

Adding Interactivity



Simone Alessandria

AUTHOR, TRAINER AND PROUD DEVELOPER

www.softwarehouse.it



Overview



State and Stateful Widgets

Events

- onChanged
- onSubmitted

TextField & TextEditingController

DropDownButton & DropDownItems

Demo:

- Hello You
- Fuel Consumption Calculator



StateLess vs. StateFul Widgets

StateLess Widget

Does not require a mutable state

Overrides the `build()` method

Use when the UI depends on information in the object itself

StateFul Widget

Has mutable state

Overrides the `createState()` method, and returns a State

Use when the UI can changedynamically



State

State is information that can be read synchronously when the widget is built and might change during the lifetime of the widget.



Using Stateful Widgets



Create a Class that Extends a Stateful Widget, that returns a State



Create a State class, with properties that may change



Implement the Build() method



Call the setState() method to make changes



Stateful Widget in Action

```
class HelloInput extends StatefulWidget {  
  @override  
  State<StatefulWidget> createState() => _HelloInputState();  
}  
class _HelloInputState extends State<HelloInput> {  
  String name = "";  
  @override  
  Widget build(BuildContext context) {  
    return Column(children: <Widget>[  
      TextField(  
        onChanged: (String string) {  
          setState(() {name = string; });  
        }),  
      Text("Hello " + name + "!")  
    ],),),));}}
```



```
DropDownButton<String>(
    onChanged: (value) {
        functionToCall(value);
    }
)
```

Events

Handle events as properties of Widgets



DropDownButton Widget in Action

```
DropDownButton<String>(
    items: <String>['Dollars', 'Euro', 'Pound'].map((String value) {
        return DropDownMenuItem<String>(
            value: value,
            child: new Text(value),
        );
    }).toList(),
    onChanged: (_) {},
```



Summary



State Class

- setState()

DropDownButton

- map()
- onChanged()

TextField

- controller
- style
- keyboardType
- decoration

Padding

border, borderRadius, textScaleFactor

