





Rasmus Reimer



IT MINDS

- MSc Computer Engineering
- 5 years at IT Minds
- Senior Software Developer
- Full stack + mobile



Rasmus Thorsen



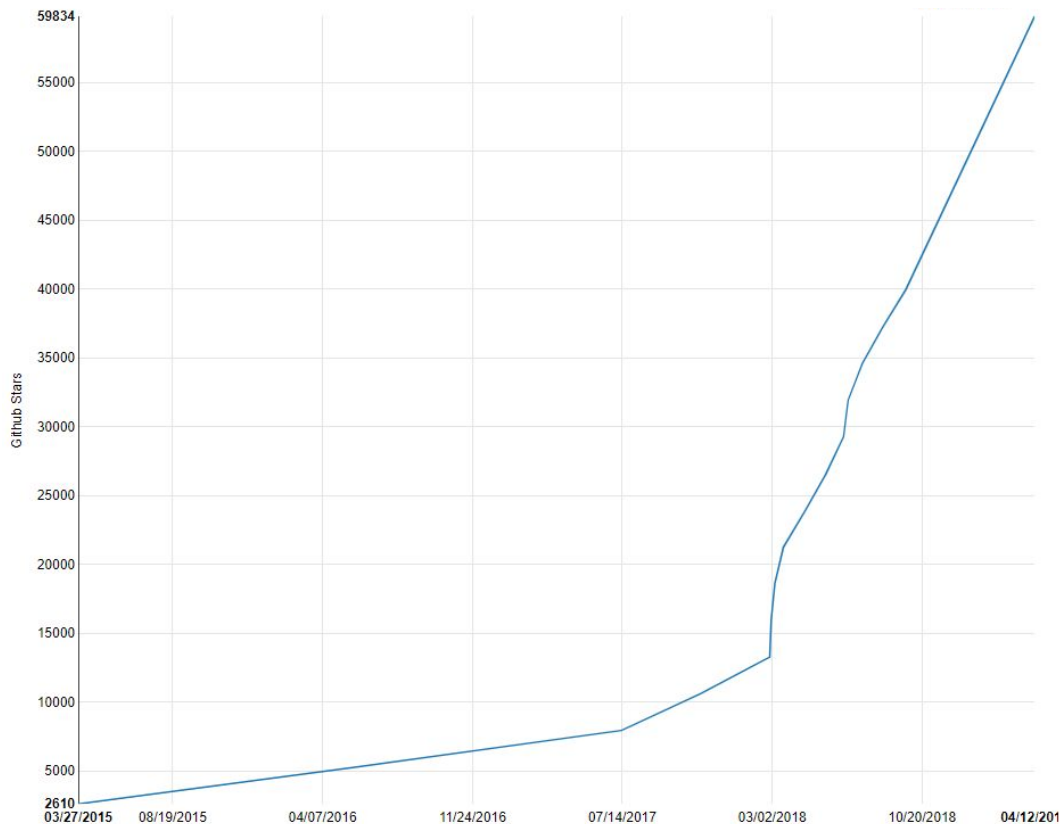
IT MINDS

- ICT student at AU
- 1 year at IT Minds
- Software Developer
- Full stack + mobile

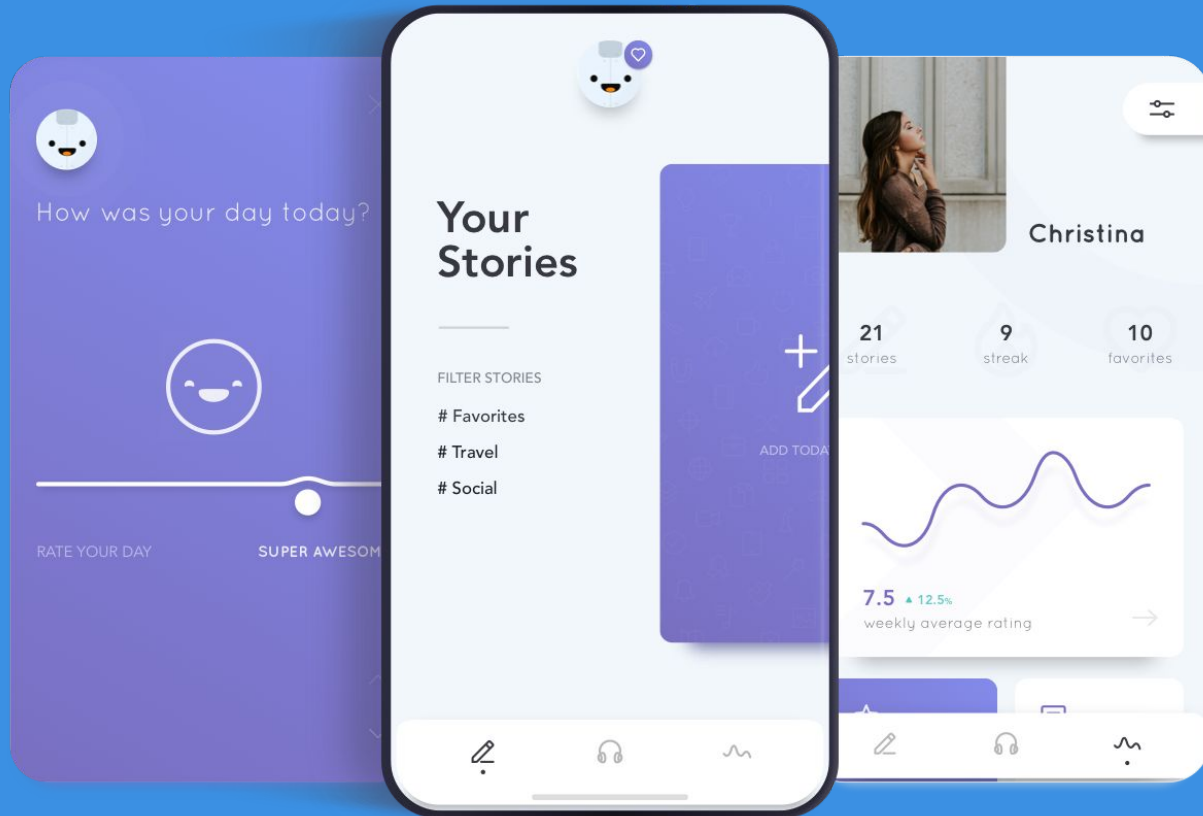
# Flutter?

- ❏ Cross platform apps
- ❏ Unveiled 2015 Dart conf
- ❏ v1.0 released December 4, 2018
- ❏ Native performance

# Github star history



# Who is using Flutter?



# Who is using Flutter?





# Dart



## Pros

OOP as we know it

Familiar to JavaScript and Java developers

Also compiles to JavaScript

Supports async programming with  
Futures and Streams

## Cons

Niche

- Flutter SDK
- Hot Reloading
- Editors
  - VS Code
  - Android Studio
  - IntelliJ

# Tooling

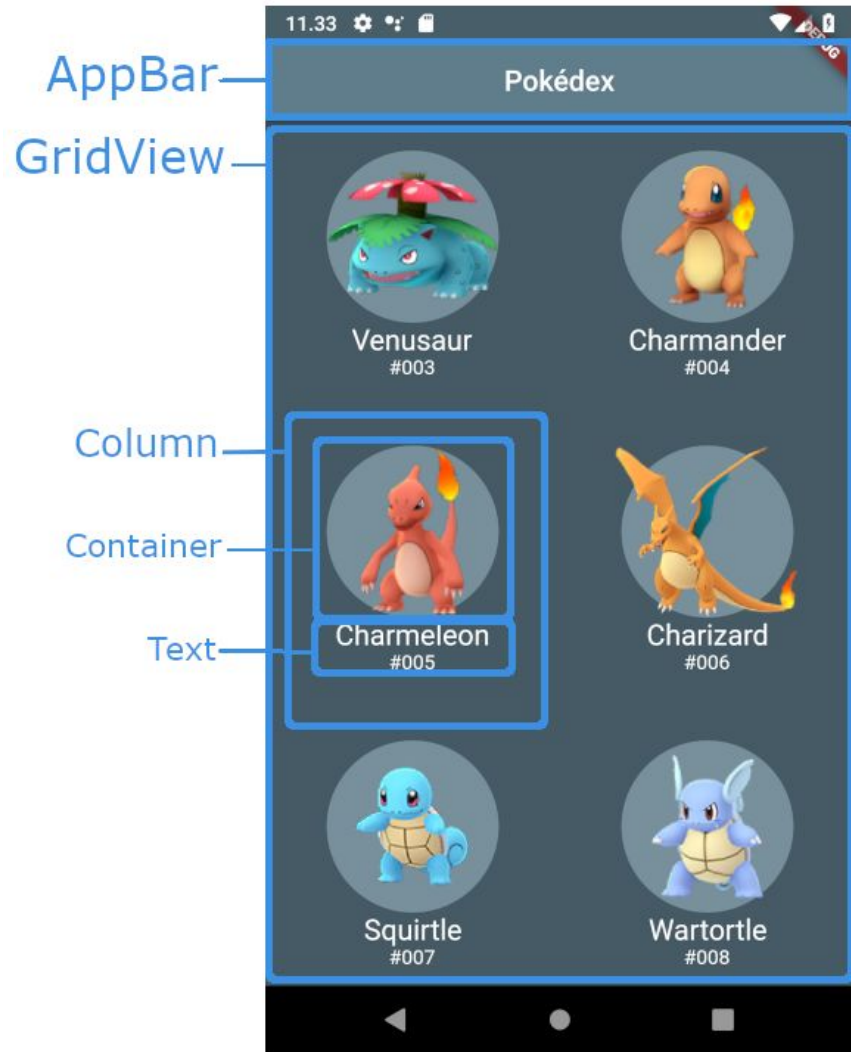
**Let's get technical!**

Everything's  
a widget

# Everything's a Widget

- ❏ The central idea is that you build your UI out of widgets.
- ❏ Widgets describe what their view should look like given their state.
- ❏ When a widget's state changes, the widget rebuilds.

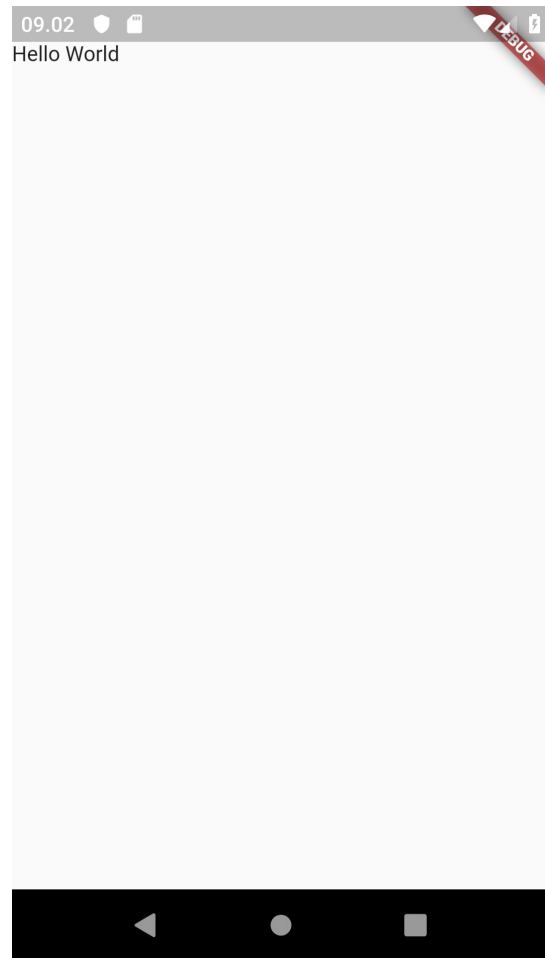
# Everything's a Widget



# Writing Flutter

## Using Flutter widgets

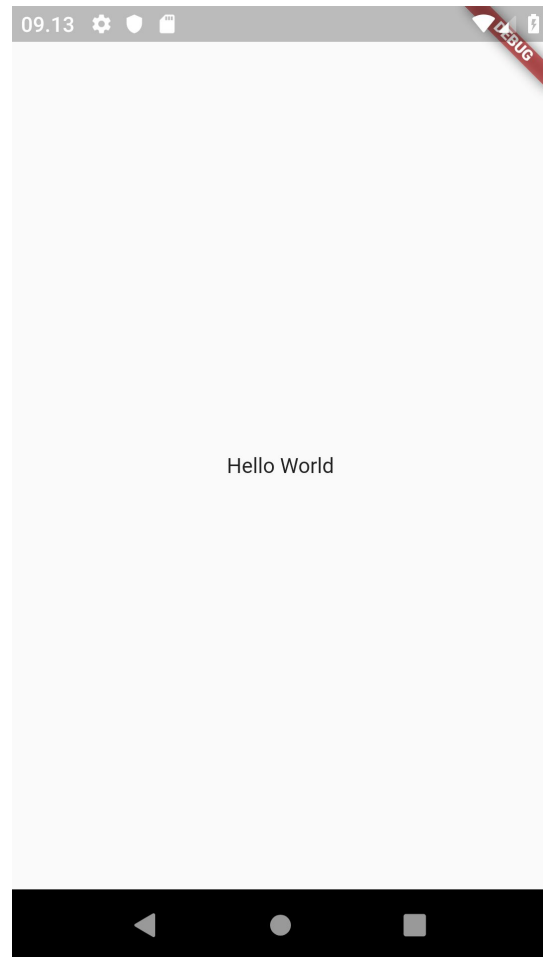
```
Text('Hello World');
```



# Writing Flutter

## Using Flutter widgets

```
Center(  
  child: Text(  
    'Hello World',  
  ),  
);
```

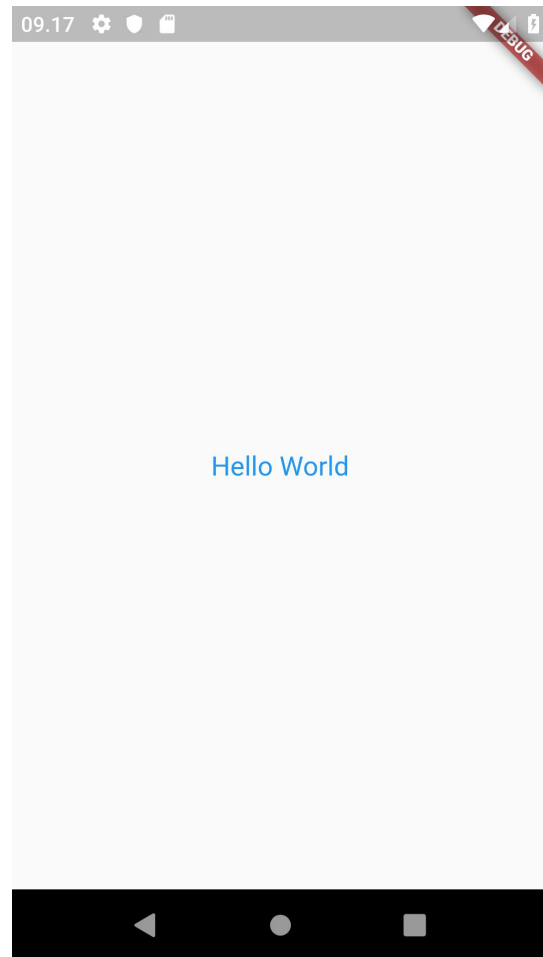




# Writing Flutter

## Using Flutter widgets

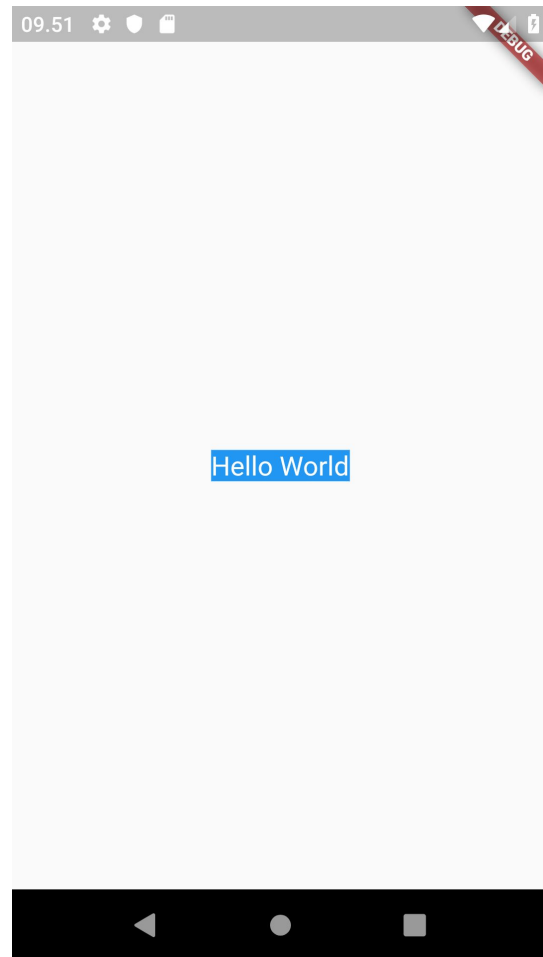
```
Center(  
  child: Text(  
    'Hello World',  
    style: TextStyle(  
      color: Colors.blue,  
      fontSize: 18,  
    ),  
  ),  
);
```



# Writing Flutter

## Using Flutter widgets

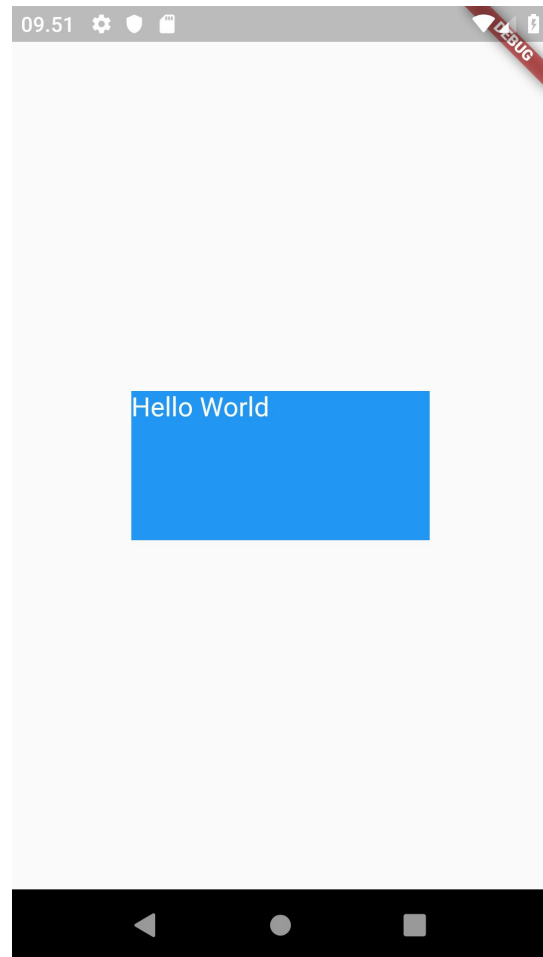
```
Center(  
  child: Container(  
    child: Text(  
      'Hello World',  
      style: TextStyle(  
        color: Colors.white,  
        fontSize: 18,  
      ),  
    ),  
    color: Colors.blue,  
  ),  
);
```



# Writing Flutter

## Using Flutter widgets

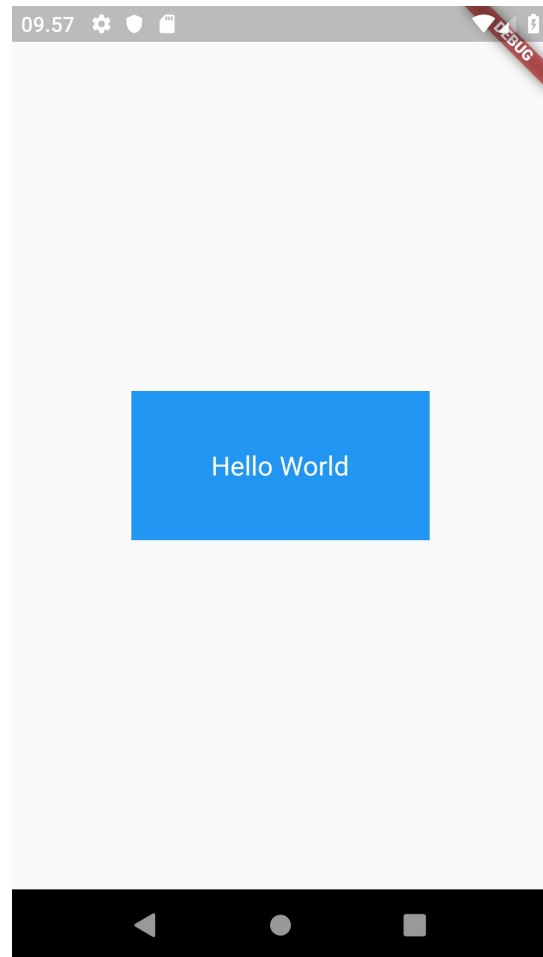
```
Center(  
  child: Container(  
    child: Text(  
      'Hello World',  
      style: TextStyle(  
        color: Colors.white,  
        fontSize: 18,  
      ),  
    ),  
    color: Colors.blue,  
    width: 200,  
    height: 100,  
  ),  
);
```



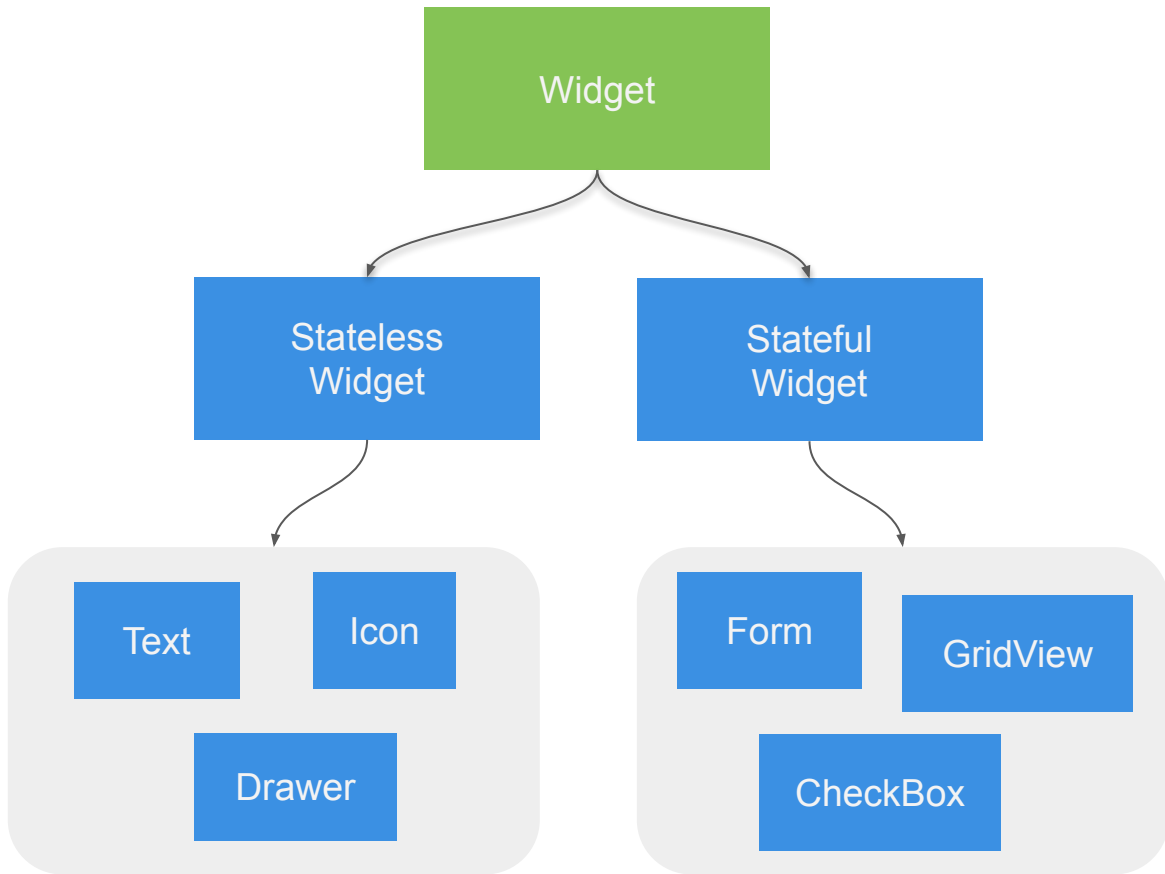
# Writing Flutter

## Using Flutter widgets

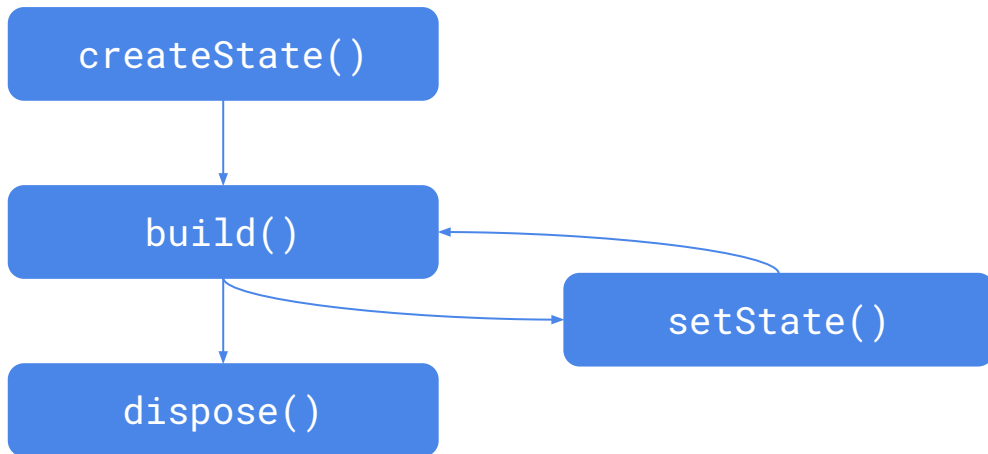
```
Center(  
  child: Container(  
    child: Text(  
      'Hello World',  
      style: TextStyle(  
        color: Colors.white,  
        fontSize: 18,  
      ),  
    ),  
    color: Colors.blue,  
    width: 200,  
    height: 100,  
    alignment: Alignment.center,  
  ),  
);
```



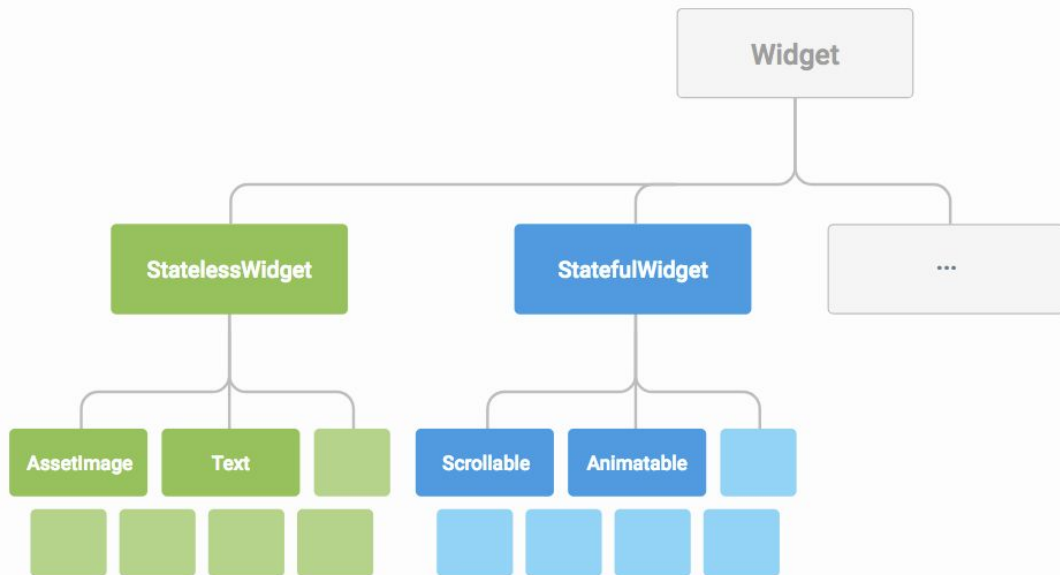
# Everything's a Widget



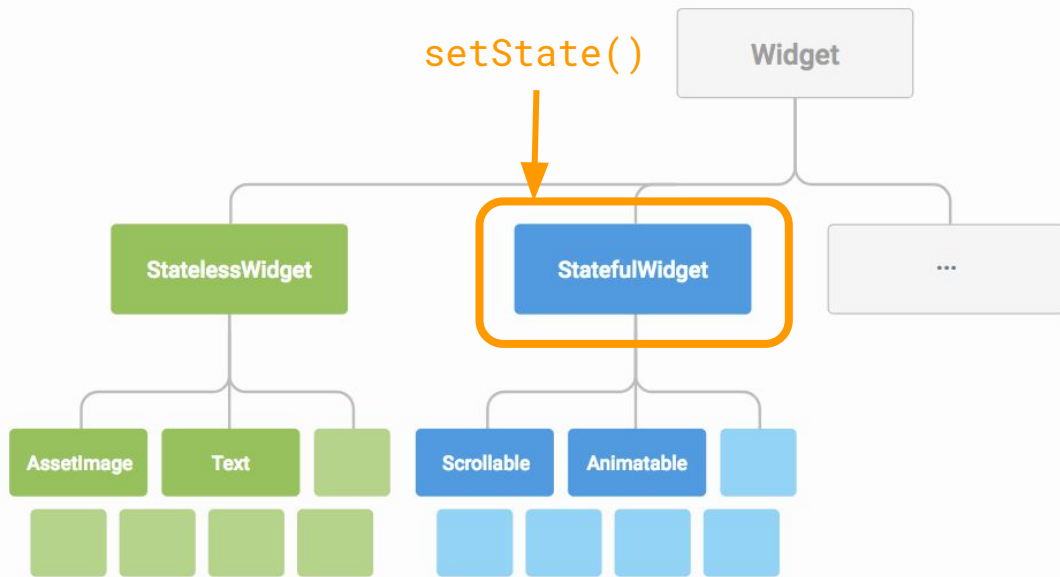
# Everything's a Widget



# Everything's a Widget

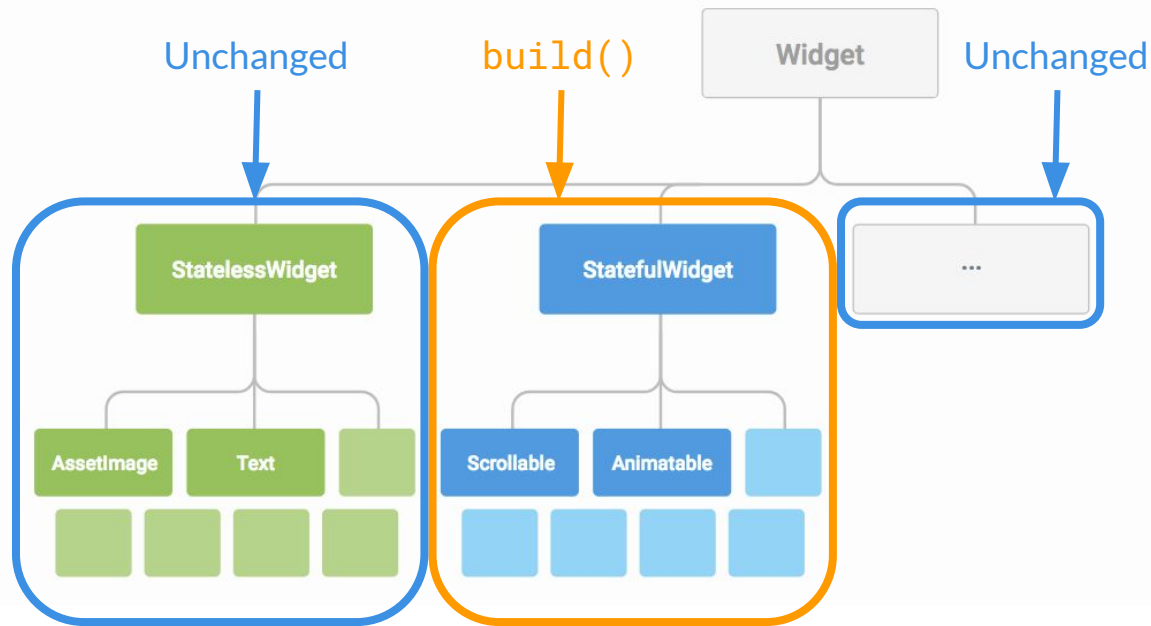


# Smart rendering





# Smart rendering



# Writing Flutter Bootstrap

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

void main() {
  runApp(MyApp(title: "Flutter Workshop"));
}
```

# Writing Flutter Stateless Widget

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

void main() {
  runApp(MyApp(title: "Flutter Workshop"));
}

class MyApp extends StatelessWidget {
  final String title;

  MyApp({this.title = ""});

  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: title,
      home: MyHomePage(),
    );
  }
}
```

# Writing Flutter Stateful Widget

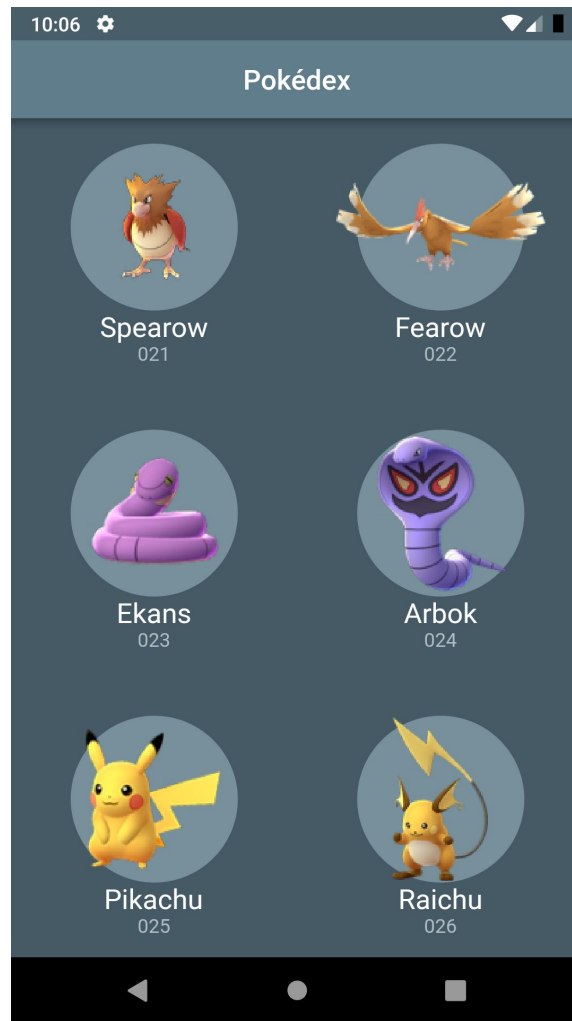
```
class MyHomePage extends StatefulWidget {  
  @override  
  _MyHomePageState createState() => _MyHomePageState();  
}  
  
class _MyHomePageState extends State<MyHomePage> {  
  int _counter = 0;  
  
  void _incrementCounter() {  
    setState(() => _counter++);  
  }  
  
  @override  
  Widget build(BuildContext context) {  
    return Column(  
      children: <Widget>[  
        Text('You have pushed the button $_counter times'),  
        FlatButton(onPressed: _incrementCounter, child: Text('Click me'))  
      ],  
    );  
  }  
}
```

- ❏ Stateful widgets
- ❏ BLoC Pattern

# State management

**Time to code!**

# Lets make a Pokédex!



# Lets make a Pokédex!

- ❏ Working with lists
- ❏ Master / detail
- ❏ Hero animation
- ❏ Fetching data - json



[github.com/rsr-itminds/flutter-workshop](https://github.com/rsr-itminds/flutter-workshop)