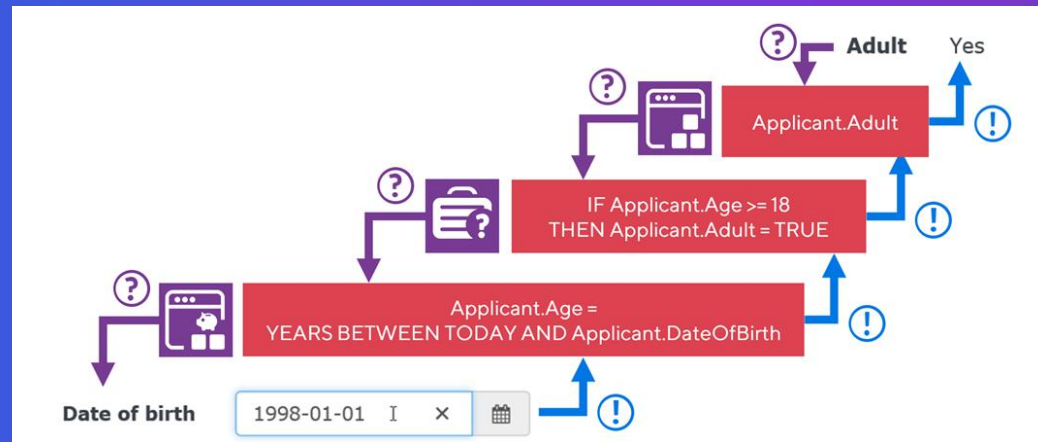


# Business Modeling Foundation

A first encounter with Blueriq: the basics of Business Engineering, finding your way in the Studio and executing your model in the Runtime.  
Make your own rules!



**Frank van der Vaart**  
Trainer Blueriq Academy



blueriq

# Goals

## Mastering the basics

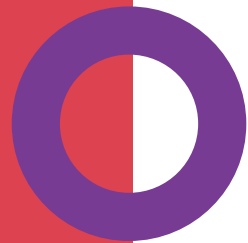
- Interaction
- Domain model
- Logic
- Instance Management

## Being able to model

- Complex logic
- Documents (optional)

## Understanding

- Aggregates (optional)



# Flow

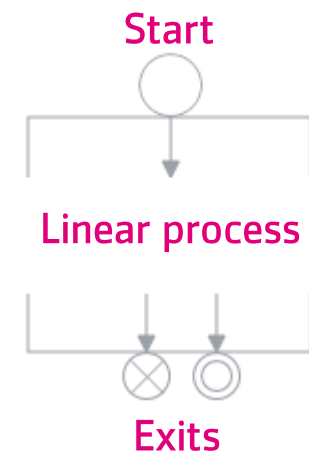
A flow is a visual structure of a linear process

It has a start node and (0 or more) exit nodes

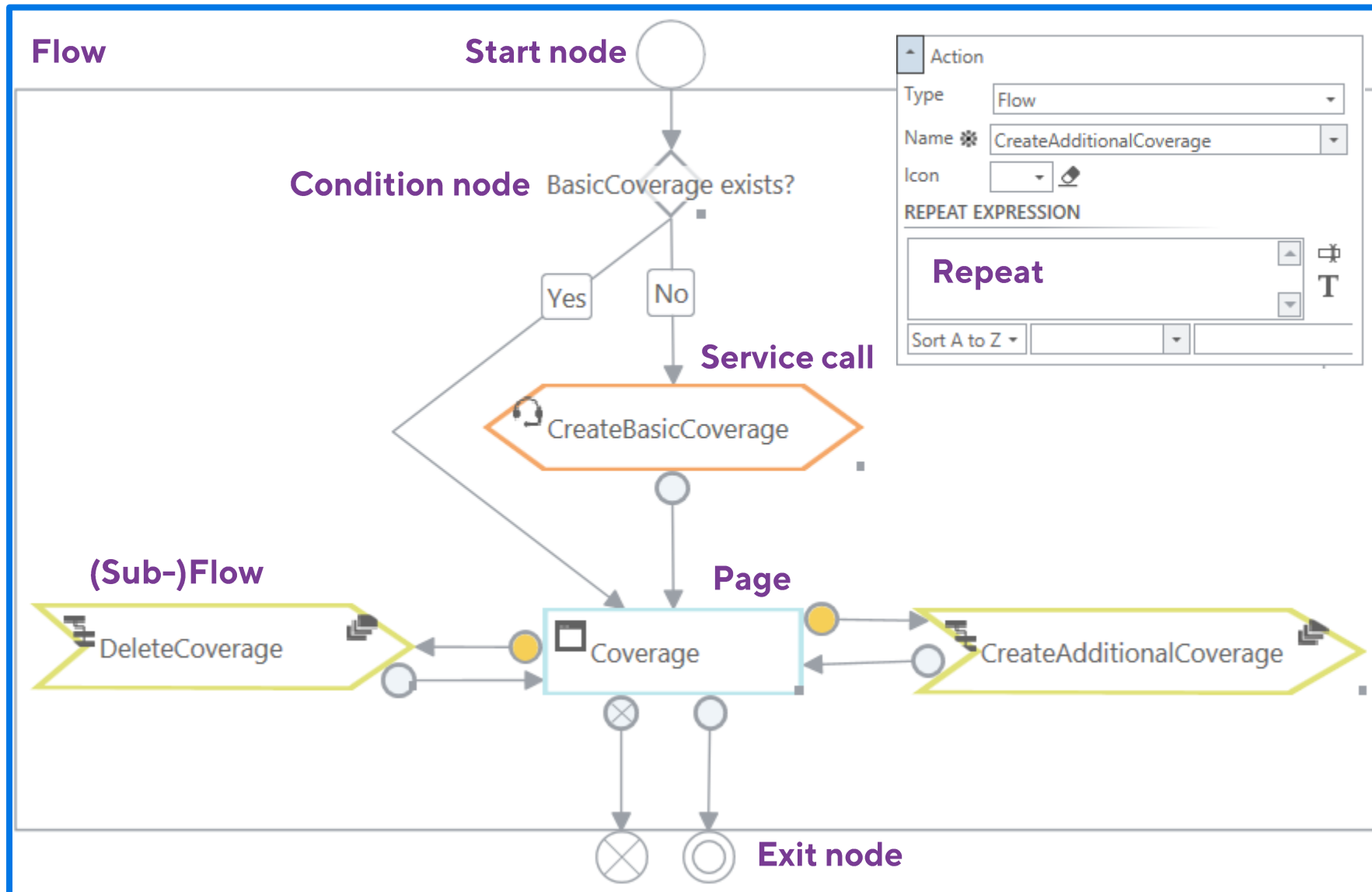
A flow can contain

- **Pages** moments of interaction with the end user
- **Sub flows** help to improve reusability and understandability
- **Service calls** perform an action
- **Function calls**<sup>\*</sup> perform an action in a separate project module

<sup>\*</sup> = introduced in v10.2



# Example flow



5

# Runtime dashboard

Select Project,  
Branch and Flow

Select Language  
and styling

Reload project

Start project

Debug tools

[About](#)
[Reload Configuration](#)
[Reorder dashboard](#)
[Widgets](#)
[Settings](#)

PROJECT

▼ Studio Exports

CSVDataRule

Kinderbijslag

LifeInsurance

▼ Studio Projects

▼ Care4Less

HealthCare

BRANCH

Exercise1\_Interaction

Exercise2\_Domain

Exercise3\_Logic

Exercise4B\_NonSingletonAdditic

Exercise4C\_FamilyMembers

Exercise5\_LogicMultipleInstance

Exercise6\_Documents

Exercise7\_Aggregates

Exercise8\_Justifications

Student01

Student02

Student03

FLOW

Healthcare

LANGUAGE

English (United Kingdom)

USER INTERFACE

mvc

THEME

bootstrap3

Start

Save as favorite

Reload project

Reload projects

Reported: 0 fatal errors, 0 errors, 24 warnings and 0 deprecations

View report

Download report

SESSIONS

There are no sessions available.

Refresh

SERVER TOOLS

View log

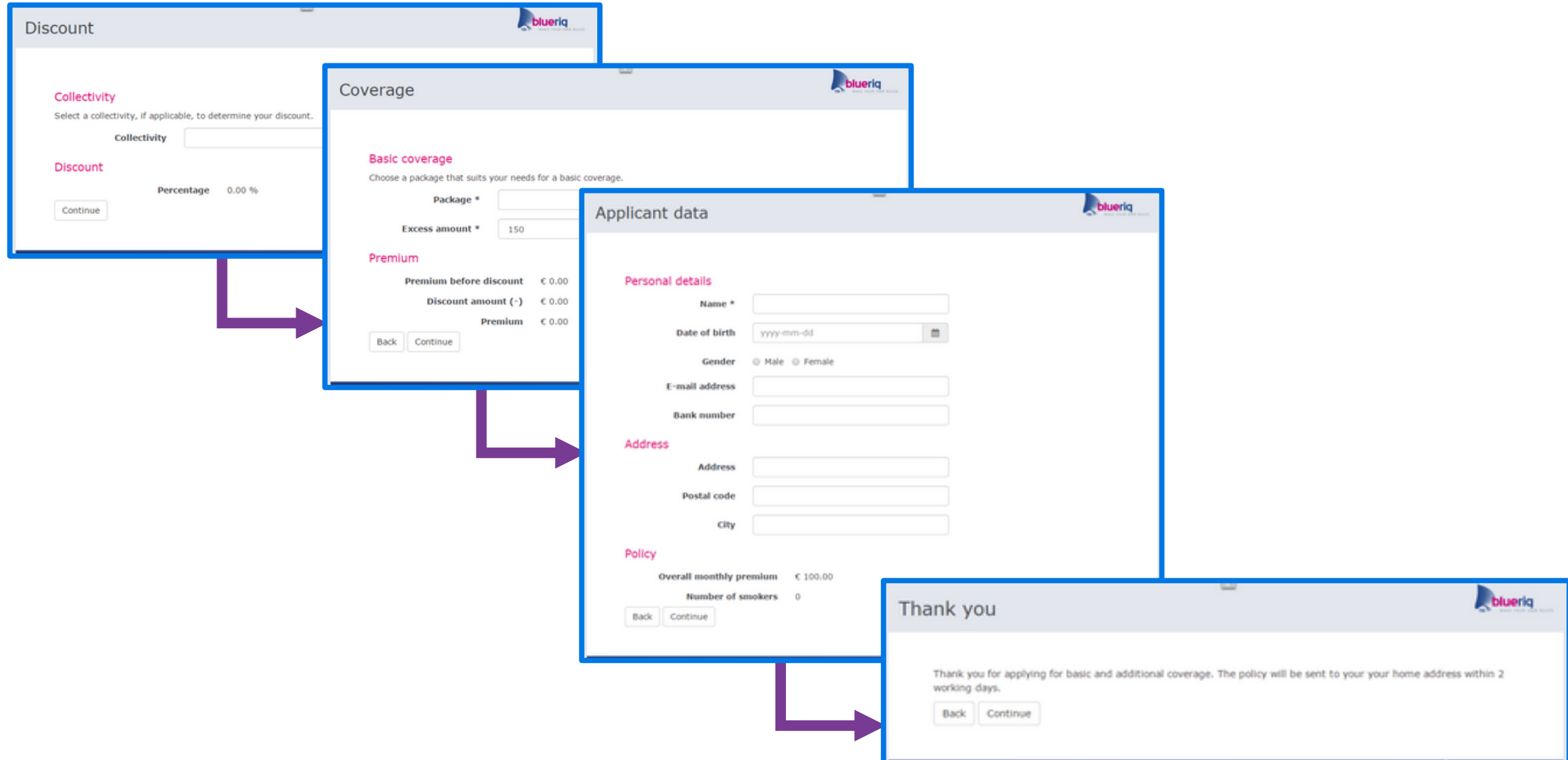
View Live log

Reset UI's

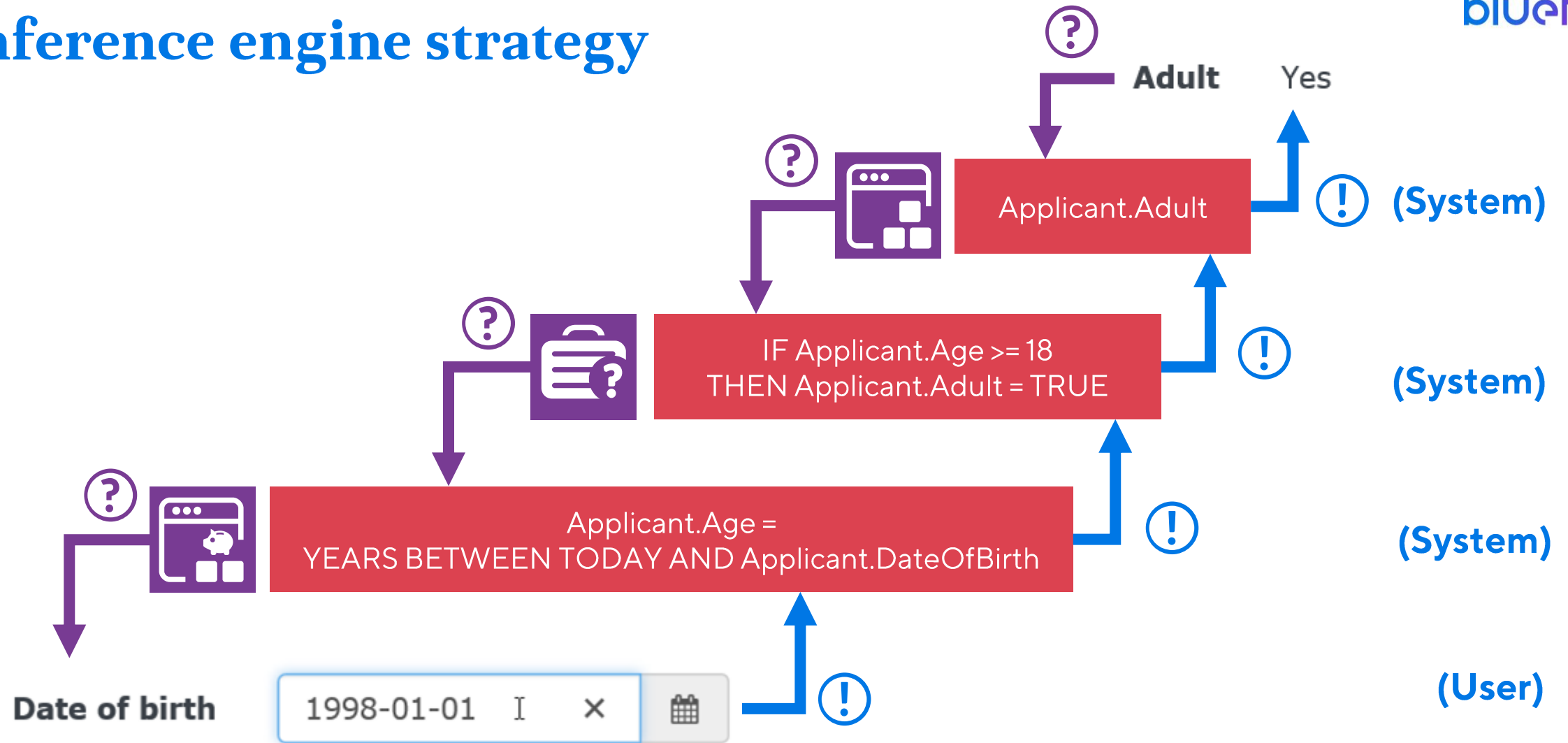
Show server annotated beans

H2 Console

# Demo Healthcare 1



# Inference engine strategy



This strategy is called **backward chaining** (a.k.a. **goal driven**)





# What is wrong with this decision table?

This decision table should derive the best means of transportation, based on the distance from A to B and the weather conditions

Is this **a good decision table**?

Is this a good decision table?

		Not exclusive		Not complete				
Trajectory.Distance		<= 100	> 100 AND <= 500	> 300 AND <= 3000	> 5000			
Weather.IsRaining		*	TRUE	FALSE	TRUE	FALSE	*	
Weather.ThundercloudsVisible		*	TRUE	FALSE	*	TRUE	FALSE	*
Trajectory.MeanOfTransport		"Walk"	"Car"	"Walk"	"Car"	"Car"	"Bike"	"Car"
		Not complete		Not exclusive				



# Domain model – Relations

A **relation** connects two entities  
When creating a relation, specify at least

- **From entity**\*
- **To entity**\*
- **Relation**\*
- **Reverse relation**\*
- Choose the right cardinality (= MultiValued checkboxes)

Person.HasAdditionalCoverages

Care4Less

**RELATION**

Functional name

From entity \* Person 1 : n

Relation HasAdditionalCoverages

MultiValued ☒

**REVERSE RELATION**

To entity \* AdditionalCoverage

Reverse relation FromPerson

MultiValued ☐

**DESCRIPTION**

**QUESTION TEXT**

English

**EXPLAIN TEXT**

English

From entity \* Person 1 : 1 To entity \* BasicCoverage

Relation HasBasicCoverage Reverse relation FromPerson

MultiValued ☐ MultiValued ☐

From entity \* To entity \* m : 1

Relation Reverse relation

MultiValued ☐ MultiValued ☒ ←

From entity \* Person 1 : n To entity \* AdditionalCoverage

Relation HasAdditionalCoverages Reverse relation FromPerson

MultiValued ☒ ← MultiValued ☐

From entity \* To entity \* m : n

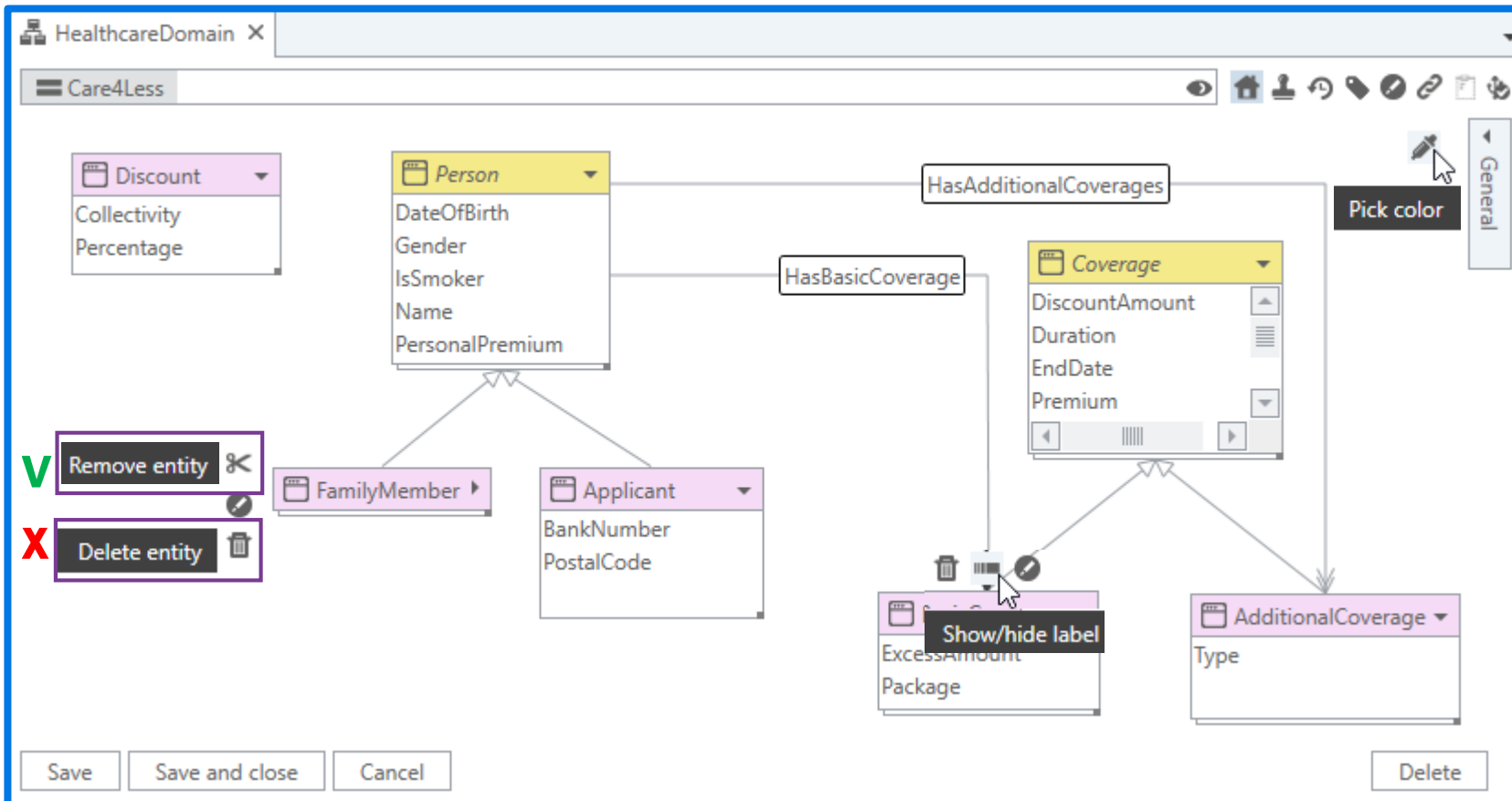
Relation Reverse relation

MultiValued ☒ MultiValued ☒



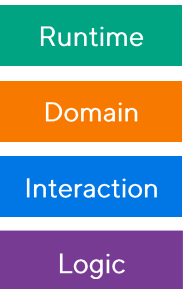
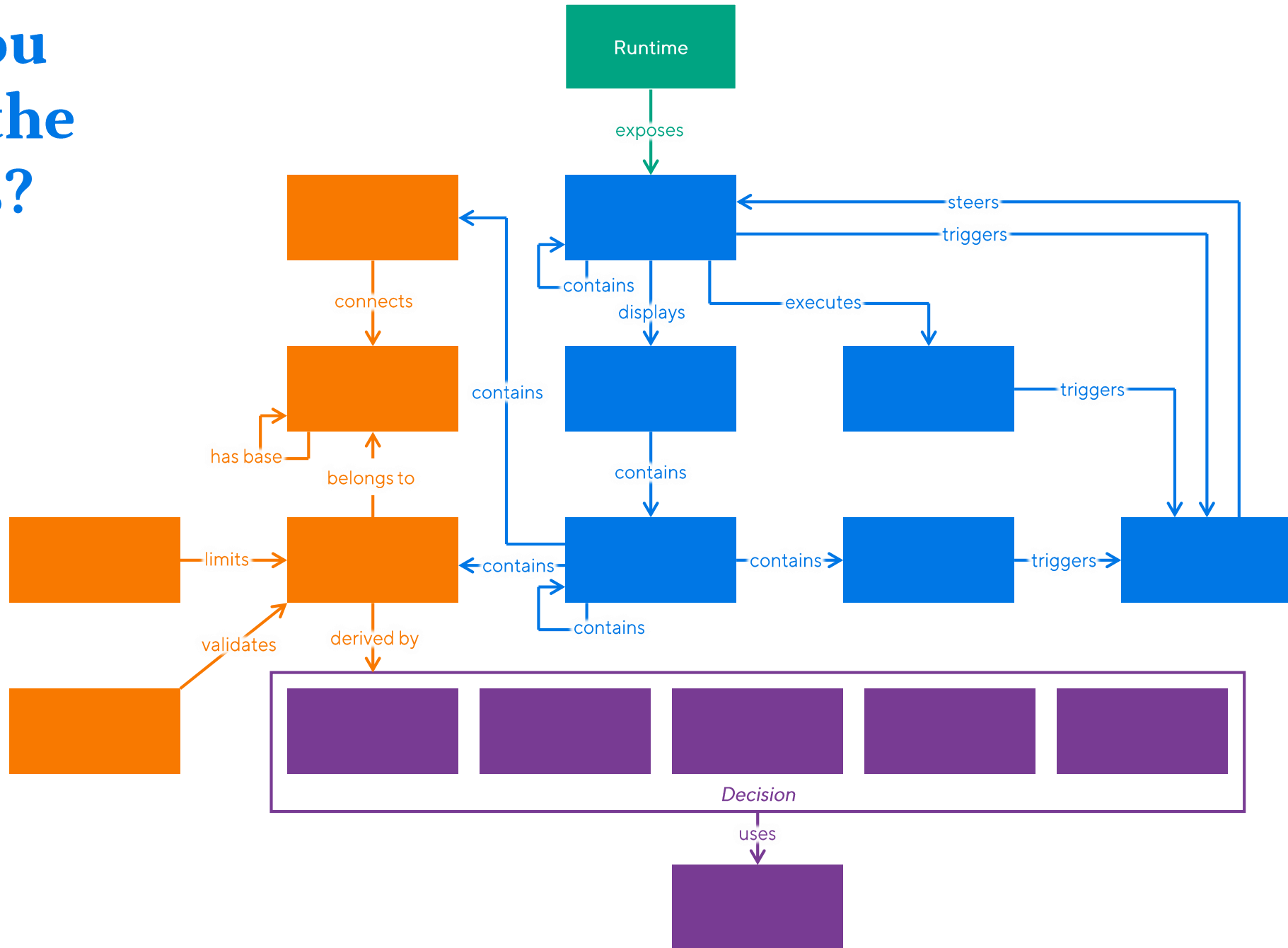
# Relations in an Entity Relation Diagram

A well-structured **ERD** showing **relations** can really help to understand your model!



- Add colors to make **logical groups**
- Show **relation names**
- Use **Remove** entity to hide an entity from your ERD, and **not Delete entity!**

Can you  
fill in the  
blanks?





# Documents

## Studio



## Runtime



HealthCare x

Care4Less

Inline text

Seattle, WA 98765

Applicant.Name

Veemarktkade 8

Applicant.PostalCode 's-Hertogenbosch

Dear Mr. s. Mrs. Applicant.Name,

Thank you for your application for a health insurance. We hereby confirm receipt of your application.

Enclosed you will find the quote for the health insurance for all SIZE( ALL Person ) is person s. The total monthly premium will be Policy.OverallPremi. This amount will be c monthly, starting Applicant.HasBasicC.

We take this opportunity to inform you of the favorable health insurance terms and condit:

If you have any questions, please call us on 0800 - 888 4888 (free) or e-mail to info@myhealth.com. Our insurance advisors are at your service with professional and free :

Yours faithfully,

Florence N.

Assistant General Manager,

Letter

- Header
  - Date
  - HealthCareLogo
  - Colophon
  - AddressBlock
- Body
  - Dear\_Mr\_or\_Mrs\_\_na
  - Thank\_you\_for\_your\_a
  - Enclosed\_you\_will\_fi
  - We\_take\_this\_opportu
  - If\_you\_have\_any\_ques
  - Yours\_faithfully\_
  - Florence\_N\_
  - Assistant\_General\_Ma
  - Sales\_Planning\_\_Ope
- Terms
  - Column
- Quote
  - Body
    - HealthCareLogo
    - Healthcare\_Quote

File Edit View Window Help

Open 4 / 4 79.6% Tools Fill & Sign Comment

Care 4 less  
The best medical care

Care4Less Quote

Insured persons

Frank van der Vaart (1985-10-30)

Monthly premium: € 109.-

Excess Amount: € 170.-

Coverage	Start date	Duration	Amount
Basic	2015-01-01	6 maanden	€ 99.-
Additional Health	2015-01-02	4 maanden	€ 10.-

Carine van der Vaart (1990-01-01)

Monthly premium: € 121.-

Excess Amount: € 170.-

Coverage	Start date	Duration	Amount
Basic	2015-09-27	6 maanden	€ 99.-
Additional Dental	2014-09-27	2 maanden	€ 12.-
Additional Health	2014-09-27	6 maanden	€ 10.-

Lucie van der Vaart (1980-01-01)

Monthly premium: € 99.-

Excess Amount: € 170.-

Coverage	Start date	Duration	Amount
Basic	2014-09-30	6 maanden	€ 99.-

Total premium

Total monthly premium: € 329.-