Aim:
The aim of this experiment is to design a Flutter UI by using common Flutter widgets such as Text, Containers, Buttons, ListViews, and more to create a functional and visually appealing interface. The experiment helps in understanding how to structure and build UIs effectively using Flutter's pre-built components.

Theory:
Flutter is an open-source framework developed by Google for building natively compiled applications for mobile, web, and desktop from a single codebase. It provides a rich set of pre-designed widgets that help in building user interfaces with ease. These widgets are categorized into material design widgets and Cupertino widgets, which are designed to follow Google's Material Design principles and Apple's Human Interface Guidelines respectively. Common widgets like Text, Row, Column, Container, Button, ListView, and others play a critical role in creating dynamic layouts and interactive elements in Flutter applications.

Code:
loginpage.dart

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

import 'package:nutrilab/authservice.dart';

import 'package:nutrilab/forgot.dart';

import 'package:nutrilab/registerpage.dart';

import './deco.dart';

class GoToLoginPage extends StatefulWidget {

  const GoToLoginPage({super.key});

  @override

  State<GoToLoginPage> createState() => _GoToLoginPageState();

}


class _GoToLoginPageState extends State<GoToLoginPage> {

  final _auth = AuthService();
```

```
final _email = TextEditingController();
final _password = TextEditingController();

@override
void dispose() {
 _email.dispose();
 _password.dispose();
 super.dispose();
}

@override
Widget build(BuildContext context) {
 final screenWidth = MediaQuery.of(context).size.width;

 // Base font sizes
 final double baseFontSize = screenWidth  * 0.05;
 final double smallFontSize = baseFontSize * 0.65;
 final double mediumFontSize = baseFontSize * 0.8;
 final double largeFontSize = baseFontSize*1.4;
 final double extraLargeFontSize = baseFontSize * 2.5;

 return Scaffold(
  backgroundColor: Color.fromARGB(255, 225, 226, 209),
  body: Center(
```

```
child: Container(
  width: screenWidth - 40,
  child: Column(
    children: [
      Spacer(
        flex: 16,
      ),
      Stack(
        children: <Widget>[
          Text(
            'NUTRIEATS',
            style: TextStyle(
              fontSize: extraLargeFontSize,
              fontFamily: 'Genos',
              fontWeight: FontWeight.w500,
              foreground: Paint()
                ..style = PaintingStyle.stroke
                ..strokeWidth = 3
                ..color = Color.fromARGB(255, 27, 78, 23),
            ),
          ),
          Text(
            'NUTRIEATS',
            style: TextStyle(
```

```
      fontSize: extraLargeFontSize,
      fontWeight: FontWeight.w500,
      fontFamily: 'Genos',
      color: Color.fromARGB(255, 122, 185, 120),
    ),
   ),
 ],
),
Spacer(flex: 2),
Text(
 "Welcome back, you have been missed!",
 style: TextStyle(
  fontFamily: 'Gayathri',
  fontWeight: FontWeight.w700,
  fontSize: mediumFontSize,
 ),
),
Spacer(flex: 4),
TextFormField(
 controller: _email,
 cursorColor: Color.fromARGB(255, 24, 79, 87),
 style: TextStyle(
  color: const Color.fromARGB(255, 0, 0, 0),
  fontFamily: 'Gayathri',
```

```
    fontWeight: FontWeight.w700,
    fontSize: mediumFontSize,
   ),
   decoration: myDecorationField.copyWith(
    hintText: 'Email',
   ),
   keyboardType: TextInputType.emailAddress,
  ),
  Spacer(),
  TextFormField(
   controller: _password,
   obscureText: true,
   cursorColor: Color.fromARGB(255, 24, 79, 87),
   style: TextStyle(
    color: const Color.fromARGB(255, 0, 0, 0),
    fontFamily: 'Gayathri',
    fontWeight: FontWeight.w700,
    fontSize: mediumFontSize,
   ),
   decoration: myDecorationField.copyWith(
    hintText: 'Password',
   ),
   keyboardType: TextInputType.visiblePassword,
  ),
```

```
Align(
 alignment: Alignment.topRight,
 child: TextButton(
  onPressed: () {
   Navigator.push(
    context,
    MaterialPageRoute(
     builder: (context) => ForgotPage(),
    ),
   );
  },
  child: Text(
   'Forgot Password?',
   style: TextStyle(
    fontWeight: FontWeight.w700,
    fontFamily: 'Gayathri',
    fontSize: smallFontSize,
    color: Color.fromARGB(255, 24, 79, 87),
   ),
  ),
 ),
),
Spacer(),
SizedBox(
```

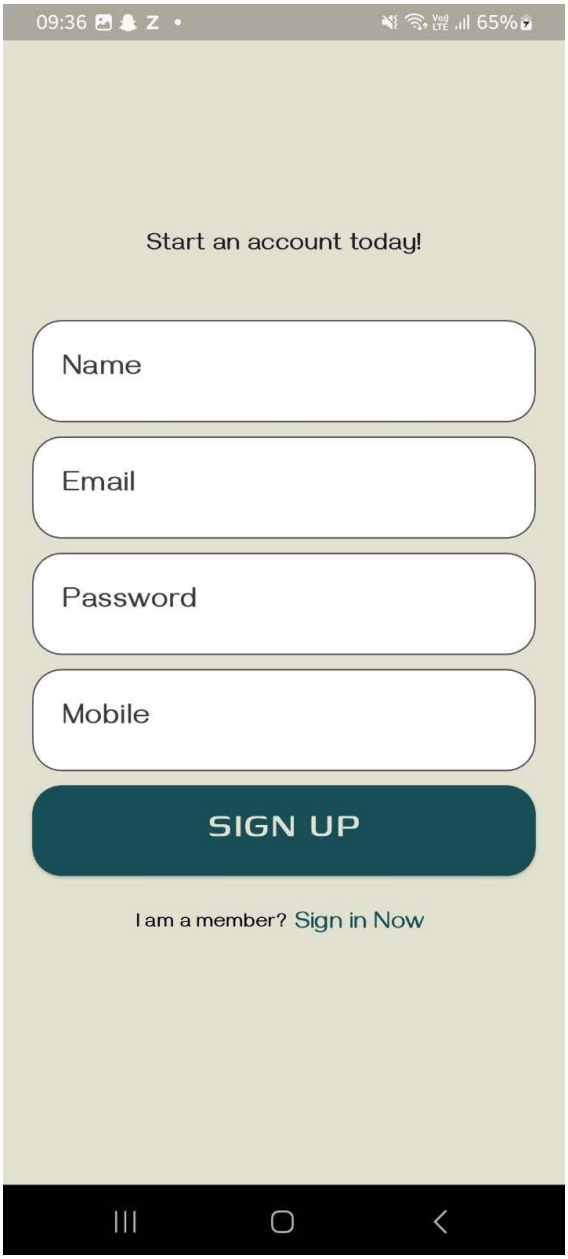
```
 width: screenWidth - 40,
 child: ElevatedButton(
  onPressed: _login,
  style: ElevatedButton.styleFrom(
   padding: EdgeInsets.fromLTRB(100, 5, 100, 15),
   backgroundColor: Color.fromARGB(255, 24, 79, 87),
   shape: RoundedRectangleBorder(
    borderRadius: BorderRadius.circular(20),
   ),
  ),
  child: Text(
   "SIGN IN",
   style: TextStyle(
    fontSize: largeFontSize,
    fontWeight: FontWeight.w500,
    fontFamily: 'Genos',
    color: Color.fromARGB(255, 225, 226, 209),
   ),
  ),
 ),
),
Spacer(),
Row(
 mainAxisAlignment: MainAxisAlignment.center,
```

```
children: [
 Text(
  "Not a member?",
  style: TextStyle(
   color: Color.fromARGB(255, 0, 0, 0),
   fontFamily: 'Gayathri',
   fontWeight: FontWeight.w700,
   fontSize: smallFontSize,
  ),
 ),
 TextButton(
  style: TextButton.styleFrom(
   splashFactory: NoSplash.splashFactory,
   padding: EdgeInsets.all(5),
  ),
  onPressed: () {
   Navigator.push(
    context,
    MaterialPageRoute(
     builder: (context) => GoToRegisterPage(),
    ),
   );
  },
  child: Text(
```

```
                "Register Now",
                style: TextStyle(
                  color: Color.fromARGB(255, 24, 79, 87),
                  fontFamily: 'Gayathri',
                  fontWeight: FontWeight.w700,
                  fontSize: mediumFontSize,
                ),
              ),
            ),
          ],
        ),
        Spacer(flex: 16),
      ],
    ),
  ),
 ),
);
}

_login() async {
 await _auth.loginUserWithEmailAndPassword(
  context,
  _email.text,
  _password.text,
```

```
    );
  }
}
```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Start an account today!
Name
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Password
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SIGN UP
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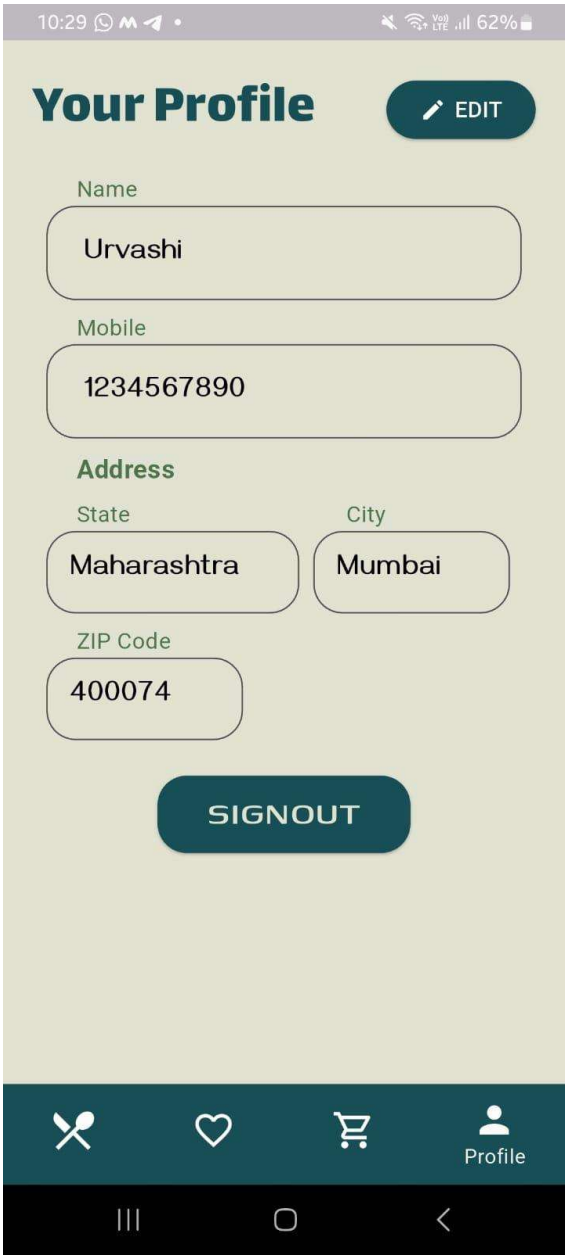
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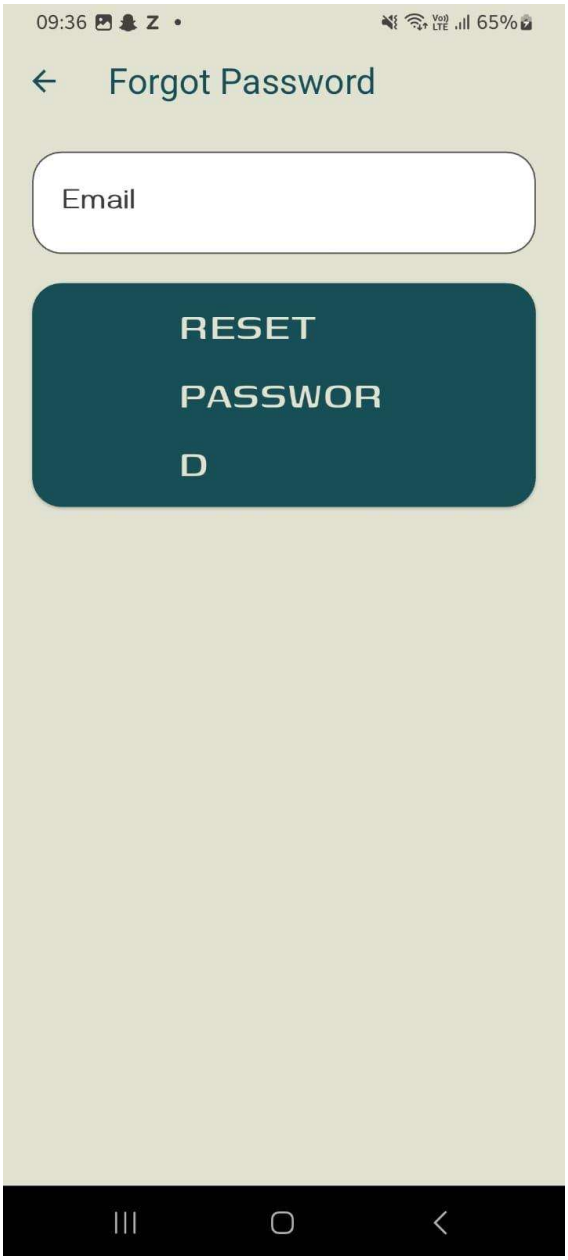

Conclusion:

In this experiment, we successfully designed a Flutter UI by integrating various common widgets. By leveraging these widgets, we were able to build an intuitive and responsive user interface. This experiment helped us understand the flexibility and power of Flutter in UI design, enabling the creation of highly customizable and interactive mobile applications. The knowledge gained is foundational for further exploring advanced UI and app development in Flutter.