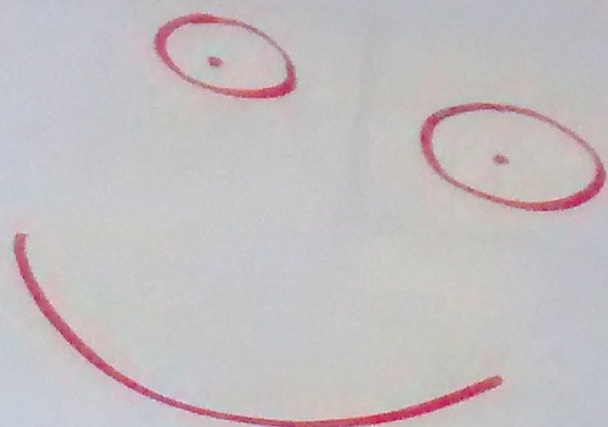


@ewolff
@martinkleose



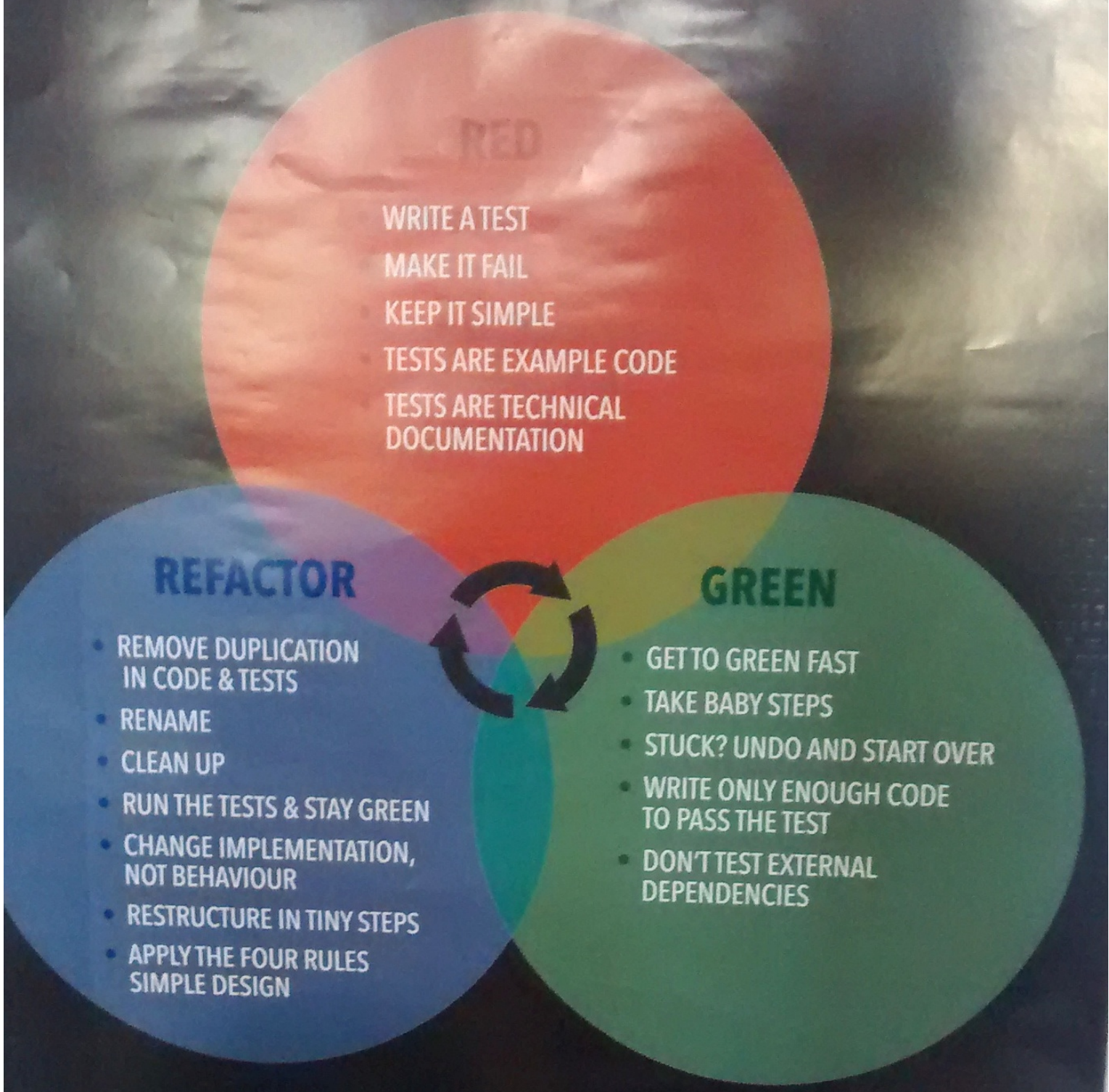
Welcome

to Code

Retreat

coderetreat.org

TEST-DRIVEN DEVELOPMENT

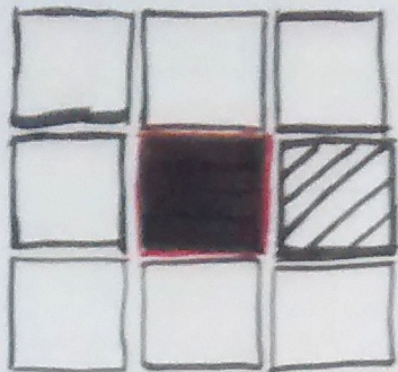


4 RULES OF SIMPLE DESIGN:

TEST FIRST DEVELOPMENT (TFD)

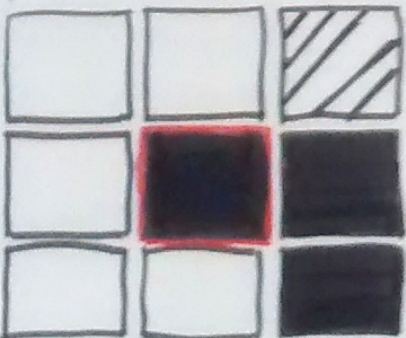
GAME OF LIFE

1



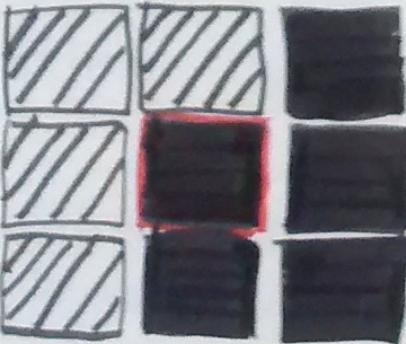
< 2

2



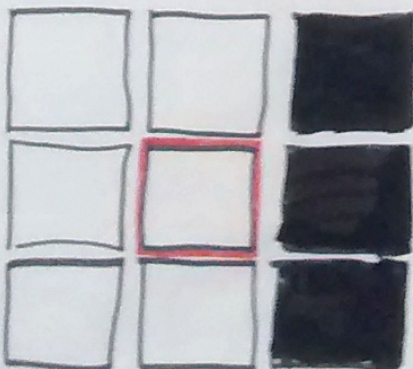
2, 3

3



> 3

4



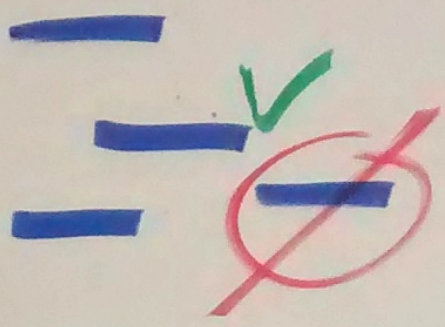
3

Simple Design

- 1) Passes all tests
- 2) Minimizes duplication
- 3) Maximizes clarity
- 4) has fewer elements

Object Gymnastik

1) ~ () {



}

2) ~~ELSE~~ ! ~~IF~~ ?

3) ~ () {

- 1. —
- 2. —
- 3. —
- 4. —
- 5. —
- 6. —

max. 5 lines

4) First-class collection

extract pure functions

1) find code which can be made stateless

2) extract into new methode:


☐ > all input via parameter

☐ > output in return value

☐ > the methode is stateless
if you can make it static

Pull up & Delegate

> Introduce a superclass
class A extends B

> Pull up methods & instance variables 

> Replace inheritance
by delegation

```
class A {  
  B b;
```

A → B

Golden Master

> git clone

[https://github.com/jbrains/](https://github.com/jbrains/trivia.git)

trivia.git

> set seed for random numbers to specific value

> log output

> Test checks:

output still identical?

Legacy Code

> git clone

<http://github.com/jbrains/trivia>

> write a test

> on site assert

> black box

> acceptance

> test to understand

4
Baby Steps



2 minutes

4
Test

red →
rollback

green →
commit



2 minutes

Refactoring