COMPLEX IS EASY,
IT’S SIMPLE WHICH IS HARD
SARAH TARAPORE WALLA
TECH PRINCIPAL
ThoughtWorks® @sarahtarap
Let’s Explore

1. Complexity in the Real World
2. How does it happen?
3. The One About The Checkbox
4. The One About The Fortress
5. The One About The Article
6. The One about the Pricing Rules
Complexity in the Real World
BE PREPARED TO
SAVE A LIFE
LEARN HANDS-ONLY CPR

Photo courtesy of https://www.crowdrise.com/handsonlycpr
CYNEFIN FRAMEWORK

Complex
- Probe
- Sense
- Respond
- Emergent

Complicated
- Sense
- Analyze
- Respond
- Good Practice

Chaotic
- Act
- Sense
- Respond
- Novel

Simple
- Sense
- Categorize
- Respond
- Best Practice

How does it happen?
2   6   8
1   3   4
2   5   7
5   8   11

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The One About The Checkbox
SIMPLE CODE MANIFESTO

Composition over Inheritance
Matchers over If-Then-Else
Tiny Types over Primitives
SRP over Fat Objects
Decorators over Mixed Concerns
Code samples for the presentation "If simple were easy, why is maintenance so hard?" — Edit

- 1 commit
- 1 branch
- 0 releases
- 1 contributor

Branch: master → New pull request

- starapor Initial commit
  - WonderfulGame
  - .gitignore
  - WonderfulGame.sln

Latest commit b61788d 10 minutes ago
Initial commit 10 minutes ago
Initial commit 10 minutes ago
Initial commit 10 minutes ago

Help people interested in this repository understand your project by adding a README.
BOY SCOUT RULE

Photo courtesy of http://disney.wikia.com/wiki/Russell
Trailing commas in lists

```csharp
_matcher = new Matcher<Player>
{
    { p => p.InPenaltyBox(), ReducePenaltyTime },
    { p => p.WearingAHat(), RemoveTheHat },
    { p => true,              PlayARound },
};
```

Brackets {} around conditionals

```csharp
public void TakeTurn(Player player)
{
    if (player.InPenaltyBox())
    {
        ReducePenaltyTime();
    }
}
```
IFooHandler => IHandleLotsOfFoos
IGameRepository => ICanFindTheGame
SIDE-EFFECT FREE CODE

MY HOBBY:

USING THE MORE OBSCURE MEANINGS OF “AFFECT” AND “EFFECT” TO TRY TO TRIP UP AMATEUR GRAMMAR NAZIS.

I THINK THAT OUR FOREIGN POLICY EFFECTS THE SITUATION.

YOU MEAN “AFFECTS.”

Photo courtesy of https://xkcd.com/326/
SQUINT TEST
Simple Code Manifesto
The One About The Fortress
JOB SECURITY
OPENNESS & COLLABORATION
Openness and Collaboration
DOMAIN DRIVEN DESIGN
UBIQUITOUS LANGUAGE

Photo courtesy of http://pngimg.com/download/51770
DOMAIN DRIVEN DESIGN

[Diagram showing relationships between Services, Entities, Aggregates, Value Objects, Factories, Smart UI, and Model-Driven Design, with arrows indicating flow and relationships.]
Ubiquitous Language & DDD
The One About The Legacy
EXPLAIN YOUR SYSTEM

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SIMON BROWN'S C4 MODEL

Software architecture and the C4 model

1. System context. System architects describe the system's context, including its environment, stakeholders, and goals. This helps to establish the system's boundaries and responsibilities.

2. Components diagram. The components diagram shows the components of the system and their relationships. Each component represents a different level of abstraction, with lower-level components being more detailed and higher-level components being more abstract.

3. Composite diagram. The composite diagram shows how the components interact with each other. This diagram helps to identify the interfaces and dependencies between components.

4. Cuts diagram. The cuts diagram shows the access points to the system, including external interfaces and internal cut points. This diagram helps to identify the points at which the system can be accessed from the outside.

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DESIGN-ON-A-POST-IT

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The One About The Pricing Rules
GENERALISE

SPECIALISE
Specialise to Generalise
To Recap
<table>
<thead>
<tr>
<th>SOUPS</th>
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<tbody>
<tr>
<td>Simple Code Manifesto</td>
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<td>Openness and Collaboration</td>
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<td>Ubiquitous Language &amp; DDD</td>
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<td>Post-it Design</td>
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Q&A
THANKS FOR LISTENING

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