

**Exp 4****Aim:**

To create an interactive Form using form widget.

**Theory:**

A form in Flutter is a structured container that collects user input through various fields like text fields, dropdowns, checkboxes, and buttons. It plays a crucial role in applications that require user data entry, such as login pages, registration forms, and feedback submissions.

Flutter provides the Form widget, which works alongside TextFormField and other input elements to manage validation, state handling, and error messages efficiently. By using form validation techniques, developers can ensure data accuracy and enhance user experience. When you create a form, it is necessary to provide the GlobalKey. This key uniquely identifies the form and allows you to do any validation in the form fields. The form widget uses child widget TextFormField to provide the users to enter the text field. This widget renders a material design text field and also allows us to display validation errors when they occur.

**Creation of a Form**

- While creating a form in Flutter, the Form widget is essential as it acts as a container for grouping multiple form fields and managing validation.
- A GlobalKey is required to uniquely identify the form and enable validation or data retrieval from the form fields.
- The TextFormField widget is used to provide input fields where users can enter data such as names, phone numbers, or email addresses.
- To enhance the appearance and usability of input fields, InputDecoration is used, allowing customization of labels, icons, borders, and hint text.
- Validation plays a crucial role in forms, and the validator property within TextFormField ensures user input meets specific criteria before submission.

## **Some Properties of Form Widget**

- **key:** A GlobalKey that uniquely identifies the Form. You can use this key to interact with the form, such as validating, resetting, or saving its state.
- **child:** The child widget that contains the form fields. Typically, this is a Column, ListView, or another widget that allows you to arrange the form fields vertically.
- **autovalidateMode:** An enum that specifies when the form should automatically validate its fields. Some Methods of Form Widget
- **validate():** This method is used to trigger the validation of all the form fields within the Form. It returns true if all fields are valid, otherwise false. You can use it to check the overall validity of the form before submitting it.
- **save():** This method is used to save the current values of all form fields. It invokes the onSaved callback for each field. Typically, this method is called after validation succeeds.
- **reset():** Resets the form to its initial state, clearing any user-entered data.
- **currentState:** A getter that returns the current FormState associated with the Form

### **Code:**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".Login"
    android:background="@color/white">

    <!-- YouTube Logo -->
    <ImageView
        android:id="@+id/youtubeLogo"
        android:layout_width="120dp"
        android:layout_height="40dp"
        android:src="@drawable/img"
```

```
android:contentDescription="@string/youtube_logo"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintStart_toStartOf="parent"
android:layout_marginTop="30dp"
android:layout_marginStart="24dp" />
```

<!-- "Sign in" Text -->

```
<TextView
    android:id="@+id/tv_sign_in"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/sign_in"
    android:textSize="24sp"
    android:textColor="@android:color/black"
    android:textStyle="bold"
    app:layout_constraintTop_toBottomOf="@id/youtubeLogo"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    android:layout_marginTop="20dp"/>
```

<!-- "Use your Google Account" -->

```
<TextView
    android:id="@+id/tv_use_google"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/use_your_google_account"
    android:textSize="16sp"
    android:textColor="@android:color/darker_gray"
    app:layout_constraintTop_toBottomOf="@id/tv_sign_in"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    android:layout_marginTop="8dp"/>
```

<!-- Email or phone input -->

```
<EditText
    android:id="@+id/et_email"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:hint="@string/email_or_phone"
```

```
android:padding="12dp"
android:textSize="16sp"
android:background="@android:color/white"
android:elevation="2dp"
android:inputType="textEmailAddress"
app:layout_constraintTop_toBottomOf="@id/tv_use_google"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintEnd_toEndOf="parent"
android:layout_marginHorizontal="24dp"
android:layout_marginTop="24dp"/>
```

<!-- Forgot Password? -->

```
<TextView
    android:id="@+id/tv_forgot_password"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/forgot_password"
    android:textSize="14sp"
    android:textColor="@android:color/holo_red_dark"
    android:textStyle="bold"
    app:layout_constraintTop_toBottomOf="@id/et_email"
    app:layout_constraintEnd_toEndOf="parent"
    android:layout_marginEnd="24dp"
    android:layout_marginTop="12dp" />
```

<!-- Next Button -->

```
<Button
    android:id="@+id/btn_next"
    android:layout_width="0dp"
    android:layout_height="48dp"
    android:text="@string/next"
    android:textSize="16sp"
    android:textColor="@android:color/white"
    android:backgroundTint="@android:color/holo_red_dark"
    app:layout_constraintTop_toBottomOf="@id/tv_forgot_password"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    android:layout_marginHorizontal="24dp"
    android:layout_marginTop="20dp"/>
```

```
<!-- Create account -->
<TextView
    android:id="@+id/tv_create_account"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/create_account"
    android:textSize="14sp"
    android:textColor="@android:color/holo_red_dark"
    android:textStyle="bold"
    app:layout_constraintTop_toBottomOf="@id/btn_next"
    app:layout_constraintStart_toStartOf="parent"
    android:layout_marginStart="24dp"
    android:layout_marginTop="20dp"/>

</androidx.constraintlayout.widget.ConstraintLayout>
```

**OutPut:**



# Sign in

Use your Google Account

[Forgot password?](#)

Next

[Create account](#)

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