



Faculty of Technology and Engineering

Chandubhai S. Patel Institute of Technology Department of Computer Science & Engineering

Date: / /

Laboratory Manual Performa

Academic Year	:	2024-25	Semester	••	5 TH
Course code	:	CSE309	Course name		Mobile Application
					and Development

Practical - 1

Create UI of Signup Screen and Login Screen with Appropriate validation.

- a. Fields: Name, Email, Mobile, Password and Confirm Password for Signup.
- b. Email and Password for Login.

Introduction of relevant concepts used:

Code (Screenshot)

Main.dart

```
lib > 🦠 main.dart > ...
  import 'package:flutter/material.dart';
import 'login_screen.dart';
     import 'signup screen.dart';
      Run | Debug | Profile
      void main() {
  6
      runApp(const MyApp());
  8
     class MyApp extends StatelessWidget {
       const MyApp({Key? key}) : super(key: key);
 10
 11
        @override
        Widget build(BuildContext context) {
 13
         return MaterialApp(
 14
 15
            title: 'Flutter Auth UI',
            theme: ThemeData(
            primarySwatch: ■Colors.blue,
 17
            ), // ThemeData
 18
 19
            home: const LoginScreen(),
 20
          ); // MaterialApp
 21
 22
 23
```

Login_screen.dart

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

class LoginScreen extends StatefulWidget {

```
const LoginScreen({Key? key}) : super(key: key);
 LoginScreenState createState() => _LoginScreenState();
class _LoginScreenState extends State<LoginScreen> {
 final formKey = GlobalKey<FormState>();
  final _emailController = TextEditingController();
 final _passwordController = TextEditingController();
 @override
 Widget build(BuildContext context) {
   return Scaffold(
      appBar: AppBar(title: const Text("Login")),
      body: Padding(
        padding: const EdgeInsets.all(16.0),
        child: Form(
          key: formKey,
          child: Column(
            children: [
              TextFormField(
                controller: _emailController,
decoration: const InputDecoration(labelText: 'Email'),
                validator: (value) {
                  if (value == null || value.isEmpty) {
                   return 'Please enter email';
                   if (!RegExp(r'^[^@]+@[^@]+\.[^@]+').hasMatch(value)) {
                   return 'Enter a valid email';
                   return null;
                   recurr Enter a varia chiarr .
                  return null;
                },
              ), // TextFormField
              TextFormField(
                controller: _passwordController,
obscureText: true,
                decoration: const InputDecoration(labelText: 'Password'),
                validator: (value) {
                 if (value == null || value.isEmpty) {
                   return 'Please enter password';
                 return null;
                },
              ), // TextFormField
              const SizedBox(height: 20),
              ElevatedButton(
                onPressed: () \{
                 if (_formKey.currentState?.validate() ?? false) {
                  // Perform login
               child: const Text('Login'),
              ), // ElevatedButton
              TextButton(
                onPressed: () {
                  Navigator.push(
                   context,
                   MaterialPageRoute(builder: (context) => const SignupScreen()),
                child: const Text('Don\'t have an account? Sign up'),
              ), // TextButton
            ],
          ), // Column
      ), // Padding
    ); // Scaffold
```

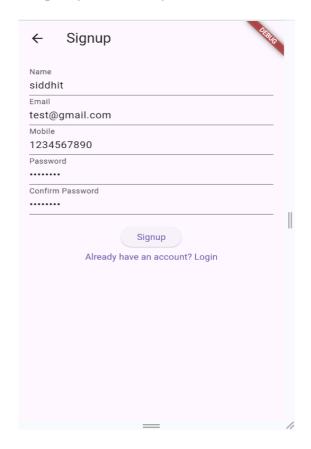
Signup_screen.dart

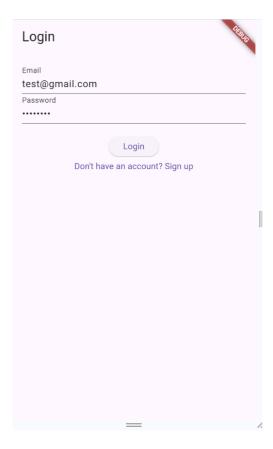
```
lib > 🦠 signup_screen.dart > ...
      import 'package:flutter/material.dart';
       class SignupScreen extends StatefulWidget {
        const SignupScreen({Key? key}) : super(key: key);
        _SignupScreenState createState() => _SignupScreenState();
  8
 10
       class _SignupScreenState extends State<SignupScreen> {
 11
        final _formKey = GlobalKey<FormState>();
 12
         final _nameController = TextEditingController();
        final _emailController = TextEditingController();
final _emailController = TextEditingController();
 13
 14
         final _passwordController = TextEditingController();
 15
        final _confirmPasswordController = TextEditingController();
 16
 17
 18
         Widget build(BuildContext context) {
 19
 20
           return Scaffold(
 21
             appBar: AppBar(title: const Text("Signup")),
 22
             body: Padding(
               padding: const EdgeInsets.all(16.0),
 24
                child: Form(
 25
                 key: _formKey,
                  child: Column(
                    children: [
 28
                      TextFormField(
 29
                         controller: _nameController,
 30
                         decoration: const InputDecoration(labelText: 'Name'),
 31
                         validator: (value) {
                          if (value == null || value.isEmpty) {
 32
                            return 'Please enter your name';
 33
 34
 35
                           return null;
                        },
, // TextFormField
 36
 37
 38
                       TextFormField(
 39
                         controller: _emailController,
                         decoration: const InputDecoration(labelText: 'Email'),
 40
 41
                         validator: (value) {
                           if (value == null || value.isEmpty) {
 42
                            return 'Please enter email';
 43
 44
 45
                           if (!RegExp(r'^[^@]+@[^@]+\.[^@]+').hasMatch(value)) {
 46
                           return 'Enter a valid email';
 47
 48
                         return null;
 49
                       },
                         // TextFormField
 50
 51
                     TextFormField(
 52
                       controller: _mobileController,
 53
                       decoration: const InputDecoration(labelText: 'Mobile'),
 54
                       keyboardType: TextInputType.phone,
 55
                       validator: (value) {
  if (value == null || value.isEmpty) {
 57
                           return 'Please enter mobile number';
 58
 59
                         if (!RegExp(r'^[0-9]{10}$').hasMatch(value)) {
 60
                         return 'Enter a valid 10-digit mobile number';
 61
                         return null:
 62
 63
                     ), // TextFormField
 65
                     TextFormField(
                       controller: _passwordController, obscureText: true,
 66
 68
                       decoration: const InputDecoration(labelText: 'Password'),
 69
                       validator: (value) {
                         if (value == null || value.isEmpty) {
   return 'Please enter password';
 70
 71
 72
 73
74
                         if (value.length < 6) {
    return 'Password must be at least 6 characters';</pre>
 75
 76
77
                         return null;
                     },
), // TextFormField
 78
 79
                     TextFormField(
 80
                        controller: _confirmPasswordController,
 81
                       obscureText: true,
```

decoration: const InputDecoration(labelText: 'Confirm Password'),

```
validator: (value) {
83
84
                         if (value == null || value.isEmpty) {
85
                           return 'Please confirm your password';
86
87
                         if (value != _passwordController.text) {
88
                           return 'Passwords do not match';
89
90
                        return null;
91
                    ), // TextFormField
92
                    const SizedBox(height: 20),
93
94
                    {\sf ElevatedButton}(
95
                      onPressed: () {
96
                        if (_formKey.currentState?.validate() ?? false) {
97
                          // Perform signup
98
99
                      child: const Text('Signup'),
100
101
                     ), // ElevatedButton
102
                    TextButton(
103
                      onPressed: () \{
104
                       Navigator.pop(context);
105
106
                      child: const Text('Already have an account? Login'),
107
                    ), // TextButton
108
                  ],
                ), // Column
109
              ), // Form
110
            ), // Padding
111
112
          ); // Scaffold
113
114
```

Output (Screenshot)





Grade/Marks (_____/ 10)

Sign of Lab Teacher with Date