



## Department of Information Technology

**Academic Year:** 2024-25

**Semester:** VI

**Class / Branch / Div:** TE- IT B

**Subject:** MAD & PWA Lab

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**Roll No.** 17

**Date of Submission:** 03/03/25

### Experiment No.: 4

**Aim:** To Design an interactive Form using various form widgets.

**Prerequisites:** Android studio, flutter SDK.

**Problem Statement:** To develop a flutter Form for creating form using widgets of flutter.

**Software:** Android studio, flutter SDK.

**Code:**

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

```
void main() => runApp(const MyApp());
```

```
class MyApp extends StatelessWidget {
```

```
  const MyApp({super.key});
```

```
  @override
```

```
  Widget build(BuildContext context) {
```

```
    const appTitle = 'APSIT';
```

```
    return MaterialApp(
```

```
      title: appTitle,
```

```
      home: Scaffold(
```

```
        appBar: AppBar(
```

```
          title: const Text(
```

```
            appTitle,
```

```
            style: TextStyle(fontWeight: FontWeight.bold, color: Colors.white),
```

```
          ),
```



```
backgroundColor: Colors.blueAccent,
),
body: const MyCustomForm(),
),
);
}
}

// Create a Form widget.
class MyCustomForm extends StatefulWidget {
  const MyCustomForm({super.key});

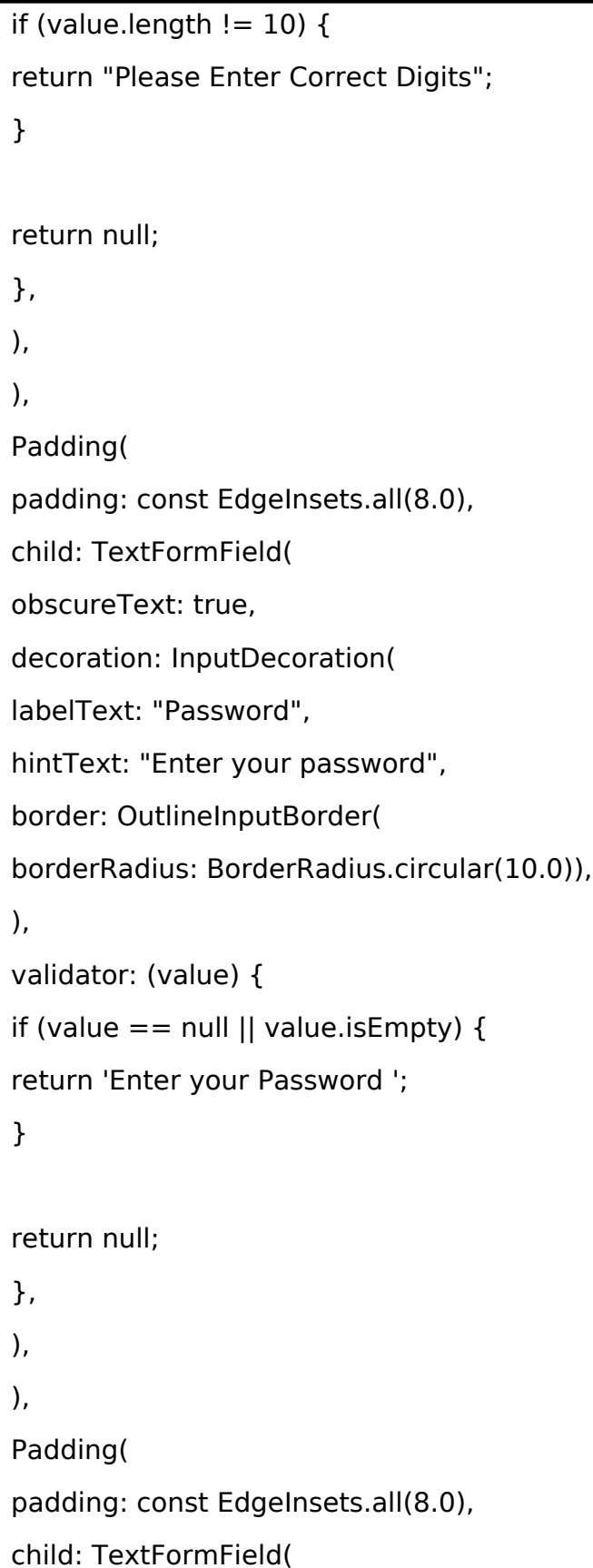
  @override
  MyCustomFormState createState() {
    return MyCustomFormState();
  }
}

class MyCustomFormState extends State<MyCustomForm> {
  final _formKey = GlobalKey<FormState>();

  @override
  Widget build(BuildContext context) {
    // Build a Form widget using the _formKey created above.
    return Form(
      key: _formKey,
      child: Column(
        crossAxisAlignment: CrossAxisAlignment.start,
        children: [
          Padding(
```



```
padding: const EdgeInsets.all(8.0),
child: TextFormField(
  decoration: InputDecoration(
    labelText: "Name",
    hintText: "Enter your name",
    border: OutlineInputBorder(
      borderRadius: BorderRadius.circular(10.0)),
  ),
  // The validator receives the text that the user has entered.
  validator: (value) {
    if (value == null || value.isEmpty) {
      return 'Enter your Name: ';
    }
    return null;
  },
),
),
),
Padding(
  padding: const EdgeInsets.all(8.0),
  child: TextFormField(
    decoration: InputDecoration(
      labelText: "Mobile Number",
      hintText: "Enter your Mobile Number",
      border: OutlineInputBorder(
        borderRadius: BorderRadius.circular(10.0)),
    ),
    validator: (value) {
      if (value == null || value.isEmpty) {
        return 'Enter your Mobile Number: ';
      }
    }
  )
)
```



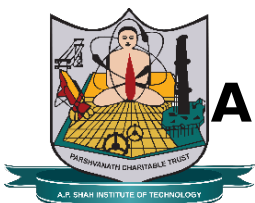


```
decoration: InputDecoration(
  labelText: "Pincode",
  hintText: "Enter your Pincode",
  border: OutlineInputBorder(
    borderRadius: BorderRadius.circular(10.0)),
),
validator: (value) {
  if (value == null || value.isEmpty) {
    return 'Enter your Pincode ';
  }
  if (value.length != 6) {
    return 'Enter a 6 digit pincode';
  }

  return null;
},
),
),
Padding(
  padding: const EdgeInsets.all(8.0),
  child: TextFormField(
    decoration: InputDecoration(
      labelText: "Moodle ID",
      hintText: "Enter your Moodle ID",
      border: OutlineInputBorder(
        borderRadius: BorderRadius.circular(10.0)),
    ),
    validator: (value) {
      if (value == null || value.isEmpty) {
        return 'Enter your Moodle ID ';
```



```
}  
if (value.length != 8) {  
    return 'Enter a 8 digit Moodle ID';  
}  
  
return null;  
},  
,  
,  
Center(  
    child: Padding(  
        padding: const EdgeInsets.symmetric(vertical: 16.0),  
        child: ElevatedButton(  
            style: ElevatedButton.styleFrom(  
                backgroundColor: Colors.lime,  
            ),  
            onPressed: () {  
                // Validate returns true if the form is valid, or false otherwise.  
                if (_formKey.currentState!.validate()) {  
                    ScaffoldMessenger.of(context).showSnackBar(  
                        const SnackBar(content: Text('Login Successful')),  
                    );  
                }  
            },  
            child: const Text('Submit',  
                style:  
                    TextStyle(fontWeight: FontWeight.bold, fontSize: 16)),  
            ),  
        ),  
    ),  
)
```



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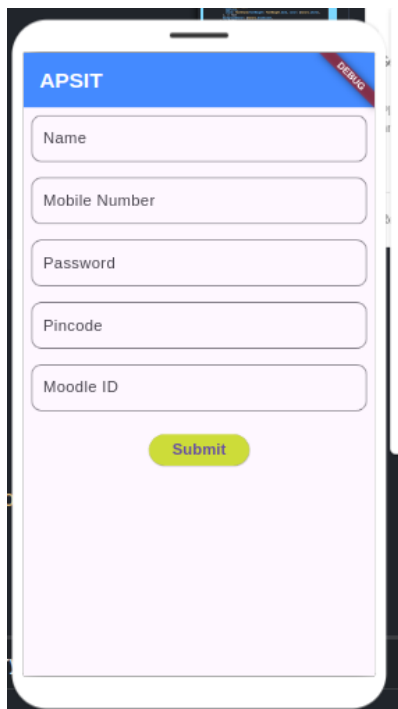
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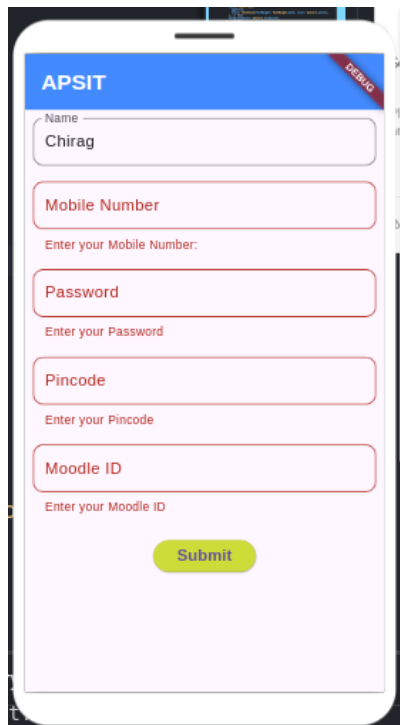
,  
,  
);  
}  
}

**Output:**



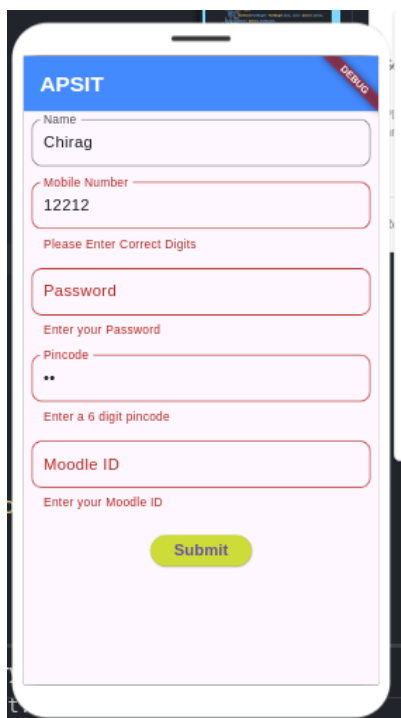
The image shows a mobile app interface for APSIT. It has a blue header with the text "APSIT" and a red "DEBUG" label in the top right corner. Below the header, there are five input fields: "Name", "Mobile Number", "Password", "Pincode", and "Moodle ID". Each field has a placeholder text. At the bottom, there is a green "Submit" button.

User Interface



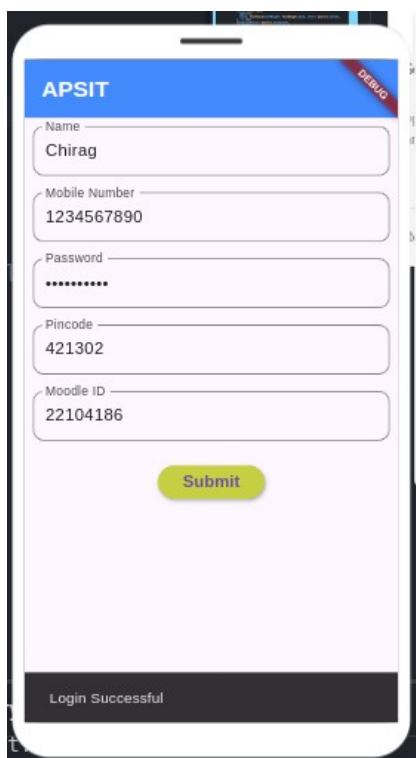
The image shows the same mobile app interface as the previous one, but with validation messages. The "Name" field has the text "Chirag". The "Mobile Number" field has the text "Enter your Mobile Number:". The "Password" field has the text "Enter your Password". The "Pincode" field has the text "Enter your Pincode". The "Moodle ID" field has the text "Enter your Moodle ID". The "Submit" button is still green.

Validation of empty fields



The image shows the same mobile app interface as the previous ones, but with validation messages for the number of digits. The "Name" field has the text "Chirag". The "Mobile Number" field has the text "12212" and a red border. Below it, there is a red message "Please Enter Correct Digits". The "Password" field has the text "Enter your Password". The "Pincode" field has the text "Enter a 6 digit pincode". The "Moodle ID" field has the text "Enter your Moodle ID". The "Submit" button is still green.

number of digits validation



The image shows the same mobile app interface as the previous ones, but with the login successful message. The "Name" field has the text "Chirag". The "Mobile Number" field has the text "1234567890". The "Password" field has the text "\*\*\*\*\*". The "Pincode" field has the text "421302". The "Moodle ID" field has the text "22104186". The "Submit" button is still green. At the bottom, there is a black bar with the text "Login Successful".

login successfull





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**Conclusion:** In this experiment, we successfully designed an interactive form in Flutter using various form widgets and implemented form validation. By utilizing TextFormField with the validator function, we ensured that user inputs were properly validated for required fields and correct formats, thereby enhancing the user experience and ensuring data accuracy.