

MPL Experiment 05

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D15A / 32

Aim: Applying Navigation, Routing, and Gestures in Flutter App

Introduction: Navigation and routing in Flutter allow users to move between different screens, while gestures provide interactive functionalities like tapping, swiping, and dragging. This experiment demonstrates how these features are used in a Flutter app.

Implementation Details:

1. Navigation and Routing

Pages Implemented:

- **Landing Page** - Initial screen with options to navigate to login and signup pages.
- **Login Page** - Form for user authentication.
- **Signup Page** - Form for new user registration.
- **Home Page** - Main screen after authentication, displaying content.
- **Profile Page** - User profile with logout functionality.

Navigation Methods Used:

Named Routes:

```
MaterialApp(  
  initialRoute: '/',  
  routes: {  
    '/': (context) => LandingPage(),  
    '/login': (context) => LoginPage(),  
    '/signup': (context) => SignupPage(),  
    '/home': (context) => HomePage(),  
    '/profile': (context) => ProfilePage(),  
  },  
);
```

-

Push and Pop Navigation:

```
Navigator.push(  
  context,   
  MaterialPageRoute(builder: (context) => LoginPage(),
```

```
context,  
MaterialPageRoute(builder: (context) => HomePage()),  
);  
Navigator.pop(context);
```

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2. Gesture Detection

Gestures Implemented:

Tap Gesture: Used for button clicks.

```
GestureDetector(  
  onTap: () {  
    print("Tapped!");  
  },  
  child: Container(  
    color: Colors.blue,  
    child: Text("Tap Me"),  
  ),  
);
```

-

Swipe Gesture: Implemented in a carousel or dismissible widgets.

```
Dismissible(  
  key: Key(item.toString()),  
  onDismissed: (direction) {  
    setState(() {  
      items.remove(item);  
    });  
  },  
  child: ListTile(title: Text(item)),  
);
```

CODE:

```
import 'package:flutter/material.dart';  
  
import 'package:twitch_mpl_lab/pages/categories_page.dart';
```

```
import 'package:twitch_mpl_lab/pages/profile_page.dart';

import 'package:twitch_mpl_lab/pages/reels_page.dart';

class HomePage extends StatefulWidget {

  @override

  _HomePageState createState() => _HomePageState();

}

class _HomePageState extends State<HomePage> {

  int _selectedIndex = 0;

  final List<Widget> _pages = [

    ReelsPage(),

    TwitchCategoriesPage(),

    Center(child: Text("Add Content", style: TextStyle(color:
Colors.white))),

    Center(child: Text("Activity", style: TextStyle(color:
Colors.white))),

    ProfilePage(),

  ];

  void _onItemTapped(int index) {

    setState(() {
```

```

        _selectedIndex = index;

    });

}

@override

Widget build(BuildContext context) {

    return Scaffold(

        body: _pages[_selectedIndex],

        bottomNavigationBar: BottomNavigationBar(

            type: BottomNavigationBarType.fixed,

            backgroundColor: Colors.black,

            selectedItemColor: Colors.purple,

            unselectedItemColor: Colors.grey,

            currentIndex: _selectedIndex,

            onTap: _onItemTapped,

            items: [

                BottomNavigationBarItem(icon: Icon(Icons.home), label:
"Home"),

                BottomNavigationBarItem(icon: Icon(Icons.search), label:
"Browse"),

                BottomNavigationBarItem(icon: Icon(Icons.add), label:
"Add"),

                BottomNavigationBarItem(icon: Icon(Icons.notifications),
label: "Activity"),

```

```
        BottomNavigationBarItem(icon: Icon(Icons.person), label:
"Profile"),
    ],
  ),
);
}
```

OUTPUT :

00:14 M M G ○ •



Twitch Reels

No Clips Available


Home


Browse


Add


Activity


Profile



**Categories****Live Channels****Just Chatting**

● 102.6K Viewe...

IRL

**Counter-Strike**

● 36.1K Viewers

FPS

**League of Le...**

● 28.2K Viewers

MOBA

**Monster Hun...**

● 13.5K Viewers

Gaming

**Grand Theft ...**

● 4.8K Viewers

Gaming

**World of War...**

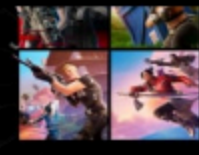
● 24.6K Viewers

Gaming

**VALORANT**

● 14.8K Viewers

FPS

**Fortnite**

● 10.6K Viewers

Shooter

**Destiny 2**

● 65.1K Viewers

Gaming



Home



Browse



Add



Activity



Profile



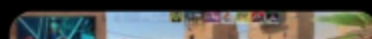
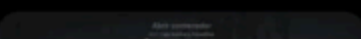
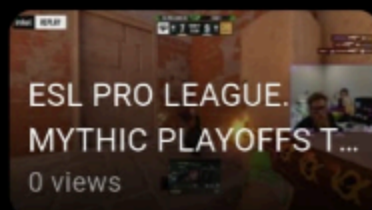
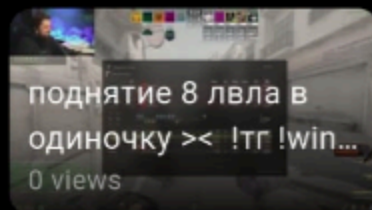
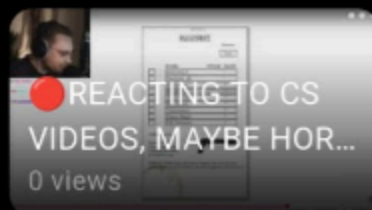
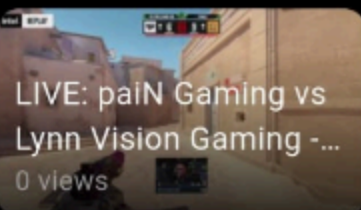
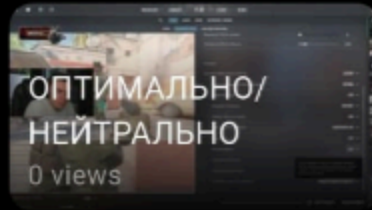
23:54 M M G ○ •



Live Channels

Videos

Clips



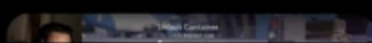
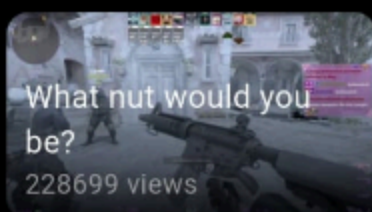
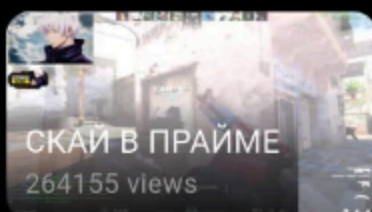
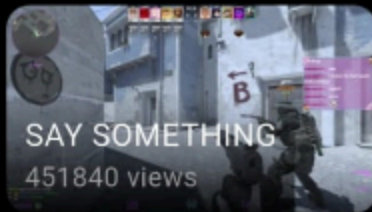
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Live Channels

Videos

Clips



23:55 M M G ○ •



← Video Player




Gaules


Follow



Dia 4 ESL Pro League Season 21 Stage ...


  **ZeneTTi_**: PAREI FAMILIAAAAAAAAAA


 **bigzera99**: era pra quebrar os caras

 **fortown**: Não quer ganhar quita da lobby, é melhor.

 **LucasBarbossa**: Eu mesmo não

 **mrmundodosnerds**: mas na moral pq foi abrindo um de cada vez

 **ajato1**: @llaugstv segunda acaba a mamata, voltam minhas aulas, aí é loucura demais.

 Slow Mode

Send a message



23:56 M M G ○ •



← Video Player



biskolata new version!!

Counter-Strike | 51.1K views...



two bear friends

Counter-Strike | 16.7K view...



you can't park there..

Counter-Strike | 13K views | ...



2nd kill in 18th round gg

Counter-Strike | 6.6K views ...



she's trained

Counter-Strike | 4.7K views ...

Home

Browse

Activity

Profile