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Aim: To create an interactive Form using form widget Reference

Objective

The objective of this experiment is to create an interactive form using Flutter's Form widget, incorporating validation logic for user input and submission handling.

Theory

Key Components of a Flutter Form

1. Form Widget

The Form widget in Flutter is a container for grouping and validating multiple form fields (TextFormField, DropdownButtonFormField, etc.). It simplifies managing the state and validation of form elements collectively.

- It requires a GlobalKey<FormState> to access and control the form's state (e.g., validate, save, reset).
- It enables batch validation of all its children form fields using .validate().

🔑 2. GlobalKey<FormState>

A GlobalKey<FormState> allows access to the internal state of the Form widget. It enables:

- Validation using _formKey.currentState!.validate()
- Submission logic using _formKey.currentState!.save()
- Resetting the form using _formKey.currentState!.reset()

3. TextFormField

This is a text input field that integrates well with Form. It supports:

- Validation via the validator property.
- Saving input via the onSaved property.
- Controllers to manage and retrieve text input.

4. Form Validation

Form validation ensures users input correct and expected data. Flutter supports:

- Synchronous validation using the validator property.
- Real-time validation triggered by typing (when using autovalidateMode).
- Custom rules such as checking:
 - Non-empty input
 - Valid email formats
 - Specific input lengths or patterns

6 5. Submit Button and Form Submission

- Submitting the form is typically handled by a button.
- On press, the app checks if the form is valid.
- If valid, data is saved or processed.

Implementation Steps

- 1. Create a Form with a GlobalKey<FormState>
- 2. Add a TextFormField with validation logic
- 3. Create a button to validate and submit the form

Output:









