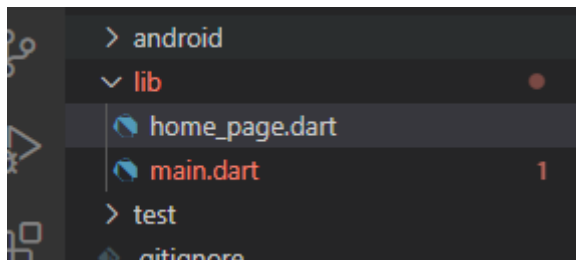


Mini Aplicação Flutter – Parte 02

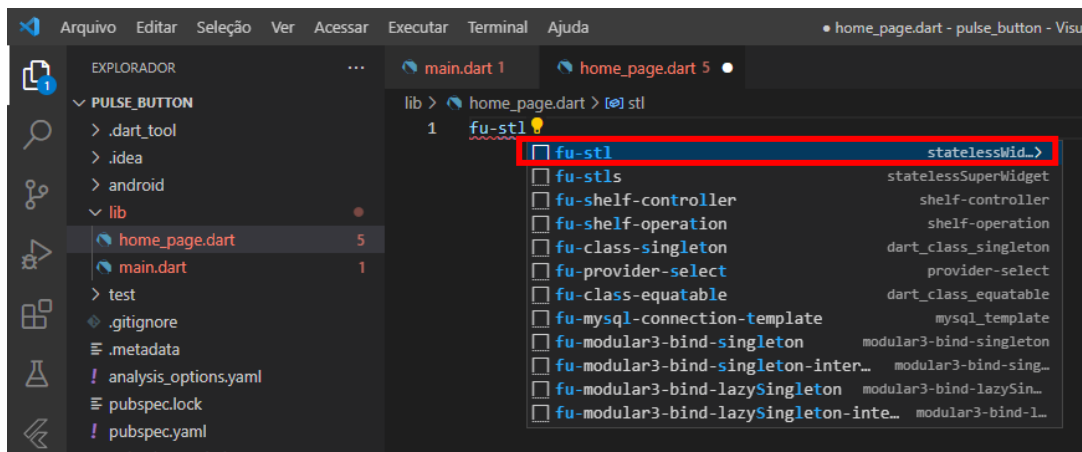
Flutter - Pulse Button – Vídeo do Youtube

<https://www.youtube.com/watch?v=5JD1V--UoYo>

1) Crie um arquivo chamado home_page.dart dentro da pasta lib



2) comece o código da home_page.dart digitando: fu-stl



Escolha a 1ª opção para criar um StatelessWidget

```

lib > home_page.dart > ...
1  import 'package:flutter/material.dart';
2
3  class HomePage extends StatelessWidget {
4      const HomePage({Key? key}) : super(key: key);
5
6      @override
7      Widget build(BuildContext context) {
8          return Scaffold(
9              appBar: AppBar(
10                 title: const Text(''),
11             ), // AppBar
12             body: Container(),
13         ); // Scaffold
14     }
15 }
16

```

3) Edite um texto do widget

```

lib > home_page.dart > ...
1  import 'package:flutter/material.dart';
2
3  class HomePage extends StatelessWidget {
4      const HomePage({Key? key}) : super(key: key);
5
6      @override
7      Widget build(BuildContext context) {
8          return Scaffold(
9              appBar: AppBar(
10                 title: const Text('Home Page'),
11             ), // AppBar
12             body: Container(),
13         ); // Scaffold
14     }
15 }
16

```

4) Corrija a referência para esta página no arquivo main.dart

```
lib > main.dart > MyApp > build
1  import 'package:flutter/material.dart';
2
3  Run | Debug | Profile
4  void main() {
5    runApp(const MyApp());
6  }
7
8  class MyApp extends StatelessWidget {
9    const MyApp({super.key});
10   @override
11   Widget build(BuildContext context) {
12     return MaterialApp(
13       title: 'Flutter Demo',
14       theme: ThemeData(
15         primarySwatch: Colors.blue,
16       ), // ThemeData
17     home: const HomePage(),
18   ); // MaterialApp
19   }
20 }
```

Repare que ainda aparece um erro. Isso se deve pelo fato de que as páginas criadas devem ser importadas em main.dart. Clique sobre a lanterna Amarela e escolha importar a página criada anteriormente (home_page.dart)

```
lib > main.dart > MyApp > build
1  import 'package:flutter/material.dart';
2
3  Run | Debug | Profile
4  void main() {
5    runApp(const MyApp());
6  }
7
8  class MyApp extends StatelessWidget {
9    const MyApp({super.key});
10   @override
11   Widget build(BuildContext context) {
12     return MaterialApp(
13       title: 'Flutter Demo',
14       theme: ThemeData(
15         primarySwatch: Colors.blue,
16       ), // ThemeData
17     home: const HomePage(),
18   ); // MaterialApp
19   }
20 }
```

Correção Rápida...

- Import library 'home_page.dart'
- Import library 'package:pulse'

Extrair...

- Extract Method
- Extract Local Variable

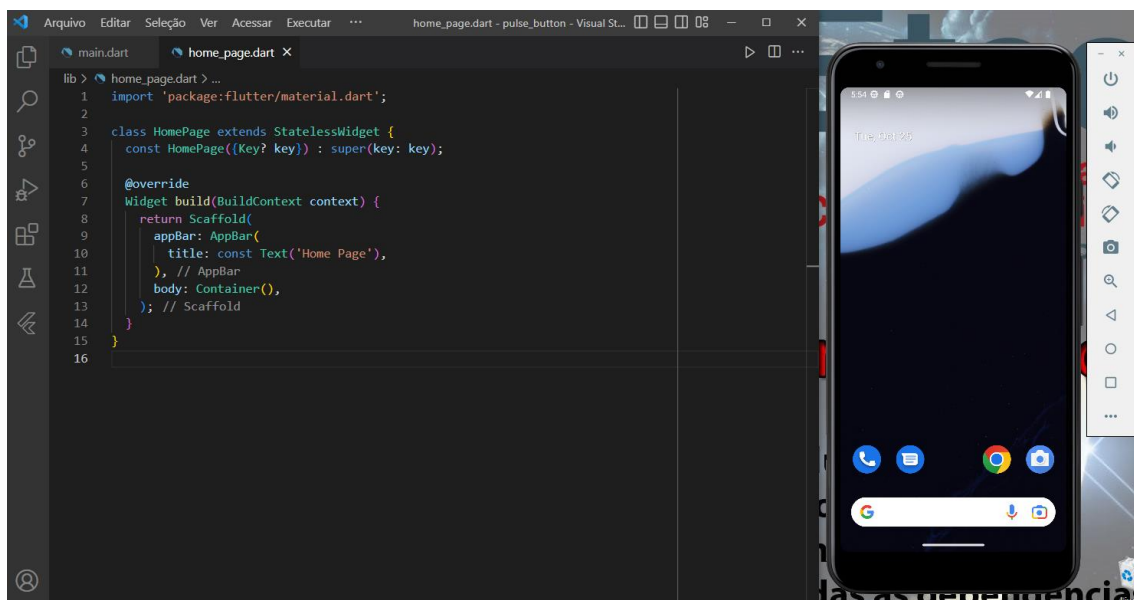
Enter to Aplicar, Ctrl+Enter to Versão Prévia

```

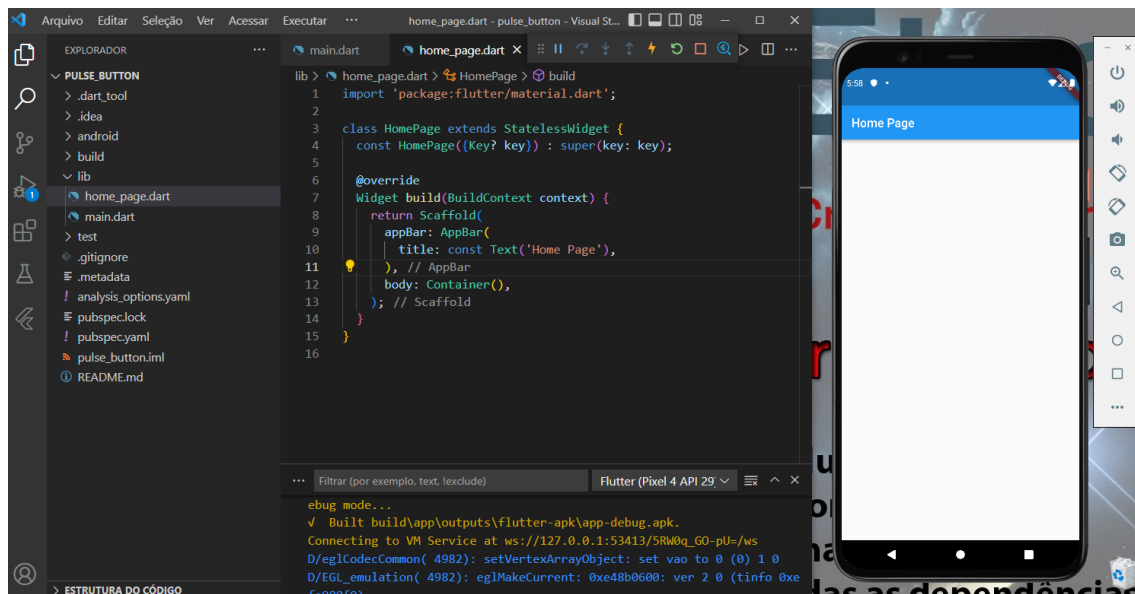
lib > main.dart > ...
1  import 'package:flutter/material.dart';
2
3  import 'home_page.dart';
4
5  Run | Debug | Profile
6  void main() {
7    runApp(const MyApp());
8  }
9
10 class MyApp extends StatelessWidget {
11   const MyApp({super.key});
12   @override
13   Widget build(BuildContext context) {
14     return MaterialApp(
15       title: 'Flutter Demo',
16       theme: ThemeData(
17         primarySwatch: Colors.blue,
18       ), // ThemeData
19       home: const HomePage(),
20     ); // MaterialApp
21   }
22 }

```

5) Abra um emulador do android studio.

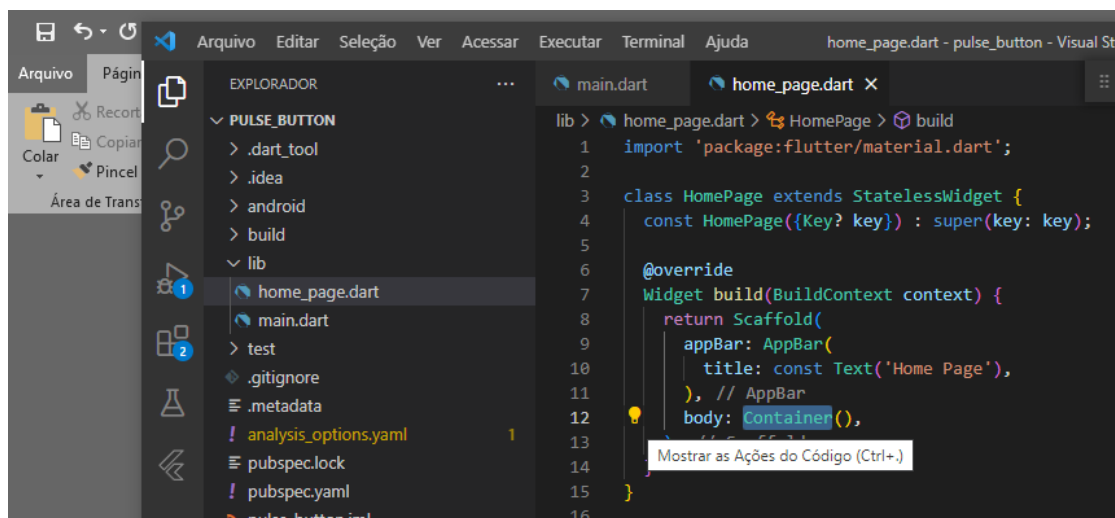


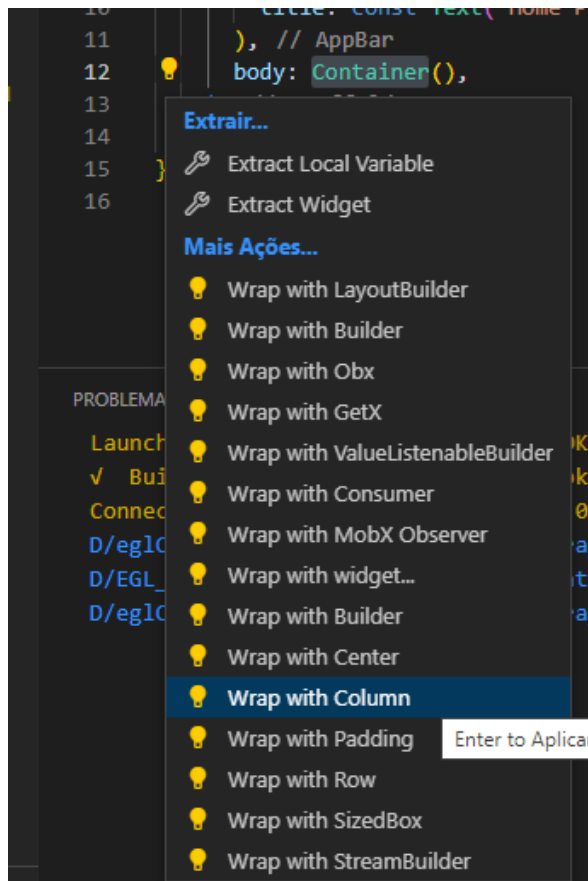
6) Lance a aplicação clicando F5.



7) Agora vamos criar alguns componentes em nosso arquivo **home_page.dart**.

Selecione Container. Clique sobre a lâmpada amarela e escolha Wrap with Column

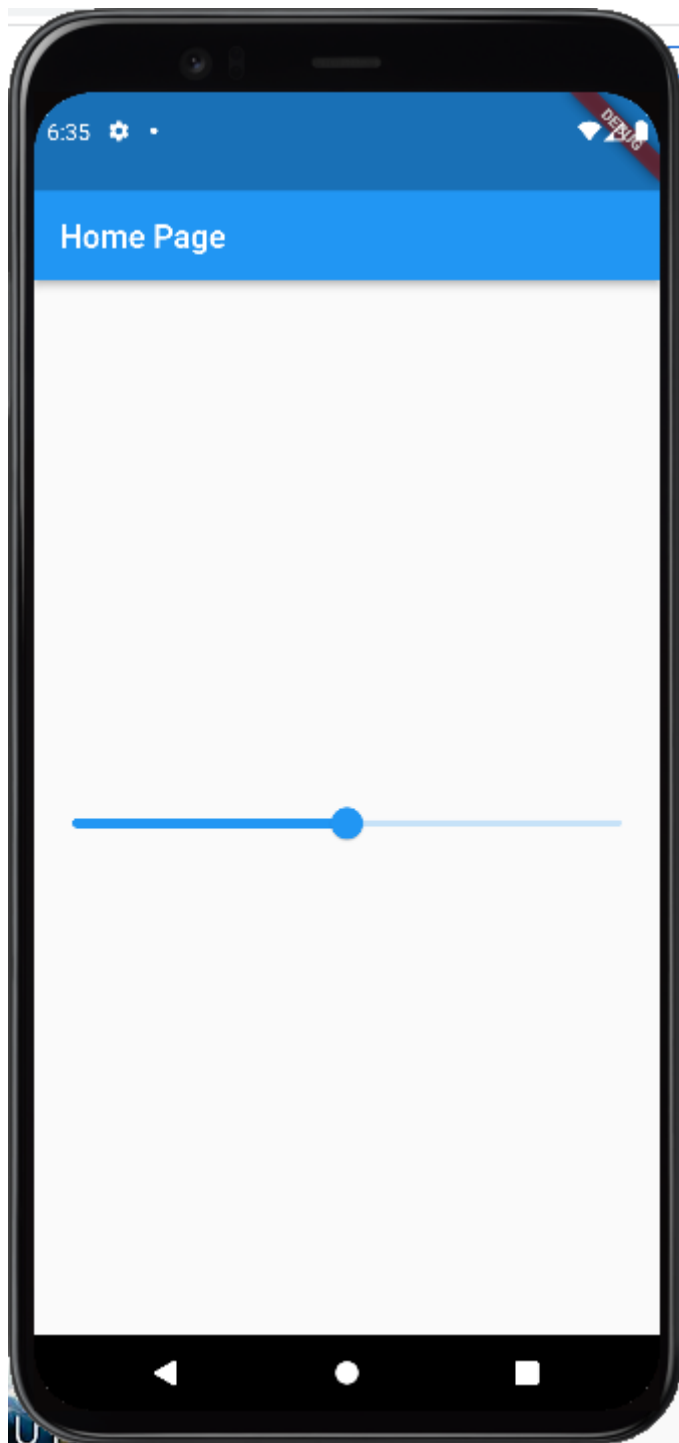




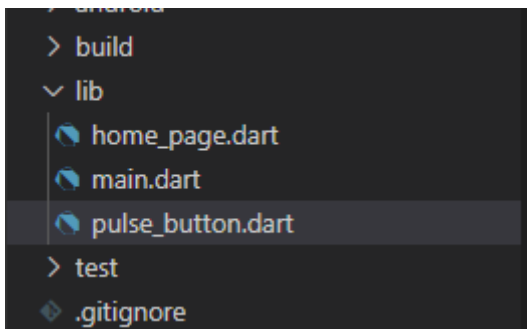
```
10 title: const Text('Home Pa
11 ), // AppBar
12 body: Column(
13   children: [
14     Container(),
15   ],
16 ), // Column
17 ); // Scaffold
18
19 }
```

Prepare este código conforme abaixo:

```
lib > home_page.dart > HomePage
1  import 'package:flutter/material.dart';
2
3  class HomePage extends StatelessWidget {
4      const HomePage({Key? key}) : super(key: key);
5
6      @override
7      Widget build(BuildContext context) {
8          return Scaffold(
9              appBar: AppBar(
10                 title: const Text('Home Page'),
11             ), // AppBar
12             body: Center(
13                 child: Column(
14                     mainAxisAlignment: MainAxisAlignment.center,
15                     children: [
16                         Container(
17                             color: Colors.red,
18                         ), // Container
19                         const SizedBox(
20                             height: 20,
21                         ), // SizedBox
22                         Slider(
23                             value: 0.5,
24                             onChanged: (value) {},
25                         ), // Slider
26                     ],
27                 ), // Column
28             ), // Center
29         ); // Scaffold
30     }
31 }
32
```



8) Agora vamos inserir um botão. Crie um novo arquivo dentro da pasta lib chamado: pulse_button.dart



```
lib > pulse_button.dart > PulseButton > build
1 import 'package:flutter/material.dart';
2
3 class PulseButton extends StatelessWidget {
4   const PulseButton({Key? key}) : super(key: key);
5
6   @override
7   Widget build(BuildContext context) {
8     return Scaffold(
9       appBar: AppBar(
10        title: const Text(''),
11      ), // AppBar
12      body: Container(),
13    ); // Scaffold
14  }
15 }
16
```

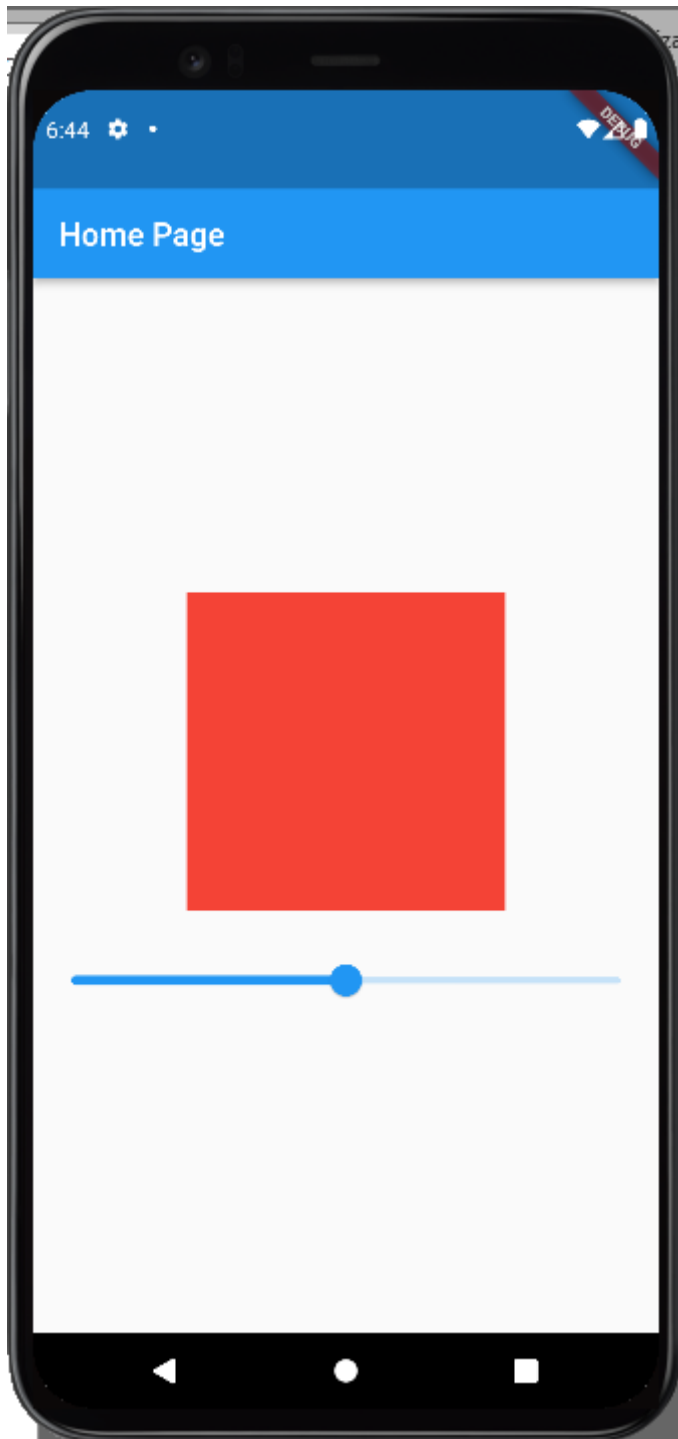
Edite o código:

```
lib > pulse_button.dart > ...
1 import 'package:flutter/material.dart';
2
3 class PulseButton extends StatelessWidget {
4   const PulseButton({Key? key}) : super(key: key);
5
6   @override
7   Widget build(BuildContext context) {
8     return Container(
9       width: 200,
10      height: 200,
11      color: Colors.red,
12    );
13  }
14 }
```

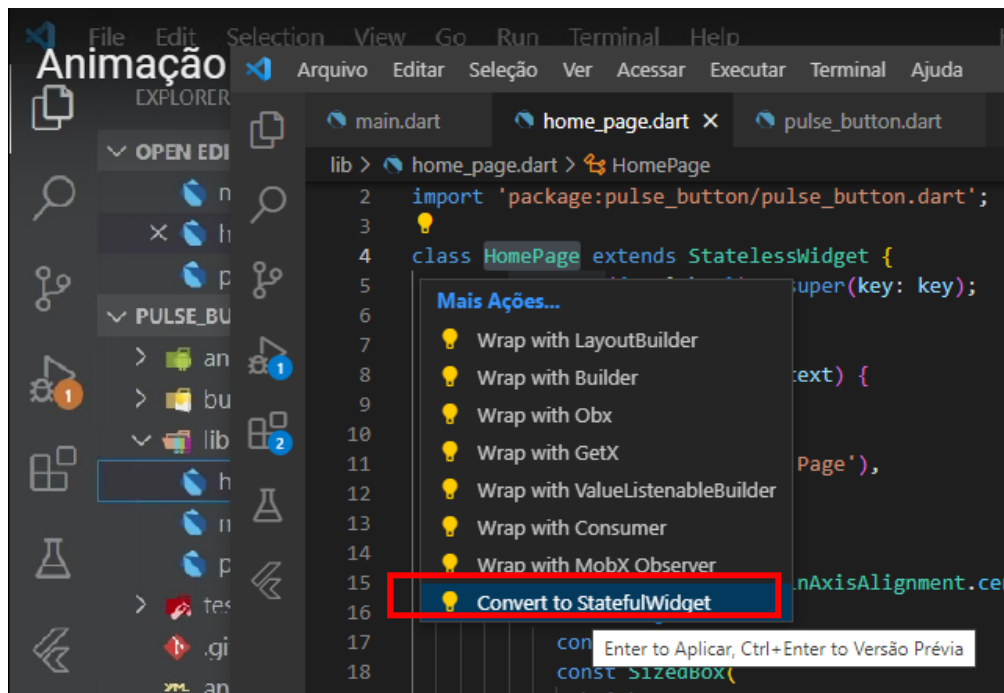
Vá para a página home_page.dart e edite o código:

lib > home_page.dart > ...

```
2 import 'package:pulse_button/pulse_button.dart';
3
4 class HomePage extends StatelessWidget {
5   const HomePage({Key? key}) : super(key: key);
6
7   @override
8   Widget build(BuildContext context) {
9     return Scaffold(
10      appBar: AppBar(
11        title: const Text('Home Page'),
12      ), // AppBar
13      body: Center(
14        child: Column(
15          mainAxisAlignment: MainAxisAlignment.center,
16          children: [
17            const PulseButton(),
18            const SizedBox(
19              height: 20,
20            ), // SizedBox
21            Slider(
22              value: 0.5,
23              onChanged: (value) {},
24            ), // Slider
25          ],
26        ), // Column
27      ), // Center
28    ); // Scaffold
29  }
30 }
```



9) Repare que o Slider ainda não funciona. Vamos converter o HomePage para set State. Selecione HomePage e clique lâmpada amarela. Escolha a opção: convert to StatefulWidget.



```

lib > home_page.dart > _HomePageState > build
1  import 'package:flutter/material.dart';
2  import 'package:pulse_button/pulse_button.dart';
3
4  class HomePage extends StatefulWidget {
5    const HomePage({Key? key}) : super(key: key);
6
7    @override
8    State<HomePage> createState() => _HomePageState();
9  }
10
11  class _HomePageState extends State<HomePage> {
12    @override
13    Widget build(BuildContext context) {
14      return Scaffold(
15        appBar: AppBar(
16          title: const Text('Home Page'),
17        ), // AppBar
18        body: Center(
19          child: Column(
20            mainAxisAlignment: MainAxisAlignment.center,
21            children: [
22              const PulseButton(),
23              const SizedBox(
24                height: 20,
25              ), // SizedBox
26              Slider(
27                value: 0.5,
28                onChanged: (value) {},
29              ), // Slider
30            ],
31          ), // Column
32        ), // Center
33      ); // Scaffold
34    }

```

Faça mais algumas alterações:

```

10
11 class HomePageState extends State<HomePage> {
12     var temperatura = 0.1;
13     @override
14     Widget build(BuildContext context) {
15         return Scaffold(
16             appBar: AppBar(
17                 title: const Text('Home Page'),
18             ), // AppBar
19             body: Center(
20                 child: Column(
21                     mainAxisAlignment: MainAxisAlignment.center,
22                     children: [
23                         const PulseButton(),
24                         const SizedBox(
25                             height: 20,
26                         ), // SizedBox
27                         Slider(
28                             value: temperatura,
29                             onChanged: (value) {
30                                 setState(() {
31                                     temperatura = value;
32                                 });
33                             },
34                     ), // Slider

```

Repare que agora o Slider já deve funcionar.

Agora vamos enviar o valor do slider para dentro do botão vermelho que criamos.

Altere o arquivo pulse_button.dart

```

lib > pulse_button.dart > ...
1  import 'package:flutter/material.dart';
2
3  class PulseButton extends StatelessWidget {
4      final double temperatura;
5
6      const PulseButton(this.temperatura, {Key? key}) : super(key: key);
7
8      @override
9      Widget build(BuildContext context) {
10         return Container(
11             width: 200,
12             height: 200,
13             color: Colors.red,
14         );
15     }
16 }

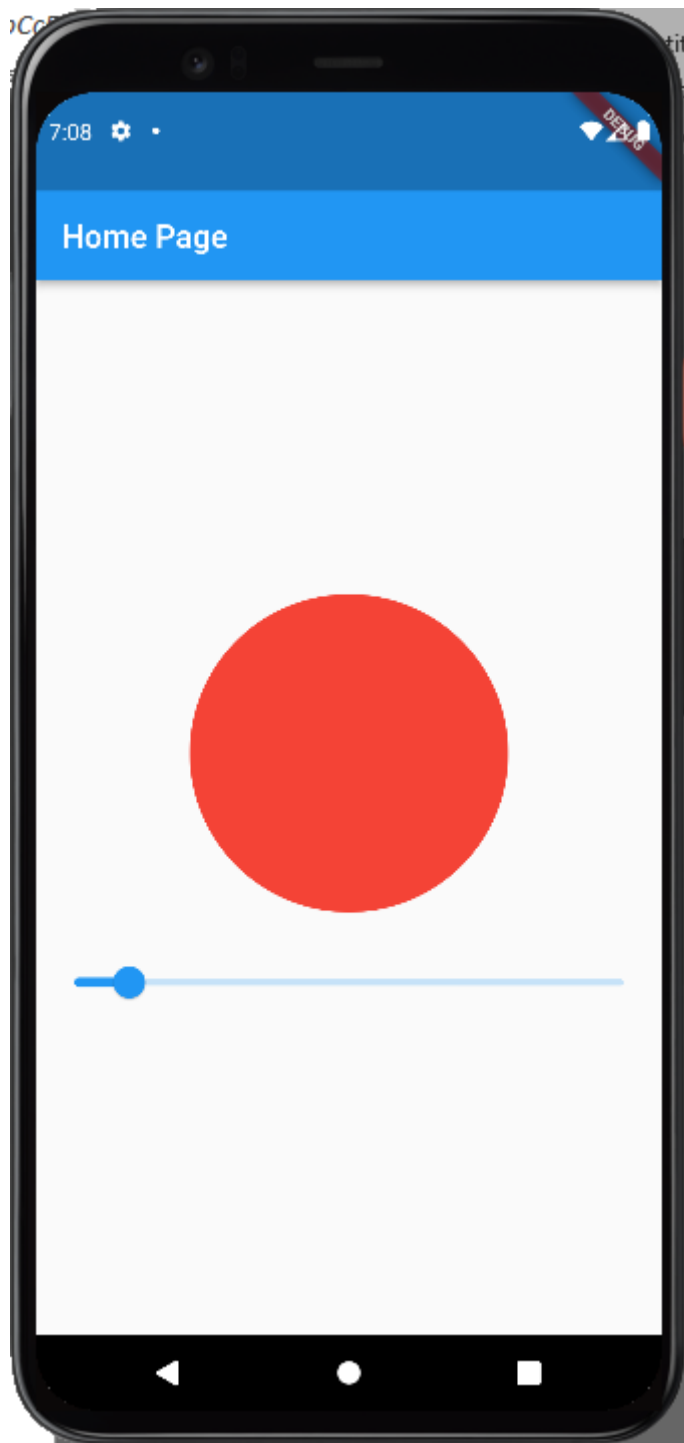
```

Altere o arquivo home_page.dart

```
7   @override
8   State<HomePage> createState() => _HomePageState();
9 }
10
11 class _HomePageState extends State<HomePage> {
12   var temperatura = 0.1;
13   @override
14   Widget build(BuildContext context) {
15     return Scaffold(
16       appBar: AppBar(
17         title: const Text('Home Page'),
18       ), // AppBar
19       body: Center(
20         child: Column(
21           mainAxisAlignment: MainAxisAlignment.center,
22           children: [
23             PulseButton(temperatura),
24             const SizedBox(
25               height: 20,
26             ), // SizedBox
27             Slider(
28               value: temperatura,
29               onChanged: (value) {
30                 setState(() {
31                   temperatura = value;
32                 });
33               },
34             ), // Slider
35           ],
36         ), // Column
37       ), // Center
38     ); // Scaffold
```

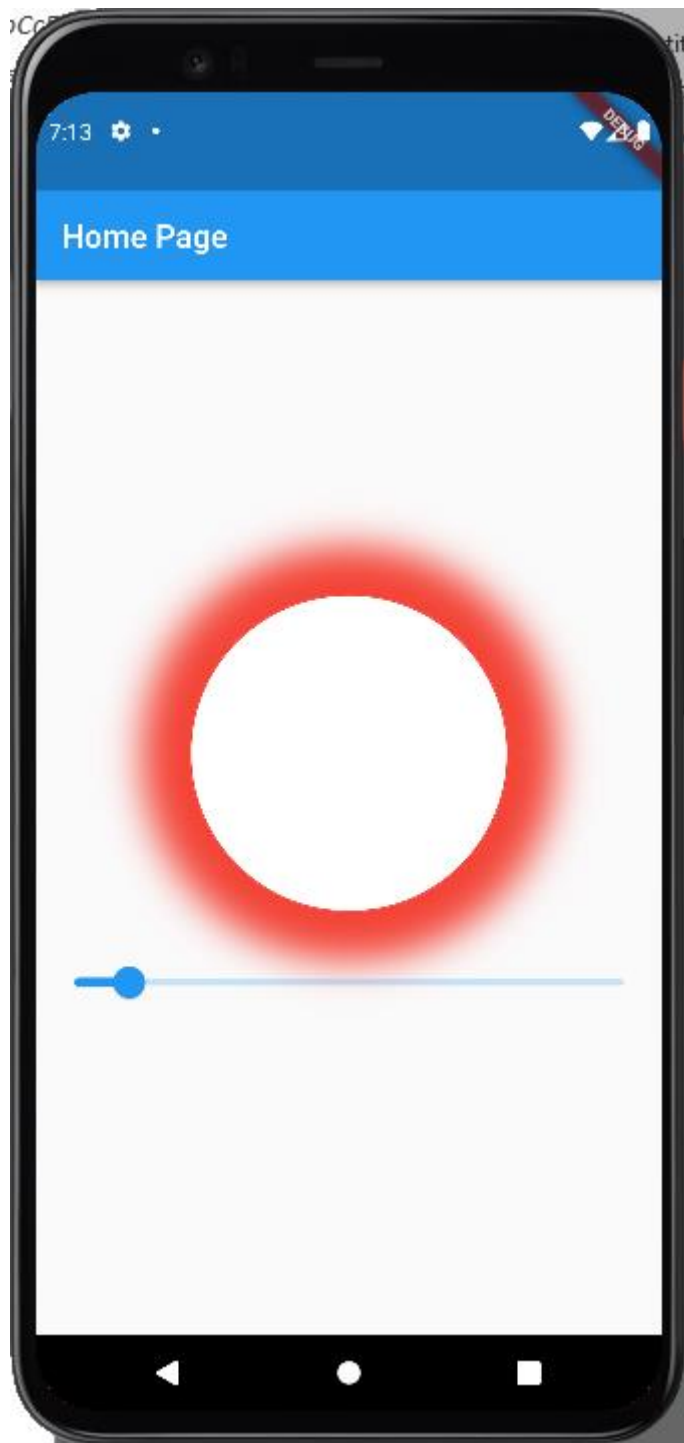
10) Vamos alterar o botão para um formato circular. Faça as seguintes alterações no código da página pulse_button.dart

```
lib > pulse_button.dart > ...
1  import 'package:flutter/material.dart';
2
3  class PulseButton extends StatelessWidget {
4    final double temperatura;
5
6    const PulseButton(this.temperatura, {Key? key}) : super(key: key);
7
8    @override
9    Widget build(BuildContext context) {
10     return Container(
11       width: 200,
12       height: 200,
13       decoration: BoxDecoration(
14         color: Colors.red,
15         shape: BoxShape.circle,
16       ), // BoxDecoration
17     ); // Container
18   }
19 }
```

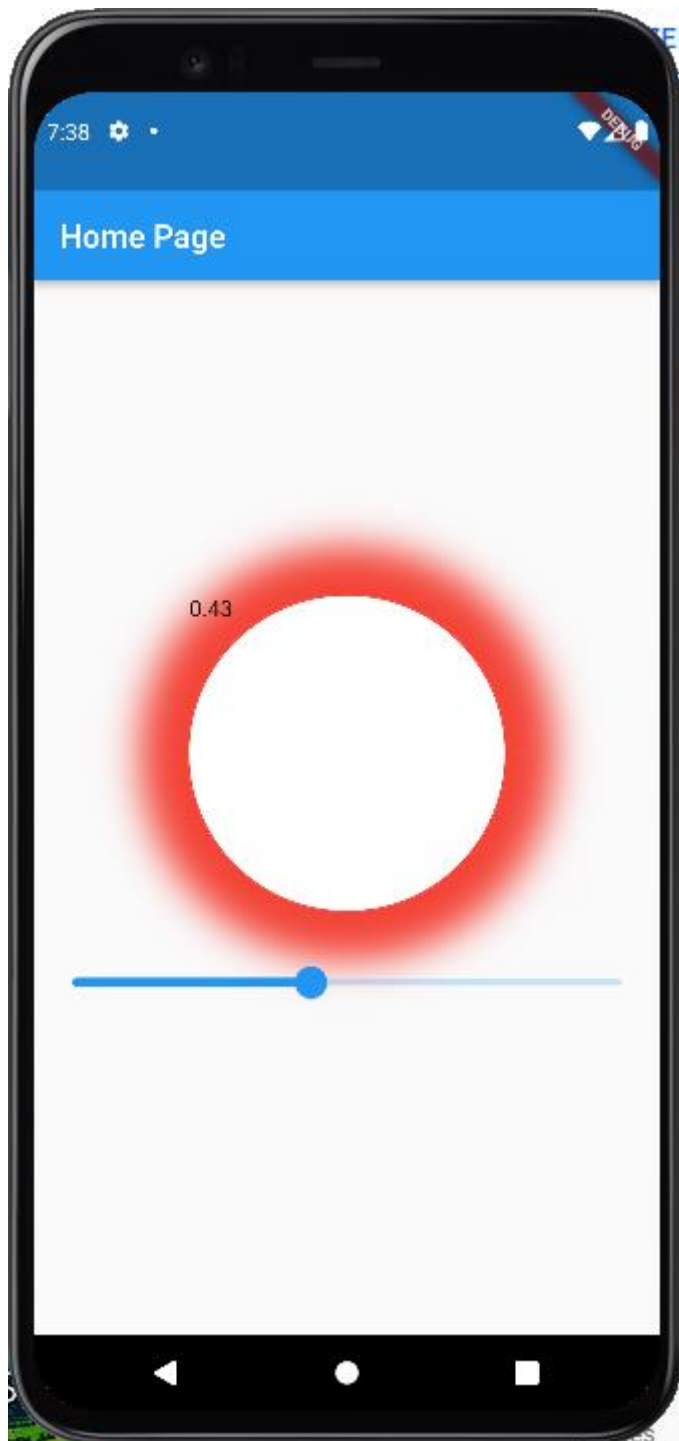
Vamos adicionar Sombra e cor de fundo do botão. Altere o código.

```
lib > pulse_button.dart > ...
1  import 'package:flutter/material.dart';
2
3  class PulseButton extends StatelessWidget {
4    final double temperatura;
5
6    const PulseButton(this.temperatura, {Key? key}) : super(key: key);
7
8    @override
9    Widget build(BuildContext context) {
10     return Container(
11       width: 200,
12       height: 200,
13       decoration: BoxDecoration(
14         color: Colors.white,
15         shape: BoxShape.circle,
16         border: Border.all(color: Colors.red),
17         boxShadow: const [
18           BoxShadow(
19             color: Colors.red,
20             blurRadius: 20,
21             spreadRadius: 30,
22           ) // BoxShadow
23         ], // BoxDecoration
24       ); // Container
25   }
26 }
```



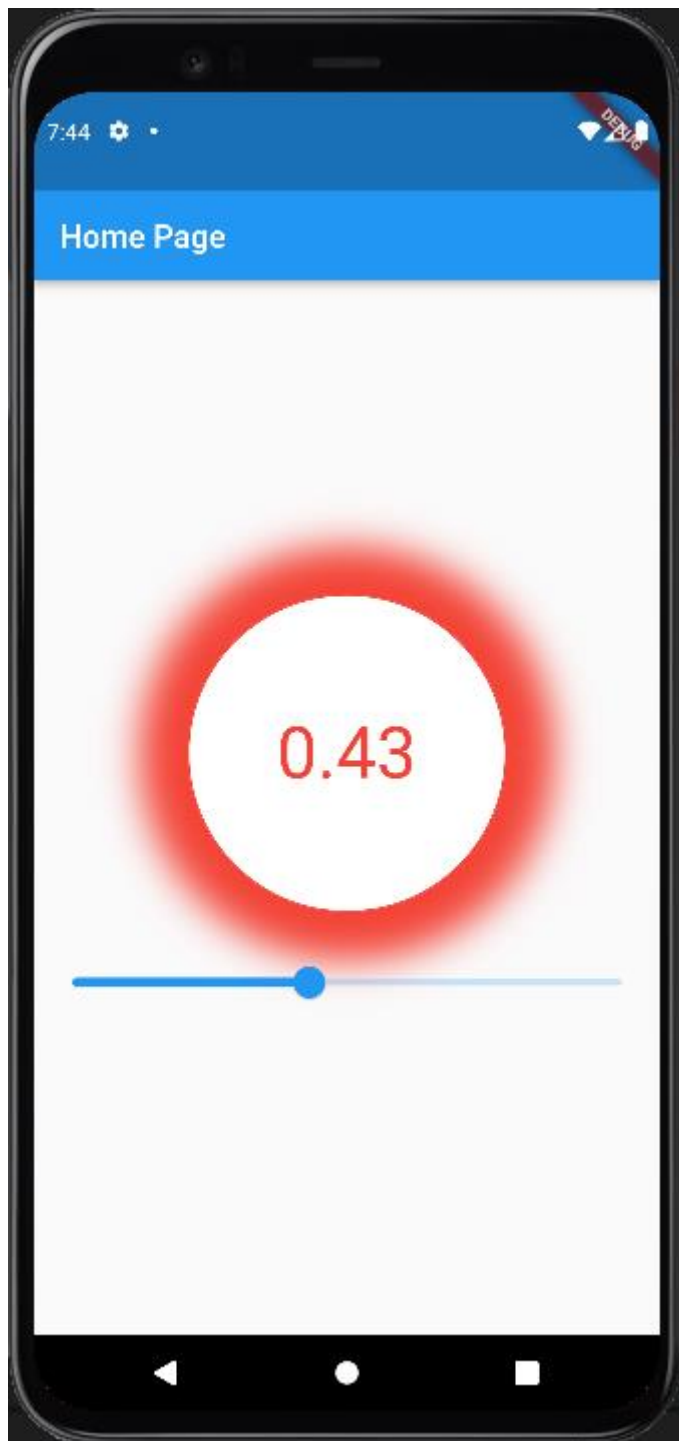
Agora vamos fazer com que apareça o valor selecionado pelo slider em um text.

```
lib > pulse_button.dart > ...
1  import 'package:flutter/material.dart';
2
3  class PulseButton extends StatelessWidget {
4      final double temperatura;
5
6      const PulseButton(this.temperatura, {Key? key}) : super(key: key);
7
8      @override
9      Widget build(BuildContext context) {
10         return Container(
11             width: 200,
12             height: 200,
13             decoration: BoxDecoration(
14                 color: Colors.white,
15                 shape: BoxShape.circle,
16                 border: Border.all(color: Colors.red),
17                 boxShadow: const [
18                     BoxShadow(
19                         color: Colors.red,
20                         blurRadius: 20,
21                         spreadRadius: 30,
22                     ) // BoxShadow
23                 ]), // BoxDecoration
24         child: Text(temperatura.toStringAsPrecision(2)),
25     ); // Container
26 }
27
28
```



Finalizando esta parte, vamos fazer somente mais alguns ajustes quanto a exibição do número no botão circular.

```
lib > pulse_button.dart > ...
1 import 'package:flutter/material.dart';
2
3 class PulseButton extends StatelessWidget {
4   final double temperatura;
5
6   const PulseButton(this.temperatura, {Key? key}) : super(key: key);
7
8   @override
9   Widget build(BuildContext context) {
10    return Container(
11      width: 200,
12      height: 200,
13      decoration: BoxDecoration(
14        color: Colors.white,
15        shape: BoxShape.circle,
16        border: Border.all(color: Colors.red),
17        boxShadow: const [
18          BoxShadow(
19            color: Colors.red,
20            blurRadius: 20,
21            spreadRadius: 30,
22          ) // BoxShadow
23        ], // BoxDecoration
24      child: Center(
25        child: Text(
26          temperatura.toStringAsPrecision(2),
27          style:
28            Theme.of(context).textTheme.headline3?.copyWith(color: Colors.red),
29        )), // Text // Center
30    ); // Container
31  }
32 }
```



Fim até: 10:32