

Session 6:

Widgets

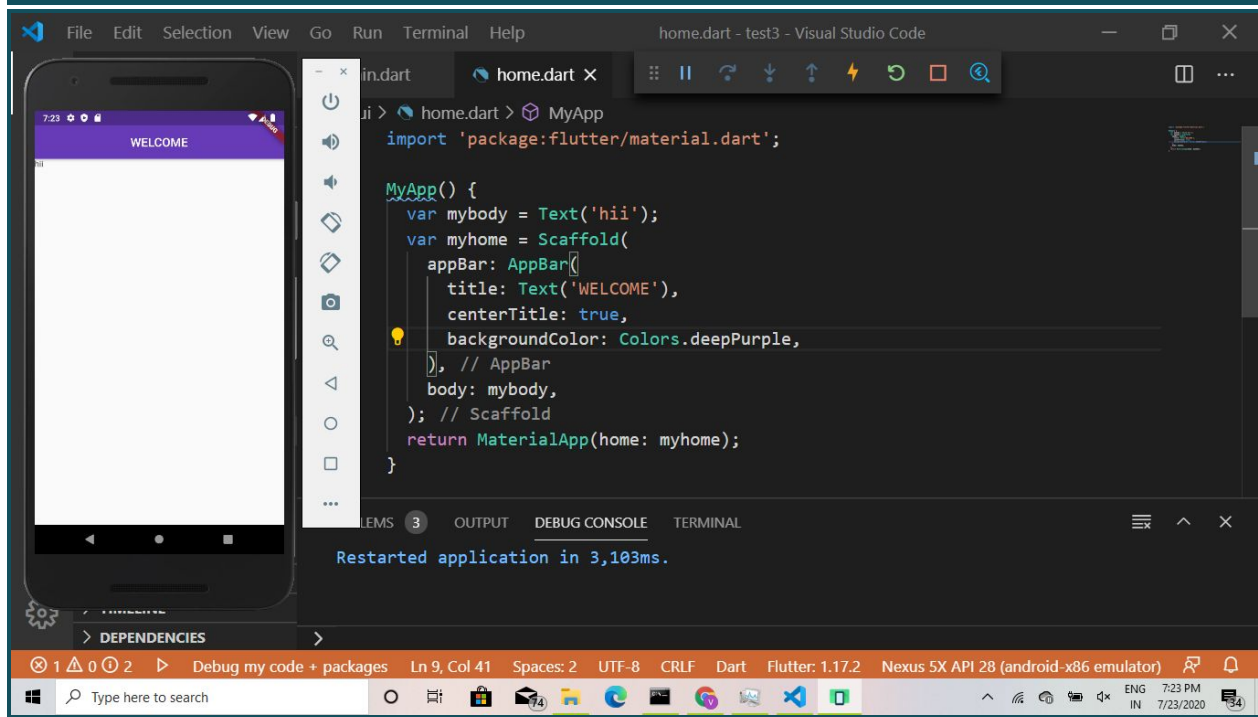
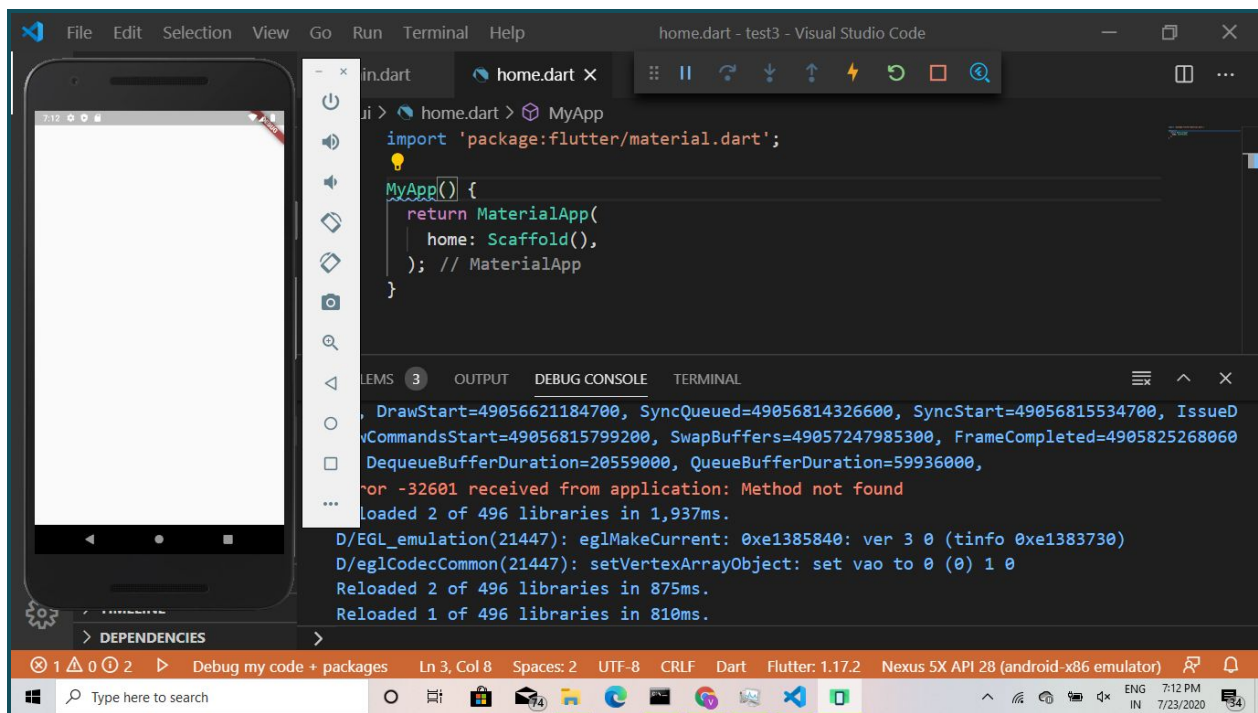
```
C:\Users\user>cd Desktop
```

```
C:\Users\user\Desktop>cd flutter
```

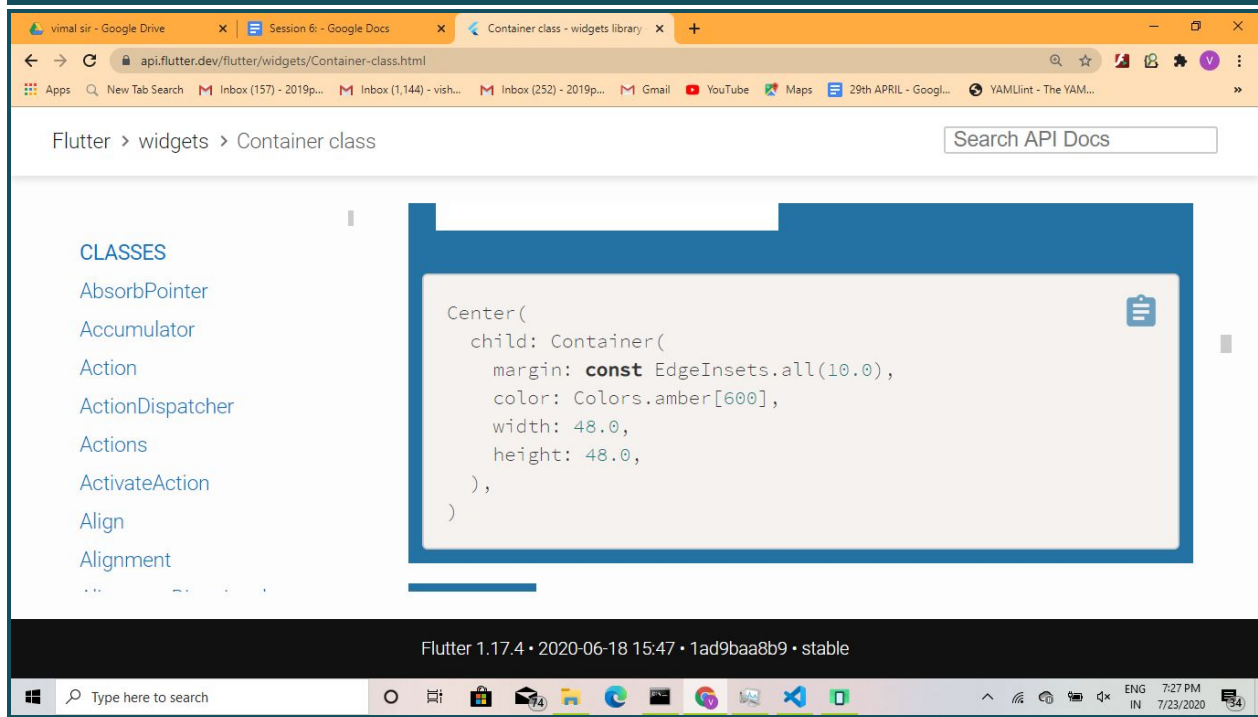
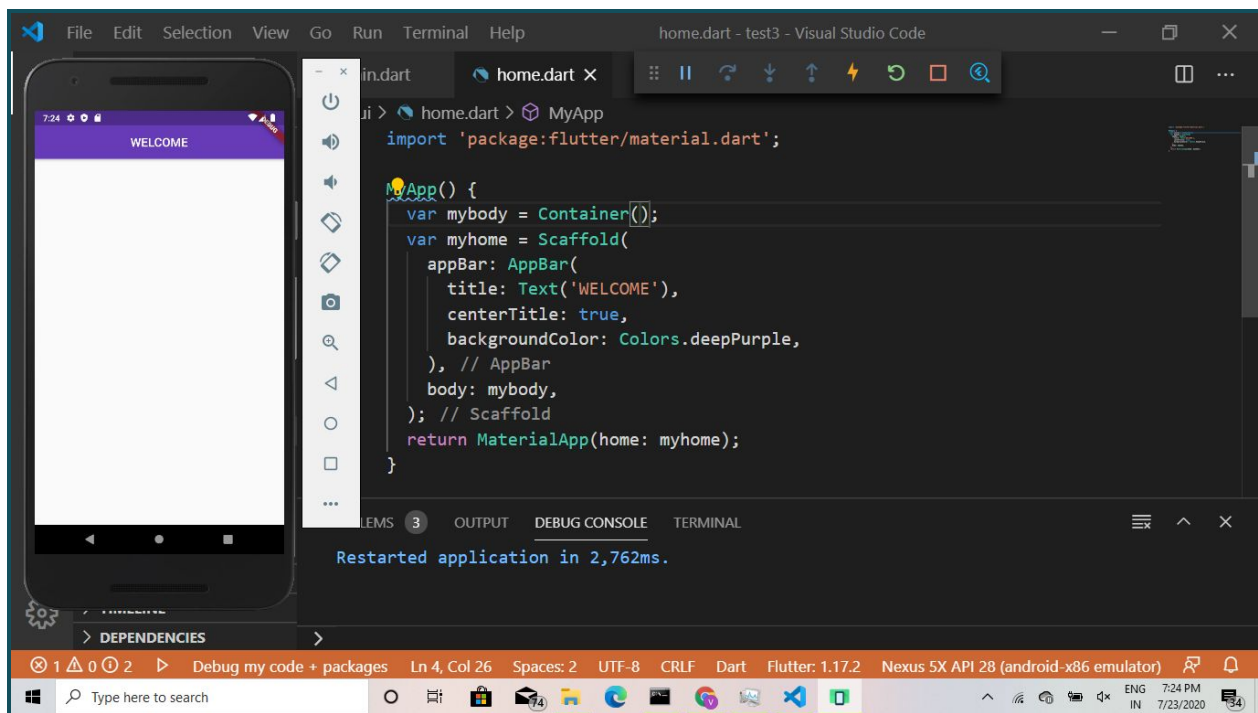
```
C:\Users\user\Desktop\flutter>flutter create test3
```

```
Creating project test3...
```

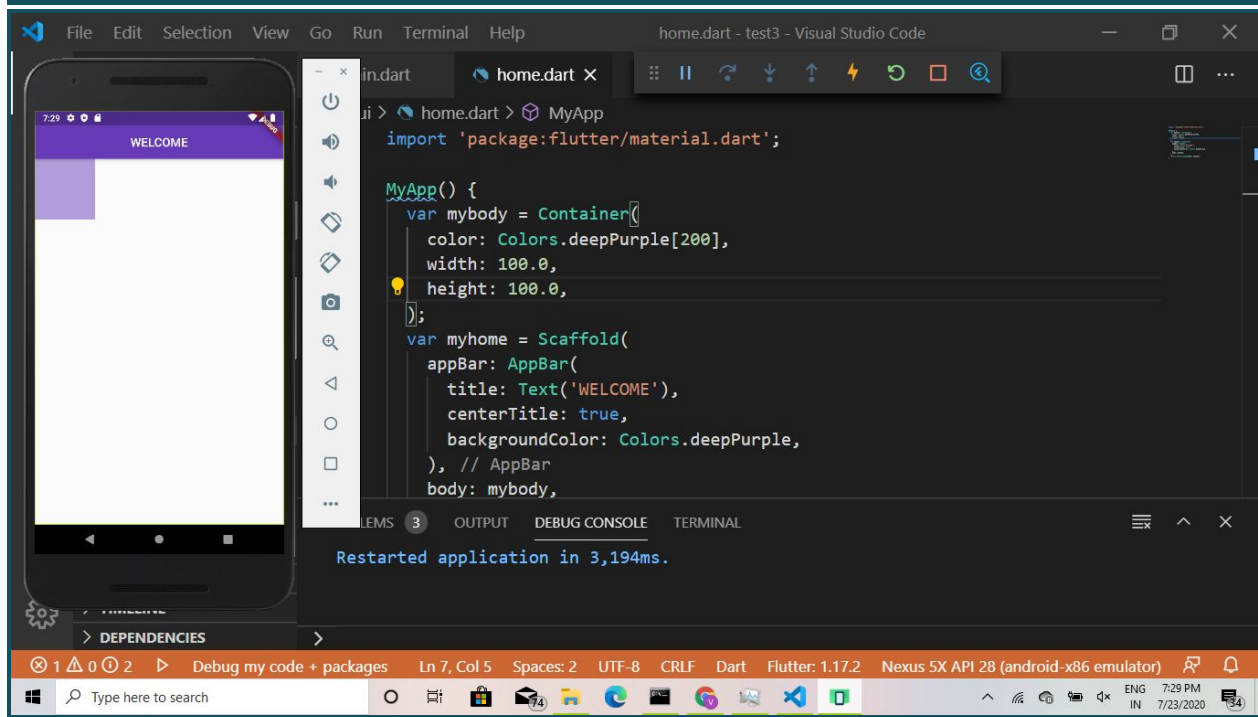
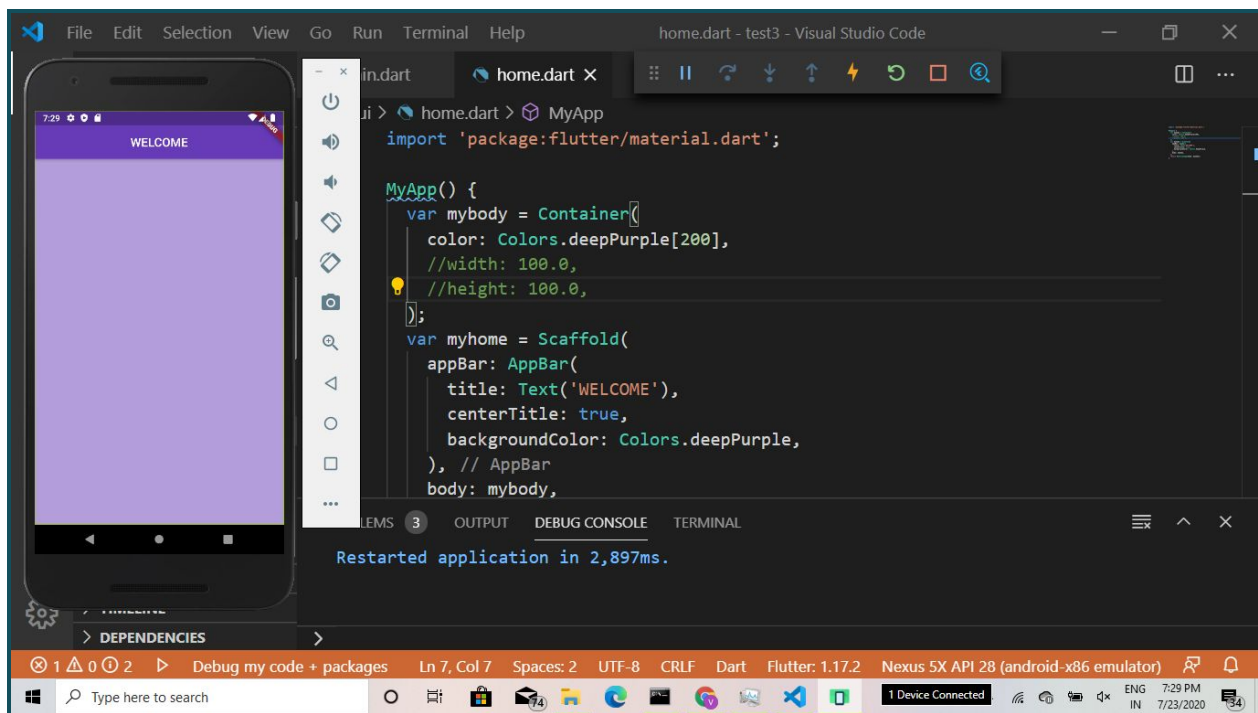
Scaffold is used for the white canvas

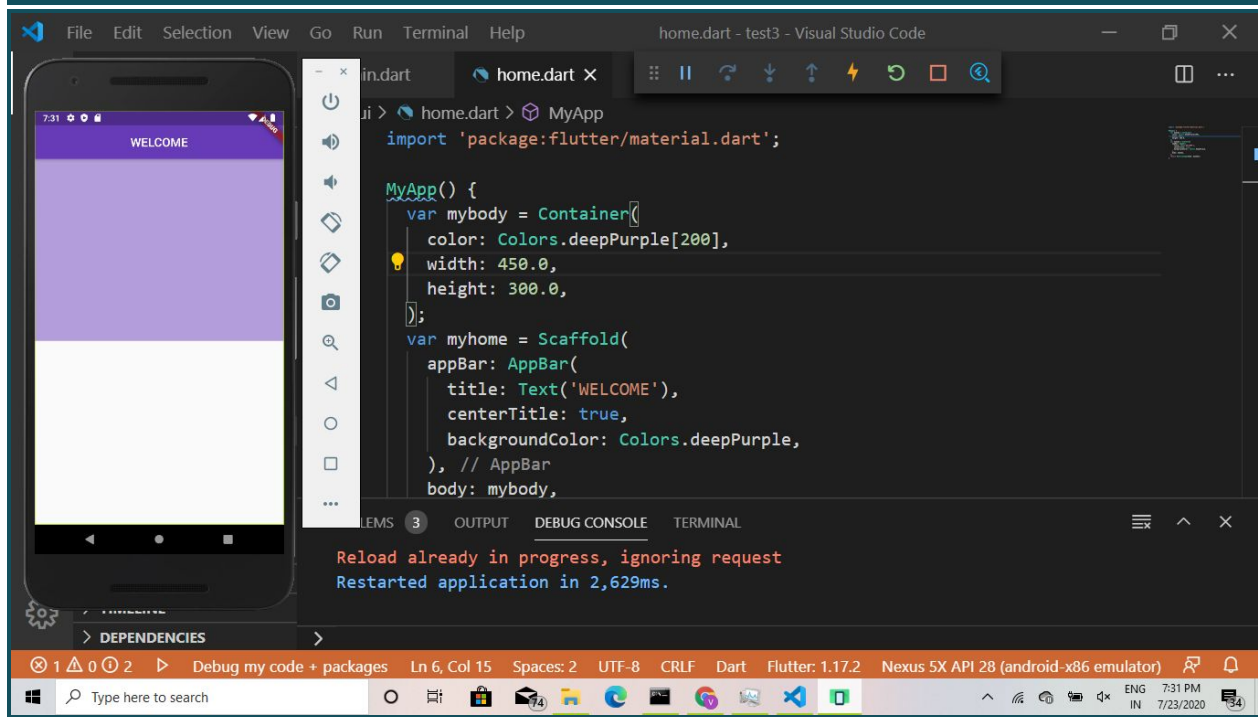
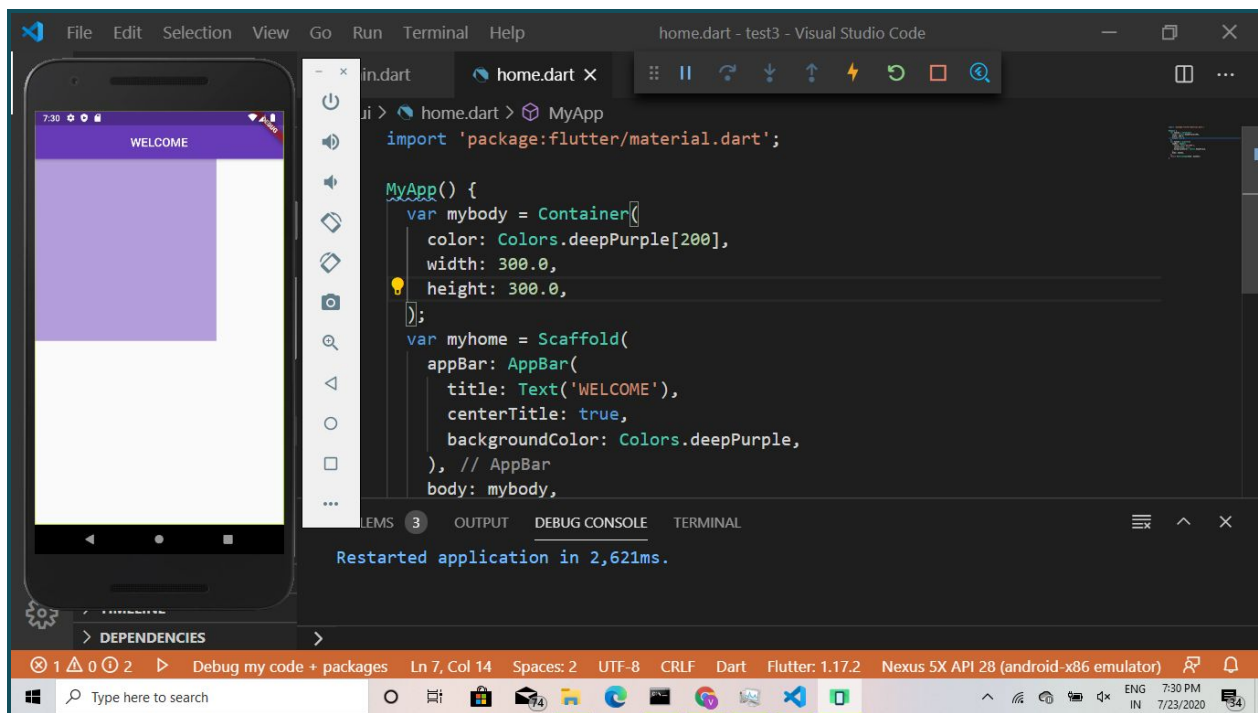


container function create a boundary by default their is no size of the boundary



<https://api.flutter.dev/flutter/widgets/Container-class.html>





using div tag we create boxes


We have to use a keyword call container

Flutter > widgets > Container class

Search API Docs

Container class

A convenience widget that combines common painting, positioning, and sizing widgets.



Flutter 1.17.4 • 2020-06-18 15:47 • 1ad9baa8b9 • stable

<https://www.youtube.com/watch?v=c1xLMaTUWY>

Google

flutter widget catalog

About 30,10,000 results (0.33 seconds)

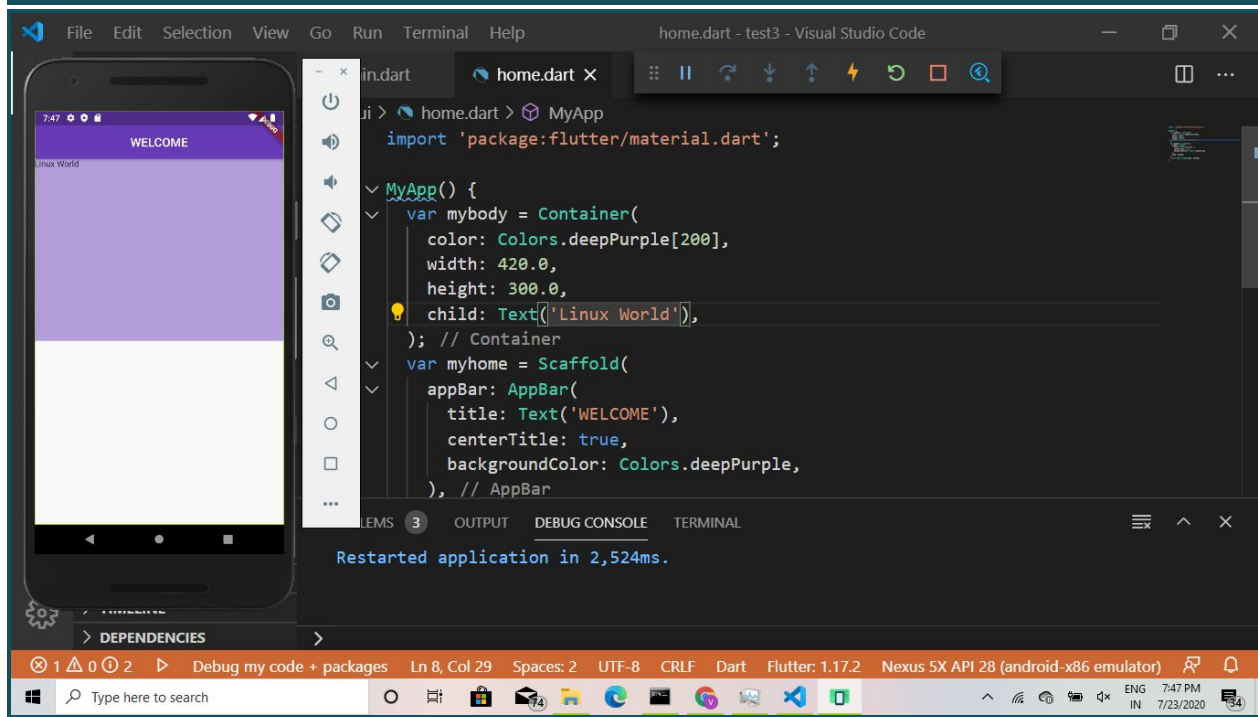
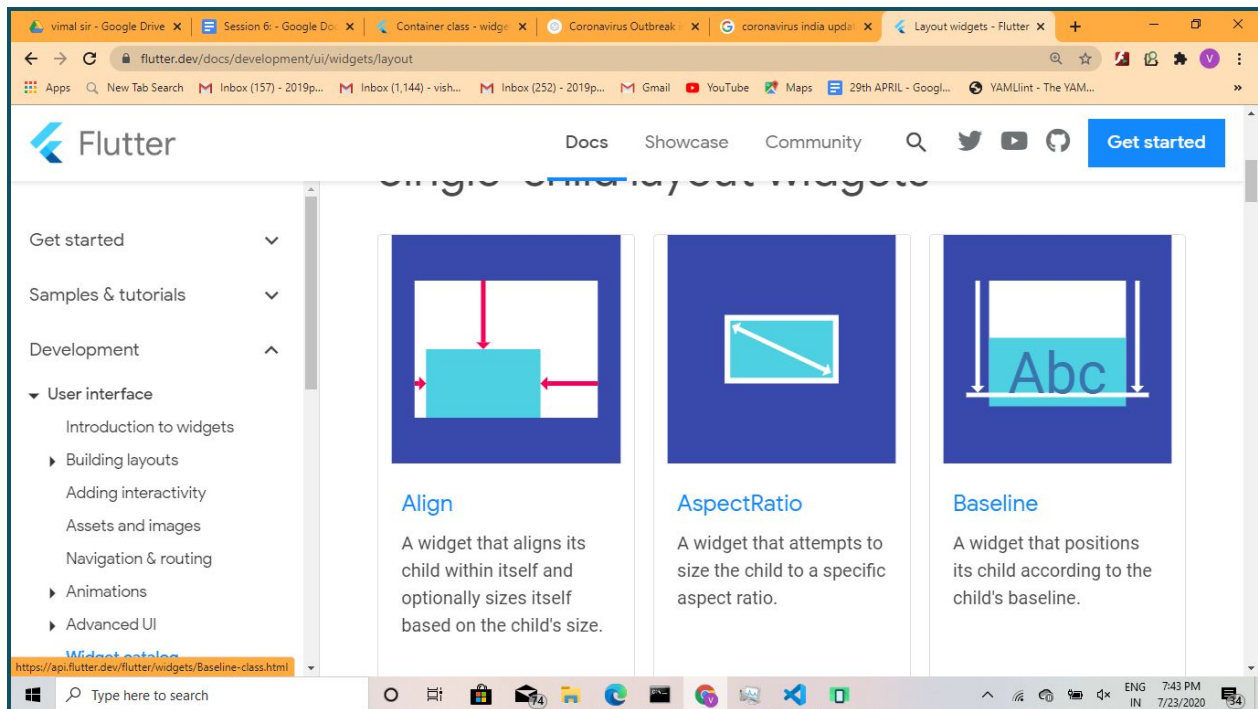
flutter.dev > Docs > Development > UI

Widget catalog - Flutter

Widget catalog. Docs > Development > UI > Widgets. Create beautiful apps faster with Flutter's collection of visual, structural, platform, and interactive widgets.

| | |
|---|---|
| Introduction to widgets Layouts in Flutter - StatefulWidget - StatelessWidget - Key - ... | Layout widgets Container - Column - Align - Expanded - Center - Padding |
| Material Components RaisedButton - FlatButton - BottomNavigationBar - AppBar | Animation and motion widgets AnimatedBuilder - AnimatedContainer - Hero - ... |
| Basics An app bar consists of a toolbar | Input widgets Form - FormField |

<https://flutter.dev/docs/development/ui/widgets>



Visual Studio Code interface showing a Flutter application running on an emulator. The application displays a purple header with "WELCOME" and a white body with "Linux World". The code editor shows the following Dart code:

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

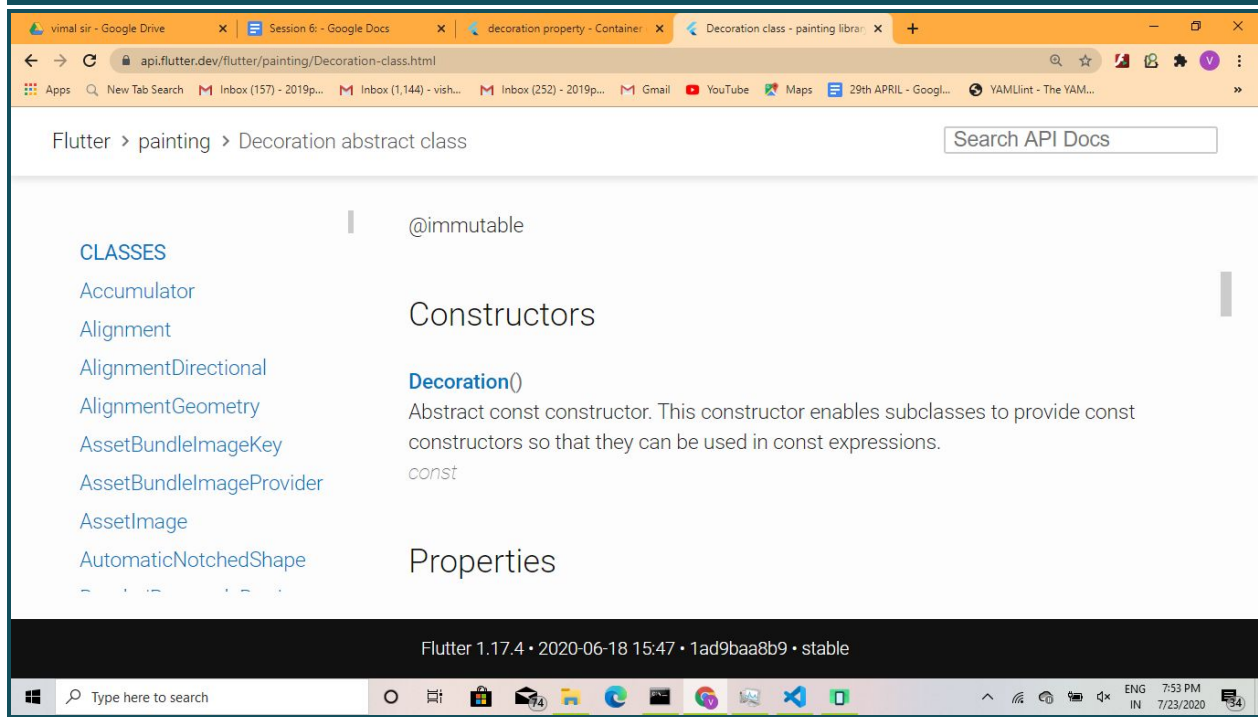
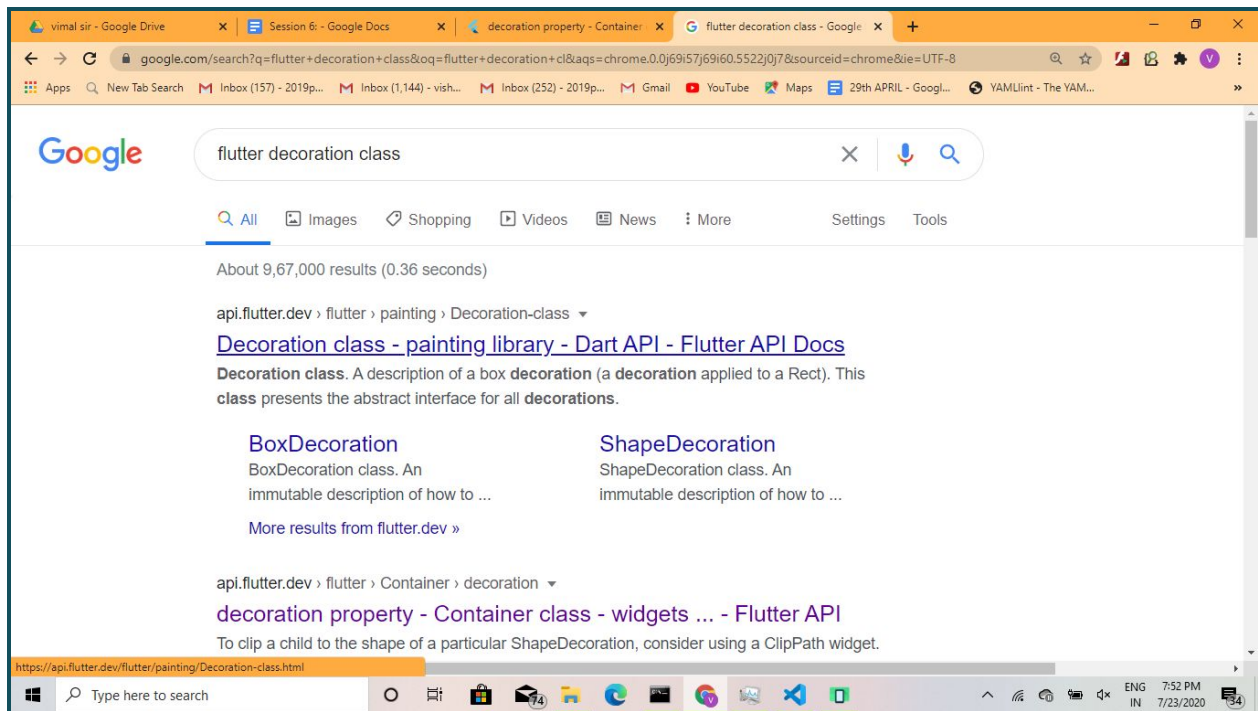
MyApp() {
  var mybody = Container(
    color: Colors.deepPurple[200],
    width: 420.0,
    height: 300.0,
    child: Text('Linux World'),
    alignment: Alignment.bottomCenter,
  ); // Container
  var myhome = Scaffold(
    appBar: AppBar(
      title: Text('WELCOME'),
      centerTitle: true,
      backgroundColor: Colors.deepPurple,
```

The output console shows: "Restarted application in 2,482ms."

Below the code editor, the Flutter API documentation for the `decoration` property is displayed. The documentation includes the following information:

- CONSTRUCTORS**: Container
- PROPERTIES**: alignment, child, clipBehavior, color, constraints, decoration, foregroundDecoration, margin, padding, transform, hashCode, key, runtimeType
- decoration**: `final Decoration decoration`
- Description**: The decoration to paint behind the child. Use the `color` property to specify a simple solid color. The `child` is not clipped to the decoration. To clip a child to the shape of a particular `ShapeDecoration`, consider using a `ClipPath` widget.
- Implementation**: `final Decoration decoration`

The bottom status bar indicates: Flutter 1.17.4 • 2020-06-18 15:47 • 1ad9baa8b9 • stable



Flutter > painting > BoxDecoration class

CLASSES

- Accumulator
- Alignment
- AlignmentDirectional
- AlignmentGeometry
- AssetBundleImageKey
- AssetBundleImageProvider
- AssetImage
- AutomaticNotchedShape
- BeveledRectangleBorder
- Border
- BorderDirectional
- BorderRadius

```
Container(  
  decoration: BoxDecoration(  
    color: const Color(0xff7c94b6),  
    image: const DecorationImage(  
      image: NetworkImage('https://flutter.github.io/assets-  
fit: BoxFit.cover,  
    ),  
    border: Border.all(  
      color: Colors.black,  
      width: 8,  
    ),  
    borderRadius: BorderRadius.circular(12),  
  ),  
)
```

CONSTRUCTORS

- BoxDecoration

PROPERTIES

- backgroundBlendMo...
- border
- borderRadius
- boxShadow
- color
- gradient
- hashCode
- image
- isComplex

Flutter 1.17.4 • 2020-06-18 15:47 • 1ad9baa8b9 • stable

home.dart - test3 - Visual Studio Code

```
import 'package:flutter/material.dart';  
  
MyApp() {  
  var mybody = Container(  
    color: Colors.deepPurple[200],  
    width: 420.0,  
    height: 300.0,  
    child: Text('Linux World'),  
    alignment: Alignment.bottomCenter,  
    decoration: BoxDecoration(  
      color: Colors.deepPurple,  
    ), // BoxDecoration  
  ); // Container
```

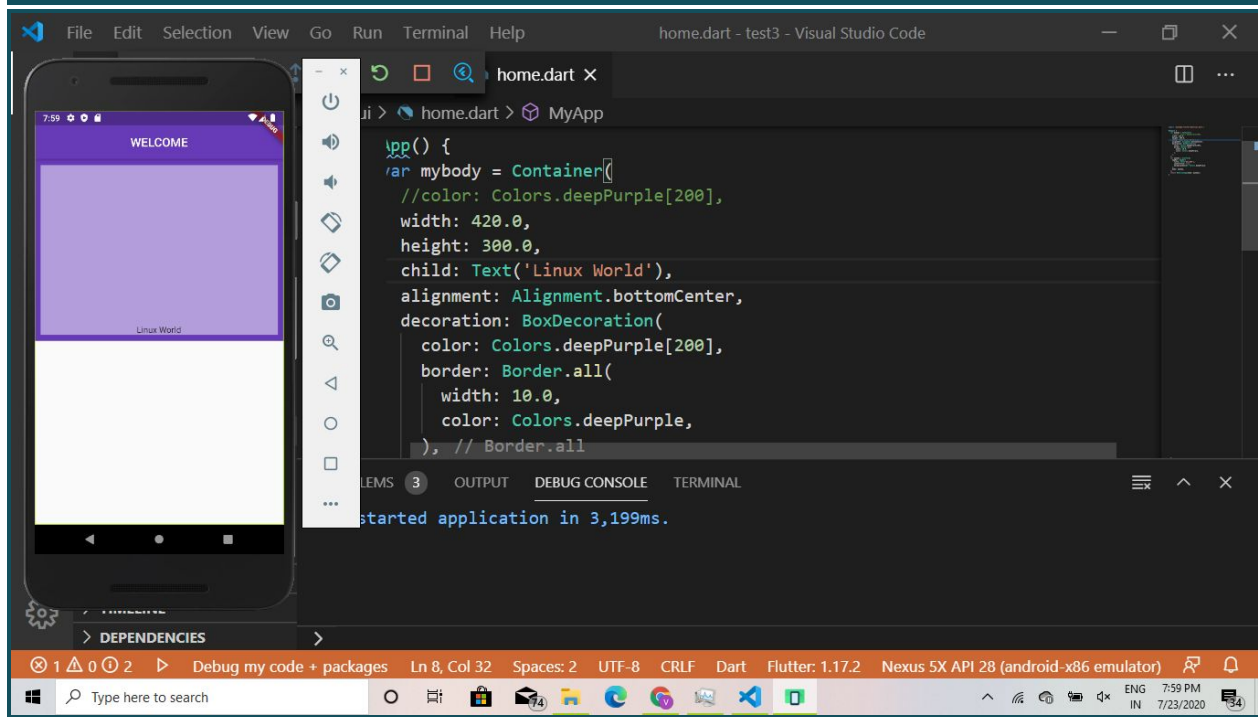
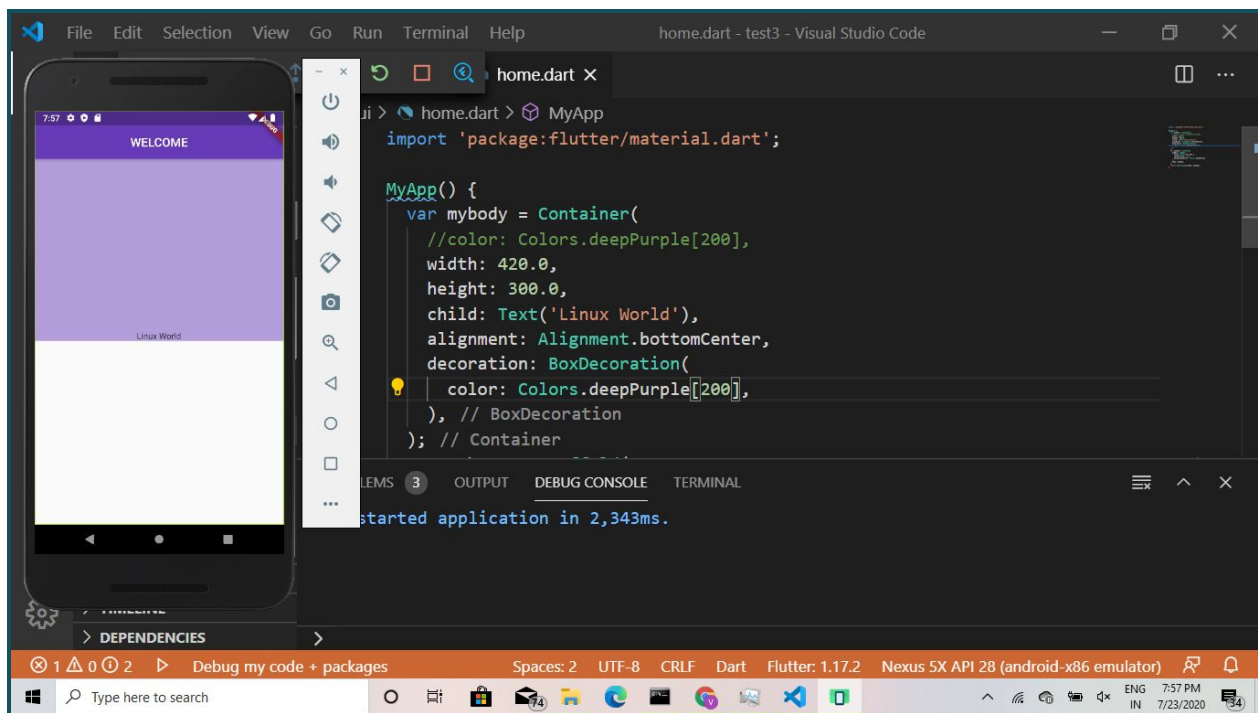
started application in 2,521ms.

E/flutter (21447): [ERROR:flutter/lib/ui/ui_dart_state.cc(157)] Unhandled Exception: 'package:flutter/src/widgets/container.dart': Failed assertion: line 320 pos 15: 'color == null || decoration == null': Cannot provide both a color and a decoration

E/flutter (21447): To provide both, use "decoration: BoxDecoration(color: color)".

Debug my code + packages

Ln 12, Col 5 Spaces: 2 UTF-8 CRLF Dart Flutter: 1.17.2 Nexus 5X API 28 (android x86 emulator)



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

```
MyApp() {
  var mybody = Container(
    //color: Colors.deepPurple[200],
    width: 420.0,
```

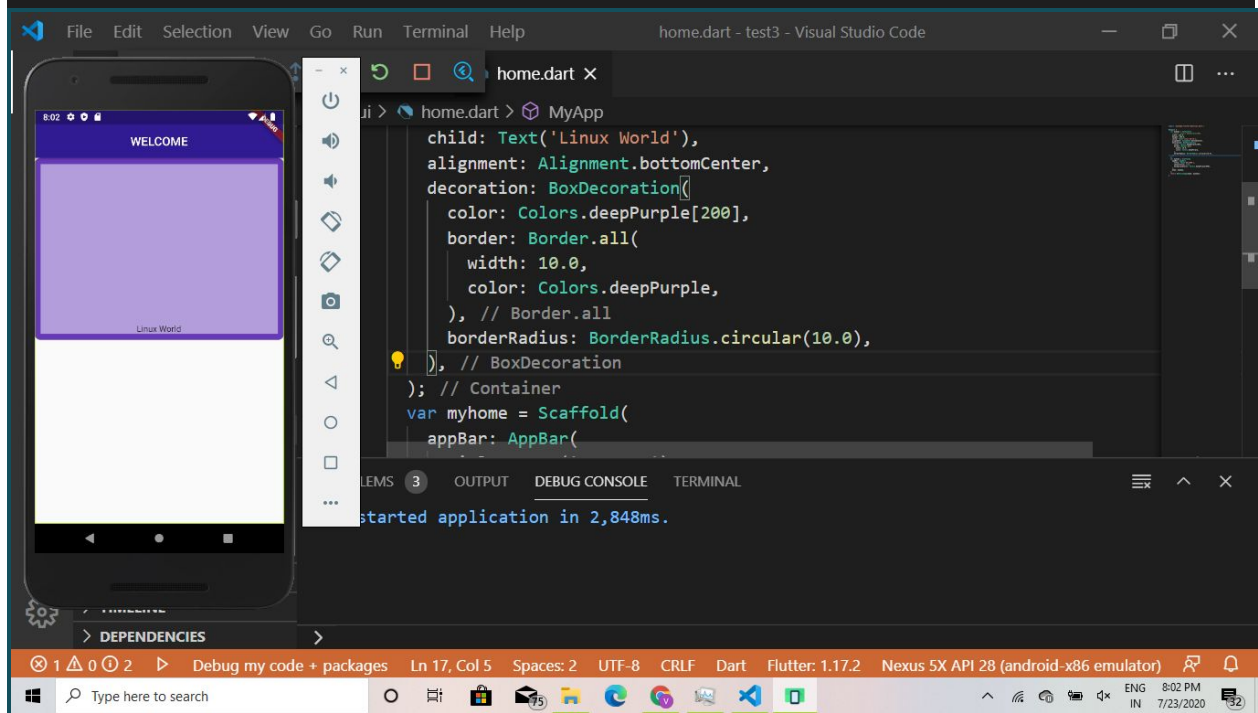
```

    height: 300.0,
    child: Text('Linux World'),
    alignment: Alignment.bottomCenter,
    decoration: BoxDecoration(
      color: Colors.deepPurple[200],
      border: Border.all(
        width: 10.0,
        color: Colors.deepPurple,
      ),
    ),
  ),
);

var myhome = Scaffold(
  appBar: AppBar(
    title: Text('WELCOME'),
    centerTitle: true,
    backgroundColor: Colors.deepPurple,
  ),
  body: mybody,
);

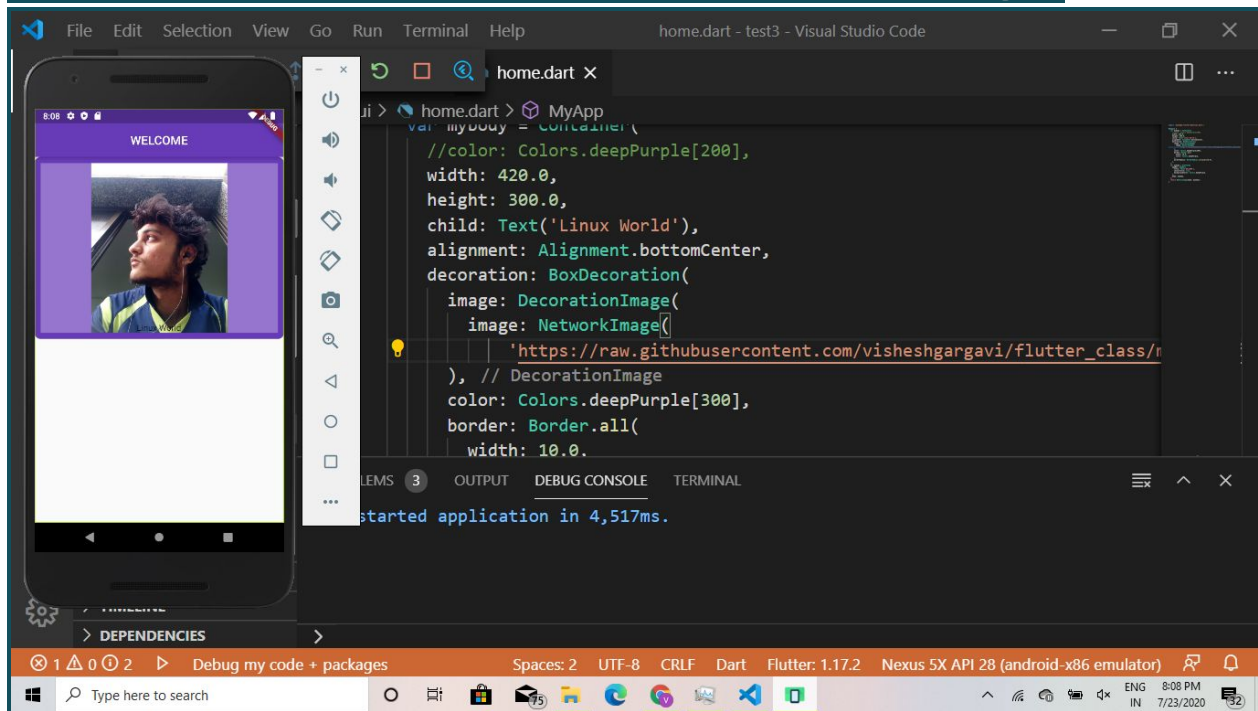
return MaterialApp(home: myhome);
}

```



in a container we can only pass one child we can accommodate

For more child or extra decoration we have to use other widgets



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

```
MyApp() {
```

```
  var mybody = Container(
```

```
    //color: Colors.deepPurple[200],
```

```
    width: 420.0,
```

```
    height: 300.0,
```

```
    child: Text('Linux World'),
```

```
    alignment: Alignment.bottomCenter,
```

```
    decoration: BoxDecoration(
```

```
      image: DecorationImage(
```

```
        image: NetworkImage(
```

```
        'https://raw.githubusercontent.com/visheshgargavi/flutter_class/master/pic1.jpeg'),
```

```
      ),
```

```
      color: Colors.deepPurple[300],
```

```
      border: Border.all(
```

```
        width: 10.0,
```

```
        color: Colors.deepPurple,
```

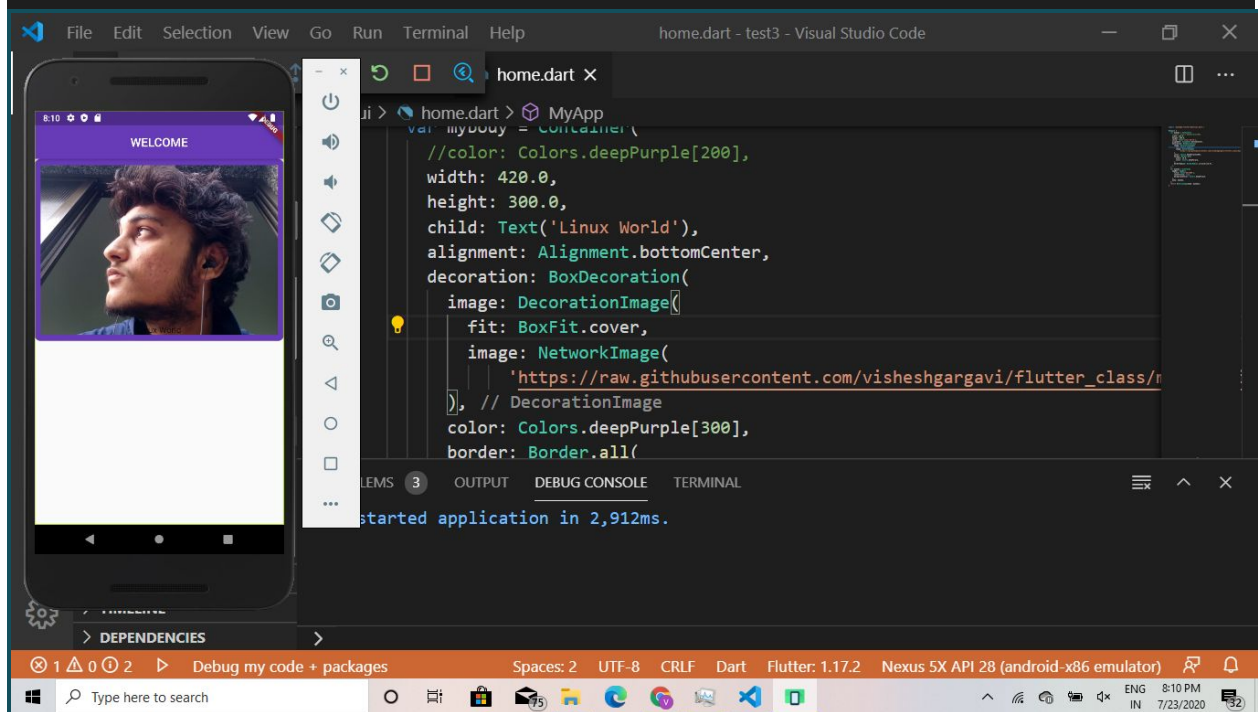
```
      ),
```



```

        borderRadius: BorderRadius.circular(10.0),
      ),
    );
  var myhome = Scaffold(
    appBar: AppBar(
      title: Text('WELCOME'),
      centerTitle: true,
      backgroundColor: Colors.deepPurple,
    ),
    body: mybody,
  );
  return MaterialApp(home: myhome);
}

```



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

```

MyApp() {
  var mybody = Container(
    //color: Colors.deepPurple[200],
    width: 420.0,
    height: 300.0,
    child: Text('Linux World'),
  );
}

```

```
alignment: Alignment.bottomCenter,
decoration: BoxDecoration(
  image: DecorationImage(
    fit: BoxFit.cover,
    image: NetworkImage(
      'https://raw.githubusercontent.com/visheshgargavi/flutter_class/master/pic
1.jpeg'),
  ),
  color: Colors.deepPurple[300],
  border: Border.all(
    width: 10.0,
    color: Colors.deepPurple,
  ),
  borderRadius: BorderRadius.circular(10.0),
),
);
var myhome = Scaffold(
  appBar: AppBar(
    title: Text('WELCOME'),
    centerTitle: true,
    backgroundColor: Colors.deepPurple,
  ),
  body: mybody,
);
return MaterialApp(home: myhome);
}
```

Flutter > painting > DecorationImage class

Search API Docs

CLASSES

- Accumulator
- Alignment
- AlignmentDirectional
- AlignmentGeometry
- AssetBundleImageKey
- AssetBundleImageProvider
- AssetImage
- AutomaticNotchedShape

centerSlice → Rect
The center slice for a nine-patch image. [...]

colorFilter → ColorFilter
A color filter to apply to the image before painting it.

fit → BoxFit
How the image should be inscribed into the box. [...]

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Flutter > painting > BoxFit enum

Search API Docs

CLASSES


- Accumulator
- Alignment
- AlignmentDirectional
- AlignmentGeometry
- AssetBundleImageKey
- AssetBundleImageProvider
- AssetImage
- AutomaticNotchedShape

As large as possible while still containing the source entirely within the target box.



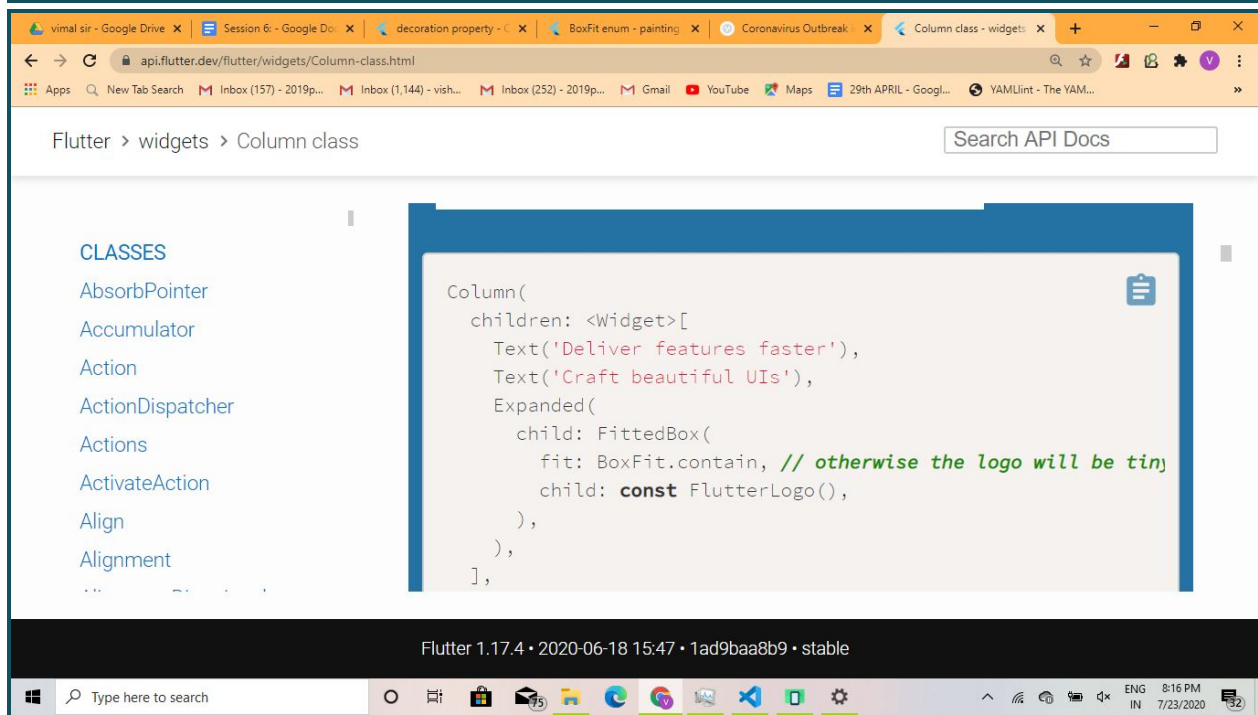
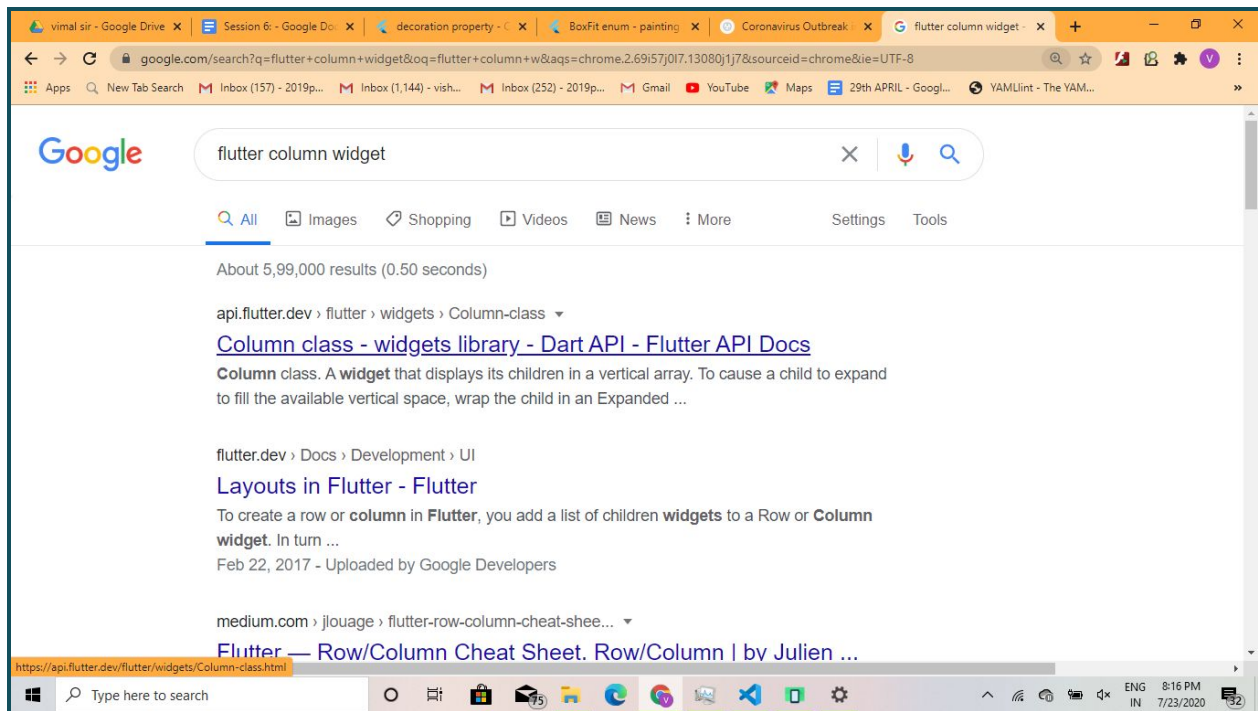
`const BoxFit(1)`

cover → const BoxFit
As small as possible while still covering the entire target box.



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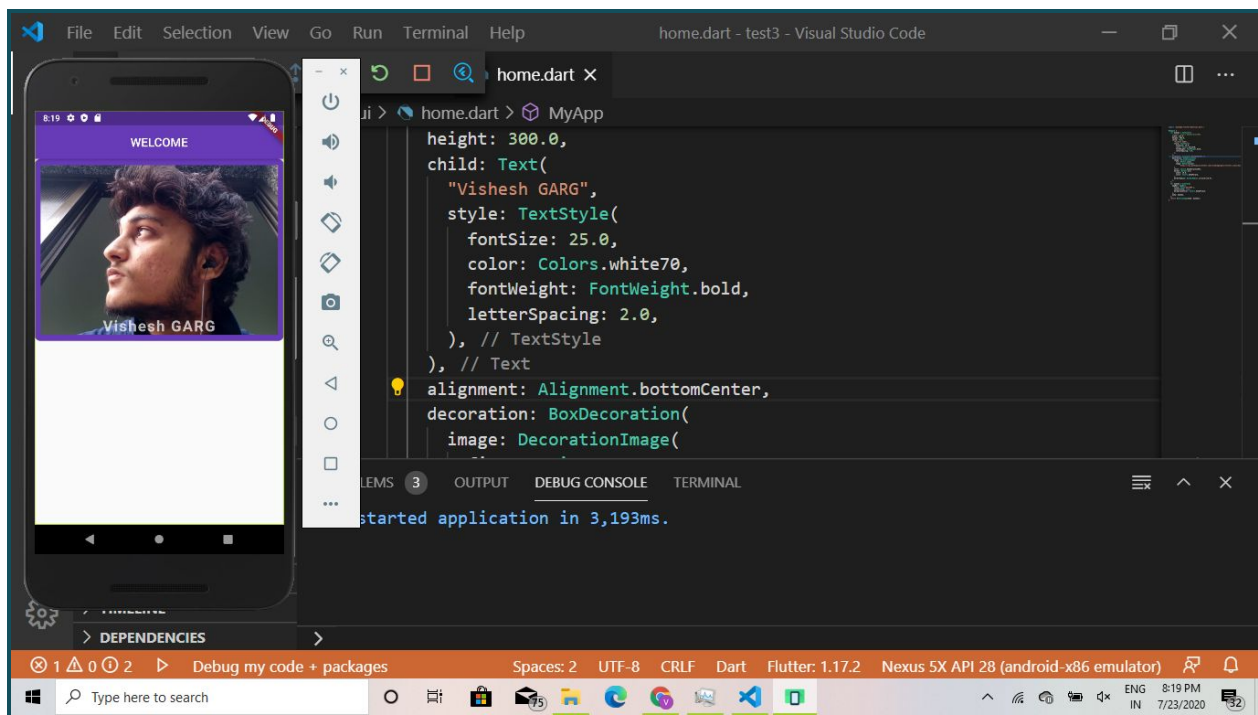
<https://api.flutter.dev/flutter/painting/BoxFit-class.html>



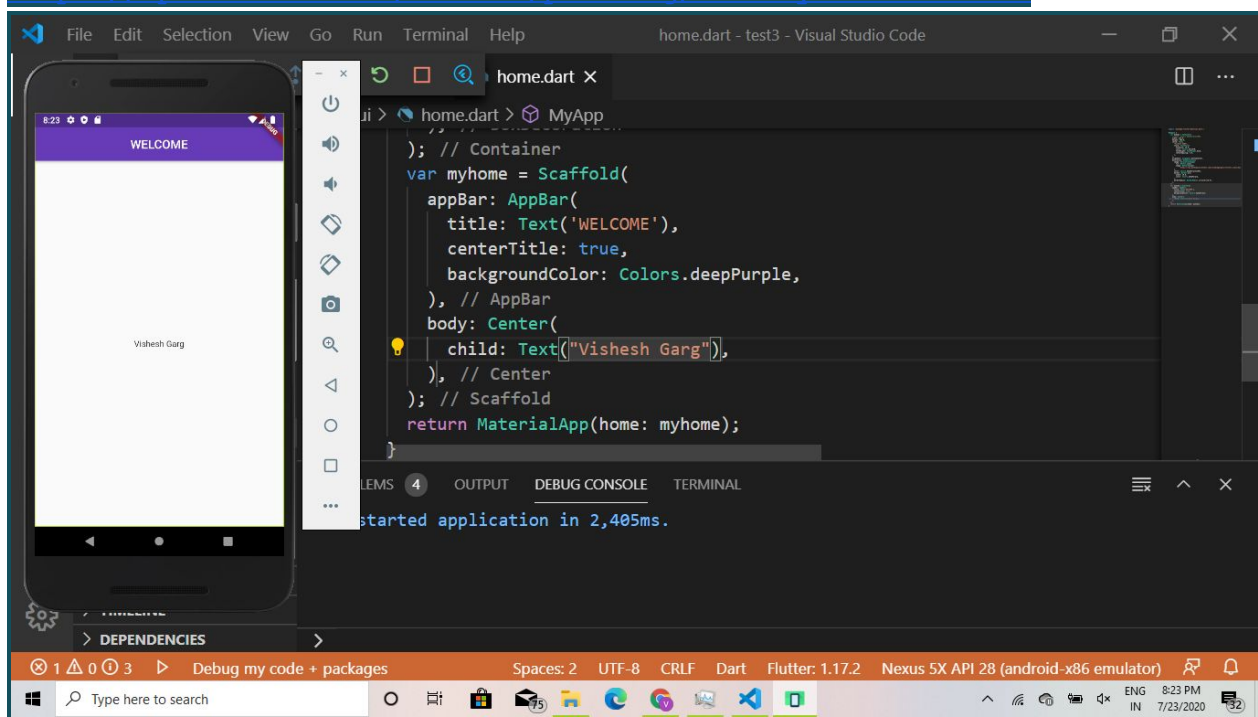
```
import 'package:flutter/material.dart';
```

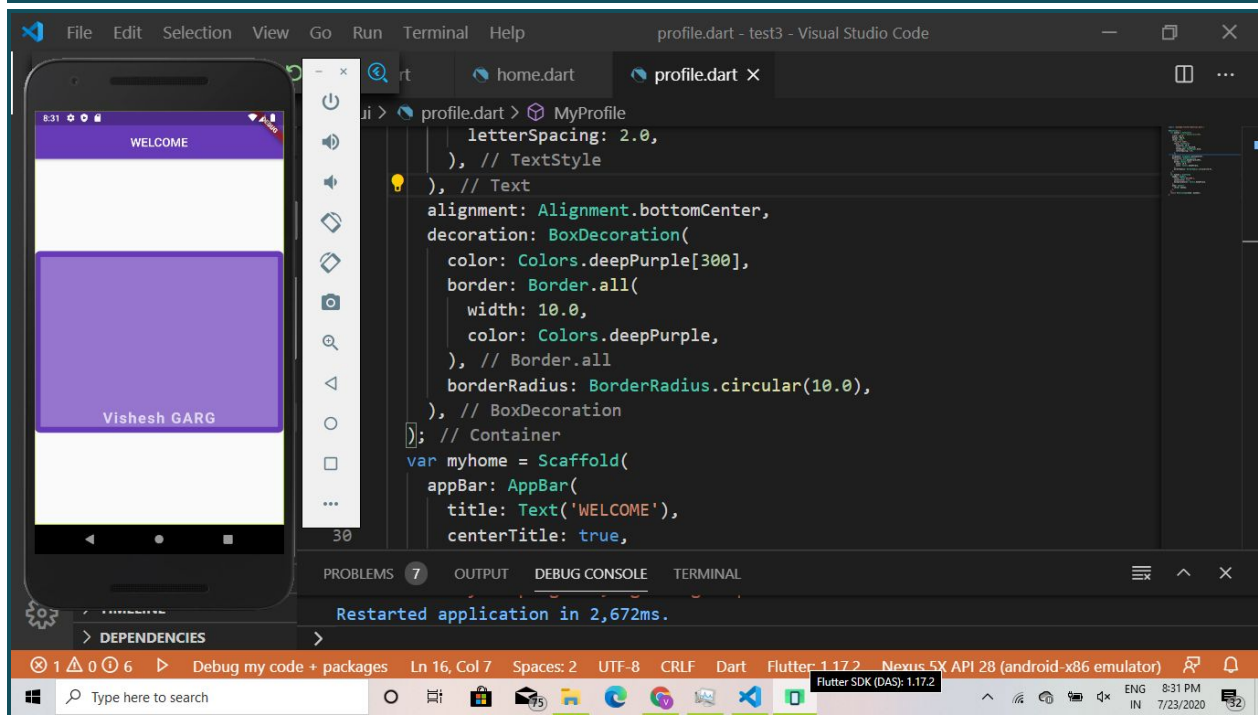
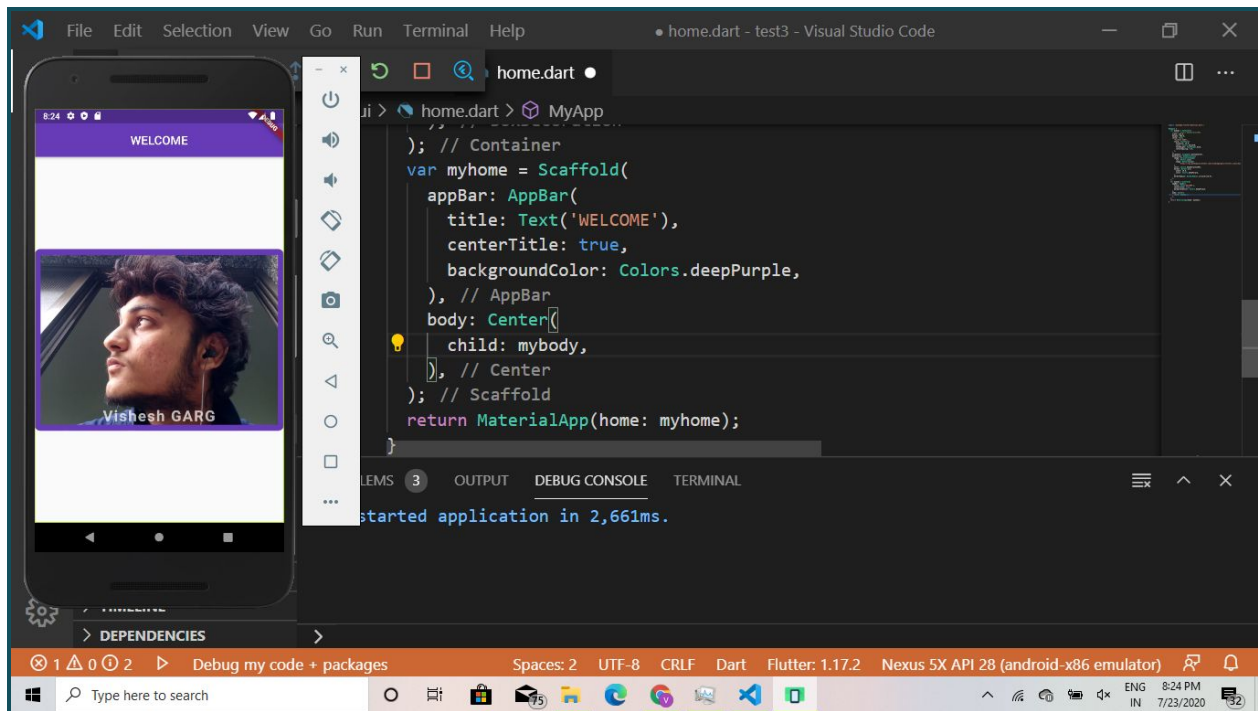
```
MyApp() {  
  var mybody = Container(  
    //color: Colors.deepPurple[200],  
    width: 420.0,
```

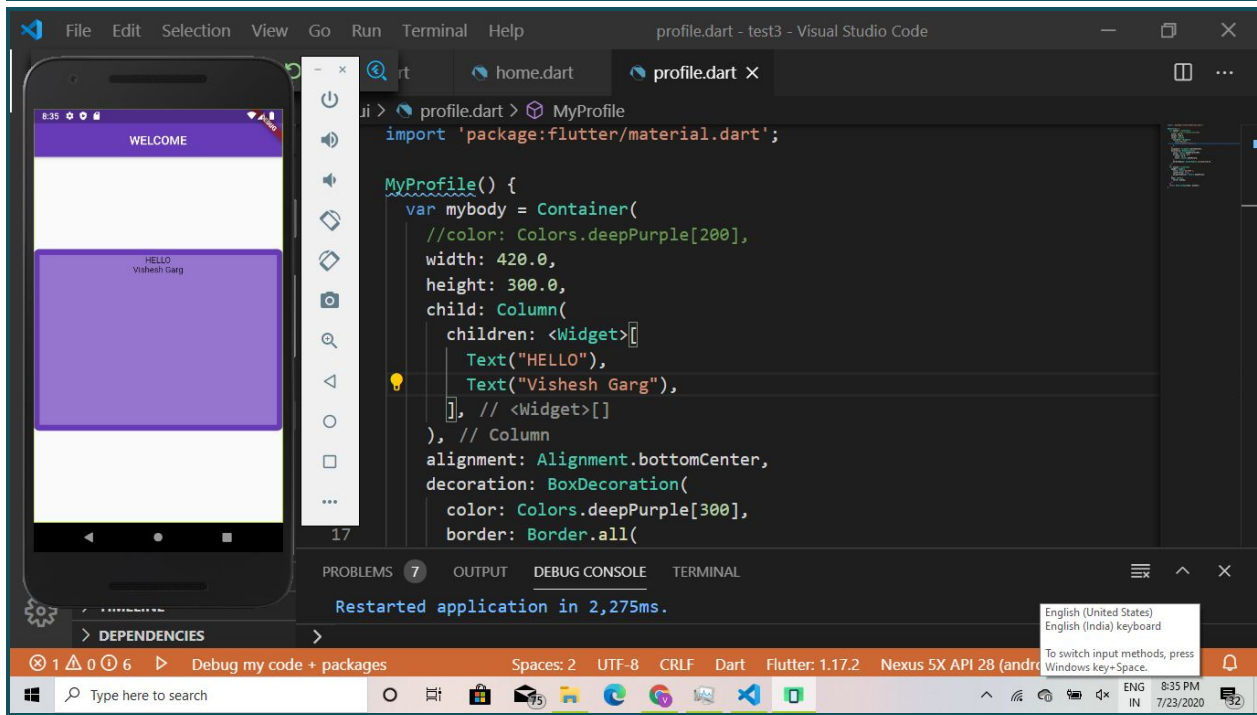
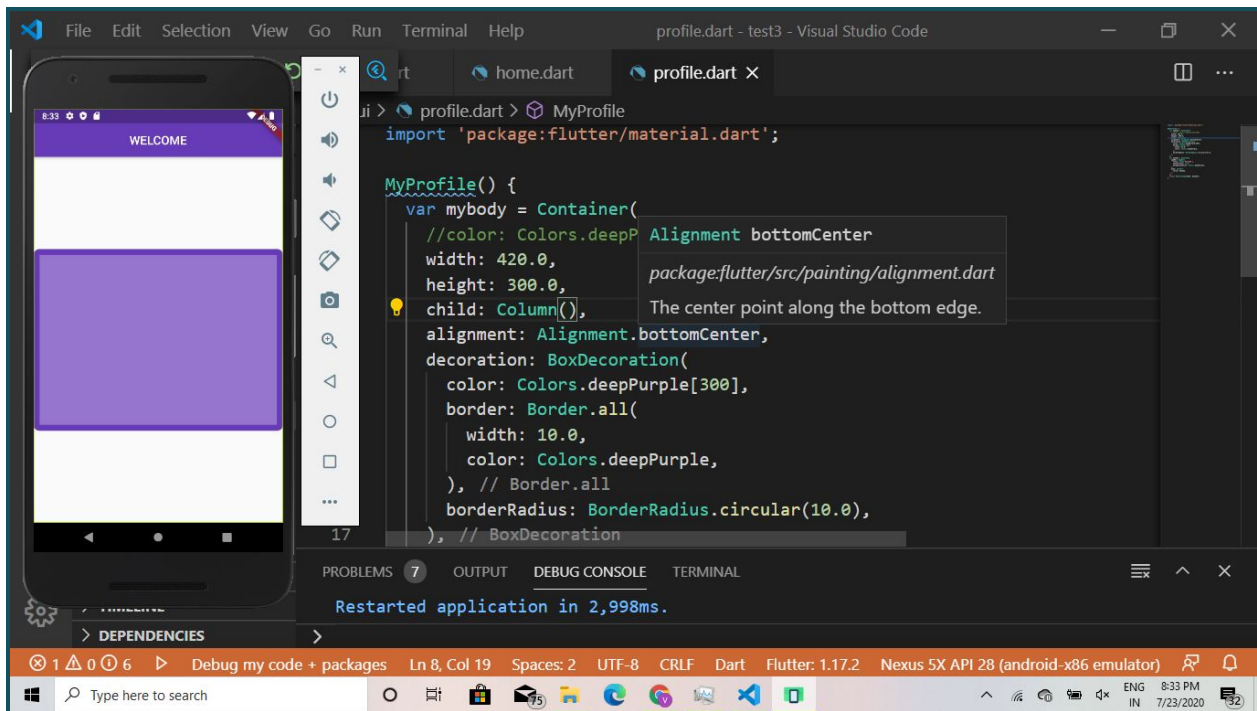
```
        height: 300.0,
        child: Text(
          "Vishesh GARG",
          style: TextStyle(
            fontSize: 25.0,
            color: Colors.white70,
            fontWeight: FontWeight.bold,
            letterSpacing: 2.0,
          ),
        ),
        alignment: Alignment.bottomCenter,
        decoration: BoxDecoration(
          image: DecorationImage(
            fit: BoxFit.cover,
            image: NetworkImage(
              'https://raw.githubusercontent.com/visheshgargavi/flutter_class/master/pic1.jpeg'),
          ),
          color: Colors.deepPurple[300],
          border: Border.all(
            width: 10.0,
            color: Colors.deepPurple,
          ),
          borderRadius: BorderRadius.circular(10.0),
        ),
      );
    var myhome = Scaffold(
      appBar: AppBar(
        title: Text('WELCOME'),
        centerTitle: true,
        backgroundColor: Colors.deepPurple,
      ),
      body: mybody,
    );
    return MaterialApp(home: myhome);
  }
}
```

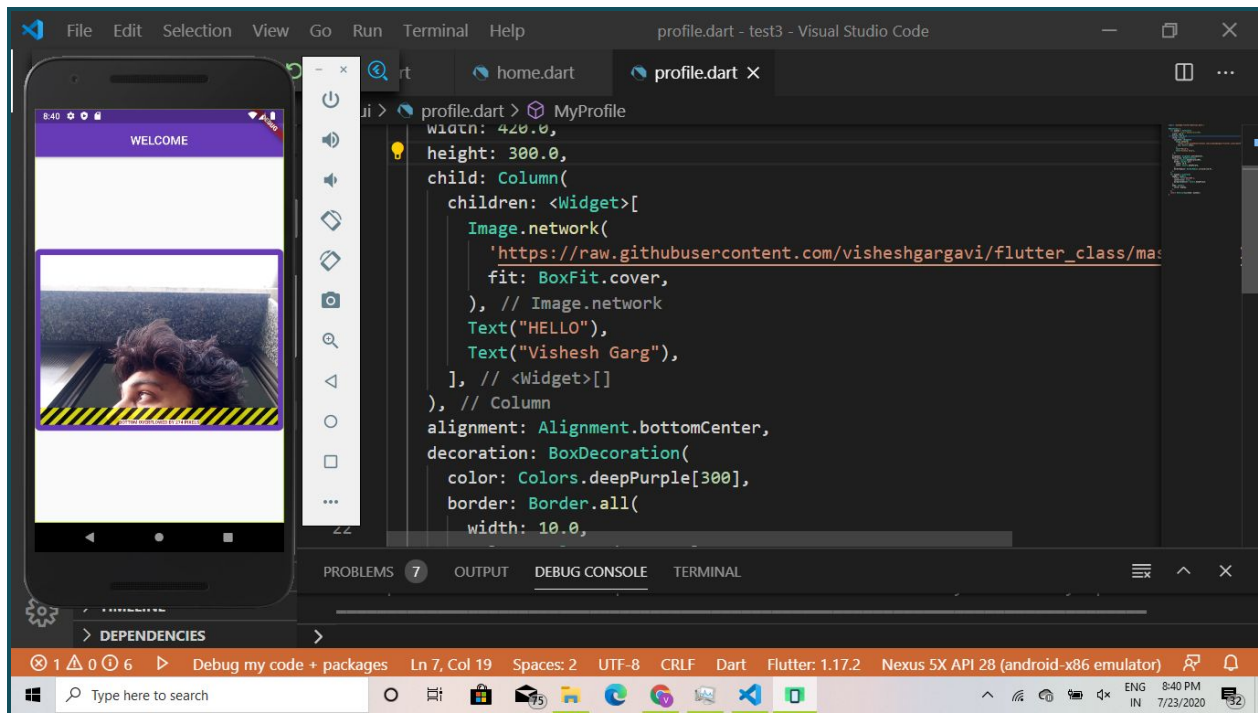



<https://api.flutter.dev/flutter/painting/TextStyle-class.html>









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

MyProfile() {
  var mybody = Container(
    //color: Colors.deepPurple[200],
    width: 420.0,
    height: 300.0,
    child: Column(
      children: <Widget>[
        Image.network(
          'https://raw.githubusercontent.com/visheshgargavi/flutter_class/master/pic1.jpeg',
          fit: BoxFit.cover,
        ),
        Text("HELLO"),
        Text("Vishesh Garg"),
      ],
    ),
    alignment: Alignment.bottomCenter,
    decoration: BoxDecoration(
      color: Colors.deepPurple[300],
```

```
        border: Border.all(  
          width: 10.0,  
          color: Colors.deepPurple,  
        ),  
        borderRadius: BorderRadius.circular(10.0),  
      ),  
    );  
    var myhome = Scaffold(  
      appBar: AppBar(  
        title: Text('WELCOME'),  
        centerTitle: true,  
        backgroundColor: Colors.deepPurple,  
      ),  
      body: Center(  
        child: mybody,  
      ),  
    );  
    return MaterialApp(home: myhome);  
}
```