

Testing Groovy and Java

Who Am I?

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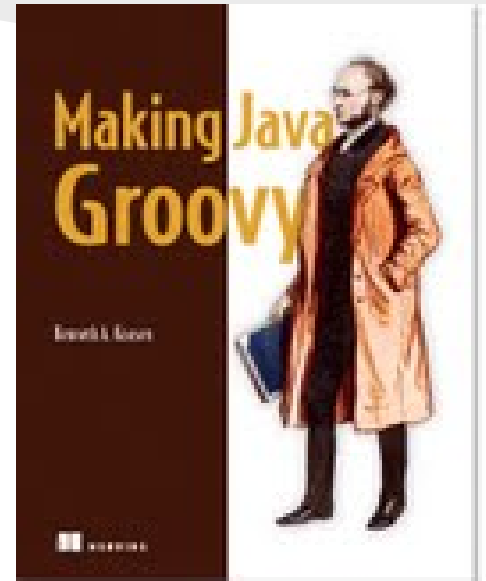
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Making Java Groovy

<http://manning.com/kousen>



Why Tests?

Stay ahead of problems

Freedom to refactor

Executable documentation

Not production code

Java and Groovy

Groovy

Very easy for Java developers

Compiles to bytecodes

Simplifies Java

Goes beyond Java

Groovy

The not-so-humble **assert** keyword

```
x = 5
y = 3
assert 7 == x + (y*2 + 3 - x) + y
```

WARNING: Sanitizing stacktrace:

Assertion failed:

```
assert 7 == x + (y*2 + 3 - x) + y
      |  | |  | | |  | |  | |
      | 5 9  | 6 9  4 5  | 3
      false  3                12
```

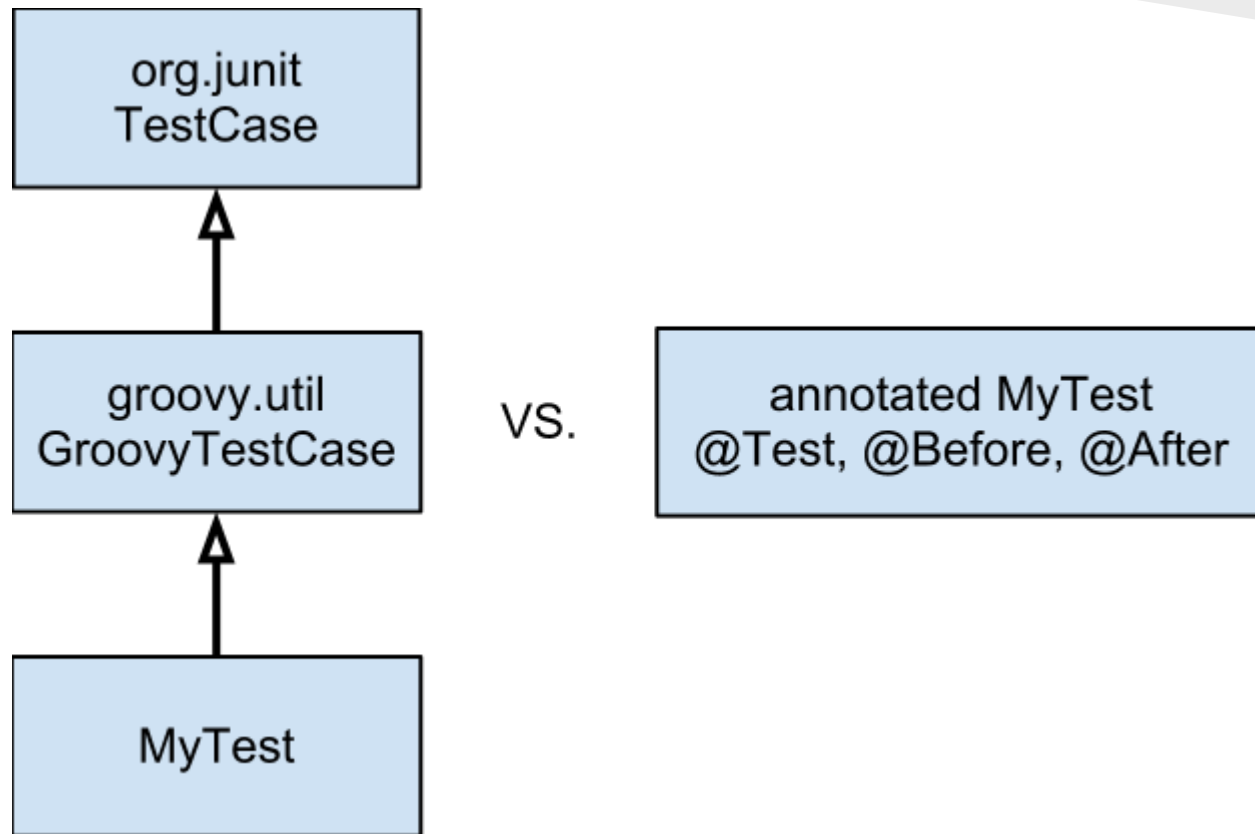
Unit Testing

JUnit

v 3.8.* --> `org.junit.TestCase`

v 4.*+ --> annotation based

Unit Testing



Unit Testing

GroovyTestCase

```
extends org.junit.TestCase
```

Extra convenience methods

```
assertContains
```

```
assertLength
```

```
assertScript
```

```
assertToString
```

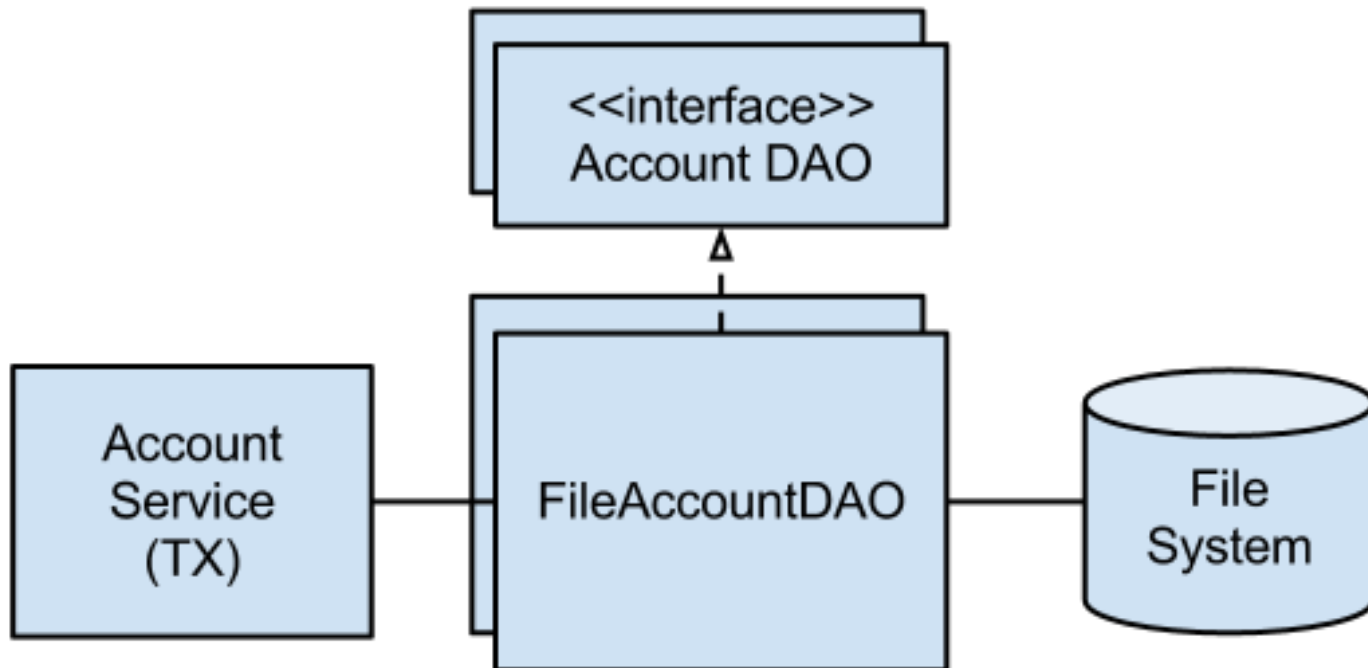
```
shouldFail
```


Subclasses of GTC

GroovyShellTestCase
withBinding

GroovyLogTestCase
Capture logging output

Account Layers



Mock Objects

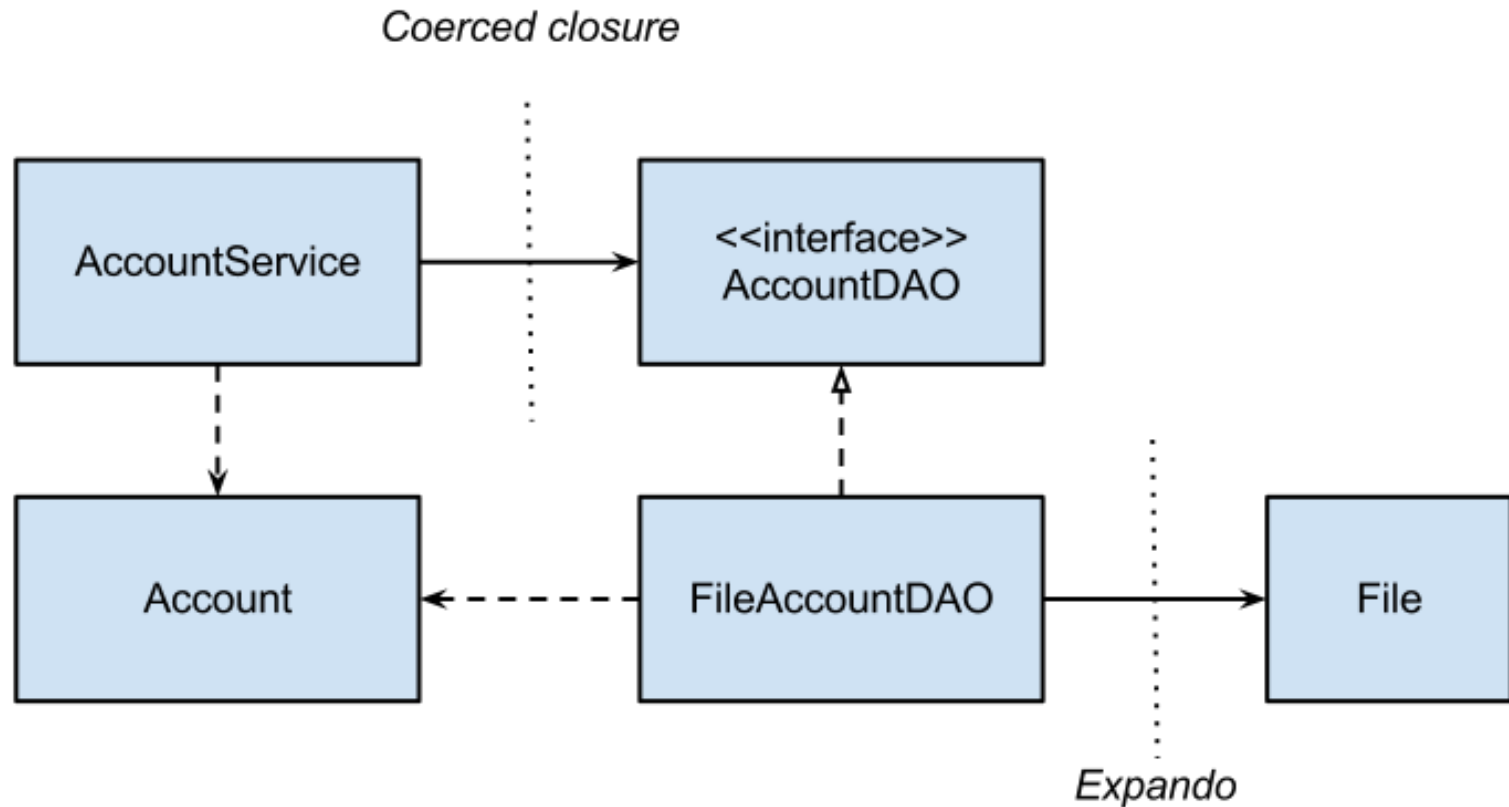
Groovy mechanisms:

Coerced closures

Expandos

StubFor **and** MockFor

Account Mocks



Coerced closures

Use `as` keyword

closures implement interfaces

```
{ ... } as AccountService
```

Expandos

Empty object

Can add properties or methods

```
def fido = new Expando()  
ex.name = 'Fido'  
ex.speak = { println 'Woof!' }
```

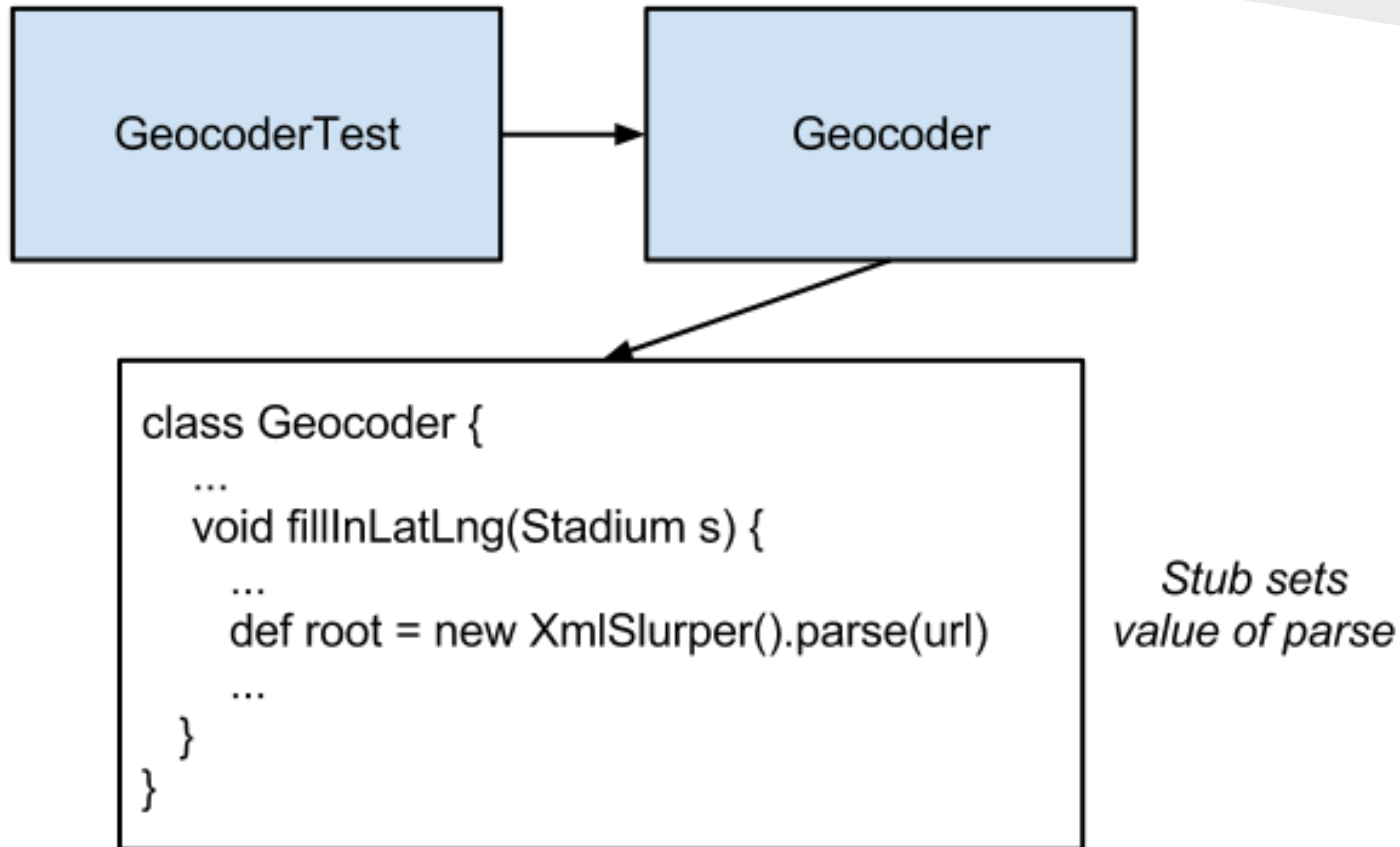
StubFor and MockFor

Create mock objects

Set expectations

Works in `use` block

StubFor



Spock

Logical testing for enterprise applications*

Groovy framework

Uses existing JUnit infrastructure

Very easy to learn and use

*sorry

Conclusions

`assert` keyword quite useful

`GroovyTestCase` adds convenience methods

Subclasses help in specific situations

Groovy Mock Objects:

Closures for interfaces or inner classes

Expandos given needed methods

`StubFor` / `MockFor` set expectations

Spock easy to learn and use

Source code

See GitHub repo for Making Java Groovy

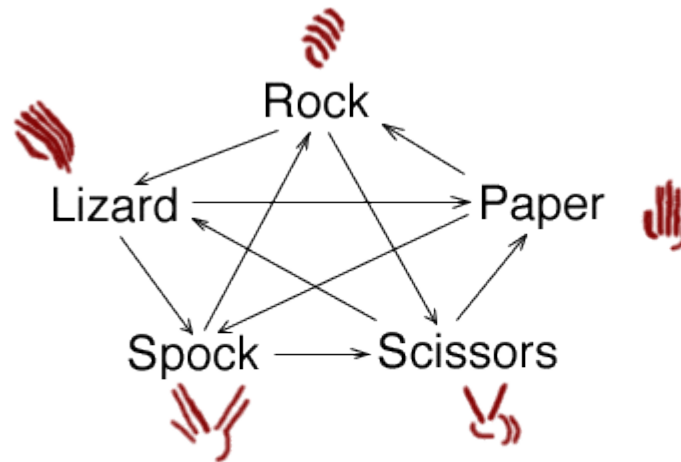
<https://github.com/kousen/Making-Java-Groovy>

Spock tests in NFJS article

<https://github.com/kousen/Spock-NFJS-Article>

Session Evaluations

Please complete your session evals :)



Scissors cuts Paper covers Rock crushes
Lizard poisons Spock smashes Scissors
decapitates Lizard eats Paper disproves
Spock vaporizes Rock crushes Scissors.