

## Experiment : 04

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

### THEORY:

#### Flutter Form Widget:

The Form widget in Flutter provides a way to create and manage a group of related form elements. It helps with form validation, submission, and data storage. When using the Form widget, you typically also use TextFormField for text input and other form-related widgets.

#### TextFormFields:

- Use **TextFormField** widgets for text input fields within the form. These widgets handle user input, validation, and saving data.

#### Form Submission:

- Typically, a button triggers form submission. The **onPressed** callback of the button calls a function, which in turn validates and saves the form data.

#### Code:

##### Signup.dart

```
import 'dart:io';
import 'package:firebase_auth/firebase_auth.dart';
import 'package:firebase_storage/firebase_storage.dart';
import 'package:gmail_clone/models/user.dart' as CustomUser;
import 'package:flutter/material.dart';
import 'package:gmail_clone/variables.dart';
import 'package:image_picker/image_picker.dart';

class SignUp extends StatefulWidget {
  const SignUp({super.key});
  @override
  State<SignUp> createState() => _SignUpState();
}

class _SignUpState extends State<SignUp> {
  final GlobalKey<ScaffoldMessengerState> scaffoldMessengerKey =
    GlobalKey<ScaffoldMessengerState>();
  File? imagepath;
  var usernamecontroller = TextEditingController();
  var passwordcontroller = TextEditingController();
  pickimage(ImageSource imageSource) async {
    final image = await ImagePicker().pickImage(
      source: imageSource,
```

```

        maxWidth: 670,
        maxHeight: 800,
    );
    if (image != null) {
        setState(() {
            imagepath = File(image.path);
        });
        Navigator.pop(context);
    }
}

pickimagedialog() {
    return showDialog(
        context: context,
        builder: (context) {
            return SimpleDialog(
                children: <Widget>[
                    SimpleDialogOption(
                        onPressed: () => pickimage(ImageSource.gallery),
                        child:
                            Text("From gallery", style: mystyle(20, Colors.lightBlue)),
                    ),
                    SimpleDialogOption(
                        onPressed: () => pickimage(ImageSource.camera),
                        child:
                            Text("From camera", style: mystyle(20, Colors.lightBlue)),
                    ),
                    SimpleDialogOption(
                        onPressed: () => Navigator.pop(context),
                        child: Text("Cancel", style: mystyle(20, Colors.lightBlue)),
                    ),
                ],
            );
        });
}

uploadimage() async {
    //Store image
    UploadTask storage =
        profilepics.child(usernamecontroller.text).putFile(imagepath!);
    //complete storage
    TaskSnapshot storageTaskSnapshot = await storage;
    //download pic
    String downloadedpic = await storageTaskSnapshot.ref.getDownloadURL();
    return downloadedpic;
}

registeruser() async {
    try {

```

```
String downloadpic = imagepath == null
? 'https://fdlc.org/157-1578186_user-profile-default-image-png-clipart-png/'
: await uploadimage();
FirebaseAuth.instance
.createUserWithEmailAndPassword(
  email: usernamecontroller.text + '@gmail.com',
  password: passwordcontroller.text)
.then((signeduser) {
  CustomUser.User().storeuser(usernamecontroller.text + '@gmail.com',
    usernamecontroller.text, passwordcontroller.text, downloadpic);
});
Navigator.pop(context);
} catch (e) {
  print(e);
  SnackBar snackBar = SnackBar(content: Text(e.toString()));
  scaffoldMessengerKey.currentState!.showSnackBar(snackBar);
}
}
@override
Widget build(BuildContext context) {
  return Scaffold(
    key: scaffoldMessengerKey,
    body: SingleChildScrollView(
      child: Center(
        child: Container(
          width: MediaQuery.of(context).size.width,
          height: MediaQuery.of(context).size.height,
          child: Card(
            elevation: 10,
            child: Column(
              mainAxisAlignment: MainAxisAlignment.center,
              children: <Widget>[
                Text("Google",
                  style: mystyle(
                    25,
                    Color.fromARGB(255, 4, 20, 243),
                  )),
                SizedBox(height: 5.0),
                Text("Create Account", style: mystyle(18, Colors.black)),
                SizedBox(height: 10.0),
                Text("Continue to gmail", style: mystyle(18, Colors.black)),
                SizedBox(height: 20),
                Container(
                  width: MediaQuery.of(context).size.width,
                  margin: EdgeInsets.only(left: 20, right: 20),
                  child: TextField(
                    controller: usernamecontroller,
                    decoration: InputDecoration(
                      filled: true,
```

```

        hintText: "Username",
        border: OutlineInputBorder(
          borderRadius: BorderRadius.circular(15.0))),
      ),
    ),
    SizedBox(height: 15.0),
    Container(
      width: MediaQuery.of(context).size.width,
      margin: EdgeInsets.only(left: 20, right: 20),
      child: TextField(
        controller: passwordcontroller,
        decoration: InputDecoration(
          filled: true,
          hintText: "Password",
          border: OutlineInputBorder(
            borderRadius: BorderRadius.circular(15.0))),
      ),
    ),
    SizedBox(height: 15.0),
    Container(
      width: MediaQuery.of(context).size.width,
      margin: EdgeInsets.only(left: 20, right: 20),
      child: TextField(
        decoration: InputDecoration(
          filled: true,
          hintText: "Repeat Password",
          border: OutlineInputBorder(
            borderRadius: BorderRadius.circular(15.0))),
      ),
    ),
    SizedBox(height: 10.0),
    Row(
      mainAxisAlignment: MainAxisAlignment.spaceEvenly,
      children: <Widget>[
        InkWell(
          onTap: () => pickimagedialog(),
          child: Container(
            width: 64,
            height: 64,
            decoration: BoxDecoration(
              color: Colors.lightBlue,
              borderRadius: BorderRadius.circular(20.0)),
            child: Center(
              child: imagepath == null
                ? Icon(Icons.add)
                : Image(image: FileImage(imagepath!)),
            ),
          ),
        ),
      ],
    ),
  ),
),

```

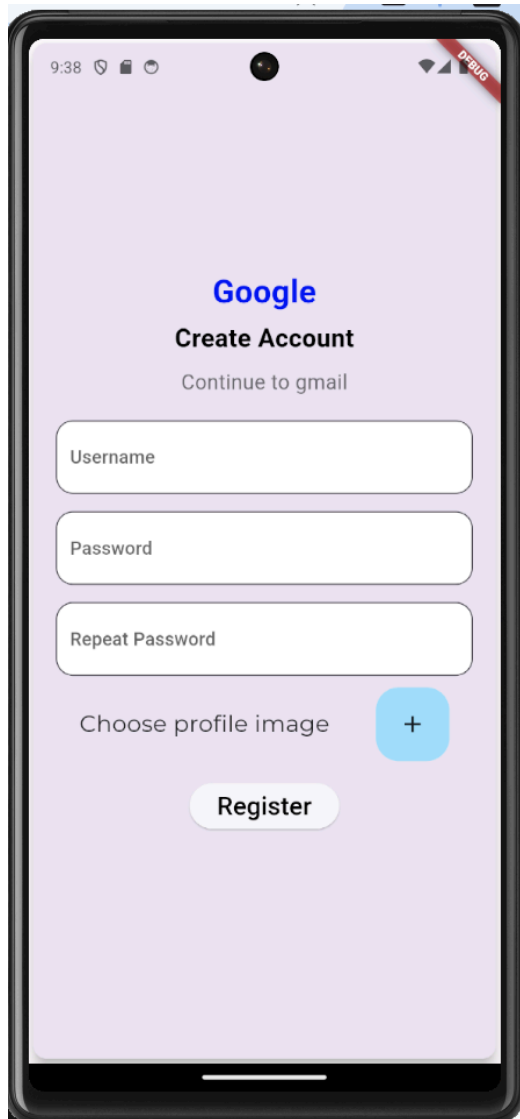
```

      InkWell(
        onTap: () => pickimagedialog(),
        child:
          Text("Choose profile image", style: mystyle(20))),
    ],
  ),
  SizedBox(height: 15.0),
  ElevatedButton(
    onPressed: () => registeruser(),
    style: ElevatedButton.styleFrom(
      backgroundColor: Colors.lightBlue[200],
    ),
    child: Text("Register", style: mystyle(20)),
  )
],
),
),
)),
),
);
}
}

```

Output:

## SignUp Page



9:38

Google

Create Account

Continue to gmail

Username

Password

Repeat Password

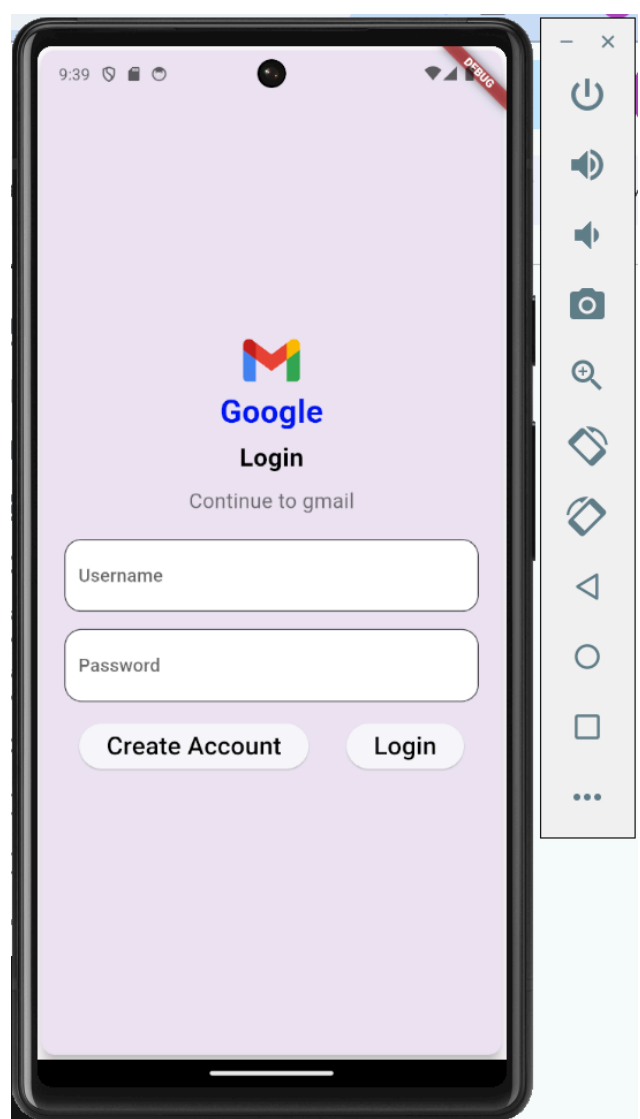
Choose profile image

+

Register

debug

## Login Page



9:39

Google

Login

Continue to gmail

Username

Password

Create Account

Login

debug

System icons: power, volume, camera, search, etc.

**Code:****Addmail.dart file**

```
Widget build(BuildContext context) {
  return Scaffold(
    floatingActionButton: FloatingActionButton(
      onPressed: () => sendmail(),
      child: Icon(Icons.send),
    ),
    appBar: AppBar(
      backgroundColor: Colors.white,
      actions: <Widget>[
        InkWell(
          onTap: () => pickimagedialog(),
          child: Icon(
            Icons.attach_file,
            color: Colors.black,
          ),
        ),
      ],
      title: Text(
        "Compose Email",
        style: mystyle(20, Colors.black, FontWeight.w600),
      ),
      centerTitle: true,
      leading: InkWell(
        onTap: () => Navigator.pop(context),
        child: Icon(
          Icons.arrow_back,
          color: Colors.black,
        ),
      ),
    ),
    body: uploading == true
      ? Center(
          child: Text(
            "Sending mail ...",
            style: mystyle(35),
          ),
        )
      : Padding(
          padding: EdgeInsets.all(8.0),
          child: Column(
            children: <Widget>[
              Container(
                width: MediaQuery.of(context).size.width,
                height: MediaQuery.of(context).size.height * 0.1,
                child: TextFormField(
                  controller: receiver,
                  style: mystyle(20),
```

```

        decoration: InputDecoration(
          hintText: "To", labelStyle: mystyle(20)),
      )),
      Container(
        width: MediaQuery.of(context).size.width,
        height: MediaQuery.of(context).size.height * 0.1,
        child: TextFormField(
          controller: subject,
          style: mystyle(20),
          decoration: InputDecoration(
            hintText: "Subject", labelStyle: mystyle(20)),
          )),
      Expanded(
        child: Container(
          width: MediaQuery.of(context).size.width,
          child: TextFormField(
            controller: mail,
            style: mystyle(20),
            maxLines: null,
            decoration: InputDecoration(
              hintText: "Mail",
              labelStyle: mystyle(20),
              border: InputBorder.none,
            ),
          )),
      ),
      imagepath == null
        ? Container()
        : MediaQuery.of(context).viewInsets.bottom > 0
          ? Container()
          : Container(
              alignment: Alignment.centerLeft,
              margin: EdgeInsets.only(bottom: 10),
              child: Row(
                mainAxisAlignment:
                  MainAxisAlignment.spaceEvenly,
                children: <Widget>[
                  Text(
                    "Your attachment",
                    style: mystyle(20),
                  ),
                  Container(
                    width: 200,
                    height: 150,
                    child: Image(image: FileImage(imagepath)),
                  )
                ],
              )),
    ],
  ),

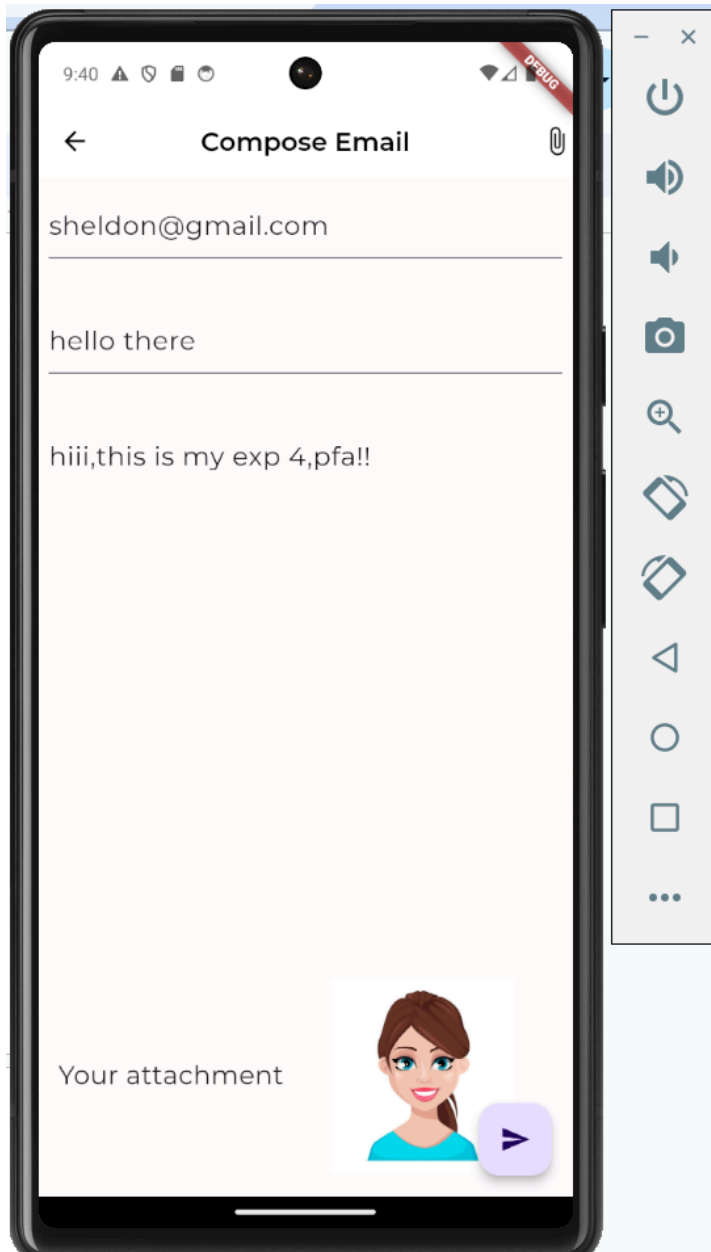
```



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

**Output:**

### Compose Mail Page



**Conclusion:** Understood the use form widget,made an interactive form to compose email

\*\*\*\*\*