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Chapter 3
Requirements Specification

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Topics

- State specifications
- Behavior specifications
- State change specifications

4. *State change specifications*

- many *engineering and real-time applications* are all about state changes
- in *business applications* the modeling of state changes is typically done towards the end of the analysis
- many of the state change specifications define *exceptional conditions* in the system.

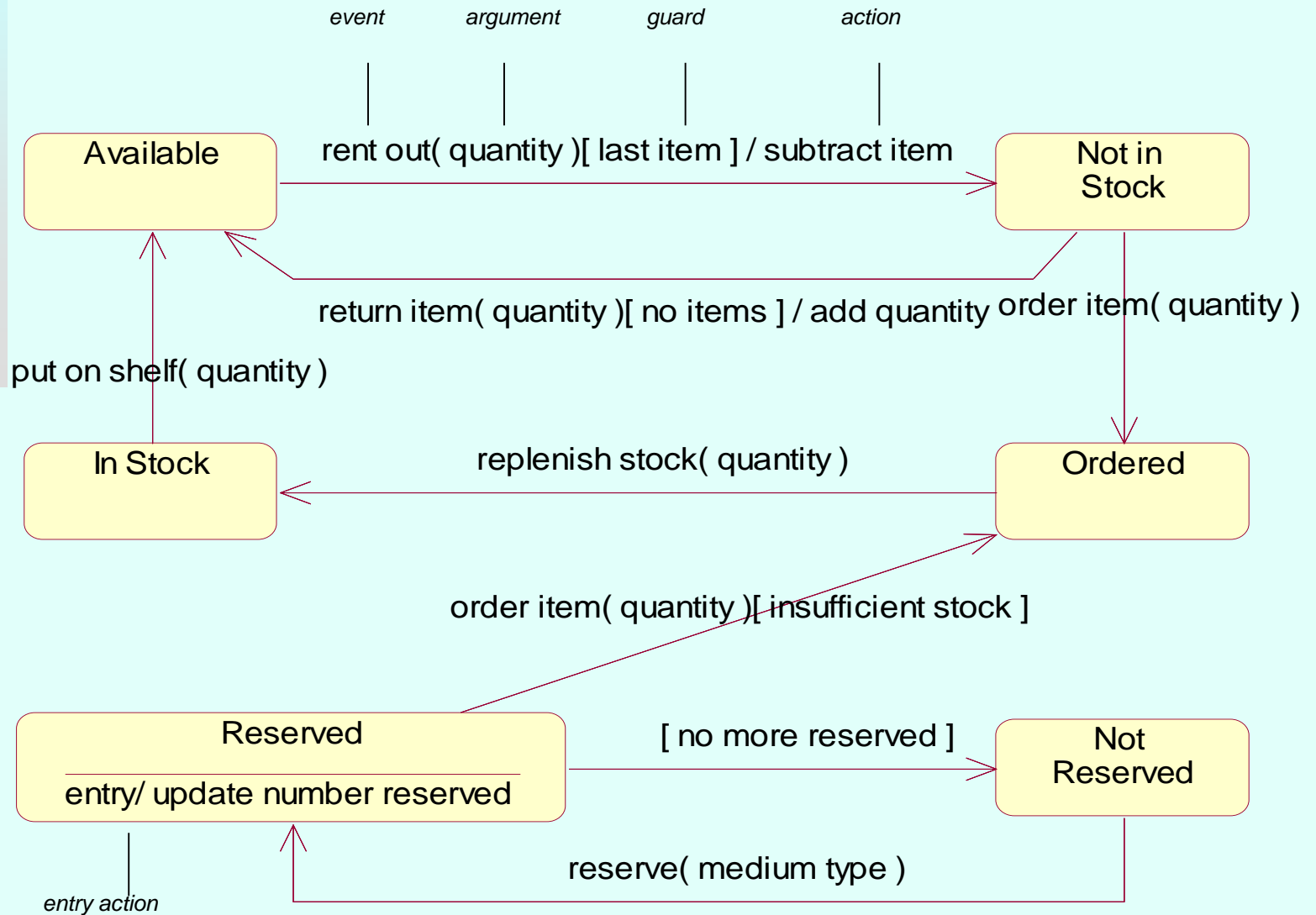
State change specifications

- State machine diagrams
- For each class that exhibits an interesting dynamic behavior
- Changes to some attributes signify state changes

Specifying object states

- State transition fires when a certain event occurs or a certain condition is satisfied
 - transition line does not have to be labeled with an event name
 - condition itself (written in square brackets) can fire the transition
- Transition can be triggered by
 - Signal event
 - Call event
 - Change event
 - Time event

Example 3.19 – Video Store



Review Quiz 3.4

1. Do state machine diagrams represent the sequence of state changes?
2. Will the state change always occur when the relevant transition to that state has been fired?