

Experiment no. :- 04

Aim :- To create an interactive Form using form widget

Theory :-

Form Widgets:

Form widgets are essential components of interactive forms, offering a range of input elements such as text fields, checkboxes, radio buttons, dropdown menus, and more. These widgets empower developers to design forms that cater to specific data input requirements. The flexibility of form widgets allows for the creation of dynamic and user-friendly interfaces, ensuring that the form adapts to the user's needs.

Form Inputs:

Text Fields:

Purpose: Allow users to input general text information.

Attributes: May include specifications such as maximum length, placeholder text, and input type (e.g., email, password).

Checkboxes:

Purpose: Enable users to make multiple selections from a list of options.

Attributes: Each checkbox typically represents a distinct option, and users can choose multiple checkboxes simultaneously .

Radio Buttons:

Purpose: Provide users with exclusive choices within a group.

Attributes: Users can select only one option from the group, making radio buttons suitable for mutually exclusive selections.

Dropdown Menus:

Purpose: Offer a space-efficient way to present a list of options for selection.

Attributes: Users click on a dropdown menu to reveal a list of choices, selecting one option from the list.

Textareas:

Purpose: Allow users to input multiline text, suitable for longer responses or comments

Attributes: Can include settings for the number of rows and columns to determine the size of the textarea.

Date Pickers:

Purpose: Facilitate the selection of dates.

Attributes: Users can choose a specific date from a calendar interface, helping to ensure accurate date input.

File Upload:

Purpose: Enable users to submit files (e.g., images, documents).

Attributes: May include file type restrictions, maximum file size, and a browse button for users to locate and upload files from their device.

Code :-

```
import 'package:flutter/material.dart';
import 'package:flutter_to_do_list/const/colors.dart';
import 'package:flutter_to_do_list/data/auth_data.dart';

class SignUp_Screen extends StatefulWidget {
  final VoidCallback show;
  SignUp_Screen(this.show, {super.key});

  @override
  State<SignUp_Screen> createState() => _SignUp_ScreenState();
}

class _SignUp_ScreenState extends State<SignUp_Screen> {
  FocusNode _focusNode1 = FocusNode();
  FocusNode _focusNode2 = FocusNode();
  FocusNode _focusNode3 = FocusNode();

  final email = TextEditingController();
  final password = TextEditingController();
  final PasswordConfirm = TextEditingController();

  @override
  void initState() {
    // TODO: implement initState
    super.initState();
  }
}
```

```

_focusNode1.addListener(() {
  setState(() {});
});
_focusNode2.addListener(() {
  setState(() {});
});
_focusNode3.addListener(() {
  setState(() {});
});
}

```

@override

```

Widget build(BuildContext context) {
  return Scaffold(
    backgroundColor: backgroundColors,
    body: SafeArea(
      child: SingleChildScrollView(
        child: Column(
          children: [
            SizedBox(height: 20),
            image(),
            SizedBox(height: 50),
            textfield(email, _focusNode1, 'Email', Icons.email),
            SizedBox(height: 10),
            textfield(password, _focusNode2, 'Password', Icons.password),
            SizedBox(height: 10),

```

```

        textField(PasswordConfirm, _focusNode3, 'PasswordConfirm',
            Icons.password),
        SizedBox(height: 8),
        account(),
        SizedBox(height: 20),
        SignUP_bottom(),
    ],
),
),
),
);
}

```

```

Widget account() {
  return Padding(
    padding: const EdgeInsets.symmetric(horizontal: 15),
    child: Row(
      mainAxisAlignment: MainAxisAlignment.end,
      children: [
        Text(
          "Don you have an account?",
          style: TextStyle(color: Colors.grey[700], fontSize: 14),
        ),
        SizedBox(width: 5),
        GestureDetector(
          onTap: widget.show,

```

```
child: Text(  
  'Login',  
  style: TextStyle(  
    color: Colors.blue,  
    fontSize: 14,  
    fontWeight: FontWeight.bold),  
  ),  
)  
],  
),  
);  
}
```

```
Widget SignUp_bottom() {  
  return Padding(  
    padding: const EdgeInsets.symmetric(horizontal: 15),  
    child: GestureDetector(  
      onTap: () {  
        AuthenticationRemote()  
          .register(email.text, password.text, PasswordConfirm.text);  
      },  
      child: Container(  
        alignment: Alignment.center,  
        width: double.infinity,  
        height: 50,  
        decoration: BoxDecoration(  

```

```

        color: custom_green,
        borderRadius: BorderRadius.circular(10),
      ),
      child: Text(
        'Sign Up',
        style: TextStyle(
          color: Colors.white,
          fontSize: 23,
          fontWeight: FontWeight.bold,
        ),
      ),
    ),
  ),
);
}

```

```

Widget textfield(TextEditingController _controller, FocusNode _focusNode,
  String typeName, IconData iconss) {
  return Padding(
    padding: const EdgeInsets.symmetric(horizontal: 15),
    child: Container(
      decoration: BoxDecoration(
        color: Colors.white,
        borderRadius: BorderRadius.circular(15),
      ),
      child: TextField(

```


```
controller: _controller,
focusNode: _focusNode,
style: TextStyle(fontSize: 18, color: Colors.black),
decoration: InputDecoration(
  prefixIcon: Icon(
    iconss,
    color: _focusNode.hasFocus ? custom_green : Color(0xffc5c5c5),
  ),
  contentPadding:
    EdgeInsets.symmetric(horizontal: 15, vertical: 15),
  hintText: typeName,
  enabledBorder: OutlineInputBorder(
    borderRadius: BorderRadius.circular(10),
    borderSide: BorderSide(
      color: Color(0xffc5c5c5),
      width: 2.0,
    ),
  ),
  focusedBorder: OutlineInputBorder(
    borderRadius: BorderRadius.circular(10),
    borderSide: BorderSide(
      color: custom_green,
      width: 2.0,
    ),
  ),
),
```



```
    ),  
  );  
}
```

```
Widget image() {  
  return Padding(  
    padding: const EdgeInsets.symmetric(horizontal: 15),  
    child: Container(  
      width: double.infinity,  
      height: 300,  
      decoration: BoxDecoration(  
        color: backgroundColors,  
        image: DecorationImage(  
          image: AssetImage('images/7.png'),  
          fit: BoxFit.fitWidth,  
        ),  
      ),  
    ),  
  );  
}
```

Output :-



Don you have an account? [Login](#)

Sign Up