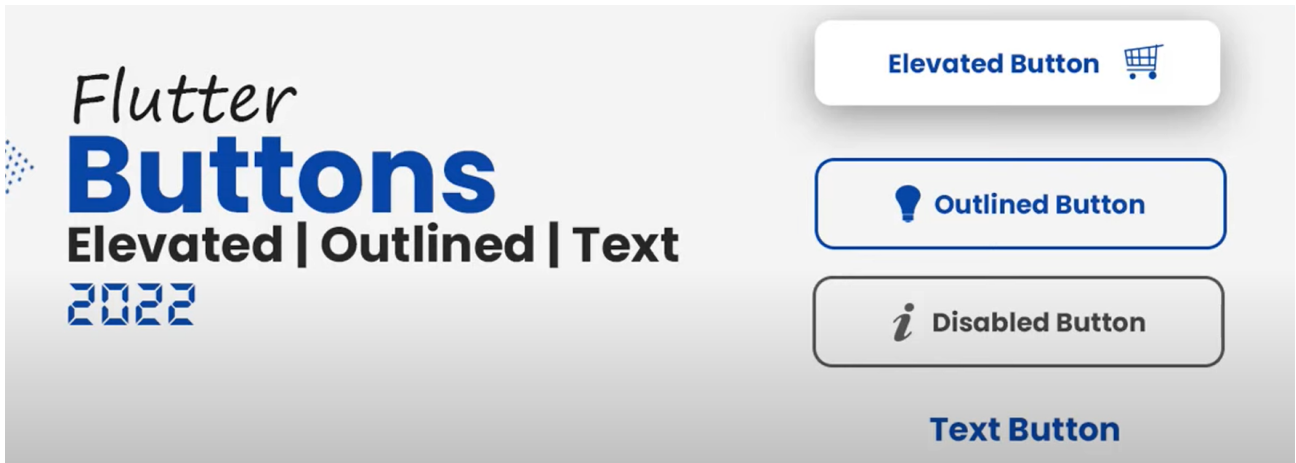


# Flutter UI Design



<https://docs.flutter.dev/release/breaking-changes/buttons>

main.dart

A screenshot of the Visual Studio Code editor interface. The Explorer sidebar on the left shows the project structure with folders like .dart\_tool, .idea, android, build, ios, lib, test, web, and .gitignore. The lib folder is expanded, showing Dashboard.dart, Home.dart, main copy.dart, and main.dart. The main.dart file is open in the editor, showing the following code:

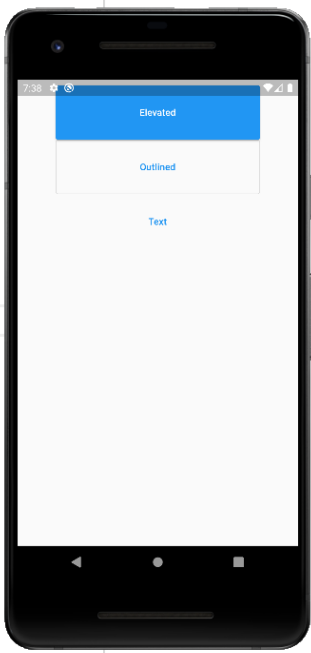
```
lib > main.dart > MyApp > build
1  import 'package:flutter/material.dart';
2  import 'Home.dart';
3
4  void main() {
5    runApp(const MyApp());
6  }
7
8  class MyApp extends StatelessWidget {
9    const MyApp({Key? key}) : super(key: key);
10
11    // This widget is the root of your application.
12    @override
13    Widget build(BuildContext context) {
14      return MaterialApp(
15        debugShowCheckedModeBanner: false,
16        title: 'Flutter Demo',
17        themeMode: ThemeMode.system,
18        home: Home()); // MaterialApp
19    }
20  }
21
```

The status bar at the bottom shows 0 errors, 0 warnings, and 8 info messages. It also includes icons for debugging, UTF-8 encoding, CRLF line endings, Dart language, Go Live, Pixel 2 TEST emulator, Prettier, and other settings.

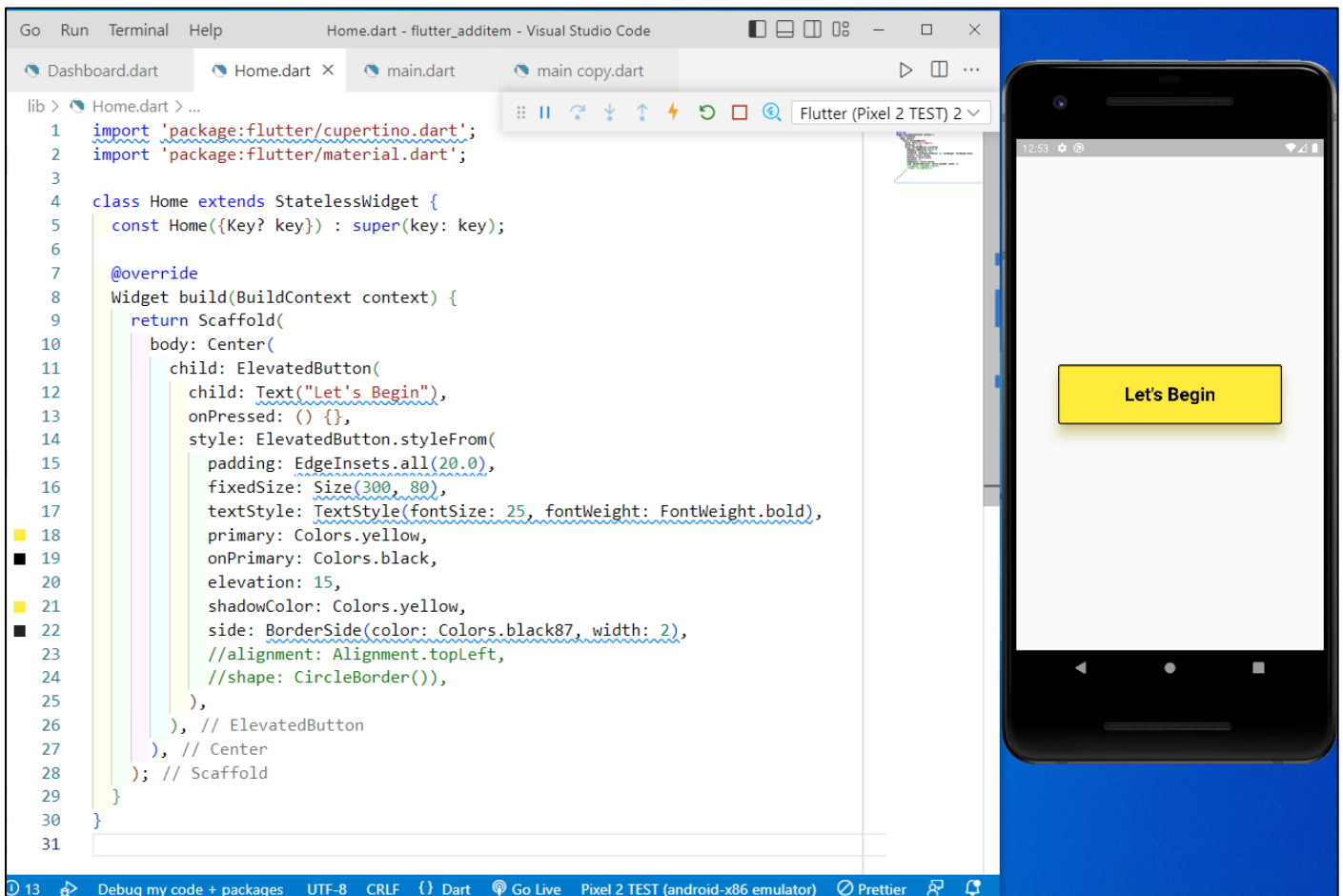
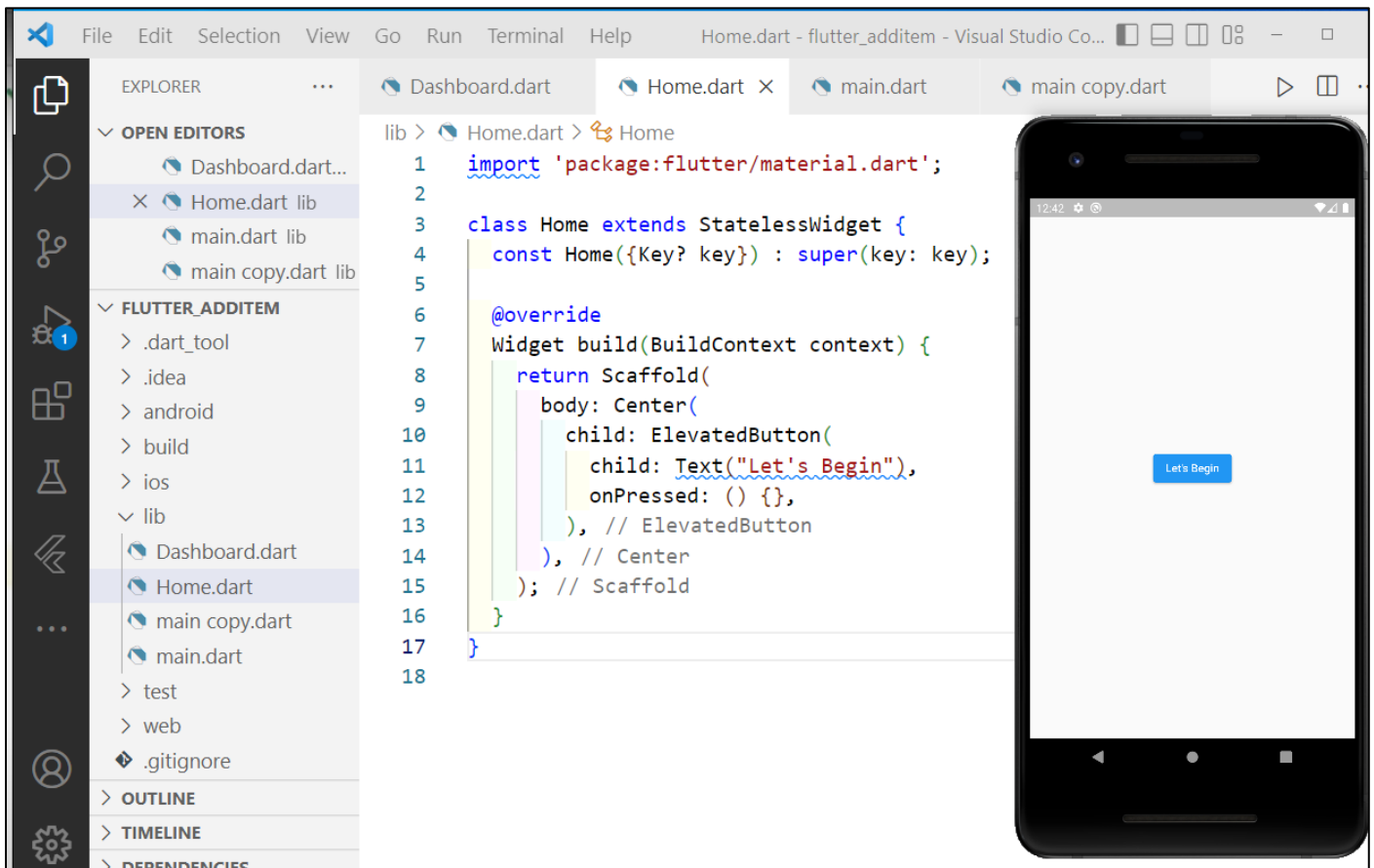
## Home.dart

lib > Home.dart > Home > build

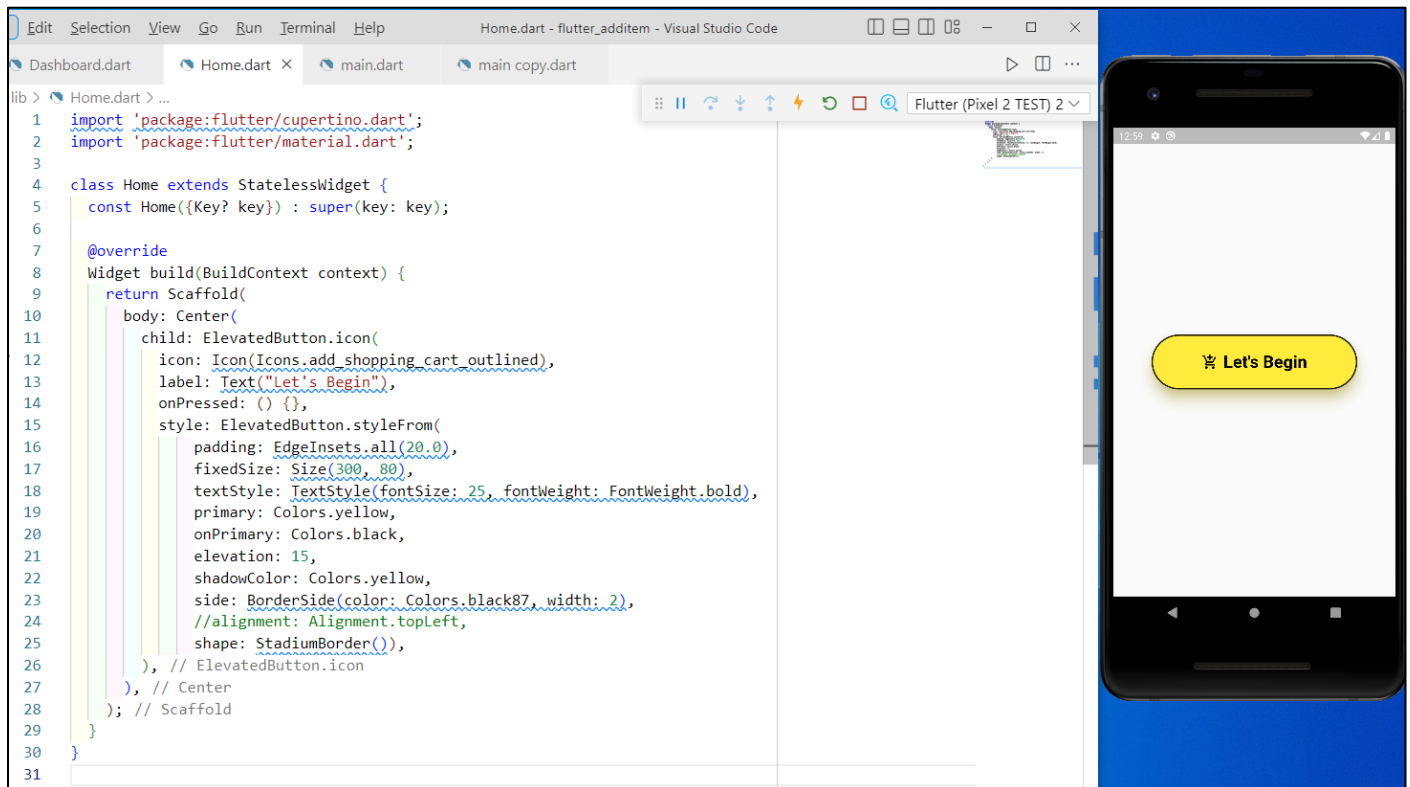
```
1 import 'package:flutter/cupertino.dart';
2 import 'package:flutter/material.dart';
3
4 class Home extends StatelessWidget {
5   const Home({Key? key}) : super(key: key);
6
7   @override
8   Widget build(BuildContext context) {
9     return Scaffold(
10      body: Column(
11        children: [
12          Padding(
13            padding: const EdgeInsets.all(8.0),
14            child: Center(
15              child: Column(
16                children: [
17                  ElevatedButton(
18                    onPressed: () {},
19                    child: const Text('Elevated'),
20                    style: ElevatedButton.styleFrom(
21                      fixedSize: Size(300, 80),
22                    ),
23                  ), // ElevatedButton
24                  OutlinedButton(
25                    onPressed: () {},
26                    child: const Text('Outlined'),
27                    style: OutlinedButton.styleFrom(
28                      fixedSize: Size(300, 80),
29                    ),
30                  ), // OutlinedButton
31                  TextButton(
32                    onPressed: () {},
33                    child: const Text('Text'),
34                    style: TextButton.styleFrom(
35                      fixedSize: Size(300, 80),
36                    ),
37                  ), // TextButton
38                ],
39              ), // Column
40            ), // Center
41          ), // Padding
42        ],
43      ), // Column
44    ); // Scaffold
45  }
46 }
47
```



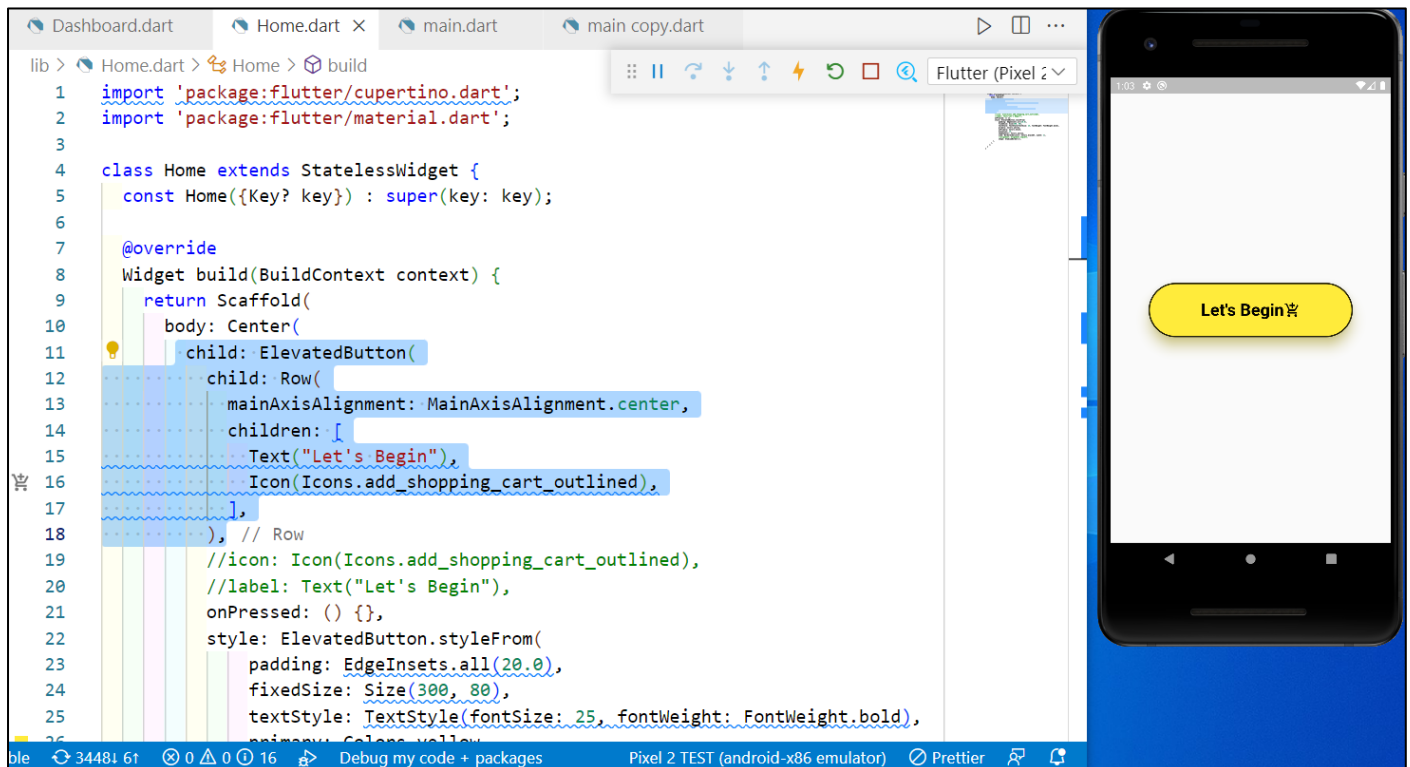
## Modify for Design ElevatedButton



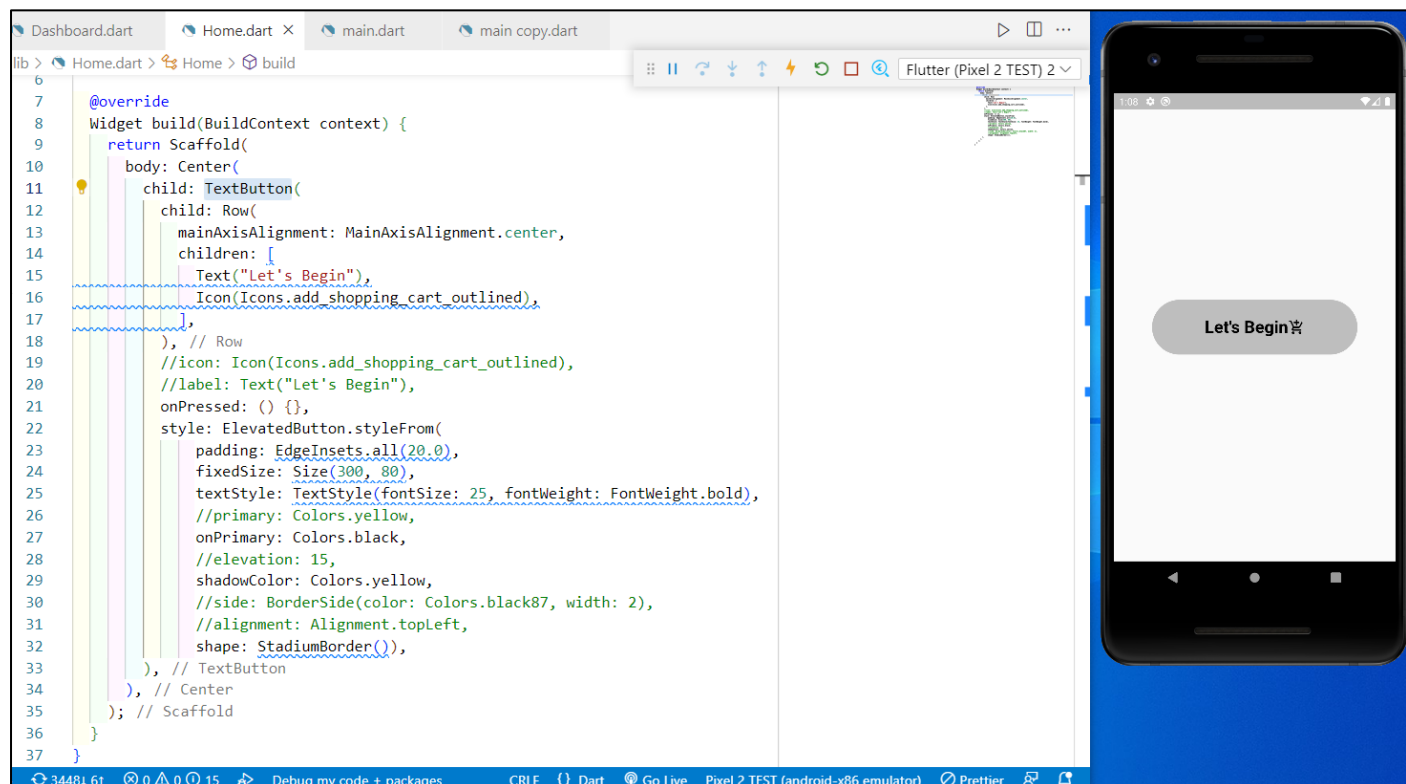
## Add Icon to Button



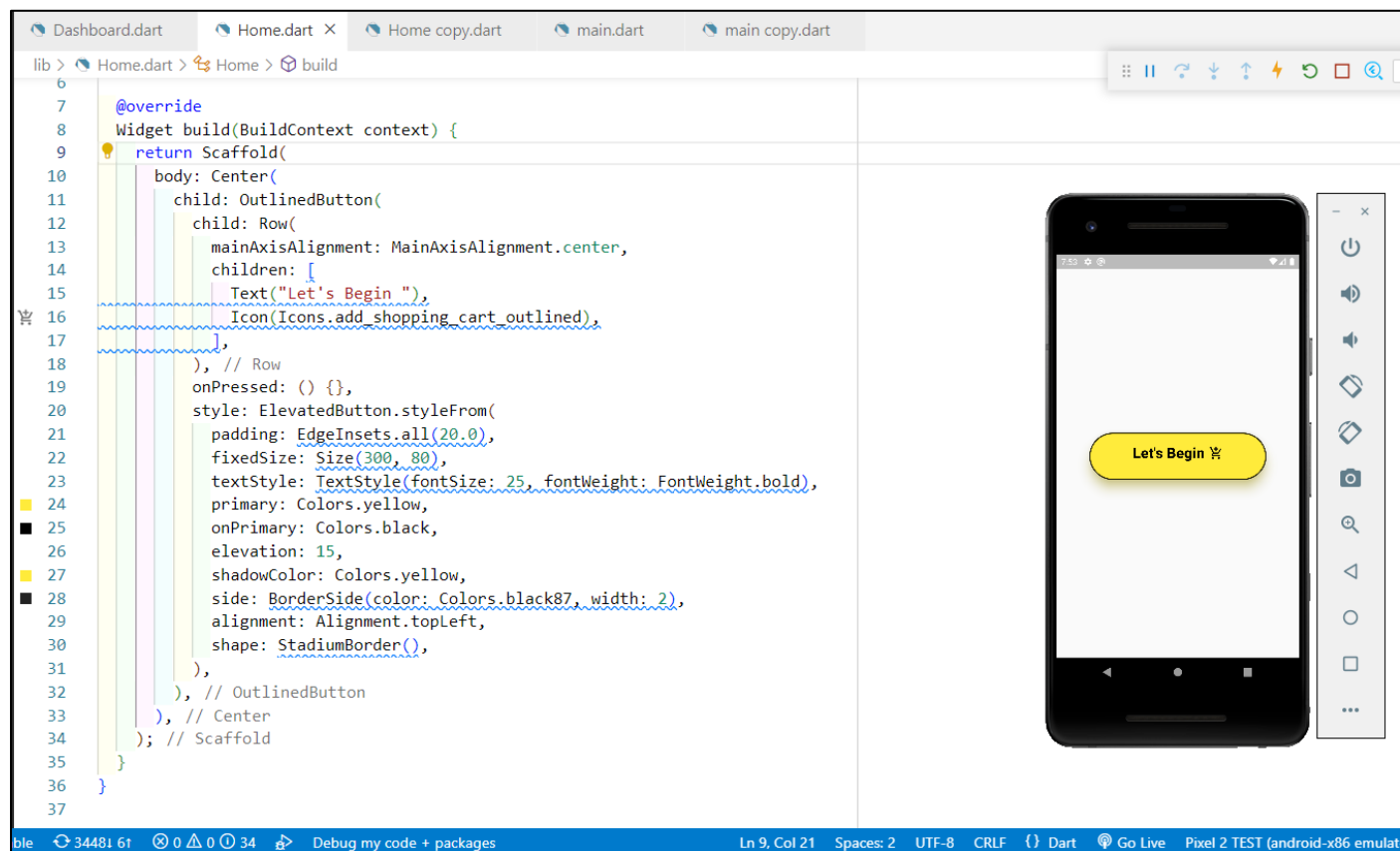
## Change to Add Row in Button



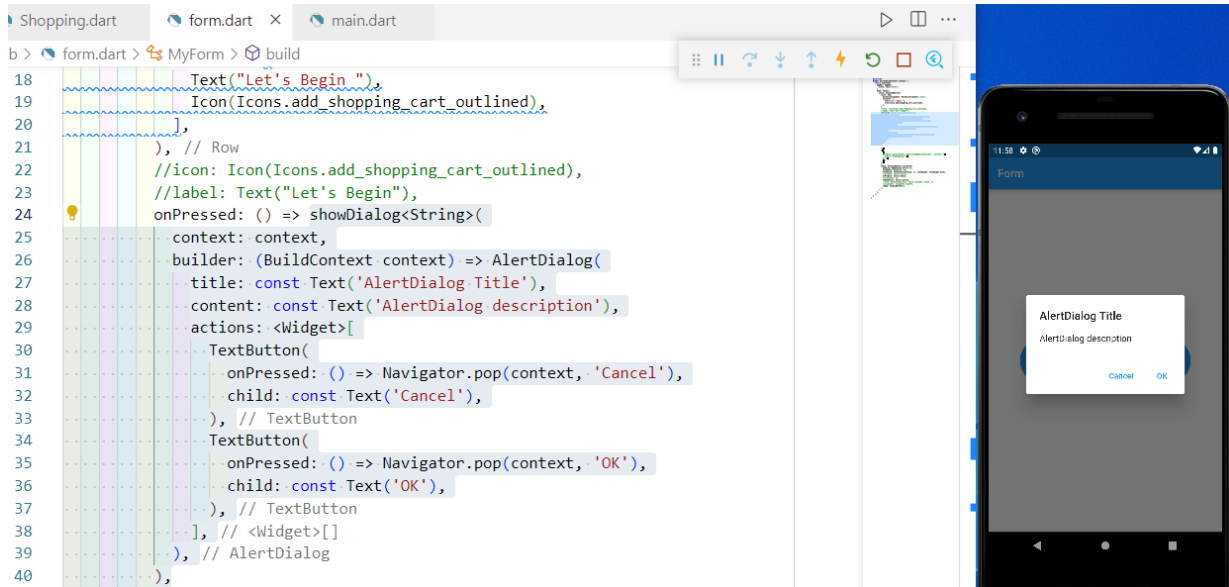
## Modify for Design TextButton



## Modify for Design OutlinedButton

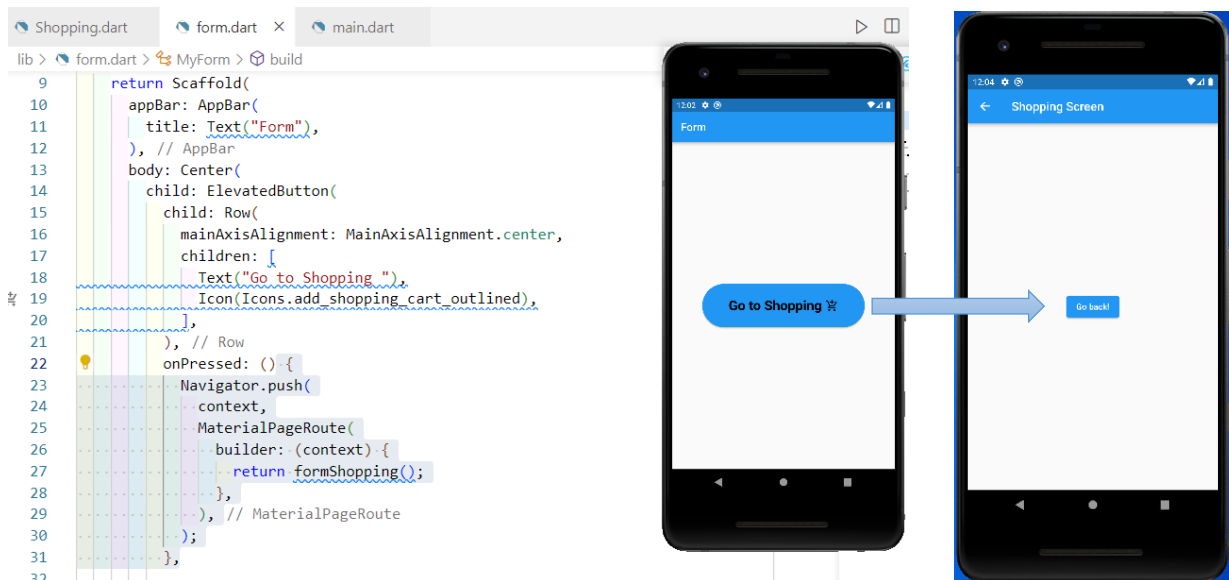


## Button onPressed : showDialog

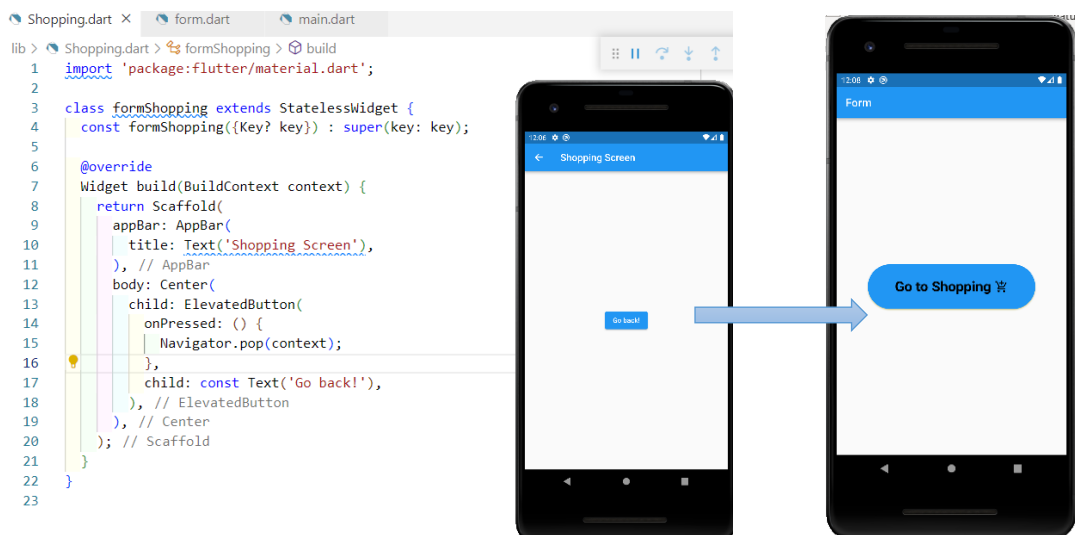


## Button onPressed : MaterialPageRoute

### 1. Create Shopping.dart



## Shopping.dart



## Design UI Form

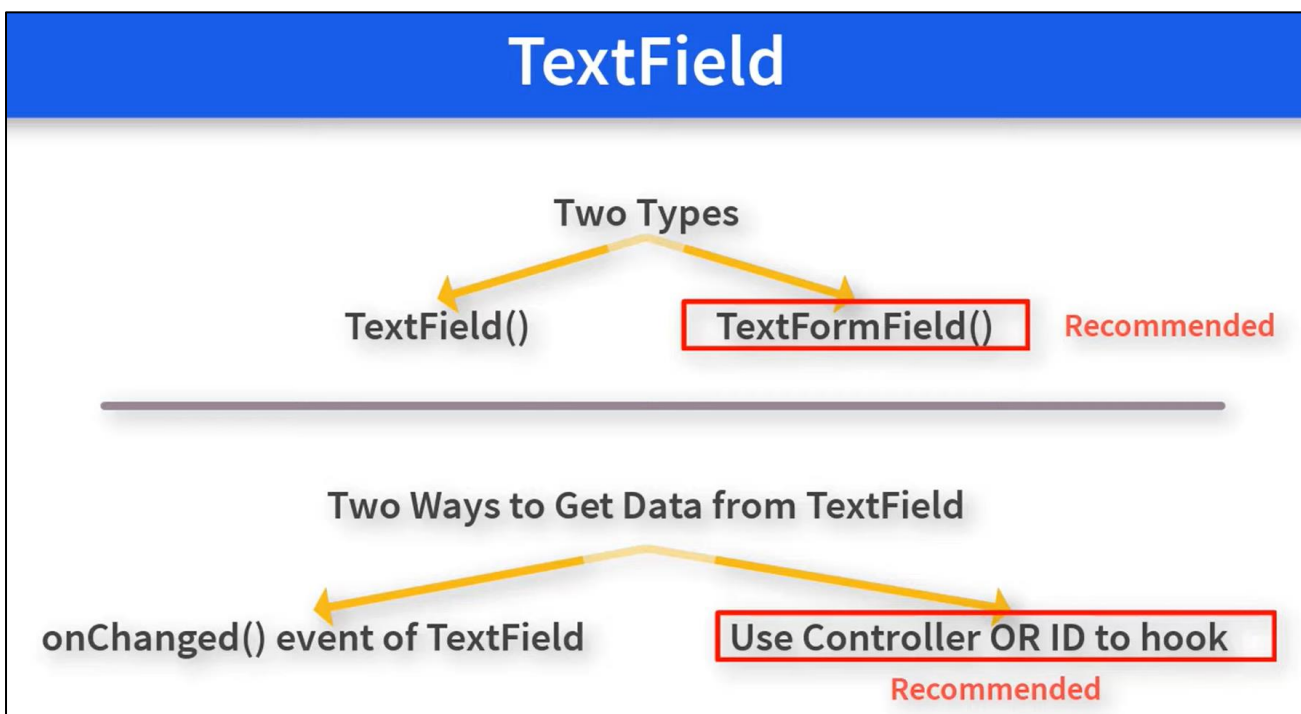
Preparation the app Screen for UI with Extract Method.

### 1. Extract Method

The screenshots illustrate the steps to extract a method in an Android Studio IDE:

- Identify the code block to be extracted (e.g., the `Center` widget).
- Right-click on the code block and select **Refactor**.
- Choose **Extract Method** from the **More Actions** menu.
- Enter a name for the new method (e.g., `myBtn`).
- The IDE automatically creates a new method signature and body, refactoring the original code to use the new method.

## TextField & TextFormField

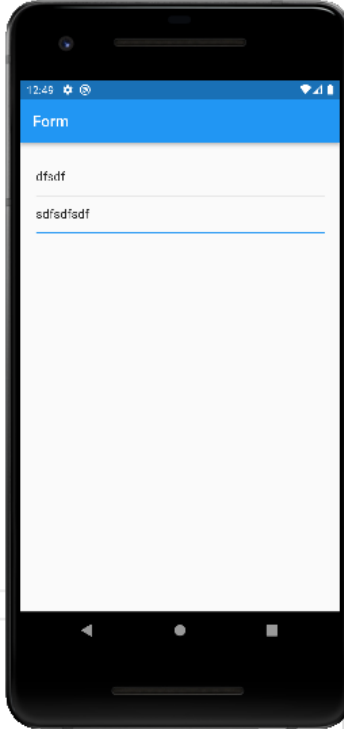




## 2. Create TextField and TextFormField

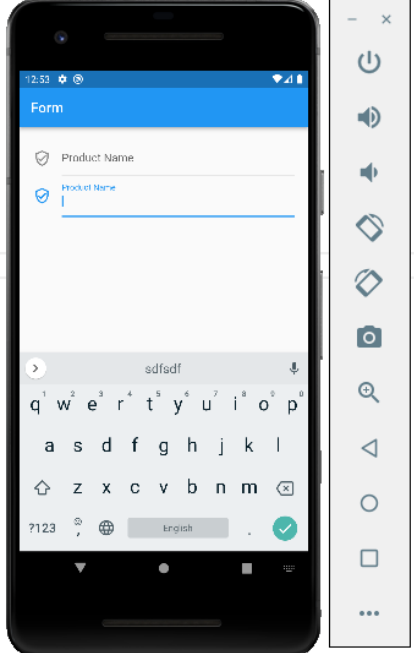
Shopping.dart form.dart x main.dart

```
lib > form.dart > MyForm > build
1 import 'package:flutter/material.dart';
2 import 'Shopping.dart';
3
4 class MyForm extends StatelessWidget {
5   const MyForm({Key? key}) : super(key: key);
6
7   @override
8   Widget build(BuildContext context) {
9     return Scaffold(
10      appBar: AppBar(
11        title: Text("Form"),
12      ), // AppBar
13      body: Container(
14        padding: EdgeInsets.all(20.0),
15        child: ListView(
16          children: [
17            TextField(),
18            TextFormField(),
19          ],
20        ), // ListView
21      ), // Container
22    ); // Scaffold
23  }
24
25 > Center myBtn(BuildContext context) { ...
89 }
90
```



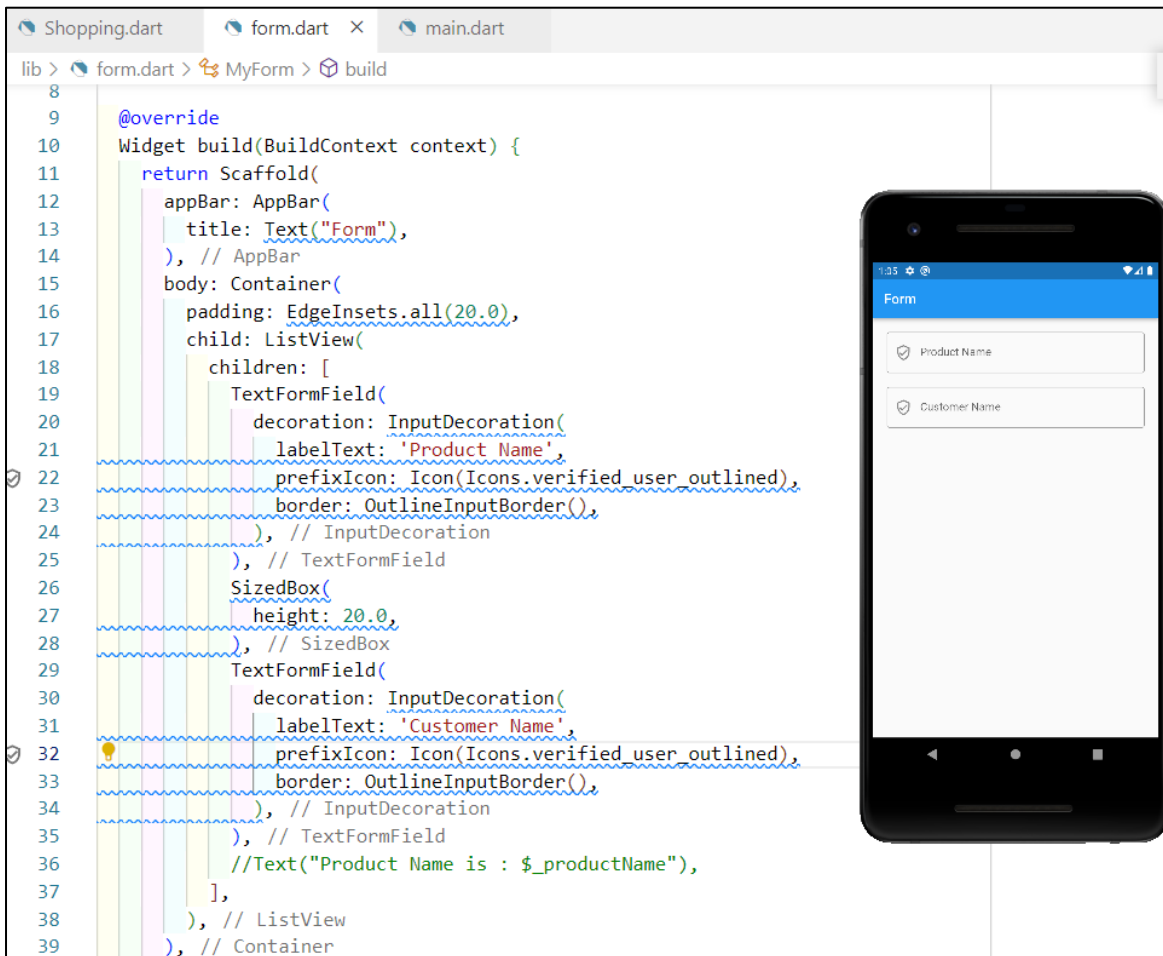
Shopping.dart form.dart x main.dart

```
lib > form.dart > MyForm > build
6
7   @override
8   Widget build(BuildContext context) {
9     return Scaffold(
10      appBar: AppBar(
11        title: Text("Form"),
12      ), // AppBar
13      body: Container(
14        padding: EdgeInsets.all(20.0),
15        child: ListView(
16          children: [
17            TextField(
18              decoration: InputDecoration(
19                hintText: 'Product Name',
20                icon: Icon(Icons.verified_user_outlined),
21              ), // InputDecoration
22            ), // TextField
23            TextFormField(
24              decoration: InputDecoration(
25                labelText: 'Product Name',
26                icon: Icon(Icons.verified_user_outlined),
27              ), // InputDecoration
28            ), // TextFormField
29          ],
30        ), // ListView
31      ), // Container
32    ); // Scaffold
33  }
34
35 > Center myBtn(BuildContext context) { ...
99 }
100
```



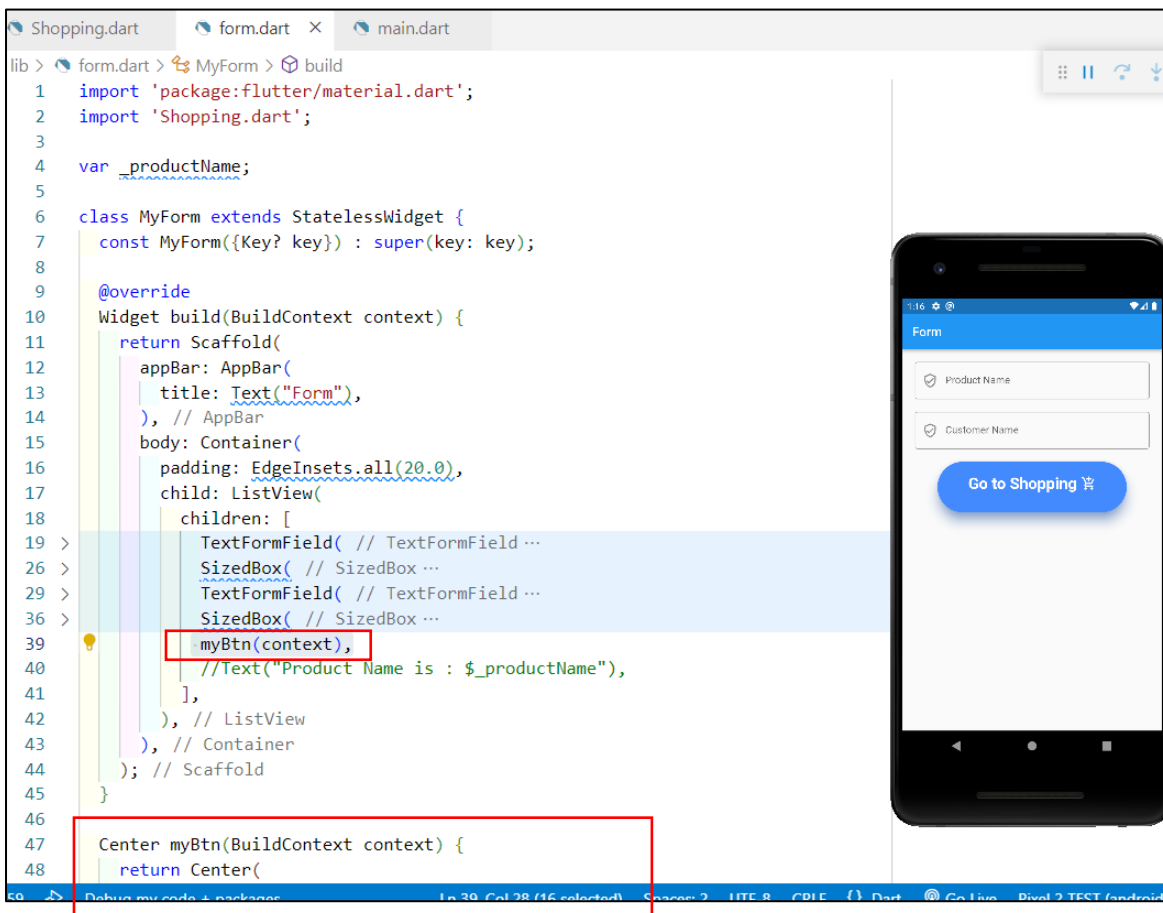


## Change TextFormField



```
lib > form.dart > MyForm > build
8
9  @override
10 Widget build(BuildContext context) {
11   return Scaffold(
12     appBar: AppBar(
13       title: Text("Form"),
14     ), // AppBar
15     body: Container(
16       padding: EdgeInsets.all(20.0),
17       child: ListView(
18         children: [
19           TextFormField(
20             decoration: InputDecoration(
21               labelText: 'Product Name',
22               prefixIcon: Icon(Icons.verified_user_outlined),
23               border: OutlineInputBorder(),
24             ), // InputDecoration
25           ), // TextFormField
26           SizedBox(
27             height: 20.0,
28           ), // SizedBox
29           TextFormField(
30             decoration: InputDecoration(
31               labelText: 'Customer Name',
32               prefixIcon: Icon(Icons.verified_user_outlined),
33               border: OutlineInputBorder(),
34             ), // InputDecoration
35           ), // TextFormField
36           //Text("Product Name is : $_productName"),
37         ],
38       ), // ListView
39     ), // Container
```

## Add Button in Form



```
lib > form.dart > MyForm > build
1 import 'package:flutter/material.dart';
2 import 'Shopping.dart';
3
4 var _productName;
5
6 class MyForm extends StatelessWidget {
7   const MyForm({Key? key}) : super(key: key);
8
9   @override
10  Widget build(BuildContext context) {
11    return Scaffold(
12      appBar: AppBar(
13        title: Text("Form"),
14      ), // AppBar
15      body: Container(
16        padding: EdgeInsets.all(20.0),
17        child: ListView(
18          children: [
19            TextFormField( // TextFormField ...
20            ),
21            SizedBox( // SizedBox ...
22            ),
23            TextFormField( // TextFormField ...
24            ),
25            SizedBox( // SizedBox ...
26            ),
27            myBtn(context),
28            //Text("Product Name is : $_productName"),
29          ],
30        ), // ListView
31      ), // Container
32    ); // Scaffold
33  }
34
35  Center myBtn(BuildContext context) {
36    return Center(
37      child: TextButton(
38        onPressed: () {
39          // TODO: Add logic to go to shopping
40        },
41        child: Text("Go to Shopping"),
42      ),
43    );
44  }
45 }
```

## Set Button Style

The screenshot shows an IDE with three tabs: Shopping.dart, form.dart, and main.dart. The active file is form.dart, showing the `MyForm` class. A red box highlights the `myBtn` widget, which is a `Center` widget containing an `ElevatedButton`. The button's child is a `Row` with a `Text` widget and an `Icon` widget. The button's `onPressed` callback calls `Navigator.push` to navigate to the `formShopping` page. The button's style is configured with `ElevatedButton.styleFrom`, including padding, fixed size, text style, primary color, on primary color, elevation, shadow color, border side, alignment, and shape.

```
46
47 Center myBtn(BuildContext context) {
48   return Center(
49     child: ElevatedButton(
50       child: Row(
51         mainAxisAlignment: MainAxisAlignment.center,
52         children: [
53           Text("Go to Shopping"),
54           Icon(Icons.add_shopping_cart_outlined),
55         ],
56       ), // Row
57       onPressed: () {
58         Navigator.push(
59           context,
60           MaterialPageRoute(
61             builder: (context) {
62               return formShopping();
63             },
64           ), // MaterialPageRoute
65         );
66       },
67       style: ElevatedButton.styleFrom(
68         padding: EdgeInsets.all(20.0),
69         fixedSize: Size(300, 80),
70         textStyle: TextStyle(fontSize: 25, fontWeight: FontWeight.bold),
71         primary: Colors.blueAccent,
72         onPrimary: Colors.white,
73         elevation: 15,
74         shadowColor: Colors.blueAccent,
75         //side: BorderSide(color: Colors.black87, width: 2),
76         alignment: Alignment.topLeft,
77         shape: StadiumBorder(),
78       ),
79     ), // ElevatedButton
80   ); // Center
81 }
82
83
```

The mobile app preview on the right shows a form with two input fields: "Product Name" and "Customer Name". Below the fields is a blue button labeled "Go to Shopping" with a shopping cart icon.

## Change to Stateful and Set Var \_productName

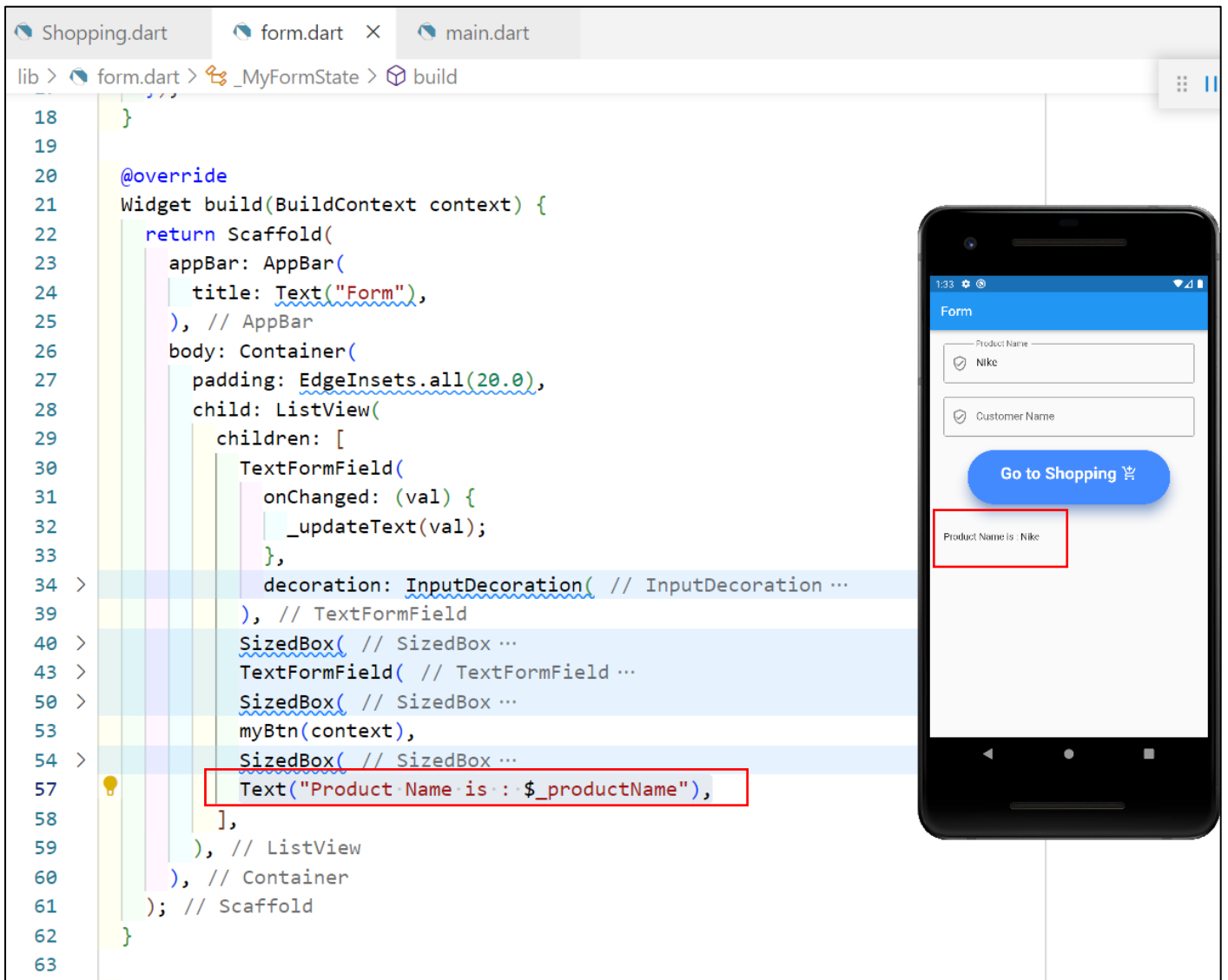
The screenshot shows the same IDE with the `form.dart` file. A red box highlights the `MyForm` class, which is a `StatefulWidget`. The `MyForm` class has a `const` constructor and an `override` `createState` method that returns a `_MyFormState` object. The `_MyFormState` class is a `State` of `MyForm` and has a `var` `_productName` and an `updateText` method. The `updateText` method calls `setState` to update the `_productName` variable. The `build` method of `MyForm` returns a `Scaffold` with an `AppBar` and a `body` containing a `Container` with a `ListView`.

```
1 import 'package:flutter/material.dart';
2 import 'Shopping.dart';
3
4 class MyForm extends StatefulWidget {
5   const MyForm({Key? key}) : super(key: key);
6
7   @override
8   State<MyForm> createState() => _MyFormState();
9 }
10
11 class _MyFormState extends State<MyForm> {
12   var _productName;
13
14   void _updateText(val) {
15     setState(() {
16       _productName = val;
17     });
18   }
19
20   @override
21   Widget build(BuildContext context) {
22     return Scaffold(
23       appBar: AppBar(
24         title: Text("Form"),
25       ), // AppBar
26       body: Container(
27         padding: EdgeInsets.all(20.0),
28         child: ListView(

```

The mobile app preview on the right shows the same form as before, but the "Product Name" field now contains the text "Nike". A red box highlights the text "Product Name is: Nike" below the input field.

## Display ProductName with onChange

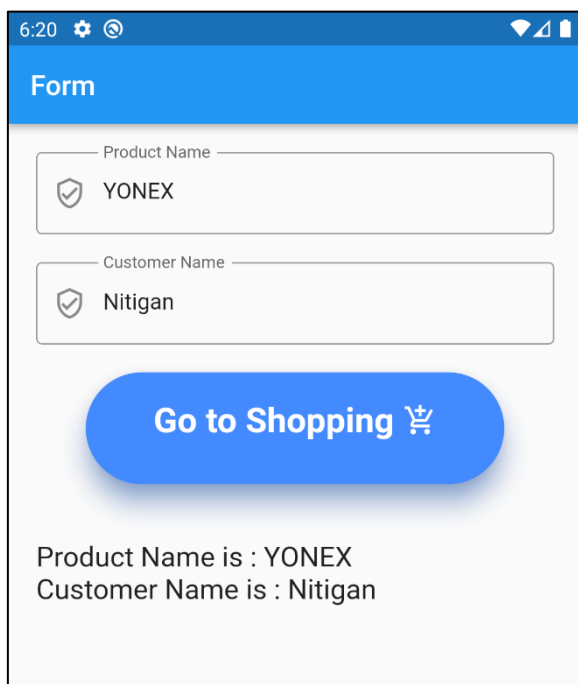


The image shows a code editor with three tabs: Shopping.dart, form.dart, and main.dart. The active file is form.dart, showing the `build` method of a `Widget`. The code defines a `Scaffold` with an `AppBar` titled "Form". The body is a `Container` with padding and a `ListView` containing two `TextFormField` widgets and a `myBtn` widget. The first `TextFormField` has an `onChanged` callback that calls `_updateText(val)`. The second `TextFormField` is a `Text` widget displaying the product name. A red box highlights the `Text` widget in the code and the corresponding text in the mobile app preview.

```
18 }
19
20 @override
21 Widget build(BuildContext context) {
22   return Scaffold(
23     appBar: AppBar(
24       title: Text("Form"),
25     ), // AppBar
26     body: Container(
27       padding: EdgeInsets.all(20.0),
28       child: ListView(
29         children: [
30           TextFormField(
31             onChanged: (val) {
32               _updateText(val);
33             },
34             decoration: InputDecoration( // InputDecoration ...
35           ), // TextFormField
36           SizedBox( // SizedBox ...
37           TextFormField( // TextFormField ...
38           SizedBox( // SizedBox ...
39           myBtn(context),
40           SizedBox( // SizedBox ...
41             Text("Product Name is : $_productName"),
42           ],
43         ), // ListView
44       ), // Container
45     ); // Scaffold
46   }
47 }
```

The mobile app preview shows a form with two input fields: "Product Name" (containing "Nike") and "Customer Name" (containing "Customer Name"). A blue button labeled "Go to Shopping" is below the inputs. A red box highlights the text "Product Name is : Nike" below the button.

## Modify to Show ProductName and CustomerName



Form

Product Name

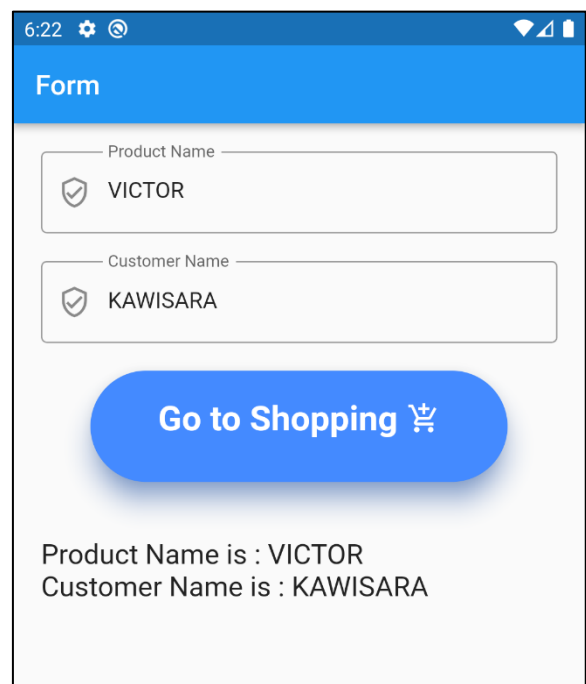
YONEX

Customer Name

Nitigan

Go to Shopping

Product Name is : YONEX  
Customer Name is : Nitigan



Form

Product Name

VICTOR

Customer Name

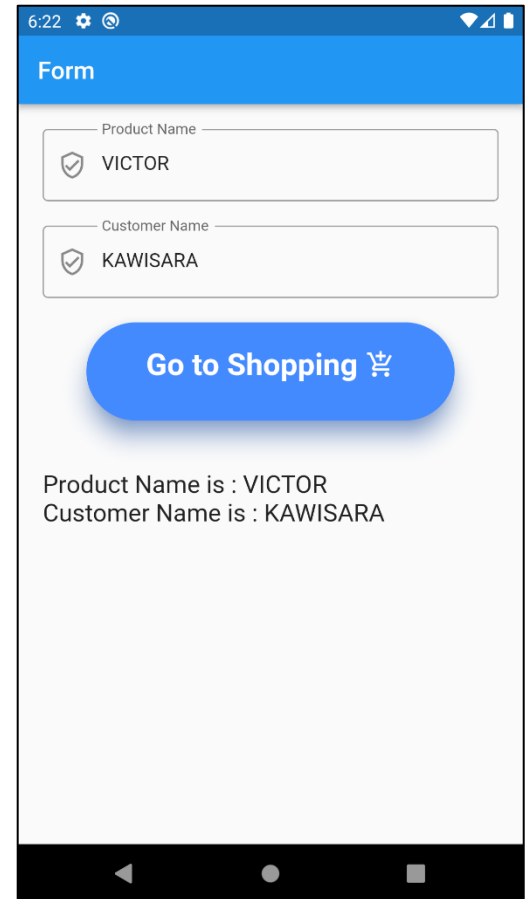
KAWISARA

Go to Shopping

Product Name is : VICTOR  
Customer Name is : KAWISARA

## Display ProductName and CustomerName with Controller

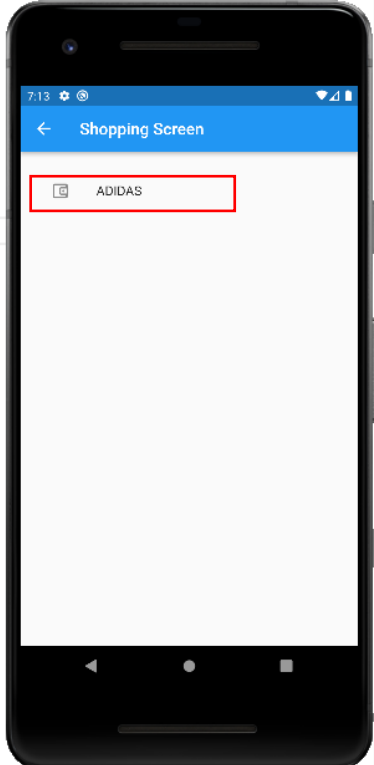
```
Go Run Terminal Help form.dart - flutter_additem - Visual Studio Code
Shopping.dart form.dart x main.dart
lib > form.dart > _MyFormState
1 import 'package:flutter/material.dart';
2 import 'Shopping.dart';
3
4 class MyForm extends StatefulWidget {
5   const MyForm({Key? key}) : super(key: key);
6
7   @override
8   State<MyForm> createState() => _MyFormState();
9 }
10
11 class _MyFormState extends State<MyForm> {
12   var _productName;
13   var _customerName;
14
15   final _productController = TextEditingController();
16   final _customerController = TextEditingController();
17
18   void initState() {
19     super.initState();
20     _productController.addListener(_updateText);
21     _customerController.addListener(_updateText);
22   }
23
24   void _updateText() {
25     setState(() {
26       _productName = _productController.text;
27       _customerName = _customerController.text;
28     });
29   }
30
31   @override
32   Widget build(BuildContext context) {
33     return Scaffold(
34       appBar: AppBar(
35         title: Text("Form"),
36       ), // AppBar
37       body: Container(
38         padding: EdgeInsets.all(20.0),
39         child: ListView(
40           children: [
41             TextFormField(
42               controller: _productController,
43             ), // TextFormField
44             SizedBox( // SizedBox ...
45               child: TextFormField(
46                 controller: _customerController,
47               ), // TextFormField
48             ), // InputDecoration
49             SizedBox( // SizedBox ...
50               child: TextFormField(
51                 decoration: InputDecoration(
52                   labelText: 'Customer Name',
53                   prefixIcon: Icon(Icons.verified_user_outlined),
54                   border: OutlineInputBorder(),
55                 ), // InputDecoration
56             ), // TextFormField
57             ), // SizedBox ...
58             myBtn(context),
59             SizedBox( // SizedBox ...
60               child: Text(
61                 "Product Name is : ${_productController.text}",
62                 style: TextStyle(fontSize: 20),
63               ), // Text
64             ), // Text
65             Text(
66               "Customer Name is : ${_customerController.text}",
67               style: TextStyle(fontSize: 20),
68             ), // Text
69           ], // ListView
70         ), // Container
71       ); // Scaffold
72 }
73
74 Center myBtn(BuildContext context) { ...
75 }
76
77 65 Debug my code + packages Ln 30, Col 1 Spaces: 2 UTF-8 CRLF {}
```



## Pass Value to Shopping Screen

```
Shopping.dart  form.dart  main.dart
lib > form.dart > _MyFormState > myBtn
80
81 Center myBtn(BuildContext context) {
82   return Center(
83     child: ElevatedButton(
84       child: Row(
85         mainAxisAlignment: MainAxisAlignment.center,
86         children: [
87           Text("Go to Shopping"),
88           Icon(Icons.add_shopping_cart_outlined),
89         ],
90       ), // Row
91       onPressed: () {
92         Navigator.push(
93           context,
94           MaterialPageRoute(
95             builder: (context) {
96               return formShopping(
97                 productName: _productController.text,
98               ); // formShopping
99             },
100           ), // MaterialPageRoute
101         );
102       },
103     ),
104   );
105 }
```

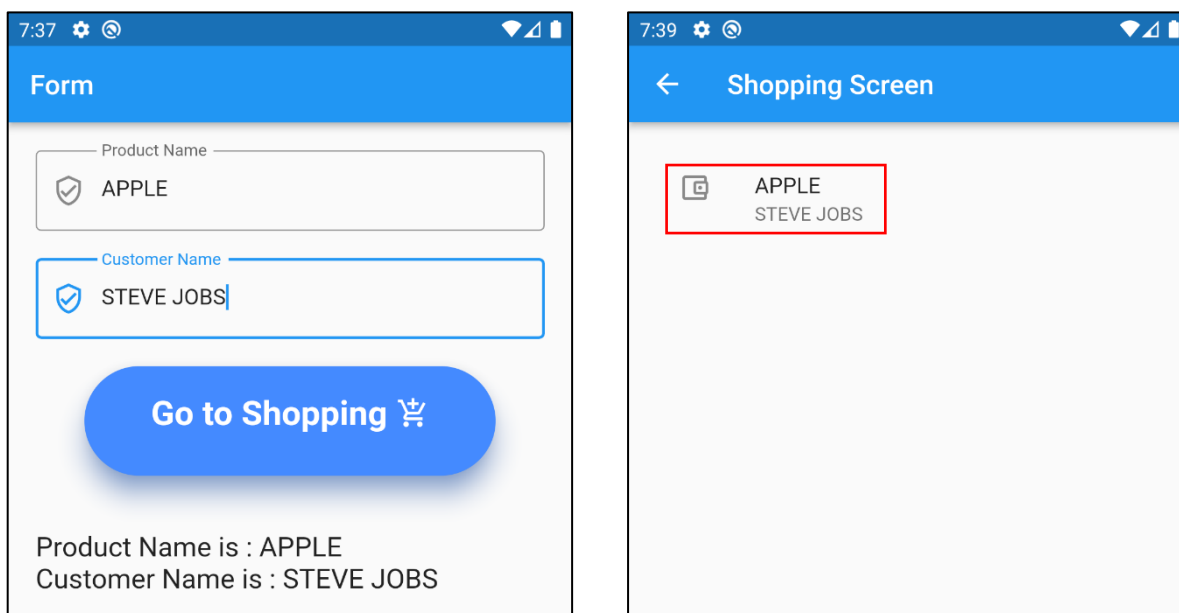
```
Go Run Terminal Help Shopping.dart - flutter_additem - Visual Studio Code
Shopping.dart  form.dart  main.dart
lib > Shopping.dart > formShopping > build
1 import 'package:flutter/material.dart';
2
3 class formShopping extends StatelessWidget {
4   formShopping({Key? key, required this.productName}) : super(key: key);
5   String productName;
6
7   @override
8   Widget build(BuildContext context) {
9     return Scaffold(
10      appBar: AppBar(
11        title: Text('Shopping Screen'),
12        leading: IconButton(
13          onPressed: () {
14            Navigator.pop(context);
15          },
16          icon: const Icon(Icons.arrow_back),
17        ), // IconButton
18      ), // AppBar
19      body: Container(
20        padding: EdgeInsets.all(20.0),
21        child: ListView(
22          children: [
23            ListTile(
24              leading: Icon(Icons.account_balance_wallet_outlined),
25              title: Text(productName),
26            ), // ListTile
27          ],
28        ), // ListView
29      ), // Container
30    ); // Scaffold
31  }
32 }
```



## Set AppBar Title with ProductName



## Display ProductName and CustomerName



Workshop : Create TextField for Price and Number of Product.

Display Result of Total Price of Order.

