



Tests met enen en nullen, en dan
geautomatiseerd vanuit een model

toekomst of realiteit?

Introduction

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Workshop Agenda

- Introductie
- Uitleg
- Hoe maak ik een model
- Koffie
- Hoe automatiseer ik het model
- Samenvatting



Verwachtingen

- Hoog over
- Niet echt de diepte in
- We hebben maar 3 uur....

exp[?]ec•ations



Uitleg

Model driven testing met behulp Agile Requirement Designer

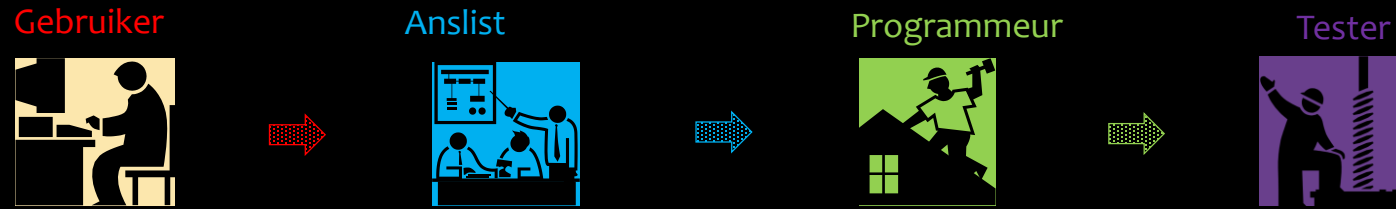
Beter & Snellere samenwerking

Hoe kunnen we het ontwikkelmodel verbeteren?



Het probleem:

Onduidelijkheid



De gebruikers weten wat zij willen

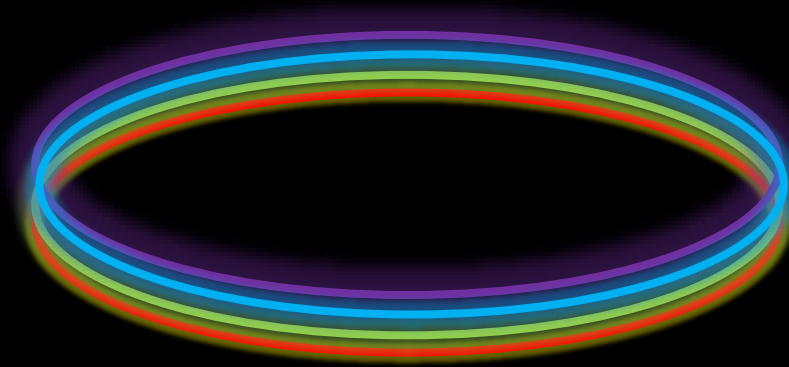
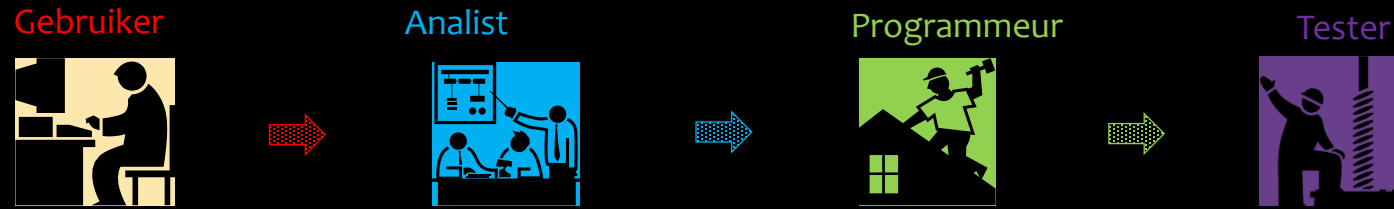
De anlist specificeert

De programmeurs schrijven code

De testser teten het programma

The Solution:

Clarity and Vision during development



Hoe dichters bij elkaar, hoe beter het product

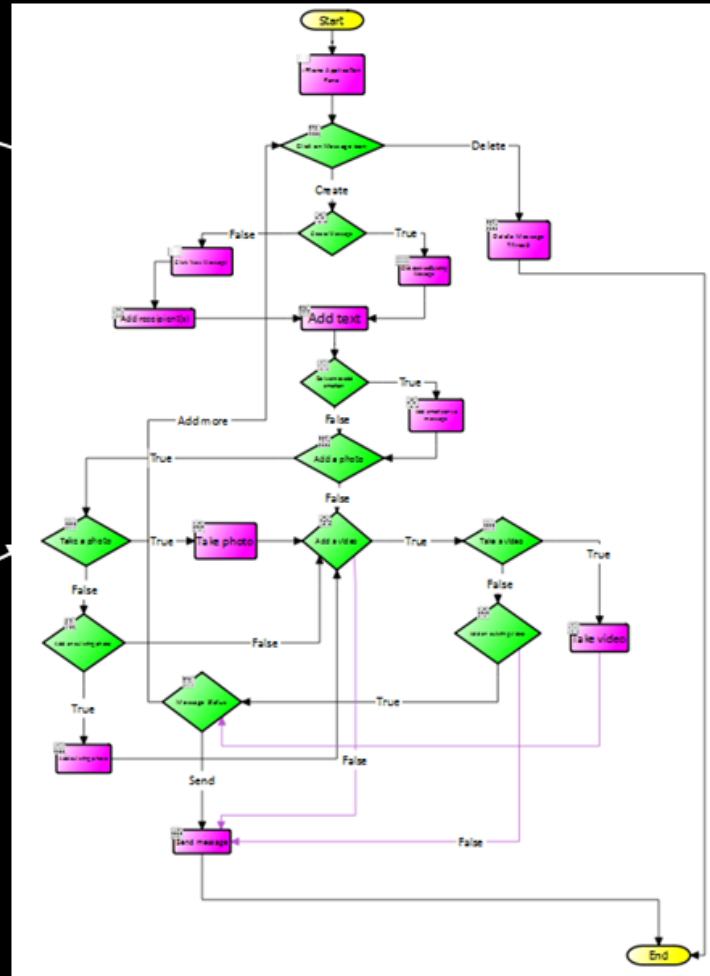
Minder issues... is sneller leveren

Model Driven Testing

- Product Owner
- Business Analyst
- Tester

Models can be represented as flow charts.

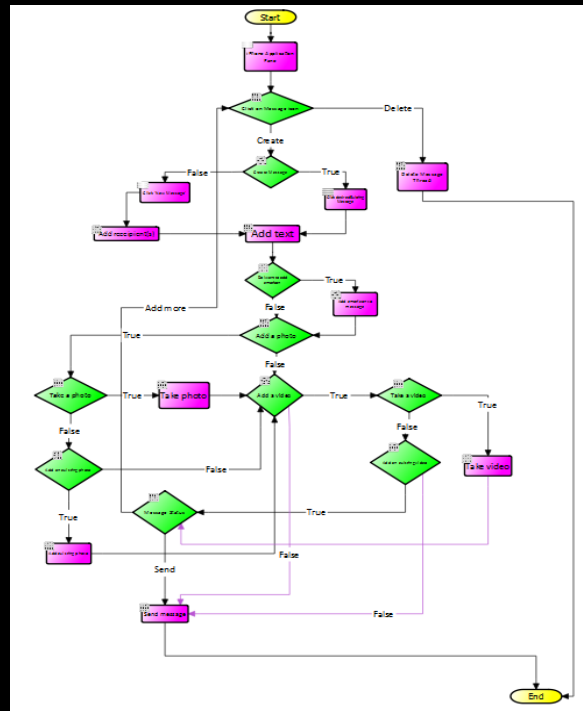
Each process defines the state of the system with transitions to other states through actions.



Start and end points of the system.

Extracting test cases

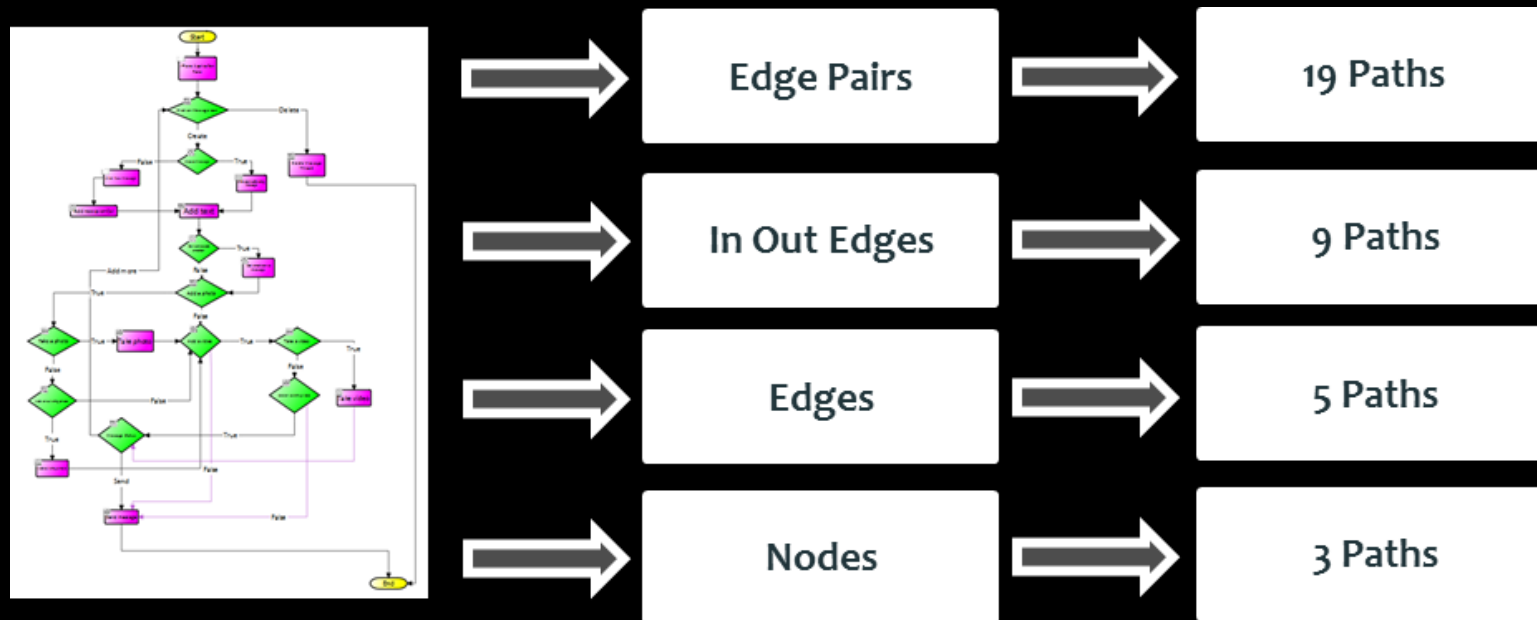
- Each path through the model represents a test case
- Because the flowchart is mathematically precise, paths can be generated automatically using algorithms



2145 Paths

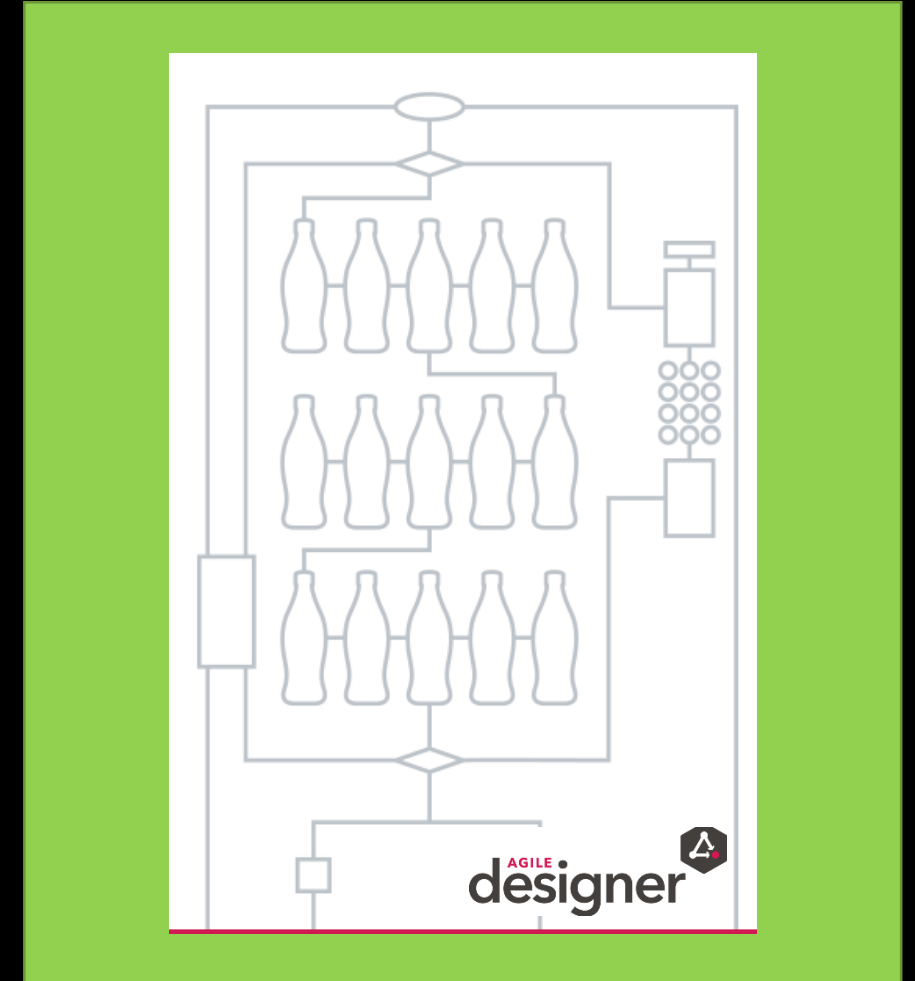
Optimization / Coverage

- Coverage: the measure of how much functionality is being covered by a set of test cases
- Combinatorics will condense the paths down while retaining coverage



Agile Requirements Designer

- Ontwerp
- Test Ontwerp
- Test Uitvoering



Ontwerp

AgileDesigner - Configure LB - Config 1 & 2 (Visual Flow Version: 1.0.0.3)

File Edit Item Tools Test Factory Connect Help

MS Shell Dlg 2 6

Toolbox Dock

Common Symbols

- Start/End**
Start or End block
- Process**
Process block
- True/False**
True/False decision block
- Single-Variable Case**
Single-variable case decision block
- Multi-Variable Case**
Multi-variable case decision block
- Decision Table**
Decision Table
- Subflow Decision**
Subflow decision linked to an existing AgileDesigner flow

Accelerators

Other shapes

Import

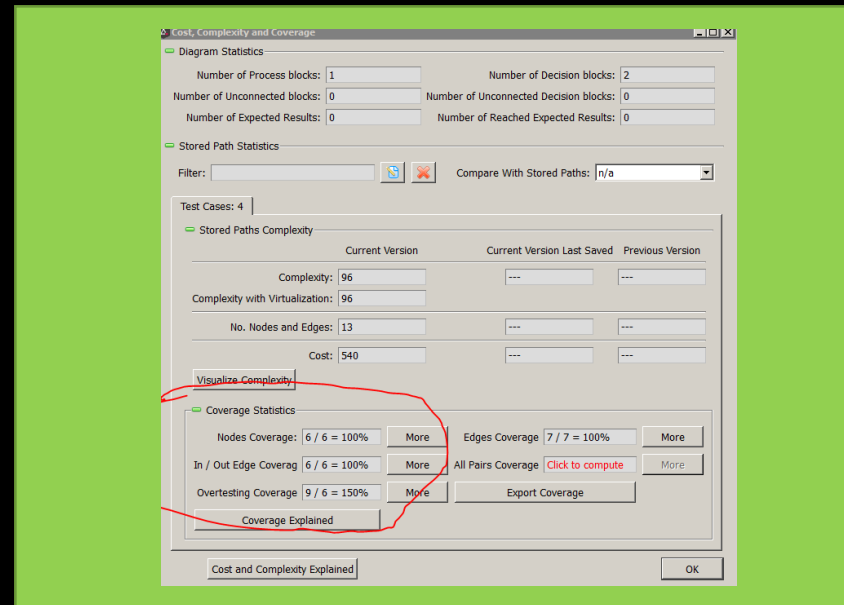
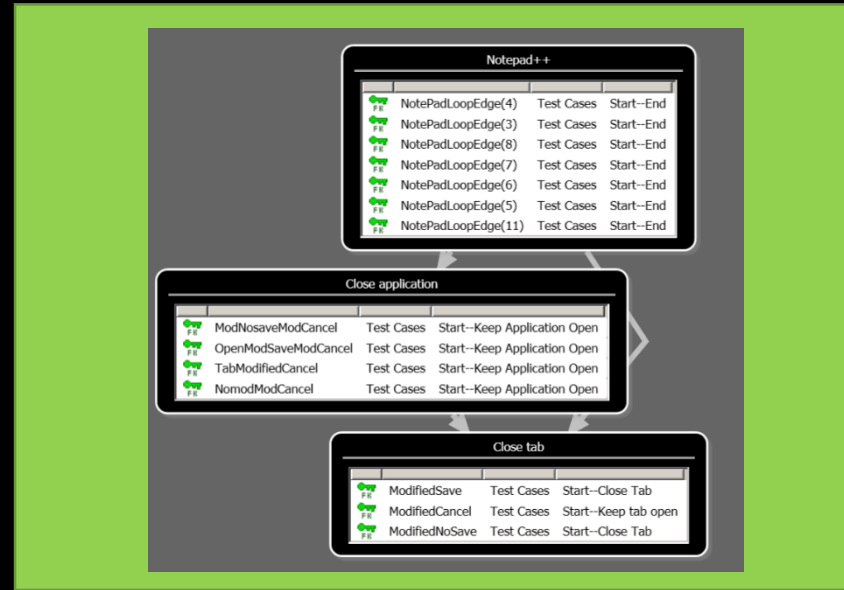
Connectors

Context: Configure LB - Config 1 2

Notifications: 0 new, 0 total [AgileDesigner 1.8.35](#).

Features

- Impact analyses
- Versiebeheer
- Coverage



Test Ontwerp

Path Explorer

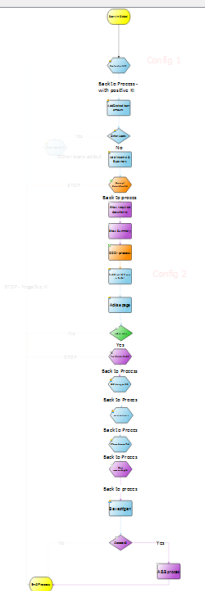
Stored Path Type: Paths Paths - Add to existing Test Cases (6)

Test Cases

From: Start in Siebel To: End Process

Optimization Type: Maximal Coverage - All Edges Path Settings Loop Settings

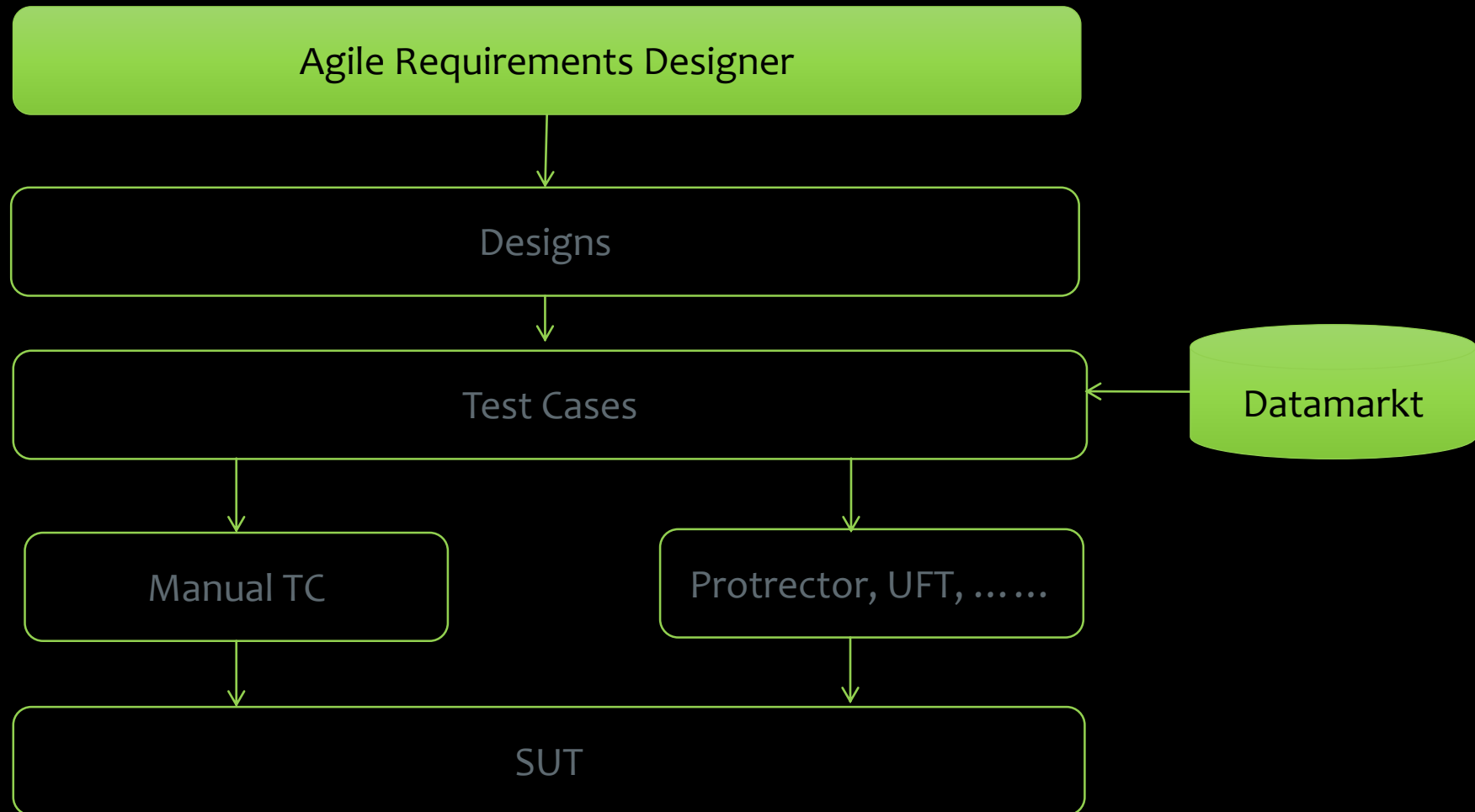
Store Path Store All Store N



Block	Make	Find	Test Data	Importance	Observations
Start in Siebel					
Contractants1.1 = Back to Process - with positive KI				Medium	obs
1.1					
Contractants & KI indicator					
Enter number of contractants = Number of applicants add			Number of contractants = 1; Number of contractants = 2	Medium	obs
if contractant = 1 = Yes			Number of contractants = 1	Medium	obs
KI check performed				Medium	obs
KI positive = Positive			KI = Green	Medium	obs
Green				Critical	obs
Back to Process - with positive KI					
Add Desired loan amount			AddDesiredloanamount = 10000	Medium	obs
Other Loans = No			OtherLoans = No	Medium	obs
Add Income & Expenses			AddIncome&Expenses = ; Burgelijke = gehuwd; Kinderen < 21 = nee; Income = 2500	Medium	obs
Concept Calculation1.3 = Back to proces				Medium	obs
Concept Calculation 1.3					
Loan = negative = False				Medium	obs
Loan possible = Oversluiten				Medium	obs
Loan oversluiten				Medium	obs
Back to proces					

Activate Pins Sort by: Test importance (highest first) Showing path 1 of 6 Print Paths Export Paths Coverage

Test Uitvoering





Hoe maak ik een model

Introductie: hoe maak ik een model in Agile Requirements Designer

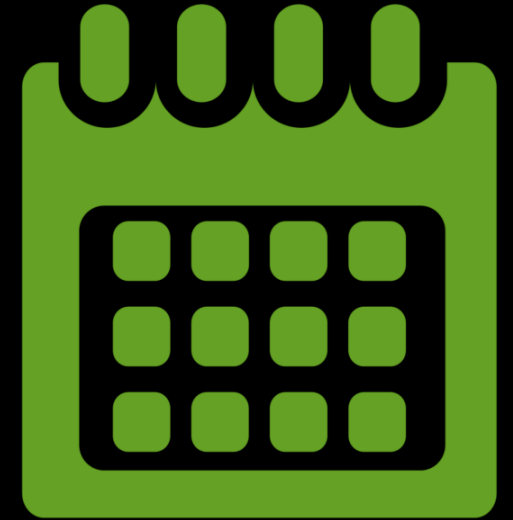
Praktijk case / Oefeningen / etc.



Koffie



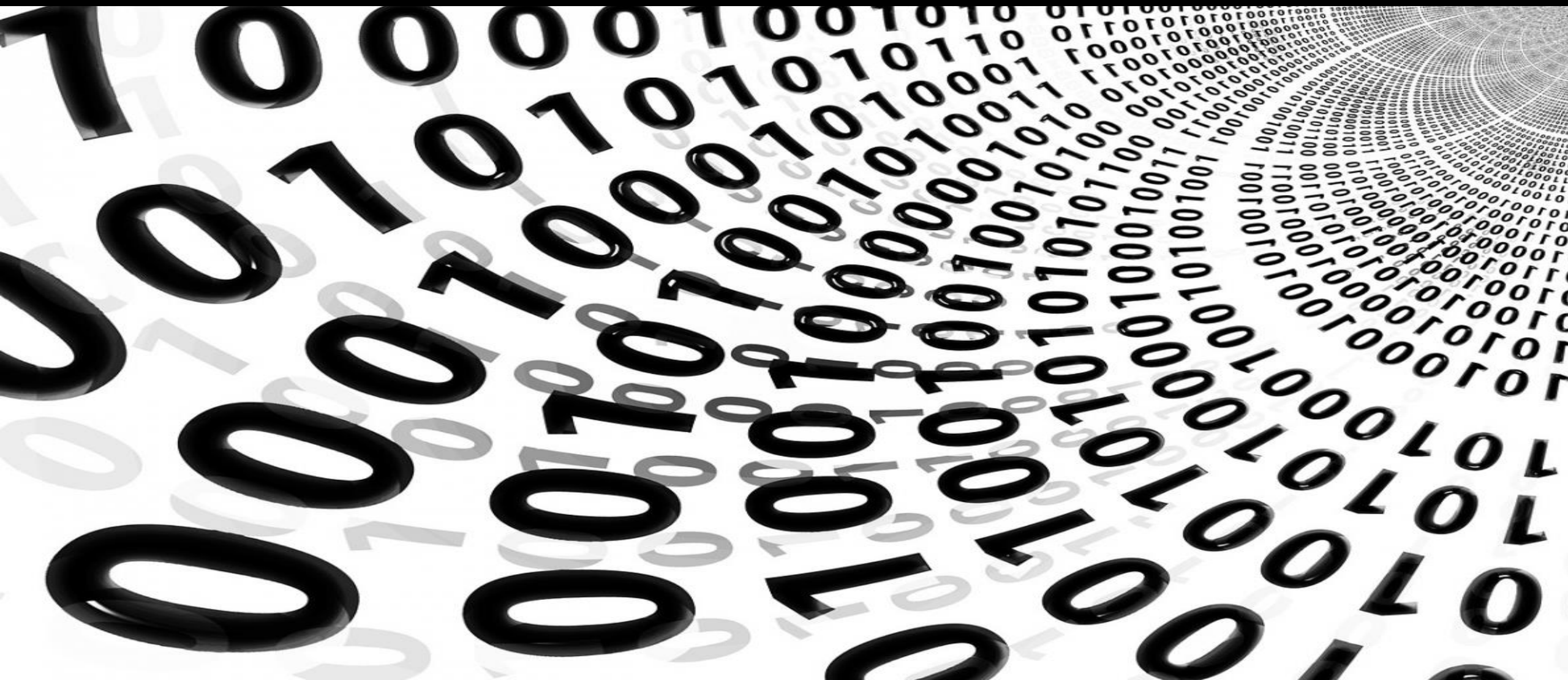
15 minutes

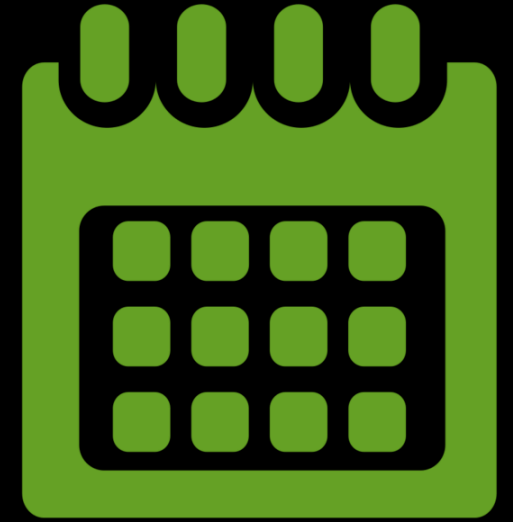


Hoe automatiseer ik mijn model

Introductie: hoe ik vanuit mijn model de testscrip automatiseer,
kan laten genereren.

Praktijkcase / Oefeningen / Etc.





Afsluiting

Terugblik en mogelijkheid tot stellen laatste vragen.