object models: examples

Daniel Jackson

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two examples

illustrate state that is
› physical not virtual
› distributed not centralized

phenomena that are
› social/legal
hotel locking

recodable locks (since 1980)
› new guest gets a different key
› lock is ‘recoded’ to new key
› last guest can no longer enter

how does it work?
› locks are standalone, not wired
A recodable locking scheme

Card has two keys if first matches lock, recode with second

If second matches, just open
exercise: hotel locking

draw an object model
› showing the essential state of hotel locking
› state includes front desk, locks, keys held by guests

review
› did you include only the sets and relations that are needed?
› are your sets really sets; are some ‘singleton placeholders’?
› do all your sets and relations have a clear designation?
› where are the various parts of the state stored physically?
› which relations are modifiable?
exercise: airline code sharing

draw an object model
› showing the essential state of a flight reservation system
› different airlines may sell tickets for same segment

review
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› are your sets really sets; are some ‘singleton placeholders’?
› do all your sets and relations have a clear designation?
› where are the various parts of the state stored physically?
› which relations are modifiable?