



Should an e-shop support registration? Should it require it?

Must it support product search?

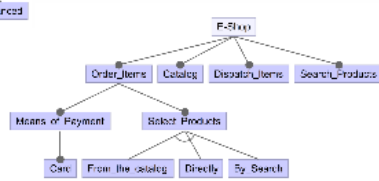
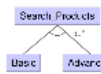
Many system features can be variable

How to capture all variants?

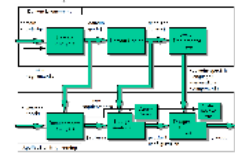
Feature modeling

A technique of modeling for an abstract expression of variability

How to implement features?



Software product lines



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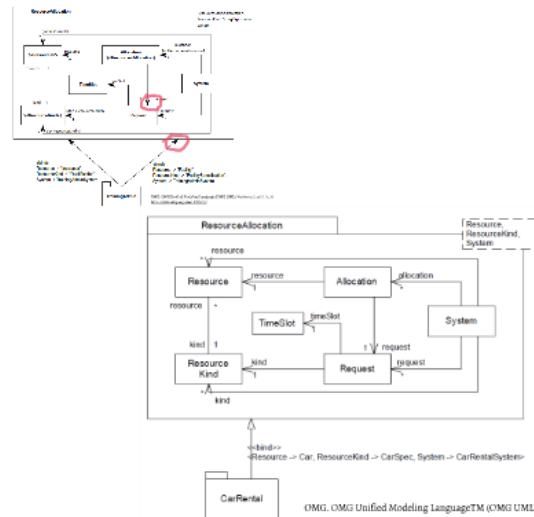
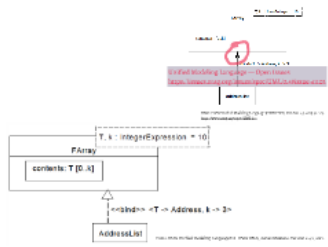
Variance is one of the principal properties of software

Abstractly captured variability enables to decide responsibly about implementation mechanisms

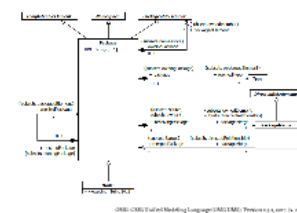
Regulated variability in software product lines is a basis for achieving real software reuse

Parameterization is one of the ways of expressing variability and it is supported by UML, too

UML supports classifier and package parameterization



OMG. OMG Unified Modeling Language™ (OMG UML), Superstructure, Version 2.4.1, 2011.



Lecture 8:

Software Variance Modeling

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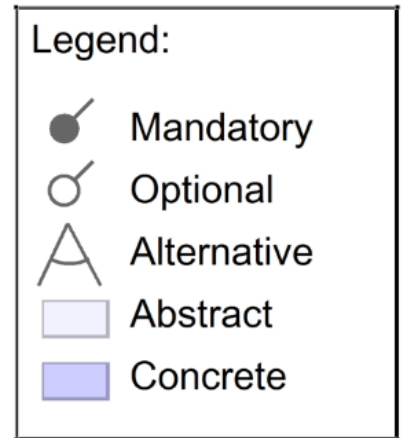
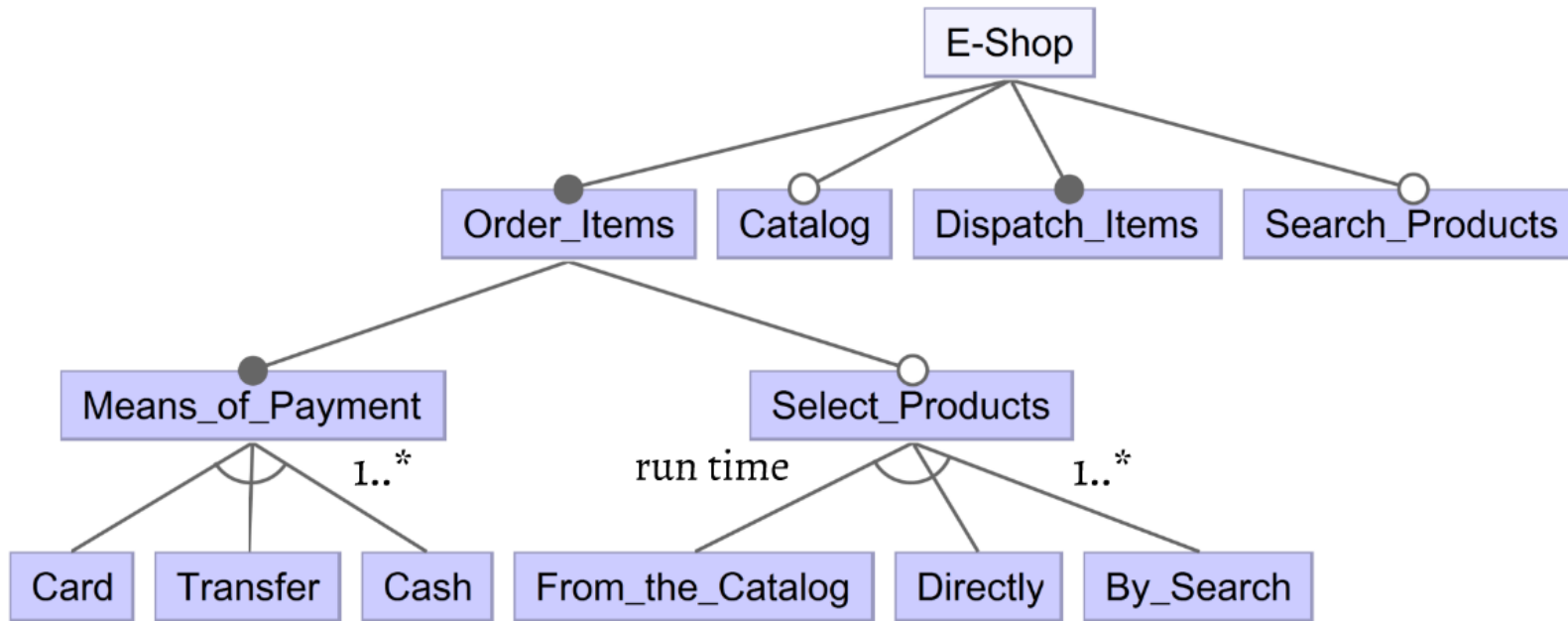
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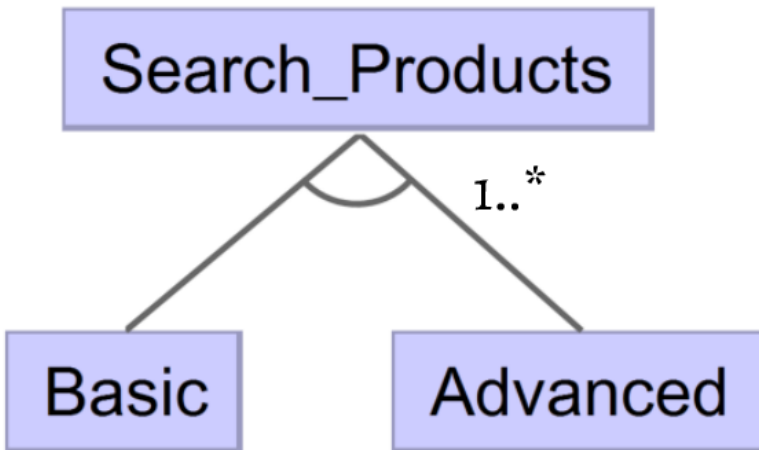
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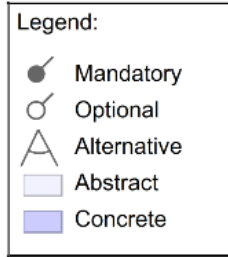
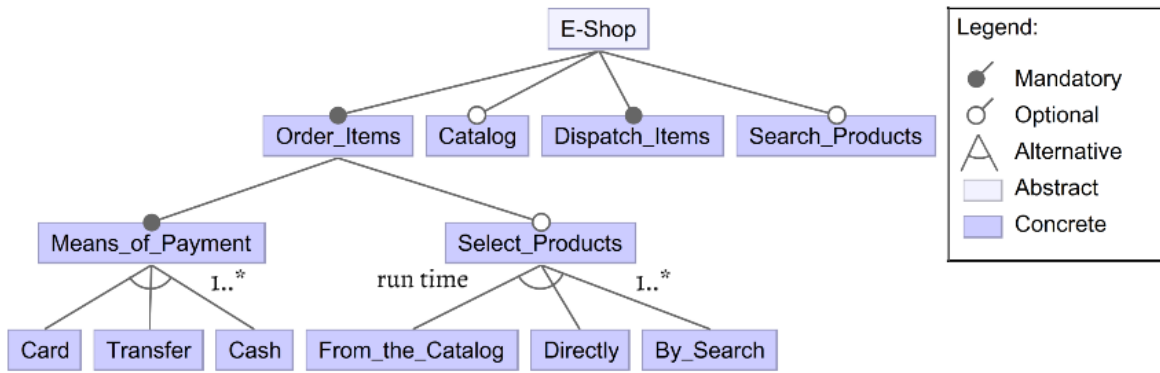
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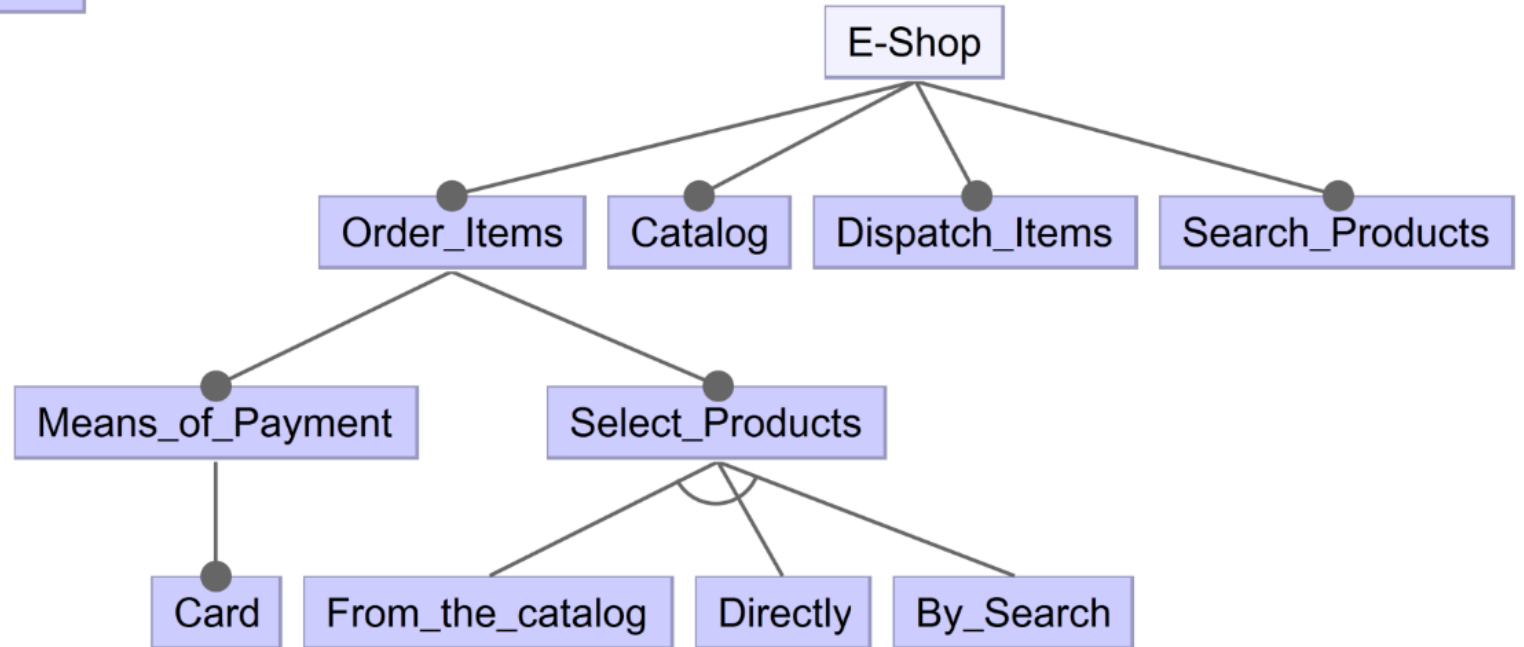
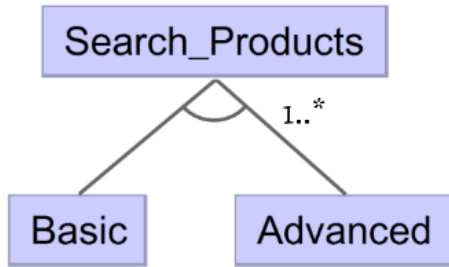


From_the_Catalog ⇒ Catalog





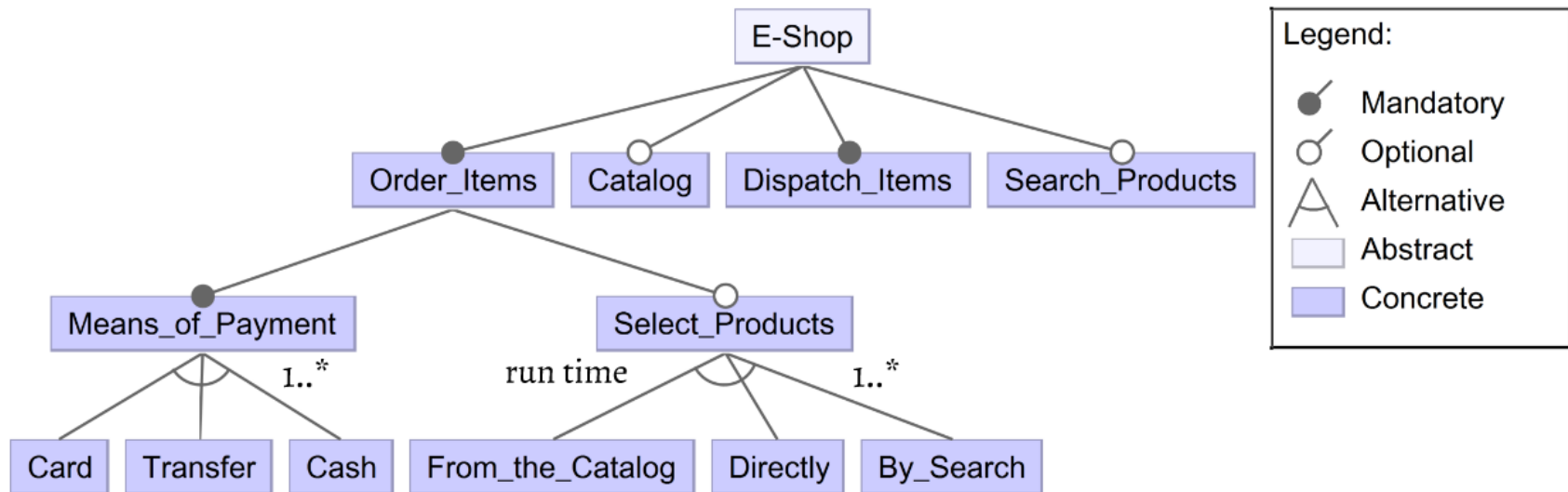
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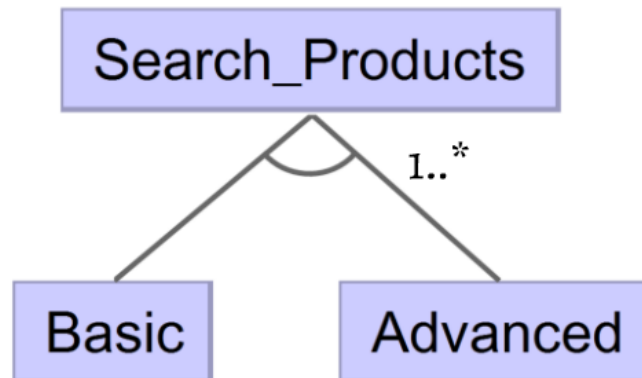
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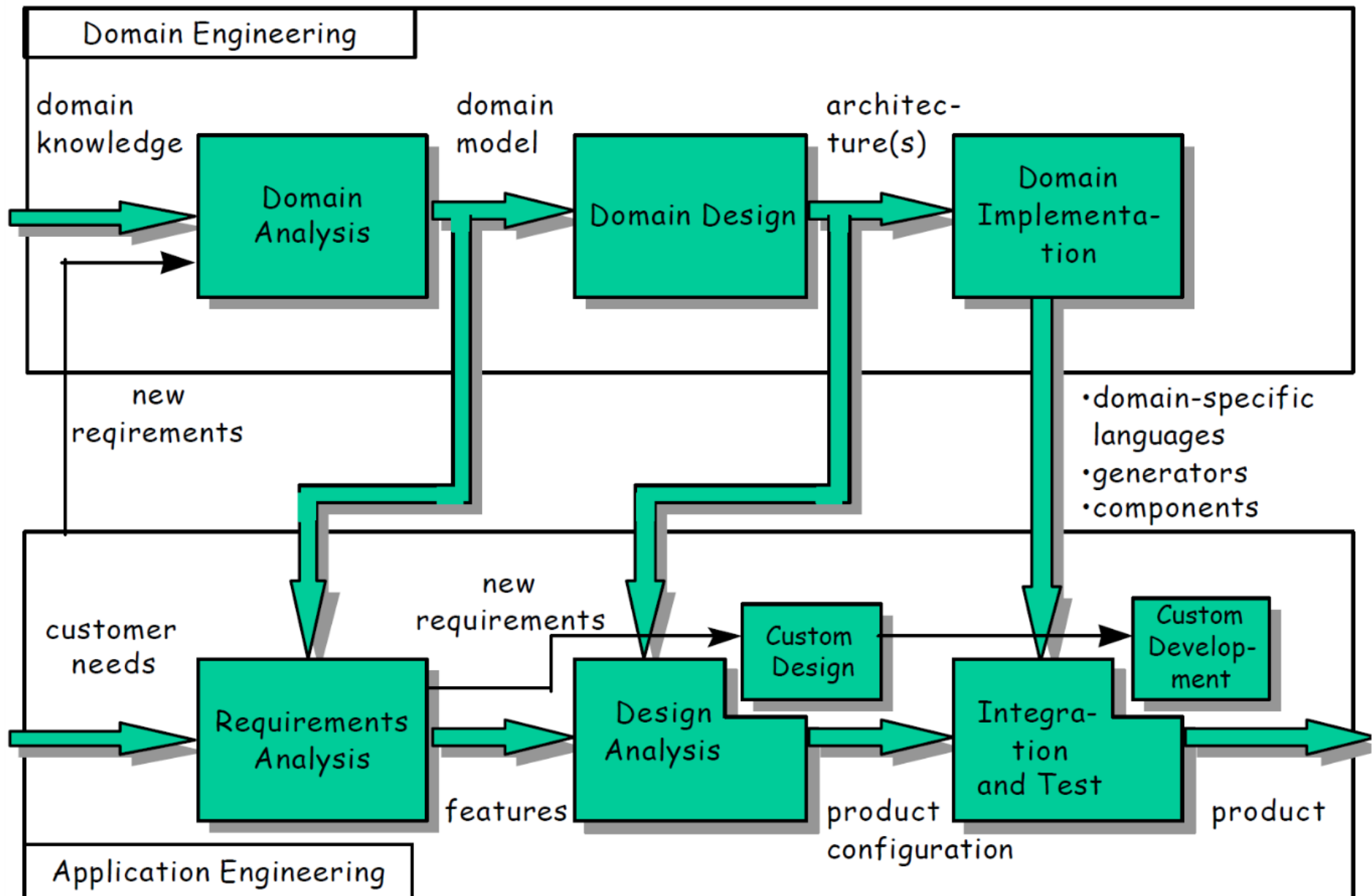


From_the_Catalog \Rightarrow Catalog



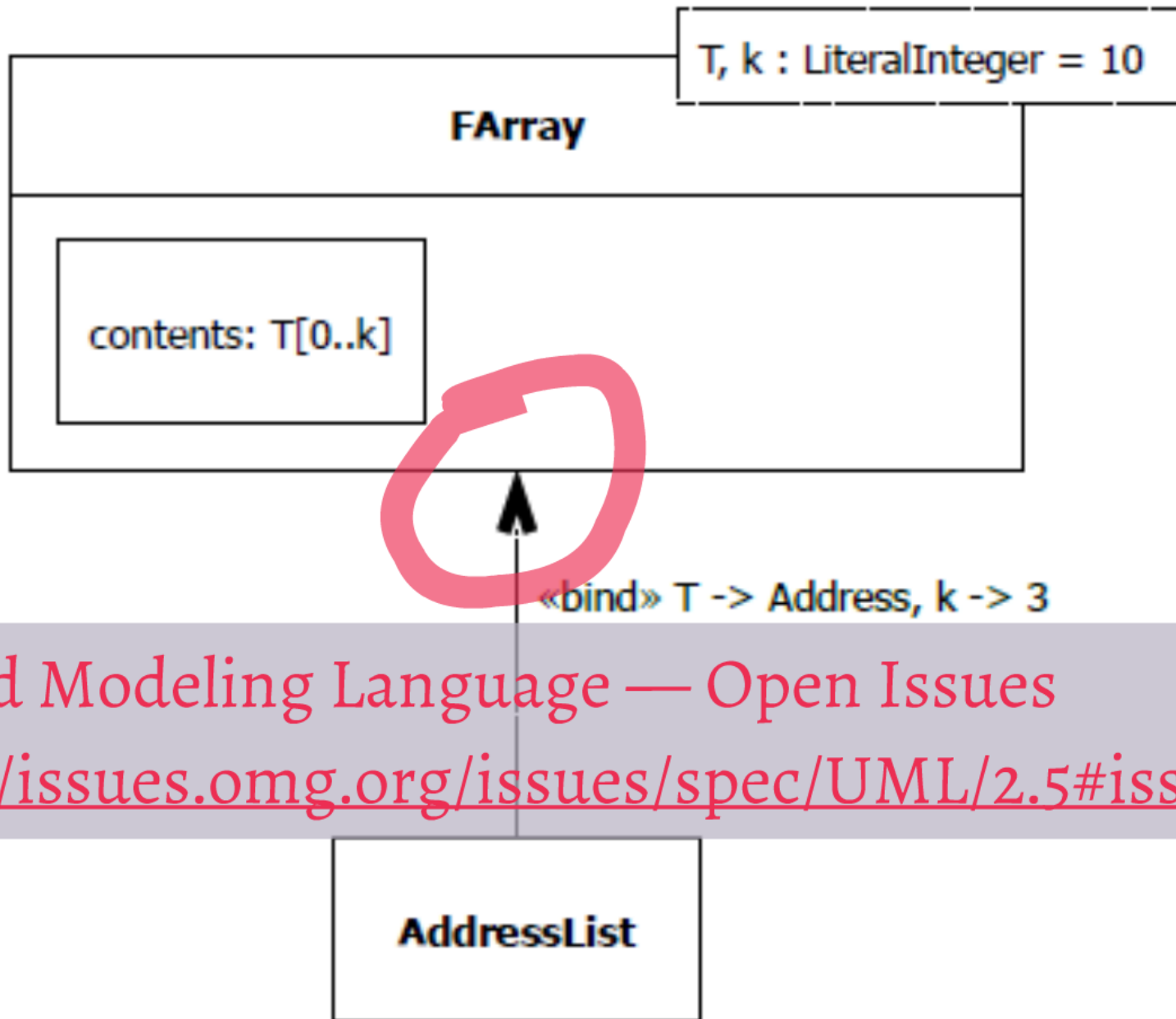
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Software product lines



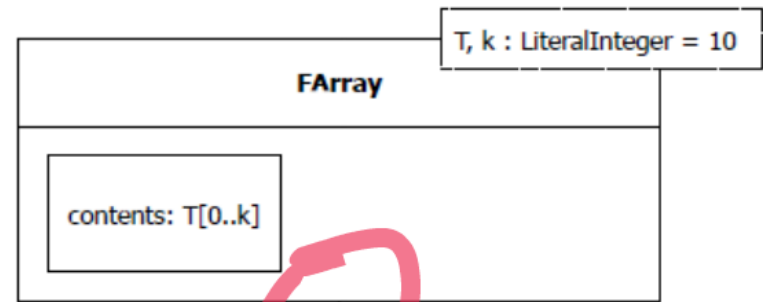
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Unified Modeling Language — Open Issues

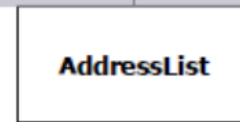
<https://issues.omg.org/issues/spec/UML/2.5#issue-41103>



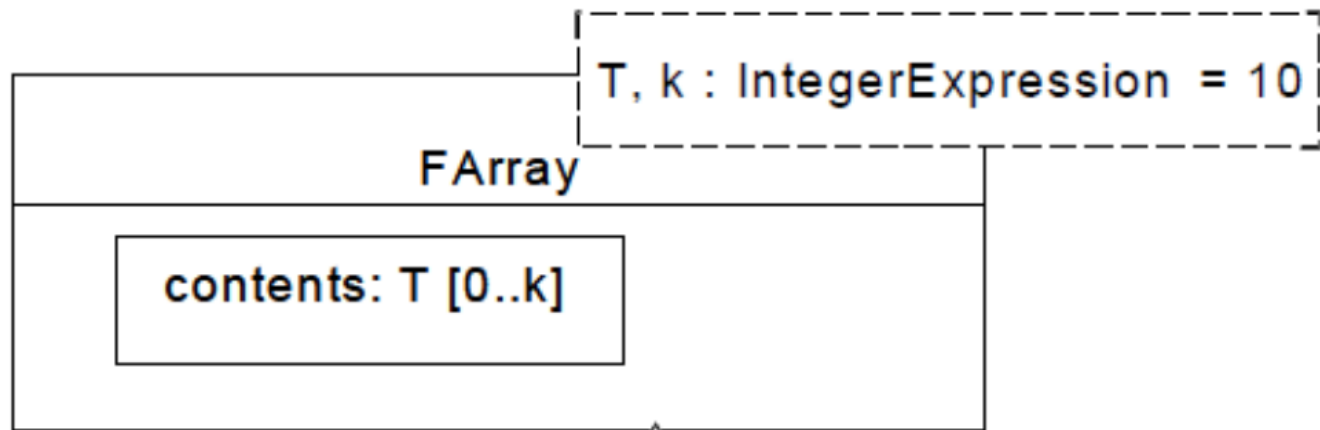
«bind» T -> Address, k -> 3

Unified Modeling Language — Open Issues

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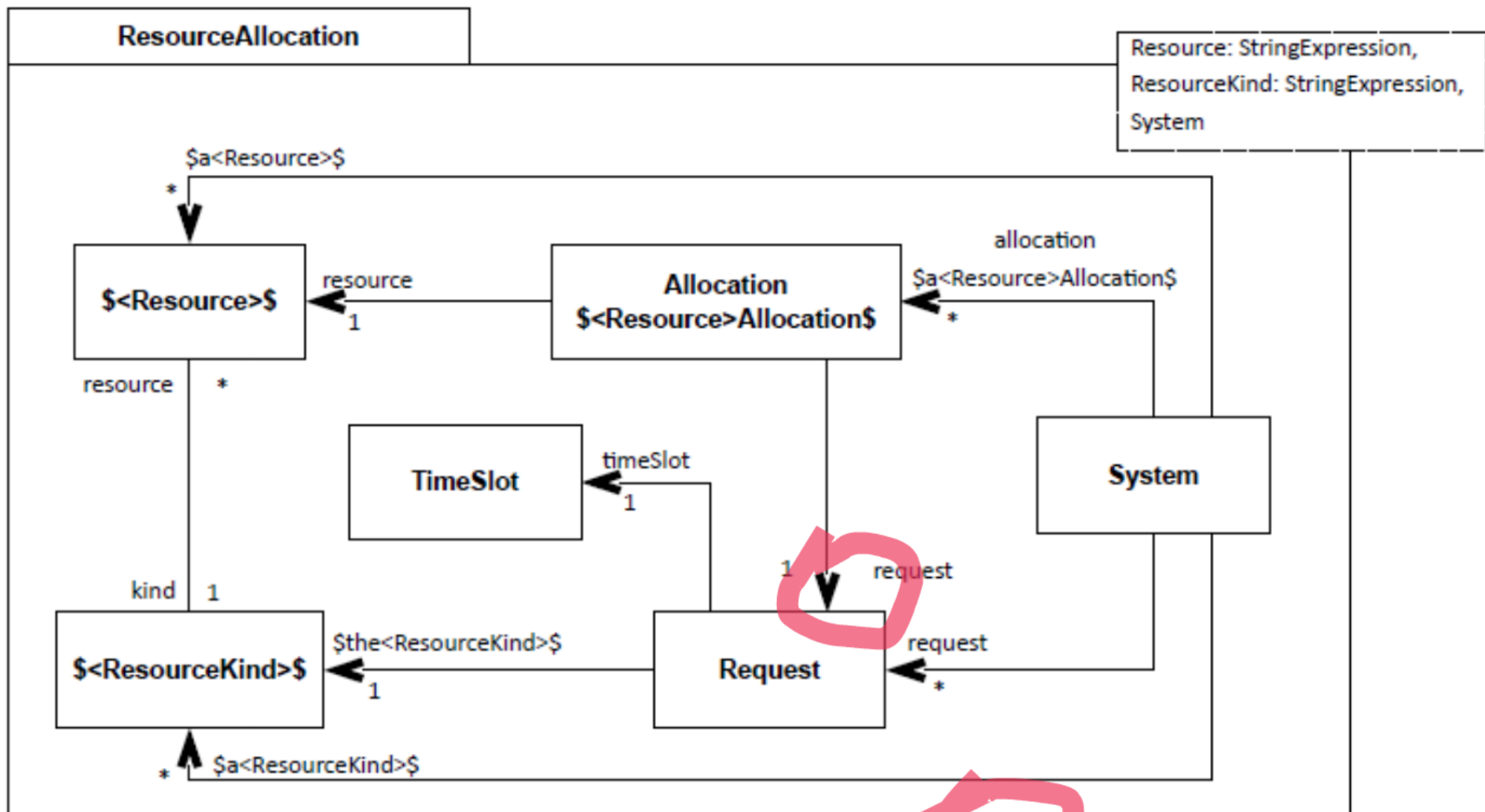
OMG. OMG Unified Modeling Language (OMG UML). Version 2.5, 2015. (s. 104)
<http://www.omg.org/spec/UML/2.5>



<<bind>> <T -> Address, k -> 3>

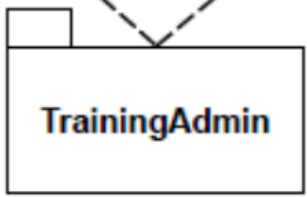


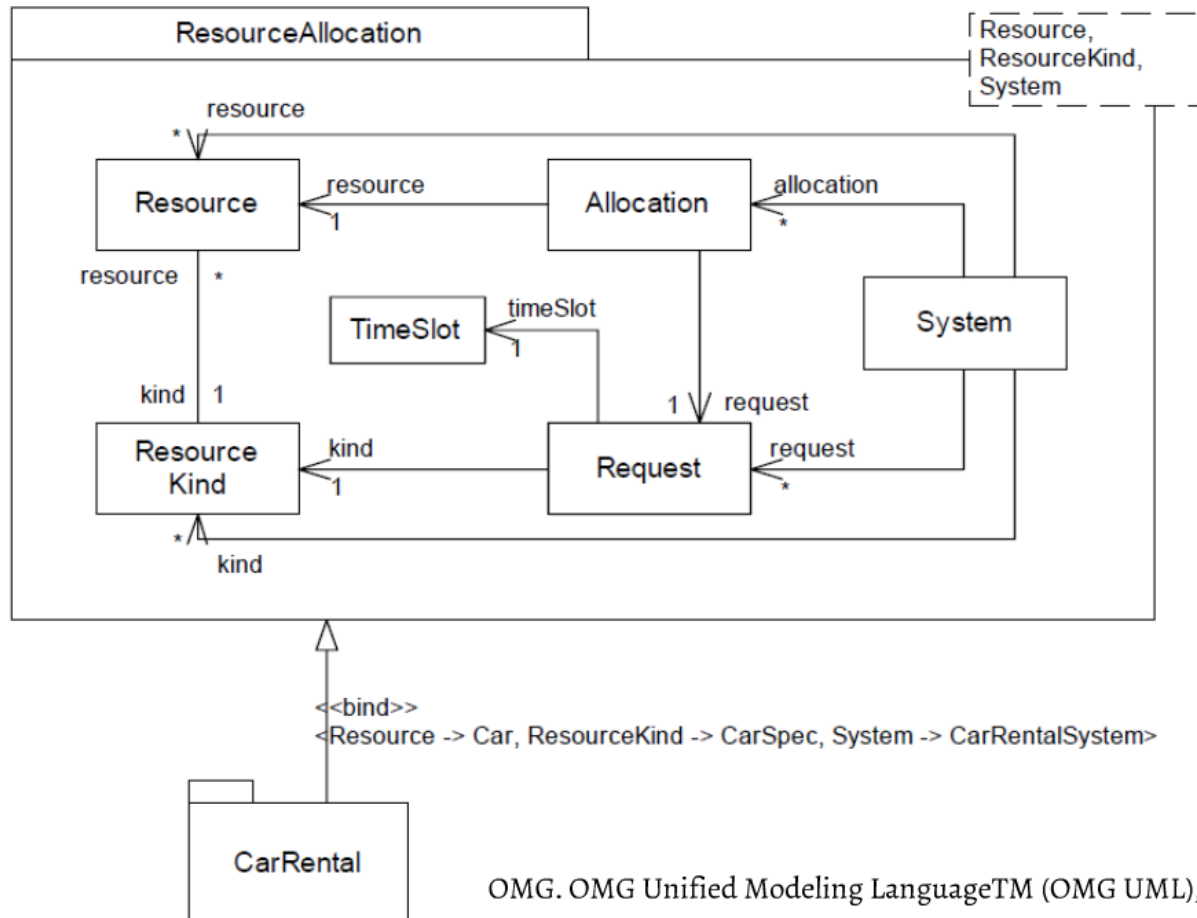
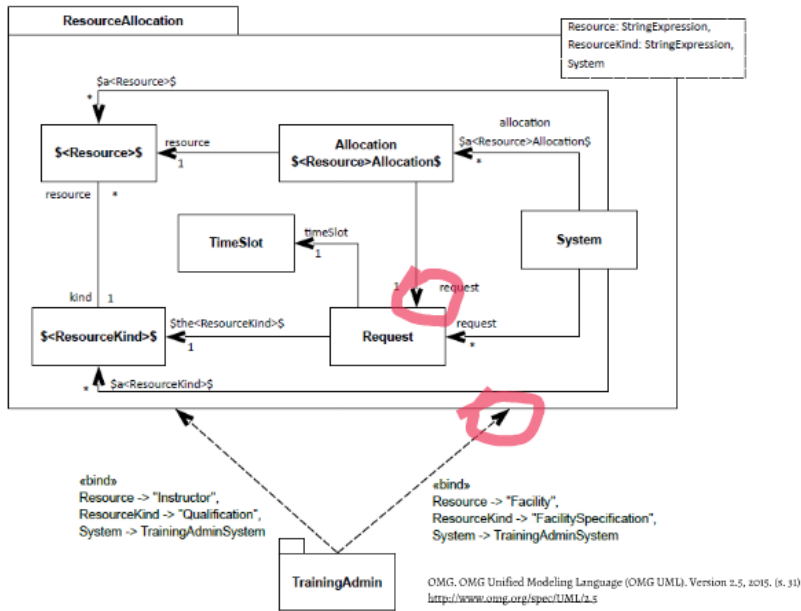
OMG. OMG Unified Modeling Language™ (OMG UML), Superstructure. Version 2.4.1, 2011.

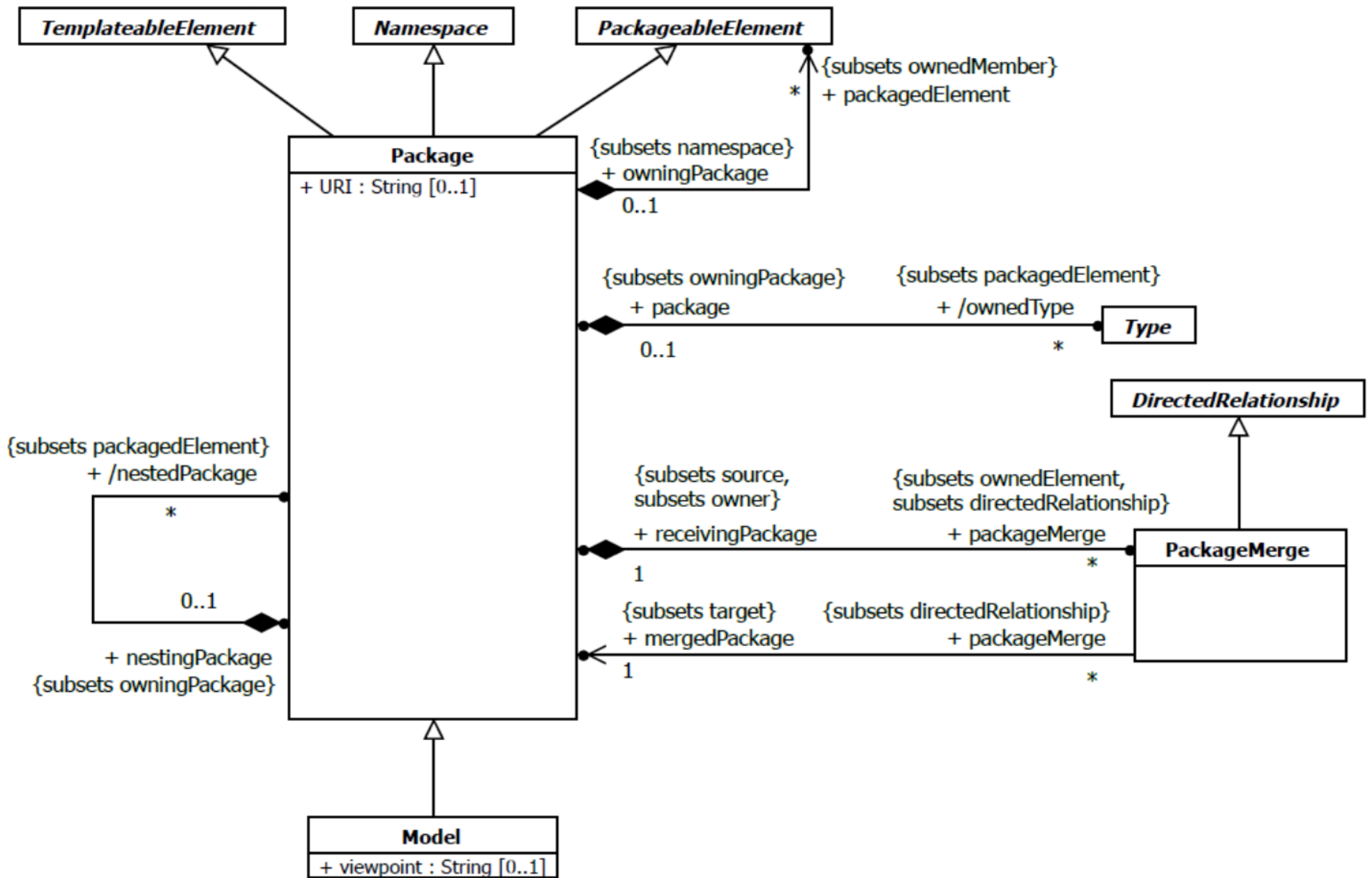


«bind»
Resource -> "Instructor",
ResourceKind -> "Qualification",
System -> TrainingAdminSystem

«bind»
Resource -> "Facility",
ResourceKind -> "FacilitySpecification",
System -> TrainingAdminSystem



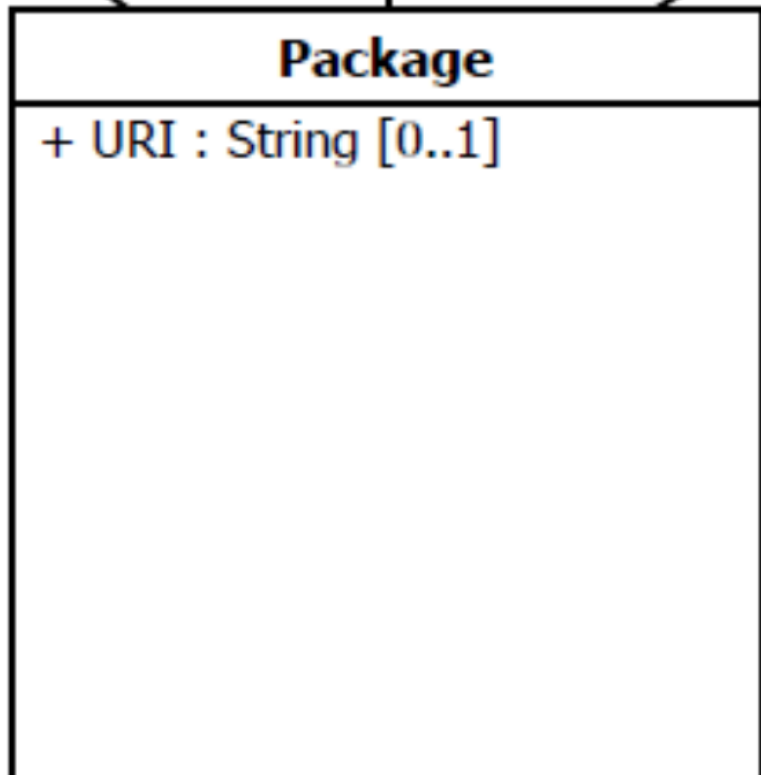




TemplateableElement

Namespace

Package



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