

## Experiment 02

Aim:- To design Flutter UI by including common widgets.

Theory:-

- What is Flutter and why it is used?

→ Flutter is a mobile app development platform created by Google. It allows developers to create web, desktop and cross-platform that run on Android and iOS devices. Flutter uses a reactive programming language called Dart, making development faster and easier than traditional methods.

- What is a widget?

→ In computing, a widget is an element of a graphical user interface that displays information or provides a specific way for a user to interact with an application.

Widgets include the following:

- a. Icons
- b. Pull-down menus
- c. Buttons.

- What are Flutter widgets?

→ Widgets are the central class hierarchy in the Flutter framework. A widget is an immutable description of part of a user interface. Widgets



Can be inflated into elements, which manage the underlying render tree.

• Few of the widgets in Flutter are :-

1. Flutter Scaffold - The Scaffold is a widget in flutter used to implement the basic material design visual layout structure. This widget is able to occupy the whole device screen.

Sample code of a text widget

```

Widget build (BuildContext context)
{
    return Scaffold
        appBar: AppBar (
            title: Text ('First Flutter Application'),
        ),
    );
}
    
```

In the above code, the title property uses a text widget for displaying text on the screen.

2. Flutter Themes - Themes are the preset packages that contain the graphical appearances to our website or mobile app screen. We use it to share colors and font styles.

Sample code -

Contained C

Color: Theme.of(context).accentColor,

Child: Text C

'Text with a background color',

style: Theme.of(context).textTheme.

headline,

),

);

## Code -

### 1. home\_screen.dart

```
import 'package:carousel_slider/carousel_slider.dart';
import 'package:cloud_firestore/cloud_firestore.dart';
import 'package:firebase_auth/firebase_auth.dart';
import 'package:flutter/material.dart';
import 'package:flutter_staggered_grid_view/flutter_staggered_grid_view.dart';
import 'package:users_app/functions/functions.dart';
import 'package:users_app/global/global.dart';
import 'package:users_app/models/sellers.dart';
import 'package:users_app/pushNotifications/push_notifications_system.dart';
import 'package:users_app/sellersScreens/sellers_ui_design_widget.dart';

import 'package:users_app/widgets/my_drawer.dart';

import '../splashScreen/my_splash_screen.dart';

class HomeScreen extends StatefulWidget {
  @override
  State<HomeScreen> createState() => _HomeScreenState();
}

class _HomeScreenState extends State<HomeScreen> {
  //metoda za onemogucavanje usera koji je blokiran da pristupi
  restrictBlockedUsersFromUsingUsersApp() async {
    await FirebaseFirestore.instance
      .collection('users')
      .doc(sharedPreferences!.getString('uid'))
      .get()
      .then((snapshot) {
        if (snapshot.data()!['status'] != 'approved') {
          showReusableSnackBar(context, 'You are blocked by admin.');
```



```

        FirebaseAuth.instance.signOut();
        Navigator.push(
            context, MaterialPageRoute(builder: (c) => MySplashScreen()));
    } else {
        cartMethods.clearCart(context);
    }
});
}

```

```

@override
void initState() {
    super.initState();
}

```

```

PushNotificationSystem pushNotificationSystem = PushNotificationSystem();
pushNotificationSystem.whenNotificationRecived(context);
pushNotificationSystem.generateDeviceRecognitionToken();

```

```

restrictBlockedUsersFromUsingUsersApp();
}

```

```

@override
Widget build(BuildContext context) {
    return Scaffold(
        backgroundColor: Colors.black,
        drawer: MyDrawer(),
        appBar: AppBar(
            flexibleSpace: Container(
                decoration: const BoxDecoration(
                    gradient: LinearGradient(
                        colors: [
                            Colors.pinkAccent,
                            Colors.purpleAccent,
                        ],
                        begin: FractionalOffset(0.0, 0.0),
                        end: FractionalOffset(1.0, 0.0),
                    ),
                ),
            ),
        ),
    );
}

```

```

        stops: [0.0, 1.0],
        tileMode: TileMode.clamp,
    )),
),
title: const Text(
    "iShop",
    style: TextStyle(
        fontSize: 24,
        fontWeight: FontWeight.bold,
    ),
),
centerTitle: true,
),
body: CustomScrollView(
    slivers: [
        //image slider
        SliverToBoxAdapter(
            child: Padding(
                padding: const EdgeInsets.all(6.0),
                child: SizedBox(
                    height: MediaQuery.of(context).size.height * .3,
                    width: MediaQuery.of(context).size.width,
                    child: CarouselSlider(
                        options: CarouselOptions(
                            height: MediaQuery.of(context).size.height * .9,
                            aspectRatio: 16 / 9,
                            viewportFraction: 0.8,
                            initialPage: 0,
                            enableInfiniteScroll: true,
                            reverse: false,
                            autoPlay: true,
                            autoPlayInterval: const Duration(seconds: 2),
                            autoPlayAnimationDuration:
                                const Duration(milliseconds: 800),
                            autoPlayCurve: Curves.fastOutSlowIn,
                        ),
                    ),
                ),
            ),
        ),
    ],
),

```

```

        enlargeCenterPage: true,
        scrollDirection: Axis.horizontal,
      ),
      items: itemsImagesList.map((index) {
        return Builder(builder: (BuildContext c) {
          return Container(
            width: MediaQuery.of(context).size.width,
            margin: const EdgeInsets.symmetric(horizontal: 1.0),
            child: ClipRRect(
              borderRadius: BorderRadius.circular(40),
              child: Image.asset(
                index,
                fit: BoxFit.fill,
              ),
            ),
          );
        });
      }).toList(),
    ),
  ),
),
),
),
),
),

```

```

//query
//model
//design widget

```

```

StreamBuilder(
  stream:
    FirebaseFirestore.instance.collection("sellers").snapshots(),
  builder: (context, AsyncSnapshot dataSnapshot) {
    if (dataSnapshot.hasData) {
      return SliverStaggeredGrid.countBuilder(
        crossAxisCount: 1,
        staggeredTileBuilder: (c) => const StaggeredTile.fit(1),

```

```

itemBuilder: (context, index) {
  Sellers model = Sellers.fromJson(
    dataSnapshot.data.docs[index].data()
    as Map<String, dynamic>);

  return SellersUIDesignWidget(
    model: model,
  );
},
itemCount: dataSnapshot.data.docs.length,
);
} else {
return const SliverToBoxAdapter(
  child: Center(
    child: Text(
      "No Sellers Data exists.",
    ),
  ),
);
}
},
),
],
),
);
}
}

```



## 2. pubsec.yaml

name: users\_app

description: A new Flutter project.

publish\_to: "none"

version: 1.0.0+1

environment:

sdk: ">=2.18.2 <3.0.0"

dependencies:

carousel\_slider: ^4.1.1

cart\_stepper: ^3.0.2

cloud\_firestore: ^4.0.4

/cupertino\_icons: ^1.0.2

firebase\_auth: ^4.1.1

firebase\_core: ^2.1.1

firebase\_messaging: ^14.0.4

firebase\_storage: ^11.0.4

flutter:

sdk: flutter

flutter\_staggered\_grid\_view: ^0.4.1

fluttertoast: ^8.1.1

http: ^0.13.5

image\_picker: ^0.8.6

intl: null

provider: ^6.0.4

shared\_preferences: ^2.0.15

smooth\_star\_rating\_nsafe: ^1.0.0+1

dev\_dependencies:

flutter\_lints: ^2.0.0

flutter\_test:

sdk: flutter

flutter:

uses-material-design: true

assets:

- images/
- slider/

## Output Screen:

