

## **MAD Ex 2**

**Aim:** To design Flutter UI by including common widgets

### **Theory:**

Flutter is a UI toolkit by Google used to build cross-platform applications with a widget-based architecture. Widgets are the fundamental building blocks of Flutter UI, categorized into structural, interactive, display, navigation, and state management widgets.

- Structural widgets like Container, Row, and Column define layout.
- Interactive widgets like ElevatedButton and TextField handle user input.
- Display widgets such as Text, Image, and Card enhance visual appeal.
- Navigation widgets like Navigator and Drawer help in screen transitions.
- State management is crucial with StatefulWidget and providers, aiding in dynamic UI updates.

Flutter's widget-based approach ensures consistency, reusability, customizability, and responsive design, making UI development efficient and scalable.

### **Conclusion:**

In conclusion, Flutter's widget-based approach simplifies UI development by providing a vast collection of reusable and customizable widgets. By leveraging structural, interactive, display, and navigation widgets, developers can create visually appealing and responsive applications efficiently. The flexibility and performance optimizations of Flutter widgets make it an ideal choice for building modern cross-platform user interfaces.

**Code:**

```
import 'package:flutter/material.dart';
void main() {
  runApp(AccountApp());
}
class AccountApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      home: Account(),
    );
  }
}
class Account extends StatelessWidget {
  const Account({Key? key}) : super(key: key);
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: Colors.white24,
      appBar: AppBar(
        centerTitle: true,
        backgroundColor: Colors.white24,
        leading: IconButton(
          onPressed: () {
            Navigator.pop(context);
          },
          icon: Icon(Icons.arrow_back),
        ),
        title: Text(
          "Settings",
          style: TextStyle(color: Colors.white),
        ),
      ),
      body: SafeArea(
        child: Padding(
          padding: EdgeInsets.fromLTRB(10, 20, 10, 0),
          child: SingleChildScrollView(
            child: Column(
              crossAxisAlignment: CrossAxisAlignment.start,
              children: [
                _buildSectionHeader("PROFILE"),
                SizedBox(height: 2),
                _buildProfileButton(
                  label: "VESIT\n VESIT",
```

```

        onPressed: () {
          print("You pressed Profile Button");
        },
      ),
      SizedBox(height: 10),
      _buildSectionHeader("FEATURES"),
      SizedBox(height: 10),
      _buildFeatureButton(
        label: "Memories",
        icon: Icons.calendar_today,
        onPressed: () {
          print("You pressed Memories Button");
        },
      ),
      SizedBox(height: 2),
      _buildFeatureButton(
        label: "Blocked Profile",
        icon: Icons.block,
        onPressed: () {
          print("You pressed Blocked Profile Button");
        },
      ),
      SizedBox(height: 10),
      _buildSectionHeader("SETTINGS"),
      SizedBox(height: 10),
      _buildFeatureButton(
        label: "Notifications",
        icon: Icons.notifications,
        onPressed: () {
          print("You pressed Notifications Button");
        },
      ),
      SizedBox(height: 2),
      _buildFeatureButton(
        label: "Time Zone",
        icon: Icons.access_time,
        onPressed: () {
          print("You pressed Time Zone Button");
        },
      ),
      SizedBox(height: 2),
      _buildFeatureButton(
        label: "Others",
        icon: Icons.settings_suggest,

```

```

        onPressed: () {
          print("You pressed Others Button");
        },
      ),
      SizedBox(height: 10),
      _buildSectionHeader("ABOUT"),
      SizedBox(height: 10),
      _buildFeatureButton(
        label: "Share BeReal",
        icon: Icons.share,
        onPressed: () {
          print("You pressed Share BeReal Button");
        },
      ),
      SizedBox(height: 2),
      _buildFeatureButton(
        label: "Rate",
        icon: Icons.star_outline,
        onPressed: () {
          print("You pressed Rate Button");
        },
      ),
      SizedBox(height: 2),
      _buildFeatureButton(
        label: "Help",
        icon: Icons.help_outline,
        onPressed: () {
          print("You pressed Help Button");
        },
      ),
      SizedBox(height: 2),
      _buildFeatureButton(
        label: "About",
        icon: Icons.info,
        onPressed: () {
          print("You pressed About Button");
        },
      ),
    ],
  ),
),
),
),
);

```

```

}
Widget _buildSectionHeader(String title) {
  return Text(
    title,
    style: TextStyle(fontSize: 22, fontWeight: FontWeight.bold),
  );
}
Widget _buildProfileButton({required String label, required VoidCallback onPressed}) {
  return ElevatedButton.icon(
    onPressed: onPressed,
    icon: Icon(Icons.account_circle, color: Colors.white),
    label: Text(label, style: TextStyle(color: Colors.white, fontSize: 16)),
    style: ElevatedButton.styleFrom(
      backgroundColor: Colors.deepOrangeAccent,
      padding: EdgeInsets.symmetric(vertical: 20, horizontal: 30),
    ),
  );
}
Widget _buildFeatureButton({required String label, required IconData icon, required
VoidCallback onPressed}) {
  return ElevatedButton.icon(
    onPressed: onPressed,
    icon: Icon(icon, color: Colors.white),
    label: Text(label, style: TextStyle(color: Colors.white, fontSize: 18)),
    style: ElevatedButton.styleFrom(
      backgroundColor: Colors.deepOrangeAccent,
      padding: EdgeInsets.symmetric(vertical: 20, horizontal: 30),
    ),
  );
}
}

```



## PROFILE



VESIT  
VESIT

## FEATURES



Memories



Blocked Profile

## SETTINGS



Notifications



Time Zone



Others

## ABOUT



Share BeReal



Rate



Help



About

```
A Dart VM Service on Chrome is available at: http://127.0.0.1:51393/9cYPtot4fBY=  
The Flutter DevTools debugger and profiler on Chrome is available at: http://127.0.0.1:9101?uri=http://127.0.0.1:51393/9cYPtot4fBY=  
You pressed Profile Button  
You pressed Profile Button  
You pressed Memories Button  
You pressed Blocked Profile Button  
You pressed Notifications Button  
You pressed Time Zone Button  
You pressed Others Button  
You pressed Share BeReal Button
```

### Usage of Widgets:

- Widgets like Row, Column, SizedBox, ElevatedButton, and Align are used to structure the UI.
- The SafeArea widget ensures that content is displayed within the safe area of the screen.
- The SingleChildScrollView widget allows scrolling when the content overflows the screen

### List of Widgets

Flutter Scaffold  
Flutter Container  
Flutter Row & Column  
Flutter Text  
Flutter TextField  
Flutter Buttons  
Flutter Stack  
Flutter Forms  
Flutter AlertDialog  
Flutter Icons  
Flutter Images  
Flutter Card  
Flutter Tabbar  
Flutter Drawer  
Flutter Lists  
Flutter GridView  
Flutter Toast  
Flutter Checkbox  
Flutter Radio Button  
Flutter Progress Bar  
Flutter Snackbar  
Flutter Tooltip  
Flutter Slider  
Flutter Switch  
Flutter Charts  
Bottom Navigation Bar  
Flutter Themes  
Flutter Table  
Flutter Calendar  
Flutter Animation