



GECI

Flutter FrameWork

By TechnoShip Cell Geci

What is Flutter ?

- Flutter is an open-source UI software development kit created by Google.
- It is used to develop applications for Android, iOS, Windows, Mac, Linux, Google Fuchsia and the web.
- Flutter uses Dart language.



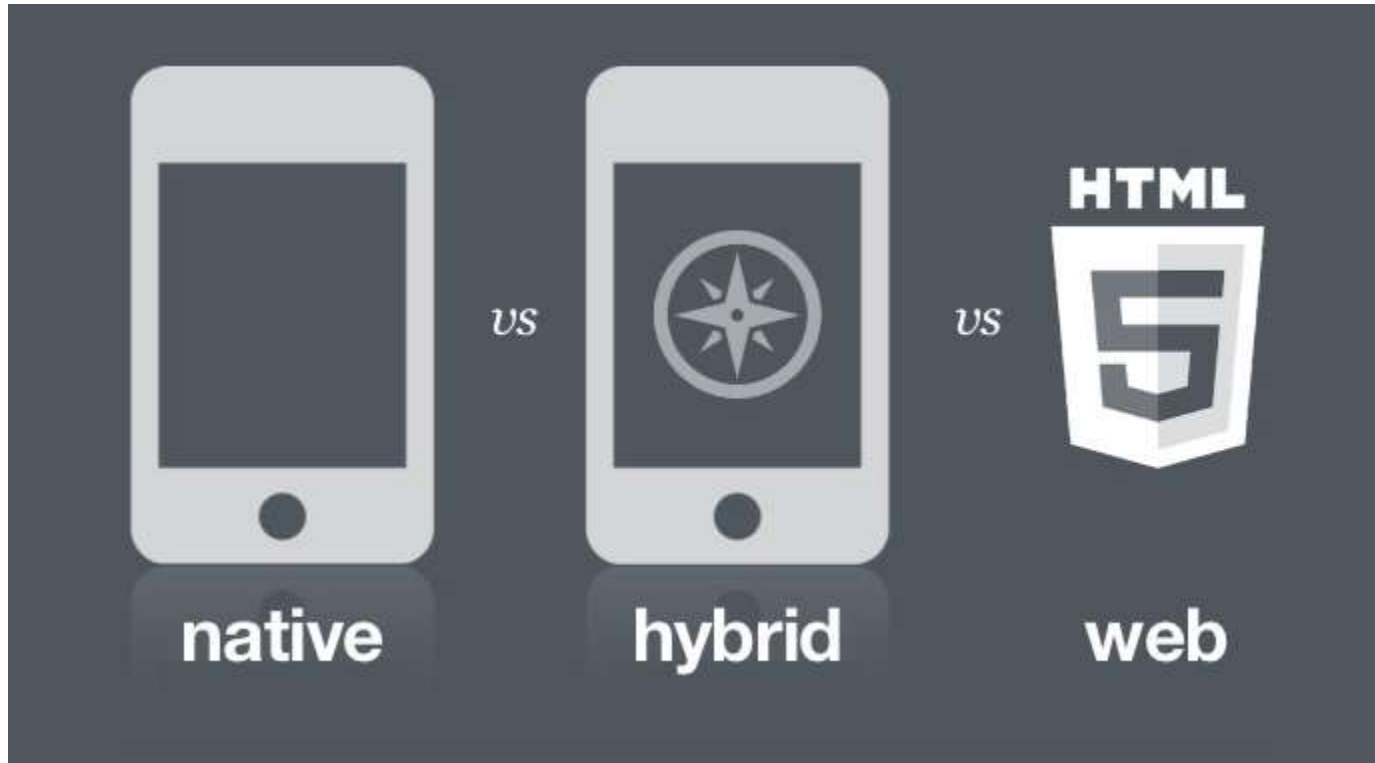


Deep Into Mobile Platforms

Mobile Platforms



Mobile Development Approaches



Native App Approach



Web App Approach



Hybrid Approach



APACHE
CORDOVA™



Phone**Gap**

Other popular Hybrid Approach



JavaScript



JavaScript



So what is Flutter ?

- Flutter uses hybrid approach
- Flutter is Google's UI toolkit for building beautiful, natively compiled applications for mobile, web, and desktop from a [single codebase](#).



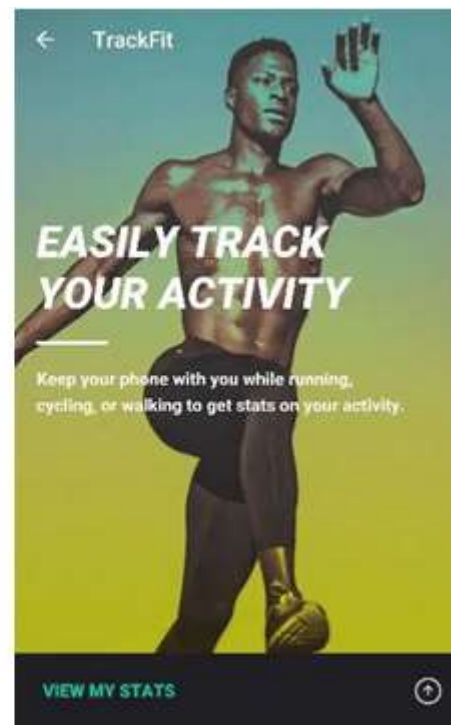
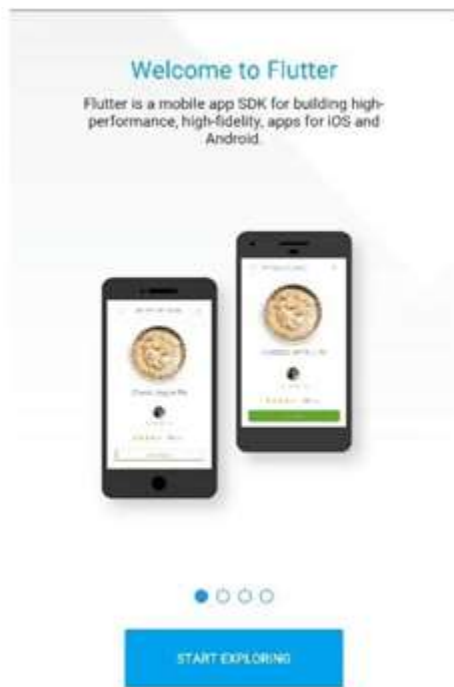
So what is Flutter ?

Flutter is the next step in app development

- ✓ **Speed and performance**
Fast, smooth, predictable
- ✓ **Flexibility**
Customization, control
- ✓ **Native look and feel**
Familiarity, ease of use
- ✓ **Less time to market**
Rapid development, free



Great looking and fast Widgets

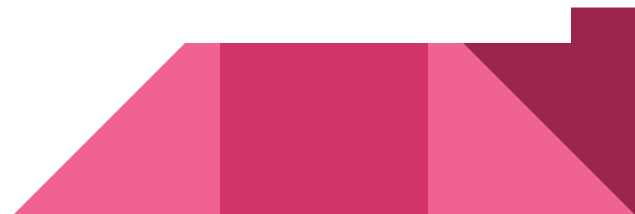


What makes Flutter unique?



Flutter

- Compiles to Native Code (ARM Binary code)
- No reliance on OEM widgets
- No bridge needed



What language is Flutter built with?



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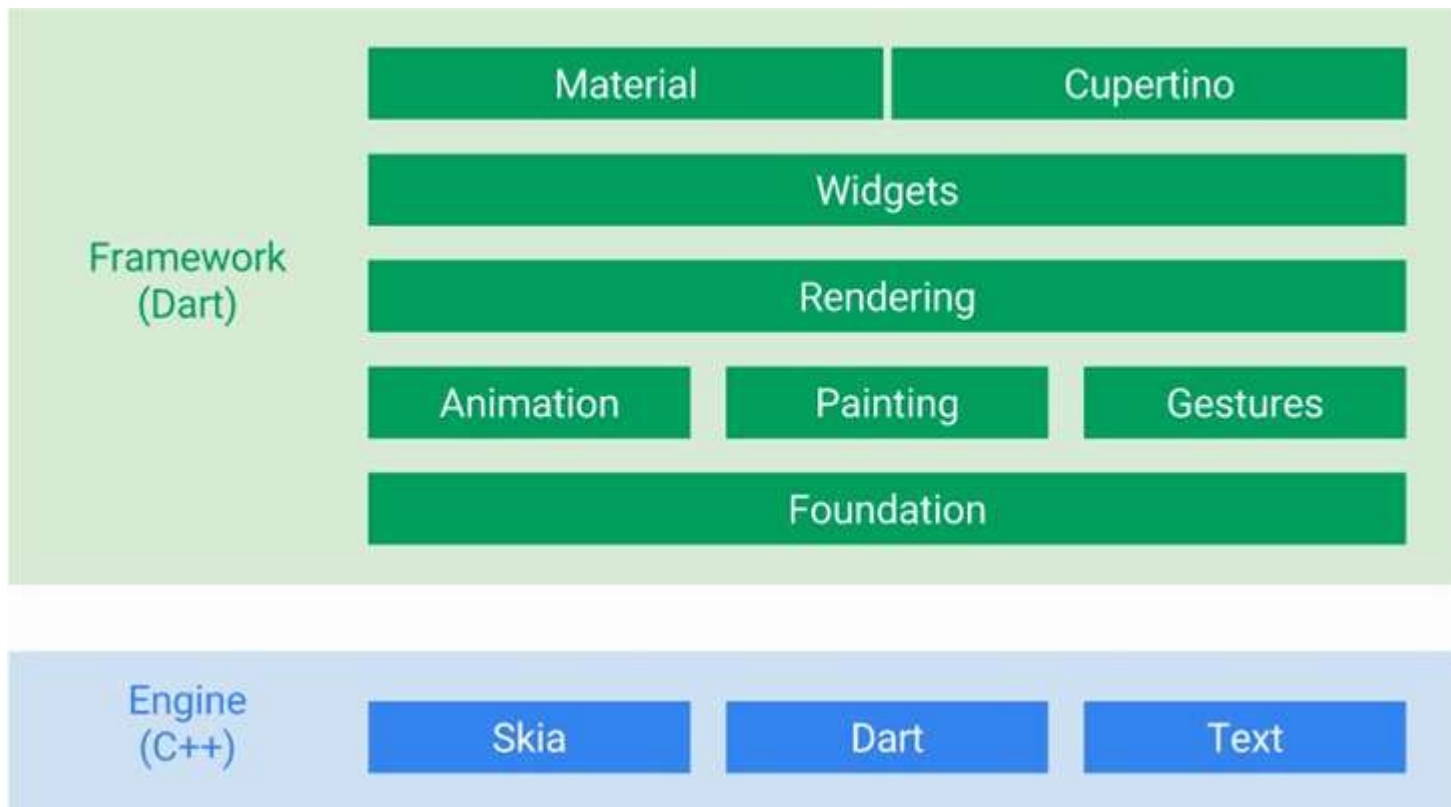
Dart

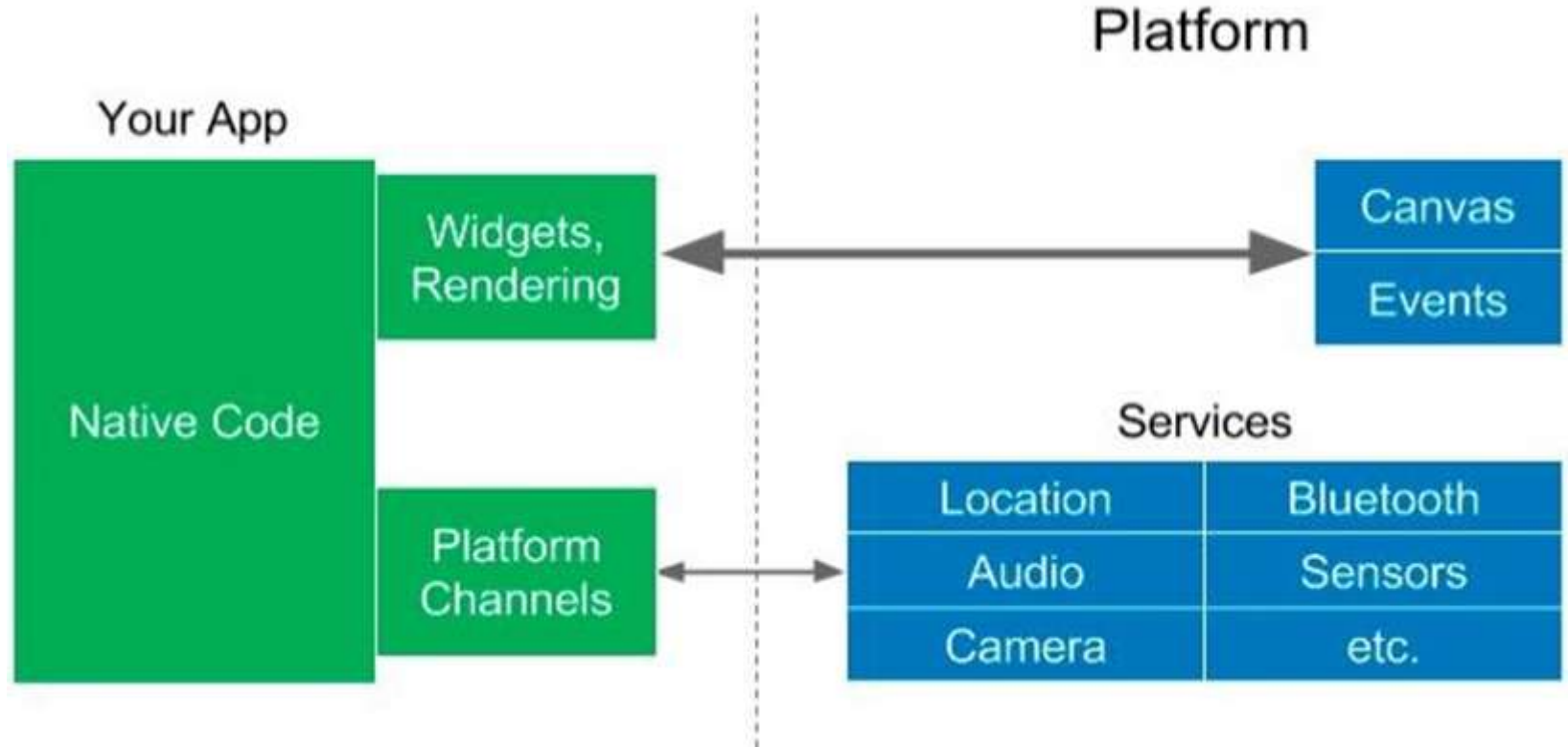
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Deep into Flutter

You Can customize everything in green





What are Widgets in Flutter?

Everything in flutter consist of Widgets including but not limited to,

visible Screen(s),

text(s),

Button(s),

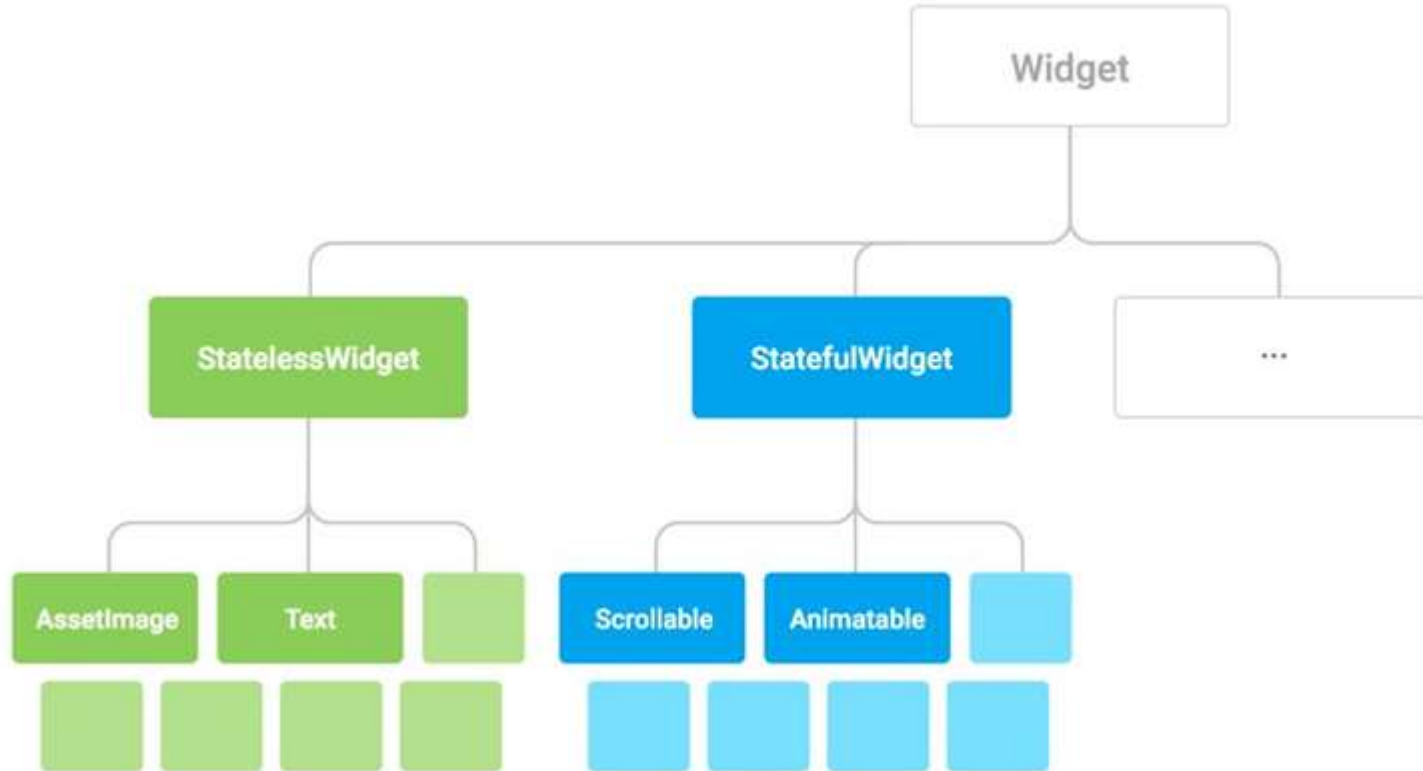
Material Design(s),

Application Bar(s)

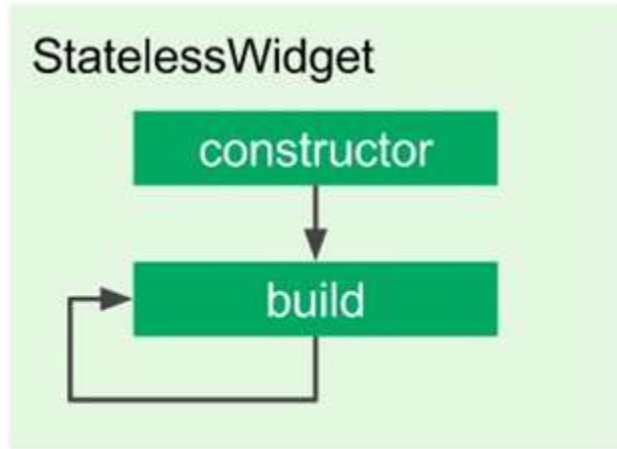
as well as invisible Container(s) and Layout(s)



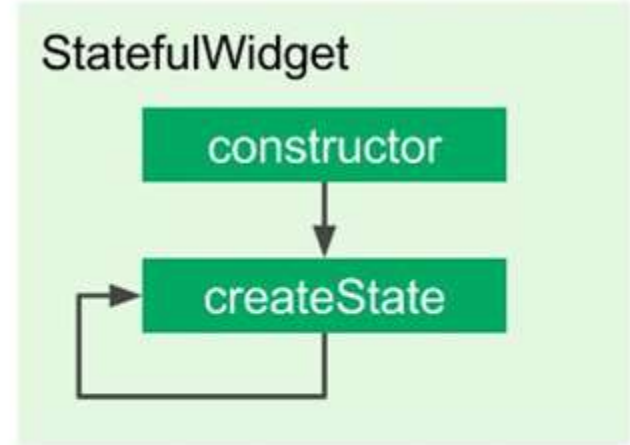
Everything is a Widget



Stateful Widget vs. Stateless Widget



A single StatelessWidget can build in many different BuildContexts



A StatefulWidget creates a new State object for each BuildContext

Stateless Widget

We create a Stateless widget by extending our class from StatelessWidget and a bare minimum implementation shall look like

```
class MyApp extends StatelessWidget{  
  @override  
  Widget build(BuildContext context) {  
    return OneOrMoreWidgets;  
  }  
}
```

Stateless Widget are immutable once drawn

- The build(...) function of the StatelessWidget is called only ONCE and no amount of changes in any Variable(s), Value(s) or Event(s) can call it again.
- To redraw the StatelessWidget, we need to create a new instance of the Widget.



Stateful Widget

```
class MyApp extends StatefulWidget {  
  @override  
  State<StatefulWidget> createState() {  
    return MyAppState();  
  }  
}  
  
class MyAppState extends State<MyApp> {  
  @override  
  Widget build(BuildContext context) {  
    return OneOrMoreWidgets;  
  }  
}
```


Stateful Widget

Stateful Widgets are mutable and can be drawn multiple times within its lifetime



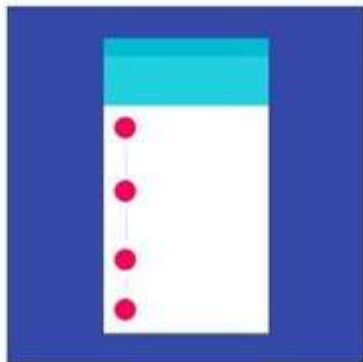
Layout



ListTile

A single fixed-height row that typically contains some text as well as a leading or trailing icon.

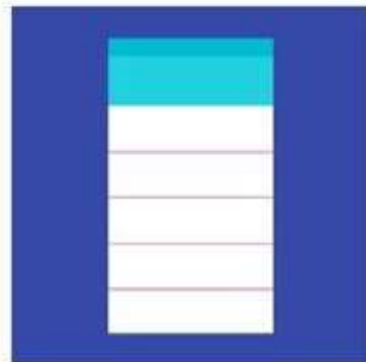
[Documentation](#)



Stepper

A material stepper widget that displays progress through a sequence of steps.

[Documentation](#)



Divider

A one logical pixel thick horizontal line, with padding on either side.

[Documentation](#)

Dialogs, alerts, and panels



SimpleDialog

Simple dialogs can provide additional details or actions about a list item. For example they can display avatars icons clarifying subtext or orthogonal actions...

[Documentation](#)



AlertDialog

Alerts are urgent interruptions requiring acknowledgement that inform the user about a situation. The AlertDialog widget implements this component.

[Documentation](#)



BottomSheet

Bottom sheets slide up from the bottom of the screen to reveal more content. You can call `showBottomSheet()` to implement a persistent bottom sheet or...

[Documentation](#)

Basics

Widgets you absolutely need to know before building your first Flutter app.

[VISIT](#)

Material Design

Visual, behavioral, and motion-rich widgets implementing Google's [Material Design guidelines](#).

[VISIT](#)

Cupertino (iOS-style widgets)

Beautiful and high-fidelity widgets for current iOS design language.

[VISIT](#)

Layout

Arrange other widgets columns, rows, grids, and many other layouts.

[VISIT](#)

Text

Display and style text.

[VISIT](#)

Assets, Images, and Icons

Manage assets, display images, and show icons.

[VISIT](#)

Input

Take user input in addition to input widgets in in Material Design and Cupertino.

[VISIT](#)

Animation and Motion

Bring animations to your app. Check out [Animations](#) in Flutter for an overview.

[VISIT](#)

Interaction Models

Respond to touch events and route users to different views.

[VISIT](#)

Styling

Manage the theme of your app, makes your app responsive to screen sizes, or add padding.

[VISIT](#)

Painting and effects

These widgets apply visual effects to the children without changing their layout, size, or position.

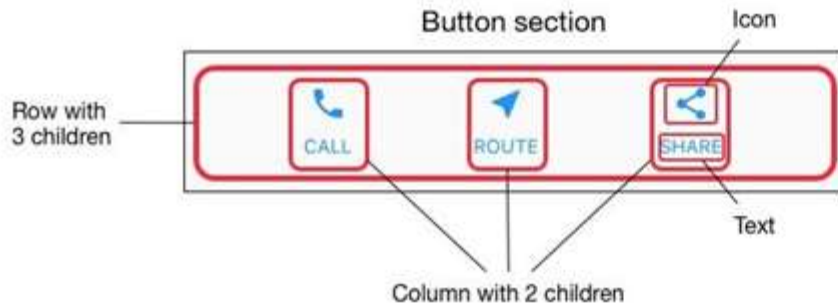
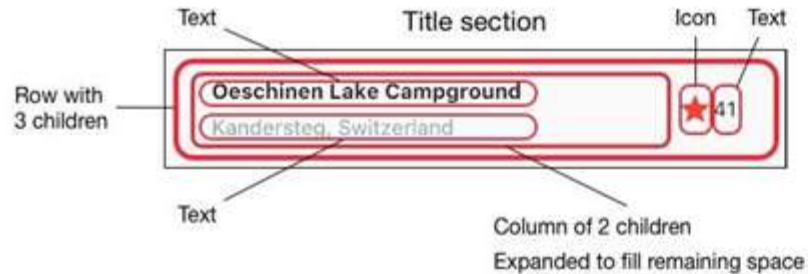
[VISIT](#)

Async

Async patterns to your Flutter application.

[VISIT](#)

Rows and columns



Column



Oeschinen Lake Campground

Kandersteg, Switzerland

★ 41



CALL



ROUTE



SHARE

Lake Oeschinen lies at the foot of the Blüemlisalp in the Bernese Alps. Situated 1,578 meters above sea level, it is one of the larger Alpine Lakes. A gondola ride from Kandersteg, followed by a half-hour walk through pastures and pine forest, leads you to the lake, which warms to 20 degrees Celsius in the summer. Activities enjoyed here include rowing, and riding the summer toboggan run.

IDE Support ?





Thank You

PPT by Vishnu Suresh