Dharmsinh Desai University, Nadiad
Faculty of Technology
Department of Computer Engineering

ASSIGNMENT 8

Subject: Smart Device Programming

Submitted To:

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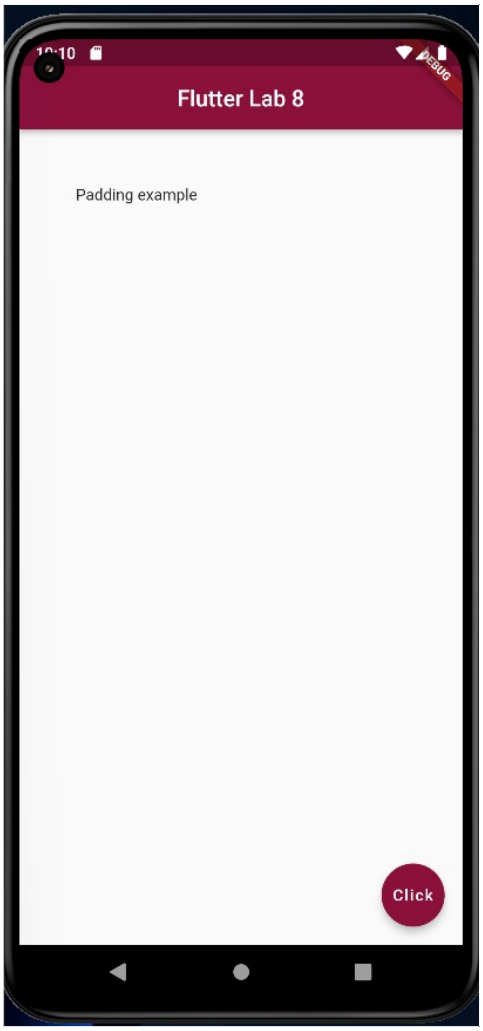
Code Test 1: Padding

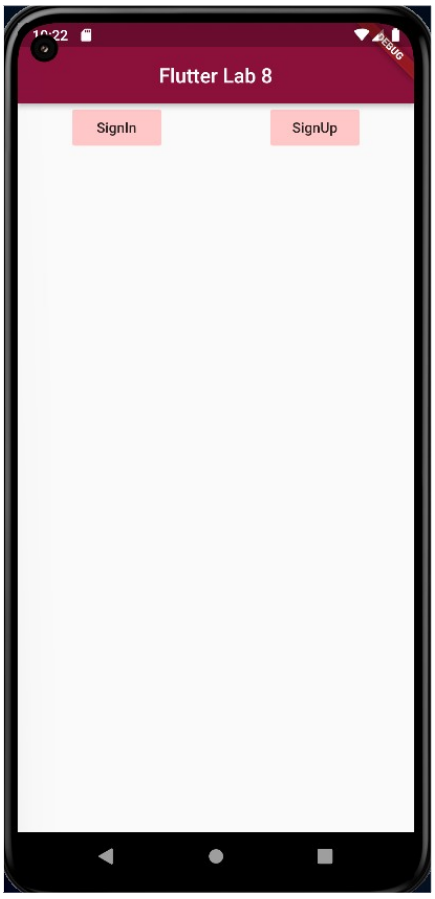
In flutter there is a Padding widget for specifying padding property. The below code will add padding of 50 to all sides of text.

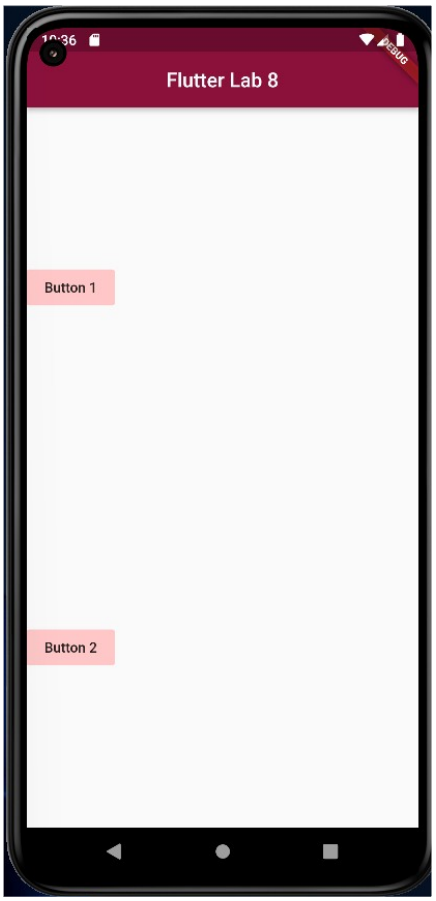
```dart
class _FirstClassState extends State<FirstClass> {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: Text('Flutter Lab 8'),
        centerTitle: true,
        backgroundColor: Color(0xff850E35),
      ),  // AppBar
      body: Padding(
          padding: EdgeInsets.all(50),
          child: Text('Padding example'),
        ),  // Padding
      floatingActionButton: FloatingActionButton(
          onPressed: () {},
          child: Text('Click'),
          backgroundColor: Color(0xff850E35),
        ),  // FloatingActionButton
    );  // Scaffold
  }
}
```



Row is a widget that displays its children in a horizontal array. Below is the example for the same. In below code we have created two flat button inside row widget. So both buttons are children of row. Output of code will contain two buttons in same row. But inside row we have specified one property named mainAxisAlignment and sets it to spaceAround. So this will align buttons accordingly.

```dart
body: Row(
  mainAxisAlignment: MainAxisAlignment.spaceAround,
  children: [
    FlatButton(
        onPressed: () {},
        color: Color(0xffFFC4C4),
        child: Text('SignIn')
    ),  // FlatButton
    FlatButton(
        onPressed: () {},
        color: Color(0xffFFC4C4),
        child: Text('SignUp')
    ),  // FlatButton
  ],
),  // Row
```





In above middle image we are using Column widget. This widget is same as row but it will display buttons in one column. For better creativity of grid we can use both row and column with each other. So inside column widget just add row widget between two

```
body: Column(
  mainAxisAlignment: MainAxisAlignment.center,
  crossAxisAlignment: CrossAxisAlignment.center,
  children: [
    FlatButton(
      onPressed: () {},
      color: Color(0xffFFC4C4),
      child: Text('SignIn')
    ),  // FlatButton

    FlatButton(
      onPressed: () {},
      color: Color(0xffFFC4C4),
      child: Text('SignUp')
    ),  // FlatButton
  ],
),  // Column
```

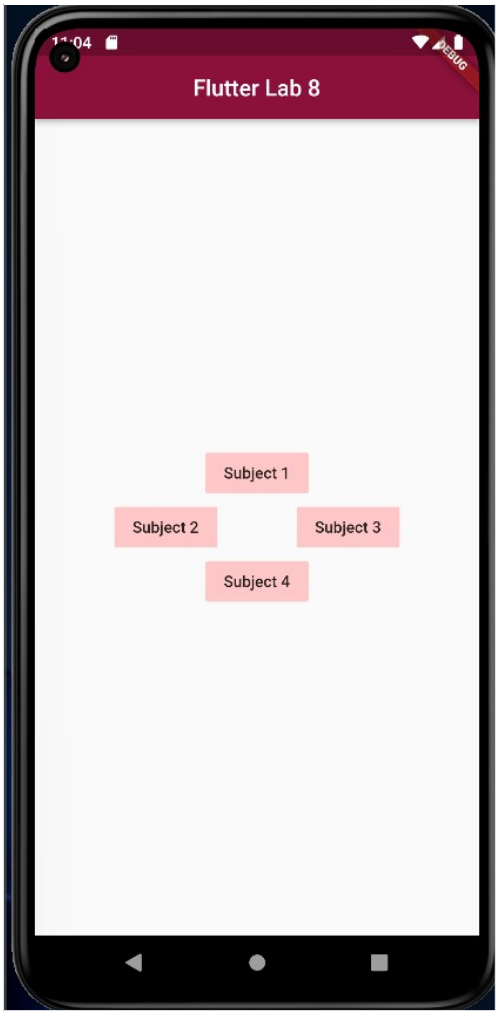
```
body: Column(
  mainAxisAlignment: MainAxisAlignment.center,
  crossAxisAlignment: CrossAxisAlignment.center,
  children: [
    FlatButton(
      onPressed: () {},
      color: Color(0xffFFC4C4),
      child: Text('SignIn')
    ),  // FlatButton
    Row(),
    FlatButton(
      onPressed: () {},
      color: Color(0xffFFC4C4),
      child: Text('SignUp')
    ),  // FlatButton
  ],
),  // Column
```

buttons. Then the output will be as shown in above last screen.

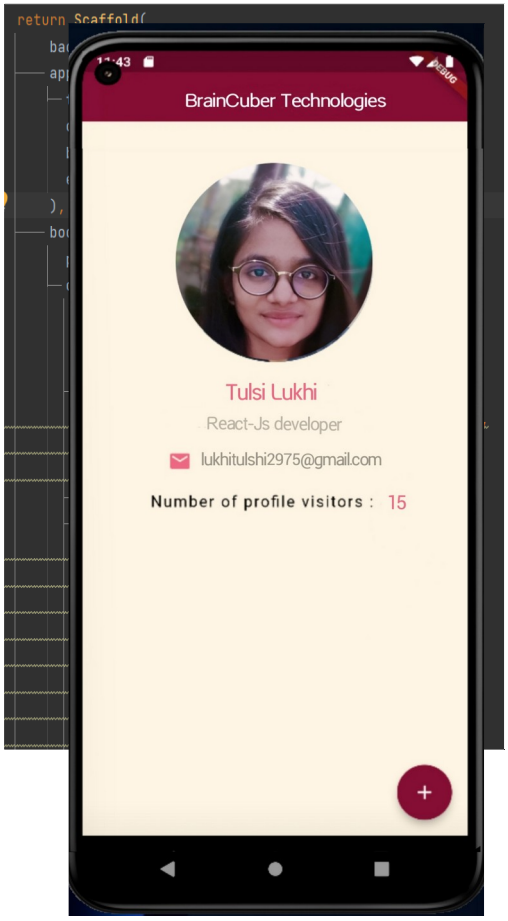
Now we will add two more buttons into row widget.

```
body: Column(
  mainAxisAlignment: MainAxisAlignment.center,
  crossAxisAlignment: CrossAxisAlignment.center,
  children: [
    FlatButton(
        onPressed: () {},
        color: Color(0xffFFC4C4),
        child: Text('Subject 1')
    ),  // FlatButton
    Row(
      mainAxisAlignment: MainAxisAlignment.spaceEvenly,
      children: [
        FlatButton(
            onPressed: () {},
            color: Color(0xffFFC4C4),
            child: Text('Subject 2')
        ),  // FlatButton
        FlatButton(
            onPressed: () {},
            color: Color(0xffFFC4C4),
            child: Text('Subject 3')
        ),  // FlatButton
      ],
    ),  // Row
    FlatButton(
        onPressed: () {},
        color: Color(0xffFFC4C4),
        child: Text('Subject 4')
    ),  // FlatButton
  ]
```

a



Now we will create some profile page using above all concepts.



For the image added in that code we need to specify out image folder inside pubspec.yaml file in assests property.

```
SizedBox(height:20,),
Row(
  mainAxisAlignment: MainAxisAlignment.center,
  children: [
    Text(
      'Number of profile visitors : ',
      style: TextStyle(
        color: Colors.black,
        fontSize: 16.0,
        letterSpacing: 1.5,
      ),  // TextStyle
    ),  // Text
    Text(
      '$_visited',
      style: TextStyle(
        color: Color(0xffEE6983),
        fontSize: 16.0,
```

In this image initially we have counter value 50. When we click on the add button below it will increase number of profile visitors. This thing can be achieved using setState() property. Because each time we use setState property build would be run.

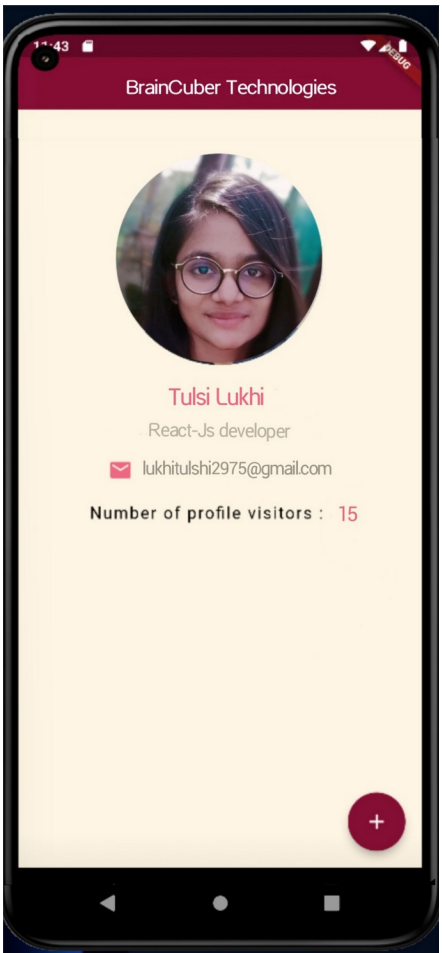
```
class _FifthClassState extends State<FifthClass> {
  num _visited = 50;

  void _incrementCounter() {
    setState(() {
      _visited++;
    });
  }
```

This setState() method we can use only with stateful widget. For stateless widget there is no such property.

Now we will create onother dart file and create list inside class.

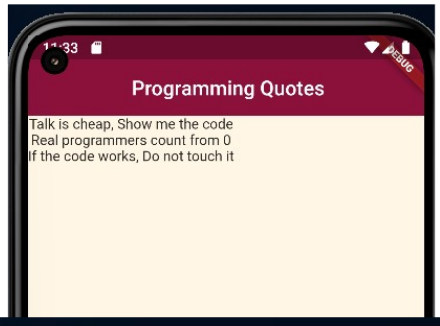
After that we will display each item of the list through looping.

Write below code outside of widget but inside class.



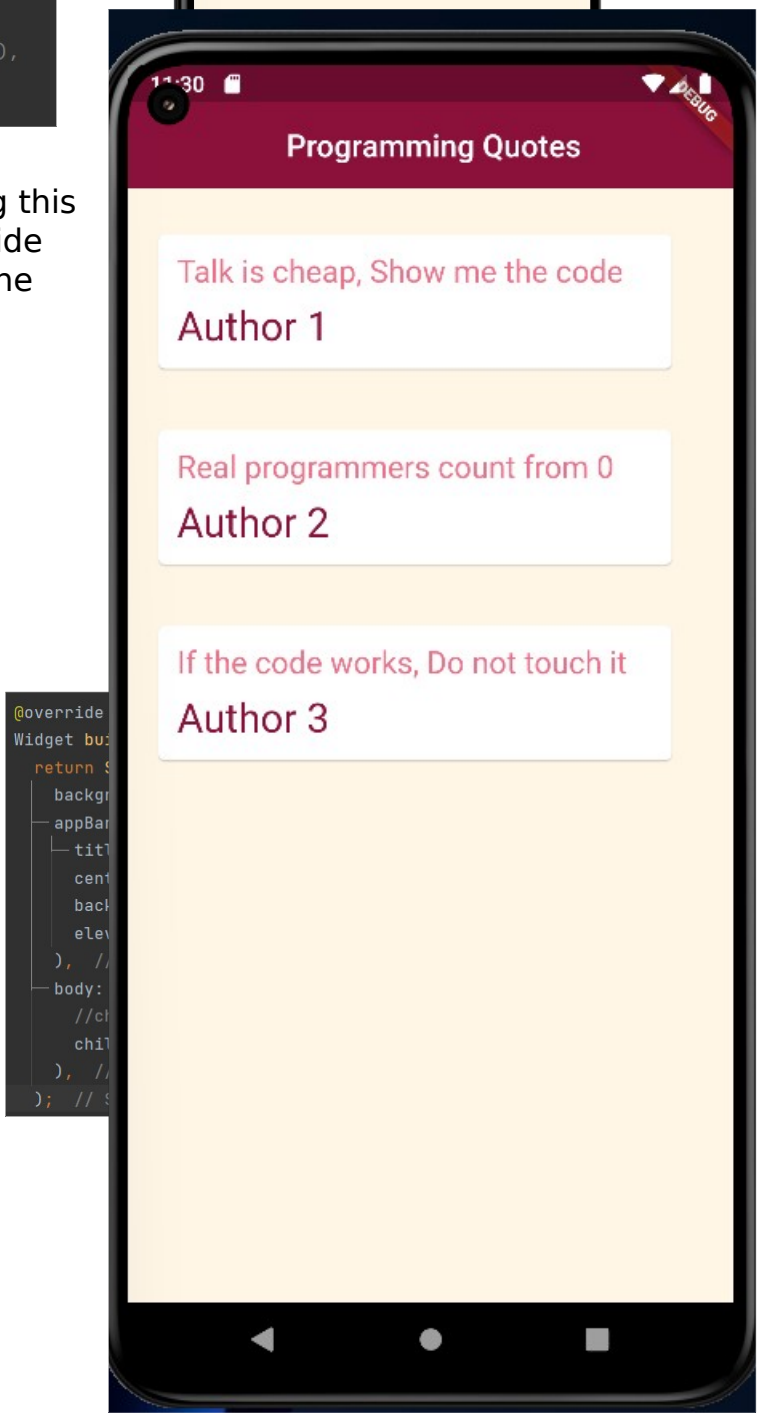
```dart
List<String> quts = [
  'Talk is cheap, Show me the code',
  'Real programmers count from 0',
  'If the code works, Do not touch it'
];
```

```dart
Widget build(BuildContext context) {
  return Scaffold(
    backgroundColor: Color(0xffFFF5E4),
    appBar: AppBar(
      title: Text(' Programming Quotes'),
      centerTitle: true,
      backgroundColor: Color(0xff850E35),
      elevation: 0.0,
    ),  // AppBar
    body: Column(
      children: quts.map((quote) => Text(quote)).toList(),
      //children: quotes.map((quote) => quoteTemplate(quote)).toList(),
    ),  // Column
  );  // Scaffold
```



We will create one widget for diaplaying this quotes properly. Add below method inside class. And then call it for each item of the list.

```dart
Widget quoteTemplate(quote){
  return Card(
    margin: EdgeInsets.fromLTRB(20.0, 30.0, 40.0, 10.0),
    child: Padding(
      padding: const EdgeInsets.all(12.0),
      child: Column(
        crossAxisAlignment: CrossAxisAlignment.stretch,
        children: [
          Text(
            quote.text,
            style: TextStyle(
              fontSize: 20,
              color: Color(0xffEE6983),
            ),  // TextStyle
          ),  // Text
          SizedBox(height: 10),
          Text(
            quote.author,
            style: TextStyle(
              fontSize: 26,
              color: Color(0xff850E35),
            ),  // TextStyle
          ),  // Text
        ],
      ),  // Column
    ),  // Padding
  );  // Card
}
```



GitHub Repository Link:

https://github.com/TulsiLukhi1/Smat-Device-Programming/tree/master/Lab8