

Flutter Interaction and Decoration

ทำความรู้จักกับ interaction ต่างๆและการตกแต่ง application



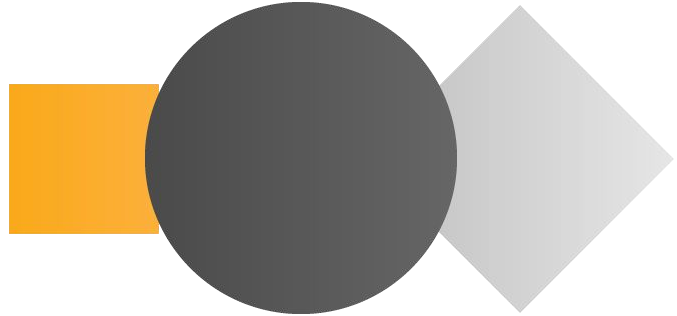


About this section

- Gesture Handling
- Sliver
- Assets
- Flutter Theming
- What is Material
- What is Cupertino
- How to use Material in Flutter



Gesture Handling



GestureDetector

My Button

```
GestureDetector(  
  onTap: () {  
    const snackBar = SnackBar(content: Text('Tap'));  
    ScaffoldMessenger.of(context).showSnackBar(snackBar);  
  },  
  child: Container(  
    padding: const EdgeInsets.all(12.0),  
    decoration: BoxDecoration(  
      color: Theme.of(context).buttonColor,  
      borderRadius: BorderRadius.circular(8.0),  
    ),  
    child: const Text('My Button'),  
  ),  
)  
  
//onTap  
//onDoubleTap  
//onLongPress  
//onSecondaryTap  
//onTertiaryTapDown
```



Draggable

Draggable

```
Draggable<int>(  
  child: Container(  
    height: 100.0,  
    width: 100.0,  
    color: Colors.lightGreenAccent,  
    child: const Center(  
      child: Text('Draggable'),  
    ),  
  ),  
  feedback: Container(  
    color: Colors.deepOrange,  
    height: 100,  
    width: 100,  
    child: const Icon(Icons.directions_run),  
  ),  
  childWhenDragging: Container(  
    height: 100.0,  
    width: 100.0,  
    color: Colors.pinkAccent,  
    child: const Center(  
      child: Text('Child When Dragging'),  
    ),  
  ),  
)
```

ก่อน drag, ตัวที่ถูก drag, ตัวที่ไม่ได้ถูก drag



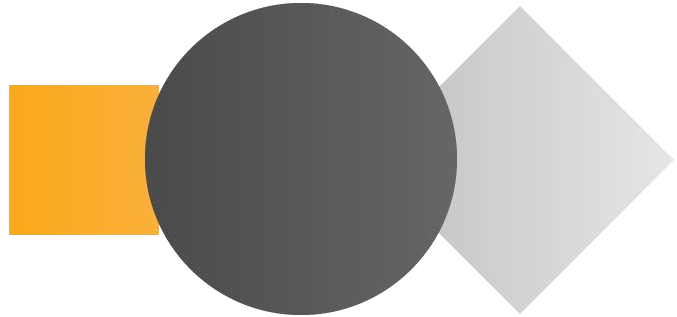
Pinch

PAN

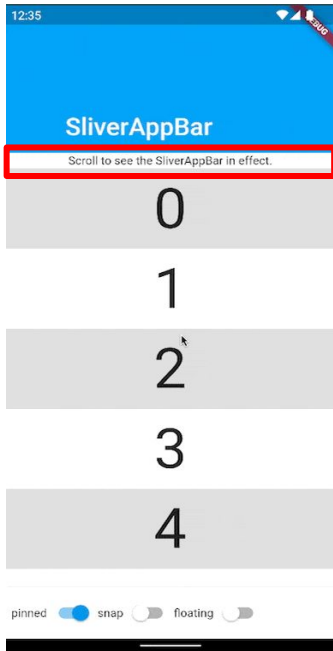
```
InteractiveViewer(  
  boundaryMargin: const EdgeInsets.all(20.0),  
  minScale: 0.1,  
  maxScale: 1.6,  
  child: Container(  
    decoration: const BoxDecoration(  
      gradient: LinearGradient(  
        begin: Alignment.topCenter,  
        end: Alignment.bottomCenter,  
        colors: <Color>[Colors.orange, Colors.red],  
        stops: <double>[0.0, 1.0],  
      ),  
    ),  
    child: Center(child: Text("PAN")),  
  ),  
)
```



Sliver



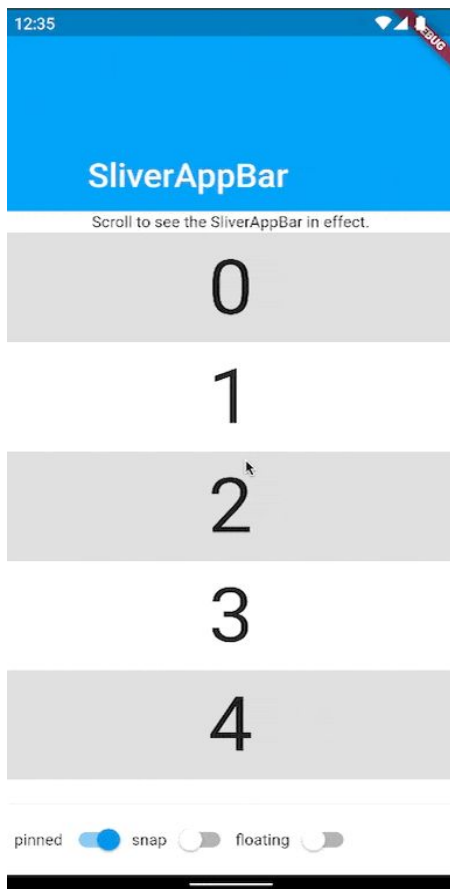
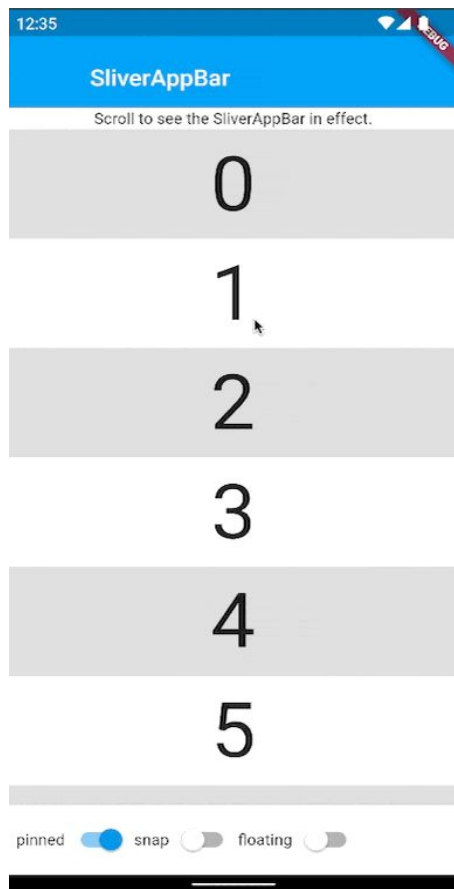
SliverToBoxAdapter



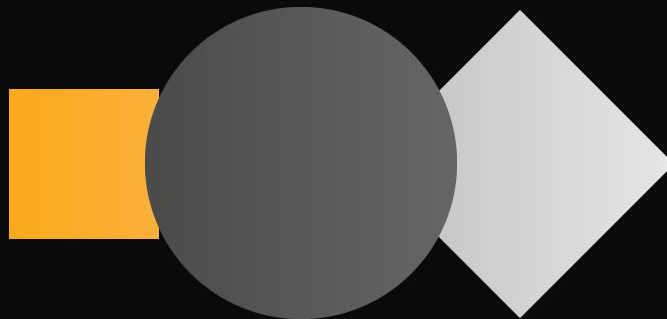
Widget สำหรับใส่ non-sliver widget

```
SliverToBoxAdapter(  
  child: SizedBox(  
    height: 20,  
    child: Center(  
      child: Text('Scroll to see the SliverAppBar in effect.'),  
    ),  
  ),  
),
```

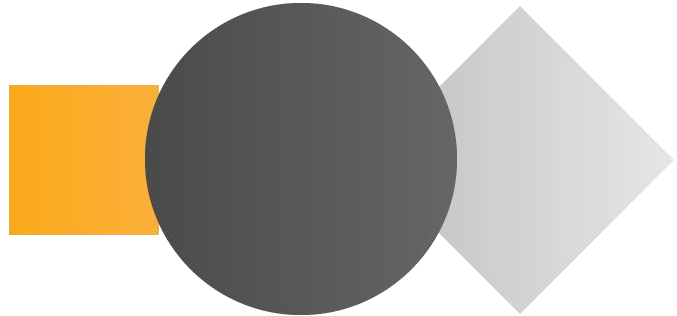




Demo



Assets





pubspec.yaml

- Metadata for the application

```
flutter:  
  assets:  
    - assets/my_icon.png  
    - assets/background.png
```

```
flutter:  
  assets:  
    - directory/  
    - directory/subdirectory/
```



Image.asset



```
// pubspec.yaml  
assets:  
  - assets/desert.png
```

```
// main.dart  
Image.asset('assets/desert.png');
```

```
// pubspec with device pixel ratio  
.../desert.png  
.../2.0x/desert.png  
.../3.0x/desert.png
```





Load string asset

```
import 'package:flutter/services.dart' show rootBundle;

Future<String> loadAsset() async {
  return await rootBundle.loadString('assets/config.json');
}
```





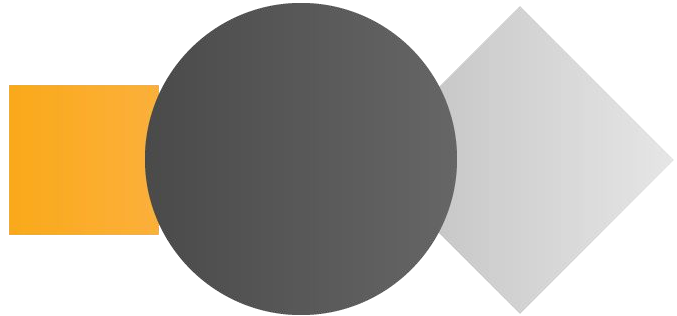
Font

```
flutter:  
  fonts:  
    - family: Raleway  
      fonts:  
        - asset: fonts/Raleway-Regular.ttf  
        - asset: fonts/Raleway-Italic.ttf  
          style: italic  
    - family: RobotoMono  
      fonts:  
        - asset: fonts/RobotoMono-Regular.ttf  
        - asset: fonts/RobotoMono-Bold.ttf  
          weight: 700
```

```
return MaterialApp(  
  title: 'Demo',  
  theme: ThemeData(fontFamily: 'Raleway'),  
  home: const MyHomePage(),  
);
```



Theming





Theme

Material

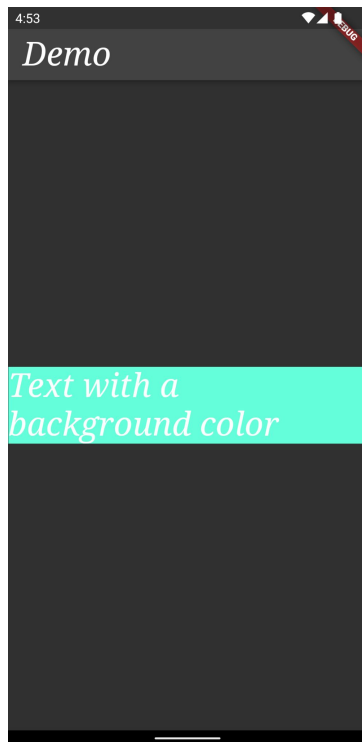
Material design based

Cupertino

iOS-design based



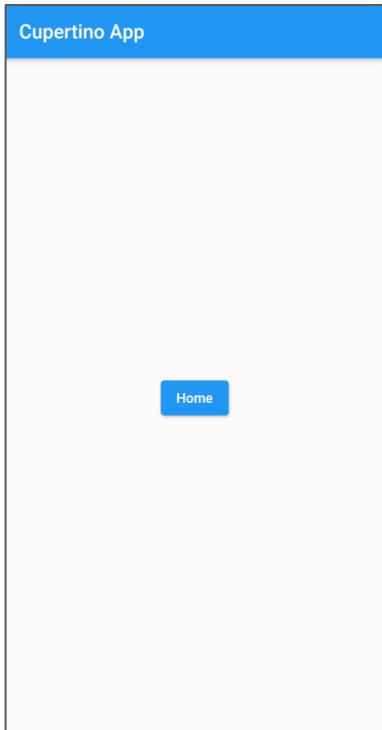
ThemeData



```
MaterialApp(  
  title: appName,  
  theme: ThemeData(  
    brightness: Brightness.dark,  
    primaryColor: Colors.lightBlue[800],  
    fontFamily: 'Georgia',  
    textTheme: const TextTheme(  
      headline1: TextStyle(fontSize: 72.0, fontWeight:  
FontWeight.bold),  
      headline6: TextStyle(fontSize: 36.0, fontStyle:  
FontStyle.italic),  
      bodyText2: TextStyle(fontSize: 14.0, fontFamily: 'Hind'),  
    ),  
  ),  
  home: const MyHomePage(  
    title: appName,  
  ),  
);  
  
Container(  
  child: Text(  
    'Text with a background color',  
    style: Theme.of(context).textTheme.headline6,  
  ),  
),
```

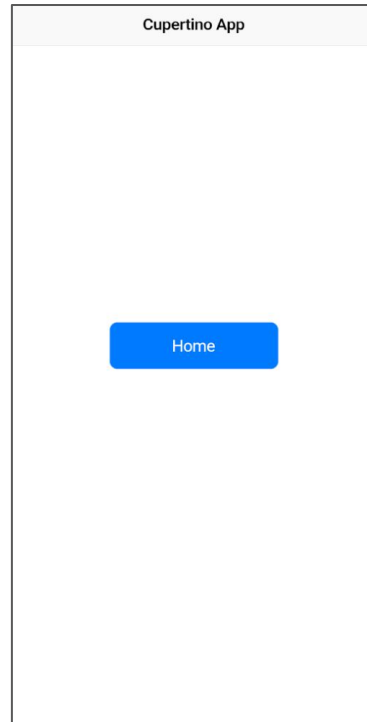


Material



```
MaterialApp(  
  home: Scaffold(  
    appBar: AppBar(  
      title: const Text('Home'),  
    ),  
  ),  
)
```

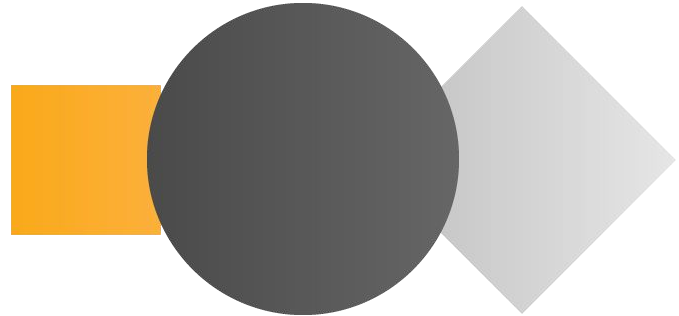
Cupertino



```
CupertinoApp(  
  home: CupertinoPageScaffold(  
    navigationBar: CupertinoNavigationBar(  
      middle: Text('Home'),  
    ),  
  ),  
)
```



How to use Material Design in Flutter



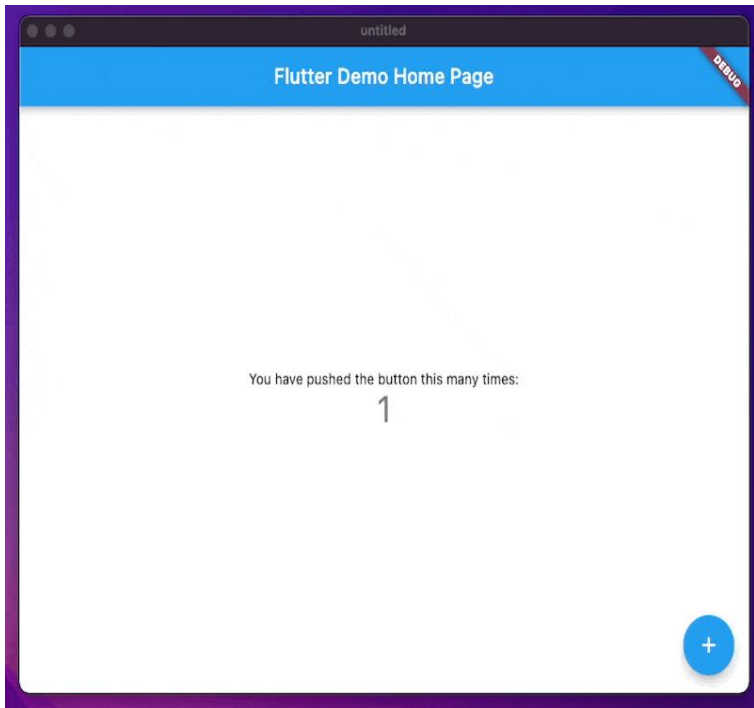


3 steps

1. Create MaterialApp
2. Create ThemeData
3. Use Theme in Material Widgets



Material 3



```
MaterialApp(  
  title: 'Flutter Demo',  
  theme: ThemeData(  
    useMaterial3: true, //just like that  
    ...  
  ),  
  home: ...  
);
```



Workshop 2

Build a simple application with Theme

