

Applying UML & Patterns (3rd ed.)

Chapter 11

OPERATION CONTRACTS

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Fig. 11.1

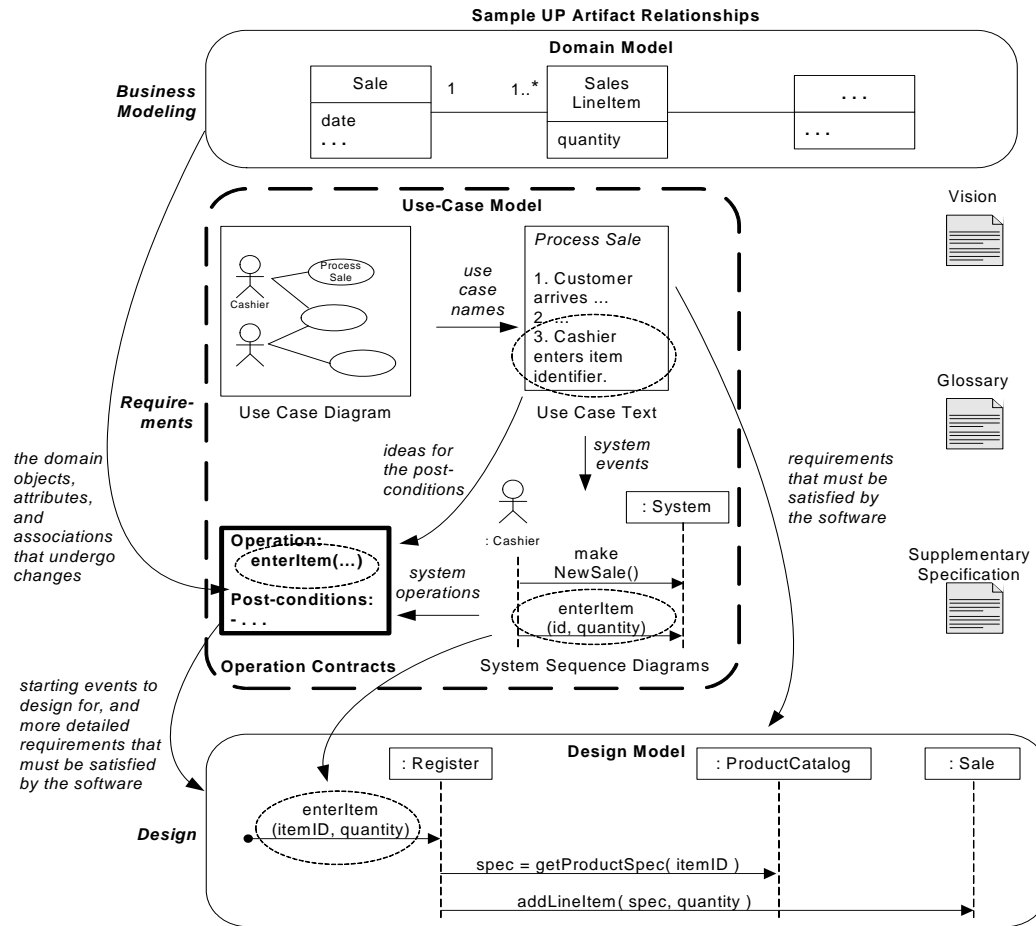
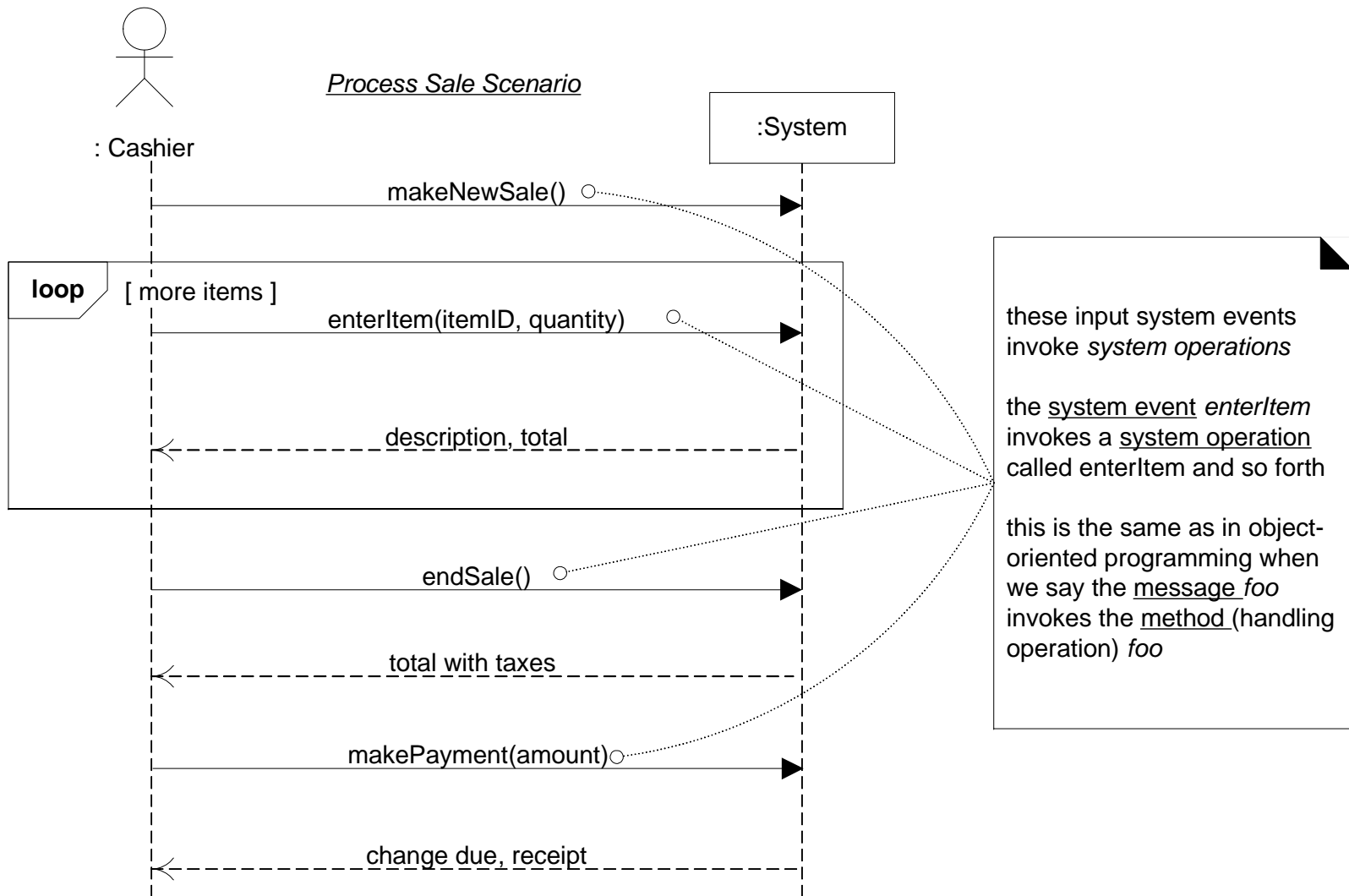


Fig. 11.2



Operation Contracts

- Important adjunct to IDing system operations
- Specify the pre- and post-conditions of each system operation
- Post-conditions are most important
 - What happened in system as a result of the operation's invocation
- Need a domain model to specify operation contracts

Operation Contracts

- Post-conditions
 - Changes in state of domain model objects
 - 3 changes of interest
 - Creation of new object instances
 - Associations between objects formed or broken
 - Attributes of an object modified
 - Answers the question:
 - What was the net effect of this operation on the system?
 - Review enterItem example p. 183

Operation Contracts

- Review enterItem contract (p. 183)
 - Refer to domain model p. 157
 - Postconditions reference concepts, attributes & associations in domain model
 - Any discrepancies between contract & model?
 - Contract analysis may lead to new concepts, attributes or associations!
 - If so, update domain model!

Operation Contracts

- Why OC post-conditions?
 - Think about your domain model
 - Identifies objects (+ attributes) and associations
 - The OC links a system operation to specific objects in the domain model
 - Indicates which objects are affected by the operation
 - Will help with assignment of responsibilities
 - That enables collaboration to get a task done

Operation Contracts

- Crucial to realize that UCs, domain model, SSDs and OCs are intimately related
- To create OCs, for complex operations..
 - Identify system operations on SSDs (or UCs)
 - Specify post-conditions
 - Instances created
 - Associations formed/broken (easiest to miss)
 - Attributes modified
- Review OCs pp. 190-191
 - Changes to domain model?