

**COURSEWARE**

**EXTENSION COURSEWARE  
BASED ON THE ARCHIMATE®  
STANDARD, VERSION 3.1 –  
FOUNDATION AND  
PRACTITIONER  
(LEVEL 1 & 2)  
BY VAN HAREN PUBLISHING**

Extension Courseware based on  
The Archimate® Standard,  
Version 3.1 – Foundation and Certified (Level 1 & 2)

by Van Haren Publishing

## Colophon

Title:	Extension courseware based on the Archimate Standard Version 3.1 Standard by Van Haren Publishing
Author:	Van Haren Learning Solutions a.o.
Publisher:	Van Haren Publishing, 's-Hertogenbosch
ISBN Hard Copy:	978 94 018 0663 3
Edition:	Second edition, first print, May 2020
Design:	Van Haren Publishing, 's-Hertogenbosch
Copyright:	© Van Haren Publishing 2020

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**Timetable (optional)**

(3 day)

Part of day	Day 1	Day 2	Day 3
<b>1</b>	Intro and about the exams	ArchiMate® & EA	Implementation and Migration Layer
	Language Structure	Motivation aspects	Exam Preparation part 1 Question 1 until 20
	Break	Break	Break
	Relationships & Nesting	Strategy Layer	Language specifics - Cross layer dependencies
			- derived relationships
	Lunch	Lunch	Lunch
<b>2</b>	Core Layers & Elements	Modelling exercise 2b	- stakeholder, viewpoints and views
	- Business layer		
	- Application layer	Modelling exercise 1c	- language customisation
	- Technology layer		
	Break	Break	Break
	- Grouping and composite	Practical Exercise Strategy and Motivation	Exam Preparation part 1 Question 21-40
	Modelling exercise 2a	Physical Layer	Exam Preparation Part 2 - 1-8
	Modelling exercise 1b		

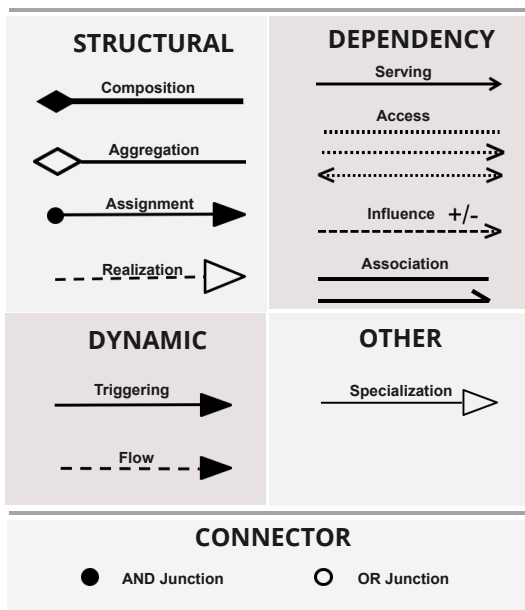
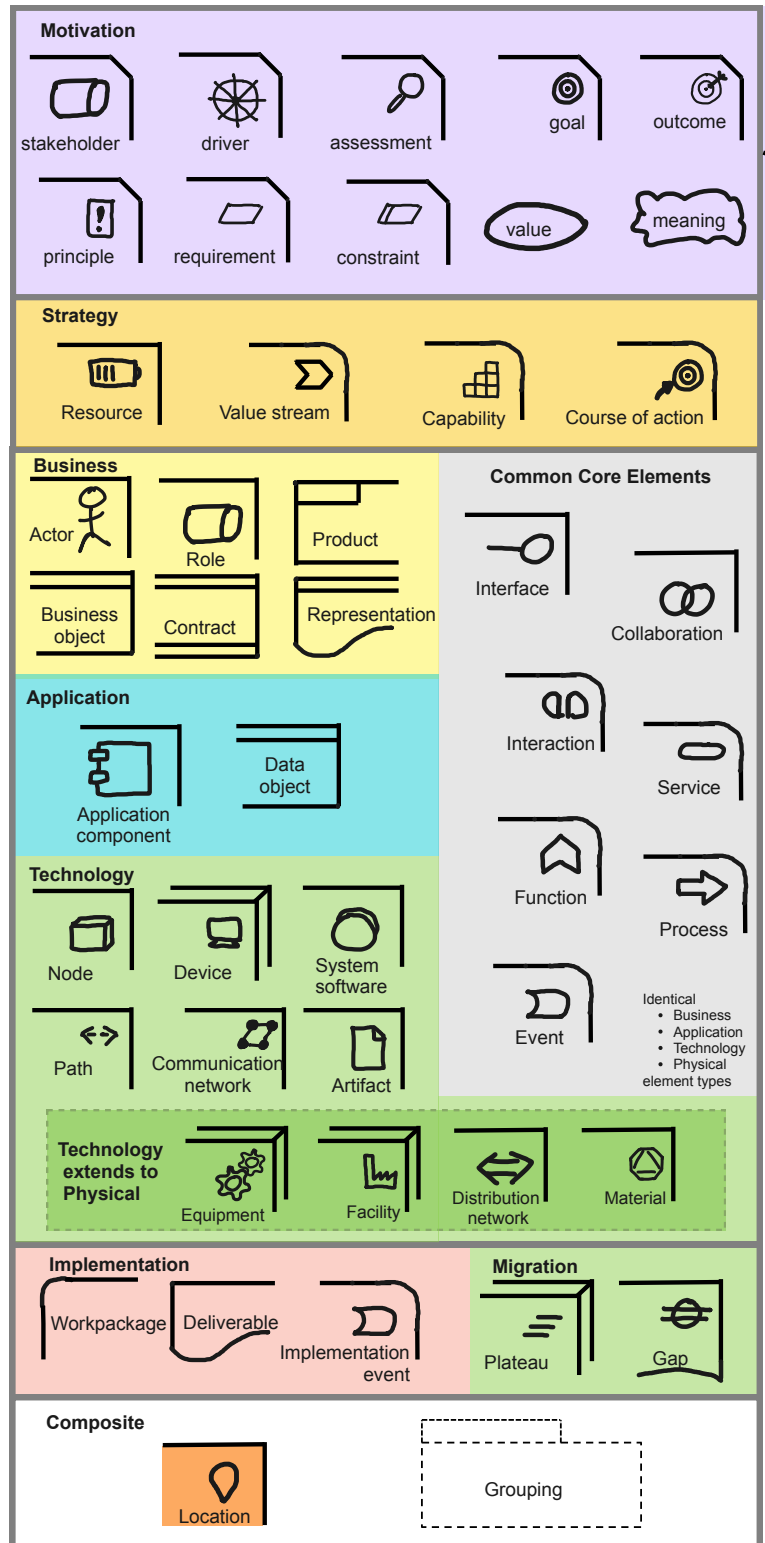
## Learn elements and relations

The Common Core elements exist in all three core layers.

Read these as:

- Business Interface
- Application Interface
- Technology Interface

On the next page, repeat what you have learned

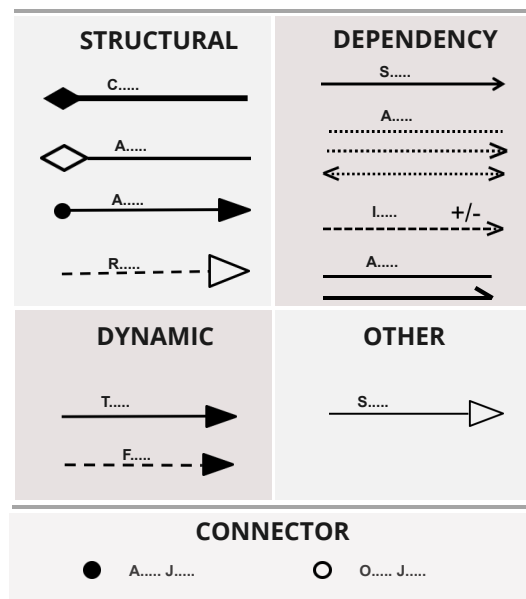


Reference Card - ArchiMate® Relationships and Connector

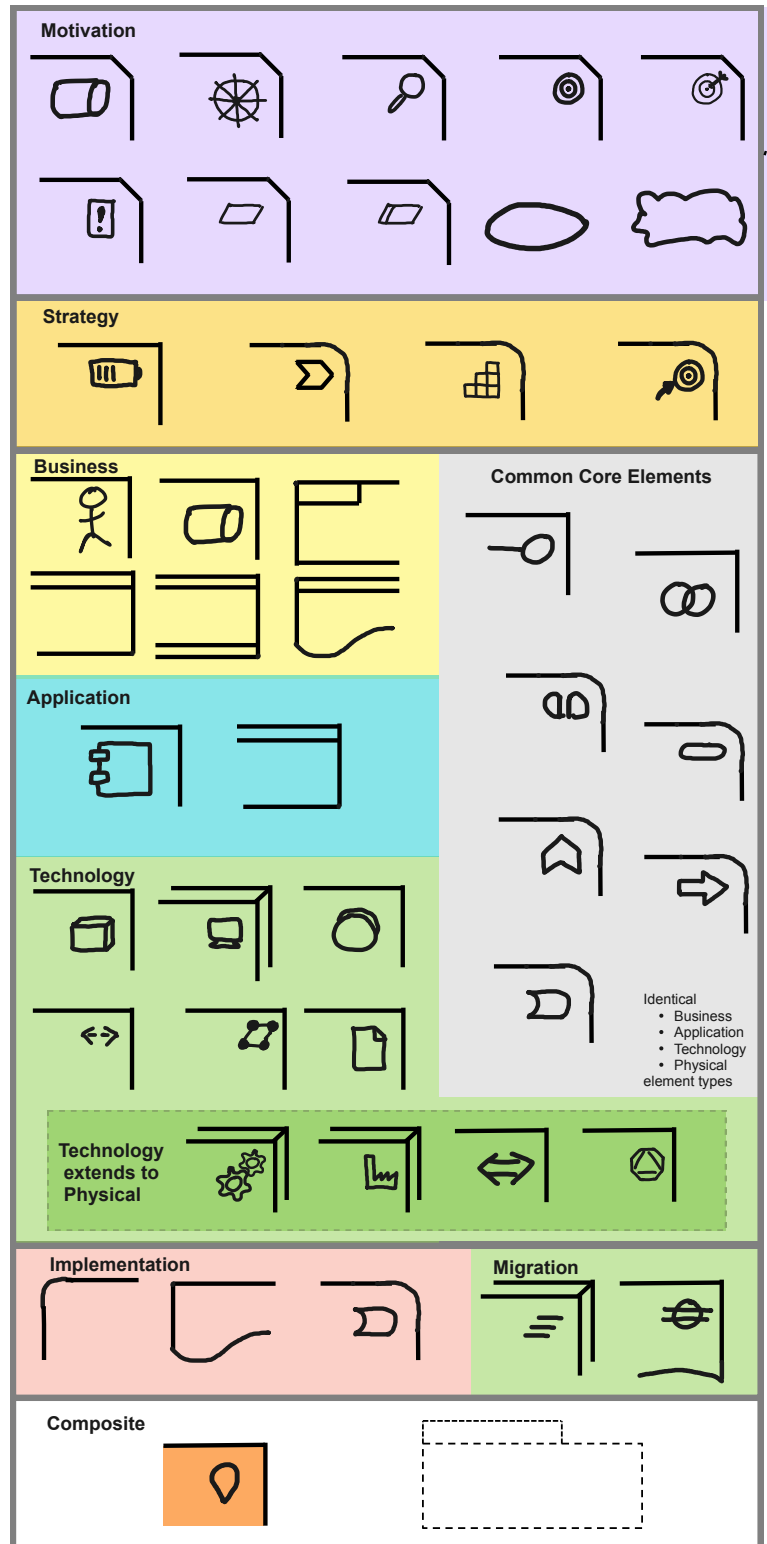
Reference Card - ArchiMate® Elements

## Rehearse elements and relations

Name all elements and relations based on their graphical representation



Reference Card - ArchiMate® Relationships and Connector



Reference Card - ArchiMate® Elements

# MODELING SNIPPETS

## ArchiMate 3.1 Training Course - Practitioner

22 January 2020

Version 1.0 –The ArchiMate® Standard - Courseware extension material



## Practical Modeling Snippets

### Instruction

*In snippet 1 through 4* you create a CRM model using incremental steps. You can stack model 1 through 4 so you gradually build a full model.

The model purpose is to inform about how a CRM application (Customer Relationship Management) supports the business CRM lead conversion and lead analysis. The model content provides an overview of the business, applications and technology usage as well as coherence showing structural relations and dependencies between the core layers and elements.

*In snippet 5* you create a new model related to a risk management process taking regulatory rules into account. The model content isto provide an overview of the risk management process, the roles and actors involved and the reports that are an outcome of the process. It is both used for informational and for deciding purposes as to confirm that the right actors and roles are assigned and the correct reports that are produced.

Each snippet contains minimal one example snippet outcome solution. Please note that other representations are possible for the same model.

### Snippet 1 - CRM

Sales is served by the Lead Conversion process. The CRM application functionality realizes this Lead Conversion process. The CRM application functionality is part of a mail application.

### Snippet 2 - CRM

On the application layer. CRM functionality runs inside the mail application. Prospects are transferred from the CRM functionality into the Propsects BI Application use flow.

### Snippet 3 - CRM

Sales Manager is responsbile for the exporting leads process. The exported leads from the CRM function are exported to *prospect.csv*. This prospects.csv is associated with the local fileshare service on the technology layer.

### Snippet 4 - CRM

The Propsect BI Application serves the daily Analyzing Leads proces that the Sales Manager is using. The Propsect BI Application is served by technology end user computing service that is realized by a tablet. The Propsect BI Application, which is actually a spreadsheet, is installed (deployed) on that tablet.

### Snippet 5 - Risk Management Model

*See next page.*

### **Snippet 5 - Risk Management Model**

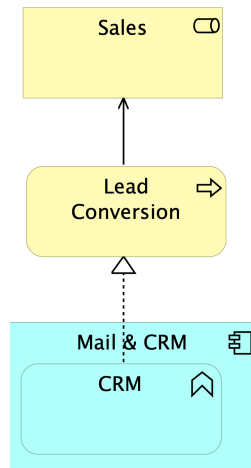
Create the risk management model based on the following:

- The location Global Head quarters
- Has a Finance & Risk Department with roles Risk Manager and a Risk report Creator employee
- The Risk Manager is responsible for (assigned to) the Risk Management process
- The Risk Report Creator employee is using and served by the Risk Management process
- From the Risk management process (a) Management reports and (b) regulatory reports are created
- Finally, An external party is responsible for operating the Regulatory rules Process and that process is maintaining the regulatory rules. These regulatory rules are read by the Risk Management Process.

## Practical Modeling Snippets - outcome examples

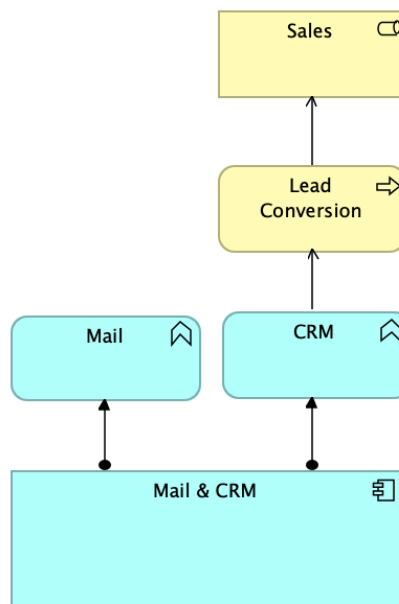
### Snippet 1 – CRM – example solution

Sales is served by the Lead Conversion process. The CRM application functionality realizes this Lead Conversion process. The CRM application functionality is part of a mail application.



*Example model outcome*

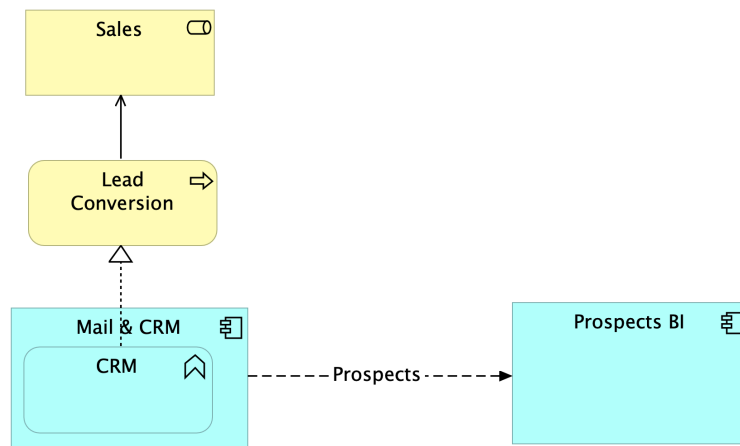
The CRM is function is nested inside Mail & CRM. It is also logical to show the CRM function outside the Mail & CRM Application Component where CRM is assigned to MAIL & CRM. You may choose to also model the Mail as a separate function assigned to the Mail & CRM application component.



*Alternative more academic model outcome*

### Snippet 2 – CRM – example solution

On the application layer. CRM functionality runs inside the mail application. Prospects are transferred from the CRM functionality into the Propsects BI Application use flow.

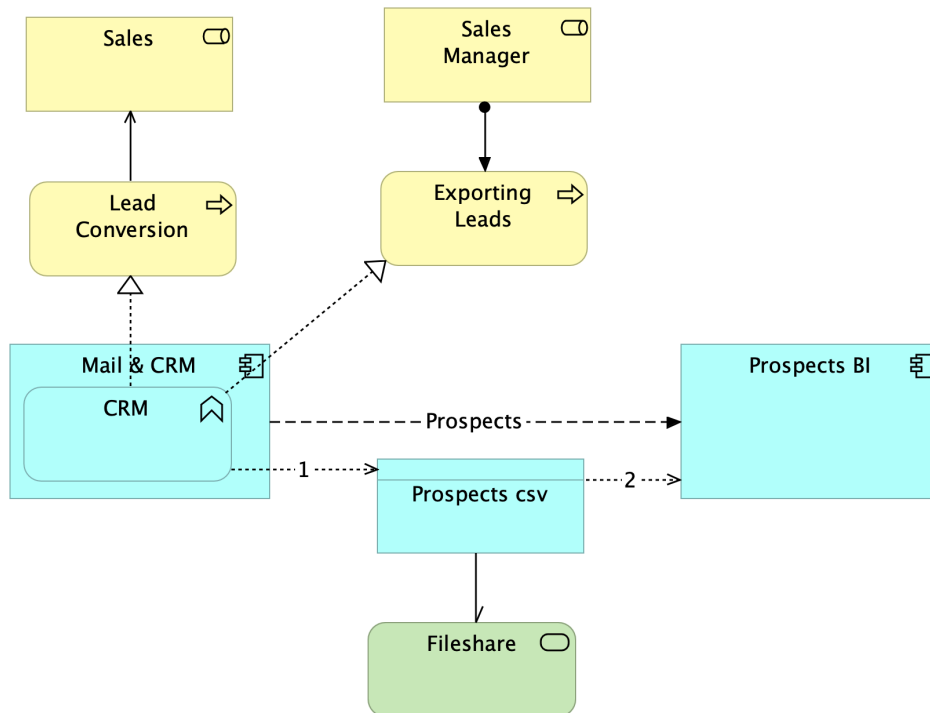


*Example model outcome*

The flow relation is a dynamic relation. Note that this model does not explain HOW the prospects are transferred. That is not the area of concern here.

### Snippet 3 – CRM – example solution

Sales Manager is responsible for the exporting leads process. The exported leads from the CRM function are exported to *prospect.csv*. This *prospect.csv* is associated with the local fileshare service on the technology layer.



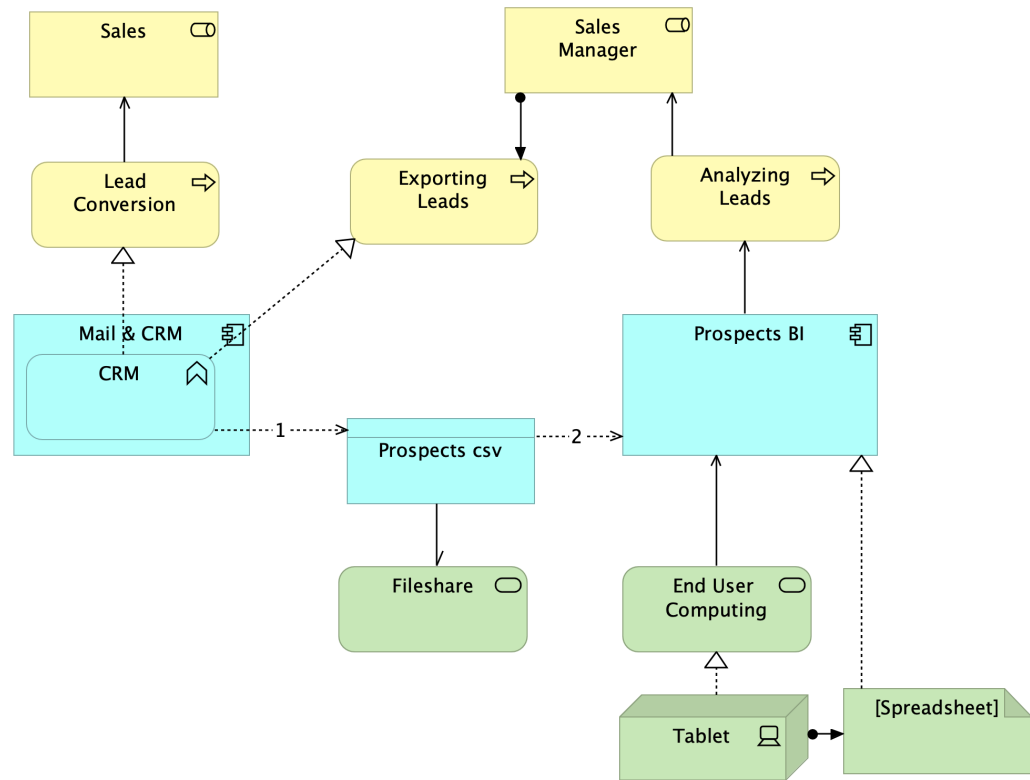
*Example model outcome*

The CRM application function creates and writes into the *prospect.csv* (1). The Prospects BI is reading (2) the *Prospects csv*.

Also you can consider to remove the flow relationship *Prospects* as this is now superfluous and thus may become confusing.

### Snippet 4 – CRM – example solution

The Propsect BI Application serves the daily Analyzing Leads proces that the Sales Manager is using. The Propsect BI Application is served by technology End User Computing service that is realized by a tablet. The Propsect BI Application, which is actually a spreadsheet, is installed (deployed) on that tablet.



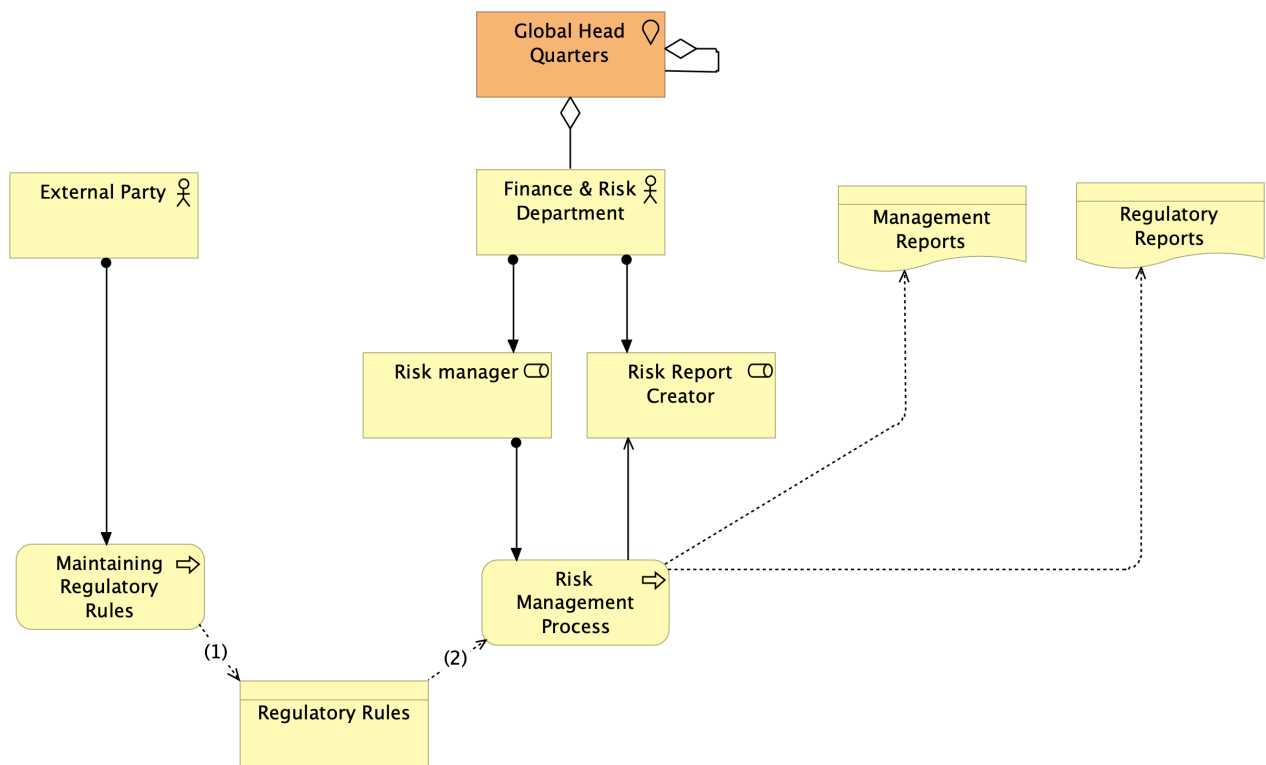
*Example model outcome*

A device element is used for Tablet, a node would also be correct. The artifact, which is showing deployment, is given the abstract name [Spreadsheet] not hinting towards a solution. This artifact may in fact be in example a google spreadsheet or microsoft excel. Note that the cross layer relationships are the commonly accepted serving and realization.

### Snippet 5 – Risk Management Model - example Solution

Create the risk management model based on the following:

- The location Global Head quarters
- Has a Finance & Risk Department with roles Risk Manager and a Risk report Creator employee
- The Risk Manager is responsible for (assigned to) the Risk Management process
- The Risk Report Creator employee is using and served by the Risk Management process
- From the Risk management process (a) Management reports and (b) regulatory reports are created
- Finally, An external party is responsible for operating the Regulatory rules Process and that process is maintaining the regulatory rules. These regulatory rules are read by the Risk Management Process.



Example model outcome

The Global Head Quarters is modeled as also having an aggregation towards itself indicating it is aggregated from more the Finance & Risk Department alone. Based on preference, that relation may be left out. Although many are responsible for various things, indicated by the assigned to relation, the Risk Report Creator is actually served by the Risk Management process and in his own way thus creating the reports. For reports a business object may also be considered. The Maintaining Regulatory Rules proces is creating, updating (1) the Regulatory rules while the Risk Management Process is reading them (2)

# OnePage Exercises

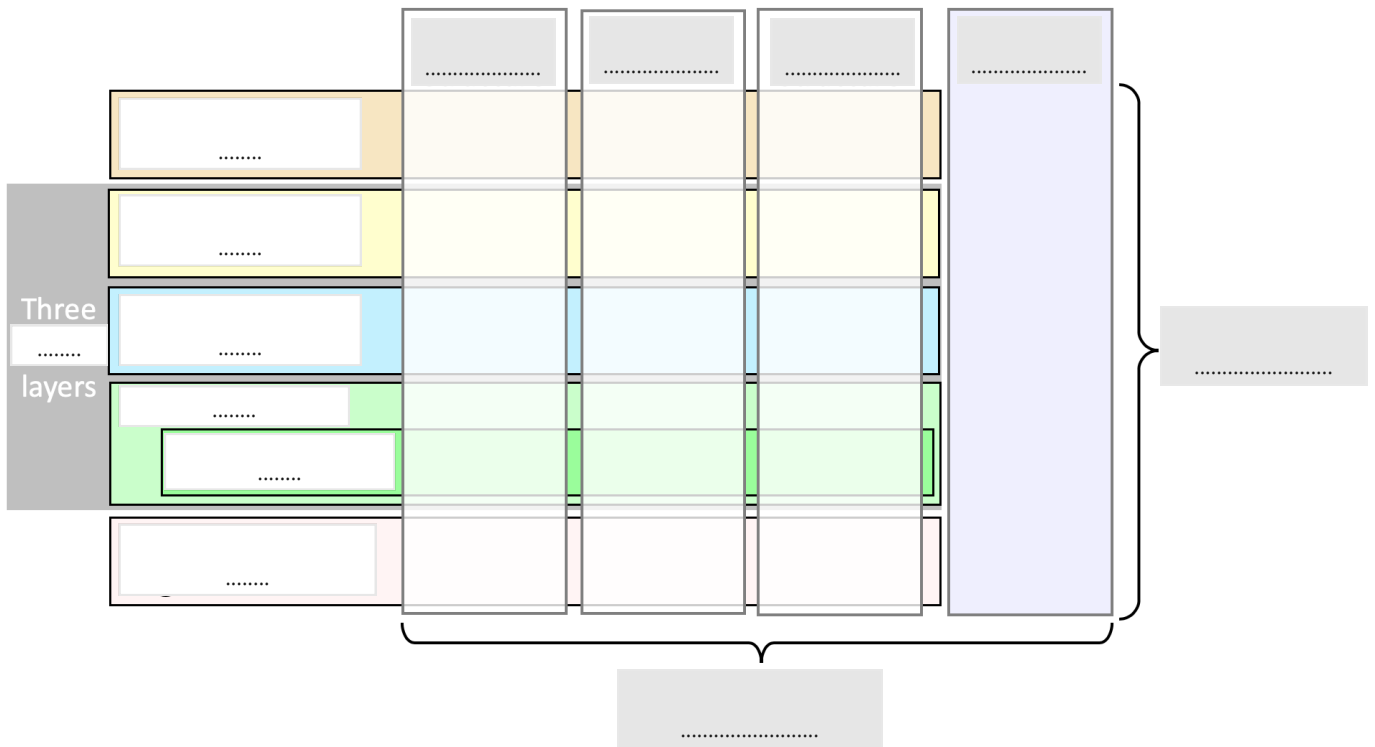
## ArchiMate 3.1 Training Course - Practitioner

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# Exercise 1 - Full ArchiMate® Framework



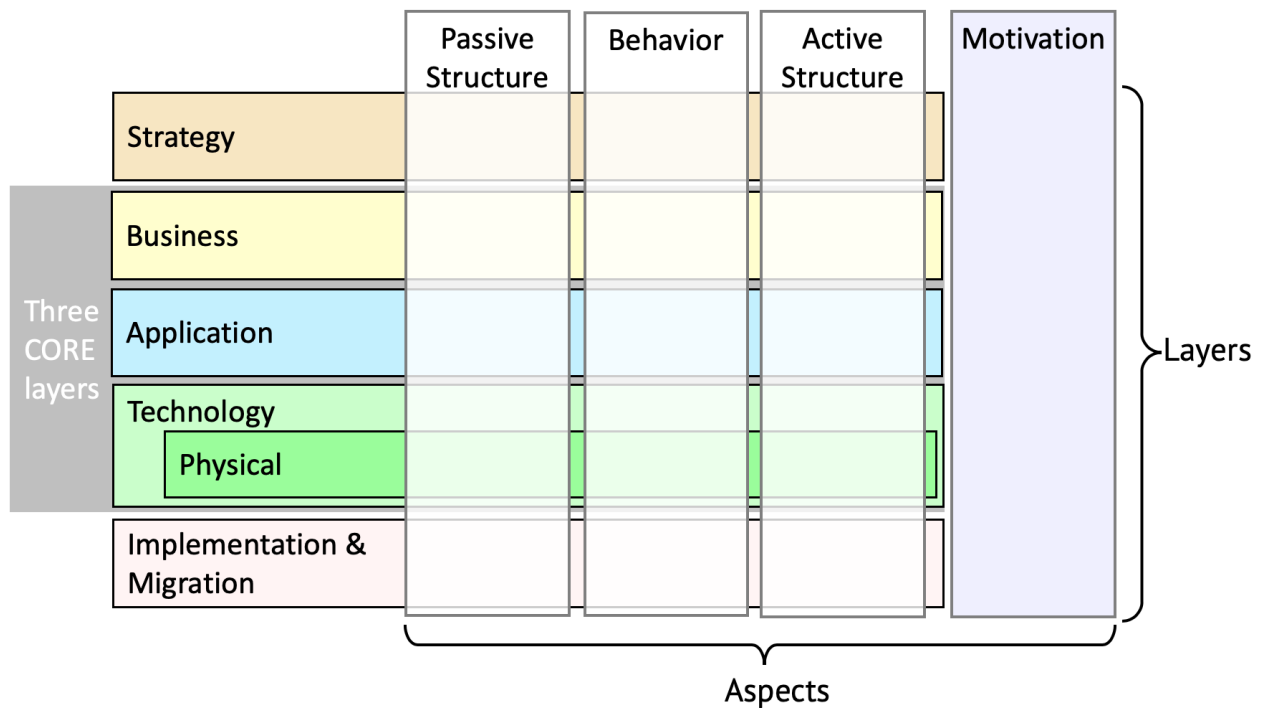
## Preparation:

- Learn all layers and aspect types from the full framework (see other side)

## Exercise:

- The full ArchiMate Framework lost all its content! Please fill in the missing dots ..... (no cheating allowed any more)

**Area for notes and braindump**



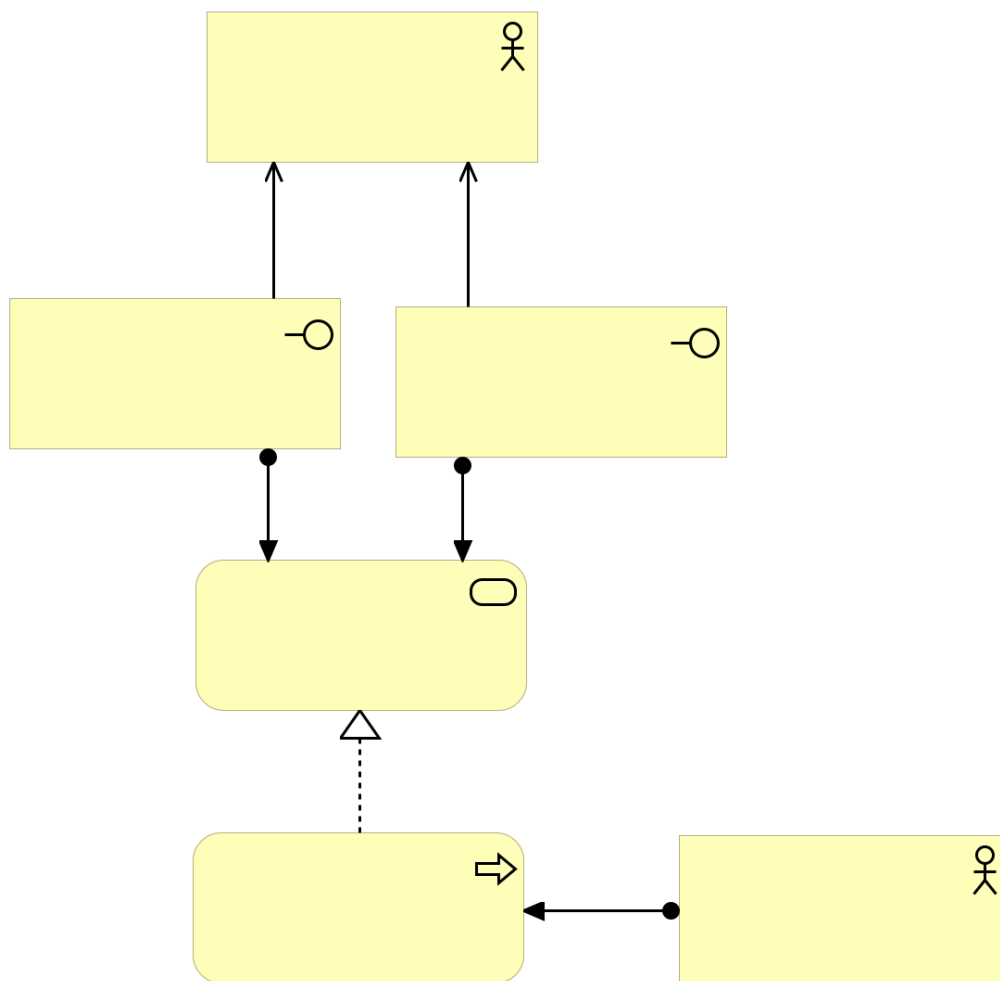
## The ArchiMate framework:

- is a classification framework
- and classifies elements into
  1. Layers
 and
  2. Aspects:
    - Motivation
    - Active Structure
    - Behavior
    - Passive Structure

**EXERCISE CASUS:**

Customer uses a Car rental service.  
 The customer is served by either internet-online or telephone.  
 The Customer care employee is responsible for and thus assigned to Processing customer requests that realizes the Car rental service.

Lets get started you have 20 minutes.

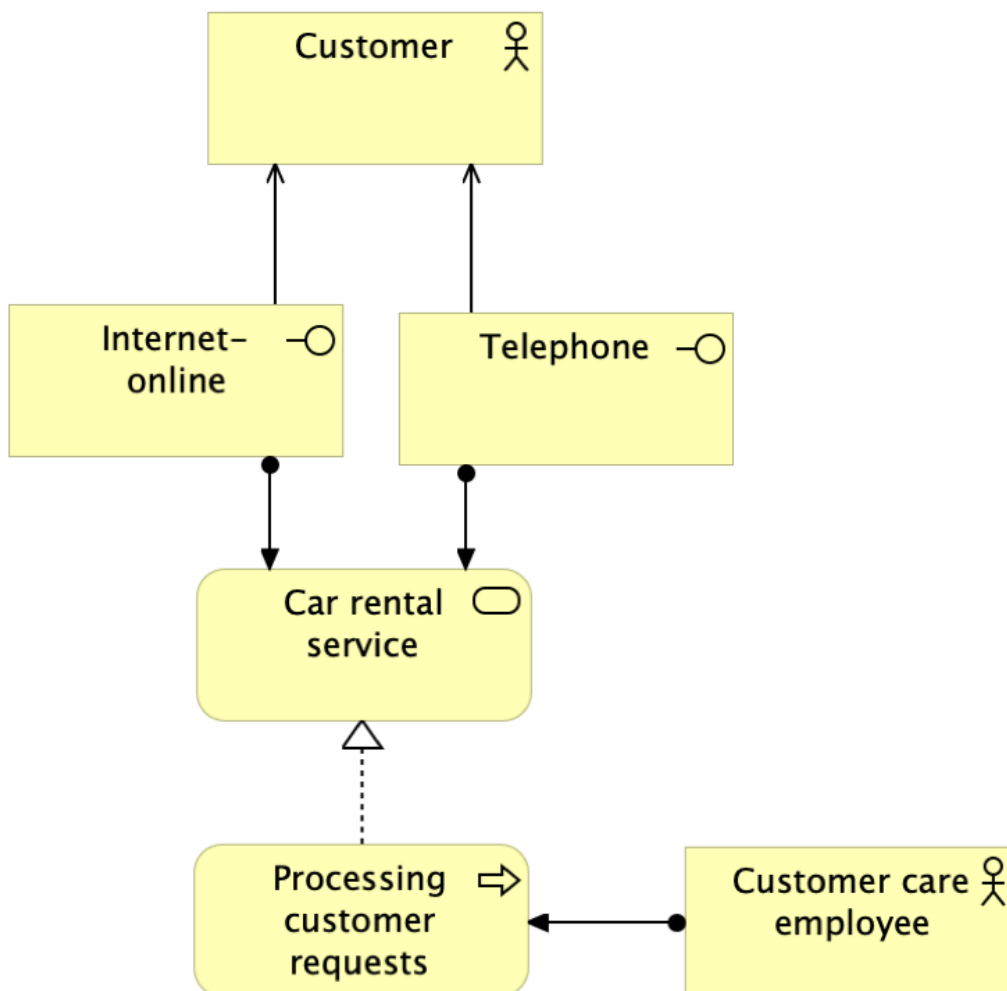


EXERCISE CASUS:

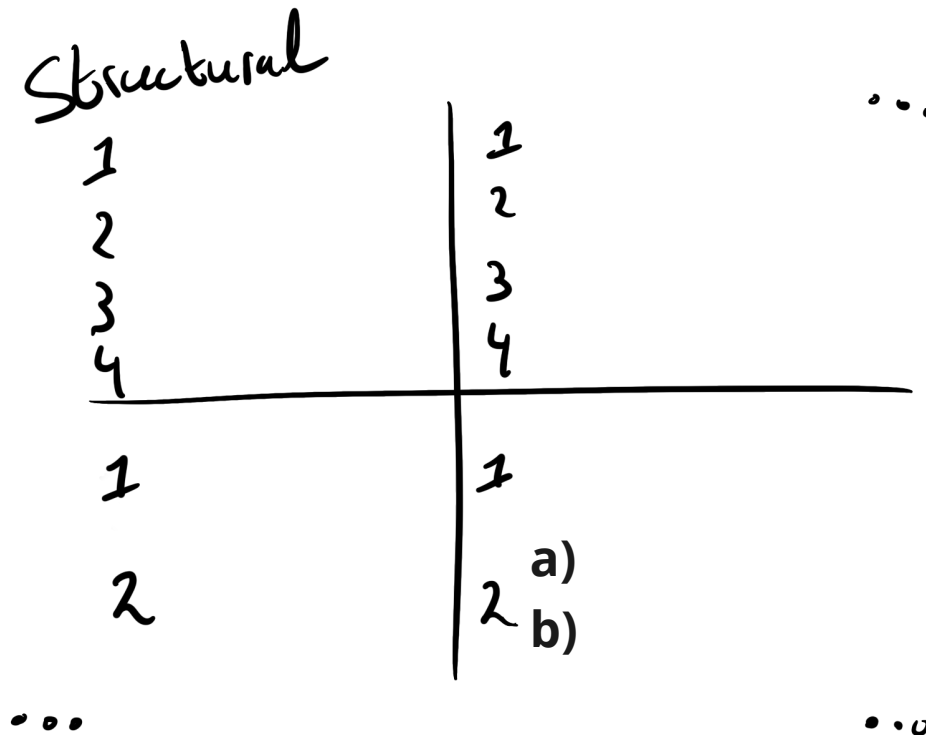
Customer uses a Car rental service.

The customer is served by either internet-online or telephone.

The Customer care employee is responsible for and thus assigned to Processing customer requests that realizes the Car rental service.



## Exercise 3 - Relationships and categories



### Exercise 1 (Optionally you may use the helper)

1. Name each quadrant (the first one is Structural)
2. Write down all relationships in the right quadrant in the right order

### Exercise 2 (Optionally you may use the helper)

1. Name each quadrant (the first one is Structural)
2. Draw the graphical representation of each relation in the right quadrant and right order






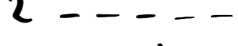
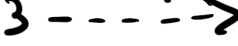
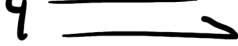
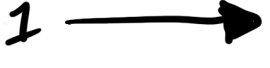



### Helper - All relations and categories

Junction-AND, Triggering, Other, Flow, Realization, Assignment, Influence, Specialization, Serving, Structural, Dependency, Access, Dynamic, Association, Composition, Junction-OR, Aggregation

**Exercise 1 - Write down relationships**

Structural	Dependency
1 Composition 2 Aggregation 3 Assignment 4 Realization	1 Serving 2 Access 3 Influence 4 Association
1 Triggering 2 Flow	1 Specialization 2 Junction <sup>(a)</sup> AND <sup>(b)</sup> OR Other
Dynamic	

**Exercise 2 - graphical representation relationships**

Structural	Dependency
1  2  3  4 	1  2  3  4 
1  2 	1  2 
Dynamic	Other

Formally Junction AND and OR are actually a "Connector relationship" not "Other"