Driving Development with Tests

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The Coding Dojo

- Coding Dojo: better coding skills
- Practice in a safe environment
- Discuss actual code
- have fun!

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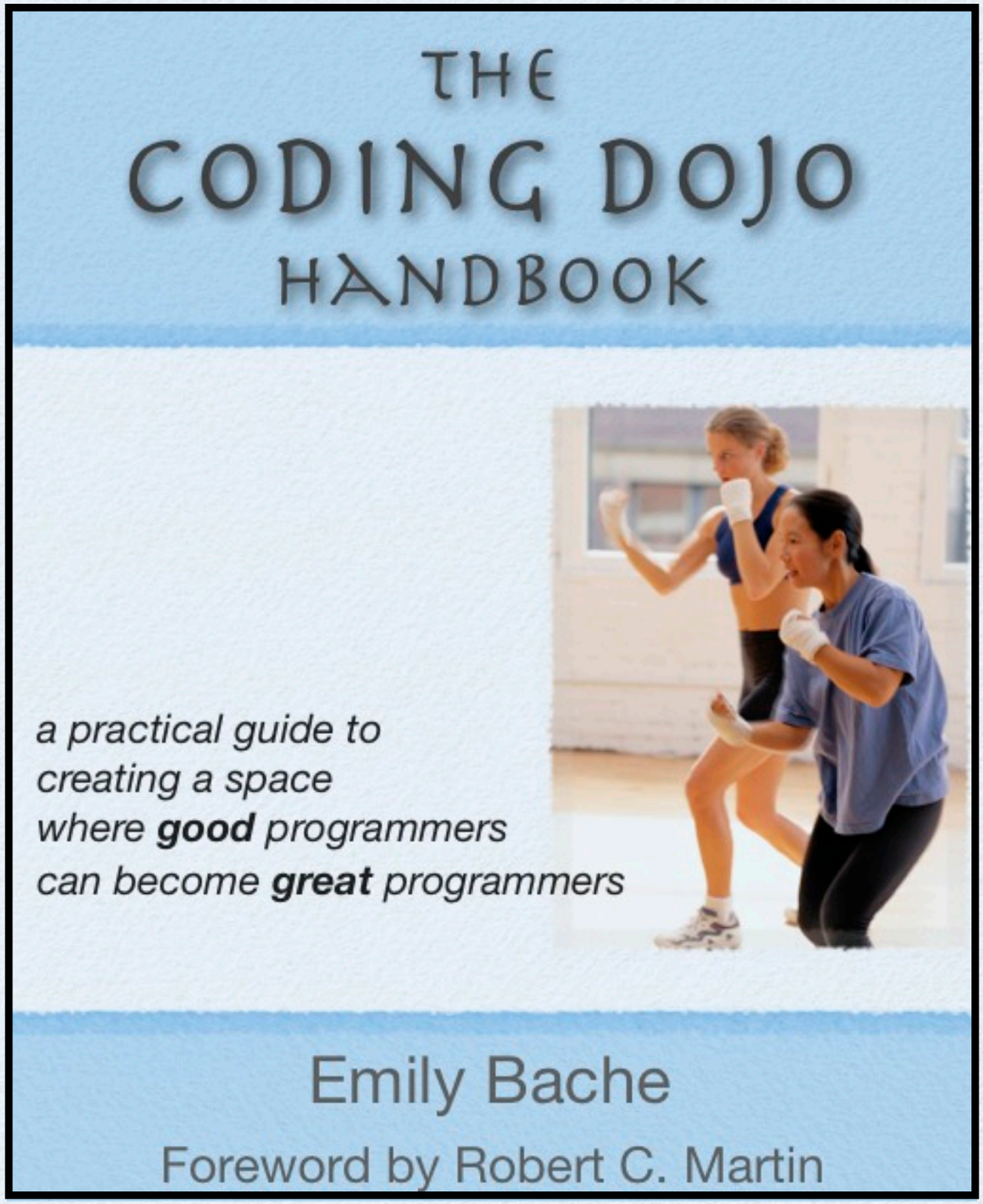
Available from:

http://leanpub.com



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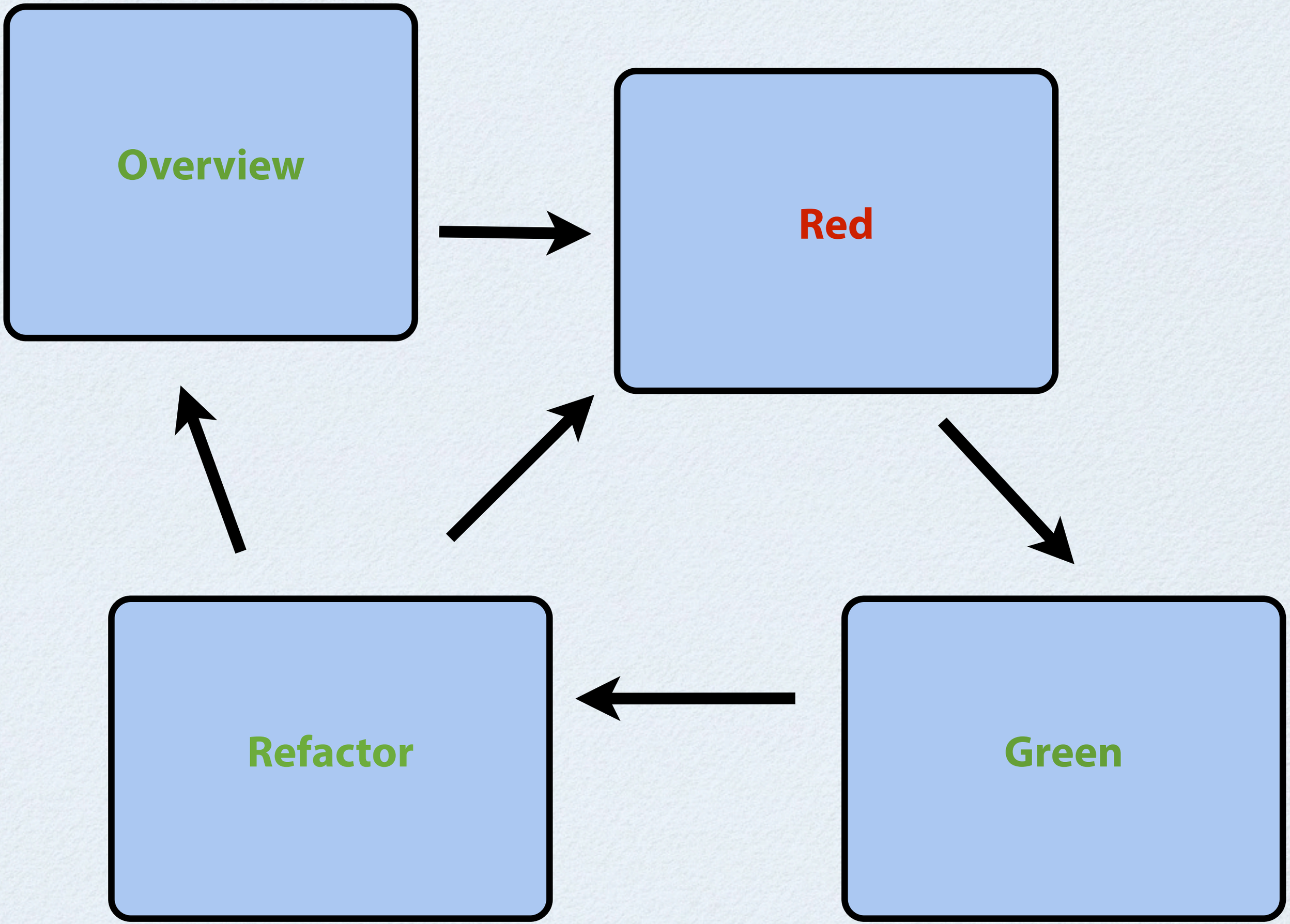

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Rhythm of TDD

- Small increments of functionality, "pulled" into existence by a new test
- All existing tests keep passing
- Refactoring often & minor
- When your guiding test passes, you feel confident the code works

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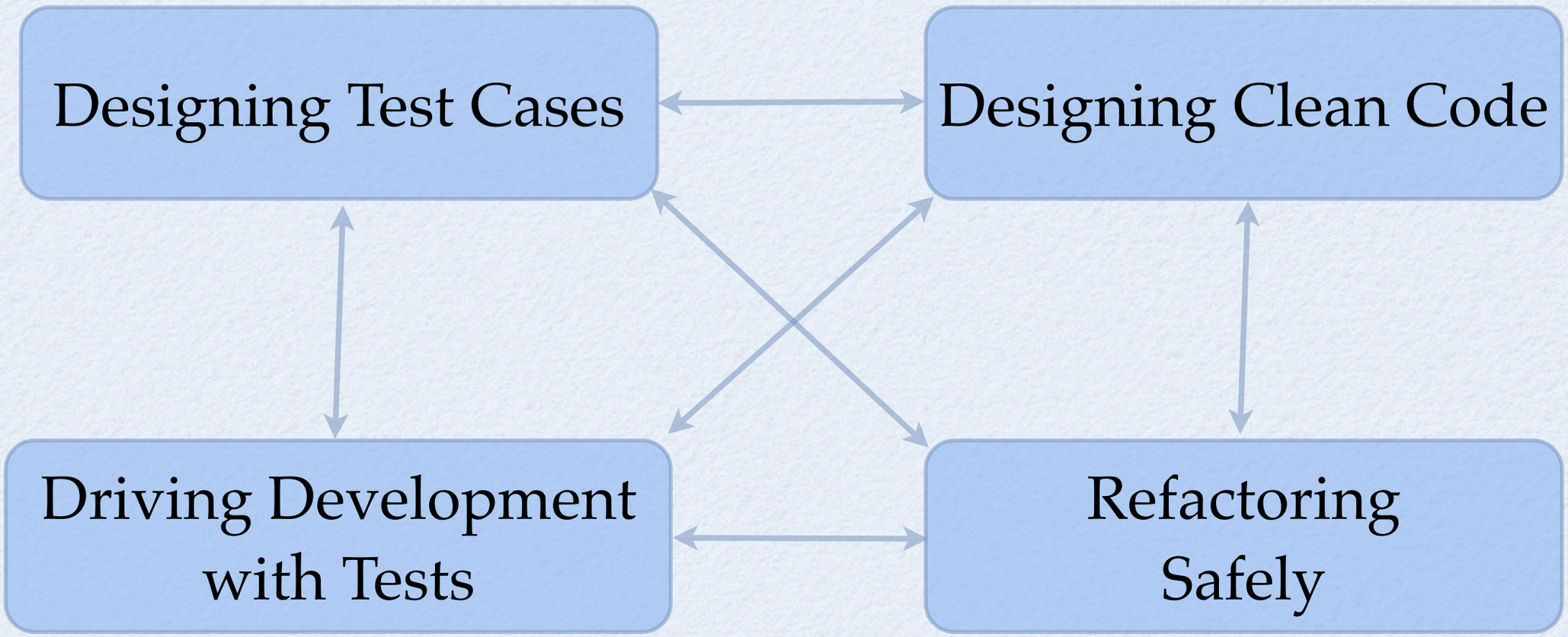
TDD skills



In the dojo we can focus on one at a time

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Overview
Analyse Problem
Test List
Guiding Test

next test chosen

Red
Declare & Name
Arrange-Act-Assert
Satisfy compiler

test runs and fails

Green
Implement solution
Fake it
Start over

all tests pass

Refactor
Remove Fake
Remove Code Smell
(No new functionality)
Note new test cases

next test unclear

next test chosen

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Overview

Analyse Problem

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(No new functionality)

Note new test cases

next test chosen

next test unclear

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Overview
Analyse Problem
Test List
Guiding Test

next test chosen

Red
Declare & Name
Arrange-Act-Assert
Satisfy compiler

next test unclear

next test chosen

test runs and fails

Test too hard

Refactor
Remove Fake
Remove Code Smell
(No new functionality)
Note new test cases

all tests pass

Green
Implement solution
Fake it
Start over

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Overview

Analyse Problem
Test List
Guiding Test

next test chosen

Red

Declare & Name
Arrange-Act-Assert
Satisfy compiler

test runs and fails

Green

Implement solution
Fake it
Start over

all tests pass

Refactor

Remove Fake
Remove Code Smell
(No new functionality)
Note new test cases

next test chosen

next test unclear

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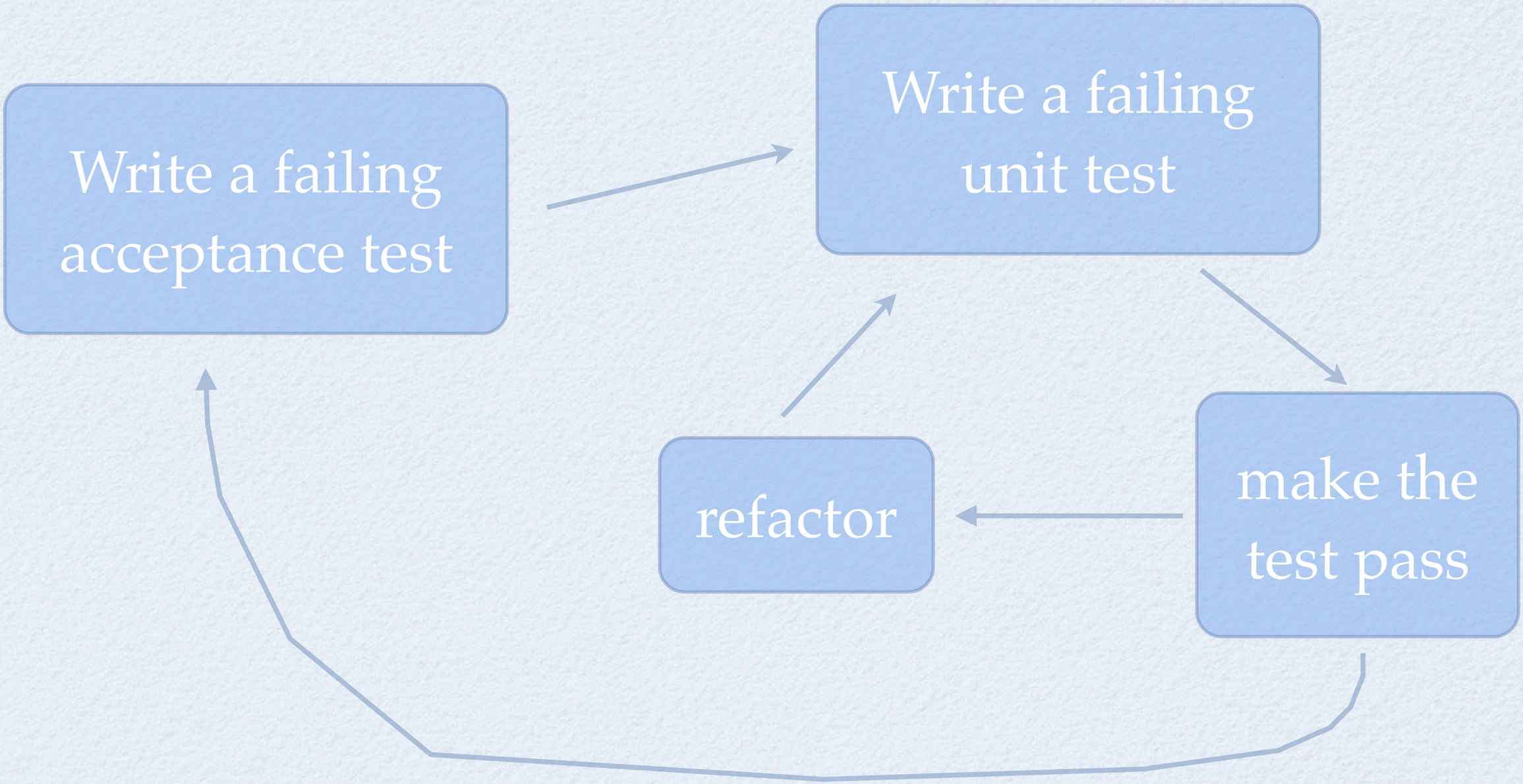
Double-Loop TDD



p40 GOOS, Freeman, Pryce

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Train Reservation

- A code kata I designed.
- Needs more than one class to implement.
- Potential to use Mocks and/or Stubs

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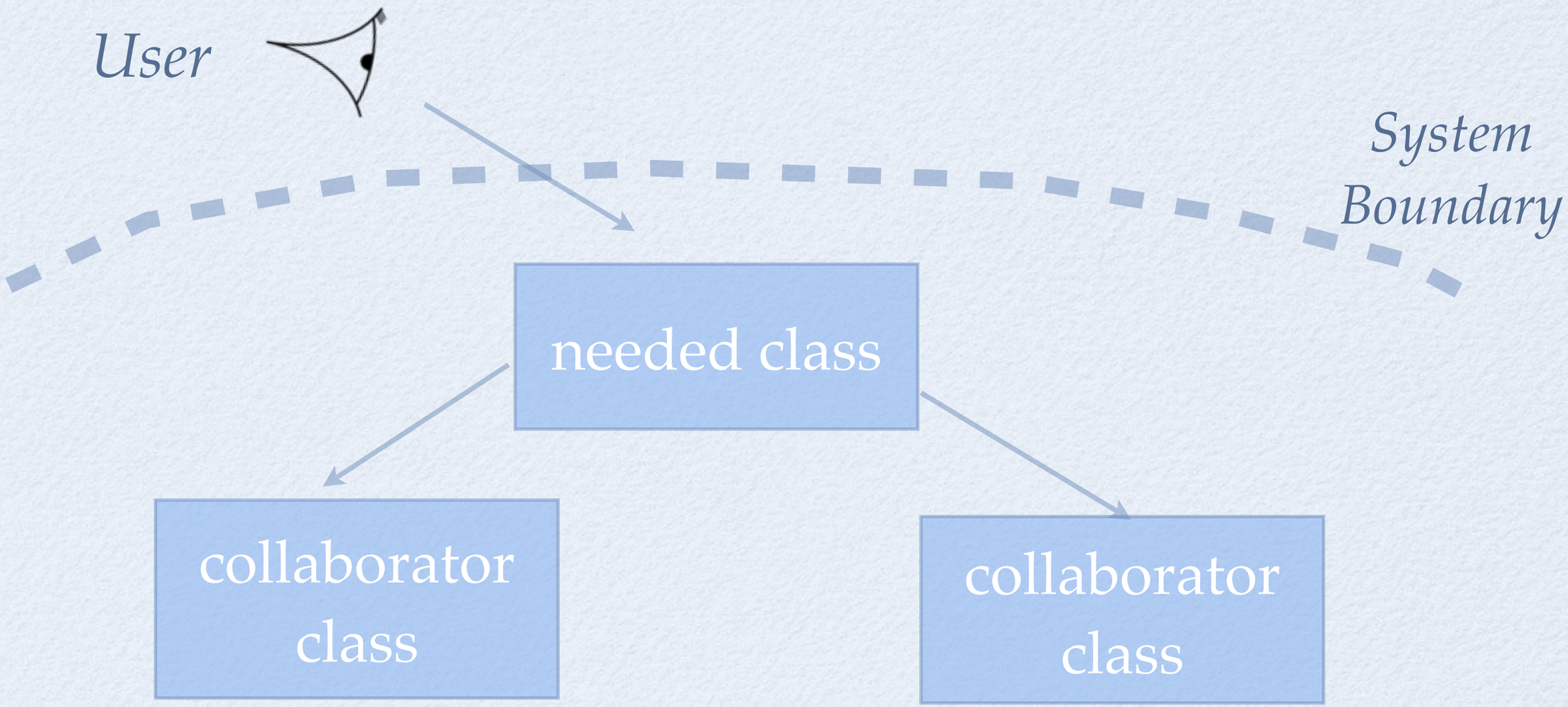
London School Outside - In



p 61, GOOS, Freeman, Pryce

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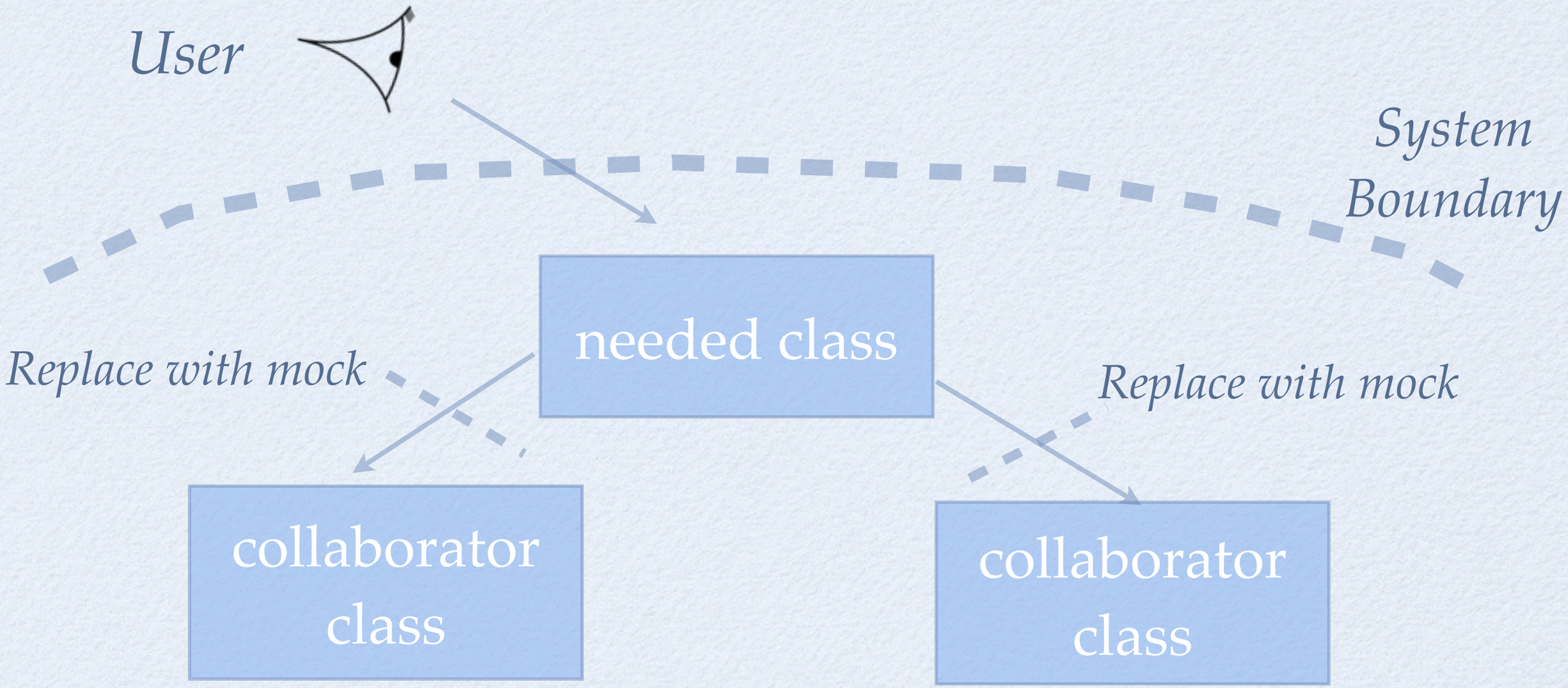
London School Outside - In



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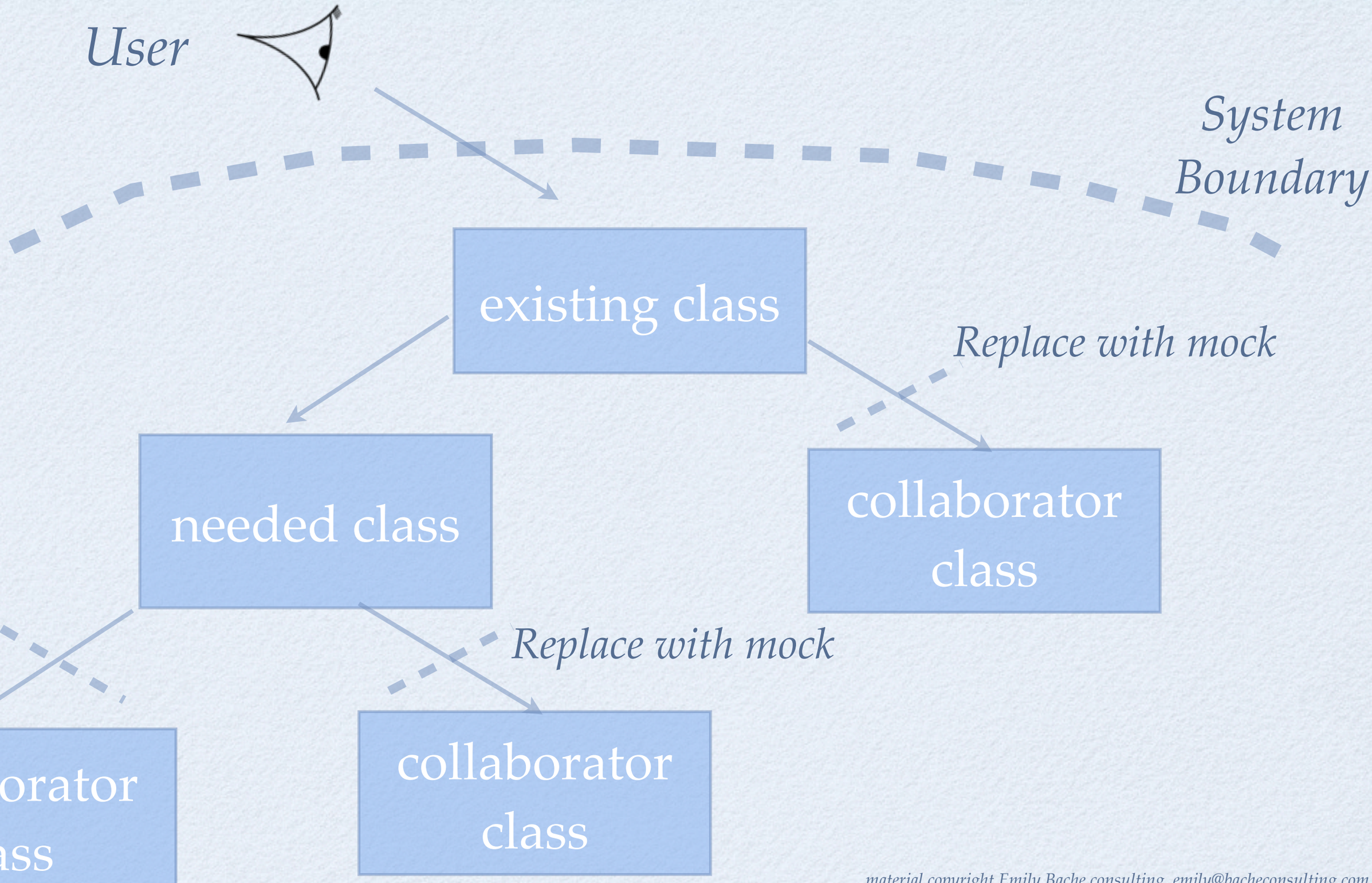
London School Outside - In



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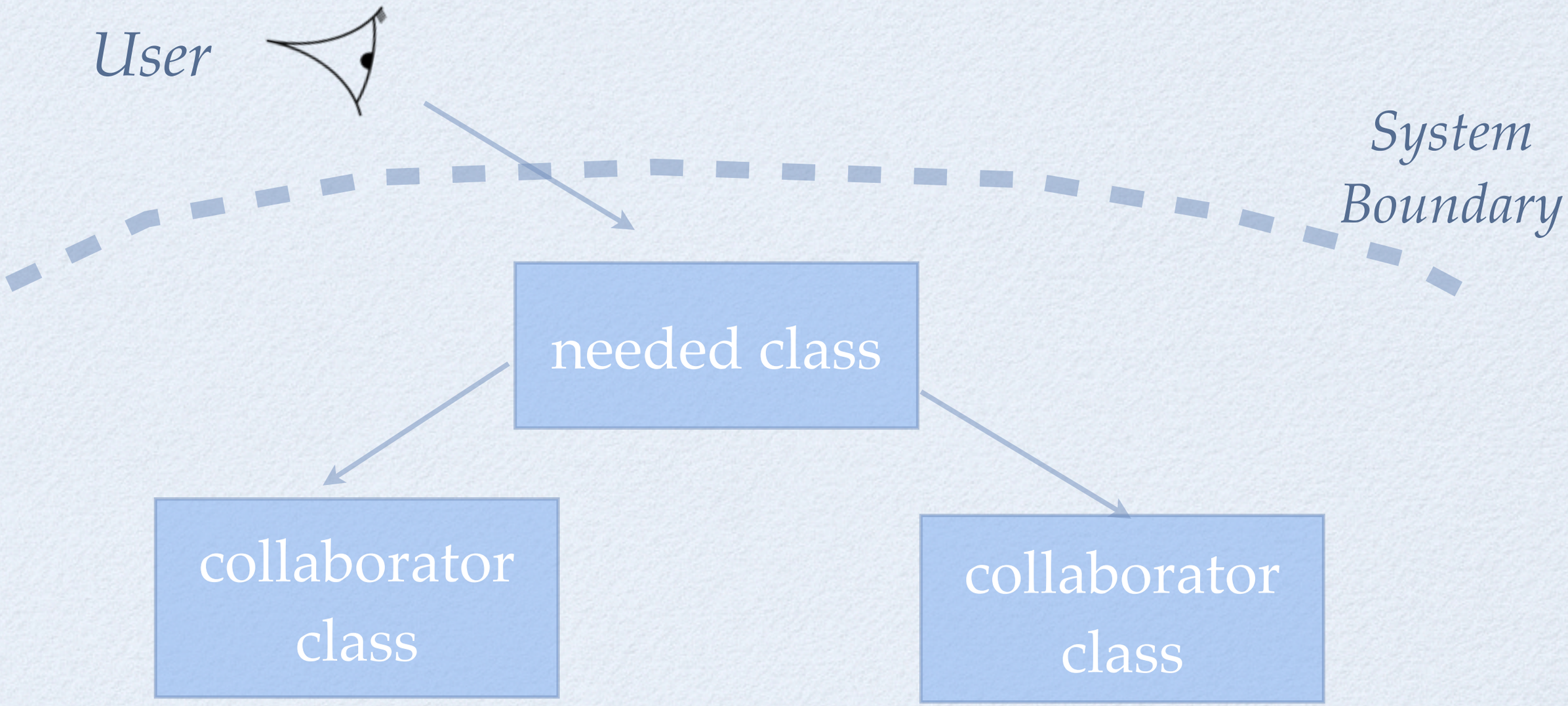
Classic TDD Outside-In



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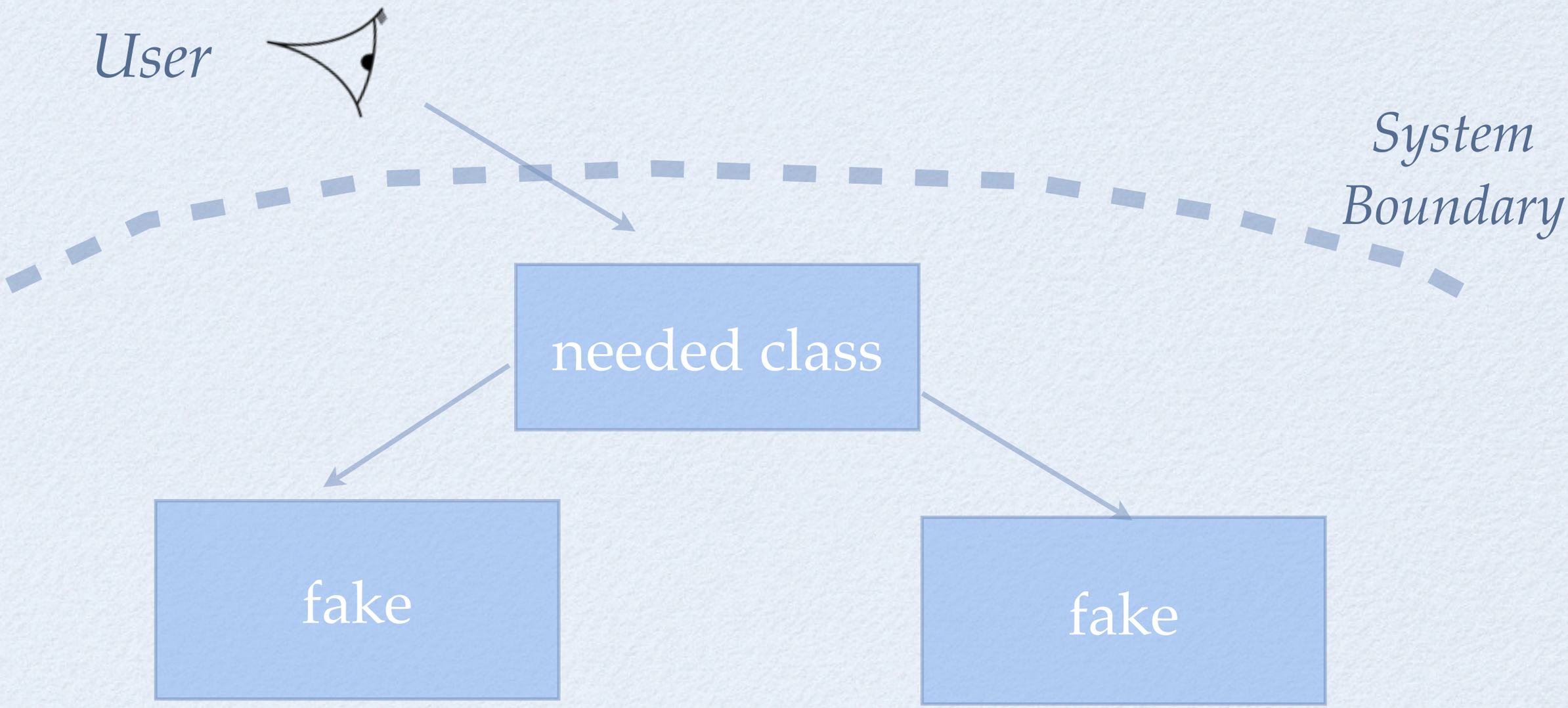
Classic TDD Outside-In



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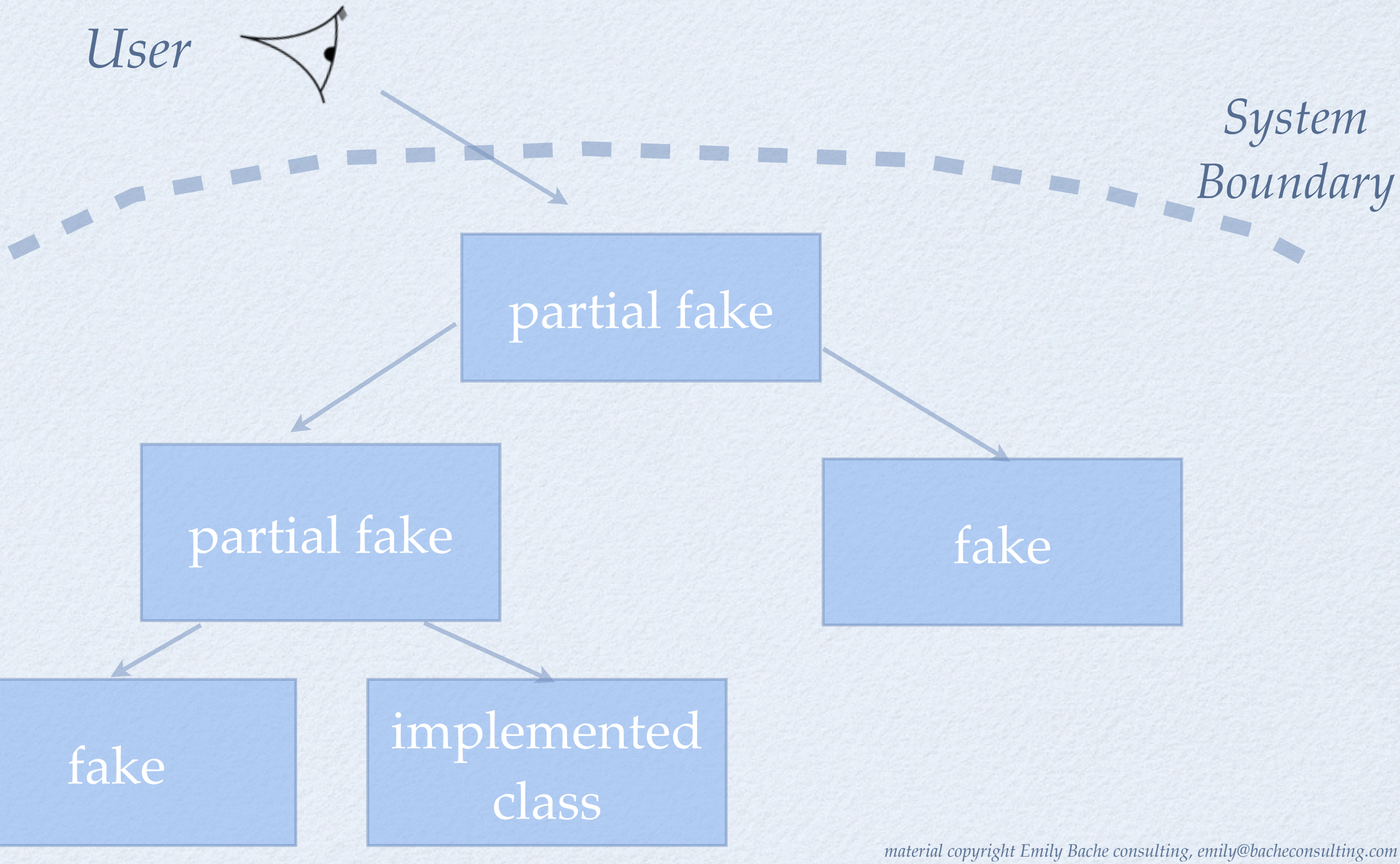
Classic TDD Outside-In



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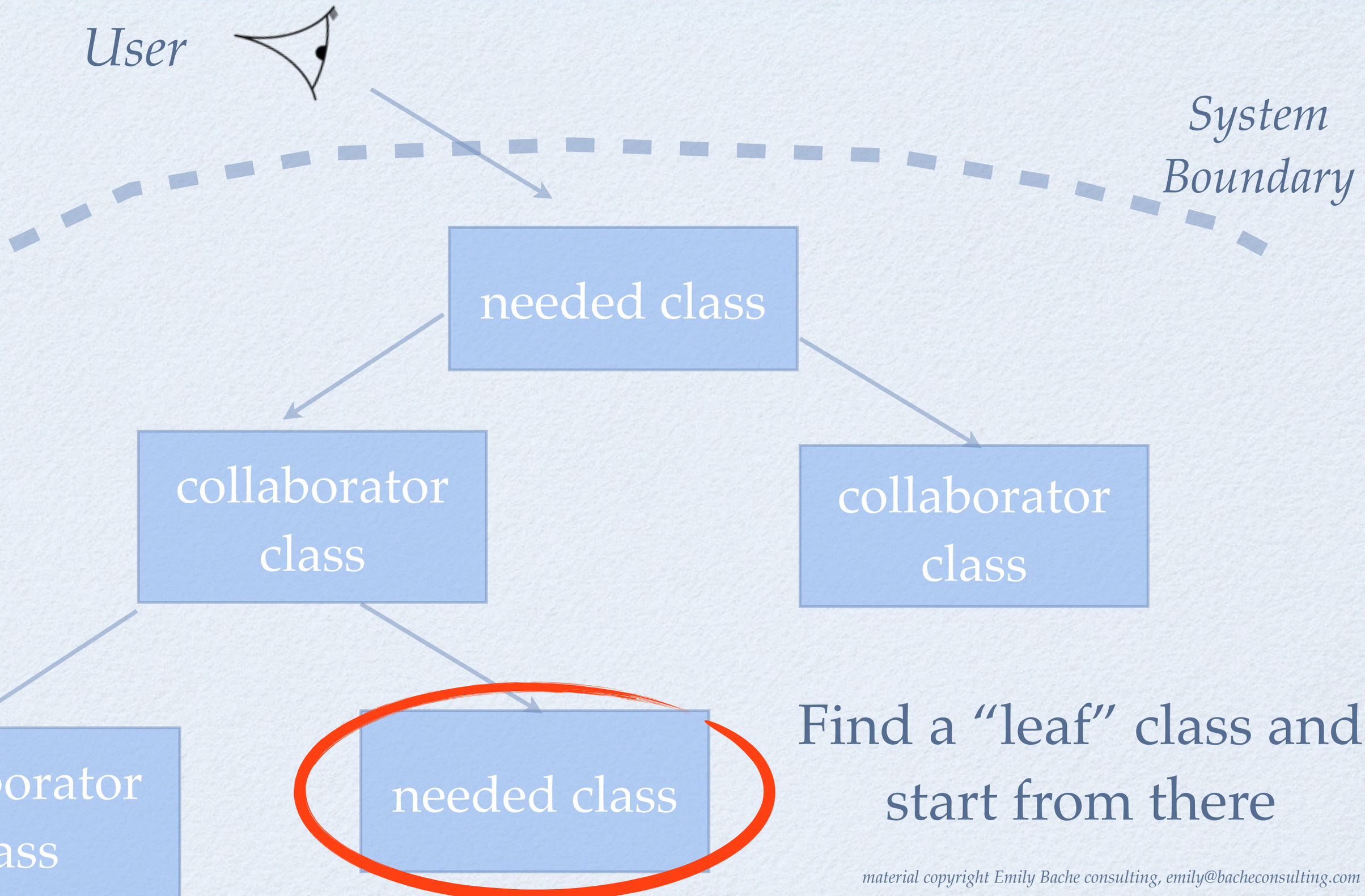
Classic TDD bottom-up



Find a "leaf" class and start from there

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Let me follow your tests

- Use github - fork my project and push to your user
- OR Keep the tests in a file in the order you wrote them
  - Don't delete tests, set @Ignore on them or comment out

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