

# Operation Contracts

## Object Oriented Analysis and Design

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# Operation Contracts — What?

- For system operations uncovered in SSDs
- System operations define system *public interface*
- OC defines pre- / post-conditions for operations
- Post-facto observations about state changes to domain objects
- Describes what happens without explaining how

# Operation Contracts — How?

- Text document
- Written in past tense
- Passive declarative sentences

# Operation Contracts — Structure

- Operation
- Cross-reference — use cases that reference operation
- Pre-Conditions
- Post-Conditions

# Operation Contracts — When?

- Complex system operations
- System operations with subtle outcomes

# Post-conditions Describe System Domain Model State Changes

- Instances created
- Associations formed or broken
- Attributes Changed

## Operation Contracts — Example

Contract C02: enterItem

Operation: enterItem(itemID : ItemID, quantity : integer)

Cross References: Use Cases: Process Sale

Preconditions: There is a sale underway.

Postconditions:

- A SalesLineItem instance sli was created (instance creation).
- sli was associated with the current Sale (association formed).

- sli.quantity became quantity (attribute modification).
- sli was associated with a ProductSpecification, based on itemID match (association formed).