

EXPERIMENT NO: 5

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CLASS: D15A

ROLL NO: 45

TOPIC: BEHANCE:Behance is a platform for creative professionals to showcase portfolios, discover inspiration, and connect with others in the industry

AIM: -To apply navigation, routing and gestures in Flutter App

Theory:

Flutter provides powerful tools to implement navigation, routing, and gestures within your applications. These elements are crucial for building an interactive and user-friendly app. Navigation and routing allow users to move between different screens or pages, while gestures enable intuitive interactions with the UI.

1. Navigation and Routing in Flutter

Navigation in Flutter allows you to move between different screens or routes within your app. Flutter uses a **Navigator** to manage the app's stack of screens. Each screen in the app is referred to as a **route**, and the Navigator pushes and pops these routes based on user actions.

Key Concepts:

- **Navigator:** A widget that manages a stack of routes. You can push new routes onto the stack and pop routes off.
- **Routes:** Each screen in the app is represented by a route, which can be defined using either a `MaterialPageRoute`, `CupertinoPageRoute`, or custom routes.

Types of Navigation in Flutter:

1. **Push and Pop Navigation:** The basic form of navigation, where you "push" a new screen onto the stack or "pop" the current screen off.

```
Navigator.push(  
  context,
```

```
MaterialPageRoute(builder: (context) => SecondScreen()),  
);
```

2. Gestures in Flutter

Gestures allow users to interact with the app through various touch actions such as tapping, swiping, pinching, and dragging. Flutter provides a rich set of gesture recognizers to detect user input and perform corresponding actions.

Key Gesture Types:

1. **Tap Gesture:** A single tap on a widget. It is the most common gesture.

```
GestureDetector(  
  onTap: () {  
    print('Tapped!');  
  },  
  child: Container(  
    color: Colors.blue,  
    height: 100,  
    width: 100,  
  ),  
);
```

- 2 .**Swipe Gestures:** Swiping across the screen in various directions.

```
GestureDetector(  
  onHorizontalDragUpdate: (details) {  
    print('Swiping horizontally');  
  },  
  onVerticalDragUpdate: (details) {  
    print('Swiping vertically');  
  },  
  child: Container(  
    height: 100,  
    width: 100,  
    color: Colors.red,  
  ),  
);
```

3. **Long Press Gesture:** Triggered by a long tap on a widget.

```
GestureDetector(  
  onLongPress: () {
```

```
    print('Long press detected');
},
child: Container(
  color: Colors.green,
  height: 100,
  width: 100,
),
);
```

Navigation and Routing :

Flutter enables users to move seamlessly between different screens and organize the app's flow. It allows both simple and complex routing, making it easier to manage your app's structure.

Gestures :

enhance user interaction by enabling intuitive touch-based actions, such as tapping, swiping, and pinching, to provide a more dynamic and engaging experience.

top_nav.dart

```
import 'package:flutter/material.dart';
import '../Creatives.dart'; // Ensure the
correct import for CreativesPage
import '../AboutInfo.dart'; // Ensure this
file contains AboutInfoPage
import '../ArtistDetails.dart';
class TopNavBar extends StatelessWidget
{
  const TopNavBar({Key? key}) :
super(key: key);

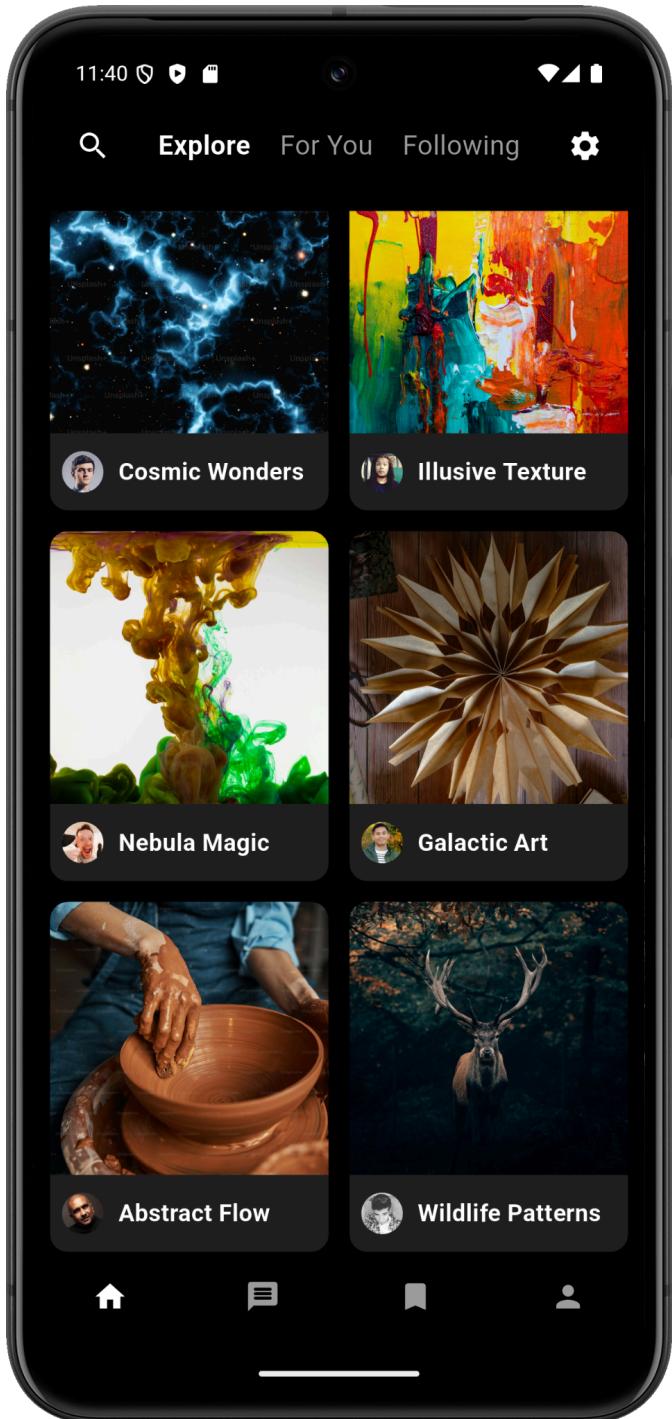
  @override
  Widget build(BuildContext context) {
    return Container(
      margin: const EdgeInsets.only(top:
30),
      padding: const
      EdgeInsets.symmetric(horizontal: 16,
vertical: 20),
      color: Colors.black,
      child: Row(
        mainAxisAlignment:
MainAxisAlignment.spaceBetween,
        children: [
          // Search Icon
          IconButton(
            icon: const Icon(Icons.search,
color: Colors.white),
            onPressed: () {
              // Implement search functionality
here
            },
          ),
          // Explore Text
          const Text(
            "Explore",
            style: TextStyle(color:
Colors.white, fontSize: 18, fontWeight:
FontWeight.bold),
          ),
          // "For You" with Navigation
          GestureDetector(
            onTap: () {
              Navigator.push(
                context,
                MaterialPageRoute(builder:
(context) => AboutInfoPage()), // Ensure
this page exists
              );
            },
            child: const Text(
              "For You",
              style: TextStyle(color:
Colors.grey, fontSize: 18),
            ),
          ),
          // "Following" Text
          GestureDetector(
            onTap: () {
              Navigator.push(
                context,
                MaterialPageRoute(builder:
(context) => ArtistDetails()), // Ensure
this page exists
              );
            },
            child: const Text(
              "Following",
              style: TextStyle(color:
Colors.grey, fontSize: 18),
            ),
          ),
          // Settings Icon with Navigation
        ],
      ),
    );
  }
}
```

```
 IconButton(  
   icon: const Icon(Icons.settings,  
color: Colors.white),  
   onPressed: () {  
     Navigator.push(  
       context,  
       MaterialPageRoute(builder:  
(context) => CreativesPage()), // Ensure  
CreativesPage exists  
   );  
 },  
 ),  
 ],  
 ),  
 );  
 }  
 }  
 }
```

bottom_nav.dart

```
import 'package:flutter/material.dart';
import '../Creatives.dart'; // Ensure the
correct import for CreativesPage
import '../AboutInfo.dart'; // Ensure this
file contains AboutInfoPage
import '../ArtistDetails.dart';
class TopNavBar extends StatelessWidget
{
  const TopNavBar({Key? key}) :
super(key: key);

  @override
  Widget build(BuildContext context) {
    return Container(
      margin: const EdgeInsets.only(top:
30),
      padding: const
      EdgeInsets.symmetric(horizontal: 16,
      vertical: 20),
      color: Colors.black,
      child: Row(
        mainAxisAlignment:
MainAxisAlignment.spaceBetween,
        children: [
          // Search Icon
          IconButton(
            icon: const Icon(Icons.search,
color: Colors.white),
            onPressed: () {
              // Implement search functionality
              here
            },
          ),
          const Text(
            "Explore",
            style: TextStyle(color:
Colors.white, fontSize: 18, fontWeight:
FontWeight.bold),
          ),
          // "For You" with Navigation
          GestureDetector(
            onTap: () {
              Navigator.push(
                context,
                MaterialPageRoute(builder:
(context) => AboutInfoPage()), // Ensure
this page exists
              );
            },
            child: const Text(
              "For You",
              style: TextStyle(color:
Colors.grey, fontSize: 18),
            ),
          ),
          // "Following" Text
          GestureDetector(
            onTap: () {
              Navigator.push(
                context,
                MaterialPageRoute(builder:
(context) => ArtistDetails()), // Ensure
this page exists
              );
            },
            child: const Text(
              "Following",
              style: TextStyle(color:
Colors.grey, fontSize: 18),
            ),
          ),
          // Settings Icon with Navigation
          IconButton(
            icon: const Icon(Icons.settings,
color: Colors.white),
            onPressed: () {
              Navigator.push(
                context,
                MaterialPageRoute(builder:
(context) => CreativesPage()), // Ensure
CreativesPage exists );
            },
          ),
        ],
      ),
    );
  }
}
```



Custome_card.dart

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

class CustomCard extends StatelessWidget {
  final String imageUrl;
  final String title;
  final String avatarUrl;

  const CustomCard({
    Key? key,
    required this.imageUrl,
    required this.title,
    required this.avatarUrl,
  }) : super(key: key);

  @override
  Widget build(BuildContext context) {
    return Container(
      margin: const EdgeInsets.all(3.0),
      decoration: BoxDecoration(
        borderRadius: BorderRadius.circular(12),
        color: Colors.black,
      ),
      child: Column(
        crossAxisAlignment: CrossAxisAlignment.start,
        children: [
          // Image Section
          Expanded(
            child: Container(
              decoration: const BoxDecoration(
                borderRadius: BorderRadius.only(
                  topLeft: Radius.circular(12),
                  topRight: Radius.circular(12),
                ),
              ),
            ),
          ),
          // Title & Avatar
          Container(
            padding: const EdgeInsets.symmetric(horizontal: 8.0, vertical: 12.0),
            decoration: BoxDecoration(
              color: Colors.grey[900], // Background color added
              borderRadius: const BorderRadius.only(
                bottomLeft: Radius.circular(12),
                bottomRight: Radius.circular(12),
              ),
            ),
            child: Row(
              children: [
                // Avatar
                CircleAvatar(
                  radius: 14,
                  backgroundImage: NetworkImage/avatarUrl),
                const SizedBox(width: 10),
                // Title
                Expanded(
                  child: Text(

```

```
                    child: ClipRRect(
                      borderRadius: const BorderRadius.only(
                        topLeft: Radius.circular(12),
                        topRight: Radius.circular(12),
                      ),
                      child: Image.network(
                        imageUrl,
                        fit: BoxFit.cover,
                        width: double.infinity,
                      ),
                    ),
                  ),
                ),
                // Title & Avatar
                Container(
                  padding: const EdgeInsets.symmetric(horizontal: 8.0, vertical: 12.0),
                  decoration: BoxDecoration(
                    color: Colors.grey[900], // Background color added
                    borderRadius: const BorderRadius.only(
                      bottomLeft: Radius.circular(12),
                      bottomRight: Radius.circular(12),
                    ),
                  ),
                  child: Row(
                    children: [
                      // Avatar
                      CircleAvatar(
                        radius: 14,
                        backgroundImage: NetworkImage/avatarUrl),
                      const SizedBox(width: 10),
                      // Title
                      Expanded(
                        child: Text(

```

```
        title,
        style: const TextStyle(
            color: Colors.white,
            fontSize: 16,
            fontWeight:
                FontWeight.bold,
            ),
            overflow:
                TextOverflow.ellipsis,
            ),
            ],
            ),
            ],
            ),
            ],
            );
        }
    }
```

ArtistDetails.dart

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

class ArtistDetails extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: Colors.black,
      appBar: AppBar(
        backgroundColor: Colors.black,
        elevation: 0,
        actions: [
          IconButton(
            icon: Icon(Icons.chat_bubble_outline, color: Colors.white),
            onPressed: () {},
          ),
          IconButton(
            icon: Icon(Icons.more_vert, color: Colors.white),
            onPressed: () {},
          ),
        ],
      ),
      body: SingleChildScrollView(
        child: Column(
          children: [
            // Profile Header
            Center(
              child: Column(
                children: [
                  CircleAvatar(
                    radius: 50,
                    backgroundImage: AssetImage('assets/artist.jpg'), // Change
                    with actual image
                  ),
                  SizedBox(height: 8),
                  Text(
                    'Jack R.',
                    style: TextStyle(color: Colors.white, fontSize: 24, fontWeight: FontWeight.bold),
                  ),
                  SizedBox(height: 4),
                  Row(
                    mainAxisAlignment: MainAxisAlignment.center,
                    children: [
                      Icon(Icons.thumb_up, color: Colors.white, size: 16),
                      SizedBox(width: 4),
                      Text('178198', style: TextStyle(color: Colors.white)),
                      SizedBox(width: 16),
                      Icon(Icons.group, color: Colors.white, size: 16),
                      SizedBox(width: 4),
                      Text('23212', style: TextStyle(color: Colors.white)),
                      SizedBox(width: 16),
                      Icon(Icons.work, color: Colors.white, size: 16),
                      SizedBox(width: 4),
                      Text('33', style: TextStyle(color: Colors.white)),
                      SizedBox(height: 16),
                      Row(
                        mainAxisAlignment: MainAxisAlignment.center,
                        children: [
                          ElevatedButton(
                            style: ElevatedButton.styleFrom(
                              backgroundColor: Colors.blue,
                              shape: RoundedRectangleBorder(borderRadius: BorderRadius.circular(8)),
                            ),
                            onPressed: () {},
                          ),
                        ],
                      ),
                    ],
                  ),
                ],
              ),
            ),
          ],
        ),
      ),
    );
  }
}
```

```
child: Text('Follow', style:  
TextStyle(color: Colors.white)),  
),  
SizedBox(width: 16),  
ElevatedButton(  
style:  
ElevatedButton.styleFrom(  
backgroundColor:  
Colors.grey[800],  
shape:  
RoundedRectangleBorder(borderRadius:  
BorderRadius.circular(8)),  
,  
onPressed: () {},  
child: Text('Hire', style:  
TextStyle(color: Colors.white)),  
,  
],  
,  
SizedBox(height: 16),  
Divider(color: Colors.white38),  
SizedBox(height: 8),  
],  
,  
),  
),  
// Tab Bar  
Container(  

```

