DREAM DRIVEN DEVELOPMENT

Denver.rb 3/14/17

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- 1. About Me
- 2. Theory
- 3. Example
- 4. Practice
- 5. Theory

MY BACKGROUND

Enviro Science → Sociology → Software Development APIs, db design, other back-endy stuff runner, reader, writer, thinker, musician

TESTDD, BEHAVIORDD, DREAMDD

test last

test first

test driven

behavior driven

dream driven

THE SITUATION



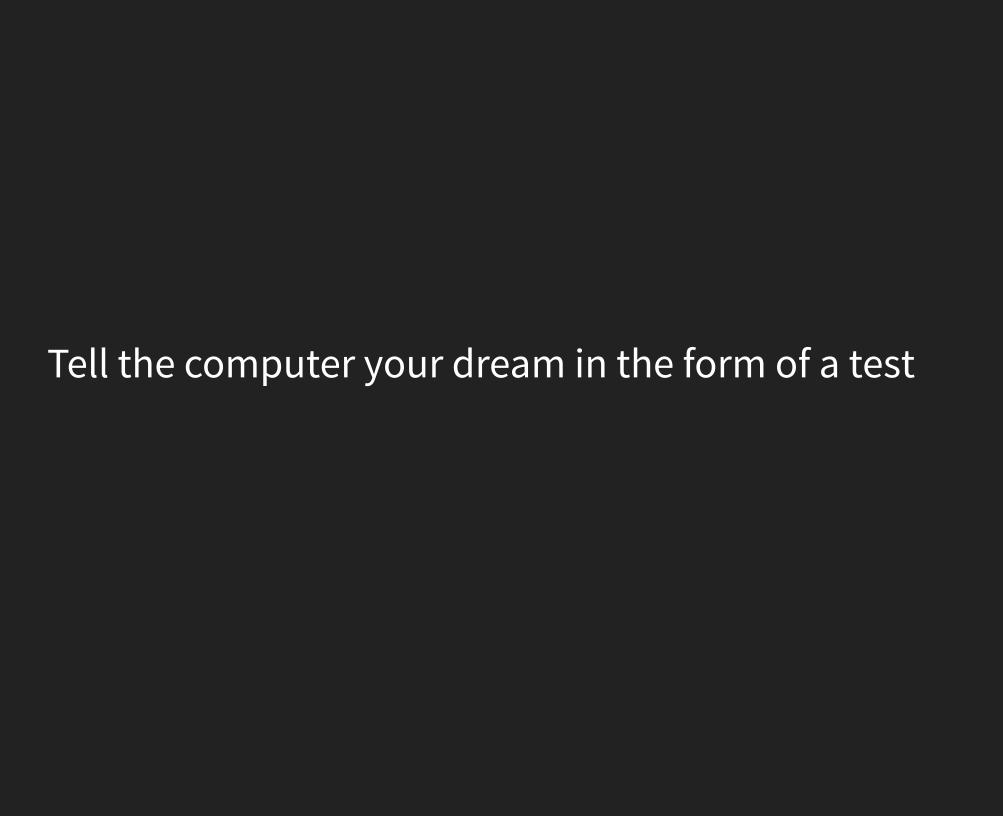
THE PROBLEM

You try to think like a computer...

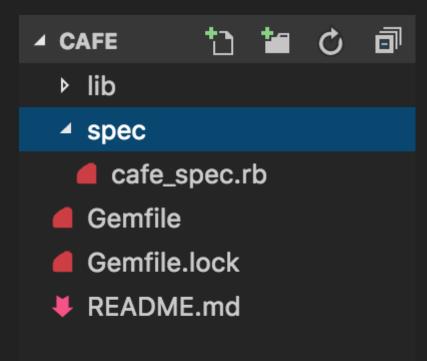
...but you are not a computer.

constrained by the codes

A SOLUTION



and let the errors drive your development.



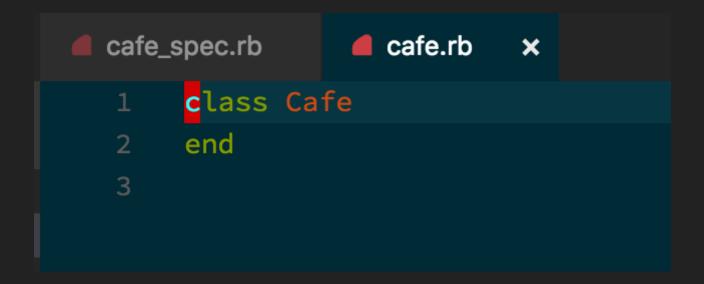
```
require 'cafe'
     RSpec.describe Cafe do
 3
       describe "#make_coffee" do
         it "makes 16 cups of coffee" do
 5
           cafe = Cafe.new
 6
           cups_before = cafe.available_cups_of_coffee
 8
 9
           cafe.make_coffee
10
           cups_after = cafe.available_cups_of_coffee
11
           expect(cups_after - cups_before).to eq 16
         end
13
       end
     end
15
16
```

```
/Users/tmikeschutte/talks/ddd/coffee/spec/cafe_spec.rb:1:in `require':
cannot load such file -- cafe (LoadError)
```

touch lib/cafe.rb

```
/Users/tmikeschutte/talks/ddd/coffee/spec/cafe_spec.rb:3:in `':
uninitialized constant Cafe (NameError)
```

```
require 'cafe'
     RSpec.describe Cafe do
 3
       describe "#make_coffee" do
         it "makes 16 cups of coffee" do
 5
           cafe = Cafe.new
 6
           cups_before = cafe.available_cups_of_coffee
 8
 9
           cafe.make_coffee
10
           cups_after = cafe.available_cups_of_coffee
11
           expect(cups_after - cups_before).to eq 16
         end
13
       end
     end
15
16
```



```
Cafe
  #make coffee
    makes 16 cups of coffee (FAILED - 1)
Failures:
  1) Cafe#make_coffee makes 16 cups of coffee
     Failure/Error: cups before = cafe.available cups of coffee
     NoMethodError:
       undefined method `available_cups_of_coffee' for #<Cafe:0x007fccfa5dbd48>
     # ./spec/cafe_spec.rb:7:in `block (3 levels) in <top (required)>'
Finished in 0.00078 seconds (files took 0.12323 seconds to load)
1 example, 1 failure
Failed examples:
rspec ./spec/cafe_spec.rb:5 # Cafe#make_coffee makes 16 cups of coffee
```

```
require 'cafe'
     RSpec.describe Cafe do
 3
       describe "#make_coffee" do
         it "makes 16 cups of coffee" do
 5
           cafe = Cafe.new
 6
           cups_before = cafe.available_cups_of_coffee
 8
 9
           cafe.make_coffee
10
           cups_after = cafe.available_cups_of_coffee
11
           expect(cups_after - cups_before).to eq 16
         end
13
       end
     end
15
16
```

```
class Cafe
try attr_reader :available_cups_of_coffee

def initialize
    @available_cups_of_coffee = 0
end
end
end
```

```
Cafe
  #make coffee
    makes 16 cups of coffee (FAILED - 1)
Failures:
  1) Cafe#make_coffee makes 16 cups of coffee
     Failure/Error: cafe.make_coffee
     NoMethodError:
       undefined method `make_coffee' for #<Cafe:0x007fc134944060>
     # ./spec/cafe_spec.rb:9:in `block (3 levels) in <top (required)>'
Finished in 0.00097 seconds (files took 0.12051 seconds to load)
1 example, 1 failure
Failed examples:
rspec ./spec/cafe_spec.rb:5 # Cafe#make_coffee makes 16 cups of coffee
```

```
require 'cafe'
     RSpec.describe Cafe do
 3
       describe "#make_coffee" do
         it "makes 16 cups of coffee" do
 5
           cafe = Cafe.new
 6
           cups_before = cafe.available_cups_of_coffee
 8
 9
           cafe.make_coffee
10
           cups_after = cafe.available_cups_of_coffee
11
           expect(cups_after - cups_before).to eq 16
         end
13
       end
     end
15
16
```

```
class Cafe
       attr_reader :available_cups_of_coffee
 3
       def initialize
         @available_cups_of_coffee = 0
 5
       end
 6
 8
       def make_coffee
 9
       end
     end
10
```

```
Cafe
  #make coffee
    makes 16 cups of coffee (FAILED - 1)
Failures:
  1) Cafe#make_coffee makes 16 cups of coffee
     Failure/Error: expect(cups_after - cups_before).to eq 16
       expected: 16
            got: 0
       (compared using ==)
     # ./spec/cafe_spec.rb:12:in `block (3 levels) in <top (required)>'
Finished in 0.01827 seconds (files took 0.09011 seconds to load)
1 example, 1 failure
Failed examples:
rspec ./spec/cafe_spec.rb:5 # Cafe#make_coffee makes 16 cups of coffee
```

```
require 'cafe'
     RSpec.describe Cafe do
 3
       describe "#make_coffee" do
         it "makes 16 cups of coffee" do
 5
           cafe = Cafe.new
 6
           cups_before = cafe.available_cups_of_coffee
 8
 9
           cafe.make_coffee
10
           cups_after = cafe.available_cups_of_coffee
11
           expect(cups_after - cups_before).to eq 16
         end
13
       end
     end
15
16
```

```
class Cafe
       attr_reader :available_cups_of_coffee
 3
       def initialize
         @available_cups_of_coffee = 0
 5
       end
 6
       def make_coffee
 8
         @available_cups_of_coffee += 16
 9
10
       end
11
     end
```

```
Cafe
    #make_coffee
    makes 16 cups of coffee

Finished in 0.00146 seconds (files took 0.11501 seconds to load)
1 example, 0 failures
```

```
class Cafe
       attr_reader :available_cups_of_coffee
 3
       def initialize
         @available_cups_of_coffee = 0
 5
 6
       end
       def make_coffee
 8
         @available_cups_of_coffee += 16
       end
10
     end
```

```
require 'cafe'
     RSpec.describe Cafe do
 3
       describe "#make_coffee" do
         it "makes 16 cups of coffee" do
 5
           cafe = Cafe.new
 6
           cups_before = cafe.available_cups_of_coffee
 8
 9
           cafe.make_coffee
10
           cups_after = cafe.available_cups_of_coffee
11
           expect(cups_after - cups_before).to eq 16
         end
13
       end
     end
15
16
```

TIME TO MOB DREAM

Test-designed software

Storytelling ↔ Programming

1. Tell the computer the dream

2. Computer holds us accountable to the d	ream

Communication and collaboration

THANK YOU!

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RESOURCES

RSpec Core Getting Started with RSpec RSpec and BDD Cafe Repo