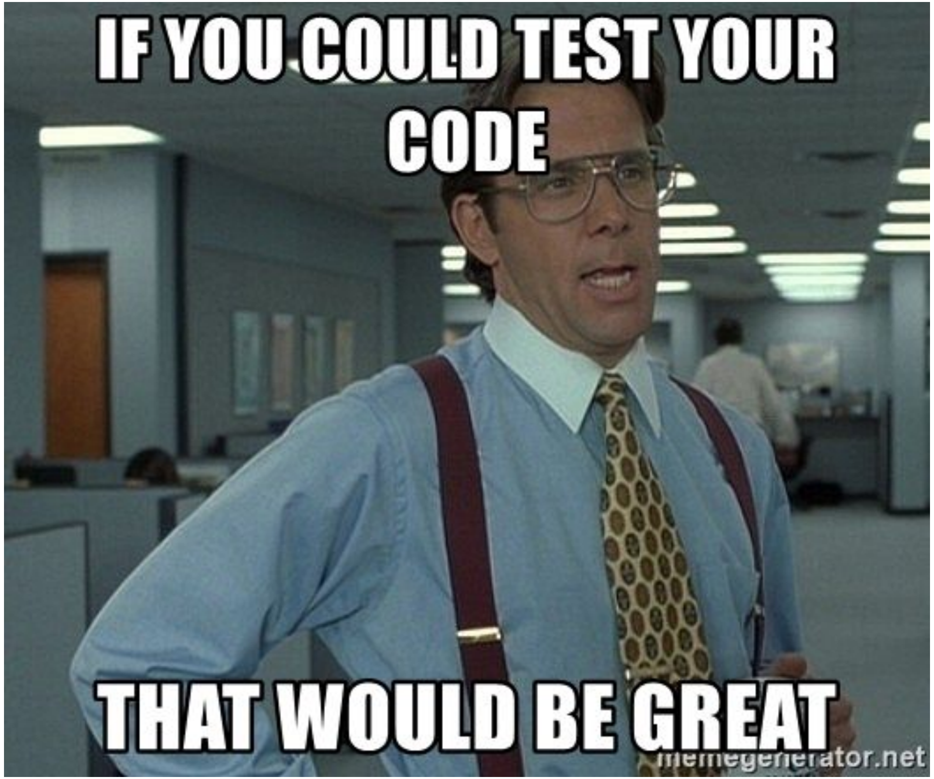
Test con Groovy

Aplicando test a historias de usuarios.


IF YOU COULD TEST YOUR CODE
THAT WOULD BE GREAT
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¿Qué tipos de test encontramos en el Bash Core?

- Test en java y groovy
- Junit y Spock

¿Qué es Spock Framework?

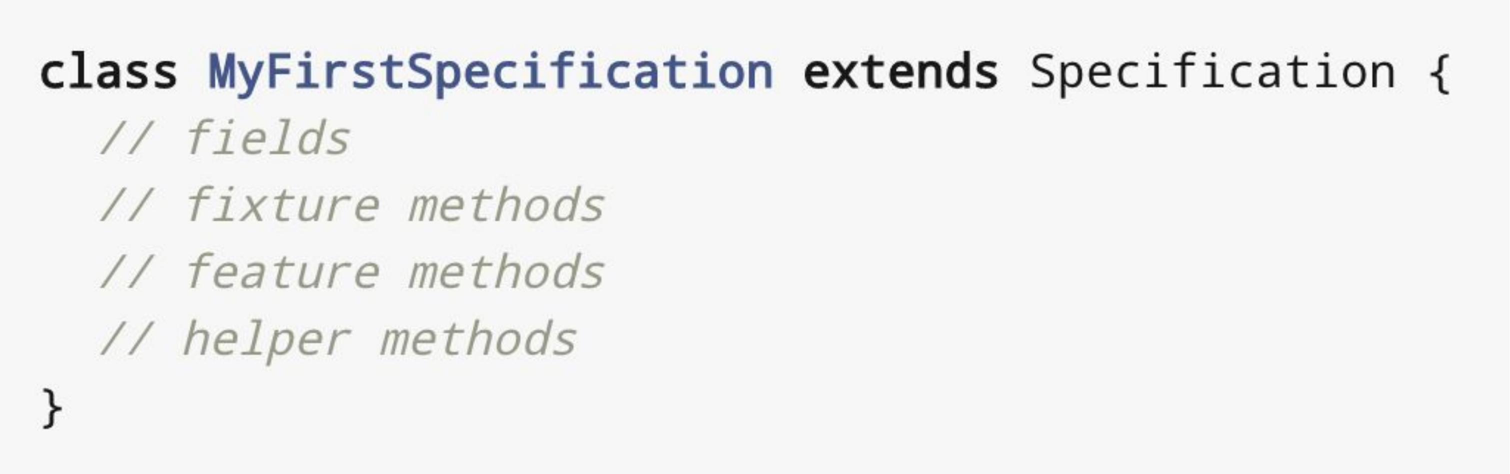
Spock es un marco de prueba y especificaciones para aplicaciones Java y Groovy.

Terminología

- System Under Specification (SUS)
- Specification
- Fields
- Fixture Methods
- Feature Methods
- Blocks

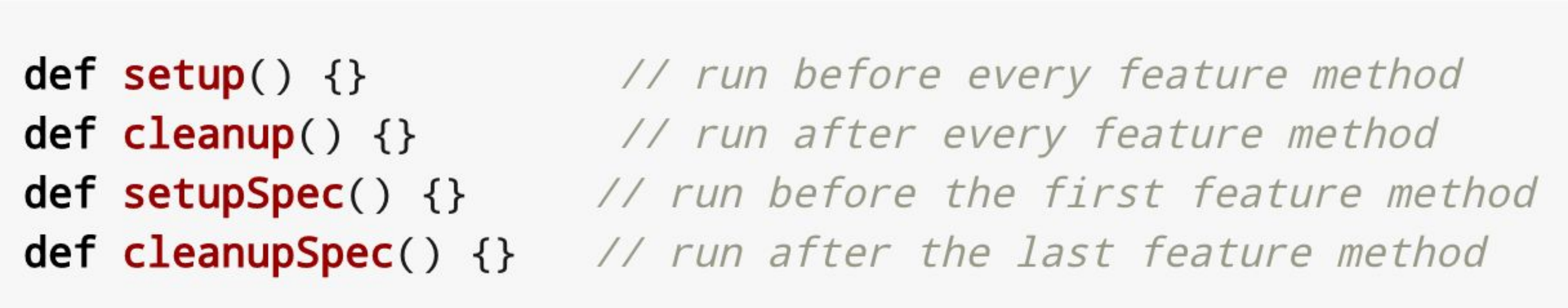
Specification

- Package **spock.lang** contains the most important types for writing specifications.
- JUnit helps to run Spock specification.



```
class MyFirstSpecification extends Specification {
  // fields
  // fixture methods
  // feature methods
  // helper methods
}
```

Fixture Methods



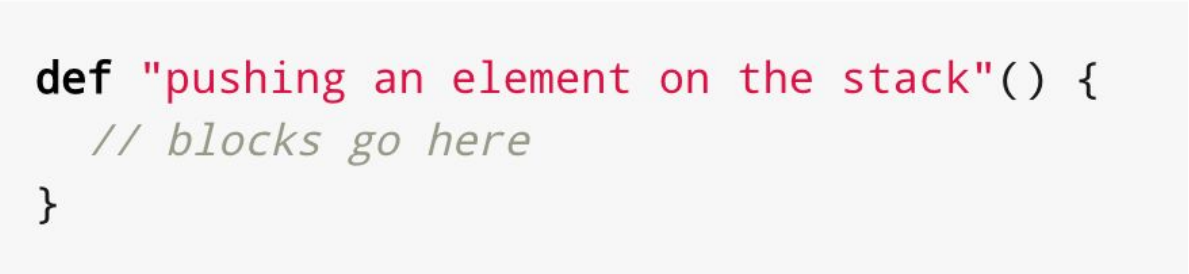
```
def setup() {}          // run before every feature method
def cleanup() {}        // run after every feature method
def setupSpec() {}     // run before the first feature method
def cleanupSpec() {}   // run after the last feature method
```

**** Todos los fixture methods son opcionales.***

Feature Methods

Conceptually, a feature method consists of four phases:

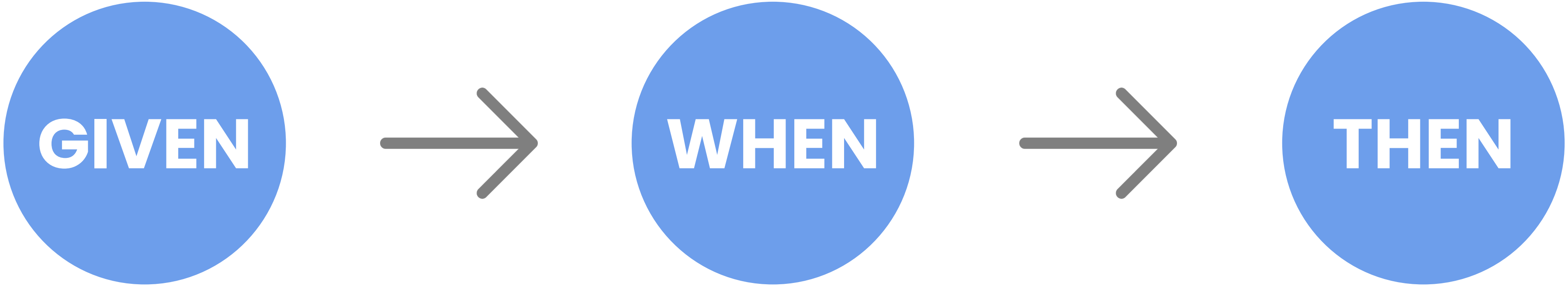
1. Set up the feature’s fixture
2. Provide a stimulus to the system under specification
3. Describe the response expected from the system
4. Clean up the feature’s fixture



```
def "pushing an element on the stack"() {
  // blocks go here
}
```

SPOCK FRAMEWORK

BDD



GIVEN → WHEN → THEN

TALK IS CHEAP
SHOW ME THE CODE
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User Story

Description: Validar el resultado de la suma de dos números enteros.

- **Given:** Los dos números enteros son 4 y 7.
- **When:** Estos dos números se deben sumar.
- **Then:** El resultado tiene que ser 11.

SPOCK FRAMEWORK

User Story

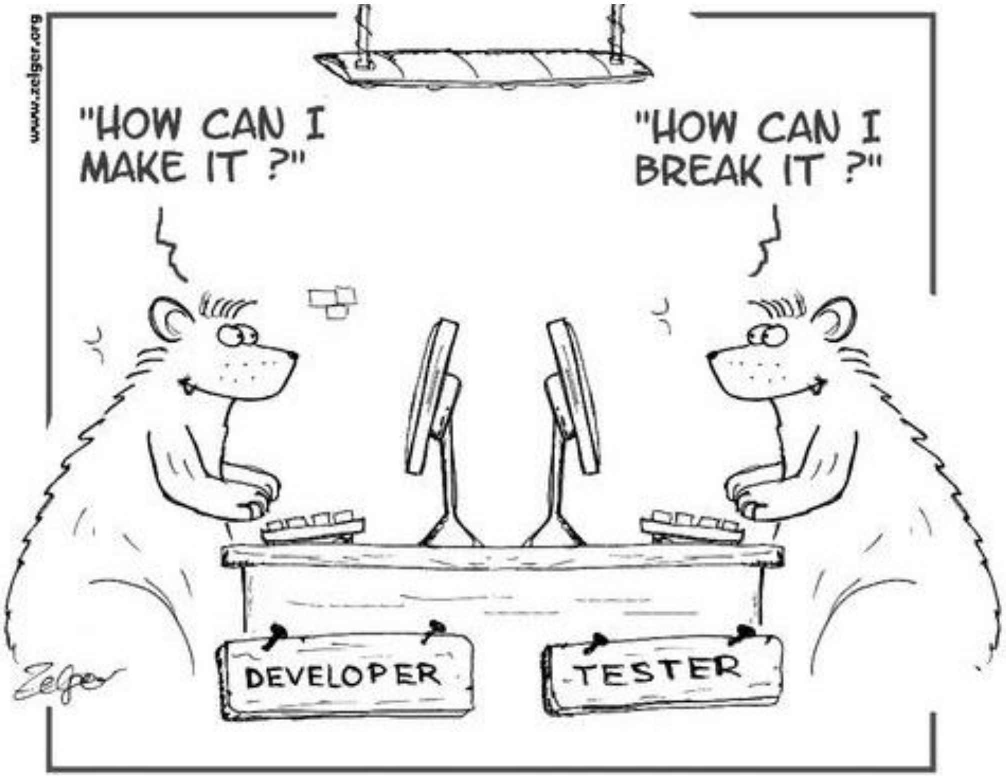
Description: Cuando se agrega un elemento a una lista, el tamaño debe cambiar.

- **Given:** Una lista de 4 números.
- **When:** Agregar un nuevo elemento a la lista.
- **Then:** El nuevo tamaño de la lista debe ser 5 y el antiguo tamaño de la lista debe ser 4.

User Story

Description: Quiero saber si un número es par.

- **Given:** Dado un número entero.
- **When:** Obtener el resto del número entero.
- **Then:** El resultado debe ser igual a cero indicando que es un número par.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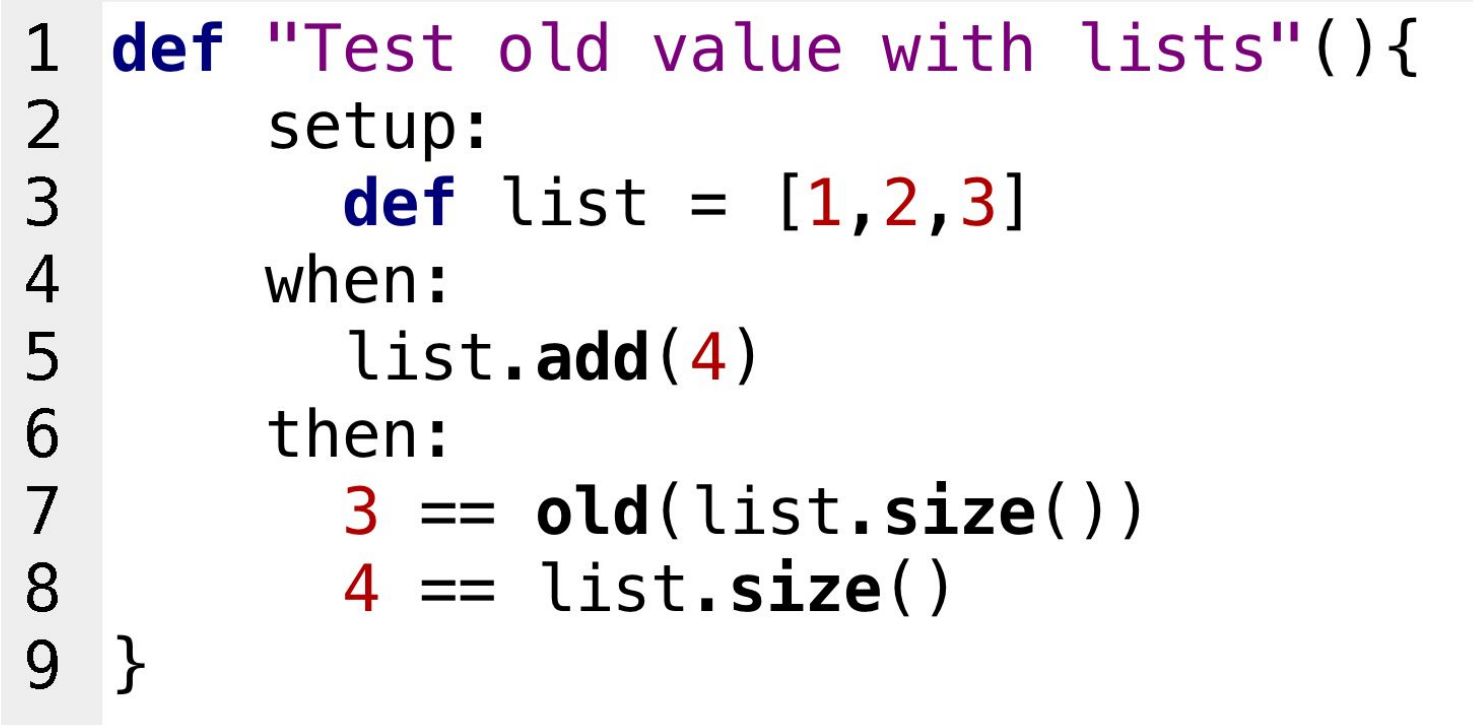
SPOCK FRAMEWORK

Blocks

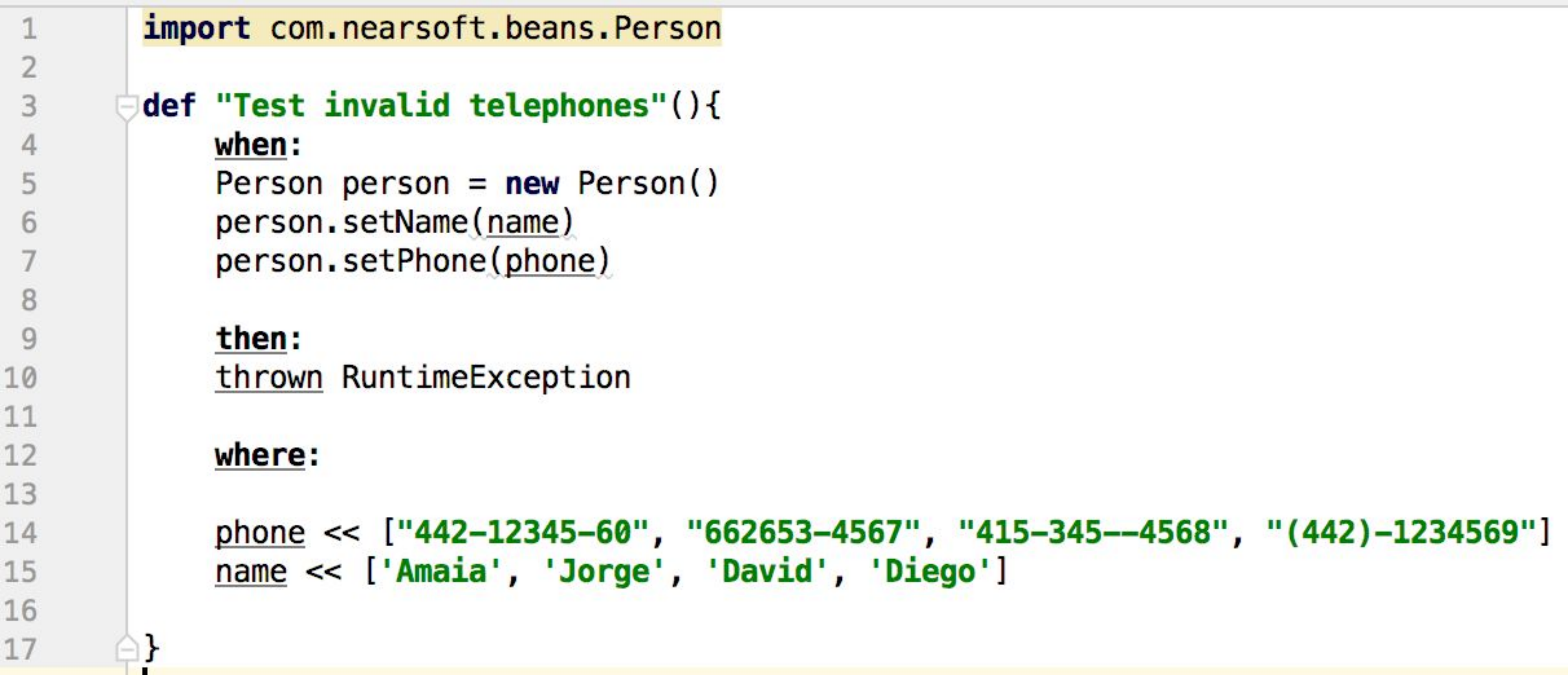
Block name	Description
given	preconditions, data fixtures
when	actions that trigger some outcome
then	makes assertions about outcome
expect	short alt to when & then
where	applies varied inputs
and	subdivides other blocks
setup	alias for given
cleanup	post-conditions, housekeeping

Blocks



```
def "Test old value with lists"(){
    setup:
      def list = [1,2,3]
    when:
      list.add(4)
    then:
      3 == old(list.size())
      4 == list.size()
}
```

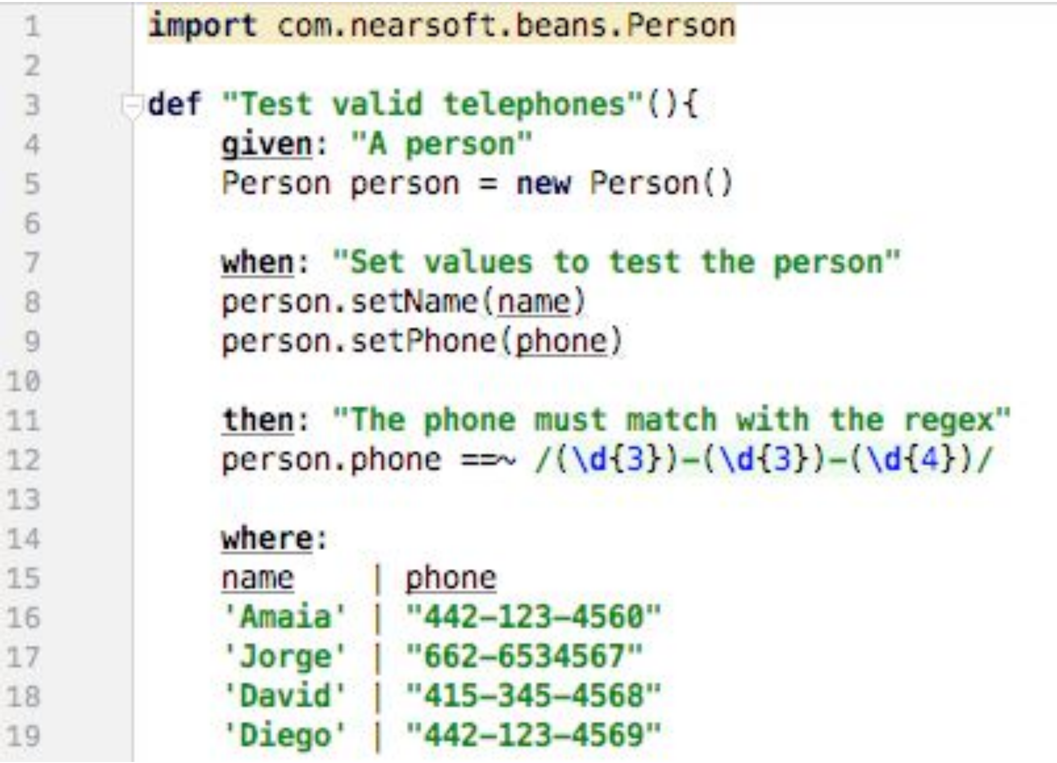
Data Pipes



```
import com.nearsoft.beans.Person

def "Test invalid telephones"(){
    when:
    Person person = new Person()
    person.setName(name)
    person.setPhone(phone)

    then:
    thrown RuntimeException

    where:

    phone << ["442-12345-60", "662653-4567", "415-345--4568", "(442)-1234569"]
    name << ['Amaia', 'Jorge', 'David', 'Diego']

}
```

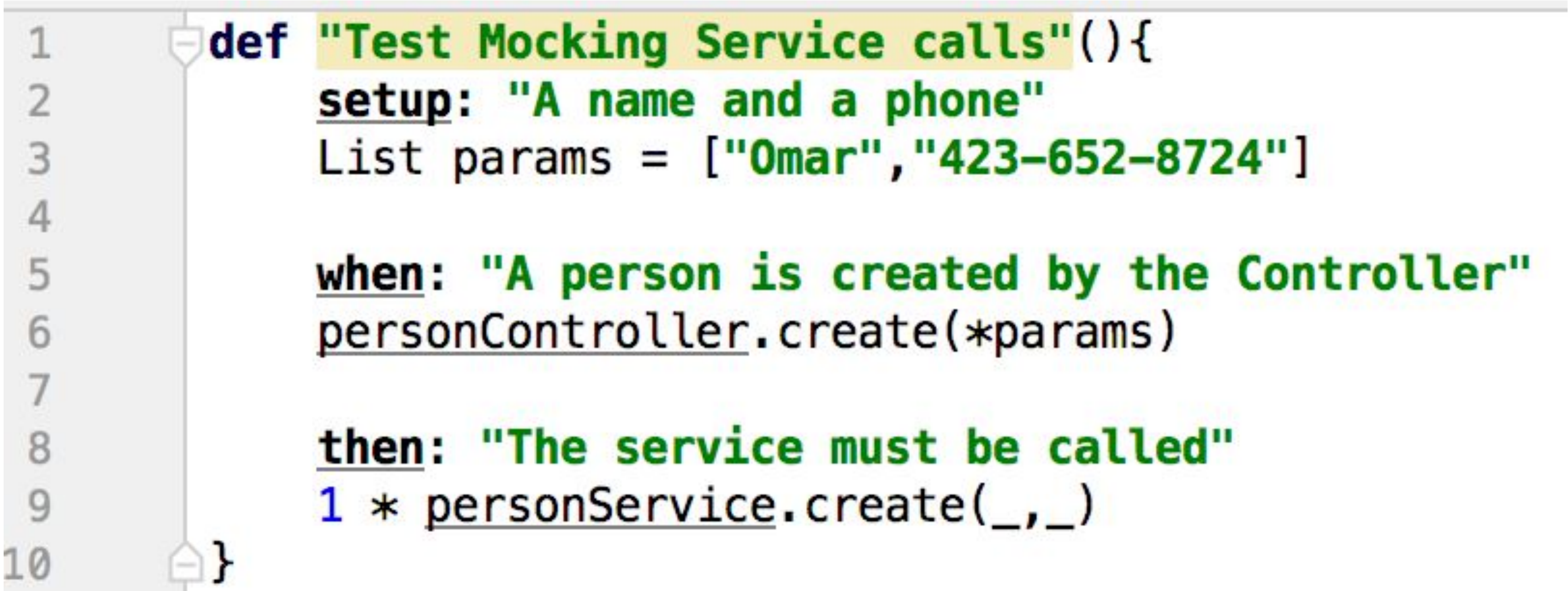
SPOCK FRAMEWORK

Data Tables



```
import com.nearsoft.beans.Person

def "Test valid telephones"(){
    given: "A person"
    Person person = new Person()

    when: "Set values to test the person"
    person.setName(name)
    person.setPhone(phone)

    then: "The phone must match with the regex"
    person.phone ==~ /(\d{3})-(\d{3})-(\d{4})/

    where:
    name    | phone
    'Amaia' | "442-123-4560"
    'Jorge' | "662-6534567"
    'David' | "415-345-4568"
    'Diego' | "442-123-4569"
```

Interactions



```
def "Test Mocking Service calls"(){
    setup: "A name and a phone"
    List params = ["Omar","423-652-8724"]

    when: "A person is created by the Controller"
    personController.create(*params)

    then: "The service must be called"
    1 * personService.create(_,_)
}
```

SPOCK FRAMEWORK

Documentación

- http://spockframework.org/
- https://www.innuy.com/blog/what-is-bdd-behavior-driven-development/

¿Preguntas?

Muchas gracias