

# DMN

## Boundary Events

## Link Events

## Collections

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April 2021

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# AGENDA

- ▶ Video tutorials
- ▶ DMN demo
- ▶ Boundary Error Events
- ▶ Link
- ▶ Collection parameters

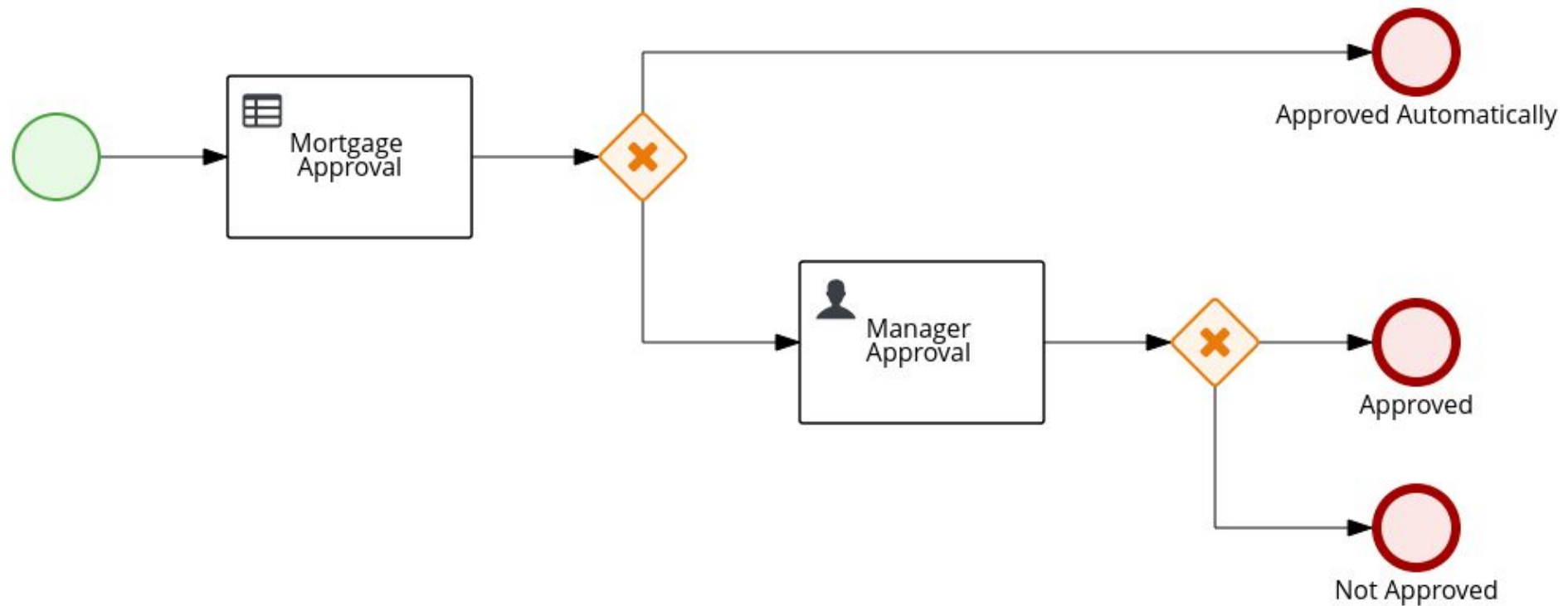
# VIDEO TUTORIALS

- ▶ jBPM Work Items and Timers
  - <https://www.youtube.com/watch?v=tpVSWYcaICk>
- ▶ Interprocess communication
  - <https://www.youtube.com/watch?v=ixjxPIUq3Bs>
- ▶ Slides from videos available in study materials

# DMN DEMO

## The Process

- ▶ In a new project, design the following process:



# DMN DEMO

## Data Object Person

- ▶ Create this type using Data Object asset.
- ▶ Add field **age** of type **Integer** to it.

Person.java - Data Objects ▾

Model Overview Source

Person

+ add field

Identifier	Label	Type	
age		Integer	Delete

# DMN DEMO

## Process variables

- ▶ Create 3 process variables:
  - **price** of type **Integer**
  - **approved** of type **Boolean**
  - **person** of type **Person**

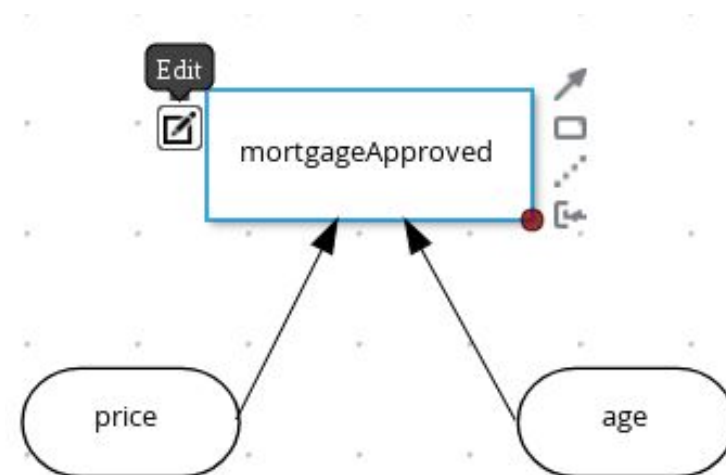
# DMN DEMO

DMN model

- ▶ Create a DMN asset.
- ▶ Add 2 DMN Input Data nodes:
  - **price** of type **number**
  - **age** of type **number**
- ▶ Add **mortgageApproved** DMN Decision node of type boolean and click on a small edit icon near the node.
- ▶ Click on Select expression and choose Decision Table. Configure it like on the picture.
- ▶ Save your DMN.

mortgageApproved (Decision Table)

F	price (number)	age (number)	mortgageApproved (boolean)	Description
1	<5000	-	true	Everybody can have 5000
2	<10000	> 25	true	Only age 26 and up can have up to 10000
3	-	-	false	



# DMN DEMO

## Mortgage Approval Business Rule Task

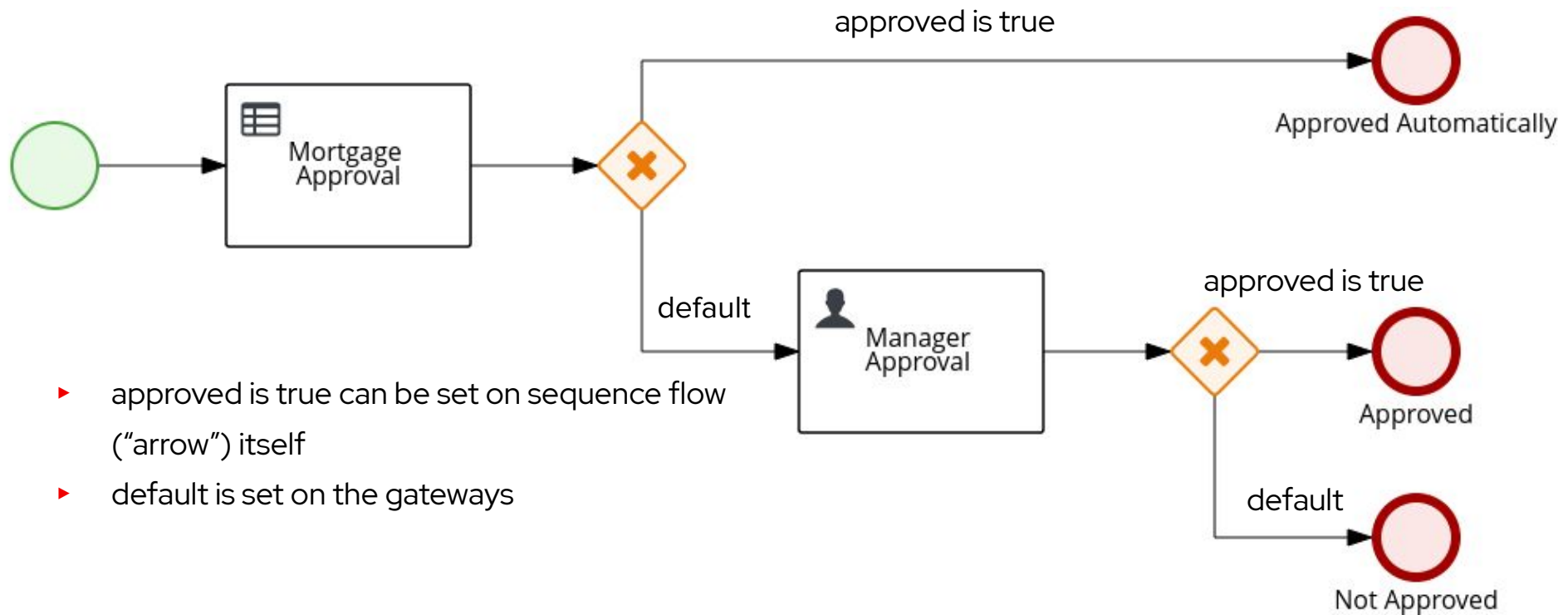
- ▶ Open properties of **Mortgage Approval** Business Rule Task in your process definition.
- ▶ Select **DMN** as **Rule Language**.
- ▶ Fill in the namespace, it can be found when clicking on DMN canvas and then on Diagram properties.
- ▶ Decision Name is **mortgageApproved**.
- ▶ DMN Model Name is the name of your DMN file (without .dmn extension).
- ▶ Configure data assignments:
  - Inputs:
    - **price** of type **Integer** from source **price**.
    - **age** of type **Integer** from source **#{person.age}**.
  - Outputs:
    - **mortgageApproved** of type **Boolean** with target **approved**.



# DMN DEMO

## Gateways

- ▶ Configure the gateways as on the picture:



- ▶ approved is true can be set on sequence flow ("arrow") itself
- ▶ default is set on the gateways

# DMN DEMO

## Manager Approval Human Task

- ▶ Configure data assignments:
  - Inputs:
    - **price** of type **Integer** from source **price**.
    - **person** of type **Person** from source **person**.
  - Outputs:
    - **approved** of type **Boolean** with target **approved**.
- ▶ Assign the task to the actor **wbadmin**.

# DMN DEMO

## Run the Process








- ▶ Congratulations! You can now run your process and verify that it works.
- ▶ If you have spare time, you can try to fine-tune the forms:
  - Process form shouldn't have **approved** field visible.
  - **price** and **age** should be required fields.
  - Manager Approval task can have **price** and **age** as input (data assignment) which would mean they will be available for manager to review when completing the task. After you changed the assignment, regenerate forms to propagate all changes you made. Be sure that these two fields are read-only as a manager can only change the **approved** field.

# DMN DEMO

## Test Scenario

- ▶ If you want, you can try creating **Test Scenario** asset.
  - Add Asset of type **Test Scenario**.
  - Select Source type of DMN.
  - Choose your DMN asset.
- ▶ Fill your test data and expected results.
- ▶ Run your test scenario using the play button.

testScenario.scesim - Test Scenarios

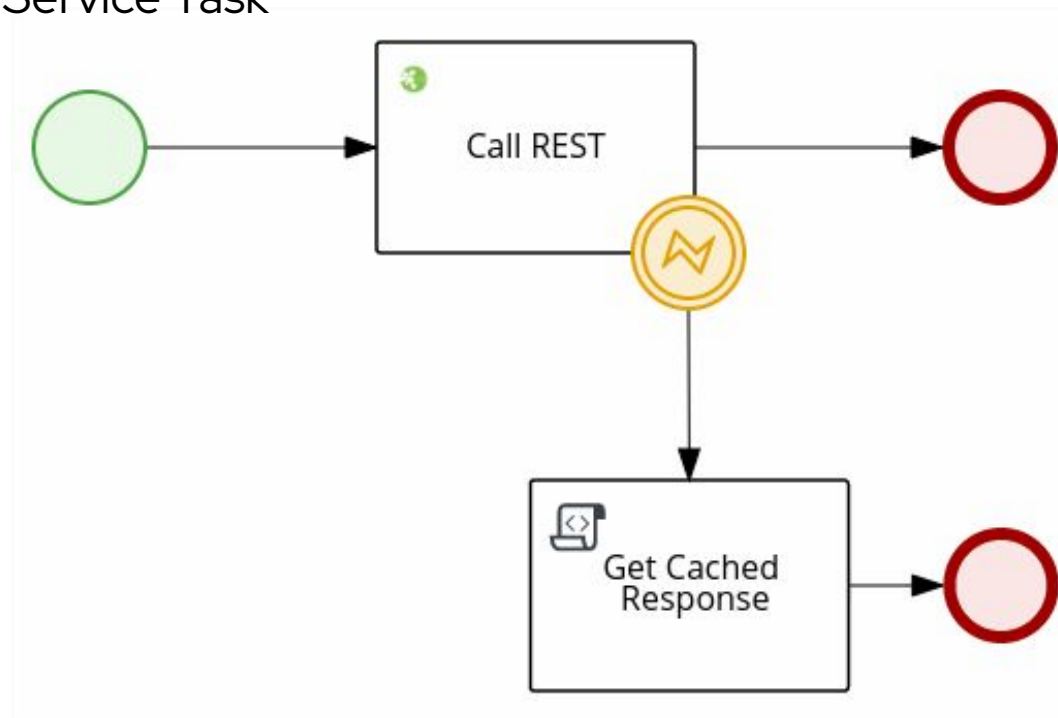
Save Delete Rename Copy     Latest Version  View Alerts  

Model Overview

#	Scenario description	GIVEN		EXPECT
		age	price	mortgageApproved
		value	value	value
1	<i>Insert value</i>	25	7000	false
2	<i>Insert value</i>	26	7000	true

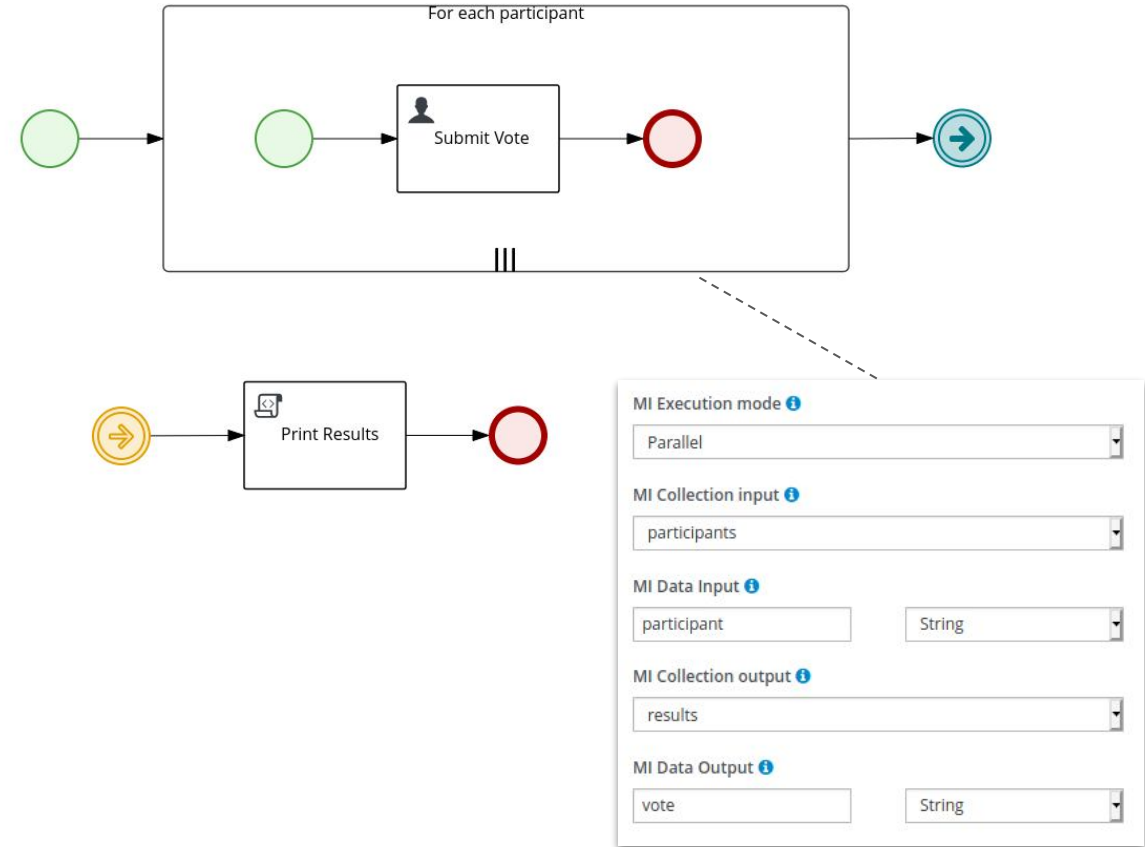
# BOUNDARY ERROR EVENTS

- ▶ Handling of business exceptions explicitly by the process definition
- ▶ Requires **HandleResponseErrors** parameter set to **true** on the REST Service Task



# POLL EXAMPLE - LINK EVENT AND COLLECTIONS

- ▶ Participants and Results as `java.util.ArrayList`
- ▶ Actor of Submit Vote task is `#{participant}`
- ▶ Multi-instance subprocess "For each participant"
- ▶ Link events - set link id, works like signals



Home > Task Inbox > Task: 4

### 4 - Submit Vote

Work Details Assignments Comments Admin Logs

Which is your favorite browser?

Vote \*

Firefox  
 Chrome  
 Edge  
 Safari

Save Release Complete

# Thank you!



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