

# Adding InkWell Splash Ripple Effect To Custom Widgets In Flutter

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In this post we will learn how to add **InkWell** ripple splash effect on custom widgets in a Flutter application.

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## Introduction

[InkWell <https://docs.flutter.io/flutter/material/InkWell-class.html>](https://docs.flutter.io/flutter/material/InkWell-class.html) is Flutter's implementation of Material Design concept for touch response. It helps to create interactivity in your mobile application by adding gesture feedback.

For example you might want to give ripple effect when user taps on certain area of the app like a button or a container.

Flutter framework already provides splash effect functionality to many of its widgets like *RaisedButton*, *FlatButton*, *ListTile* etc. by default. However, if you want to use this feature to your custom widgets, you will have to explicitly make use of **InkWell** widget.

[Checkout: Building An Expense Manager App In Flutter <](#)

## Basic Setup

In this post we will create a custom [Chip <https://docs.flutter.io/flutter/material/Chip-class.html>](https://docs.flutter.io/flutter/material/Chip-class.html) like container and add `InkWell` splash ripple effect on it. So, let's begin with a basic setup of a Flutter Material App.

## Create A Chip Like Container

```
//MyChip.dart

import 'package:flutter/material.dart';

main() => runApp(MaterialApp(home: MyChip()));

class MyChip extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: Colors.white,
      body: Container(
        width: MediaQuery.of(context).size.width,
        child: Column(
          mainAxisAlignment:
MainAxisAlignment.center,
          crossAxisAlignment:
CrossAxisAlignment.center,
          children: <Widget>[
            Container(
              margin: EdgeInsets.all(12),
              height: 50.0,
              width: 100.0,
              decoration: BoxDecoration(color:
Colors.blue, boxShadow: [
                BoxShadow(
                  color: Colors.grey, blurRadius:
4, offset: Offset(0, 2))
              ]),
              child: Center(
                child: Text("My Chip",
                  style:
Theme.of(context).textTheme.body1),
                ))
            ],
          )),
    );
  }
}
```

So, far we have a container placed in the center of screen. Also, notice that we have set the color for container to be blue.



If you currently tap on this container, we will not see any splash effects. So, now we will turn this container into a `InkWell` widget.

### Adding InkWell To Add Touch Effect

```
...
Container(
  margin: EdgeInsets.all(12),
  height: 50.0,
  width: 100.0,
  decoration: BoxDecoration(color: Colors.blue,
boxShadow: [
  BoxShadow(
    color: Colors.grey, blurRadius: 4,
offset: Offset(0, 2))
  ],
  child: InkWell(
    child: Center(
      child: Text("My Chip",
        style:
Theme.of(context).textTheme.body1)),
    onTap: () {},
  ),
)
...
```

We wrapped the `Center` and `Text` widgets by an `InkWell` widget. But if you run the app now, you would still not be able to see splash ripple effect.

**This is because an `InkWell` widget must always have a `Material` widget as it's parent widget.**

### Wrap InkWell By Material To Show Ripple Effect

```
child: Material(  
  child: InkWell(  
    child: Center(  
      child: Text("My Chip",  
        style:  
Theme.of(context).textTheme.body1)),  
      onTap: () {},  
    ),  
  ),  
)
```

After creating a top level `Material` widget, now if you run the app again, you can see that there is a splash effect.



Great, we got a working inkwell splash effect in our Flutter app! But what happened to its color? The container color turned into white.

### Setting Color Of InkWell Container

Any child widgets placed inside the `Material` widget, takes the color set in the `Material` widget. So, we should set the color from `Material's color` property itself. You can not set it from any the parent `Container` widget.

Another important thing to note when creating `InkWell` with `Material` parent widget is that you should set the color from the `Material's` property itself. You can not set it from the `Container`.

So finally, our code that fixes the `InkWell` effect and the container color looks like this:

```
Container(  
  margin: EdgeInsets.all(12),  
  height: 50.0,  
  width: 100.0,  
  decoration: BoxDecoration(boxShadow: [  
    BoxShadow(  
      color: Colors.grey, blurRadius: 4,  
      offset: Offset(0, 2))  
  ]),  
  child: Material(  
    color: Colors.blue,  
    child: InkWell(  
      child: Center(  
        child: Text("My Chip",  
          style:  
            Theme.of(context).textTheme.body1)),  
        onTap: () {},  
      ),  
    ),  
  ),  
)
```

### Important Points To Note Before Adding `InkWell` Widget

- An `InkWell` widget must always have a `Material` widget as its parent.
- It will only work when you have implemented at least one of its click event handler like the `onTap` event handler.
- To set the widget color, it should be done via the `color` property of the containing `Material` widget.


**Learn More:** [How To Disable Multi Touch InkWell On A List Of Items <http://stacksecrets.com/flutter/disable-multi-touch-on-a-widget-in-flutter>](http://stacksecrets.com/flutter/disable-multi-touch-on-a-widget-in-flutter)

### Conclusion

In this post we looked at how to use Flutter's `InkWell` widget to add splash ripple effect. We also learnt that `Material` widget must be used as a parent and also the properties like color and shapes should be defined from the `Material` widget itself.

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