Name: Kaklotar Gaurav Amarshibhai
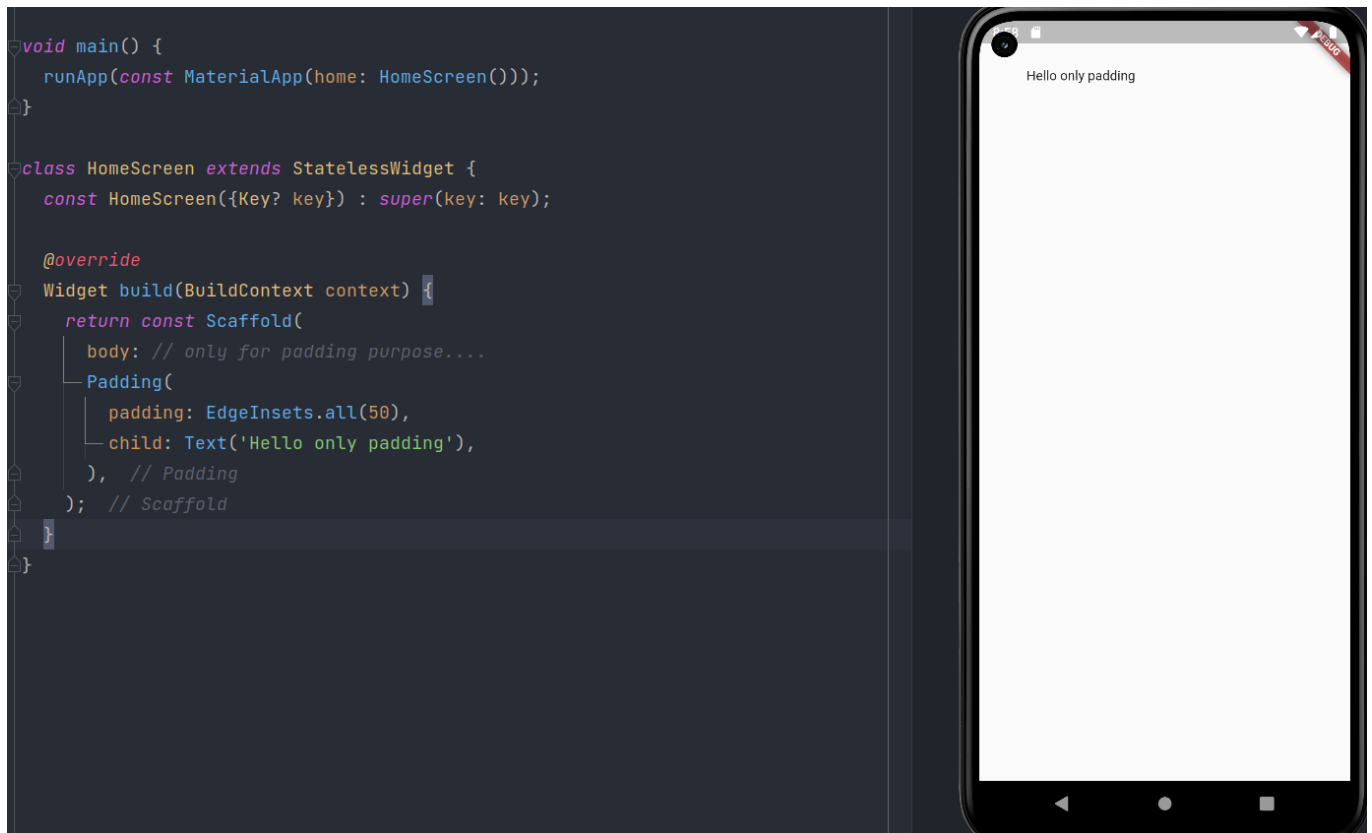
Subject: SDP

Batch: A3

Roll No: CE053

ID No: 20CEUBG084

Lab8 Tutorial-1

```dart
void main() {
  runApp(const MaterialApp(home: HomeScreen()));
}

class HomeScreen extends StatelessWidget {
  const HomeScreen({Key? key}) : super(key: key);

  @override
  Widget build(BuildContext context) {
    return const Scaffold(
      body: // only for padding purpose....
      Padding(
        padding: EdgeInsets.all(50),
        child: Text('Hello only padding'),
      ), // Padding
    ); // Scaffold
  }
}
```

Hello only padding

Description:

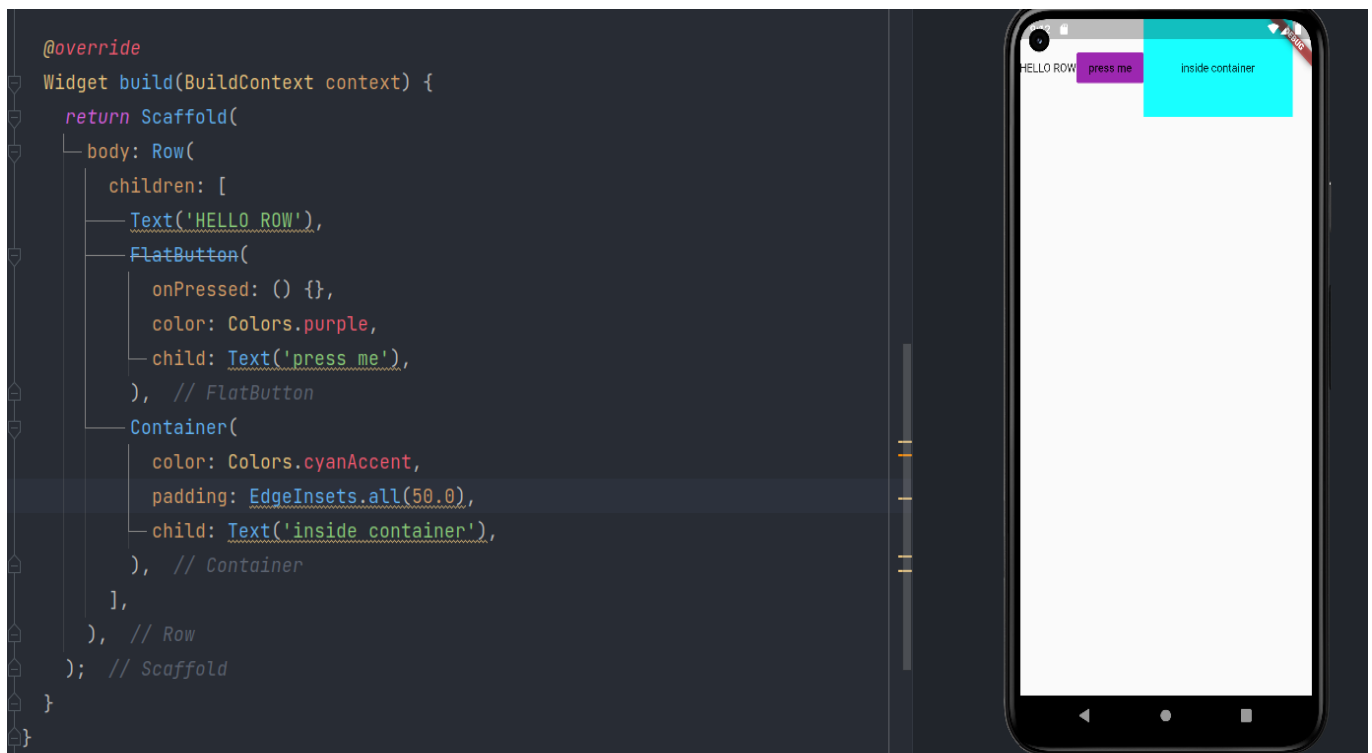instead of container we can directly used the padding widget.

It can't support marging, color, etc.

If we want to use both and other we can use container widget.

Containing class: Padding

Creates a widget that insets its child.
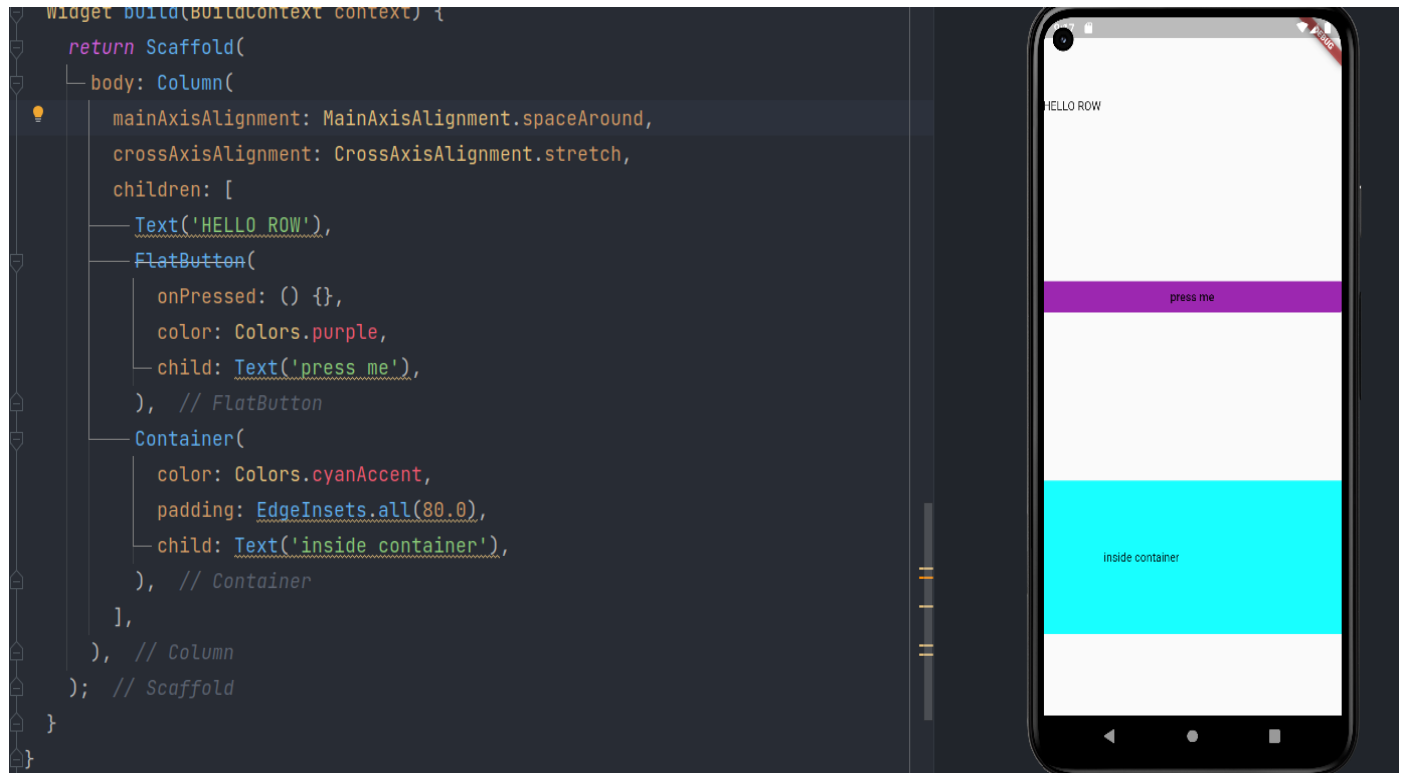
The padding argument must not be null.

```dart
@override
Widget build(BuildContext context) {
  return Scaffold(
    body: Row(
      children: [
        Text('HELLO ROW'),
        FlatButton(
          onPressed: () {},
          color: Colors.purple,
          child: Text('press me'),
        ),  // FlatButton
        Container(
          color: Colors.cyanAccent,
          padding: EdgeInsets.all(50.0),
          child: Text('inside container'),
        ),  // Container
      ],
    ),  // Row
  );  // Scaffold
}
}
```
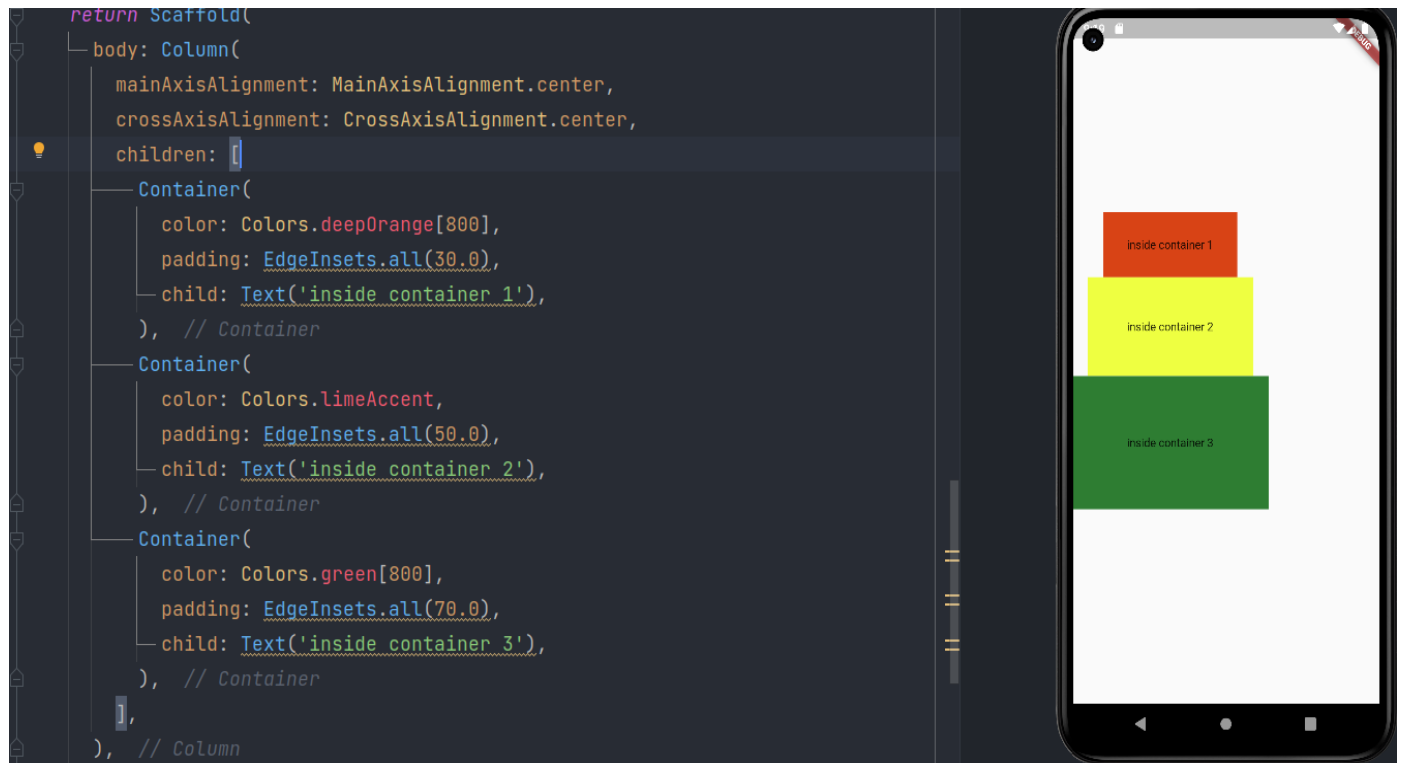
Description:

instead of 'child' – 'children : []' property is used

Type: List<Widget>

Creates a horizontal array of children.

The mainAxisAlignment, mainAxisSize, crossAxisAlignment, and verticalDirection arguments must not be null. If crossAxisAlignment is CrossAxisAlignment.baseline, then textBaseline must not be null.

```dart
Widget build(BuildContext context) {
  return Scaffold(
    body: Column(
      mainAxisAlignment: MainAxisAlignment.spaceAround,
      crossAxisAlignment: CrossAxisAlignment.stretch,
      children: [
        Text('HELLO ROW'),
        FlatButton(
          onPressed: () {},
          color: Colors.purple,
          child: Text('press me'),
        ), // FlatButton
        Container(
          color: Colors.cyanAccent,
          padding: EdgeInsets.all(80.0),
          child: Text('inside container'),
        ), // Container
      ],
    ), // Column
  ); // Scaffold
}
}
```

```
    return Scaffold(
      body: Column(
        mainAxisAlignment: MainAxisAlignment.center,
        crossAxisAlignment: CrossAxisAlignment.center,
        children: [
          Container(
            color: Colors.deepOrange[800],
            padding: EdgeInsets.all(30.0),
            child: Text('inside container 1'),
          ), // Container
          Container(
            color: Colors.limeAccent,
            padding: EdgeInsets.all(50.0),
            child: Text('inside container 2'),
          ), // Container
          Container(
            color: Colors.green[800],
            padding: EdgeInsets.all(70.0),
            child: Text('inside container 3'),
          ), // Container
        ],
      ), // Column
```

Description:

In Column widget It is totally opposites.

Vertical line becomes Main axis for Column and Horizontal line becomes Cross axis.

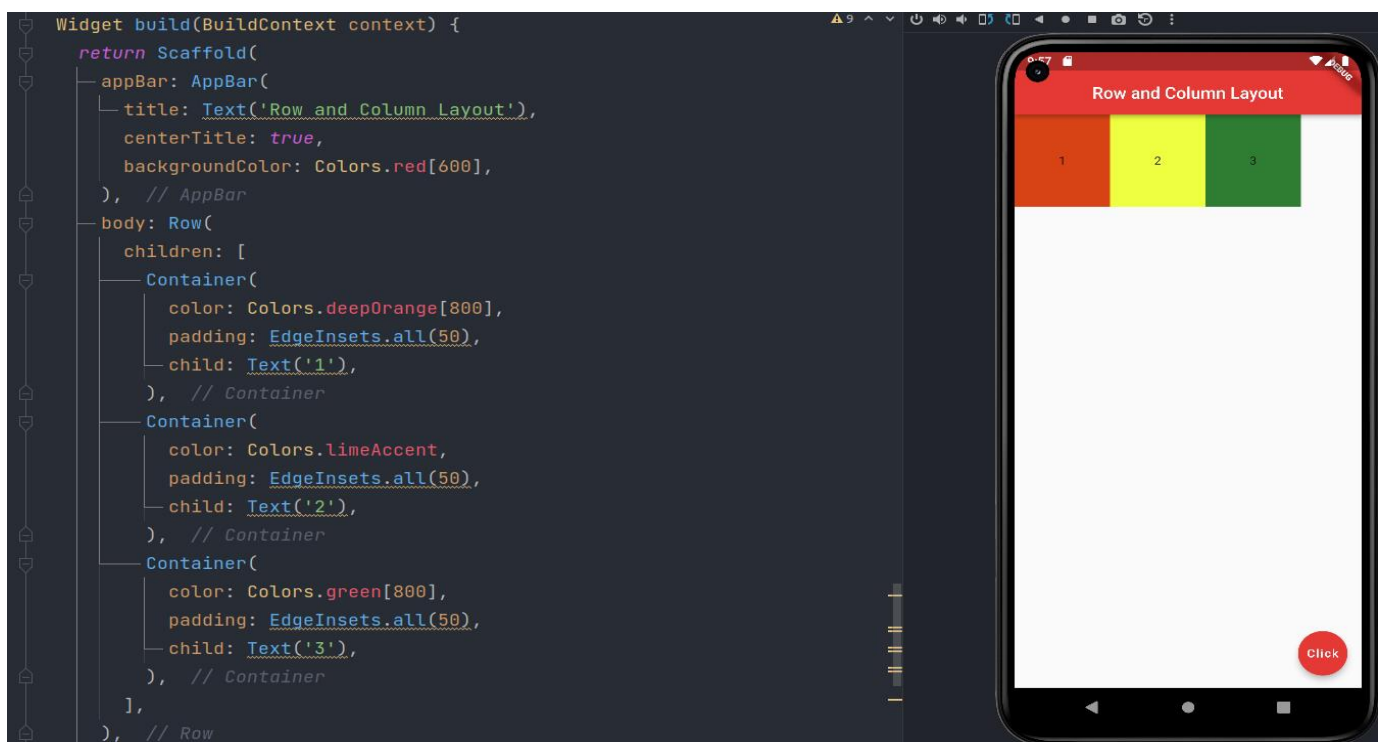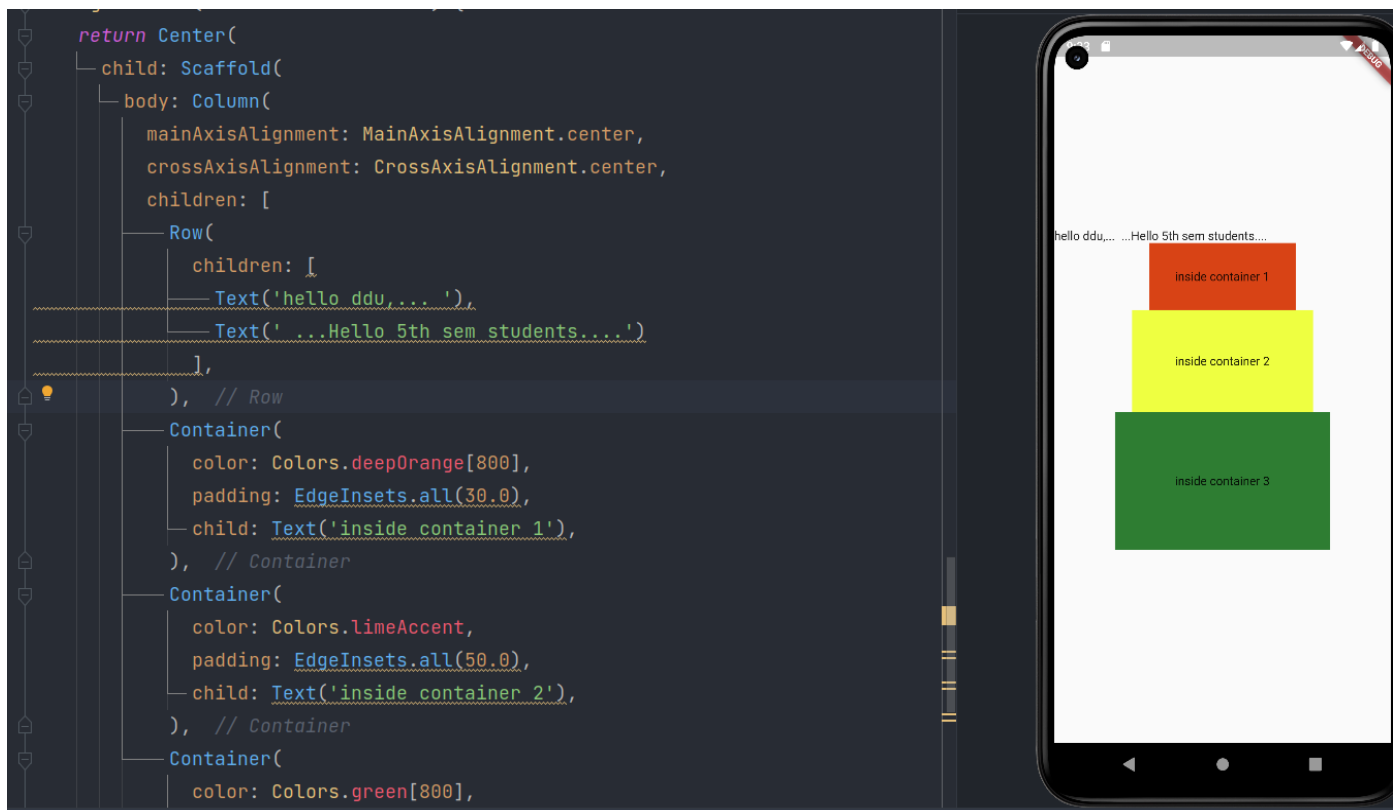Containing class: Column

Creates a vertical array of children.

The mainAxisAlignment, mainAxisSize, crossAxisAlignment, and verticalDirection arguments must not be null. If crossAxisAlignment is CrossAxisAlignment.baseline, then textBaseline must not be null.

Test 1:
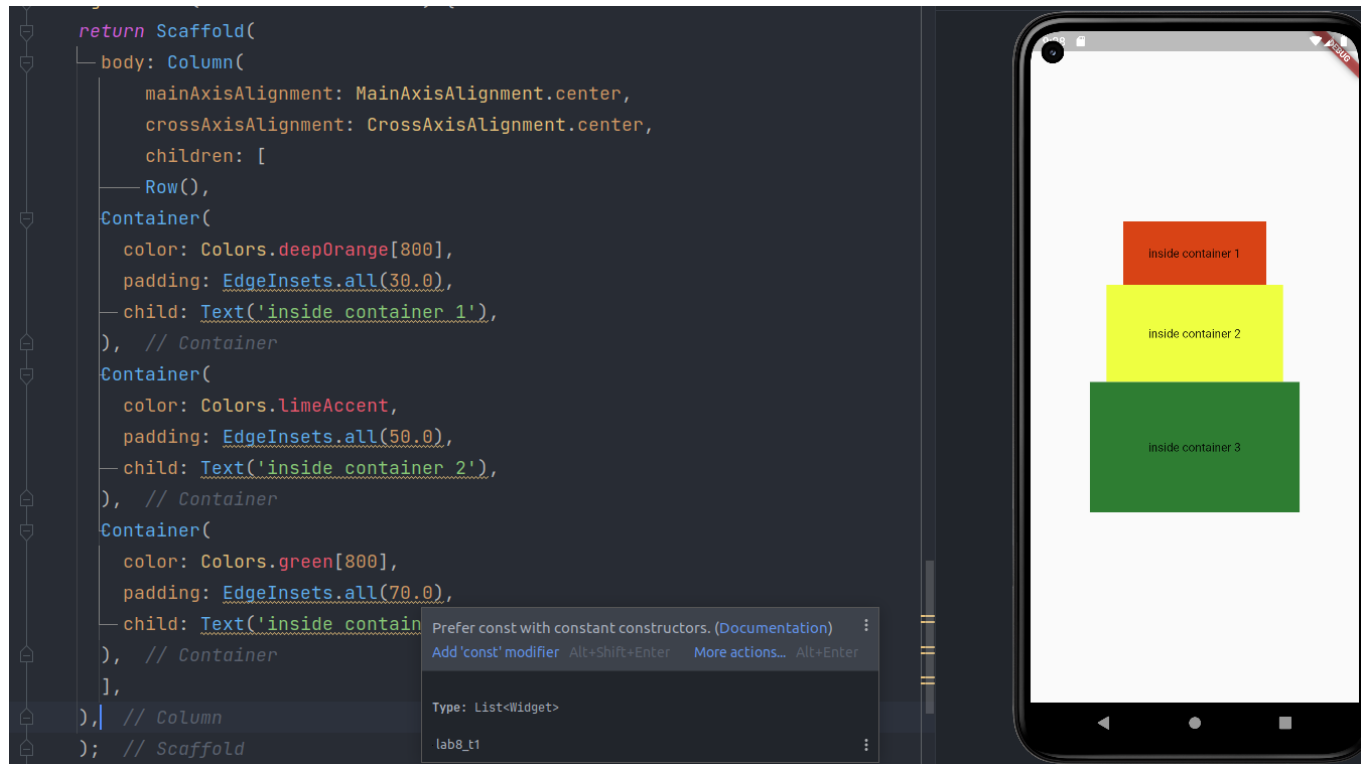
row and column

If we complete Row() in above code:

```dart
      return Center(
        child: Scaffold(
          body: Column(
            mainAxisAlignment: MainAxisAlignment.center,
            crossAxisAlignment: CrossAxisAlignment.center,
            children: [
              Row(
                children: [
                  Text('hello ddu,... '),
                  Text(' ...Hello 5th sem students....')
                ],
              ), // Row
              Container(
                color: Colors.deepOrange[800],
                padding: EdgeInsets.all(30.0),
                child: Text('inside container 1'),
              ), // Container
              Container(
                color: Colors.limeAccent,
                padding: EdgeInsets.all(50.0),
                child: Text('inside container 2'),
              ), // Container
              Container(
                color: Colors.green[800],
```

```dart
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: Text('Row and Column Layout'),
        centerTitle: true,
        backgroundColor: Colors.red[600],
      ), // AppBar
      body: Row(
        children: [
          Container(
            color: Colors.deepOrange[800],
            padding: EdgeInsets.all(50),
            child: Text('1'),
          ), // Container
          Container(
            color: Colors.limeAccent,
            padding: EdgeInsets.all(50),
            child: Text('2'),
          ), // Container
          Container(
            color: Colors.green[800],
            padding: EdgeInsets.all(50),
            child: Text('3'),
          ), // Container
        ],
      ), // Row
```

Description:

In Above code we are using Expanded and Flex widget.

Containing class: Expanded

Creates a widget that expands a child of a Row, Column, or Flex so that the child fills the available space along the flex widget's main axis.
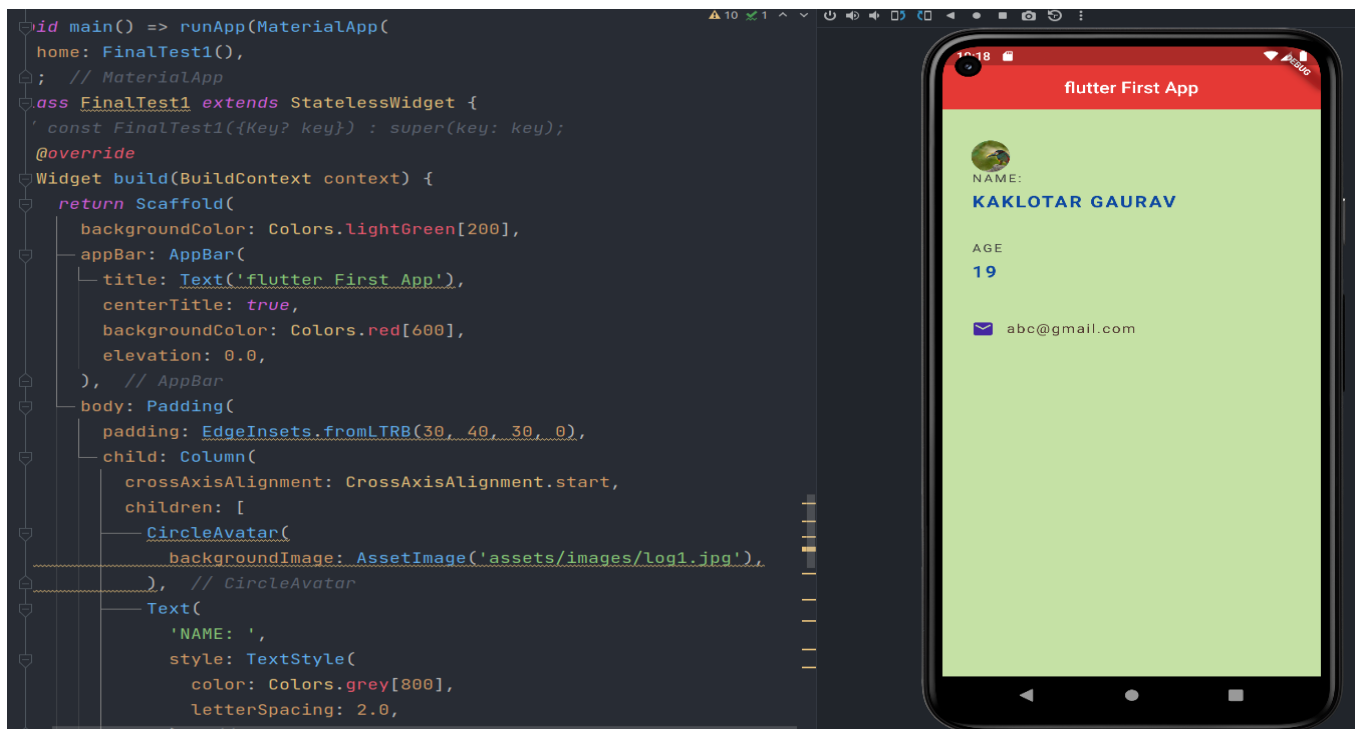
Creates a flex layout.

The direction is required.

Final Test:

Update Pubsec.yaml file

assets:
  - assets/images/

Final Code:

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

// void main() {
//   runApp(const MaterialApp(home: HomeScreen()));
// }

/*
class HomeScreen extends StatelessWidget {
  const HomeScreen({Key? key}) : super(key: key);

  @override
  Widget build(BuildContext context) {
    return const Scaffold(
      body: // only for padding purpose....
      Padding(
        padding: EdgeInsets.all(50),
        child: Text('Hello only padding'),
      ),
    );
  }
}
*/

/*
class HomeScreen extends StatelessWidget {
  const HomeScreen({Key? key}) : super(key: key);

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      body: Row(
        children: [
          Text('HELLO ROW'),
```

```
      FlatButton(
        onPressed: () {},
        color: Colors.purple,
        child: Text('press me'),
      ),
      Container(
        color: Colors.cyanAccent,
        padding: EdgeInsets.all(50.0),
        child: Text('inside container'),
      ),
    ],
   ),
  );
 }
}
*/

/*
class HomeScreen extends StatelessWidget {
  const HomeScreen({Key? key}) : super(key: key);

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      body: Column(
        mainAxisAlignment: MainAxisAlignment.center,
        crossAxisAlignment: CrossAxisAlignment.center,
        children: [
          Container(
            color: Colors.deepOrange[800],
            padding: EdgeInsets.all(30.0),
            child: Text('inside container 1'),
          ),
          Container(
            color: Colors.limeAccent,
```

```dart
        padding: EdgeInsets.all(50.0),
        child: Text('inside container 2'),
      ),
      Container(
        color: Colors.green[800],
        padding: EdgeInsets.all(70.0),
        child: Text('inside container 3'),
      ),
    ],
  ),
);
  }
}
*/


/*
class HomeScreen extends StatelessWidget {
  const HomeScreen({Key? key}) : super(key: key);

  @override
  Widget build(BuildContext context) {
    return Center(
      child: Scaffold(
        body: Column(
          mainAxisAlignment: MainAxisAlignment.center,
          crossAxisAlignment: CrossAxisAlignment.center,
          children: [
            Row(
              children: [
                Text('hello ddu,... '),
                Text(' ...Hello 5th sem students....')
              ],
            ),
            Padding(
```

```dart
          padding: const EdgeInsets.all(8.0),
          child: Container(
            color: Colors.deepOrange[800],
            padding: EdgeInsets.all(30.0),
            child: Text('inside container 1'),
          ),
        ),
        Container(
          color: Colors.limeAccent,
          padding: EdgeInsets.all(50.0),
          child: Text('inside container 2'),
        ),
        Container(
          color: Colors.green[800],
          padding: EdgeInsets.all(70.0),
          child: Text('inside container 3'),
        ),
      ],
    ),

    floatingActionButton: FloatingActionButton(
      onPressed: (){},
      child: Text('Click'),
      backgroundColor: Colors.red[600],
    ),
  ),
);
}
}
 */


/*
class HomeScreen extends StatelessWidget {
  const HomeScreen({Key? key}) : super(key: key);
```

```dart
@override
Widget build(BuildContext context) {
  return Scaffold(
    appBar: AppBar(
      title: Text('Row and Column Layout'),
      centerTitle: true,
      backgroundColor: Colors.red[600],
    ),
    body: Row(
      children: [
        Expanded(
          child: Container(
            color: Colors.deepOrange[800],
            padding: EdgeInsets.all(50),
            child: Text('1'),
          ),
        ),
        Container(
          color: Colors.limeAccent,
          padding: EdgeInsets.all(50),
          child: Text('2'),
        ),
        Container(
          color: Colors.green[800],
          padding: EdgeInsets.all(50),
          child: Text('3'),
        ),
      ],
    ),

    floatingActionButton: FloatingActionButton(
      onPressed: (){},
      child: Text('Click'),
      backgroundColor: Colors.red[600],
    ),
```

```dart
    );
   }
 }
 */

// import 'package:flutter/material.dart';
void main() => runApp(MaterialApp(
  home: FinalTest1(),
));
class FinalTest1 extends StatelessWidget {
// const FinalTest1({Key? key}) : super(key: key);
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: Colors.lightGreen[200],
      appBar: AppBar(
        title: Text('flutter First App'),
        centerTitle: true,
        backgroundColor: Colors.red[600],
        elevation: 0.0,
      ),
      body: Padding(
        padding: EdgeInsets.fromLTRB(30, 40, 30, 0),
        child: Column(
          crossAxisAlignment: CrossAxisAlignment.start,
          children: [
            CircleAvatar(
              backgroundImage: AssetImage('assets/images/log1.jpg'),
            ),
            Text(
              'NAME: ',
              style: TextStyle(
                color: Colors.grey[800],
                letterSpacing: 2.0,
              ),
```

```dart
      ),
      SizedBox(height: 10),
      Text(
        'KAKLOTAR GAURAV',
        style: TextStyle(
          color: Colors.blue[900],
          letterSpacing: 2.0,
          fontWeight: FontWeight.bold,
          fontSize: 20.0,
        ),
      ),
      SizedBox(height: 40),
      Text(
        'AGE',
        style: TextStyle(
          color: Colors.grey[800],
          letterSpacing: 2.0,
        ),
      ),
      SizedBox(height: 10),
      Text(

        '19',
        style: TextStyle(
          color: Colors.blue[900],
          letterSpacing: 2.0,
          fontWeight: FontWeight.bold,
          fontSize: 20.0,
        ),
      ),
      SizedBox(height: 50),
      Row(
        children: [
          Icon(
            Icons.email_rounded,
```

```
          color: Colors.deepPurple[800],
        ),
        SizedBox(width: 12.0),
        Text(
          'abc@gmail.com',

          style: TextStyle(

            color: Colors.brown[800],
            fontSize: 16.0,
            letterSpacing: 1.5,

          ),
        )
      ],
    )
  ],
 ),
 ),
 );
 }
}
```

Github Link: