

## Developing a value hierarchy



Jaap Gordijn  
(gordijn@cs.vu.nl)

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## Take home message:

- A value hierarchy shows how a consumer need is satisfied by value objects
- A value hierarchy consists of two kind of concepts:
  - Consumer need
  - Value object
- A consumer need and a value object (and value objects themselves) can be related via dependency elements.

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## Example

“Someone wants to travel from Amsterdam to Paris. The consumer need is here 'Travel from Amsterdam to Paris'. There exist various ways to travel. For instance, someone may take an airplane from Schiphol airport (Amsterdam) to Charles de Gaulle (Paris); the flight with the airplane can be considered as an object of value, satisfying the travel need. An alternative may be a (high speed) train trip (an alternative value object) from Amsterdam Central Station to Gare du Nord in Paris. Additionally, a taxi may be necessary for transportation to/from the airport or train station. Also, one might want to eat some food (also a value object) during traveling.”

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## Building blocks for hierarchies

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## Consumer need

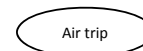
- A consumer need is a state of felt deprivation of some basic satisfaction
- Why does a consumer want to buy our product?
  - Need, want, demand
- Example: “travel from Amsterdam to Paris”
- Visualization: bullet eye



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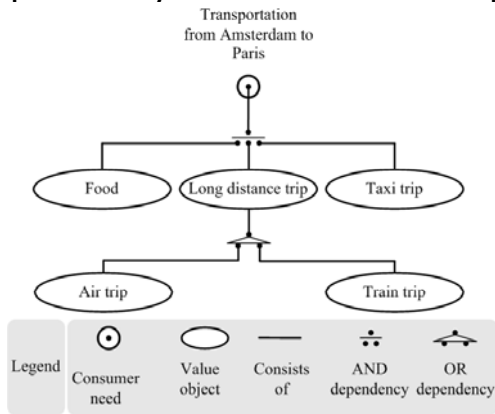
## Value object

- A value object is a physical good (which you can drop on the floor), an intangible outcome of a service, a right, or even an experience.
- Two types of value objects:
  - Money objects:
    - Expressed in monetary units, people do not disagree about the amount (objective)
    - Value in transfer
  - ∩ Money objects:
    - Also expressed in monetary units, but people usually disagree about the amount for the same object (subjective)
    - Value in use
    - Examples: Air trip, Train trip, Food, ...
- Visualization: [Air trip]



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## Dependency elements: An example



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## Dependency elements

- Direct dependency
  - Between a need and a value object, or
  - Between two value objects
- AND dependency
- OR dependency

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## Constructing value hierarchies

- Design questions:
  - Which consumer need(s) do exist?
  - Which alternative value objects for need satisfaction (or for producing other value objects)?
  - Scoping: which value objects to include?

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## Some guidelines: Needs

- Think outside-in
  - Out-of-the-box
- Consider the need as a problem, not as a solution
- No statements about services, goods, etc. in the need expression

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## Some guidelines: What is a value object?

- A value object ... should be of economic value.
  - A value object must of value for at least someone
  - At least someone must be willing to pay for the object
  - It should be possible to transfer a value object from on party to another in its own right
- Value object or not?
  - A receipt, a cinema ticket?

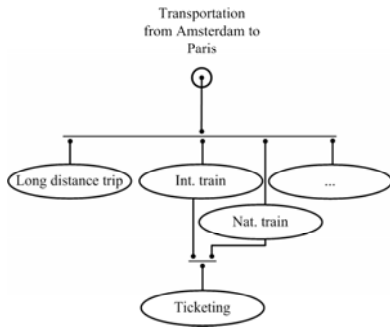
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## Some guidelines: Eliciting a value object

- Deconstruct coarse grained objects into smaller objects:
  - A (long) air trip consists of a flight and food
- Which objects are needed to produce another value object?
- Scoping: Do not decompose value object anymore if we can safely assume that the value object falls outside the scope of the value analysis
  - So, we can assume that the object can be economically sustainable provided

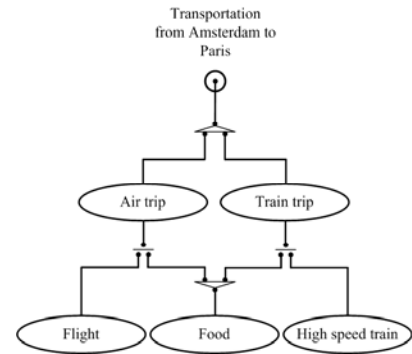
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Dependency examples:  
A same ticketing service for both international and national train trips



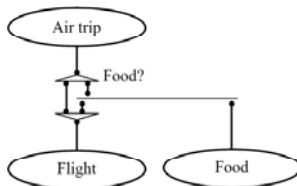
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Dependency examples:  
Both a flight and a high speed train have food (yet not the same)



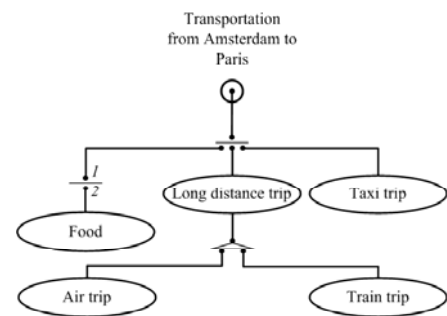
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Dependency examples:  
Food is optional



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Dependency examples:  
Food is served twice



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## Key points

- A value hierarchy consists of one or more consumer needs, and one or more related value objects
- The relationship between needs and value objects, and between value objects themselves, shows on which value object(s) another value object(s) or need depends for satisfaction.
- Relationships between needs and value objects, and other objects can be direct, or can be stated using intermediate constructs such as AND/OR forks and joins.
- The value hierarchy shows how a consumer need is satisfied by obtaining value objects, and also shows alternatives.
- The value hierarchy provides a scope for the construction of a value web; it shows which objects should be considered, and the leaf objects that are supposed to be available against reasonable expenses.

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Next lecture:  
How to make an elementary value web

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