Fluter basic widgets

1-Stateful vs Stateless
———————————————

Stateless widgets:
 are the widgets that don't change , they cannot change their state
during the runTime .

```dart
class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Flutter Demo',
      theme: ThemeData(
        primarySwatch: Colors.blue,
      ),
      home: MyHomePage(title: 'Flutter Demo Home Page'),
    );
  }
}
```

StatefulWidgets :
Stateless widgets are the ones that changes its properties during run-time , they are dynamic

```
class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Flutter Demo',
      theme: ThemeData(
        primarySwatch: Colors.blue,
      ),
      home: MyHomePage(title: 'Flutter Demo Home Page'),
    );
  }
}
```

2- Scaffold
Implements the basic material design visual layout structure

```
return Scaffold(

    backgroundColor: Colors.blue,

    body: Center(

      child: Text("Scaffold"),

    ),
```

3-AppBar

App bars are typically used in the Scaffold.appBar property, which places the app bar as a fixed-height widget at the top of the screen

```
return Scaffold(

  appBar: AppBar(

    title: Text("AppBar"),

    automaticallyImplyLeading: false,

    backgroundColor: Colors.yellow,

    toolbarHeight: 100,

  ),

  backgroundColor: Colors.blue,

  body: Center(

    child: Text("Scaffold"),

  ),

);

);
```

4-floatingActionButton

A floating action button is a circular icon button that hovers over content to promote a primary action in the application

```
floatingActionButton: FloatingActionButton(

    child: Icon(

      Icons.add,

      color: Colors.white,

    ),

    onPressed: () {

      print("Floating action pressed");

    },

  ),
```

5- bottomNavigationBar

```
bottomNavigationBar: BottomNavigationBar(
    items: const <BottomNavigationBarItem>[
      BottomNavigationBarItem(
        icon: Icon(Icons.home),
        label: 'Home',
      ),
      BottomNavigationBarItem(
        icon: Icon(Icons.business),
        label: 'Business',
      ),
      BottomNavigationBarItem(
        icon: Icon(Icons.school),
        label: 'School',
      ),
    ],
    currentIndex: 0,
    selectedItemColor: Colors.amber[800],
    onTap: _onItemTapped,
  ),
```

```
void _onItemTapped(int index) {
  setState(() {

  });
}
```

6- Text

```
Text(
    "data",
    style: TextStyle(color: Colors.black, fontSize: 12.0),
  ),
```

7- Center

```
Center(
    child: Text(
      "data",
    ),
  ),
```

8- Container

```
Container(
  height: 100,
  width: 100,
  child: Center(
    child: Text(
      "Container",
      style: TextStyle(color: Colors.yellow),
    ),
  ),
  decoration: BoxDecoration(
      border: Border.all(color: Colors.yellow),
      borderRadius: BorderRadius.circular(20)),
),
```

9- Column

```
Container(
  height: 100,
  width: 100,
  child: Center(
    child: Text(
      "Container",
      style: TextStyle(color: Colors.yellow),
    ),
  ),
  decoration: BoxDecoration(
      border: Border.all(color: Colors.yellow),
      borderRadius: BorderRadius.circular(20)),
),
Container(
  height: 400,
  width: 300,
  child: Column(
    mainAxisAlignment: MainAxisAlignment.spaceBetween,
    crossAxisAlignment: CrossAxisAlignment.end,
```

```
        children: [
          Text(
            "data",
          ),
          Text(
            "data",
          ),
          Text(
            "data",
          ),
          Text(
            "data",
          ),
        ],
      ),
    )
```

10 - Row

```
Container(
        height: 100,
        width: 100,
        child: Center(
          child: Text(
            "Container",
            style: TextStyle(color: Colors.yellow),
          ),
        ),
        decoration: BoxDecoration(
            border: Border.all(color: Colors.yellow),
            borderRadius: BorderRadius.circular(20)),
      ),
      Container(
        height: 200,
        width: 600,
        child: Row(
          mainAxisAlignment: MainAxisAlignment.spaceBetween,
          crossAxisAlignment: CrossAxisAlignment.end,
```

```
        children: [
          Text(
            "data",
          ),
          Text(
            "data",
          ),
          Text(
            "data",
          ),
          Text(
            "data",
          ),
        ],
      ),
    )
```

11- Stack

```
Container(
          color: Colors.yellow,
          height: 100,
          width: 100,
          child: Center(
            child: Stack(
              children: [
                Center(
                  child: Container(
                    height: 50,
                    width: 40,
                    color: Colors.green,
                  ),
                ),
                Center(child: Text("stack"))
              ],
            ),
          ),
        )
```

12 - SingleChildScrollView

```
Container(
  height: 200,
  width: 400,
  child: SingleChildScrollView(
    child: Column(
      children: [
        Text(
          "data",
        ),
        Text(
          "data",
        ),
        Text(
          "data",
        ),
        Text(
          "data",
        ),
        Text(
          "data",
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```
      ),
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      Text(
        "data",
```

```dart
        ),
        Text(
          "data",
        ),
        Text(
          "data",
        ),
        Text(
          "data",
        ),
      ],
    ),
  ),
)
```

13- ListView

```dart
Container(
  height: 100,
  child: ListView(
    padding: const EdgeInsets.all(8),
    children: <Widget>[
      Container(
        height: 50,
        color: Colors.amber[600],
        child: const Center(child: Text('Entry A')),
      ),
      Container(
        height: 50,
        color: Colors.amber[500],
        child: const Center(child: Text('Entry B')),
      ),
      Container(
        height: 50,
        color: Colors.amber[100],
        child: const Center(child: Text('Entry C')),
      ),
    ],
  ),
)
```

14-Listview.builder

```dart
Container(
          height: 200,
          width: 200,
          child: ListView.builder(
            itemBuilder: (BuildContext context, int index) {
              return Text("listView.builder");
            },
            itemCount: 100,
          ),
        )
```

15-ListTile

```dart
        Card(
          child: ListTile(
            leading: FlutterLogo(size: 56.0),
            title: Text('Two-line ListTile'),
            subtitle: Text('Here is a second line'),
            trailing: Icon(Icons.more_vert),
          ),
        ),
```

16- InkWell

```dart
        ),
        InkWell(
          child: Text("inkWell"),
          onTap: () {
            print("inkwell tapped");
          },
        )
```

17-GestureDetector

```dart
        GestureDetector(
          child: Text("GestureDetector"),
          onTap: () {

          },
        )
```

18 -ElevatedButton

```dart
ElevatedButton(

    onPressed: () {
      print("elevated pressed");
    },
    child: Text("elevated button"))
```

20-IconButton

```dart
IconButton(
  icon: const Icon(Icons.volume_up),
  tooltip: 'Increase volume by 10',
  onPressed: () {
    print("icon button pressed");
  },
),
```

21- Padding

```dart
Padding(
  padding: EdgeInsets.symmetric(vertical: 10, horizontal: 10),
  child: Text("PADDING"),
)
```

23-TextField

```dart
TextField(
    maxLines: 5,
    decoration: InputDecoration(
      border: OutlineInputBorder(),
      hintText: 'Enter a search term',
    ),
),
```

24 - Spacer

```
Row(
        children: const <Widget>[
          Text('Begin'),
          Spacer(), // Defaults to a flex of one.
          Text('Middle'),
          Spacer(flex: 2),
          Text('End'),
        ],
      )
```

25 - Divider

```
Divider(
        height: 2,
        thickness: 3,
      ),
```

Vertical Divider

```
      ),
      Container(
        height: 100,
        child: VerticalDivider(
          width: 10,
          color: Colors.red,
        ),
      ),
```