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:

```
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,
```

```dart
      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
```

```dart
            ? '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:

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