

Archimate Business Layer

giacomo.palu@polimi.it

Archimate specification

<https://pubs.opengroup.org/architecture/archimate3-doc/ch-Business-Layer.html>

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Archimate® 3.1 Specification
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Welcome to the ArchiMate® 3.1 Specification, a *Standard of The Open Group*


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
Active elements

Business Actor 

A business entity that is capable of performing behavior

Business Role 

The responsibility for performing specific behavior, to which an action can be assigned

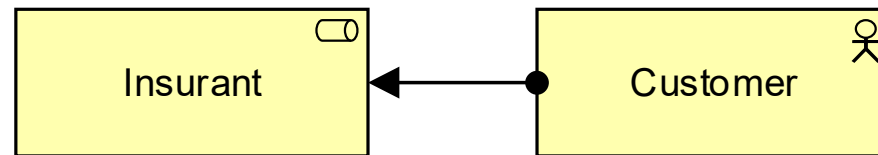
Business Interface 

A point of access where a business service is made available to the environment

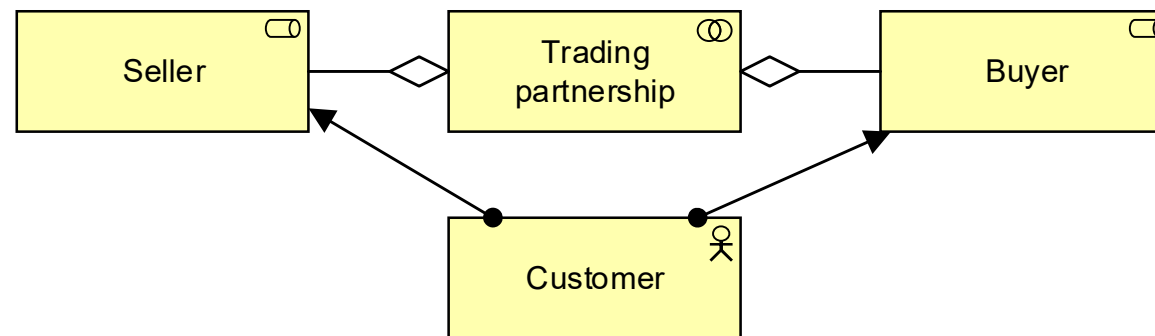
Business Collaboration 

An aggregate of two or more business internal active structure elements that work together to perform collective behavior

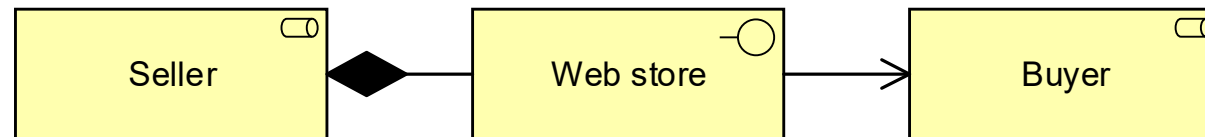
Roles and actors



Interaction through collaboration



Interaction through service



Behavioral elements

Business
Process



A sequence of business behaviors that achieves a specific outcome

Business
Function



A collection of business behaviors based on a chosen set of criteria, aligned to an organization

Business
Service



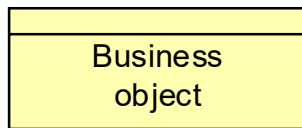
An explicitly defined exposed business behavior

Business
Event

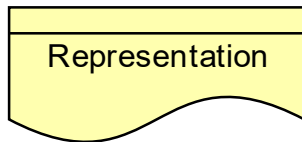


A business behavior element that denotes an organizational state change.

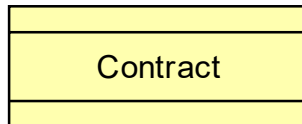
Passive elements



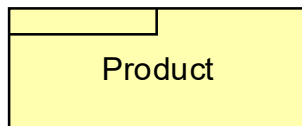
A concept used within a particular business domain



The perceptible form of information carried out by a business object








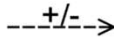








A formal or informal specification of an agreement between a provider and a consumer








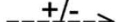






A collection of services and passive structure elements, which is offered as a whole to customers

Relationships

Structural Relationships		Notation
Composition	Indicates that an element consists of one or more other concepts.	
Aggregation	Indicates that an element groups a number of other concepts.	
Assignment	Expresses the allocation of responsibility, performance of behavior, or execution.	
Realization	Indicates that an entity plays a critical role in the creation, achievement, sustenance, or operation of a more abstract entity.	
Dependency Relationships		Notation
Serving	Models that an element provides its functionality to another element.	
Access	Models the ability of behavior and active structure elements to observe or act upon passive structure elements.	 
Influence	Models that an element affects the implementation or achievement of some motivation element.	
Dynamic Relationships		Notation
Triggering	Describes a temporal or causal relationship between elements.	
Flow	Transfer from one element to another.	
Other Relationships		Notation
Specialization	Indicates that an element is a particular kind of another element.	
Association	Models an unspecified relationship, or one that is not represented by another ArchiMate relationship.	
Junction	Used to connect relationships of the same type.	  (And) Junction Or Junction

Strengths of relationships

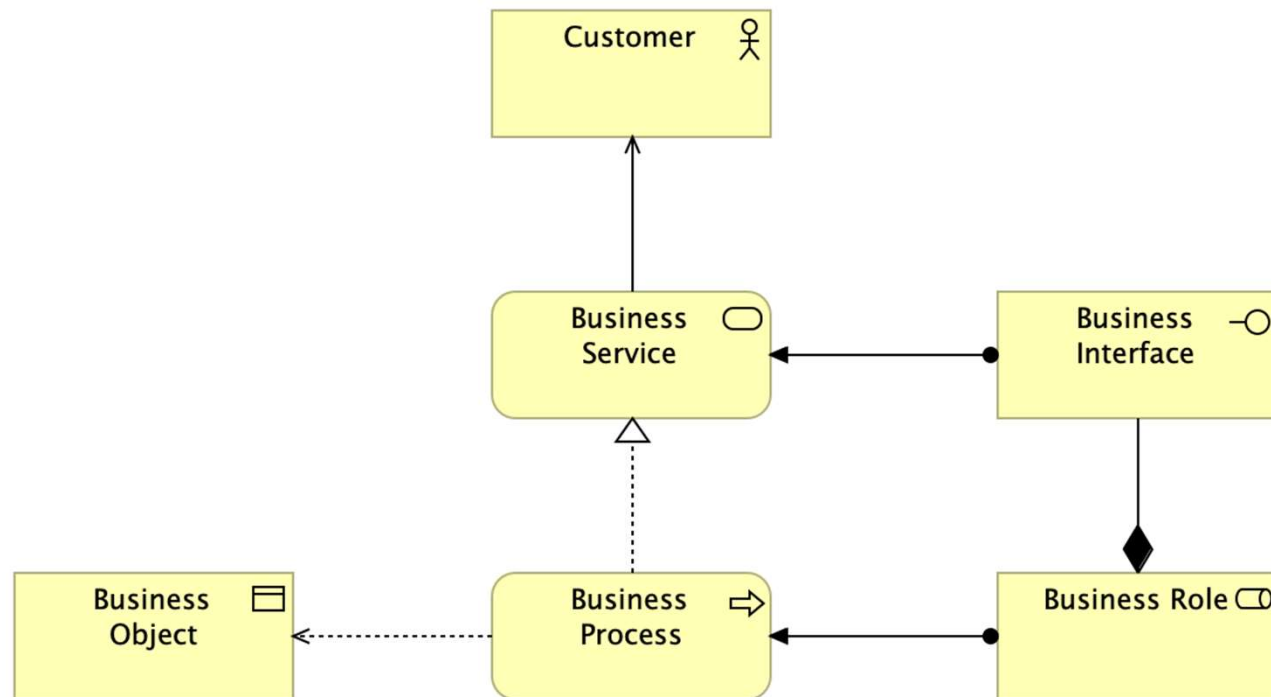
Structural Relationship	Notation
Composition	
Aggregation	
Assignment	
Realization	
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Influence	
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Other Relationships	Notation
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stronger

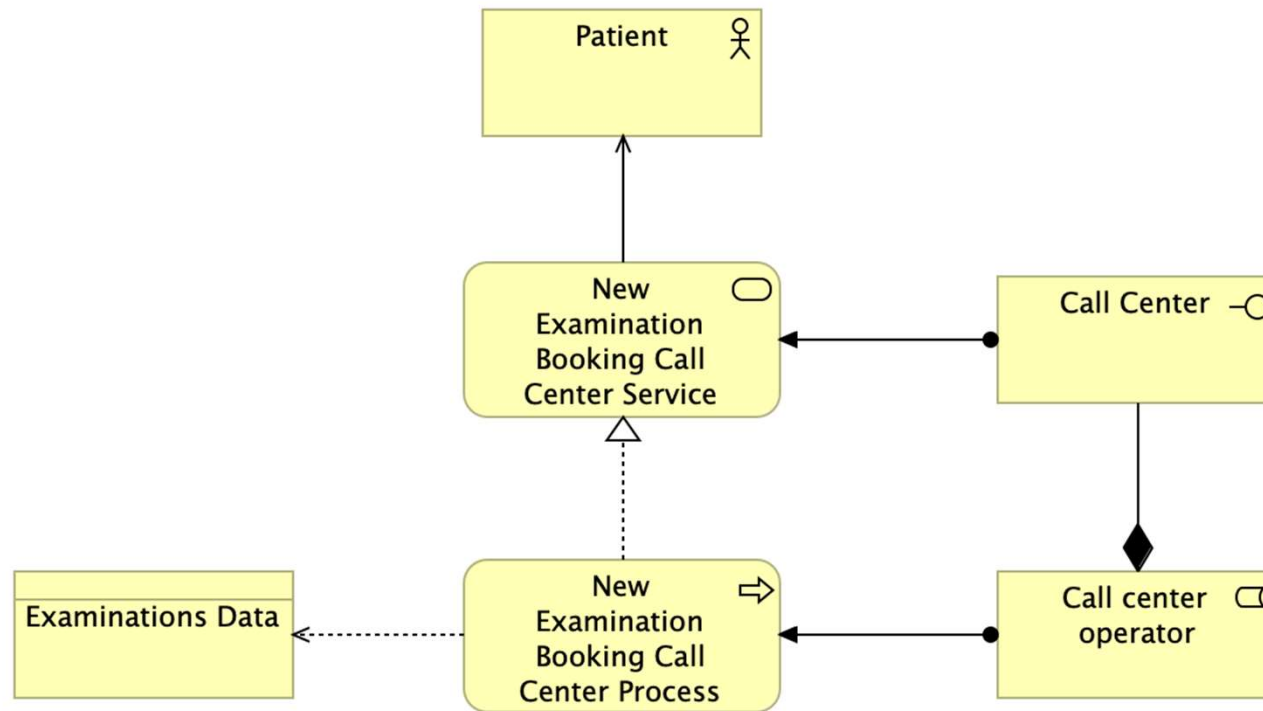


weaker

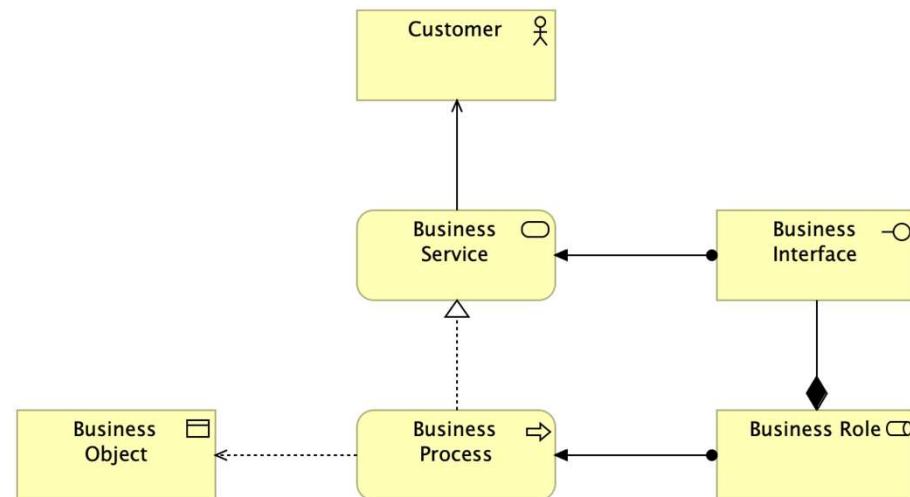
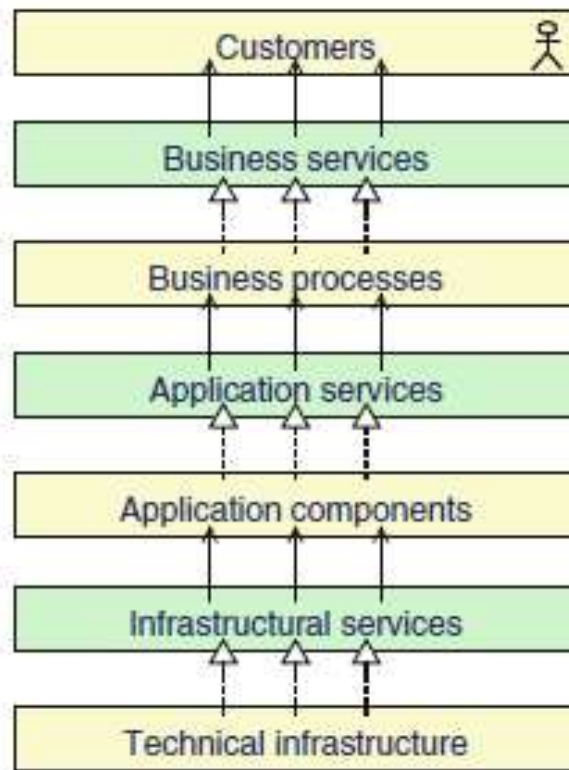
Basic business pattern



A first example

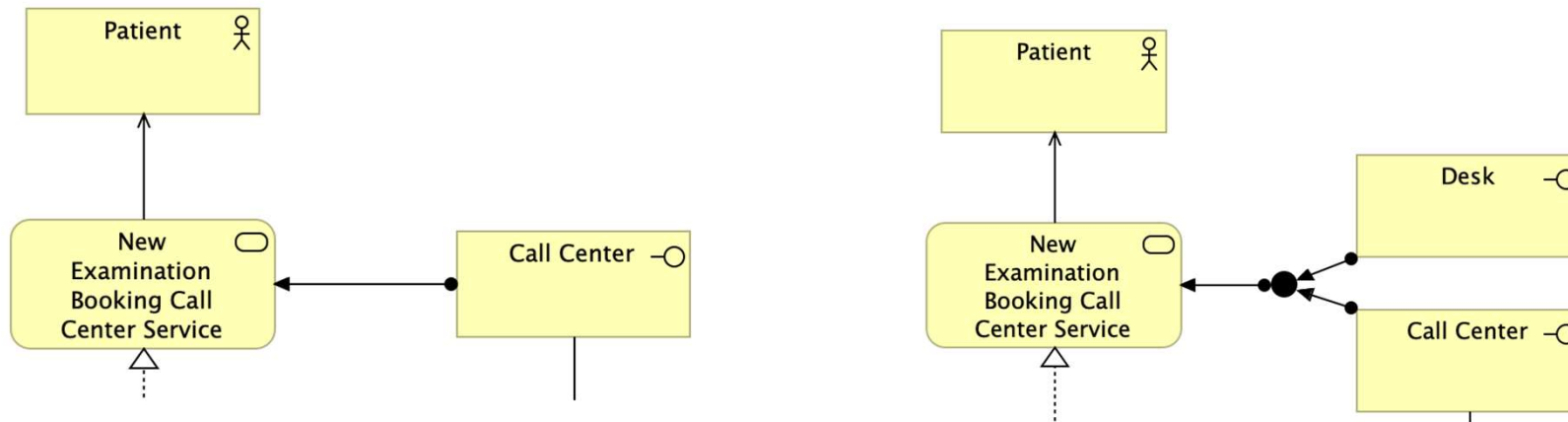


Basic business pattern – layered view



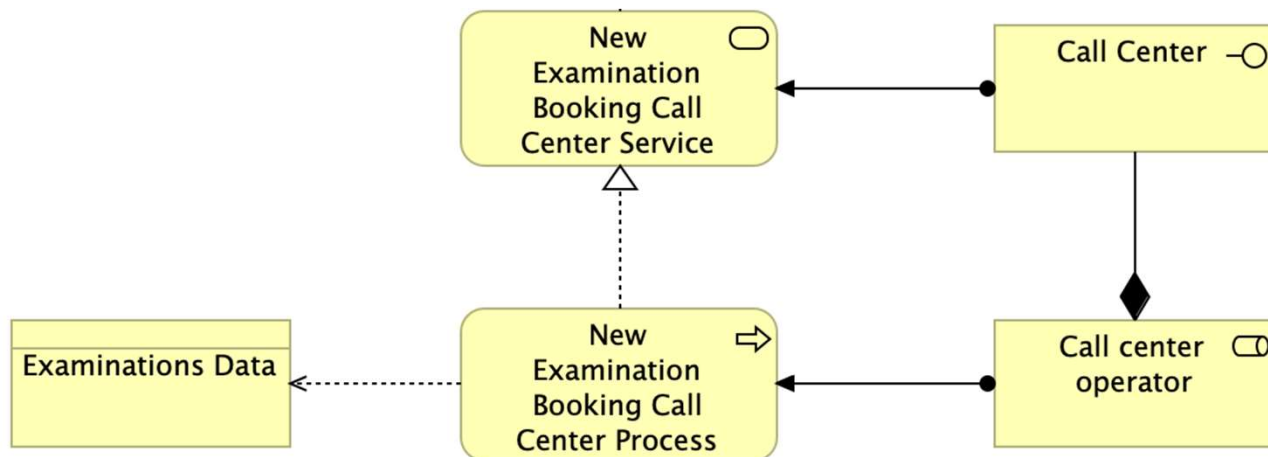
Above the visible line

- The user sees a service accessible to a given interface
- Interfaces can be more than one (use junctions)



Behind the visibility line

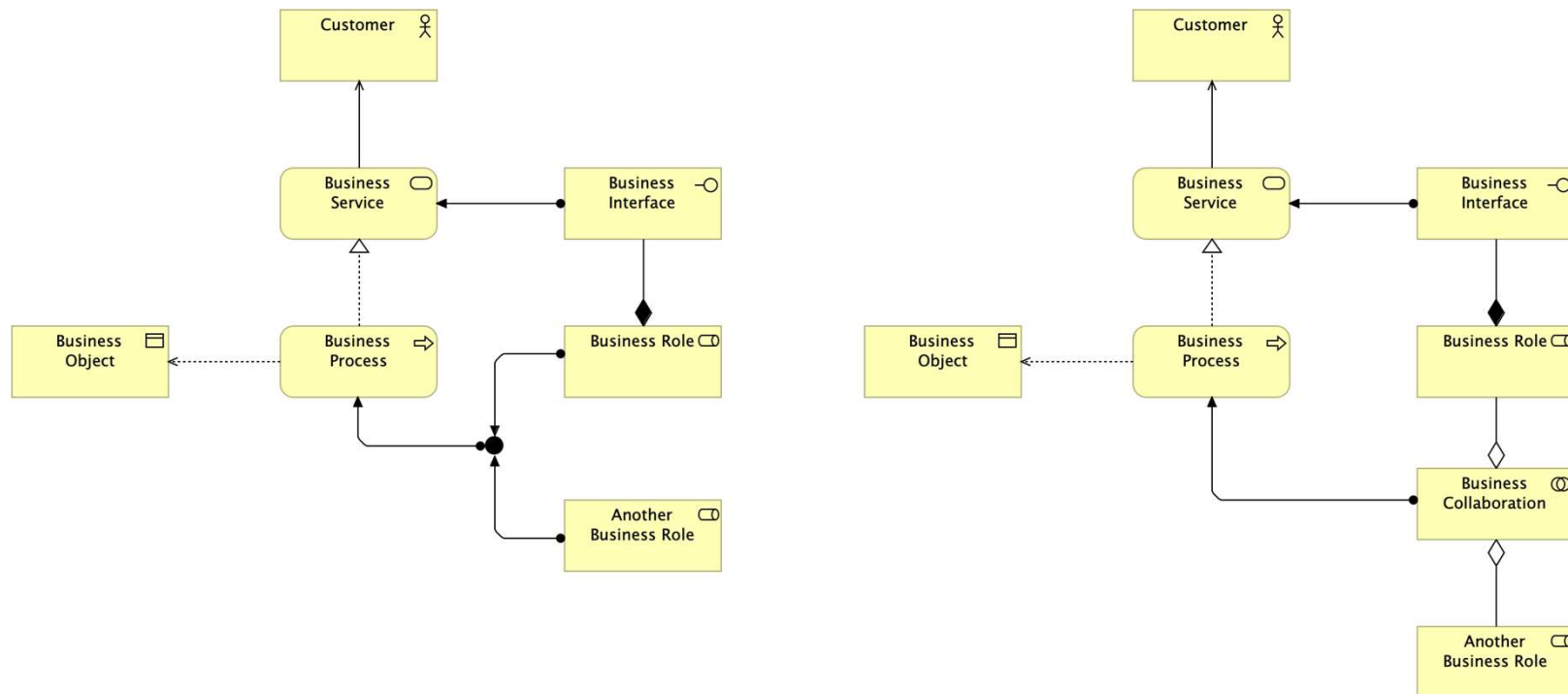
- The process to realize the service is defined along with the actors/roles involved
- The role assigned to the process knows the process



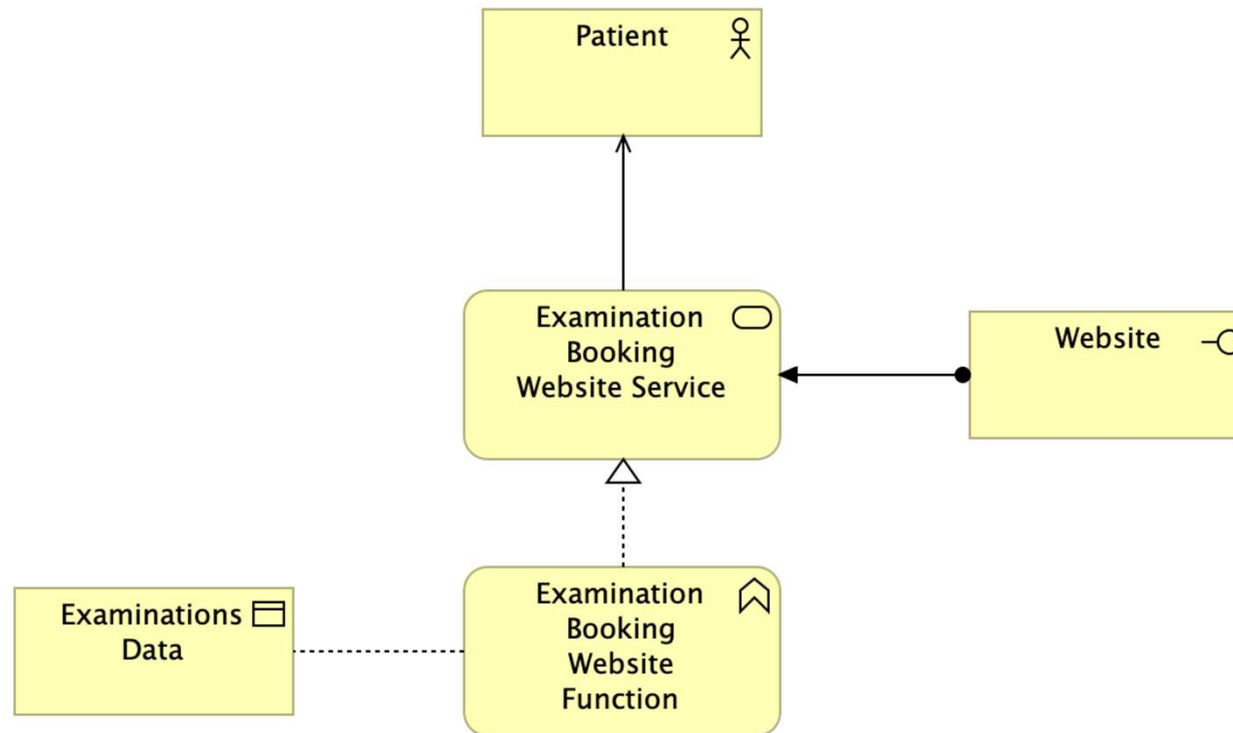
Role assigned to a process

- There must be at most one role assigned to a process
 - Junctions or collaborations can be introduced to manage multiple assignments
 - In case of no assignments, the process is considered as fully automated

More than one responsible



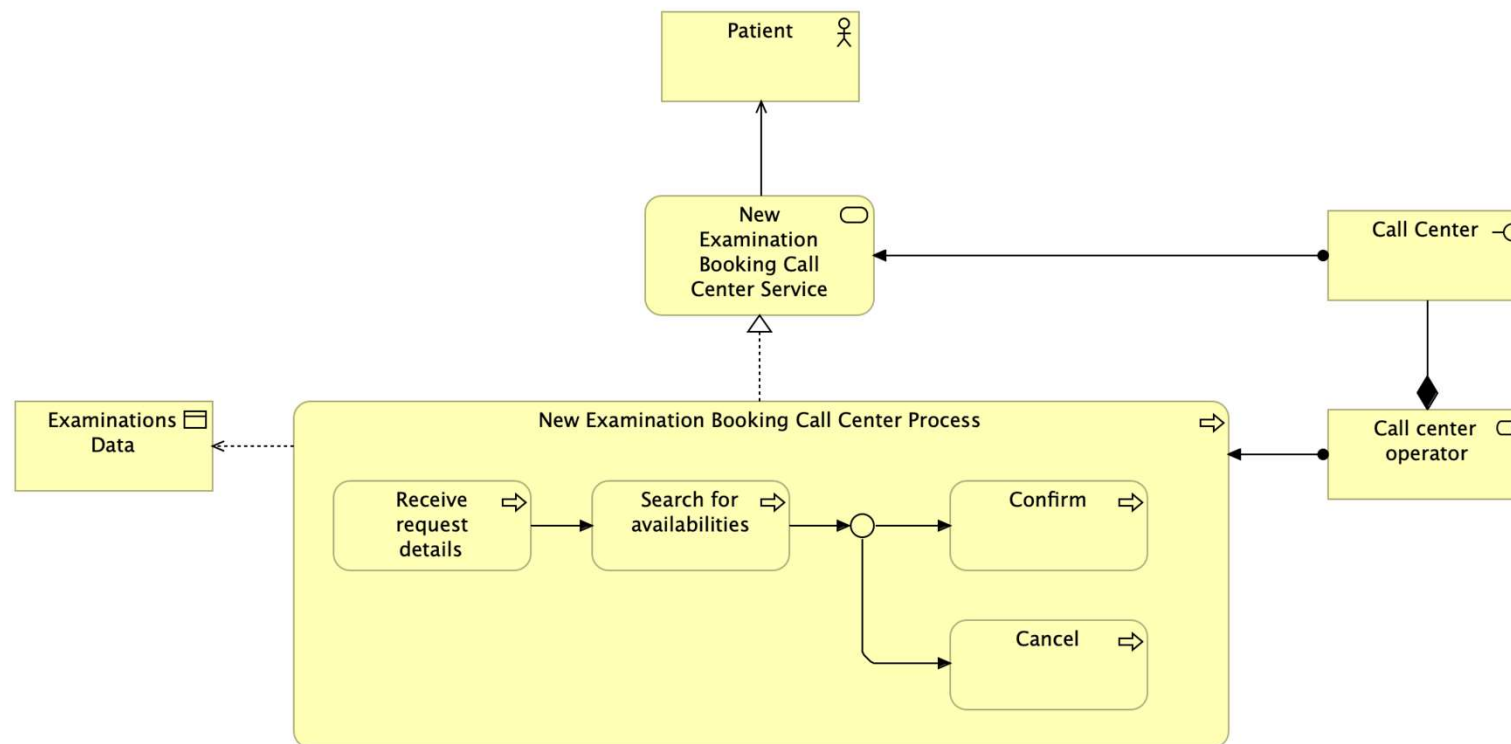
A self-serve service



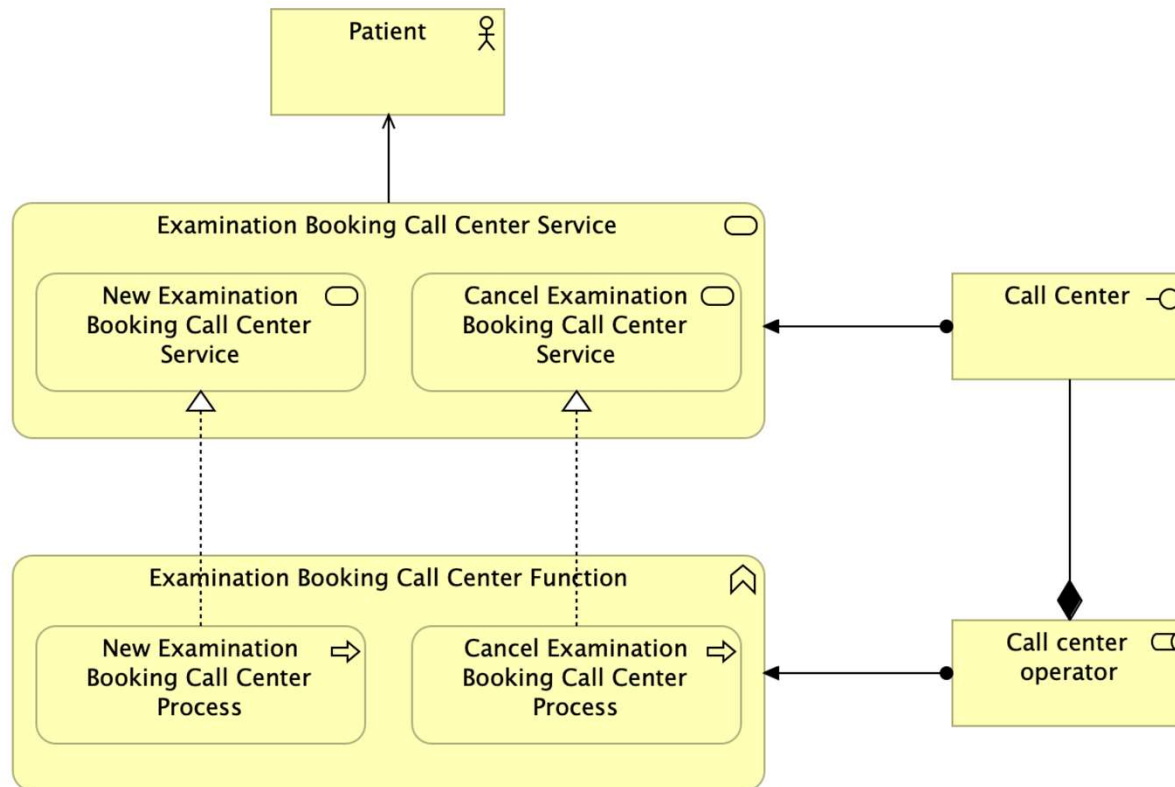
On functions and processes: business layer

- Functions and processes are performed by a single role
 - If more roles are involved use either a junction or an interaction (which is performed by a collaboration) to make it more explicit
- Functions and processes can be composed of other behavioural elements
- Functions are used when:
 - The composing elements have something in common (e.g., the role, the resources)
- Processes are used when:
 - The composing elements collectively achieve the same goal

Process specification



Function specification



Esercizio 1

Speedy is a delivery company that wants to offer to its top management a new service to create customer reports. The company already offers some services in this direction, but the produced reports are not customizable. For this new service, a data analyst is available to the managers to understand their requirements and to develop the new report.

Esercizio 1 - continua

To achieve this objective the data analyst will ask to complete a form, has to check the data available and to develop the tools to produce the report which will be delivered to the manager

Esercizio 1 – versione alternativa

Speedy is a delivery company that wants to offer to its top management a new service to create customer reports. The company already offers some services in this direction, but the produced reports are not customizable. **The new service is offered via a web interface which will allow the manager to select a geographical area first, then to analyze the different products and finally to create a report.**

Esercizio 2

IC is an insurance company which wants to offer a new insurance service for small objects (<2000\$) managed completely online for reliable customers.

The new process starts when a new insurance request arrives.

Then the customer credentials and past history are checked.

If the customer is considered reliable, he can upload a photo of the item and its details (serial number, purchase date). At this point an employee estimates the item price and, if <2000\$, the system sends a contract to the customer and waits for the signed copy. If the estimated price is >2000\$ the system sends a message to the customer explaining the service conditions.

Esercizio 2 – versione alternativa

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If the customer is considered reliable, he can upload a photo of the item and its details (serial number, purchase date). At this point an employee estimates the item price and, **if the items is <2000\$ the customer and the legal representant start exchanging papers via email to produce the signed contract**. If the estimated price is >2000\$ the system sends a message to the customer explaining the service conditions.

Ubooks

UBooks buys and resells used books. Each time it buys a book from a customer, it must ensure to be able to sell it at a higher price to prevent losses. The process through which it buys a book is the following: first of all, the user logs in, then enters book information and details about the condition of the book. Ubooks analyzes the book, to determine its condition. If the condition is not considered sufficient, the book is rejected. Otherwise, it estimates the value of the book and proposes it to the customer. If the customer accepts the offer the book is acquired.

I-REP

I-REP is a new company that offers repair services for smartphones, laptops, and other small electronic devices. One key feature of its value proposition is the possibility for customers to insert details about the device to be repaired and the kind of damage through a mobile app and instantly receive a cost estimate before sending the device.

The company has implemented a new process that starts by collecting information about the device. If the device belongs to the list of devices supported by the company, damage information is collected. At this point, there are two options: if repair and processing costs exceed the device value, the user is notified about this and directed to a partner marketplace to buy a similar product. Otherwise, a cost estimate range is provided and the user has two options: refuse it or accept it, pay an advance, insert address details, and print the prepaid shipping label.