



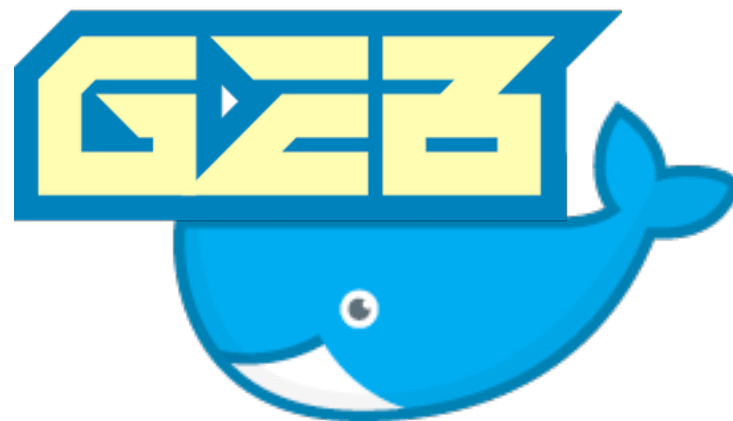
#BaselOne18



Auf dem Weg zu CD

End-zu-End Tests mit

Docker



Geb

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Auf dem Weg zu CD



Continuous Delivery



„Continuous Delivery measurably reduces both deployment pain and team burnout.“

– Jez Humble

<https://www.continuousdelivery.com/evidence-case-studies/#research>



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End-to-End ?



User Experience



Legacy Software



Varianten in Software





- Groovy DSL on top of Selenium/WebDriver
- IDE support: syntax & debugging
- PageObject, Modules



```
import geb.Browser

Browser.drive {
  go "http://myapp.com/login"

  assert $("h1").text() == "Please Login"

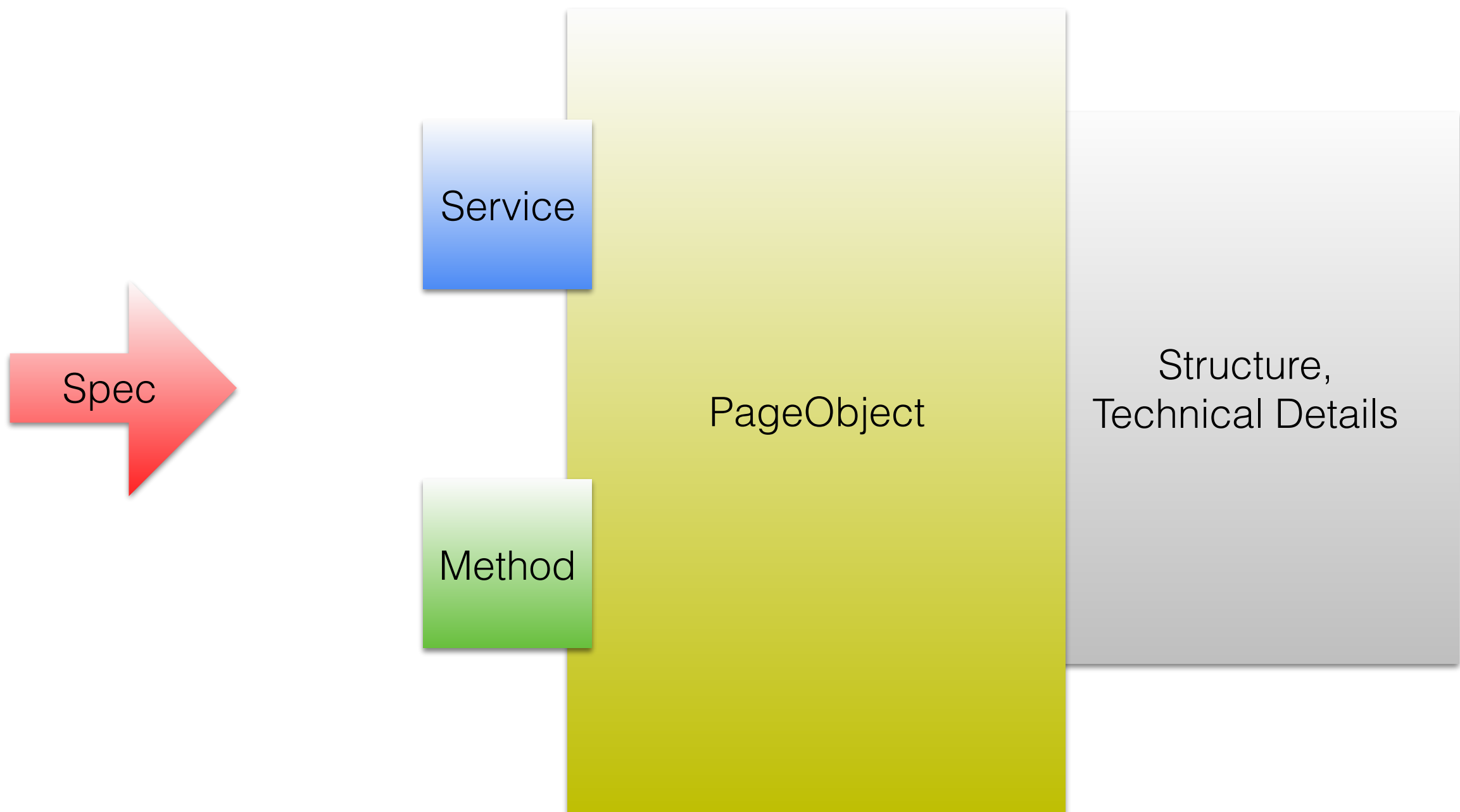
  $("form.login").with {
    username = "admin"
    password = "password"
    login().click()
  }

  assert $("h1").text() == "Admin Section"
}
```





PageObject





waitFor { }



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waitFor { }

```
package demo
```

```
import geb.Browser
```

```
Browser.drive {
```

```
  go "https://mynethome.de/animation.html"
```

```
  assert title == "Animation For Waitfor Example"
```

```
  $("div#app button").click()
```

```
  waitFor { !$("div.modal").hasClass("fade-enter-active") }
```

```
  $("div.modal button").click()
```

```
  waitFor { !$("div.modal").hasClass("fade-leave-active") }
```

```
}
```





+ Spock

Spock

the enterprise ready specification framework

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+ Spock

```
given: "an empty bank account"
```

```
// ...
```

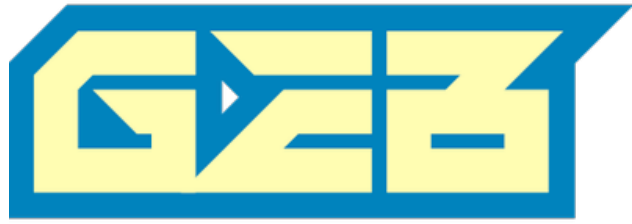
```
when: "the account is credited $10"
```

```
// ...
```

```
then: "the account's balance is $10"
```

```
// ...
```





+ Spock

`@Stepwise`

`class RegistrationWorkflowSpec{`

1 `def "Navigating to registration form displays form with account-plan options"() {`
 `given: "homepage is shown"`
 `// code goes here`

 `when: "clicking the menu to start the registration"`
 `// code goes here`

 `then: "the registration form is shown"`
 `// code goes here`

 `then: "and account-plan dropdown is filled with three options"`
 `// code goes here`
 `}`

2 `def "submitting the filled in form brings up the confirmation page"() {`
 `when: "the form is filled with valid values and submitted"`
 `// code goes here`



+ Spock

@Unroll

```
def "tax calculated for #statename: given amount (#amount) == #calculatedTax"() {
```

expect:

@Unroll

```
def "tax calculated for #statename: given amount (#amount) == #calculatedTax"() {
```

expect:

```
    def result = testee.calculate(statename, Double.valueOf(amount as String))
```

```
    def expected = Integer.valueOf(calculatedTax as String)
```

```
    expected == result
```

where:

```
    [statename, amount, calculatedTax] << getResourceAsStream("test.csv").readLines().split(",")
```

```
}
```

! TaxSpec (demo)

3s 457ms

OK tax calculated for ukraine: given amount (400) == 480

3s 164ms

! tax calculated for switzerland: given amount (500) == 540

197ms

OK tax calculated for germany: given amount (200) == 238

96ms

Condition not satisfied:

expected == result

|
540

|
|
600.0
false



End-zu-End Tests mit Geb

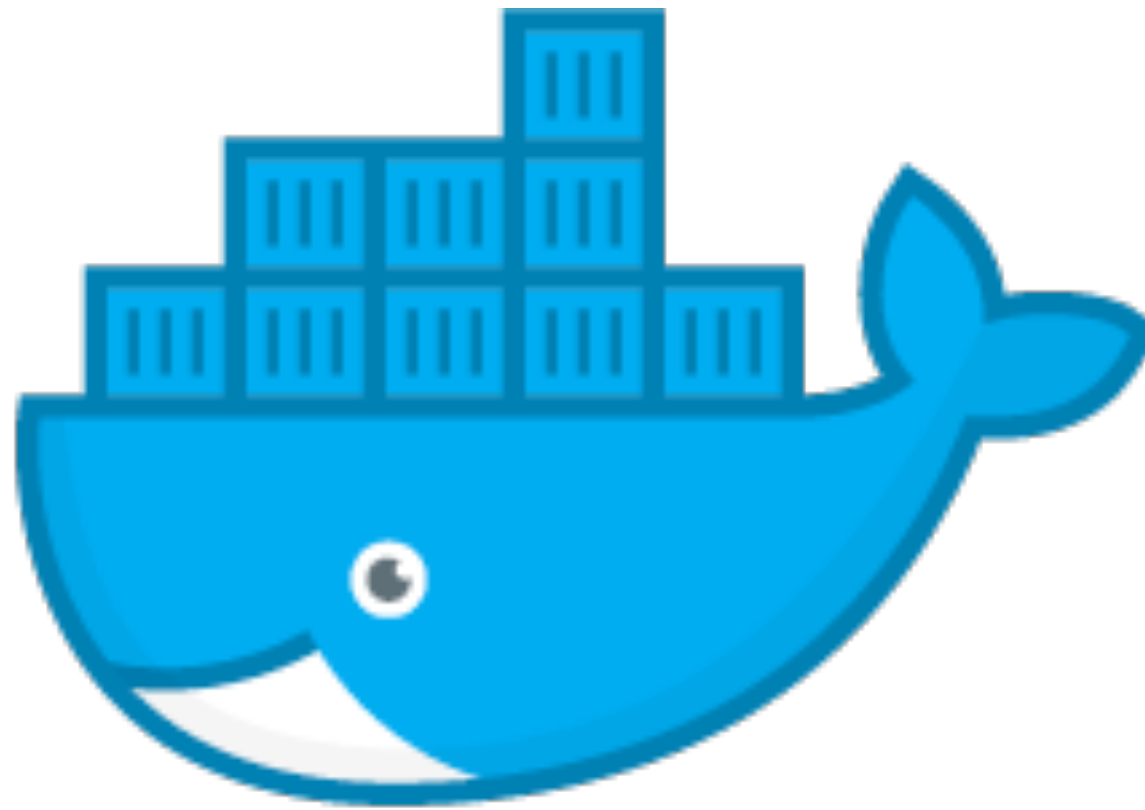
Demo



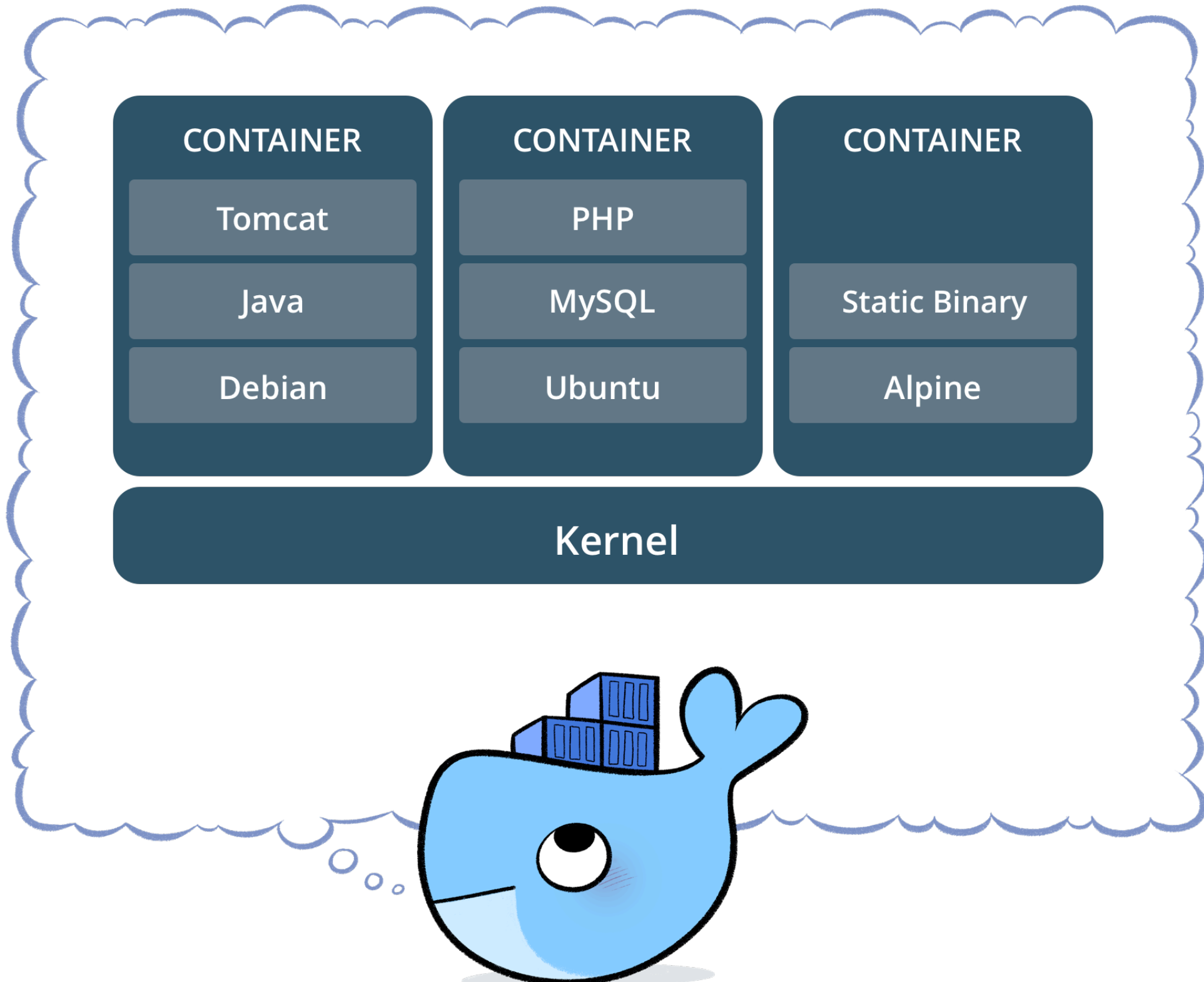
Non-blocking Tests?



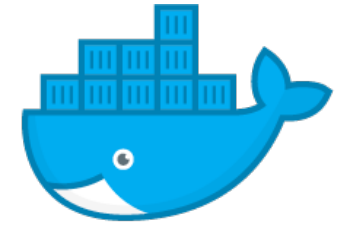
Docker



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Docker



- Docker WebDriver Selenium Container
 - Xvfb: X virtual frame-buffer
 - Chrome, Firefox
 - Video recording

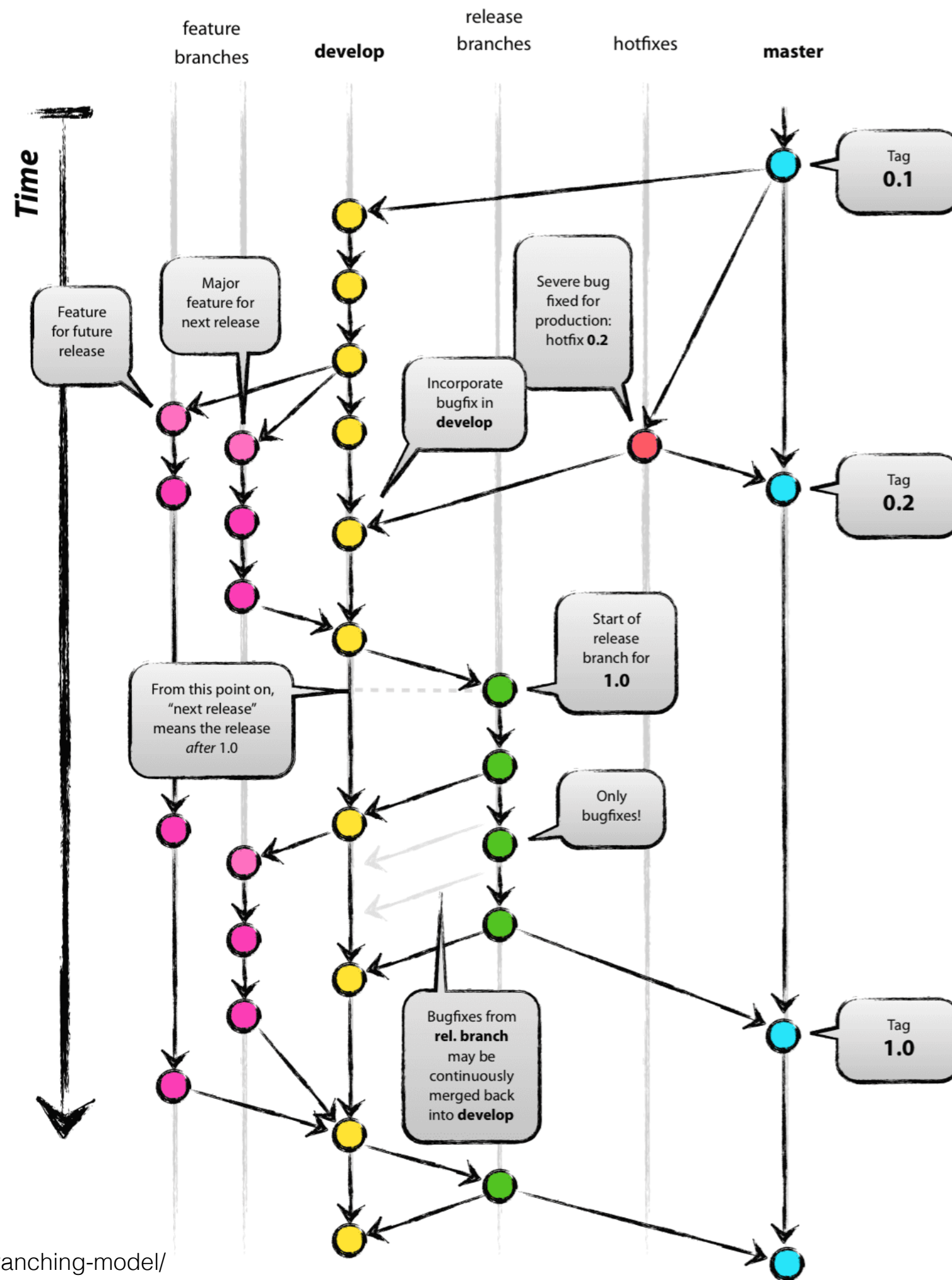


End-zu-End Tests isolieren

Demo



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Automation!

Docker&Geb + CI

Demo



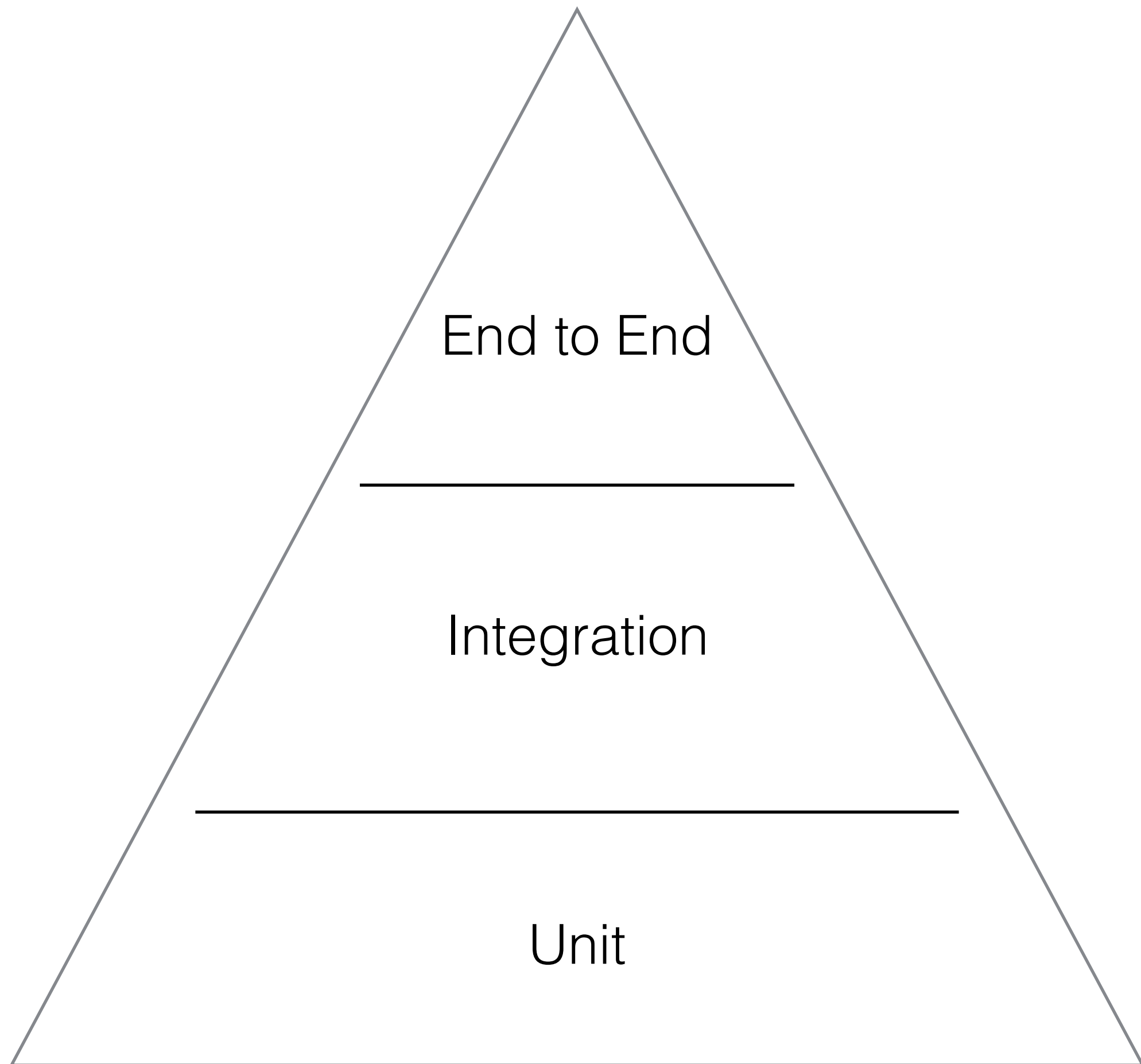
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TESTCONTAINERS



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- E2E ersetzen keine anderen Tests - sie sind die Vervollständigung der Test-Suite!
- E2E sollten als finaler „passt alles?“ Test betrachtet werden
- „Acceptance Tests“



Am Horizont...

- Living Documentation:

Geb/Spock Specs + AsciiDoctor





=

Happy with End-to-End testing

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