



Modelling in Java

Me

George Svarovsky

Technical Director @ IDBS

gsvarovsky@idbs.com

<http://uk.linkedin.com/pub/george-svarovsky/35/999/465>



This

Modelling

Model-driven development

Java

JCurry

JSizzle

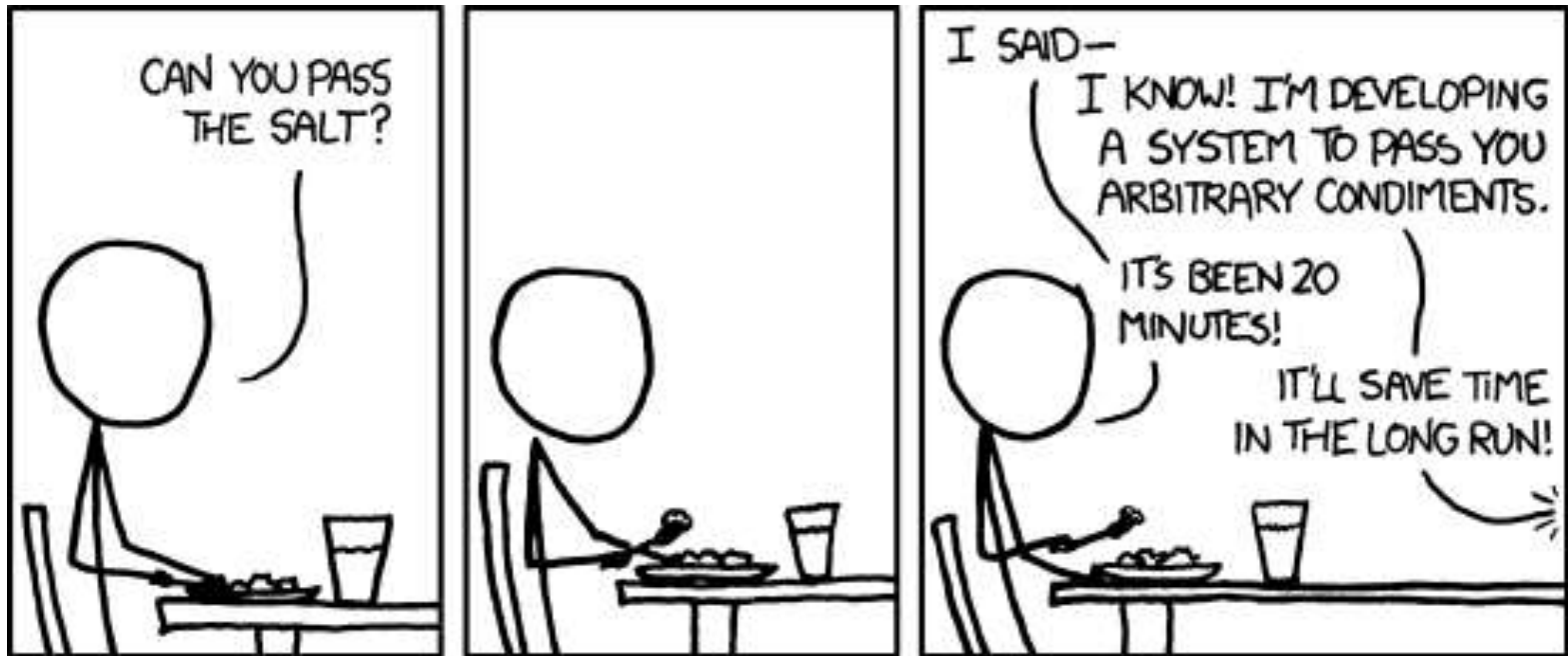
You

Z?

UML?

Other..?





Solutioneering

Items

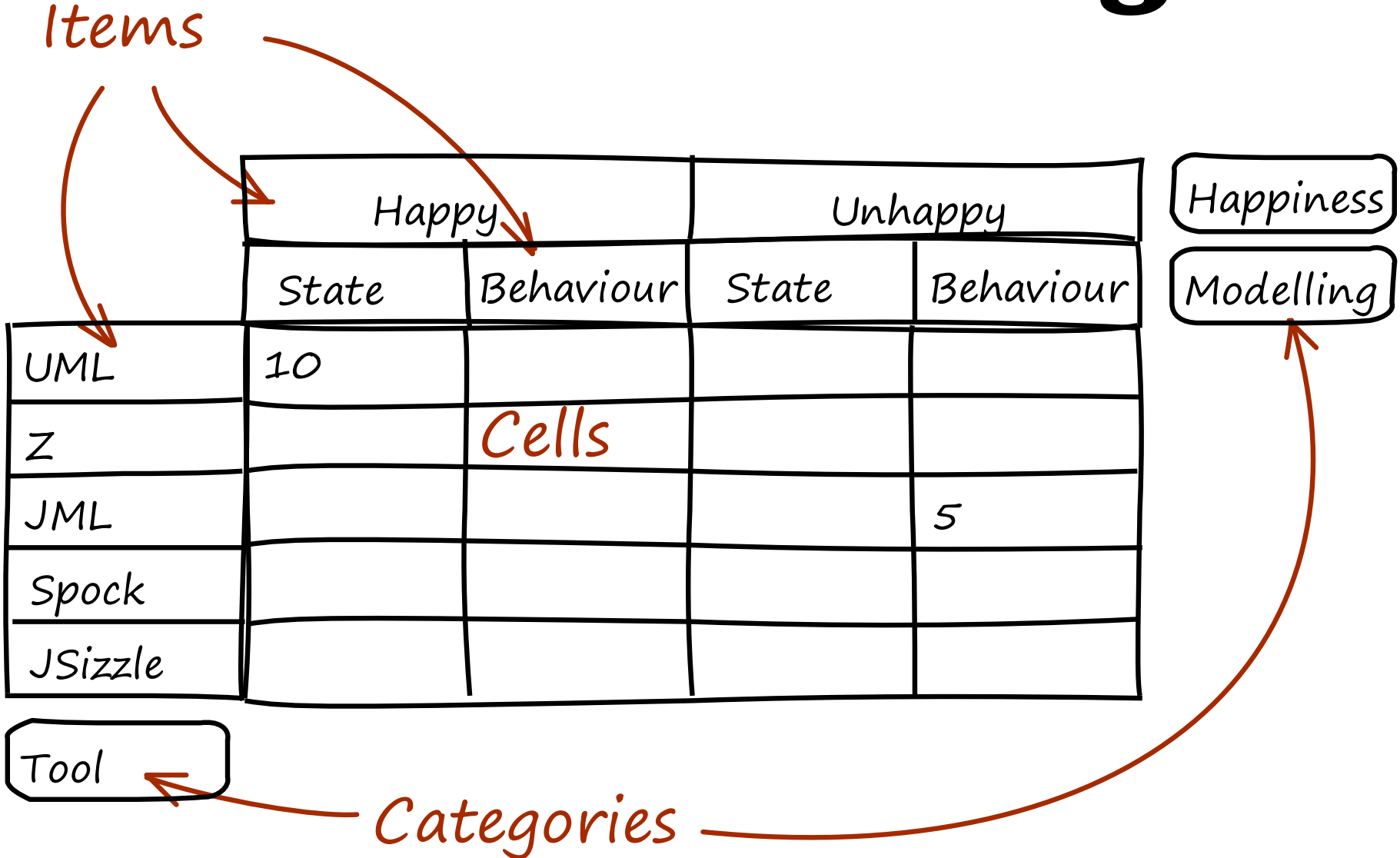
	Happy		Unhappy	
	State	Behaviour	State	Behaviour
UML	10			
Z		Cells		
JML				5
Spock				
JSizzle				

Happiness

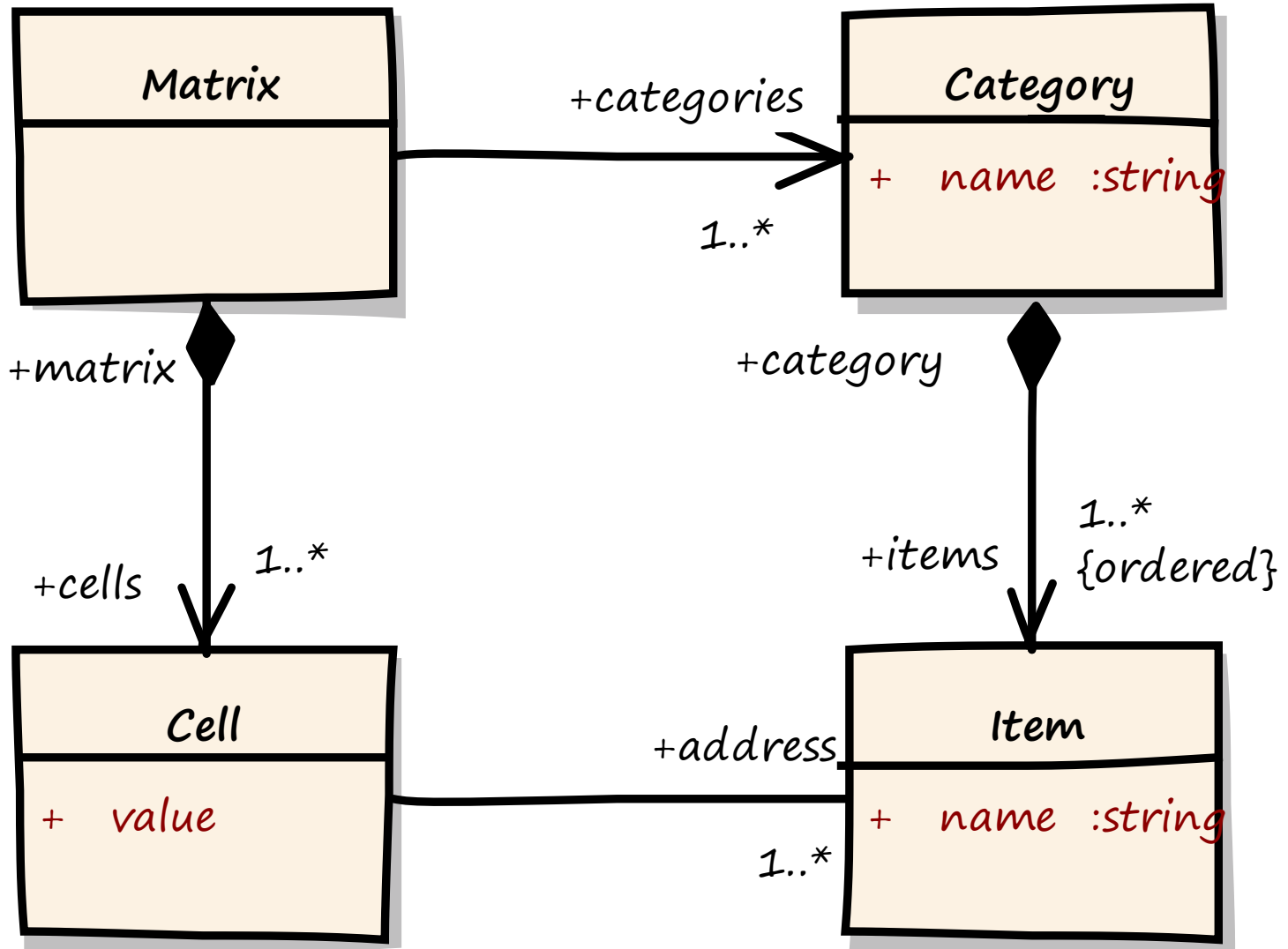
Modelling

Tool

Categories



UML



[Value, Name]

Z

Category

name : Name

items : seq Name

$\#items > 0$

Address

categoryItems : Category \rightarrow Name

$\forall c : \text{dom } categoryItems \bullet categoryItems\ c \in \text{ran } c.items$

Matrix

categories : \mathbb{P} Category

cells : Address \rightarrow Value

$\forall a : \text{dom } cells \bullet \text{dom } a.categoryItems = categories$

Java

Reference equality

Nulls

Mutation

Default visibility

Procedural

Informal invariants

Painful to initialise

JSizzle

Value equality

No nulls

Everything public & final

Declarative

Invariant checking

Generated initialisers

Instrumentation

Lots of options (it's Java!)

Abstraction gap

Ad-hoc animation

Unit tests

Z Influence

State transitions

Promotion

Export to Z