

Name - Sejal Maurya
Div - D15A

Batch -B
Roll No - 35

Experiment No -05
Navigation ,Routing and Gestures

Aim - To Apply navigation ,routing and gestures in Flutter App.

Theory -

Navigation:

- Navigation refers to moving between different screens or pages within a Flutter app.
- Flutter provides a Navigator widget to manage navigation between routes.
- Routes are identified by a unique string, which is used to push or pop routes onto/from the navigation stack.

Routing:

- Routing in Flutter refers to the process of defining and managing the routes within your app.
- You can define routes using a MaterialApp widget's routes property or by using named routes with the Navigator.
- With named routes, you define a mapping of route names to builder functions that return the corresponding widgets for each route.

Gestures:

Flutter provides gesture recognizers like GestureDetector for handling user gestures such as taps, swipes, etc. Here's a simple example of detecting a tap gesture.

Code And Output :

Foodinfo.dart

```
import 'package:flutter/material.dart';
import 'package:food/cart/cart2.dart';
import 'package:food/screen/category.dart';
import 'package:food/widgets/item_widgets.dart';
import 'package:food/widgets/item_widgets2.dart';
import 'package:food/widgets/item_widget2.dart';
import 'package:food/widgets/item_widgets3.dart';
import 'package:food/widgets/item_widgets4.dart';
import 'package:food/widgets/item_widgets5.dart';
import 'package:food/widgets/item_widgets6.dart';
import 'package:food/widgets/item_widgets7.dart';

class FoodInfo extends StatefulWidget {
  @override
  _FoodInfoState createState() => _FoodInfoState();
}

class _FoodInfoState extends State<FoodInfo> {
  int _currentIndex = 0;

  // Define the list of headings for the containers
  List<String> containerHeadings = [
    "Beverages and Cakes",
    "Breakfast",
    "Lunch",
    "Noddles",
    "Sandwitch",
    "Soup and Salad",
  ];

  // List of routes corresponding to each tab
```

```
List<Widget> _tabRoutes = [
  // Add your routes here for each tab
  ItemWidget2(), // For example
  // Dummy route for demonstration, replace with your desired routes
  ItemWidgets3(),
  ItemWidgets4(),
  ItemWidgets5(),
  ItemWidgets6(),
  ItemWidgets7(),
];
```

```
@override
```

```
Widget build(BuildContext context) {
  return DefaultTabController(
    length: 6,
    child: Scaffold(
      backgroundColor: Colors.black,
      appBar: AppBar(
        backgroundColor: Colors.black,
        iconTheme: IconThemeData(
          color: Colors.white, // Change the color of the drawer icon here
        ),
        actions: [
          Padding(
            padding: const EdgeInsets.symmetric(horizontal: 10.0),
            child: Container(
              width: MediaQuery.of(context).size.width * 0.7,
              child: TextField(
                style: TextStyle(color: Colors.white),
                decoration: InputDecoration(
                  hintText: 'Menu is for ....',
                  hintStyle: TextStyle(color: Colors.white.withOpacity(0.5), fontSize:
25),
                  border: InputBorder.none,
                ),
                cursorColor: Colors.white,
                // Add any search functionality here
```



```

    ),
  ],
),
),
body: SafeArea(
  child: Stack(
    children: [
      Column(
        crossAxisAlignment: CrossAxisAlignment.start,
        children: [
          Padding(
            padding: const EdgeInsets.symmetric(horizontal: 15.0),
            child: SingleChildScrollView(
              scrollDirection: Axis.horizontal,
              child: Row(
                children: [
                  SizedBox(height: 50),
                  Padding(
                    padding: EdgeInsets.symmetric(horizontal: 15),
                    child: Image(
                      image: AssetImage('assets/images/upper1.jpg'),
                      width: 150,
                      height: 150,
                      fit: BoxFit.cover,
                    ),
                  ),
                  SizedBox(width: 10),
                  Padding(
                    padding: EdgeInsets.symmetric(horizontal: 15),
                    child: Image(
                      image: AssetImage('assets/images/valentine.jpg'),
                      width: 150,
                      height: 150,
                      fit: BoxFit.contain,
                    ),
                  ),
                  SizedBox(width: 10),

```

```

        // Add more images here
        Padding(
          padding: EdgeInsets.symmetric(horizontal: 15),
          child: Image(
            image: AssetImage('assets/images/dinner.jpg'),
            width: 150,
            height: 150,
            fit: BoxFit.contain,
          ),
        ),
        // Add more images as needed
      ],
    ),
  ),
  SizedBox(height: 10),
  Padding(
    padding: const EdgeInsets.symmetric(horizontal: 15.0),
    child: Text(
      "TODAY ' S MENU",
      style: TextStyle(color: Colors.white, fontSize: 20, fontWeight:
FontWeight.bold),
    ),
  ),
  Padding(
    padding: const EdgeInsets.symmetric(horizontal: 15.0),
    child: Text(
      "Chef-Crafted Daily Specials",
      style: TextStyle(color: Colors.grey, fontSize: 18),
    ),
  ),
  Padding(
    padding: EdgeInsets.symmetric(horizontal: 15),
    child: TabBar(
      isScrollable: true,
      indicator: BoxDecoration(),
      labelStyle: TextStyle(fontSize: 20,color: Colors.orange),

```

```

labelPadding: EdgeInsets.symmetric(horizontal: 20),
tabs: [
  for (var heading in containerHeadings)
    Tab(text: heading),
],
onTap: (index) {
  setState(() {
    _currentIndex = index;
  });
  // Navigate to corresponding page
  Navigator.push(
    context,
    MaterialPageRoute(builder: (context) => _tabRoutes[index]),
  );
},
),
),
Flexible(
  flex:1,
  child:TabBarView(
    children: [
      for (var i = 0; i < containerHeadings.length; i++)
        _currentIndex == i
          ? Container(
            color: Colors.black,
            child: Column(
              children: [
                Padding(
                  padding: const EdgeInsets.all(8.0),
                  child: Text(
                    containerHeadings[i],
                    style: TextStyle(color: Colors.white, fontSize: 24),
                  ),
                ),
                Expanded(
                  child: Container(
                    decoration: BoxDecoration(

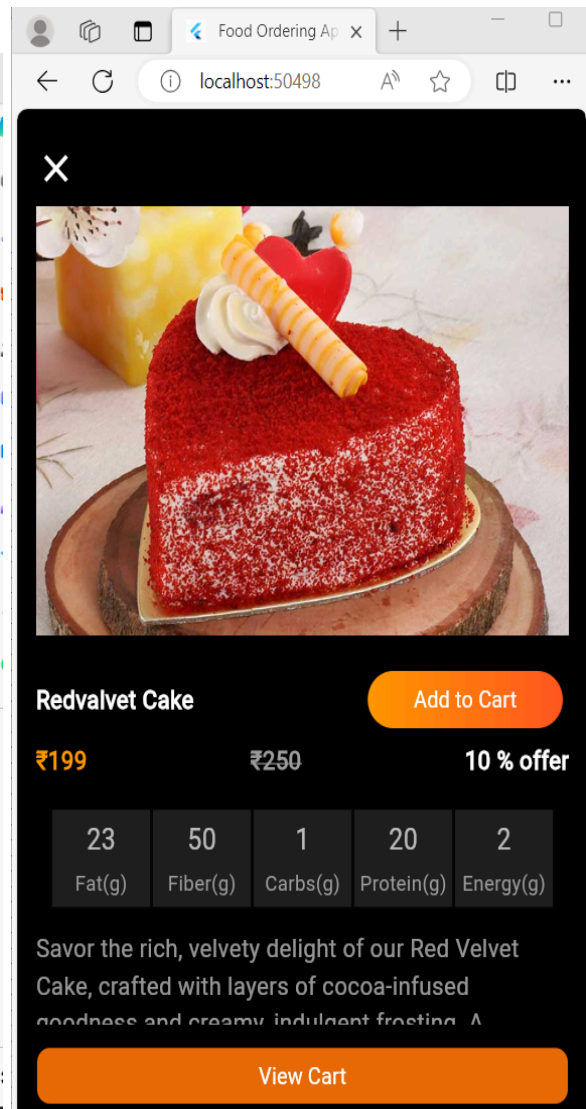
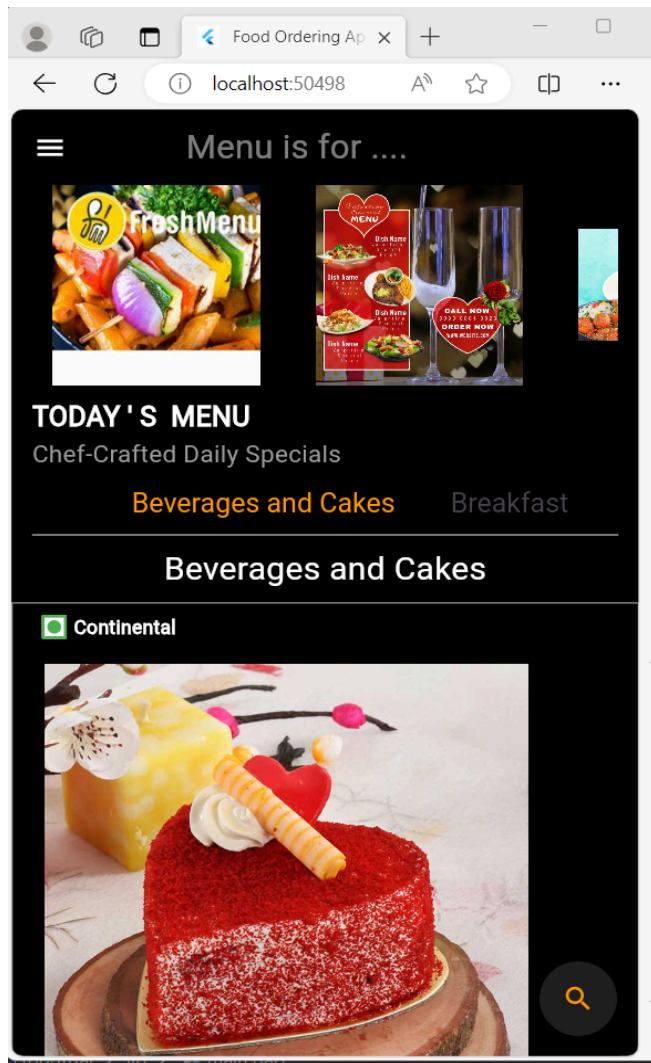
```

```

        border: Border.all(color: Colors.grey),
      ),
      child: ItemWidgets(),
    ),
  ),
],
),
)
: Container(),
],
),
),
],
),
Positioned(
  bottom: 16,
  right: 16,
  child: FloatingActionButton(
    onPressed: () {
      Navigator.push(
        context,
        MaterialPageRoute(builder: (context) => (CateGory()))),
      );
    },
    child: Icon(Icons.search, color: Colors.orange),
    backgroundColor: Colors.grey[900], // Change the color as needed
    shape: CircleBorder(), // Make the button circular
  ),
),
],
),
),
),
);
}
}

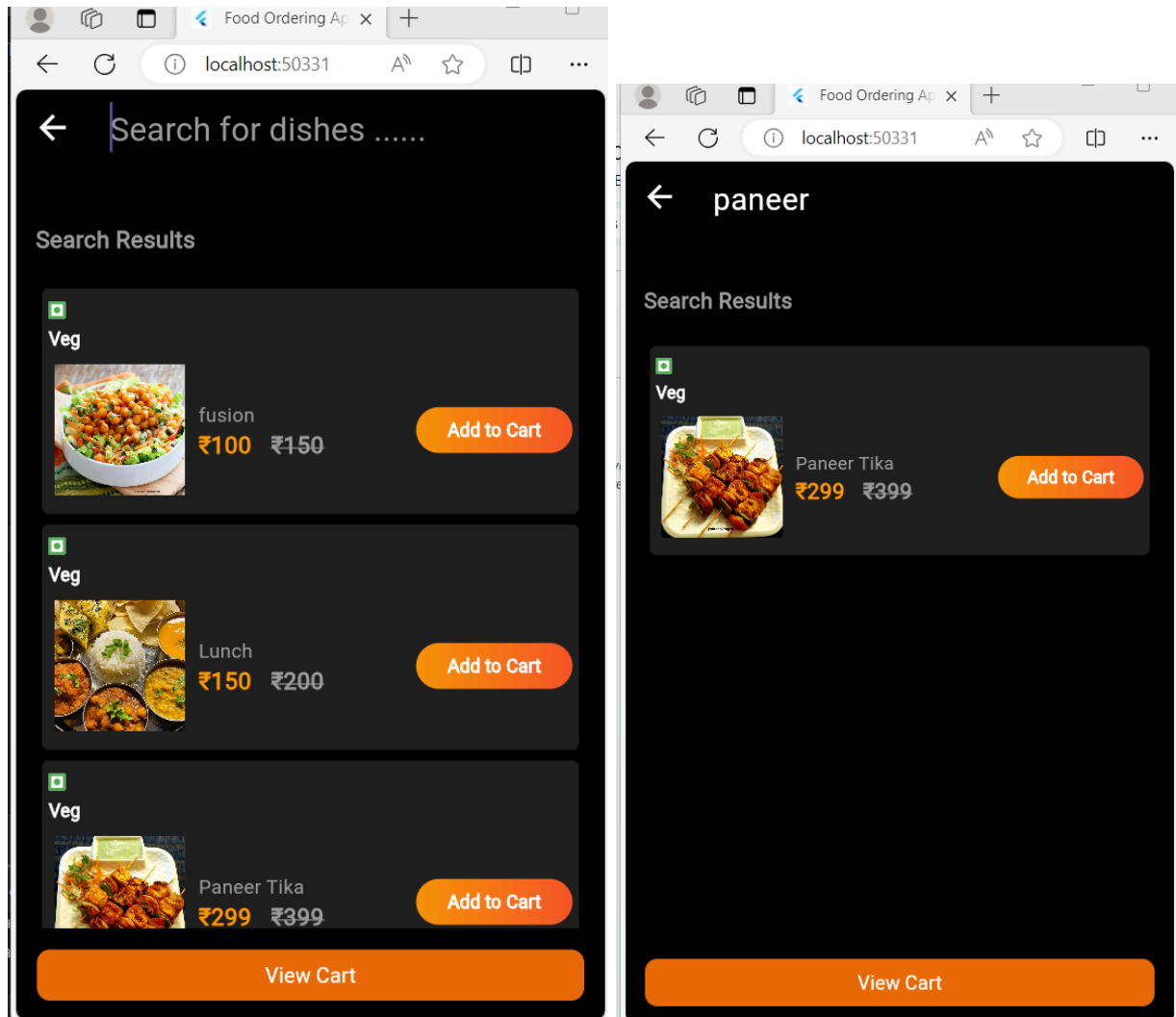
```


Output



After click on the image I change from this page to another page using the navigation

Other Functionality - like search button is also working
Here when I am searching any specific food it will show the results here.



Conclusion - In this experiment I learned how to navigate from one page to another using `Navigation.push()` and successfully implemented it.