

Mapping Designs to Code

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CSE432

Object Oriented Software Engineering

OO development is iterative

- OOA/D artifacts feed into implementation model in a traceable manner
- Some tools generate partial code from UML
- But programming not trivial generation!
- Programmers make changes as the work out the details
- Therefore, Expect and plan for change and deviation from design during programming

Mapping Designs to Code

- Write source code for:
 - Class and interface definitions
 - Method definitions
- Work from OOA/D artifacts
 - Create class definitions for Domain Class Diagrams (DCDs)
 - Create methods from Interaction diagrams

From DCD to Java class

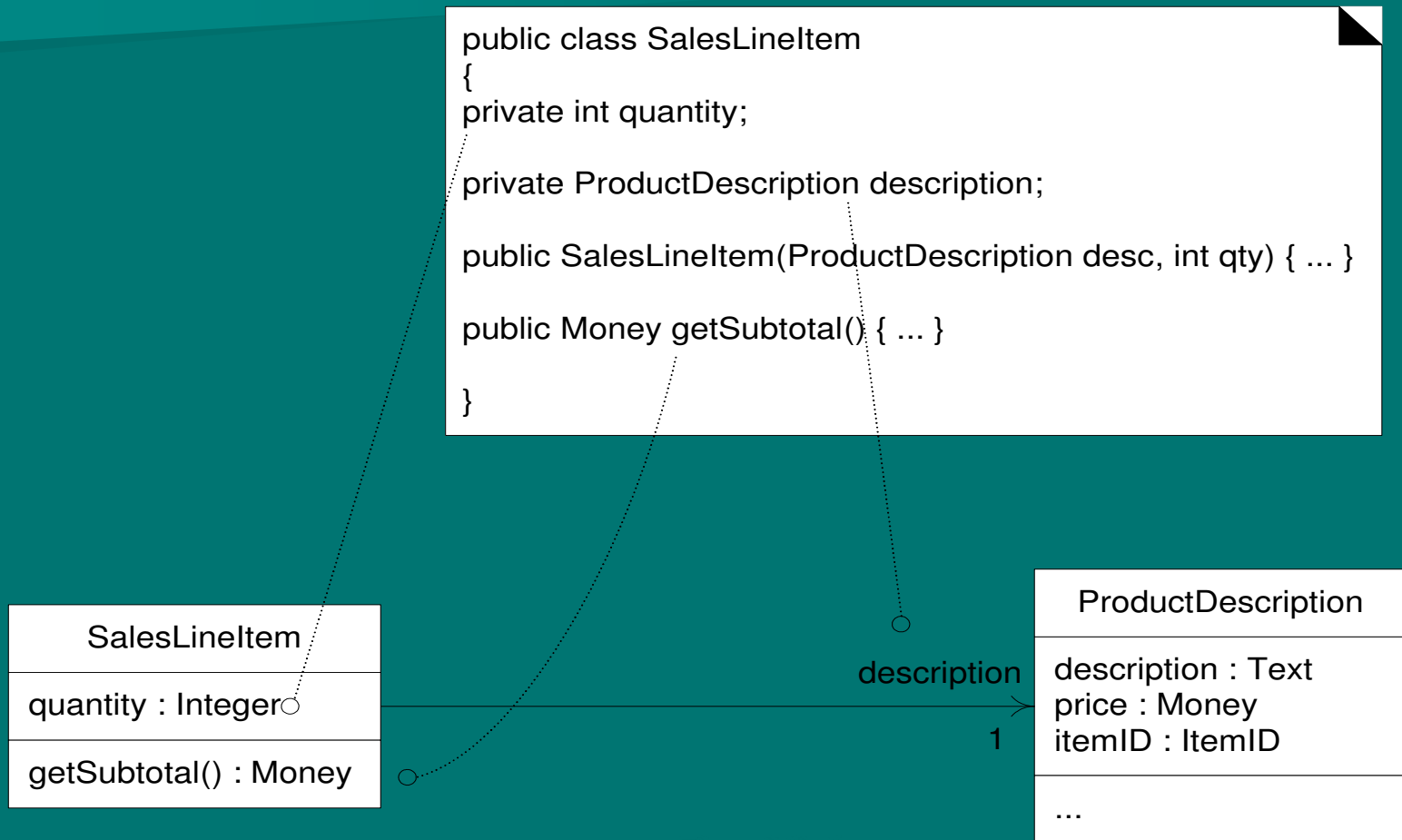


Fig. 20.1

From Interaction diagram to method

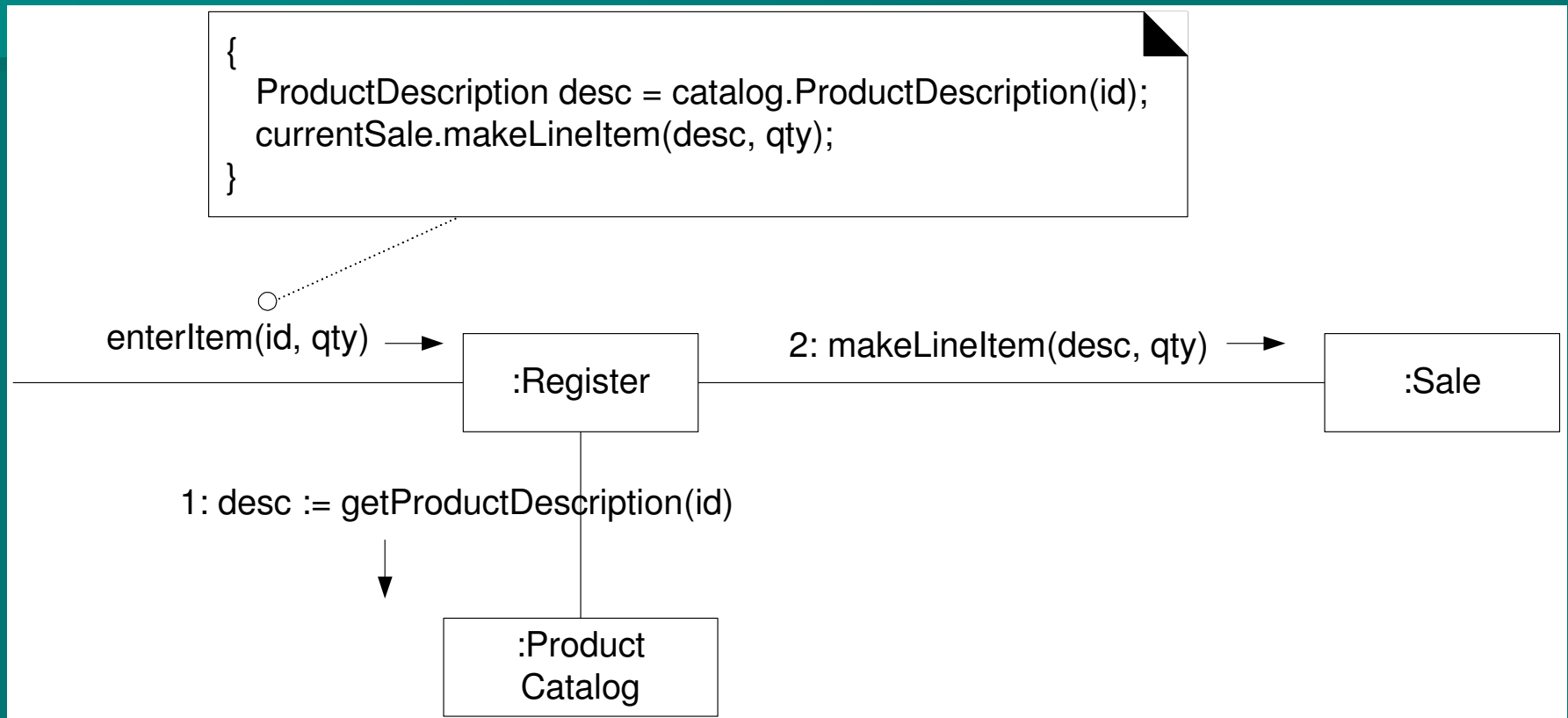


Fig. 20.4

Collection classes

What collection class has been added to the design and why?

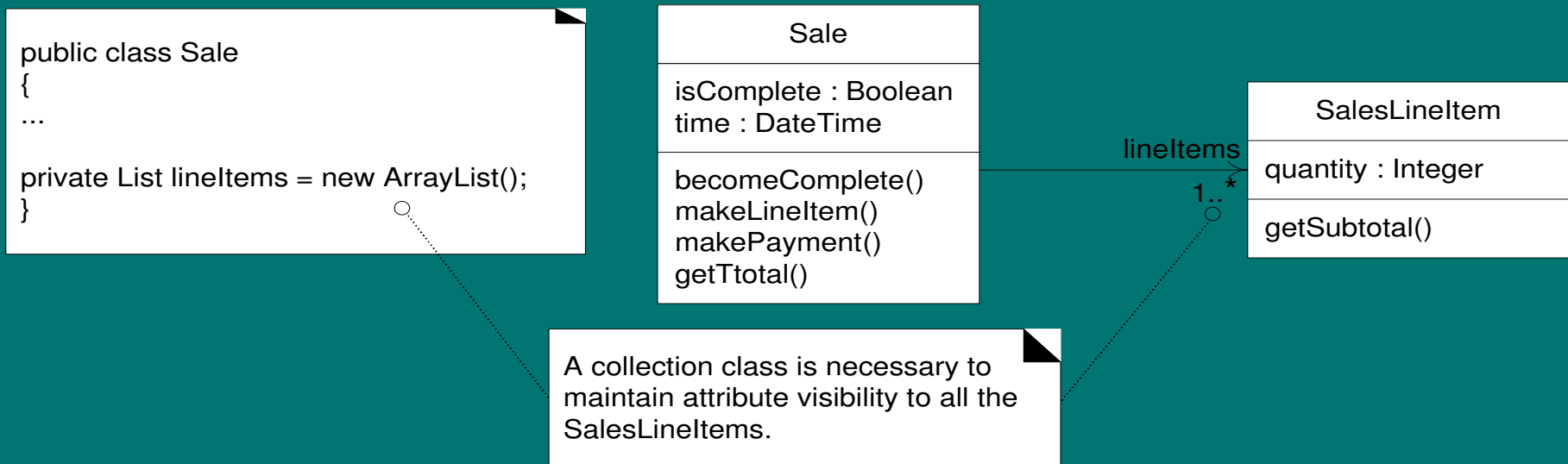


Fig. 20.5

Exception handling

- Why is it wise to consider large-scale exception handling strategies during design modeling?
- In UML, exceptions can be inserted as property strings of messages

Why implement from least-coupled to most-coupled?



Fig. 20.7