



TIERS LIMITED SUMMER INTERNSHIP 2024

MOBILE APP DEVELOPMENT

Navigation Drawer

&

Bottom Navigation Bar

CLASS # 11



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Overview

In this class, we will explore the concepts and implementation of Navigation Drawer and Bottom Navigation Bar in Flutter. These widgets are commonly used for navigation in Flutter apps, allowing users to switch between different screens or views.

Objectives

- Understand the purpose and usage of Navigation Drawer and Bottom Navigation Bar.
- Learn how to implement a Navigation Drawer in a Flutter app.
- Learn how to implement a Bottom Navigation Bar in a Flutter app.
- Navigate between different screens using these navigation components.

Navigation Drawer

Introduction

The Navigation Drawer is a side menu that can be pulled in from the side of the screen, providing access to different sections of the app. It is typically used for primary navigation in an app.

Code Implementation

Here's an example of how to implement a Navigation Drawer in Flutter:

```
Drawer(
  child: ListView(children: buildMenuItems(context)),
);

final Set<String> menuTitles = {"Item 1", "Item 2", "Item 3", "Item 4"};

List<Widget> menuItems = [];

menuItems.add(const DrawerHeader(
  child: Text(
    "Drawer Header",
    style: TextStyle(fontSize: 30),
  ),
));

menuTitles.forEach((element) {
  menuItems.add(
    ListTile(
      title: Text(element, style: TextStyle(fontSize: 20)),
      onTap: () {

        Widget screen = Container();
```

```

        switch (element) {
          case 'Item 1':
            screen = const Screen1();
            break;
          case 'Item 2':
            screen = const Screen2();
            break;
          case 'Item 3':
            screen = const Screen3();
            break;
          case 'Item 4':
            screen = const Screen4();
            break;
          default:
        }

        Navigator.of(context).pop();
        Navigator.of(context).push(
          MaterialPageRoute(builder: (context) => screen)
        );
      },
    ),
  );
});

```

Explanation:

- **buildMenuItems:** A function that creates a list of menu items (ListTiles) for the drawer.
- **DrawerHeader:** A header for the drawer.
- **ListTile:** Each item in the drawer, which navigates to a different screen when tapped.

Bottom Navigation Bar

Introduction

The Bottom Navigation Bar is a component placed at the bottom of the screen, allowing users to switch between different sections of the app quickly.

Code Implementation

Here's an example of how to implement a Bottom Navigation Bar in Flutter:

```

BottomNavigationBar(
  currentIndex: 0,
  items: const [
    BottomNavigationBarItem(icon: Icon(Icons.home), label: "Item 1"),
    BottomNavigationBarItem(icon: Icon(Icons.person), label: "Item 2")
  ],

  onTap: (index) {

```

```

switch (index) {
  case 0:
    Navigator.of(context).push(
      MaterialPageRoute(builder: (context) => const Screen1())
    );
    break;
  case 1:
    Navigator.of(context).push(
      MaterialPageRoute(builder: (context) => const Screen2())
    );
    break;
  default:
  }
},
);

```

Explanation:

- **BottomNavigationBar**: A widget that displays the bottom navigation bar.
- **currentIndex**: The index of the currently selected item.
- **BottomNavigationBarItem**: Represents an item in the bottom navigation bar.

Exercises

1. **Implement a Custom Drawer**
 - Create a navigation drawer with different menu items and navigate to different screens.
2. **Custom Bottom Navigation Bar**
 - Implement a bottom navigation bar with three items and navigate to different screens.