



EXPERIMENT – 7

AIM:

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

Experiment - 7(a)

AIM: Design a form with various input fields.

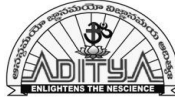
DESCRIPTION:

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

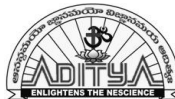
SOLUTION:

```
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'),
          onSave: (value) { _name = value; },
        ),
        SizedBox(height: 20),
        TextFormField(
          decoration: InputDecoration(
            border: OutlineInputBorder(
              borderRadius: BorderRadius.circular(10.0),
            ),
            labelText: 'Email'
          ),
          onSave: (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(),
  ),
],
),
PreferredSize(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'),
),
],
),
),
),
);
}
}

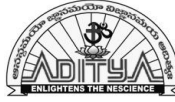
```

OUTPUT:

The screenshot shows a web browser window with the address bar displaying 'localhost:63676'. The page title is 'Form Example'. The form contains the following elements:

- A text input field labeled 'Name'.
- A text input field labeled 'Email'.
- A checkbox labeled 'Subscribe to Newsletter'.
- A 'Country' label followed by a dropdown menu. The dropdown is open, showing four options: 'USA' (highlighted), 'Canada', 'UK', and 'Australia'.
- A blue 'Submit' button.

A red 'DEBUG' banner is visible in the top right corner of the browser window.



Experiment - 7(b)

AIM: Implement form validation and error handling.

SOLUTION:

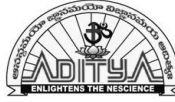
```
import 'package:flutter/material.dart';

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(),
        ),
      ),
    );
  }
}

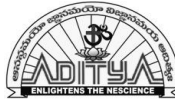
class FormWidget extends StatefulWidget
{
  const FormWidget({super.key});
  @override
  State<FormWidget> createState() => _FormWidgetState();
}

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;
    },
    onSave: (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;
    },
    onSave: (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;
  },
  onSave: (value) => _password = value,
),
 SizedBox(height: 16),
 TextFormField(
  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;
  },
  onSave: (value) => _phone = value,
),
 SizedBox(height: 16),
 TextFormField(
  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;
  },
  onSave: (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:

The screenshot shows a web browser window with the address bar displaying 'localhost:49175'. The page title is 'Form Example'. The form contains the following elements:

- Name:** A text input field containing 'Jhon'.
- Email:** A text input field with a red border and a red error message: 'Please enter your email'.
- Password:** A text input field with a red border and a red error message: 'Please enter your password'.
- Phone:** A text input field with a red border and a red error message: 'Please enter your phone number'.
- Address:** A text input field containing 'Aditya College of Engineering & Technology (A), Surampalem'.
- Submit:** A purple button labeled 'Submit'.