Rapid prototyping with Domain-Driven Design

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What is the biggest Problem of Software Engineering?
What is the biggest Problem of Software Engineering? * actually two
Uncertainty
Uncertainty

Complexity
Doing the right thing
Doing the right thing

Doing the thing right
This talk
This Talk

RP
This Talk

RP

DDD

Tools
This Talk

RP

Tools

DDD
This Talk

RP → Tools → DDD

!?
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rtens
uncertainty
certainty
certainty
certainty
certainty
Software

$\rightarrow$ free $\rightarrow$ $$
plan
plan
adapt
adapt
Rapid
Rapid

Prototype
Rapid

Prototype

Agile
Rapid

Prototype

Agile
Lean
Scrum
Crystal
XP

...
adapt
adapt
adapt
adapt
adapt
adapt
adapt

The right thing

""
Complexity
Complexity is in the Domain
Complexity is essentially in the Domain
Let's focus on the Domain
Domain-Driven Development
What is Domain-Driven Development?
The Model
The Model Diagram
The Model

Code

classes

def y

def z
The Model

classes x
def y
def z
The Model
The Model
The Model

Ubiquitous Language
The Model

Diagram shows a head with interconnected nodes. 

- On the left side: 
  - Red speech bubbles with letters: X, Y, Z.

- On the right side: 
  - Blue trees with nodes labeled X, Y, Z, and a book labeled: class X, def Y, def Z.

- In the center: 
  - Green nodes forming a network.
The Model
The Model
The Model is a useful approximation of the real world.
Example
Example

ToDo App
Ubiquitous Language
Add
Complete Task
Categorize
Log Time
Single Model
Single Model

*) Way of thinking about the system
Single Model

Ubiquitous Language
DDD all the things!
But...
But... is it worth it?
entity

DDD

value
object
entity context value object
association modules service
factory repository aggregate event

DDD
DDD

entity  context  value
association  object  modules  Service
factory  repository  aggregate  event  refactor
Naked Objects

Domain
Naked & Objects

Richard Pawson

2004
Single Model
Domain Object
login form

Username
Enter username
Password
Enter password
Remember me
Sign in Reset
Buy bread due by 2016-03-22

**General**
- **Description**: Buy bread
- **Category**: Domestic
- **Subcategory**: Shopping
- **Complete**: False

**Priority**
- **Relative Priority**: 1
- **Due By**: 22-03-2016

**Similar To**
- **Buy milk**
- **Category**: Domestic
- **Subcategory**: Shopping
- **Complete**: False
- **Due By**: 22-03-2016
- **Cost**: 0.75

- **Buy stamps**
- **Category**: Domestic
- **Subcategory**: Shopping
- **Complete**: False
- **Due By**: 22-03-2016
- **Cost**: 10.00

Showing 1 to 2 of 6

Powered by: Apache Isis™
Naked Objects all the things!
But...
But... work within framework?
Buy bread due by 2016-03-22

Properties | Other | Metadata
---|---|---
**General**
Description*: Buy bread
Category*: Domestic
Subcategory: Shopping
Complete: 

**Priority**
Relative Priority: 1
Due By: 22-03-2016

**Similar to** | **Dependencies**
---|---
**Similar To**
Description | Category | Subcategory | Complete | Due By | Cost
Buy milk | Domestic | | | 22-03-2016 | 0.75
Buy stamps | Domestic | Shopping | | 22-03-2016 | 10.00

Showing 1 to 2 of 6 Show all
Buy bread due by 2016-03-22

Description: Buy bread
Category: Domestic
Subcategory: Shopping
Due By: 22-03-2016

Similar To
- Buy milk
  - Description: Buy milk
  - Category: Domestic
  - Subcategory: Shopping
  - Due By: 22-03-2016
  - Cost: 0.75
- Buy stamps
  - Description: Buy stamps
  - Category: Shopping
  - Subcategory: Shopping
  - Due By: 22-03-2016
  - Cost: 10.00

CRUDY
CRUD
Ability
System

Ability
domin
domain model interface
Request
Action
Response
System
Action
Action

name

parameters
Action
name
parameters
execute(args)
/**
 * Greet somebody
 * @param string $name
 * @return string
 */

public function greet($name) {
    return $name;
}
Event sourcing
A seemingly heavy method
with the right tool

A seemingly heavy method

ddd
A seemingly heavy method with the right tool can become light and fast.
get in touch!

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