecoration(  
      border: OutlineInputBorder(  
        borderRadius: BorderRadius.circular(10.0),  
      ),  
      labelText: 'Email'  
>),  
    keyboardType: TextInputType.emailAddress,  
    validator: (value)  
{  
      if (value!.isEmpty) {  
        return 'Please enter your email';  
      }  
      // Add more complex email validation logic if needed  
      return null;  
    },  
    onSaved: (value) => _email = value,  
>),  
  SizedBox(height: 16),  
  TextFormField(  
    decoration: InputDecoration(  
      border: OutlineInputBorder(  
        borderRadius: BorderRadius.circular(10.0),  
      ),  
      labelText: 'Password'  
>),  
    obscureText: true,  
    validator: (value)  
{
```



```
if (value!.isEmpty) {
    return 'Please enter a password';
}
// Add more complex password validation logic if needed
return null;
},
onSaved: (value) => _password = value,
),
SizedBox(height: 16),
TextField(
decoration: InputDecoration(
border: OutlineInputBorder(
borderRadius: BorderRadius.circular(10.0),
),
labelText: 'Phone'),
keyboardType: TextInputType.phone,
validator: (value)
{
if (value!.isEmpty) {
    return 'Please enter your phone number';
}
// Add more complex phone number validation logic if needed
return null;
},
onSaved: (value) => _phone = value,
),
SizedBox(height: 16),
TextField(
decoration: InputDecoration(
border: OutlineInputBorder(
borderRadius: BorderRadius.circular(10.0),
),
labelText: 'Address'),
maxLines: 3,
validator: (value)
{
if (value!.isEmpty)
{
    return 'Please enter your address';
}
return null;
},
onSaved: (value) => _address = value,
),
SizedBox(height: 16),
ElevatedButton(
```



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

void _submitForm() {
if (_formKey.currentState!.validate()) {
_formKey.currentState!.save();
// Perform form submission with the saved form data
print('Form submitted:');
print('Name: $_name');
print('Email: $_email');
print('Password: $_password');
print('Phone: $_phone');
print('Address: $_address');
}
}
}
```

OUTPUT:

localhost:49175

localhost:49175

Form Example

Name
Jhon

Email
Please enter your email

Password
.....

Phone
Please enter your phone number

Address
Aditya College of Engineering & Technology (A),
Surampalem

Submit