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Subject: SDP

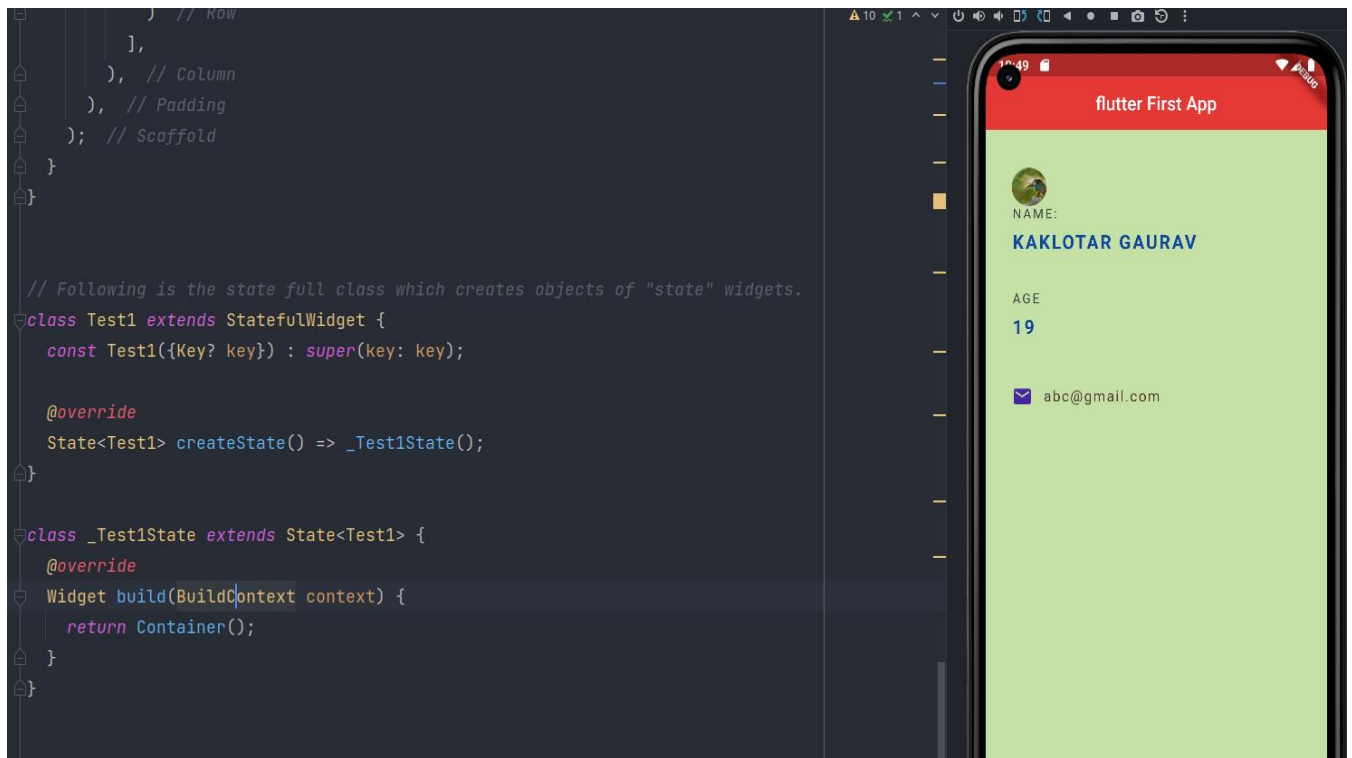
Batch: A3

Roll No: CE053

ID No: 20CEUBG084

Lab8 Tutorial-2

From Lab8 Tut1



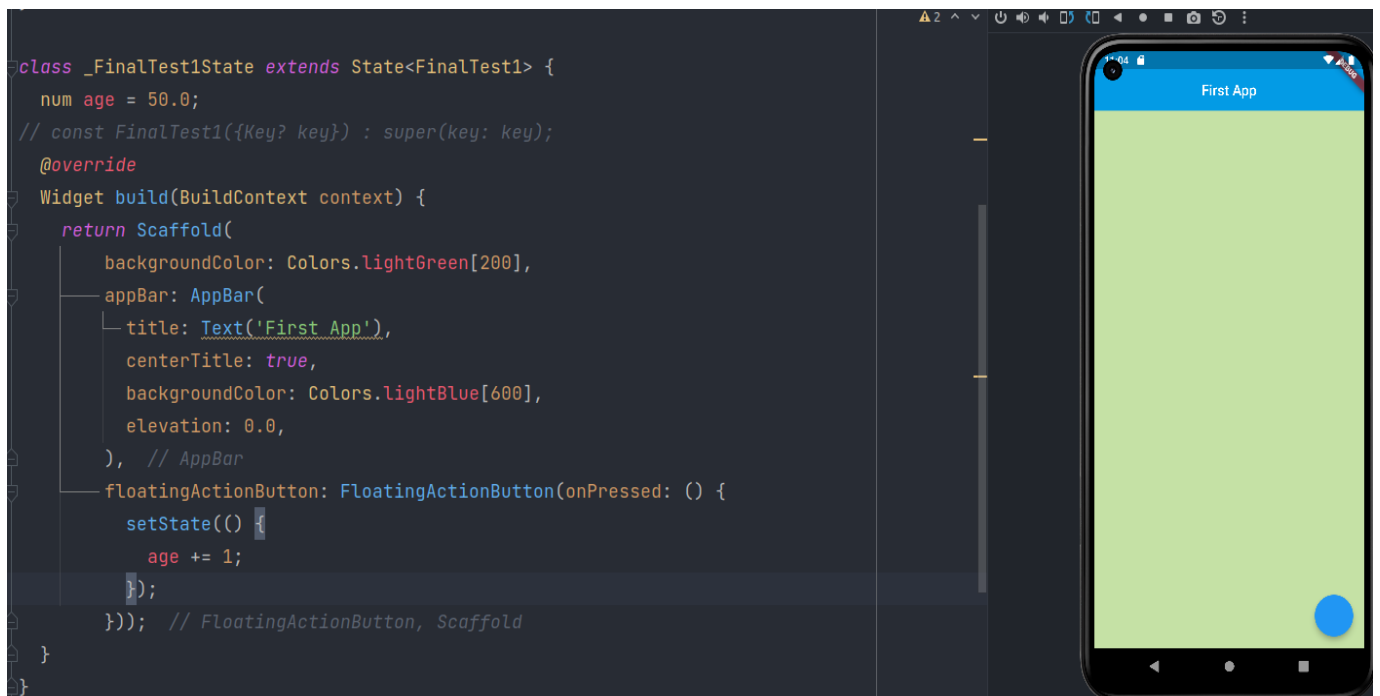
Description:

StatefulWidget

abstract class StatefulWidget extends Widget

A widget that has mutable state.

StatefulWidget instances themselves are immutable and store their mutable state either in separate State objects that are created by the createState method, or in objects to which that State subscribes, for example Stream or ChangeNotifier objects, to which references are stored in final fields on the StatefulWidget itself.



Notify the framework that the internal state of this object has changed.

Whenever you change the internal state of a State object, make the change in a function that you pass to `setState`:

```
setState(() { _myState = newValue; });
```

The provided callback is immediately called synchronously. It must not return a future (the callback cannot be async), since then it would be unclear when the state was actually being set.

Minus Sign can be obtain with `Icons.remove`.

Code Test:




Here we are just creating simple string List name quotes and append one quotes to List.

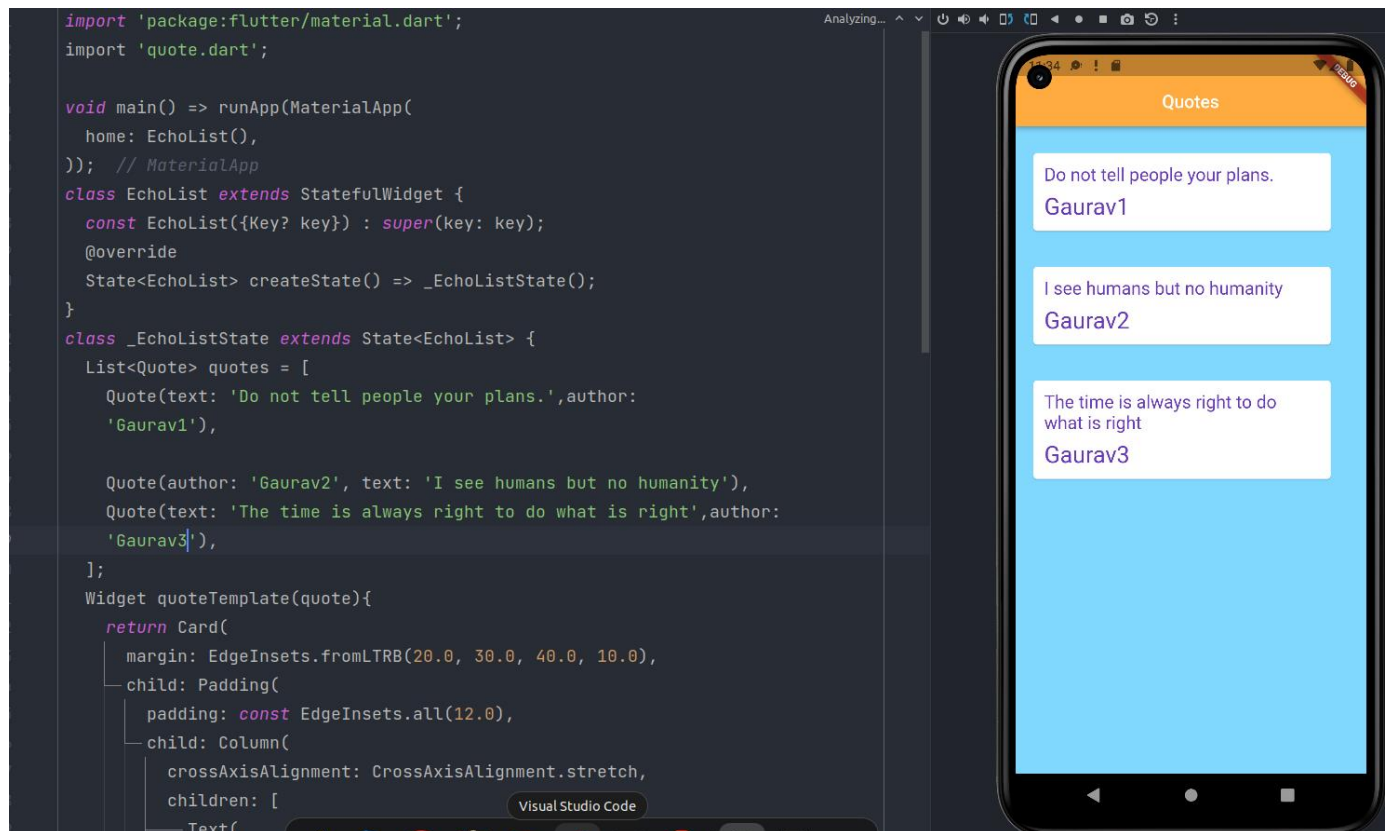
Let's Work with some custom class...

```
README.md × main.dart × quote.dart × pubspec.yaml ×
1 class Quote{
2     String text;
3     String author;
4
5     Quote({this.text='', this.author=''});
6 }
```

```
void main() => runApp(MaterialApp(
  home: EchoList(),
)); // MaterialApp
class EchoList extends StatefulWidget {
  const EchoList({Key? key}) : super(key: key);
  @override
  State<EchoList> createState() => _EchoListState();
}
class _EchoListState extends State<EchoList> {
  List<Quote> quotes = [
    Quote(text: 'Do not tell people your plans.',author:
      'Gaurav1'),
    Quote(author: 'Gaurav2', text: 'I see humans but no humanity'),
    Quote(text: 'The time is always right to do what is right',author:
      'Gaurav3'),
  ];
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: Colors.lightBlueAccent[100],
      appBar: AppBar(
        title: Text('Quotes'),
        centerTitle: true,
        backgroundColor: Colors.orangeAccent,
      ), // AppBar
      body: Column(
        children: quotes.map((quote) => Text('${quote.text} - ${quote.author}')).toList()
      )
    );
  }
}
```



The app preview shows a mobile interface with a light blue background and an orange header titled "Quotes". The header contains three quotes: "Do not tell people your plans. - Gaurav1", "I see humans but no humanity - Gaurav2", and "The time is always right to do what is right - Gaurav3".



Description:

Containing class: Card

Creates a material design card.

The elevation must be null or non-negative. The borderOnForeground must not be null.

Card widget in flutter is a sheet of Material used to represent all the similar information in a single block.

For example, a card can be used to design an album cover as it will represent all the songs that belong to that album. A card will have rounded corners and is elevated by default.

Final Code:

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

void main() => runApp(MaterialApp(
  home: EchoList(),
));

class EchoList extends StatefulWidget {
  const EchoList({Key? key}) : super(key: key);
  @override
  State<EchoList> createState() => _EchoListState();
}

class _EchoListState extends State<EchoList> {
  List<Quote> quotes = [
    Quote(text: 'Do not tell people your plans.', author: 'Gaurav1'),
    Quote(author: 'Gaurav2', text: 'I see humans but no humanity'),
    Quote(
      text: 'The time is always right to do what is right',
      author: 'Gaurav3'),
  ];
  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: Colors.deepPurple,
    ),
  ),
  SizedBox(height: 10),
  Text(
    quote.author,
    style: TextStyle(
      fontSize: 26,
      color: Colors.deepPurple,
    ),
  ),
],
),
),
);
}

```

@override

```

Widget build(BuildContext context) {
  return Scaffold(
    backgroundColor: Colors.lightBlueAccent[100],
    appBar: AppBar(
      title: Text('Quotes'),
      centerTitle: true,
      backgroundColor: Colors.orangeAccent,
    ),
  ),

```

```
body: Column(  
  children: quotes.map((quote) => quoteTemplate(quote)).toList(),  
),  
);  
}  
}
```

Github Link:

<https://github.com/GauravKaklotar/SDP/tree/master/Lab08>