

Experiment - 2

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Aim: To design Flutter UI by including common widgets.

Theory:

In Flutter, there are several common widgets that are used to build user interfaces. These widgets serve as the building blocks for creating various UI elements. Here are some of the most commonly used ones:

1. **Container:** A versatile widget that can contain other widgets and provides properties for styling, padding, margin, alignment, and more.
2. **Text:** Displays a string of text with properties for styling such as font size, color, alignment, and font weight.
3. **Image:** Displays an image from various sources such as assets, the internet, or memory.
4. **Row:** Arranges its children widgets horizontally in a row.
5. **Column:** Arranges its children widgets vertically in a column.
6. **Stack:** Stacks its children widgets on top of each other, allowing for overlapping UI elements.
7. **ListView:** Displays a scrollable list of children widgets.
8. **GridView:** Displays a scrollable grid of children widgets arranged in rows and columns.
9. **AppBar:** A material design app bar that typically contains a title, actions, and/or navigation elements.
10. **Scaffold:** Implements the basic material design visual layout structure, providing a framework for the app's UI.
11. **IconButton:** A button widget that displays an icon and triggers an action when pressed.
12. **TextField:** Allows users to input text and provides properties for customization such as keyboard type, input validation, and styling.
13. **RaisedButton and FlatButton:** Button widgets that trigger an action when pressed, with raised and flat styles respectively.
14. **AlertDialog:** Displays a modal dialog box with a message and optional actions.
15. **BottomNavigationBar:** Provides navigation between top-level views in the app, typically displayed at the bottom of the screen.

These are just a few examples of the many widgets available in Flutter. You can combine these widgets and customize their properties to create complex and beautiful user interfaces for your Flutter applications.

Syntax:**1. Container Widget**

```
Container(  
  // Properties  
  
  // Child widget  
  child: Text(),  
)
```

2. Text Widget

```
Text(  
  style: TextStyle(  
  ),  
)
```

3. RaisedButton Widget

```
RaisedButton(  
  onPressed: () {  
    // Action to perform when the button is pressed  
  },  
)
```

4. Scaffold Widget

```
Scaffold(  
  appBar: AppBar(  
  ),  
)
```

Widget and Properties:

TextButton, TextField, AppBar, Container, Scaffold are the widgets used in this experiment.

Code and Output:

```

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

class PhoneVerifyScreen extends StatefulWidget {
  @override
  State<StatefulWidget> createState() => PhoneVerifyScreenState();
}

class PhoneVerifyScreenState extends State<PhoneVerifyScreen>{
  var phoneCt = TextEditingController();
  @override
  Widget build(BuildContext context){
    return Scaffold(
      backgroundColor: Colors.white,
      appBar: AppBar(
        backgroundColor: Colors.white,
        elevation: 0.0,
        leading: TextButton(onPressed: (){
          //Back
          Navigator.pop(context);
        },
        child: const Text('Back', style: TextStyle(fontWeight: FontWeight.bold),),
      ),
      actions: [
        TextButton(onPressed: (){
          //NEXT
          Navigator.pop(context);
        },
        child: const Text("Next", style: TextStyle(fontWeight: FontWeight.bold), textDirection:
TextDirection.ltr),
      ),
    ],
  ),
  body: SizedBox(
    width: double.infinity,
    height: double.infinity,
    child: Center(
      child: Column(
        mainAxisAlignment: MainAxisAlignment.min,
        children: <Widget>[

```

```

        const Spacer(),
        const Spacer(),
        Container(height: 30,),
        const Text("+911234567890", style: TextStyle(fontSize: 20, fontWeight:
FontWeight.bold, color: Colors.black),textDirection: TextDirection.ltr,),
        Container(height: 15,),
        const Text('We just sent you an SMS with the code.', textAlign: TextAlign.center,
textDirection: TextDirection.ltr,),
        Container(height: 30,),
        Container(
            margin: const EdgeInsets.only(left: 25, right: 25),
            child: TextField(
                textAlign: TextAlign.center,
                controller: phoneCt,
                maxLength: 12,
                maxLines: 1,
                keyboardType: TextInputType.phone,
                decoration: const InputDecoration(
                    hintText: 'Code'
                ),
            ),
        ),
        Container(height: 50,),
        TextButton(onPressed: () {},
            child: const Text("+Haven't received the code?", style: TextStyle(fontSize: 15,
fontWeight: FontWeight.normal, color: Colors.blue),textDirection: TextDirection.ltr,)),

        const Spacer(),
    ],
),
),
),
);
}
}

```

