

Rapid prototyping with Domain-Driven Design

Nikolas.M@rtens.org



Codemotion
Berlin 2016

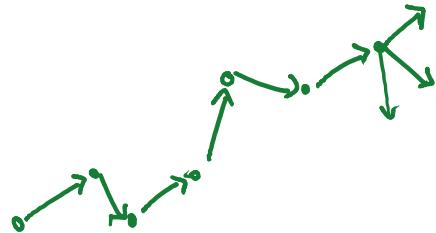
What is the biggest

Problem?

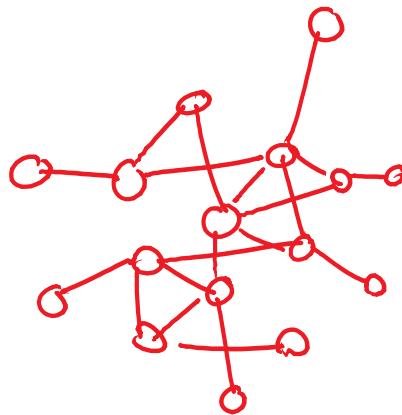
of Software Engineering

*) actually two

Uncertainty



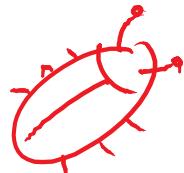
Complexity



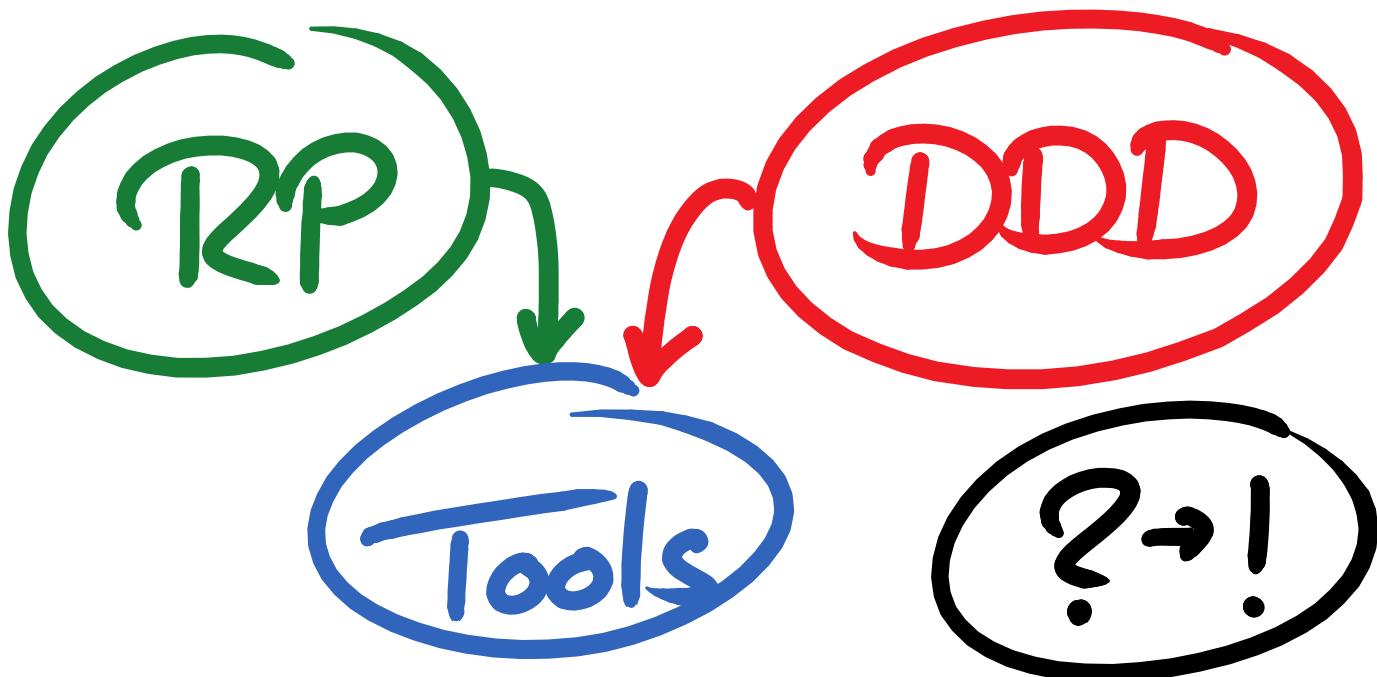


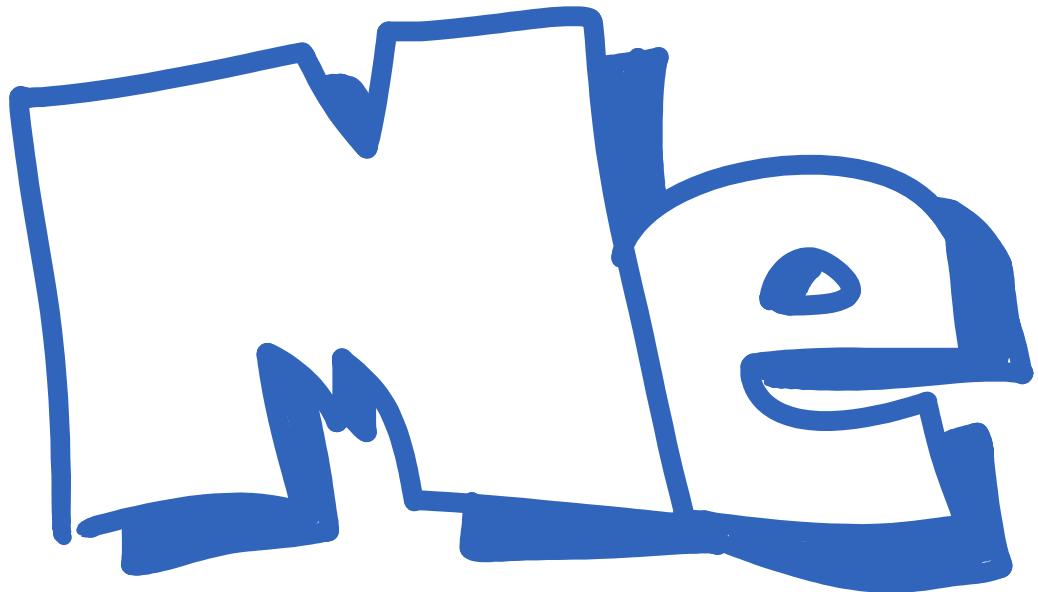
① Doing the right thing

Doing the thing right



This Talk





Nikolas Martens

rtens.org

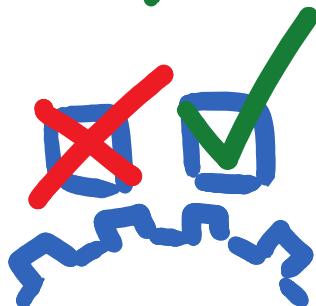
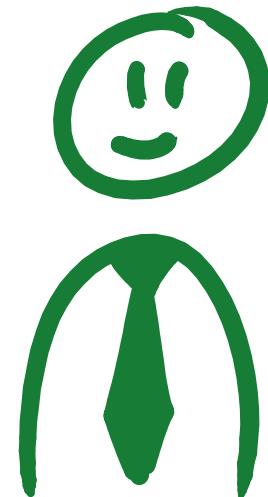
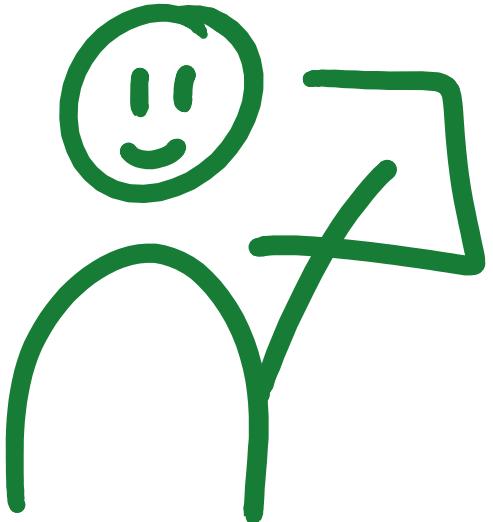


@rtens_

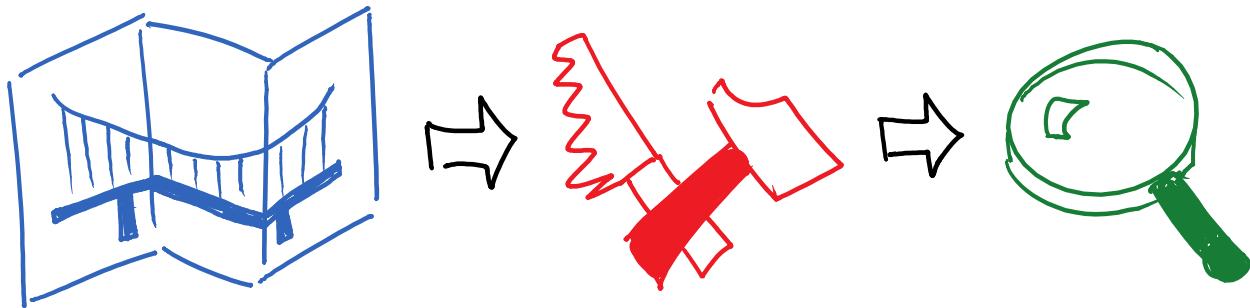


rtens

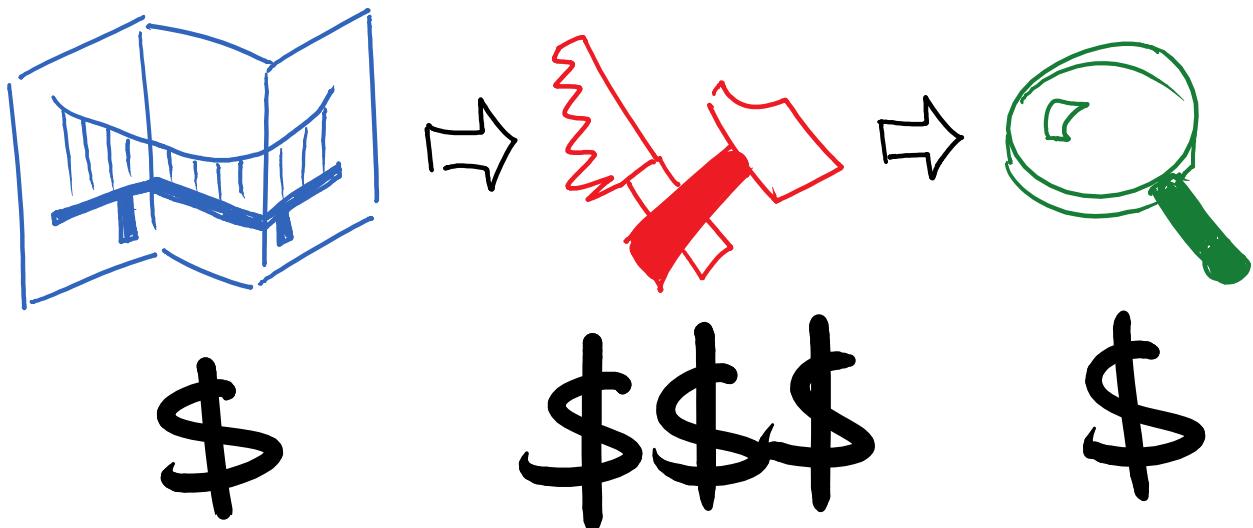




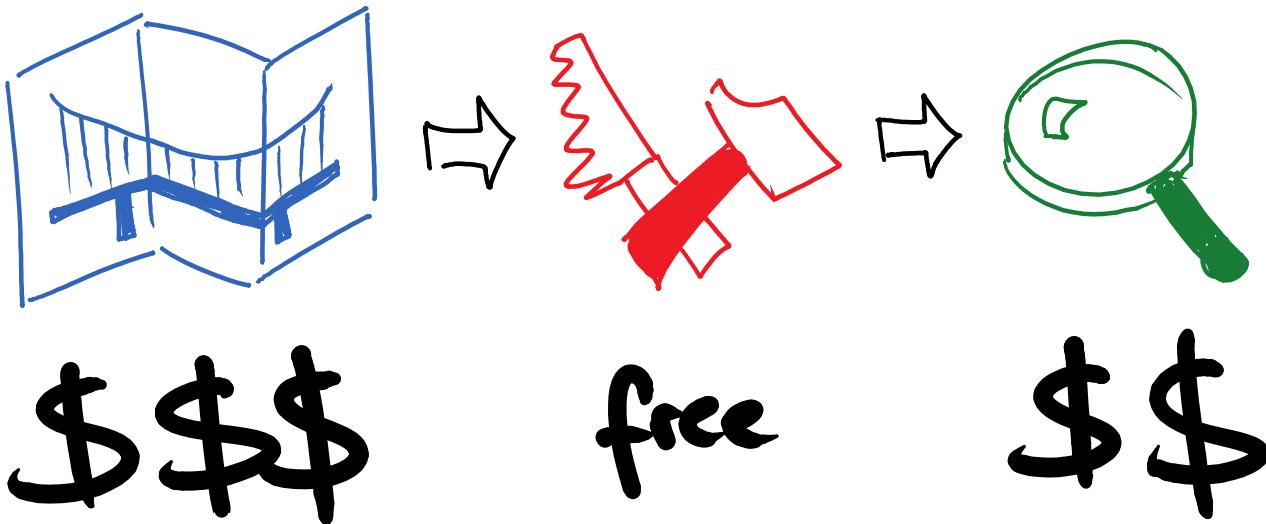
certainty



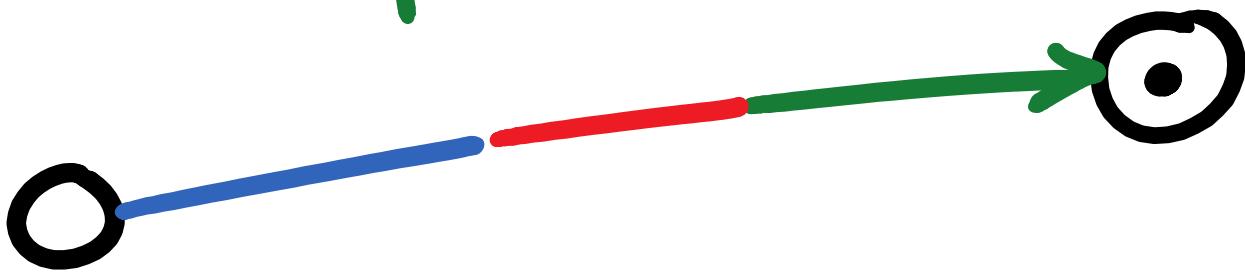
Construction



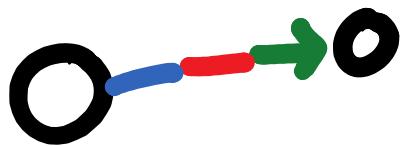
Software



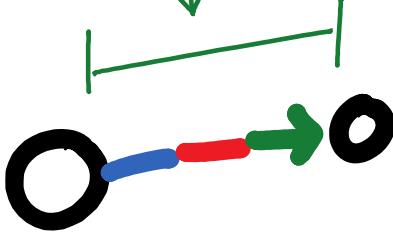
plan



adapt



Rapid



Prototype

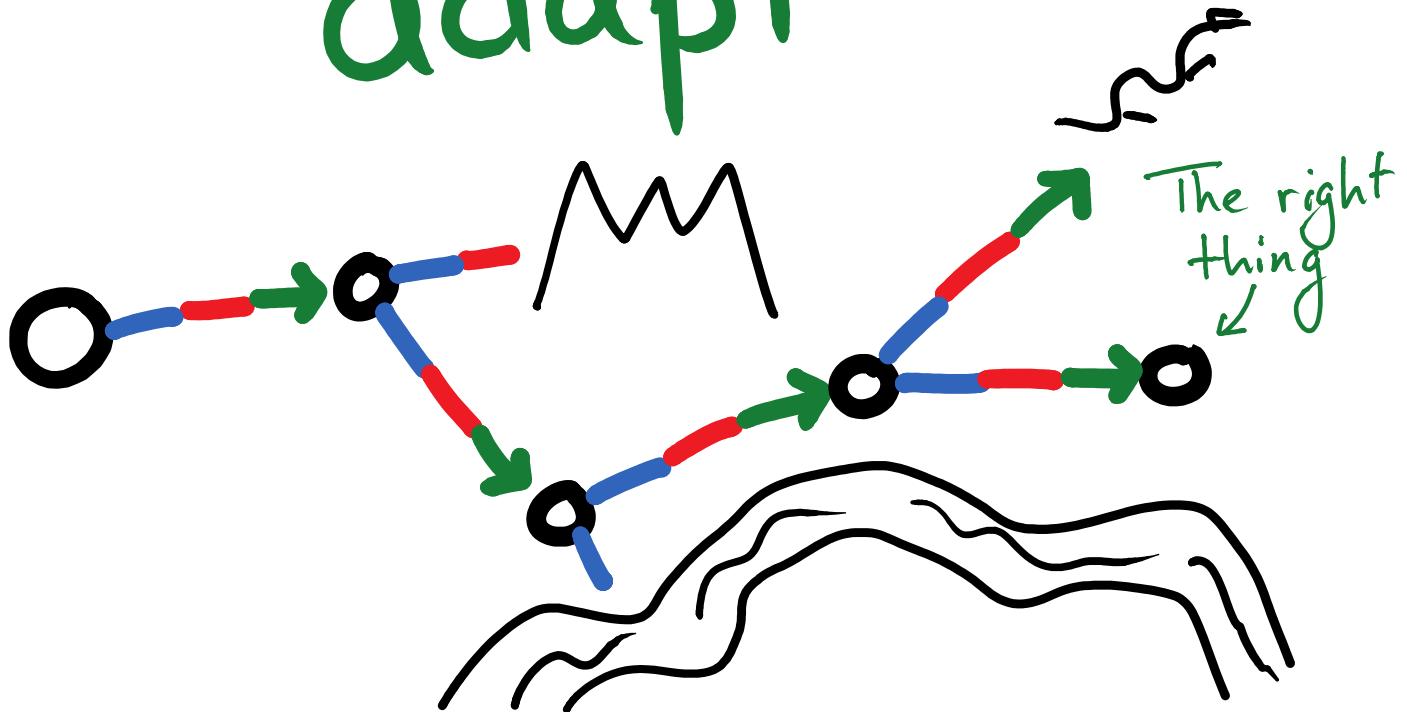
Agile
Lean

Scrum

Crystal
XP

...

adapt



Complexity

is essentially in the

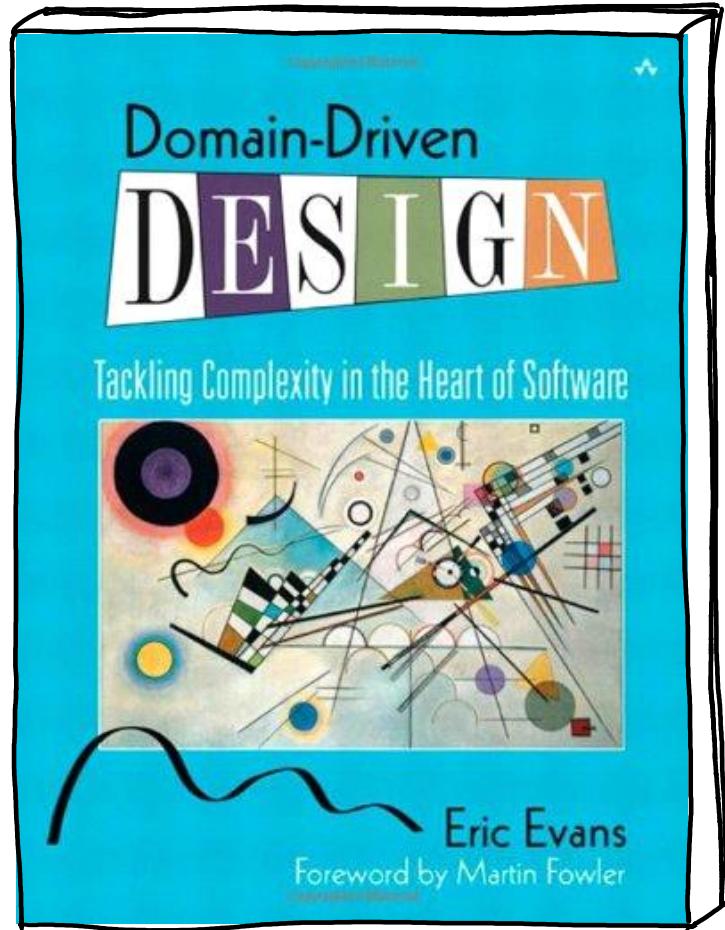
Domain

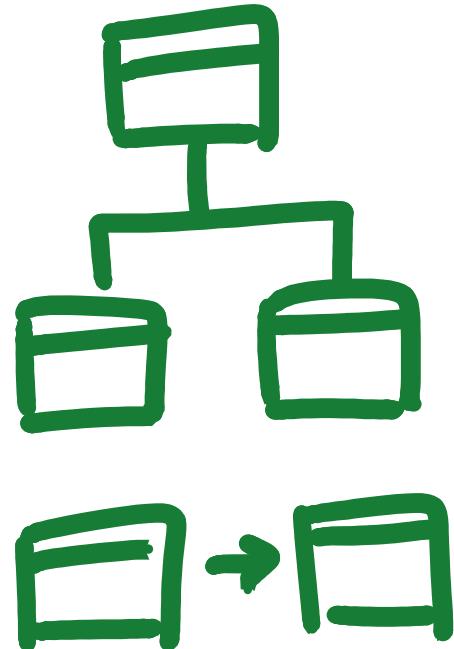
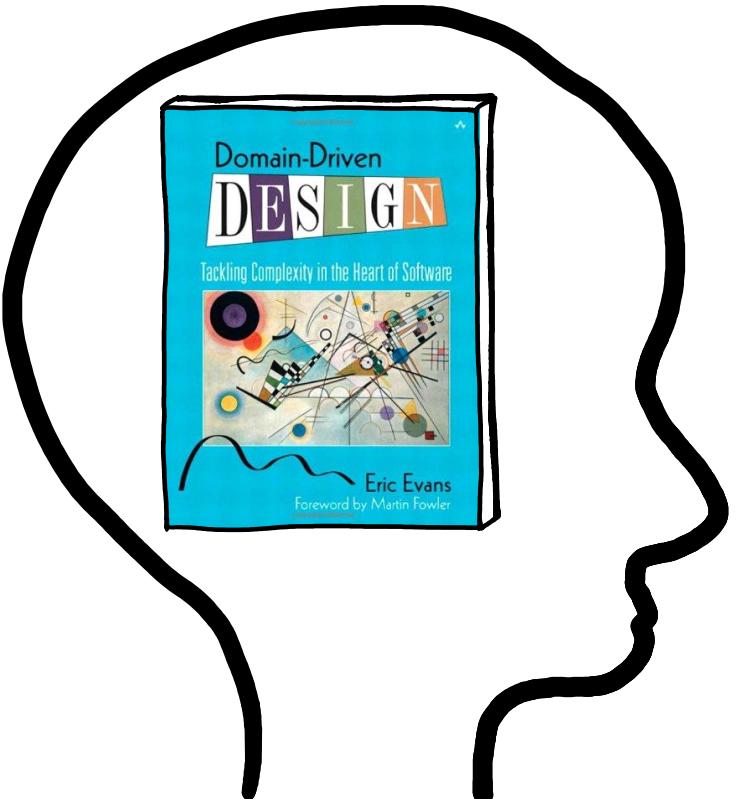
Let's focus

on the

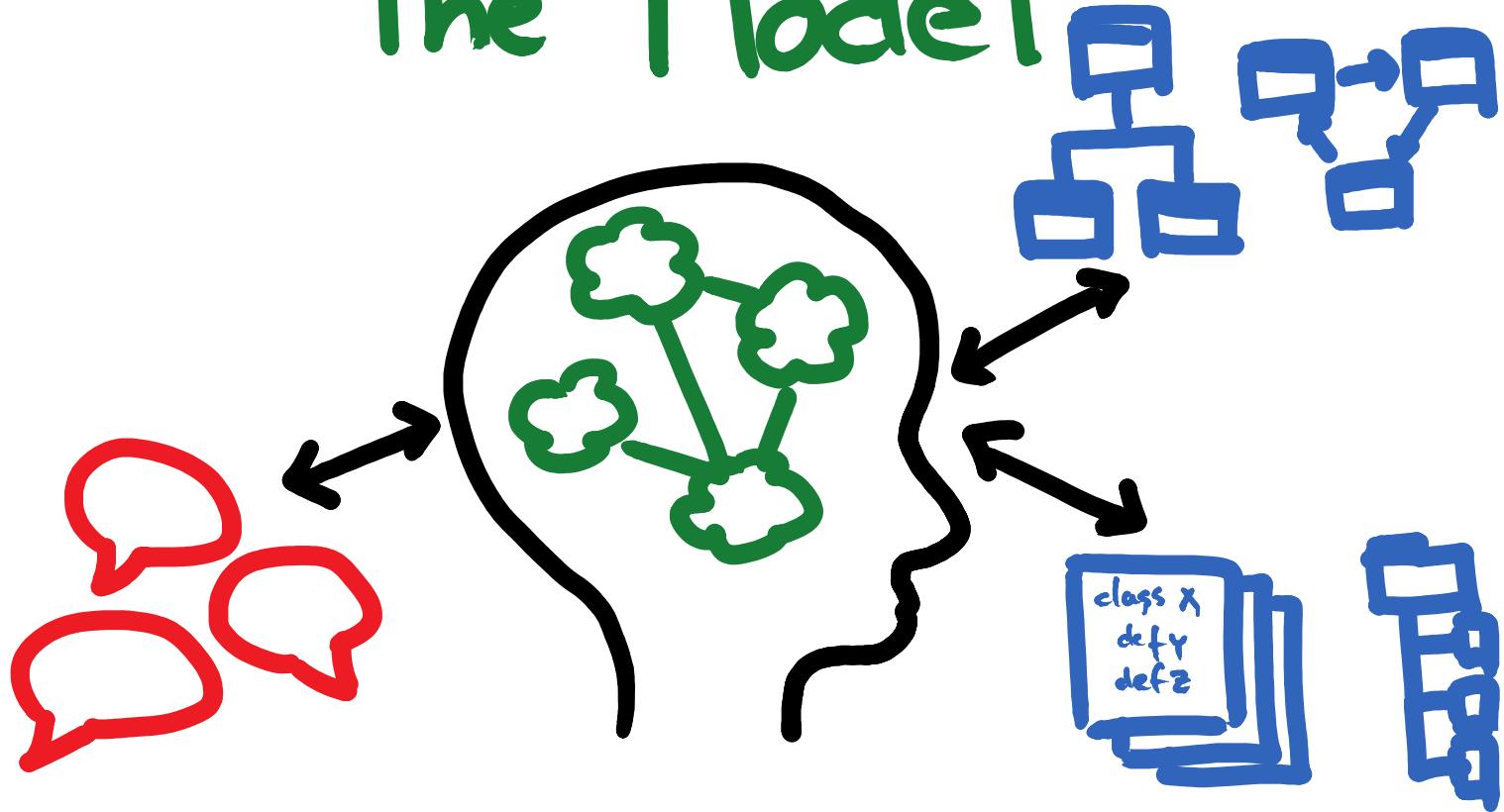
Domain

What is
Domain-Driven
Development?





The Model

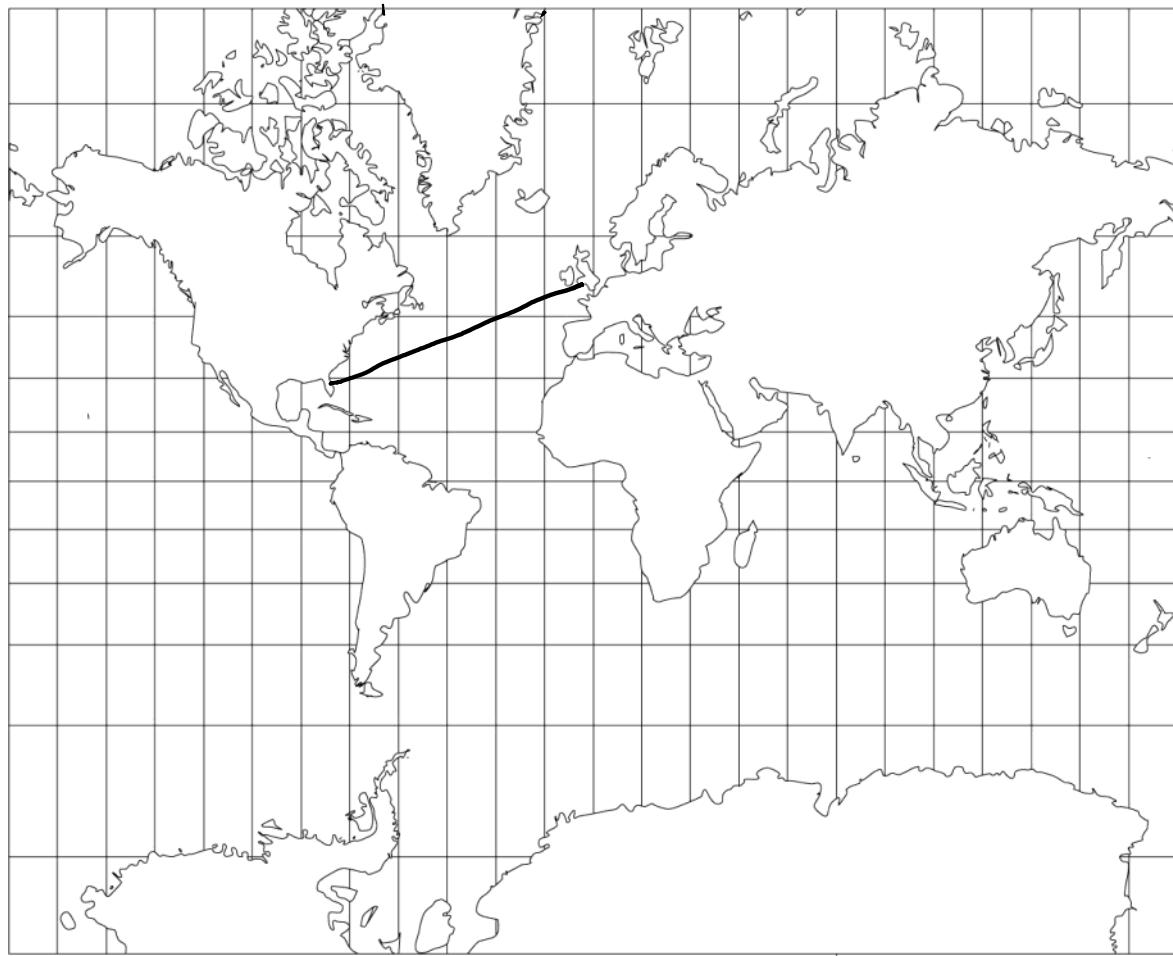


The Model

is a

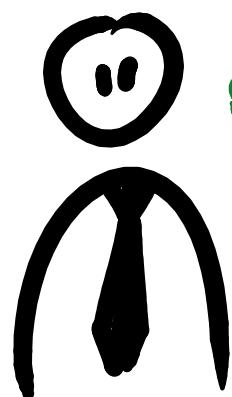
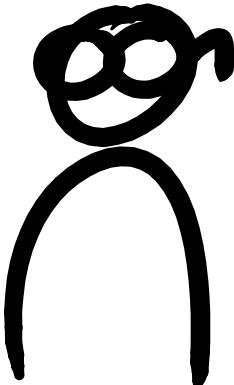
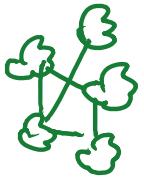
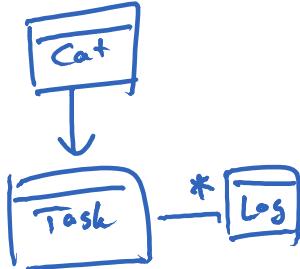
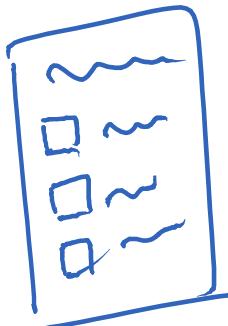
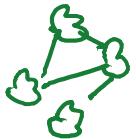
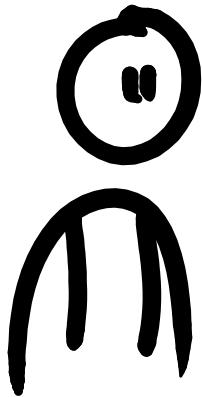
useful approximation

of the real world

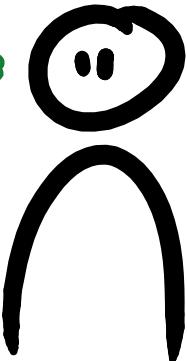
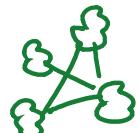


Example

To Do App



Add
Complete Task
Categorize
Log Time





Single Model*

Ubiquitous Language

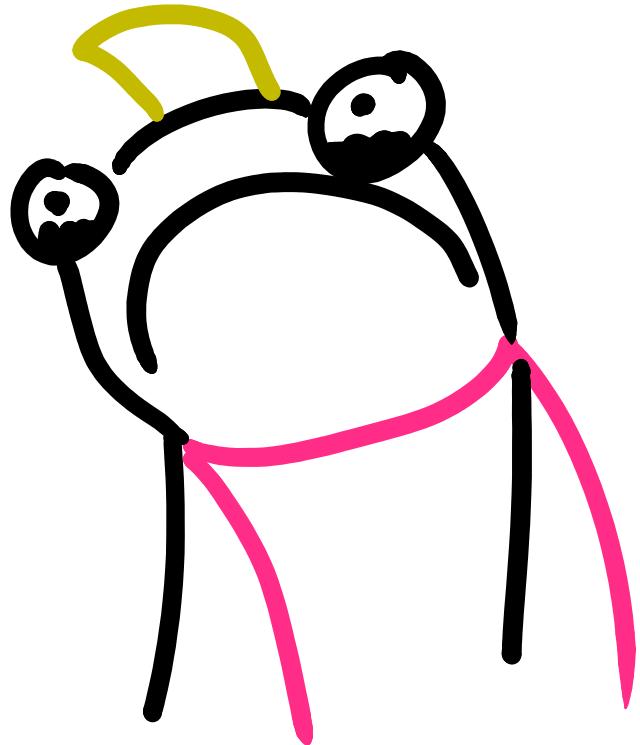
DDD

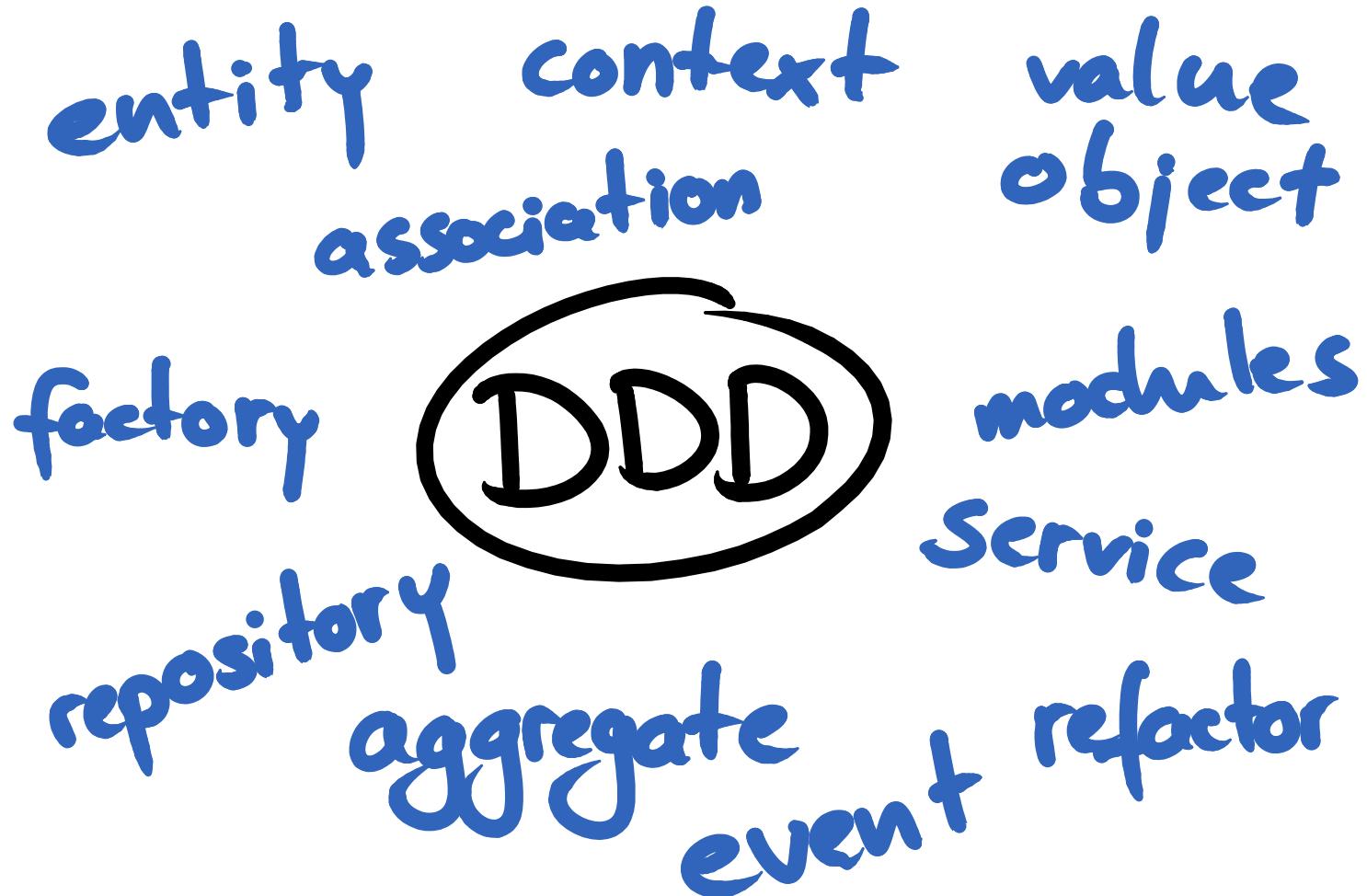
all

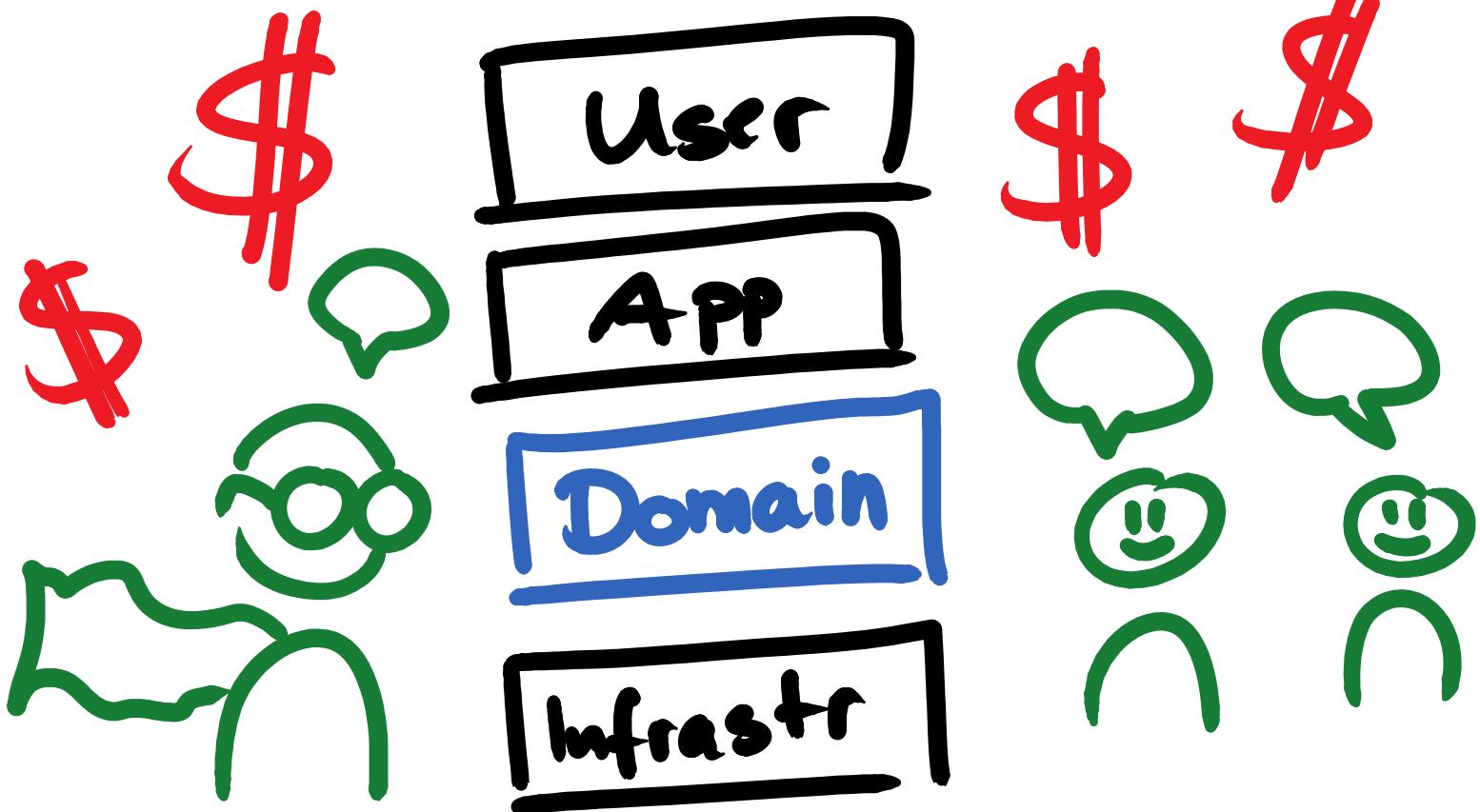
the things!

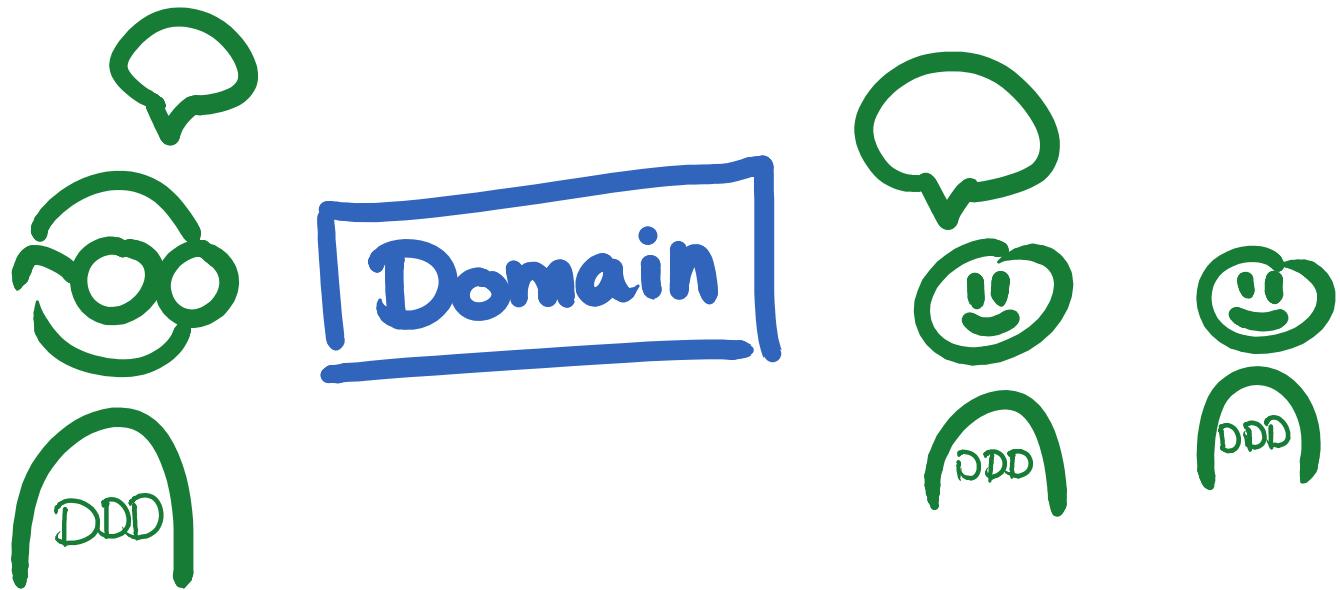


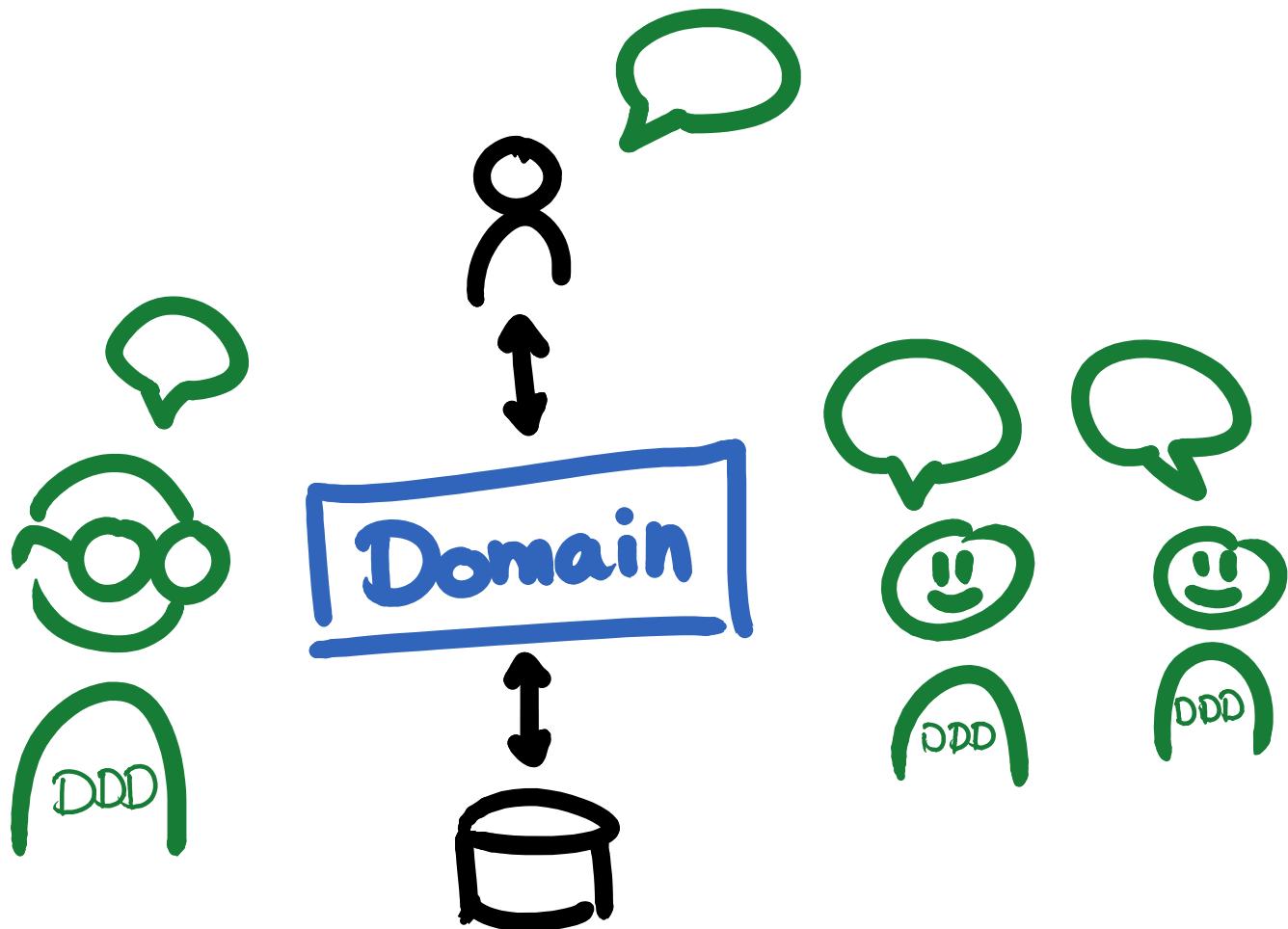
But...
is it
worth it?









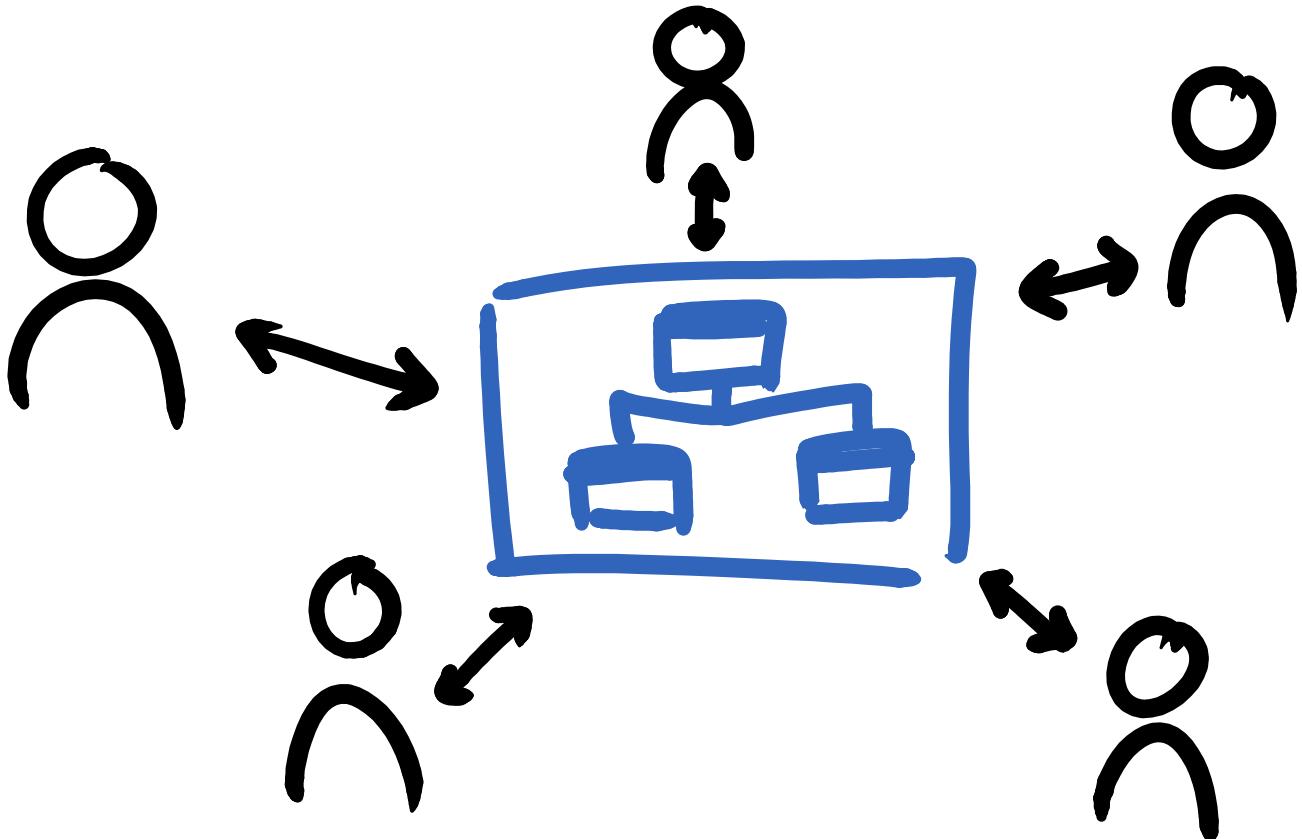


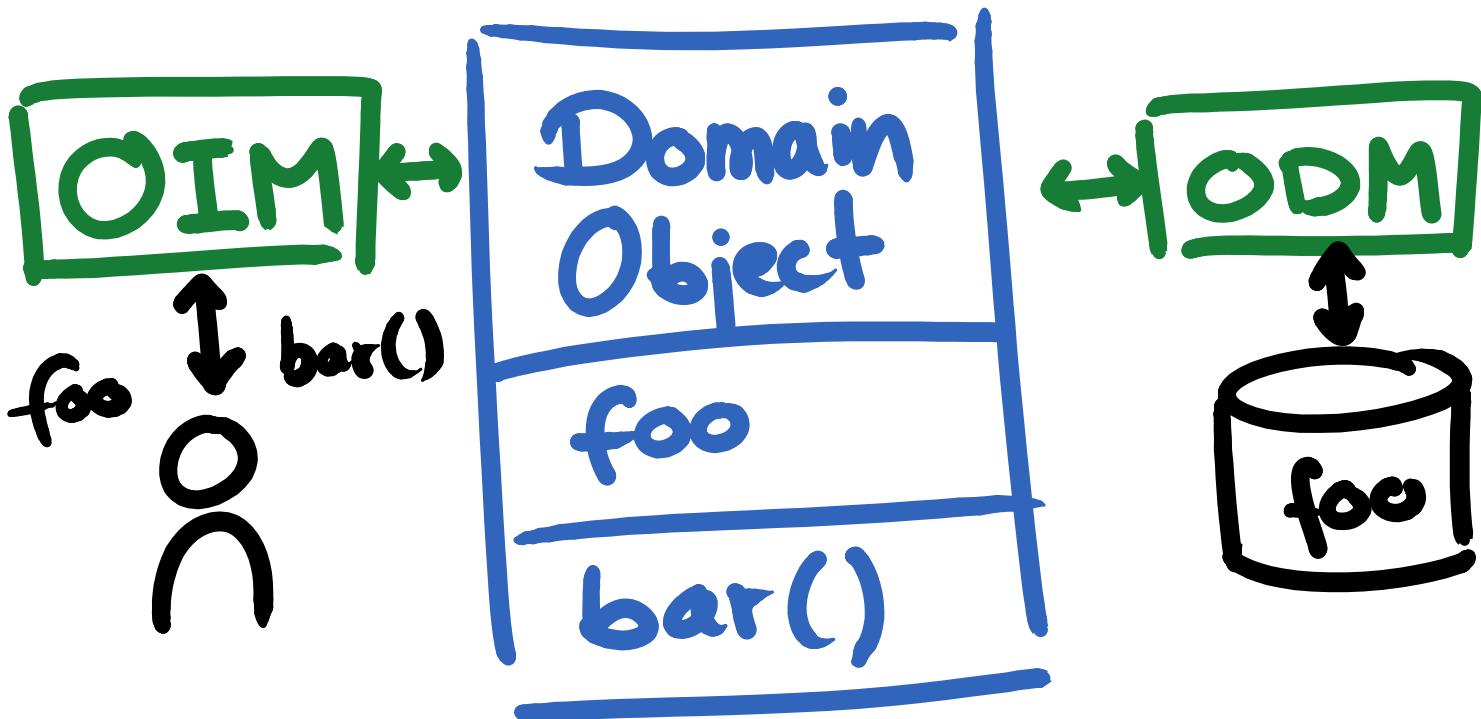
Naked Objects

Richard Pawson

2004

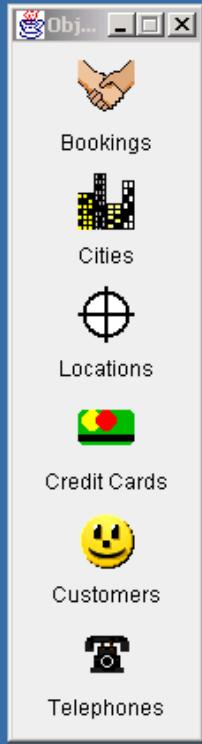






Apache





Customer instance

Richard Pawson

First Name:	Richard
Last Name:	Pawson
Phone Numbers:	Home
Bookings:	Phone Numbers #1 New Booking
Locations:	Bookings Office, Boston Home Locations
Preferred Payment Method:	Credit Cards *****01893

Booking instance

#1 New Booking

Reference:	#1
Status:	New Booking
Customer:	Richard Pawson
Date:	29-Aug-02
Time:	06:50:00
Pick Up:	Home
Drop Off:	Logan Airport
Payment Method:	Credit Cards *****01893
City:	Boston
Contact Telephone:	Home

- ### Inst... Cities
- Atlanta
 - Seattle
 - Tampa
 - Chicago
 - Washington
 - Boston
 - New York

Location instance

Office, Boston

Street Address:	
Known As:	Office
Customer:	Richard Pawson
City:	Boston



Location instance □ X

Street Address: _____
Known As: _____
Customer: Customer
City: City

City... □ X

Washington

Location instance □ X

Street Address: _____
Known As: _____
Customer: Customer
City: City

Create... □ X

*****01786

Location instance □ X

Street Address: _____
Known As: _____
Customer: Customer
City: City

Location instance □ X

CSC Office, New York

Street Address: 200 Park Avenue
Known As: CSC Office
Customer: Richard Pawson
City: New York



Login

Username

Enter username .

Password

Enter password

Remember me

Sign in

Reset

Dashboard Dan

localhost:8080/wicket/entity?5

ToDo App Todos - Analysis - Prototyping - Activity - Security - Hi todoapp-admin

Dashboard

[Export To Word Doc](#)

[Export As Xml](#)

[Download Layout Xml](#)

[Rebuild Metamodel](#)

Not Yet Complete

March 2016

today

Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	29	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2
3	4	5	6	7	8	9

Buy bread due by 2016-03-22
Buy milk due by 2016-03-22
Buy stamps due by 2016-03-22

Pick up laundry due by 2016-03-28

Write blog post due by 2016-03-29

Organize brown bag due by 2016-04-05

Sharpen knives due by 2016-04-05

Not Yet Complete

Description Category Subcategory Complete Due By

Description	Category	Subcategory	Complete	Due By
Buy bread	Domestic	Shopping	<input type="checkbox"/>	22-03-2016
Buy milk	Domestic	Shopping	<input type="checkbox"/>	22-03-2016
Buy stamps	Domestic	Shopping	<input type="checkbox"/>	22-03-2016
Vacuum house	Domestic	Housework	<input type="checkbox"/>	25-03-2016
Pick up laundry	Domestic	Chores	<input type="checkbox"/>	28-03-2016

Showing 1 to 5 of 10 [Show all](#)

Complete

Description Category Subcategory Complete Due By

Description	Category	Subcategory	Complete	Due By
Mow-lawn	Domestic	Garden	<input checked="" type="checkbox"/>	28-03-2016
Stage-Iris release	Professional	Open-Source	<input type="checkbox"/>	



Buy bread due by 2016-03-22

[Properties](#) [Other](#) [Metadata](#)**General****Description***

Buy bread

Delete

Category*

Domestic

**Subcategory**

Shopping

**Complete** Completed

Not Yet Completed

Priority**Relative Priority**

1

Previous

Next

Due By

22-03-2016

[Similar to](#) [Dependencies](#)**Similar To**

Table

Description	Category	Subcategory	Complete	Due By	Cost
Buy milk	Domestic	Shopping	<input type="checkbox"/>	22-03-2016	0.75
Buy stamps	Domestic	Shopping	<input type="checkbox"/>	22-03-2016	10.00

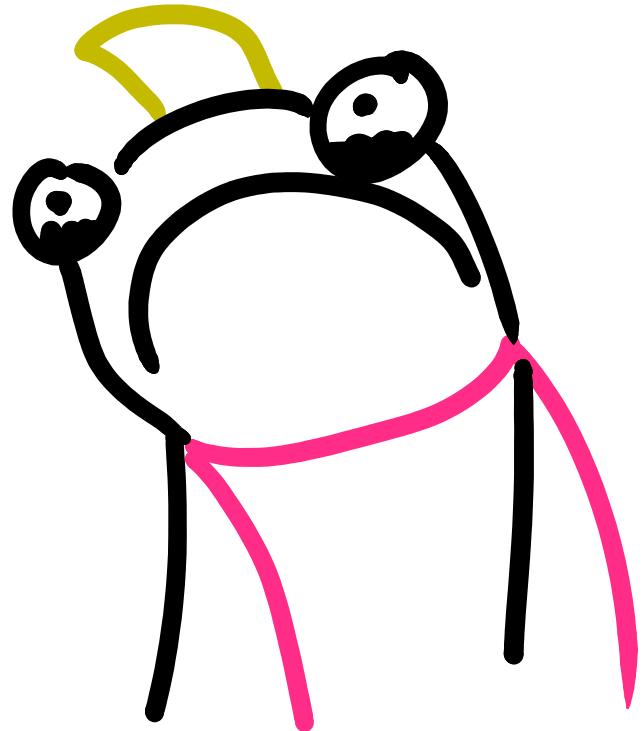
Showing 1 to 2 of 6 [Show all](#)

Naked Objects

all
the things!



But...
work within
framework?



Buy bread due by 2016-03-22

[Properties](#) [Other](#) [Metadata](#)**General****Description***

Buy bread

Delete

Category*

Domestic

Subcategory

Shopping

Complete Completed

Not Yet Completed

feels
CRUDy

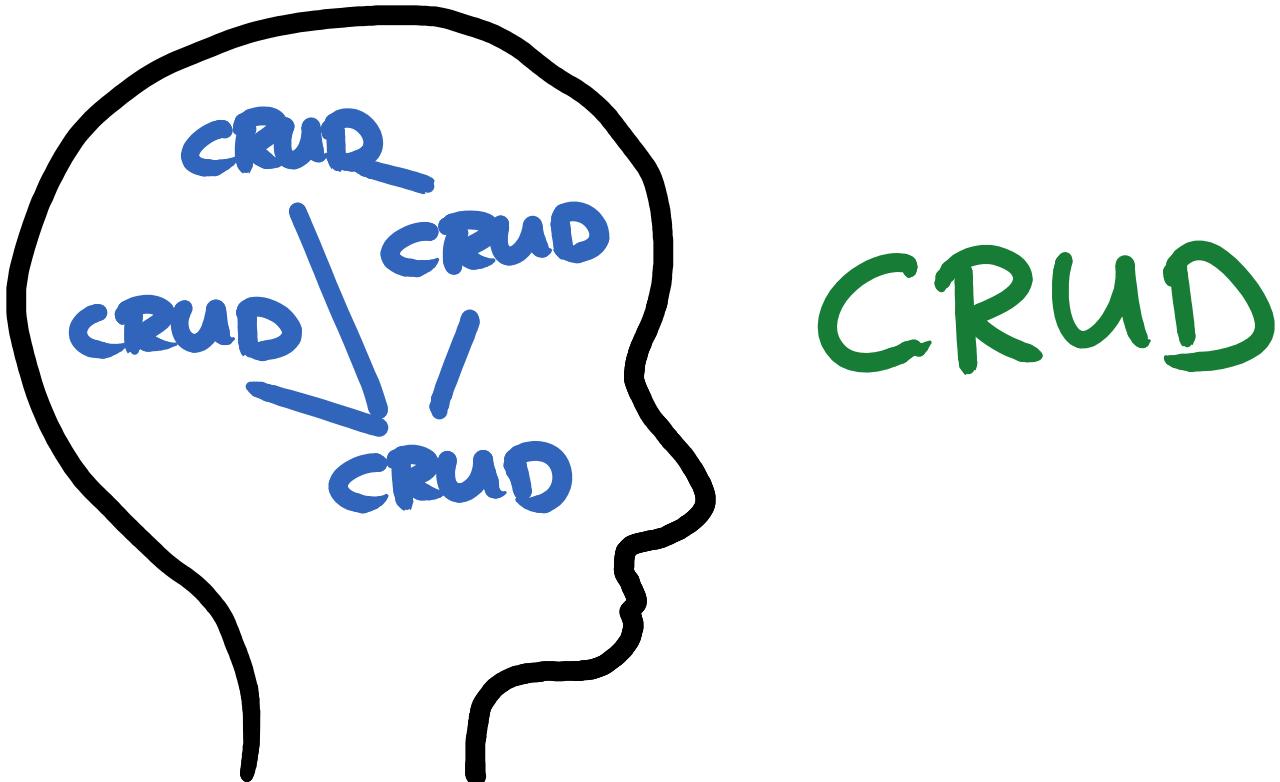
[Similar to](#) [Dependencies](#)**Similar To**

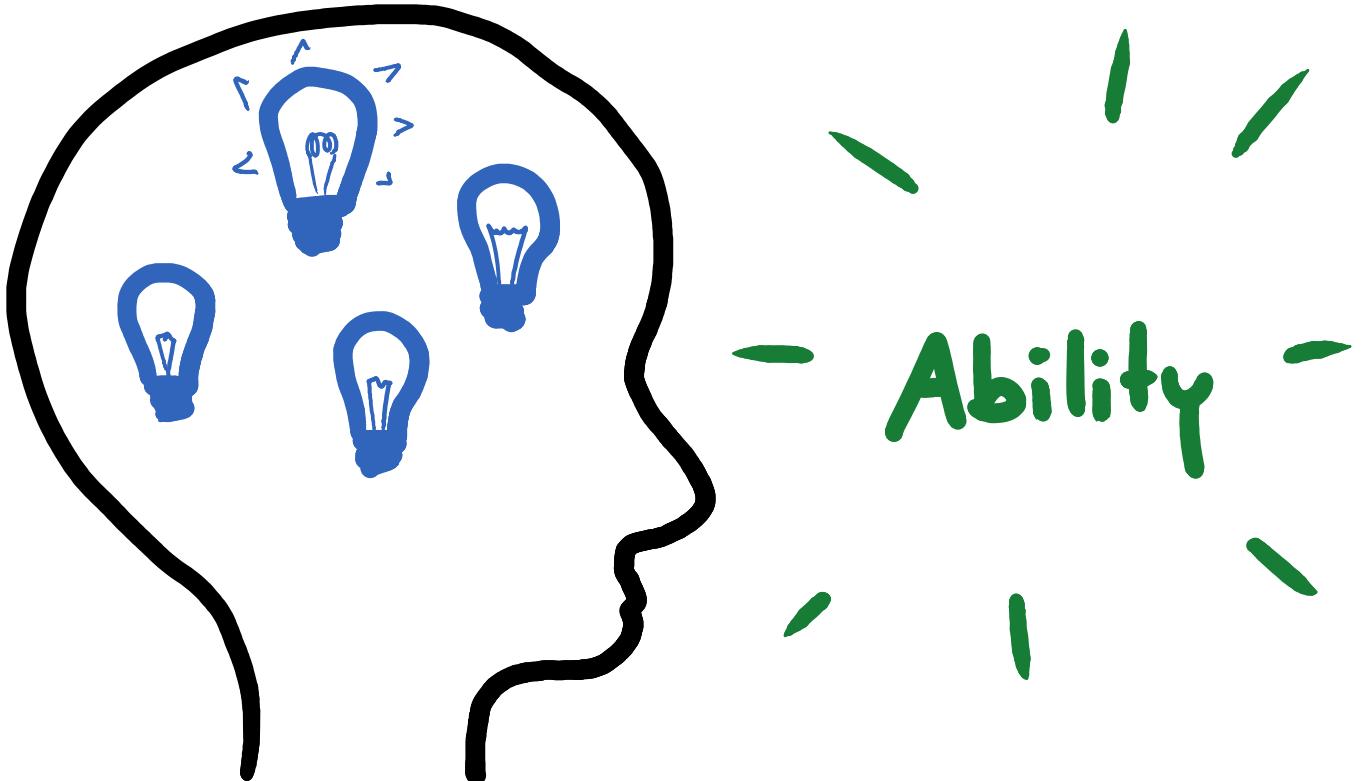
Table

Description	Category	Subcategory	Complete	Due By	Cost
Buy milk	Domestic	Shopping	<input type="checkbox"/>	22-03-2016	0.75
Buy stamps	Domestic	Shopping	<input type="checkbox"/>	22-03-2016	10.00

Showing 1 to 2 of 6 [Show all](#)

<< < 1 2 3 > >>





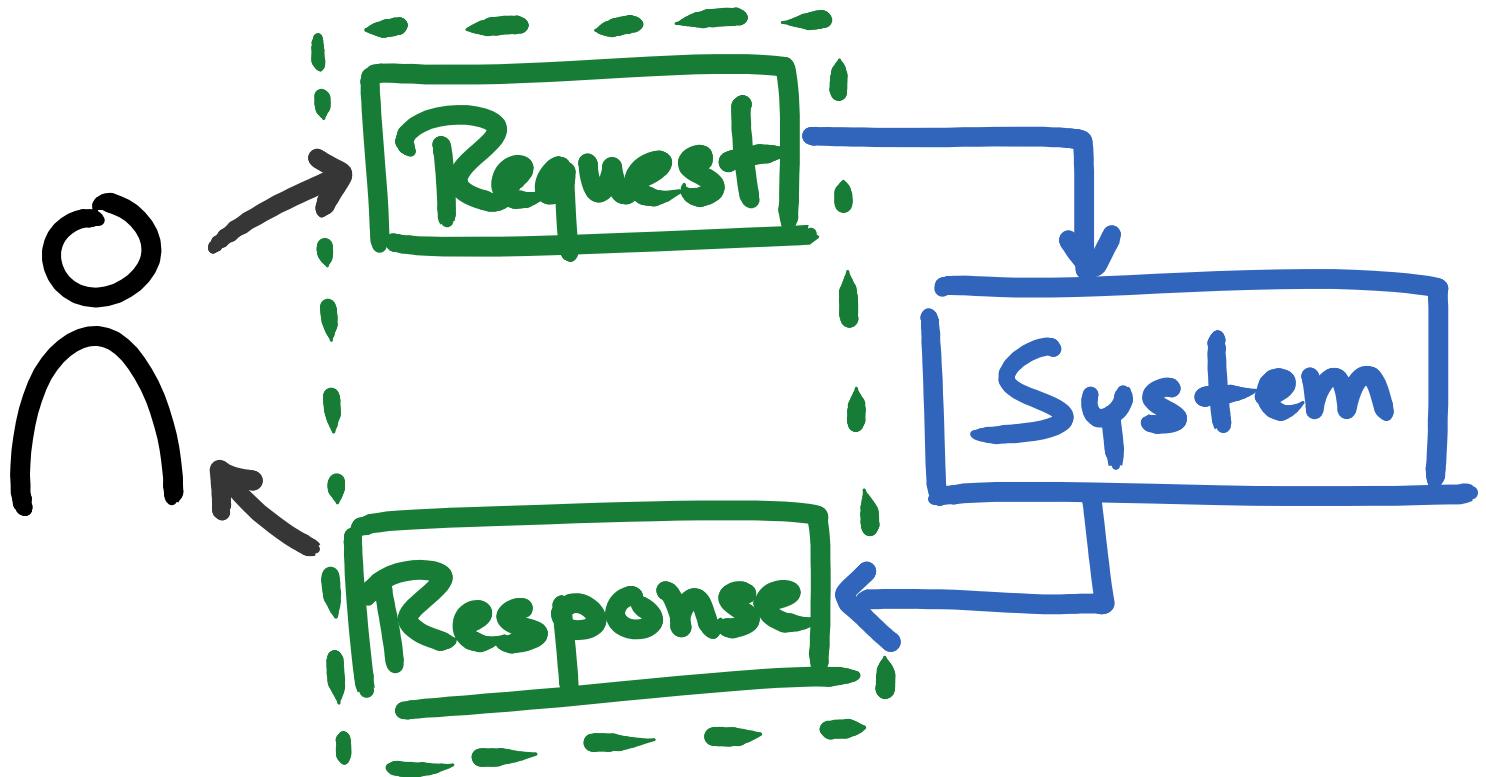
System

Ability

Ability Ability

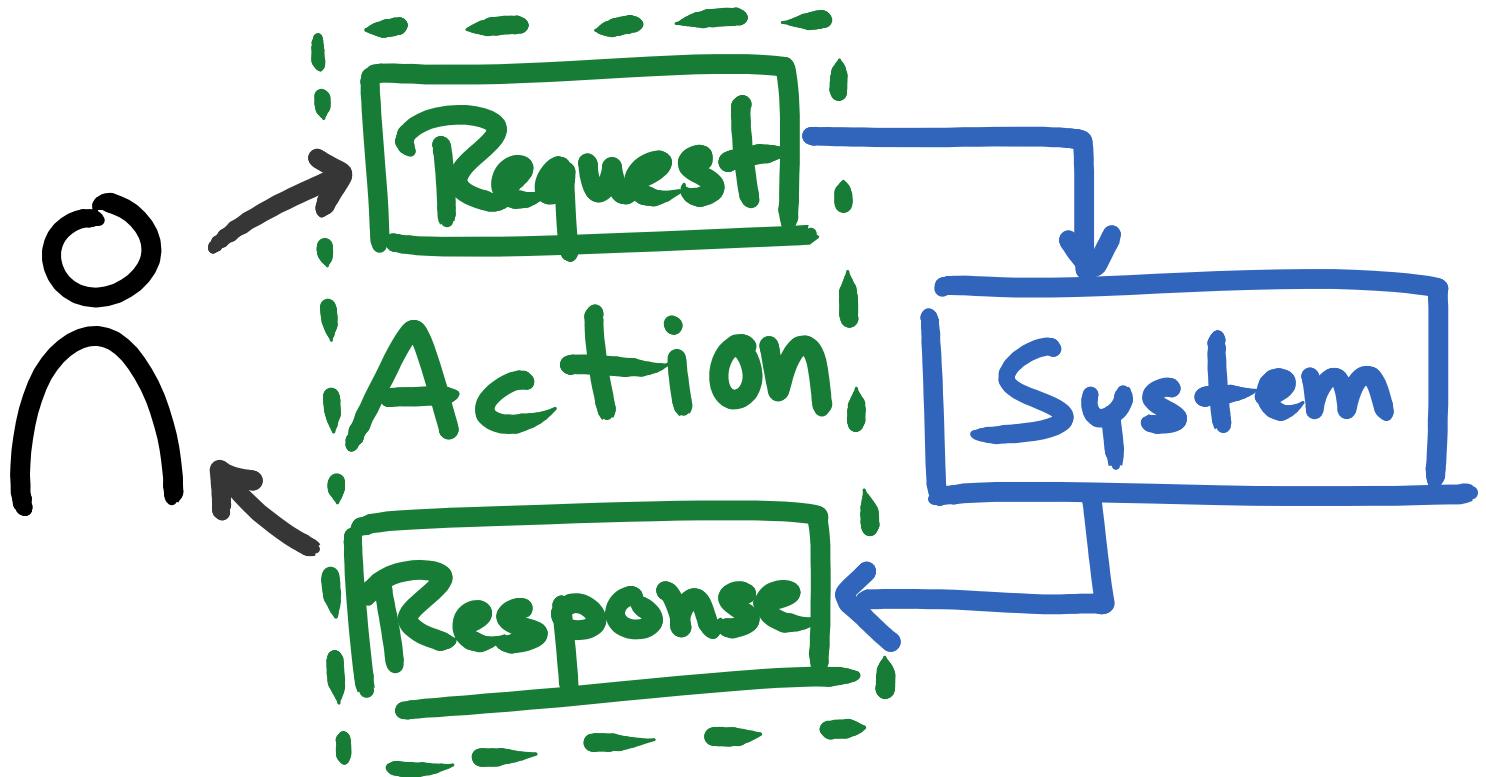
Ability

Ability Ability



dom in

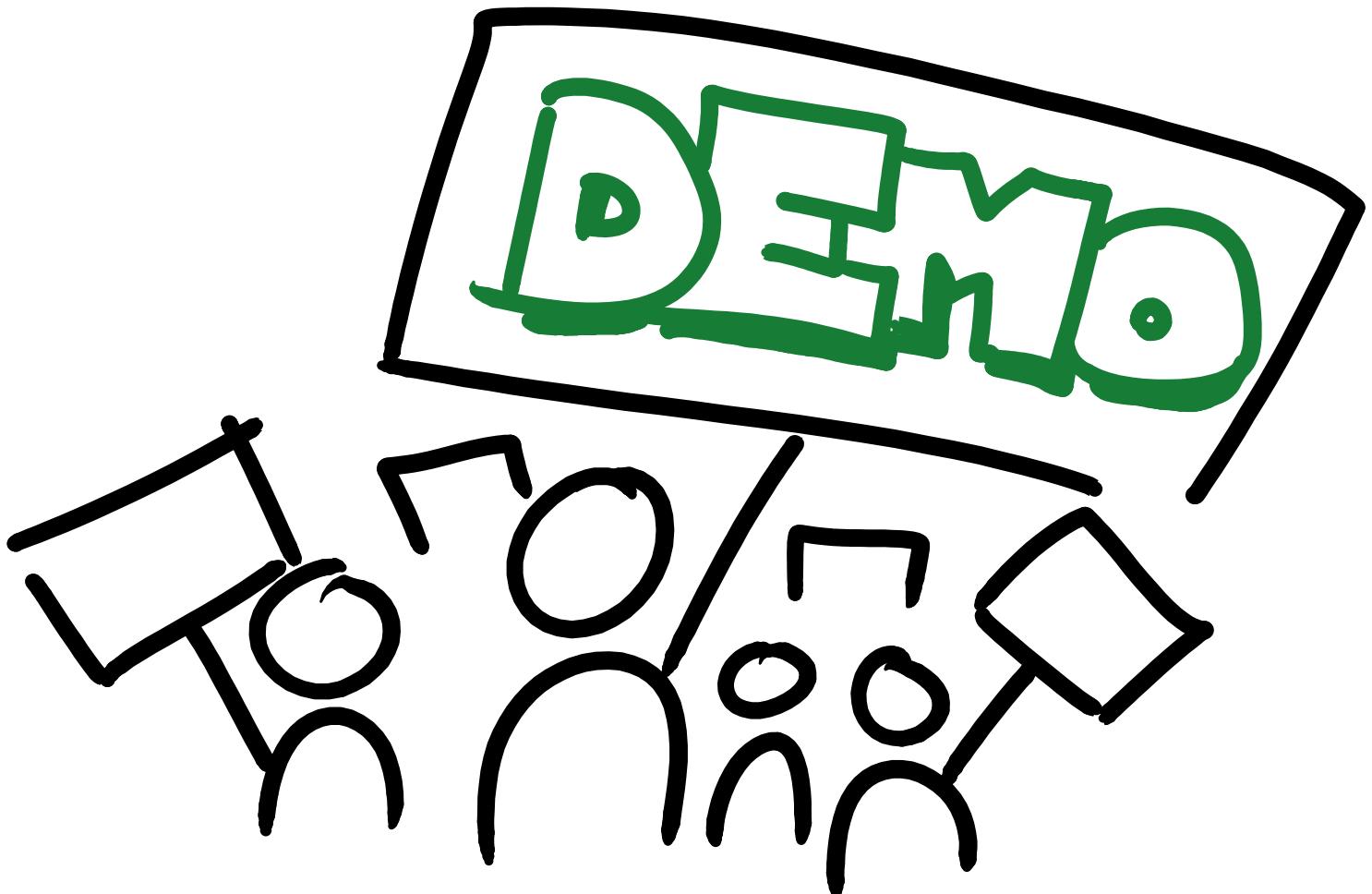
domain
model
interface



Action

name
parameters

execute(args)



*optional



```
/**  
 * Greet somebody  
 * @param string $name  
 * @return string  
 */  
public function greet($name) {  
    return $name;  
}  
 
```

[Show Dashboard](#)

Show Dashboard



List Goals

Name	Rating	Tasks
Actions ▾ Write about Bhutan	now (U7,I8)	1
Actions ▾ Close all watoki issues	schedule (U2,I5)	3

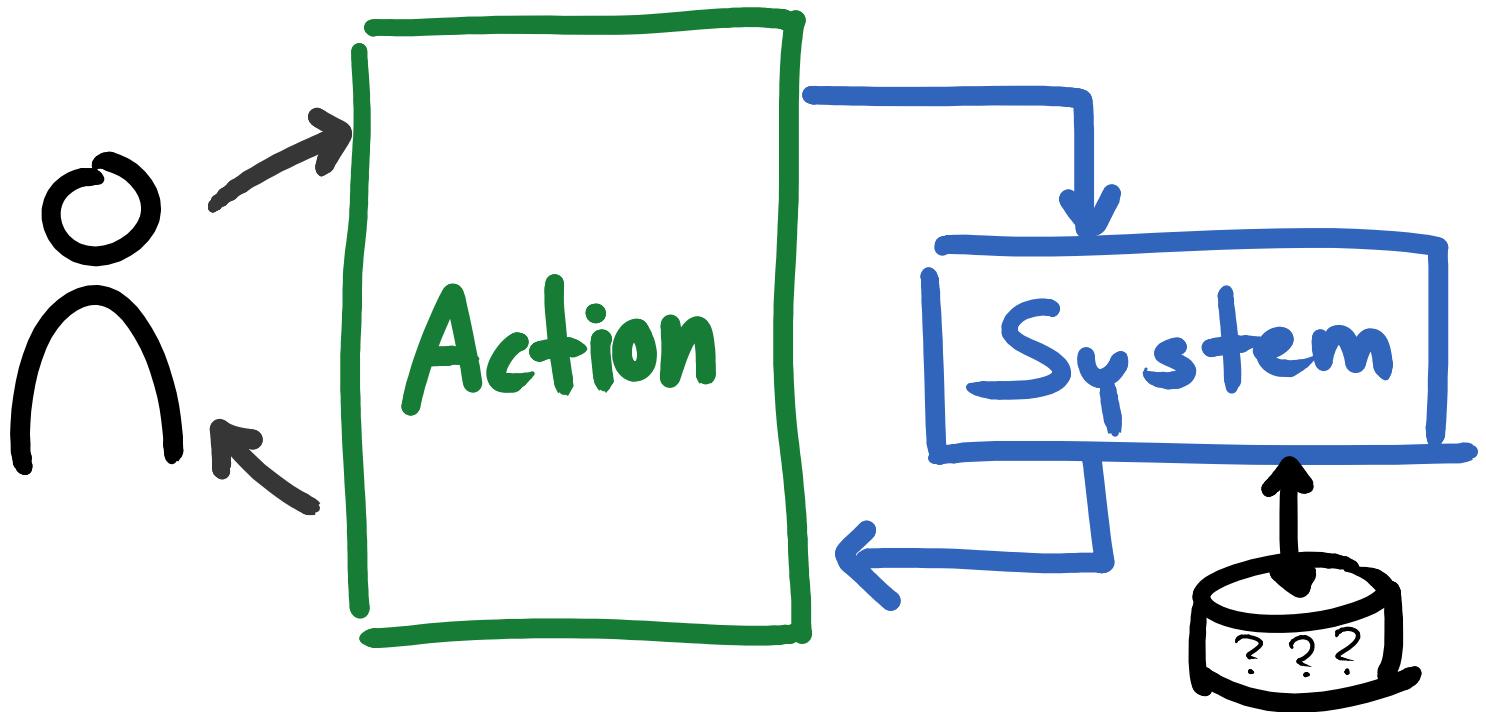
Show Brick Statistics

Total	112
Laid	85
CurrentStreak	0
LongestStreak	31

List Missed Bricks

List Upcoming Bricks

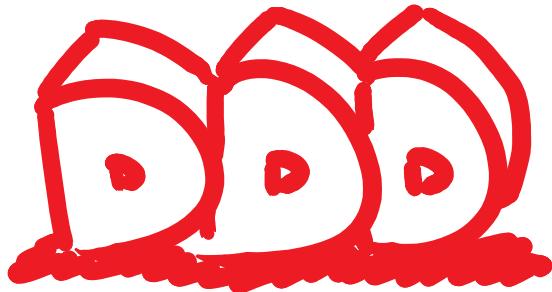
Show all ▾





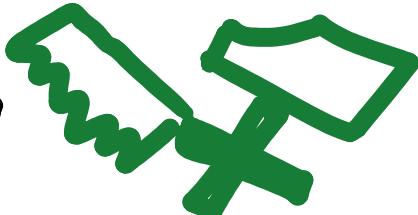
Event
sourcing





A seemingly
heavy method

with the
right tool



can become
light and fast.



get in touch!

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95.143.172.58