

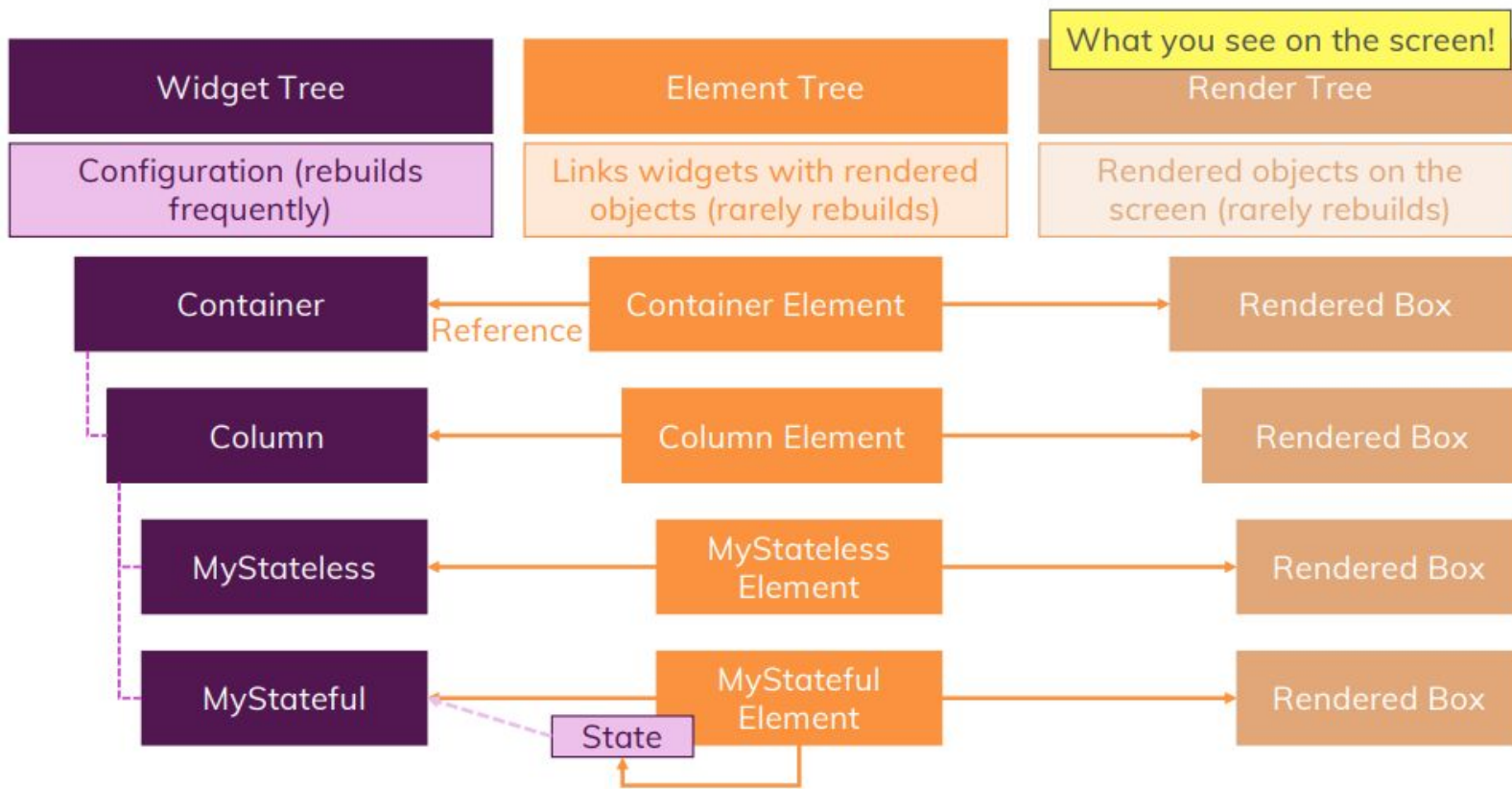
MODULE VI

REVIEW

WIDGET, ELEMENT AND RENDER TREES

- Flutter has a structure consisting of 3 trees. This is a widget tree, an element tree, and a render tree.
- We can only manage the widget tree. The other two are controlled by the flutter itself, but are controlled by the widget tree.
- Flutter automatically creates an element tree based on your widget tree and links your widgets to actual rendered objects.
- For each widget that you have in the widget tree, Flutter automatically creates an element.
- This happens when he first encounters this widget,
- Whenever Flutter encounters a widget for which it does not yet have an element, it creates an element.
- The render tree is what we see on the screen.

Widget Tree & Element Tree



USING 'CONST' WHERE WE CAN

- The widget tree is being rebuilt all the time. On the one hand, this is very good, but on the other, it is still a resource cost.
- But we can optimize our code! And one option is to use const.
- Before each widget or widget attribute, which will definitely not change, we can put a constant and then when rebuilding the widget tree, resources will not be spent on rendering the same widgets and attributes. Flutter will just take the old values.

```
label: const Text('Delete'),
```

WHAT IS GOOD CODE?

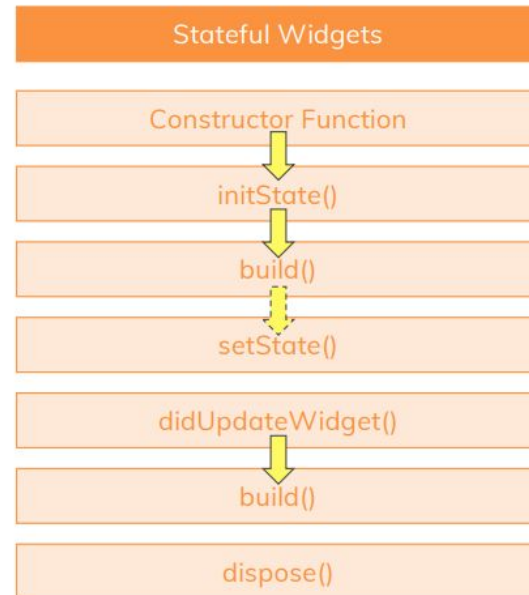
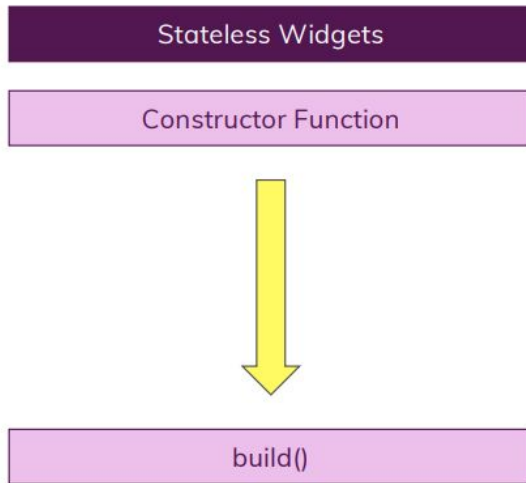
- Readability. You will have to be able to understand your code so that you can maintain and change it.
- Performance. Using features like const. Use of newer technologies.
- Another feature of good code is the extraction of important and large widgets in a separate file.

```
if (clearCode == true) {  
    print('Nice !');  
} else {  
    pritrn('pls no');  
}
```

WIDGET LIFECYCLE



Widget Lifecycle



APP LIFECYCLE



App Lifecycle

Lifecycle State Name	When is it hit?
inactive	App is inactive, no user input received
paused	App not visible to user, running in background
resumed	App is (again) visible and responding to user input
suspending	App is about to be suspended (exited)

WHAT IS CONTEXT?

- In Flutter, every widget has its own context.
 - It's some meta information about the widget and its location in the widget tree.
 - So context is used internally by Flutter to understand where this widget belongs and all the contexts of all the widgets.
 - The contexts build a skeleton of your widget tree.
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