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EXPERIMENT NO.4

Aim : To create an interactive Form using form widget.

Theory :

Flutter Forms:

Forms play a crucial role in modern mobile and web applications, serving as a means to interact with the app and collect information from users. Their functionalities range from user authentication, adding users, searching, filtering, ordering, to booking. Forms typically consist of text fields, buttons, checkboxes, radio buttons, and other interactive elements.

Properties of Form Widget:

- key: A GlobalKey uniquely identifying the form. This key enables interactions with the form, including validation, resetting, or saving its state.
- child: The child widget containing the form fields. Commonly, this is a Column, ListView, or another widget allowing vertical arrangement of form fields.
- autovalidateMode: An enum specifying when the form should automatically validate its fields.

Methods of Form Widget:

- validate(): Triggers validation for all form fields within the Form. Returns true if all fields are valid; otherwise, returns false. Useful for checking the overall validity of the form before submission.
- save(): Saves the current values of all form fields by invoking the onSaved callback for each field. Typically called after successful validation.
- reset(): Resets the form to its initial state, clearing any user-entered data.
- currentState: A getter returning the current FormState associated with the Form.
- Creating Form: Flutter offers a Form widget to create forms, acting as a container to group and validate multiple form fields. When creating a form, it's essential to provide a GlobalKey for unique identification and to facilitate validation of form fields.

The Form widget utilizes the TextFormField widget as a child, enabling users to enter text. This widget renders a material design text field and allows the display of validation errors when they occur.

Code :

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

void main() {

runApp(MyApp());

}

class MyApp extends StatelessWidget {

@override

Widget build(BuildContext context) {

return MaterialApp(
```

```
title: 'Artistic Form',
theme: ThemeData(
primarySwatch: Colors.blue,
),
home: FormScreen(),
);
}
}
class FormScreen extends StatefulWidget {
@override
_FormScreenState createState() => _FormScreenState();
}
class _FormScreenState extends State<FormScreen> {
final _formKey = GlobalKey<FormState>();
String? _name;
int? _age;
String? _gender;
String? _city;
String? _selectedArtForm;
List<String> _artForms = [
'Swimming',
'Reading',
'Dancing',
'Trekking',
'Writing',
'Sketching',
];

@override
Widget build(BuildContext context) {
return Scaffold(
```

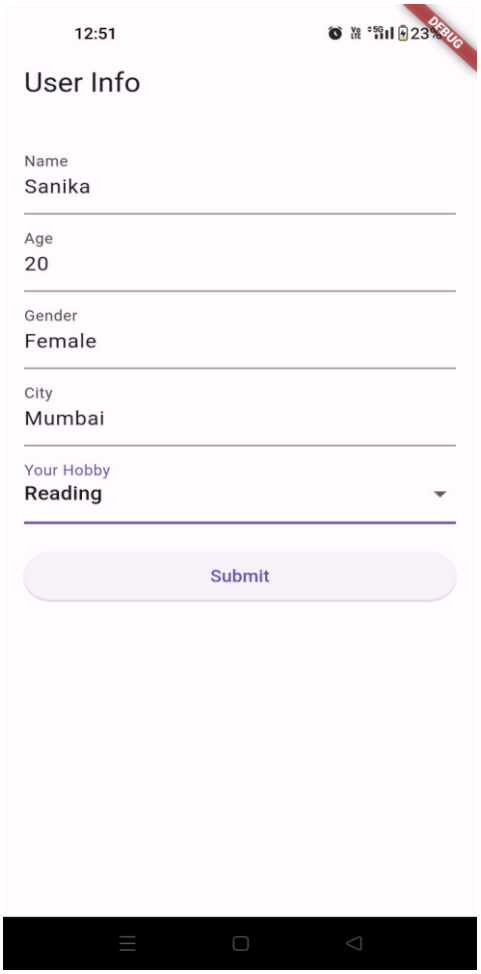
```
appBar: AppBar(
title: Text('User Info'),
),
body: Padding(
padding: EdgeInsets.all(16.0),
child: Form(
key: _formKey,
child: SingleChildScrollView(
child: Column(
crossAxisAlignment: CrossAxisAlignment.stretch,
children: <Widget>[
TextFormField(
decoration: InputDecoration(labelText: 'Name'),
validator: (value) {
if (value == null || value.isEmpty) {
return 'Please enter your name';
}
return null;
},
onSaved: (value) => _name = value,
),
TextFormField(
decoration: InputDecoration(labelText: 'Age'),
keyboardType: TextInputType.number,
validator: (value) {
if (value == null || value.isEmpty) {
return 'Please enter your age';
}
return null;
},
onSaved: (value) => _age = int.tryParse(value!),
```

```
),
TextFormField(
decoration: InputDecoration(labelText: 'Gender'),
validator: (value) {
if (value == null || value.isEmpty) {
return 'Please enter your gender';
}
return null;
},
onSaved: (value) => _gender = value,
),
TextFormField(

decoration: InputDecoration(labelText: 'City'),
validator: (value) {
if (value == null || value.isEmpty) {
return 'Please enter your city';
}
return null;
},
onSaved: (value) => _city = value,
),
DropdownButtonFormField<String>(
value: _selectedArtForm,
items: _artForms.map((artForm) {
return DropdownMenuItem(
value: artForm,
child: Text(artForm),
);
}).toList(),
onChanged: (value) {
```

```
setState(() {
_selectedArtForm = value;
});
},
decoration: InputDecoration(labelText: 'Your Hobby'),
validator: (value) {
if (value == null) {
return 'Please select a hobby';
}
return null;
},
),
SizedBox(height: 20),
ElevatedButton(
onPressed: () {
if (_formKey.currentState!.validate()) {
_formKey.currentState!.save();
// Process the data
print('Name: $_name');
print('Age: $_age');
print('Gender: $_gender');
print('City: $_city');
print('Your Hobby: $_selectedArtForm');
}
},
child: Text('Submit'),
),
],


),
),
```

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

Output :


12:51
DEBUG
User Info
Name
Sanika
Age
20
Gender
Female
City
Mumbai
Your Hobby
Reading
Submit