

Flutter: Bottom Navigation Bar

The Bottom Navigation bar has become popular in the last few years for navigation between different UI. Many developers use bottom navigation because most of the app is available now using this widget for navigation between different screens.

The bottom navigation bar in Flutter **can contain multiple items** such as text labels, icons, or both. It allows the user to navigate between the top-level views of an app quickly. If we are using a larger screen, it is better to use a **side navigation bar**.

In Flutter application, we usually set the bottom navigation bar in conjunction with `Scaffold` widget. **Scaffold** widget provides a **Scaffold.bottomNavigationBar** argument to set the bottom navigation bar. It is to note that only adding BottomNavigationBar will not display the navigation items. It is required to set the **BottomNavigationBarItems** for Items property that accepts a list of BottomNavigationBarItems widgets.

Remember the following key points while adding items to the bottom navigation bar:

- We can display only a small number of widgets in the bottom navigation that can be 2 to 5.
- It must have at least two bottom navigation items. Otherwise, we will get an error.
- It is required to have the icon and title properties, and we need to set relevant widgets for them.

Properties of the BottomNavigationBar Widget

The following are the properties used with the bottom navigation bar widget:

items: It defines the list to display within the bottom navigation bar. It uses argument BottomNavigationBarItem that contains sub-properties given below:

1. **const** BottomNavigationBarItem({
2. @required **this**.icon,
3. **this**.title,

4. Widget `activeIcon`,
5. `this.backgroundColor`,
6. `})`

currentIndex: It determines the current active bottom navigation bar item on the screen.

onTap: It is called when we tapped one of the items on the screen.

iconSize: It is used to specify the size of all bottom navigation item icons.

fixedColor: It is used to set the color of the selected item. If we have not set a color to the icon or title, it will be shown.

type: It determines the layout and behavior of a bottom navigation bar. It behaves in two different ways that are: **fixed** and **shifting**. If it is null, it will use fixed. Otherwise, it will use shifting where we can see an animation when we click a button.

Example:

GitHub link: https://github.com/samsunk/bottom_navigation

```
lib > main.dart > ...
1  import 'package:bottom_navigation/screen/fixed.dart';
2  // import 'package:bottom_navigation/screen/shifting.dart';
3  import 'package:flutter/material.dart';
4
Run | Debug | Profile
5  void main() {
6    runApp(const MyApp());
7  }
8
9  class MyApp extends StatelessWidget {
10   const MyApp({Key? key}) : super(key: key);
11
12   @override
13   Widget build(BuildContext context) {
14     return const MaterialApp(
15       debugShowCheckedModeBanner: false,
16       home: BottomNavEx(),
17     ); // MaterialApp
18   }
19 }
```

lib > screen > fixed.dart > _BottomNavExState

```
1  import 'package:flutter/material.dart';
2
3  class BottomNavEx extends StatefulWidget {
4    const BottomNavEx({Key? key}) : super(key: key);
5
6    @override
7    _BottomNavExState createState() => _BottomNavExState();
8  }
9
10 class _BottomNavExState extends State<BottomNavEx> {
11   int _selectedIndex = 0;
12
13   static const TextStyle optionStyle = TextStyle(
14     fontSize: 30,
15     fontWeight: FontWeight.bold,
16   );
17
18   static const List<Widget> _widgetOption = [
19     Text(
20       'Index 0:Home Page',
21       style: optionStyle,
22     ),
23     Text(
24       'Index 1:Business',
25       style: optionStyle,
26     ),
27     // Image.asset('images/myimage.jpeg'),
28     Text(
29       'Index 2:school',
30       style: optionStyle,
31     ),
32
33     Text(
34       'Index 3:Settings',
35       style: optionStyle,
36     ),
37   ];
38   void _onItemTapped(int index) {
39     setState(() {
40       _selectedIndex = index;
41     });
42   }
43
44   @override
45   Widget build(BuildContext context) {
46     return Scaffold(
47       // backgroundColor: Colors.lightBlueAccent,
48       appBar: AppBar(
49         title: const Text('BottomNavigationBar Sample'),
50       ), // AppBar
51       body: Center(
52         child: _widgetOption.elementAt(_selectedIndex),
53       ), // Center
54       bottomNavigationBar: BottomNavigationBar(
55         items: const <BottomNavigationBarItem>[
56           BottomNavigationBarItem(
57             icon: Icon(
58               Icons.home,
59             ), // Icon
60             label: 'Home',
61             backgroundColor: Colors.red,
62           ), // BottomNavigationBarItem
63           BottomNavigationBarItem(
64             icon: Icon(
65               Icons.business,
66             ), // Icon
67             label: 'Business',
68             backgroundColor: Colors.purple,
69           ), // BottomNavigationBarItem
```

```

69         BottomNavigationBarItem(
70             icon: Icon(
71                 Icons.school,
72             ), // Icon
73             label: 'School',
74             backgroundColor: Colors.pink,
75         ), // BottomNavigationBarItem
76         BottomNavigationBarItem(
77             icon: Icon(Icons.settings),
78             label: 'Settings',
79             backgroundColor: Colors.yellow,
80         ), // BottomNavigationBarItem
81     ], // <BottomNavigationBarItem>[]
82     currentIndex: _selectedIndex,
83     // selectedItemColor: Colors.amber[900],
84     // backgroundColor: Colors.teal,
85     onTap: _onItemTapped,
86 ), // BottomNavigationBar
87 ); // Scaffold
88
89
90

```