

## EXPERIMENT NO: 4

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**CLASS:** D15A

**ROLL NO:** 45

**AIM:** - To create an interactive Form using form widget.

### Forms in Flutter

In Flutter, a form is a container used to gather user input through various fields such as text fields, checkboxes, dropdowns, and buttons. Forms are essential for apps requiring user data entry, like login pages, registration forms, and feedback submissions. Flutter provides the Form widget, which, in combination with TextFormField and other input elements, helps manage validation, state handling, and error messages efficiently. Proper form validation ensures data accuracy, leading to an enhanced user experience.

When creating a form, a GlobalKey is required. This key uniquely identifies the form, allowing you to perform validation and manage form field states. The TextFormField widget is used to render input fields for user text entry, providing built-in support for validation error display.

### Creating a Form in Flutter

#### 1. Form Widget

The Form widget acts as a container for multiple form fields and manages validation. It holds child widgets like TextFormField and validates the input fields.

#### 2. GlobalKey<FormState>

This key is essential for uniquely identifying the form, enabling validation, and allowing the retrieval of data from form fields.

#### 3. TextFormField

TextFormField provides input fields where users can enter text, such as names, email addresses, and phone numbers. It also supports validation.

#### 4. Input Decoration

InputDecoration enhances the appearance of input fields, enabling customizations such as labels, icons, borders, and hint text to improve usability.

#### 5. Validation

The validator property within TextFormField is used to ensure user input meets specific criteria, such as proper email format or non-empty values.

#### 6. Keyboard Types

Different types of input require different keyboard types. For instance, TextInputType.number is used for numeric fields, and TextInputType.emailAddress is used for email fields.

## 7. State Management

Proper state management is vital for storing and retrieving user input, ensuring correct processing of the form data.

## 8. Submit Button

A submit button triggers form validation and submits the entered data for further processing, such as saving to a database.

### Key Properties of the Form Widget

- **key**: A GlobalKey that uniquely identifies the form. This key is used to interact with the form, such as validating, resetting, or saving the form's state.
- **child**: A child widget that contains the form fields. This can be a Column, ListView, or other widget used to arrange form fields vertically or horizontally.
- **autovalidateMode**: Specifies when the form should automatically validate its fields (e.g., on field change or when the form is submitted).

### Methods of the Form Widget

- **validate()**: Triggers validation of all form fields. It returns true if all fields are valid, and false if any field fails validation. This method is used before submitting the form to ensure data integrity.
- **save()**: Saves the current values of all form fields and invokes the onSave callback for each field. This is typically called after validation succeeds.
- **reset()**: Resets the form to its initial state, clearing any entered data.
- **currentState**: A getter that returns the current FormState associated with the form, allowing you to access and manipulate the form's state.

## Login.dart

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

class Login extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: Colors.white,
      body: Column(
        crossAxisAlignment: CrossAxisAlignment.start,
        children: [
          Container(
            color: AppColors.background,
            padding: EdgeInsets.all(16),
            child: Row(
              children: [
                IconButton(
                  icon: Icon(Icons.close, color: AppColors.hint),
                  onPressed: () => Navigator.pop(context),
                ),
              ],
            ),
          ),
          Padding(
            padding: const EdgeInsets.all(16.0),
            child: Column(
              crossAxisAlignment: CrossAxisAlignment.start,
              children: [
                Row(
                  children: [
                    Icon(Icons.adobe, size: 40, color: Colors.black),
                    SizedBox(width: 8),
                    Text(
                      'Adobe',
                      style: TextStyle(fontSize: 24, fontWeight: FontWeight.bold),
                    ),
                  ],
                ),
              ],
            ),
          ),
        ],
      ),
    );
  }
}
```

```

    ),
    SizedBox(height: 8),
    Text(
      'Step 1 of 2',
      style: TextStyle(color: AppColors.hint, fontSize: 14),
    ),
    SizedBox(height: 8),
    Text(
      'Create an account',
      style: TextStyle(fontSize: 22, fontWeight: FontWeight.bold, color:
Colors.black),
    ),
    ),
    SizedBox(height: 16),
    Text('Sign up with email', style: TextStyle(fontSize: 16)),

    SizedBox(height: 16),
    Text(
      'Email address',
      style: TextStyle(fontSize: 16, color: Colors.black),
    ),

    SizedBox(height: 8),
    TextField(
      decoration: InputDecoration(
        border: OutlineInputBorder(borderSide: BorderSide(color:
AppColors.hint)),
        hintText: 'Enter your email ID',
      ),
    ),
    ),
    SizedBox(height: 16),
    Text(
      'password',
      style: TextStyle(fontSize: 16, color: Colors.black),
    ),

    SizedBox(height: 16),
    TextField(
      obscureText: true,
      decoration: InputDecoration(
        border: OutlineInputBorder(borderSide: BorderSide(color:
AppColors.hint)),

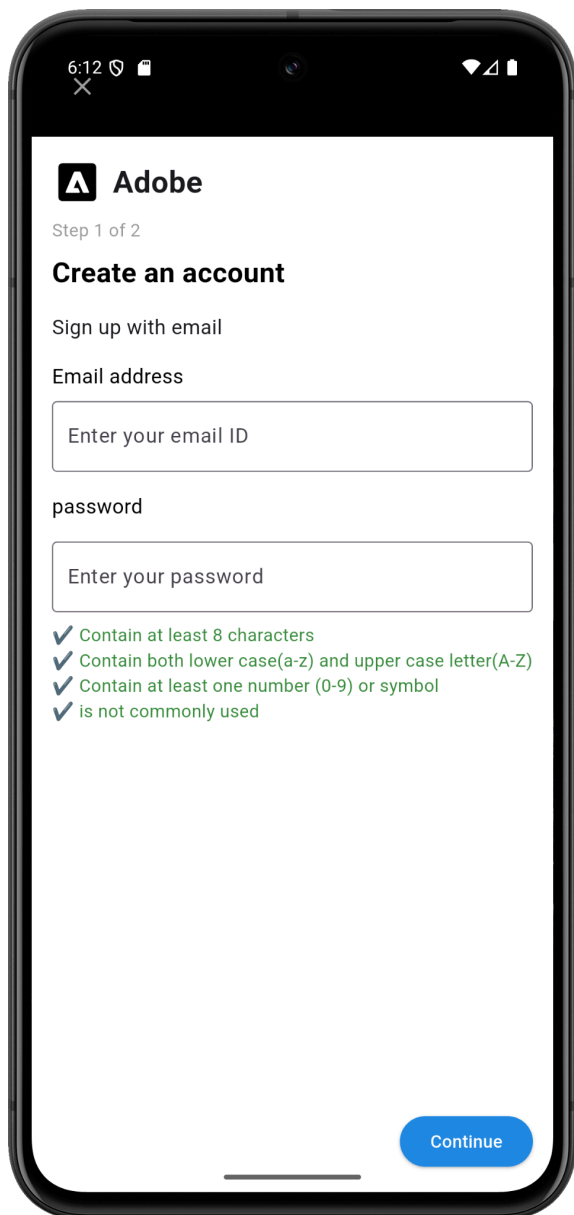
```

```

        hintText: 'Enter your password',
      ),
    ),
    SizedBox(height: 8),
    Text(
      '✓ Contain at least 8 characters',
      style: TextStyle(color: Colors.green[700], fontSize: 14),
    ),
    Text(
      '✓ Contain both lower case(a-z) and upper case letter(A-Z)',
      style: TextStyle(color: Colors.green[700], fontSize: 14),
    ),
    Text(
      '✓ Contain at least one number (0-9) or symbol',
      style: TextStyle(color: Colors.green[700], fontSize: 14),
    ),
    Text(
      '✓ is not commonly used',
      style: TextStyle(color: Colors.green[700], fontSize: 14),
    ),
  ],
),
),
Spacer(),
Padding(
  padding: const EdgeInsets.all(16.0),
  child: Align(
    alignment: Alignment.bottomRight,
    child: ElevatedButton(
      style: ElevatedButton.styleFrom(
        backgroundColor: AppColors.primary,
        foregroundColor: Colors.white,
      ),
      onPressed: () {
        Navigator.push(
          context,
          MaterialPageRoute(builder: (context) => Profile()),
        );
      },
    ),
    child: Text('Continue'),
  ),
),


```

```
    },  
    },  
    },  
  ],  
  },  
);  
}  
}
```



The image shows a smartphone screen displaying the Adobe account creation interface. At the top, the status bar shows the time 6:12 and various icons. The Adobe logo is at the top left of the app screen, followed by the text "Step 1 of 2". The main heading is "Create an account". Below this, it says "Sign up with email". There are two input fields: "Email address" with a placeholder "Enter your email ID", and "password" with a placeholder "Enter your password". Below the password field, there are four green checkmarks indicating password requirements: "Contain at least 8 characters", "Contain both lower case(a-z) and upper case letter(A-Z)", "Contain at least one number (0-9) or symbol", and "is not commonly used". A blue "Continue" button is at the bottom right.

6:12

 **Adobe**

Step 1 of 2

**Create an account**

Sign up with email

Email address

Enter your email ID

password

Enter your password

- ✓ Contain at least 8 characters
- ✓ Contain both lower case(a-z) and upper case letter(A-Z)
- ✓ Contain at least one number (0-9) or symbol
- ✓ is not commonly used

Continue

## ProfileCreation.dart

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

class Profile extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: Colors.white,
      body: Column(
        crossAxisAlignment: CrossAxisAlignment.start,
        children: [
          Container(
            color: AppColors.background,
            padding: EdgeInsets.all(16),
            child: Row(
              children: [
                IconButton(
                  icon: Icon(Icons.close, color: AppColors.hint),
                  onPressed: () => Navigator.pop(context),
                ),
              ],
            ),
          ),
          Padding(
            padding: const EdgeInsets.all(16.0),
            child: Column(
              crossAxisAlignment: CrossAxisAlignment.start,
              children: [
                Row(
                  children: [
                    Icon(Icons.adobe, size: 40, color: Colors.black),
                    SizedBox(width: 8),
                    Text(
                      'Adobe',
                      style: TextStyle(fontSize: 24, fontWeight: FontWeight.bold),
                    ),
                  ],
                ),
              ],
            ),
          ),
        ],
      ),
    );
  }
}
```

```
),
SizedBox(height: 8),
Text(
  'Step 2 of 2',
  style: TextStyle(color: AppColors.hint, fontSize: 14),
),
SizedBox(height: 8),
Text(
  'Create an account',
  style: TextStyle(fontSize: 22, fontWeight: FontWeight.bold, color: Colors.black),
),
SizedBox(height: 16),
Text(
  'First Name',
  style: TextStyle(fontSize: 16, color: Colors.black),
),
SizedBox(height: 8),
TextField(
  decoration: InputDecoration(
    border: OutlineInputBorder(borderSide: BorderSide(color: AppColors.hint)),
    hintText: 'Enter your first name',
    contentPadding: EdgeInsets.symmetric(vertical: 8, horizontal: 12), // Reduced padding
  ),
),
SizedBox(height: 16),
Text(
  'Last Name',
  style: TextStyle(fontSize: 16, color: Colors.black),
),
SizedBox(height: 8),
TextField(
  decoration: InputDecoration(
    border: OutlineInputBorder(borderSide: BorderSide(color: AppColors.hint)),
    hintText: 'Enter your last name',
    contentPadding: EdgeInsets.symmetric(vertical: 8, horizontal: 12), // Reduced padding
  ),
),
SizedBox(height: 16),
Text(
  'Birth Month',
  style: TextStyle(fontSize: 16, color: Colors.black),
```



```

),
SizedBox(height: 8),
TextField(
  decoration: InputDecoration(
    border: OutlineInputBorder(borderSide: BorderSide(color: AppColors.hint)),
    hintText: 'Enter your birth month',
    contentPadding: EdgeInsets.symmetric(vertical: 8, horizontal: 12), // Reduced padding
  ),
),
SizedBox(height: 16),
Text(
  'Birth Year',
  style: TextStyle(fontSize: 16, color: Colors.black),
),
SizedBox(height: 8),
TextField(
  decoration: InputDecoration(
    border: OutlineInputBorder(borderSide: BorderSide(color: AppColors.hint)),
    hintText: 'Enter your birth year',
    contentPadding: EdgeInsets.symmetric(vertical: 8, horizontal: 12), // Reduced padding
  ),
),
SizedBox(height: 8),
Text(
  '✔ Contain at least 8 characters',
  style: TextStyle(color: Colors.green[700], fontSize: 14),
),
Text(
  '✔ Contain both lower case(a-z) and upper case letter(A-Z)',
  style: TextStyle(color: Colors.green[700], fontSize: 14),
),
Text(
  '✔ Contain at least one number (0-9) or symbol',
  style: TextStyle(color: Colors.green[700], fontSize: 14),
),
Text(
  '✔ Is not commonly used',
  style: TextStyle(color: Colors.green[700], fontSize: 14),
),
],
),

```

```

    ),
    Spacer(),
    Padding(
        padding: const EdgeInsets.all(16.0),
        child: Align(
            alignment:
                Alignment.bottomRight,
            child: ElevatedButton(
                style: ElevatedButton.styleFrom(
                    backgroundColor:
                        AppColors.primary,
                    foregroundColor: Colors.white,
                ),
                onPressed: () {
                    Navigator.push(
                        context,
                        MaterialPageRoute(builder:
                            (context) => Landing()),
                    );
                },
                child: Text('Continue'),
            )),
    ],
),
);
}}

```

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**Adobe**

Step 2 of 2

### Create an account

First Name

Last Name

Birth Month

Birth Year

- ✓ Contain at least 8 characters
- ✓ Contain both lower case(a-z) and upper case letter(A-Z)
- ✓ Contain at least one number (0-9) or symbol
- ✓ Is not commonly used

Continue

## AboutInfo.dart

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

class AboutInfoPage extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: Colors.black,
      appBar: AppBar(
        backgroundColor: Colors.black,
        leading: IconButton(
          icon: Icon(Icons.search, color: Colors.white),
          onPressed: () {},
        ),
        title: Text(
          "About",
          style: TextStyle(color: Colors.white, fontSize: 18, fontWeight: FontWeight.bold),
        ),
        centerTitle: true,
        actions: [
          IconButton(
            icon: Icon(Icons.settings, color: Colors.white),
            onPressed: () {},
          ),
        ],
      ),

      body: SingleChildScrollView(
        padding: const EdgeInsets.all(16.0),
        child: Column(
          crossAxisAlignment: CrossAxisAlignment.start,
          children: [
            _buildSectionTitle("Personal Information"),
            _buildInputField('First Name'),
            _buildInputField('Last Name'),
            _buildInputField('Birth Month'),
            _buildInputField('Birth Year'),
          ],
        ),
      ),
    );
  }
}
```

```

        _buildSectionTitle("Social Links"),
        _buildInputField('Instagram Link', icon: Icons.link),
        _buildInputField('LinkedIn Link', icon: Icons.link),
        _buildInputField('Website Link', icon: Icons.web),

        _buildSectionTitle("Professional Details"),
        _buildInputField('Work Experience', maxLines: 3),
        _buildInputField('Focus Area', maxLines: 2),

        SizedBox(height: 24),
        Center(
          child: ElevatedButton(
            style: ElevatedButton.styleFrom(
              backgroundColor: Colors.white,
              foregroundColor: Colors.black,
              padding: EdgeInsets.symmetric(horizontal: 24, vertical: 12),
            ),
            onPressed: () {},
            child: Text("Save"),
          ),
        ),
      ],
    ),
  );
}

Widget _buildSectionTitle(String title) {
  return Padding(
    padding: const EdgeInsets.only(top: 24, bottom: 8),
    child: Text(
      title,
      style: TextStyle(fontSize: 18, fontWeight: FontWeight.bold, color: Colors.white),
    ),
  );
}

Widget _buildInputField(String label, {IconData? icon, int maxLines = 1}) {
  return Padding(
    padding: const EdgeInsets.only(bottom: 16),
    child: Column(

```

```

crossAxisAlignment:
CrossAxisAlignment.start,
children: [
  Text(
    label,
    style: TextStyle(fontSize: 16, color:
Colors.white),
  ),
  SizedBox(height: 8),
  TextField(
    style: TextStyle(color: Colors.white),
    maxLines: maxLines,
    decoration: InputDecoration(
      filled: true,
      fillColor: Colors.transparent,
      enabledBorder: OutlineInputBorder(
        borderSide: BorderSide(color:
Colors.white),
      ),
      focusedBorder: OutlineInputBorder(
        borderSide: BorderSide(color:
Colors.white, width: 2),
      ),
      prefixIcon: icon != null ? Icon(icon, color:
Colors.white) : null,
      hintText: 'Enter your $label',
      hintStyle: TextStyle(color: Colors.white70),
    ),
  ),
],
);
}
}

```

7:01

About

**Personal Information**

First Name

Enter your First Name

Last Name

Enter your Last Name

Birth Month

Enter your Birth Month

Birth Year

Enter your Birth Year

**Social Links**

Instagram Link

Enter your Instagram Link

LinkedIn Link

Enter your LinkedIn Link

Website Link

Enter your Website Link

