

## EXPERIMENT NO 2

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CLASS-D15A

ROLL NO-03

AIM-To design Flutter UI by including common widgets

### THEORY

Flutter is an open-source UI framework by Google that allows developers to build natively compiled applications for mobile, web, and desktop using a single codebase. It uses the Dart programming language and follows a widget based architecture. In Flutter, everything is a widget, from layout components to UI elements.

Some of the common widgets

- **Container** – A flexible box that can hold other widgets and be styled with padding, margins, borders, and background colors. It is often used for layout structuring.
- **Text** – Used to display text with various styles, such as font size, color, weight, and alignment.
- **Image** – Loads and displays images from different sources like assets, networks, and memory.
- **Row & Column** – These layout widgets help arrange child widgets horizontally (Row) or vertically (Column). They are essential for structuring UI components.
- **Scaffold** – Provides a basic page structure, including an AppBar, body, floating action button, and drawer. It is the foundation of most Flutter screens.
- **AppBar** – A top navigation bar that usually contains a title, icons, and action buttons.
- **ListView** – A scrollable list widget that efficiently displays

multiple items, often used for dynamic content like messages or product lists.

- Text Field – Allows users to input text, commonly used in forms and search fields.

## SYNTAX

AppBar creates a top navigator bar with title and icons.

```
AppBar (  
  title: Text("Title"),  
  leading: IconButton(  
    icon: Icon(Icons.menu),  
    onPressed: () {},  
  ),  
  bottom: TabBar(),  
)
```

Scaffold creates the basic layout structure of the app.

```
Scaffold (  
  appBar: AppBar(),  
  body: Widget(),  
  drawer: Drawer(),  
  bottomNavigationBar: BottomNavigationBar(),  
)
```

TabBar creates tabs for switching views

```
TabBar(  
  tabs: [  
    Tab(text: "Tab 1"),  
    Tab(text: "Tab 2"),  
  ],  
)
```

Drawer a side menu that slides in from left

```
Drawer(  
  child: ListView(  
    children: [  
      DrawerHeader(  
        decoration: BoxDecoration(color: Colors.blue),
```

```

child: Text("Header"),
),
ListTile(
  leading: Icon(Icons.star),
  title: Text("Menu Item"),
  onTap: () {},
),
],
),
)

```

Listview creates a scrollable list dynamically

```

ListView.builder(
  itemCount: items.length,
  itemBuilder: (context, index) {
    return ListTile(
      title: Text(items[index]),
    );
  },
)

```

## Widget Properties

### Scaffold

key → Used to manage state  
 appBar → Adds a top navigation bar  
 body → The main content of the screen  
 drawer → A slide-out menu on the left  
 bottomNavigationBar → A navigation bar at the bottom

### AppBar

title → Sets a title or an icon  
 leading → Adds an icon or button on the left  
 backgroundColor → Changes the background color  
 elevation → Controls the shadow effect  
 centerTitle → Aligns the title in the center  
 bottom → Adds a TabBar

### Drawer

child → Contains a list of menu items  
 ListView → Displays menu options in a scrollable list

## ListView

padding → Controls spacing around the list

children → Contains multiple widgets inside the list

## ListTile

leading → Adds an icon on the left

title → The main text of the item

trailing → Adds an icon on the right

onTap → Defines what happens when tapped

## CODE

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

import 'package:firebase_core/firebase_core.dart' show Firebase;

import 'package:makemytrip_clone/firebase_options.dart' show
DefaultFirebaseOptions;

import 'package:makemytrip_clone/screens/splash_screen.dart';

// ignore: unused_import

import 'package:makemytrip_clone/screens/homepagescreen.dart';


import 'firebase_options.dart';

void main() async {

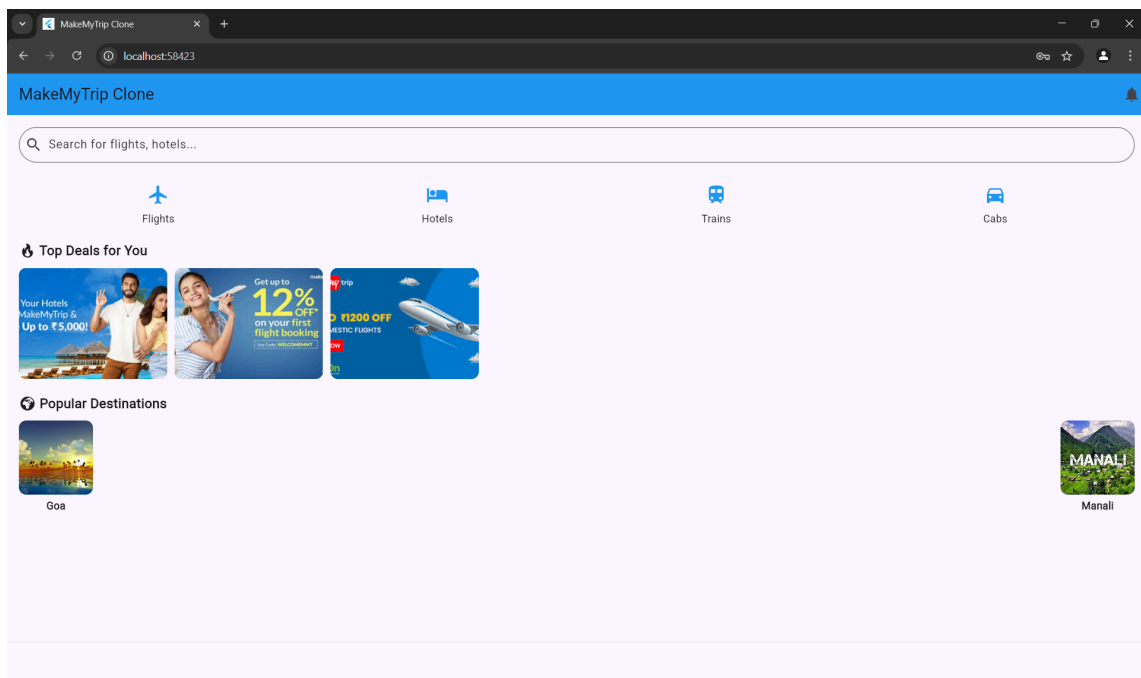
  WidgetsFlutterBinding.ensureInitialized();

  await Firebase.initializeApp(options:
DefaultFirebaseOptions.currentPlatform);

  runApp(const MyApp());
}
```

```
class MyApp extends StatelessWidget {  
  const MyApp({Key? key}) : super(key: key);  
  
  @override  
  Widget build(BuildContext context) {  
    return MaterialApp(  
      debugShowCheckedModeBanner: false,  
      title: 'MakeMyTrip Clone',  
      theme: ThemeData(  
        fontFamily: 'Roboto',  
        primarySwatch: Colors.blue,  
      ),  
      home: const SplashScreen(), //  Start with SplashScreen  
    );  
  }  
}
```

OUTPUT



User Profile page

when clicked on User Icon on top right corner

CODE

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

import
'package:makemytrip_clone/screens/booking_confirmation_screen.dart'
;
```

```
import 'package:makemytrip_clone/screens/payment_screen.dart';

class ProfileScreen extends StatelessWidget {

  const ProfileScreen({Key? key}) : super(key: key);

  @override

  Widget build(BuildContext context) {

    return Scaffold(

      appBar: AppBar(

        title: const Text("My Profile"),

        centerTitle: true,

        backgroundColor: Colors.blue,

        iconTheme: const IconThemeData(color: Colors.white),
```

```
        titleTextStyle: const TextStyle(color: Colors.white,
fontSize: 20),

    ),

    body: Padding(

        padding: const EdgeInsets.all(20.0),

        child: Column(

            crossAxisAlignment: CrossAxisAlignment.center,

            children: [

                const CircleAvatar(

                    radius: 50,

                    backgroundImage: AssetImage('assets/user.jpg'),

                ),

                const SizedBox(height: 16),
```



```
const Text(  
  
  'johnny depp',  
  
  style: TextStyle(  
  
    fontSize: 22,  
  
    fontWeight: FontWeight.bold,  
  
  ),  
  
),  
  
const Text(  
  
  'johndepp@email.com',  
  
  style: TextStyle(color: Colors.grey),  
  
),  
  
const SizedBox(height: 30),  
  
const Divider(),
```

```
        ProfileOption(

            icon: Icons.confirmation_num,

            title: 'My Bookings',

            onTap: () {

                Navigator.push(

                    context,

                    MaterialPageRoute(builder: (context) =>
BookingConfirmationScreen(bookingType: ' '),)),

                );

            },

        ),

        ProfileOption(

            icon: Icons.payment,
```

```
        title: 'Payment Info',

        onTap: () {

            Navigator.push(

                context,

                MaterialPageRoute(builder: (context) =>
PaymentScreen(bookingType: ' '),)),

            );

        },

    ),

],

),

),

);
```

```
}  
  
}
```

```
class ProfileOption extends StatelessWidget {
```

```
  final IconData icon;
```

```
  final String title;
```

```
  final VoidCallback onTap;
```

```
  const ProfileOption({
```

```
    super.key,
```

```
    required this.icon,
```

```
    required this.title,
```

```
    required this.onTap,
```

```
});

@override

Widget build(BuildContext context) {

  return ListTile(

    leading: Icon(icon, color: Colors.blue),

    title: Text(title),

    trailing: const Icon(Icons.arrow_forward_ios, size: 16),

    onTap: onTap,

  );

}

}
```

# OUTPUT

