

IX. Sequence and Collaboration Diagrams

Interaction Diagrams
Sequence Diagrams
Examples
Collaboration Diagrams

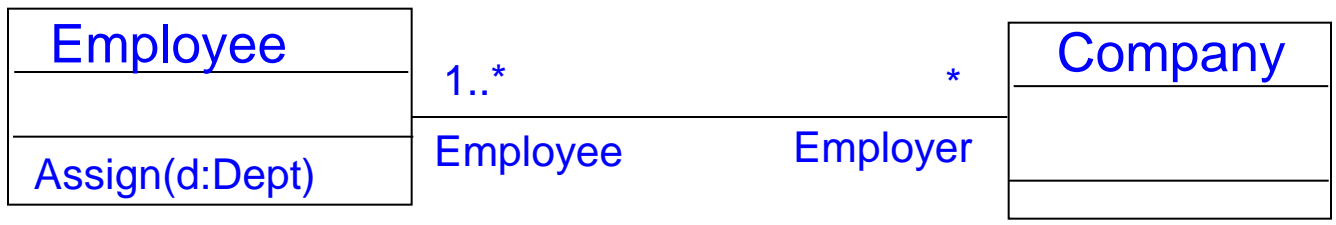
Acknowledgment: these slides are based on Prof. John Mylopoulos slides which are used to teach a similar course in the University of Toronto
– St. George campus. Used with Permission.

Interaction Diagrams

- Interactions among objects are modeled by **interaction diagrams**.
- An **interaction** between two objects A and B involves object A sending a message requesting an action that object B can perform.
- There are two types of interaction diagrams:
 - ✓ Sequence diagrams;
 - ✓ Collaboration diagrams.
- We discuss each in detail in the rest of this lecture unit.



The Nature of an Interaction



Modeling the real world



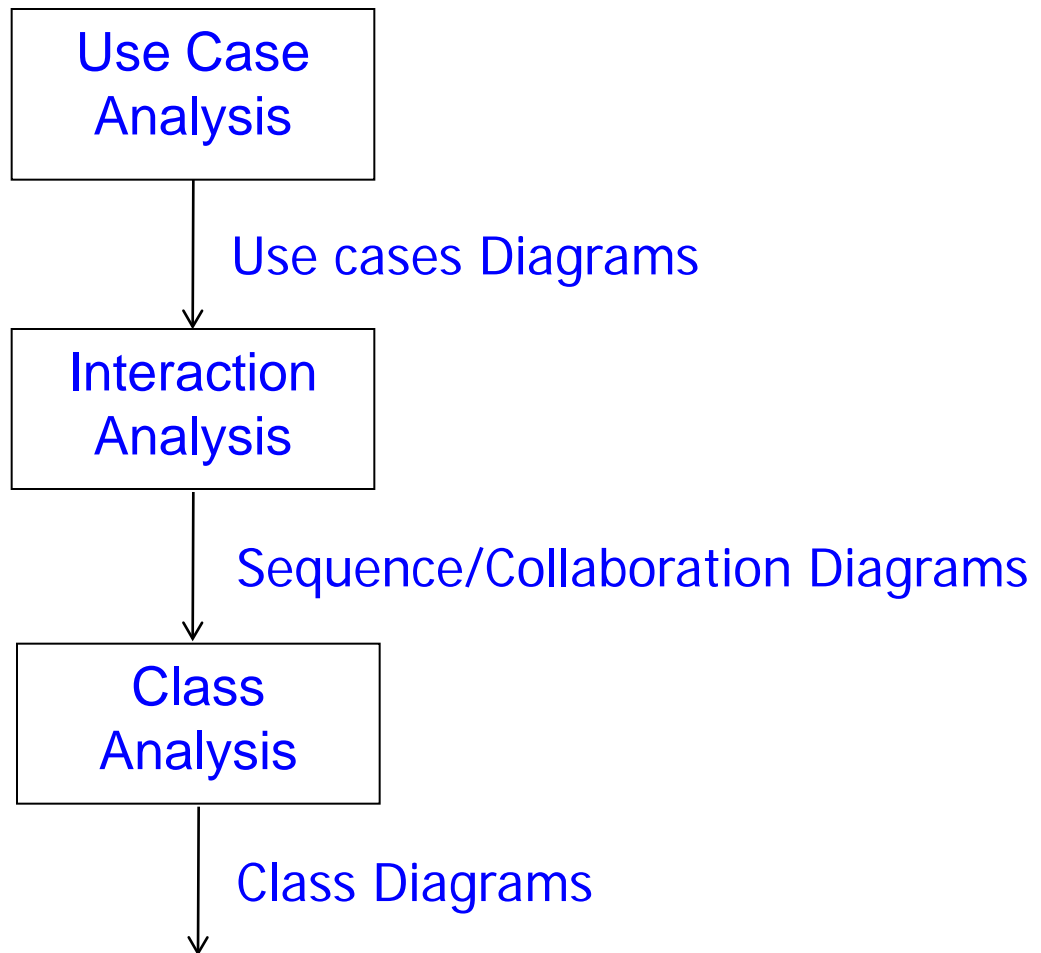
Modeling the system



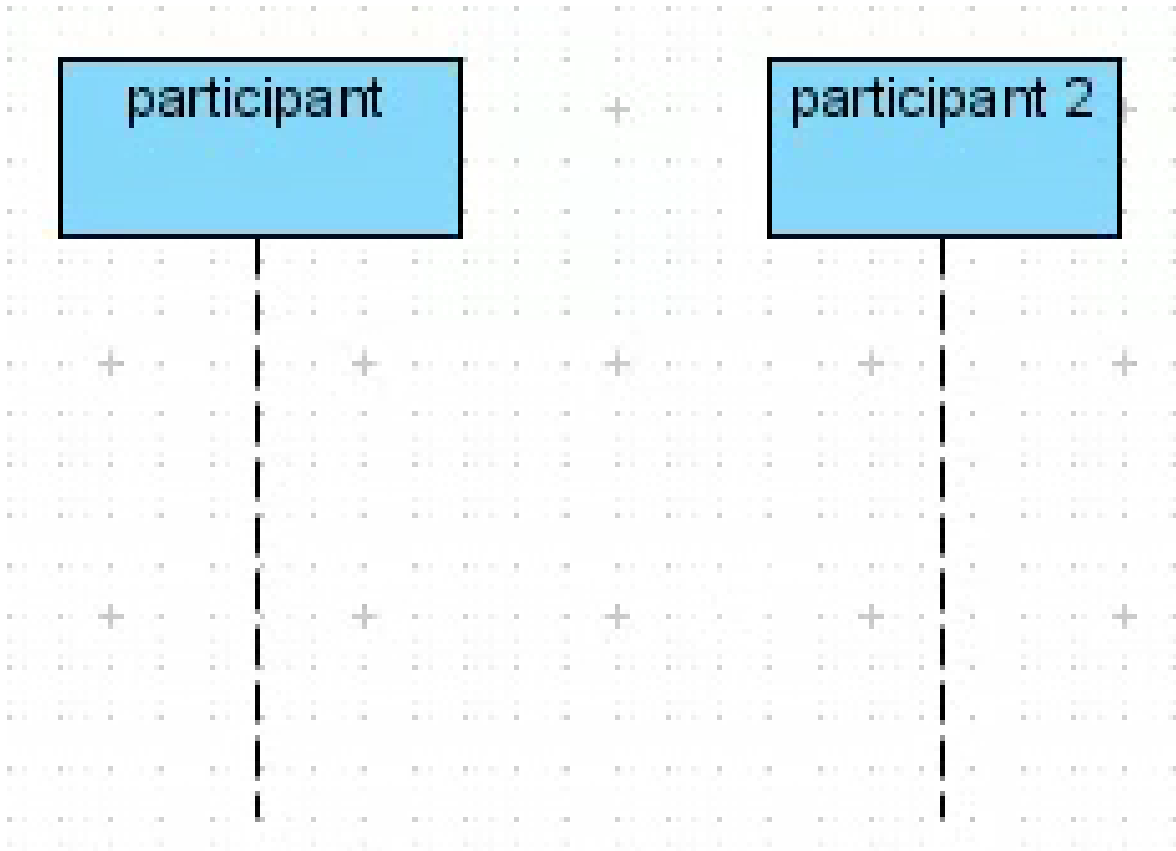
Sequence Diagrams

- Sequence diagrams describe in detail how actors use use cases; they can also model external business processes the new system will support (e.g., processing a book order)
- Interactions consist of one or more **messages**. Interactions may be synchronous (e.g., calling someone on the phone), or asynchronous (e.g., sending someone email).
- Sequence diagrams defined during requirements analysis should **not**:
 - ✓ include design objects;
 - ✓ specify message signatures in any detail;

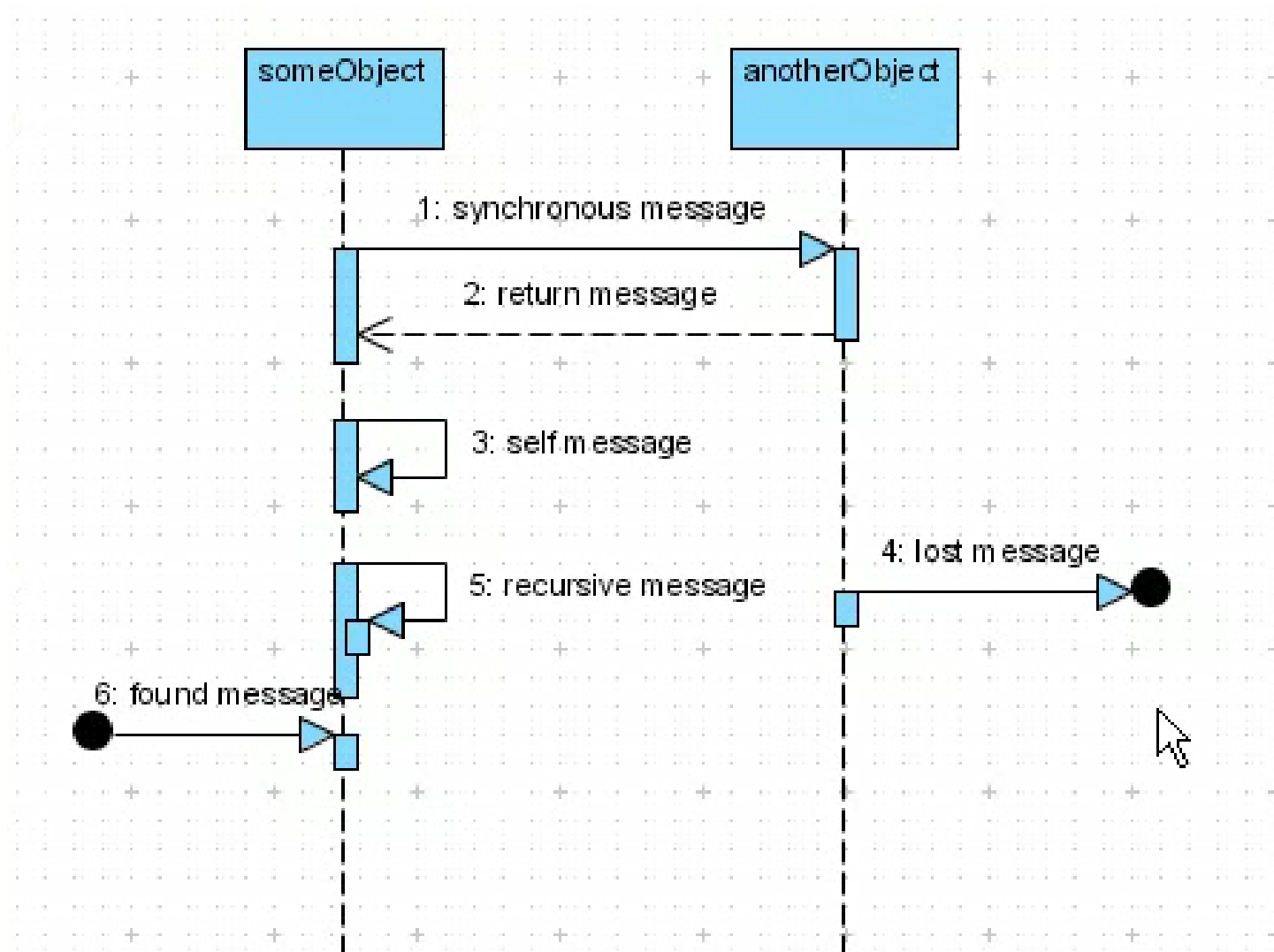
Big Picture: System Analysis



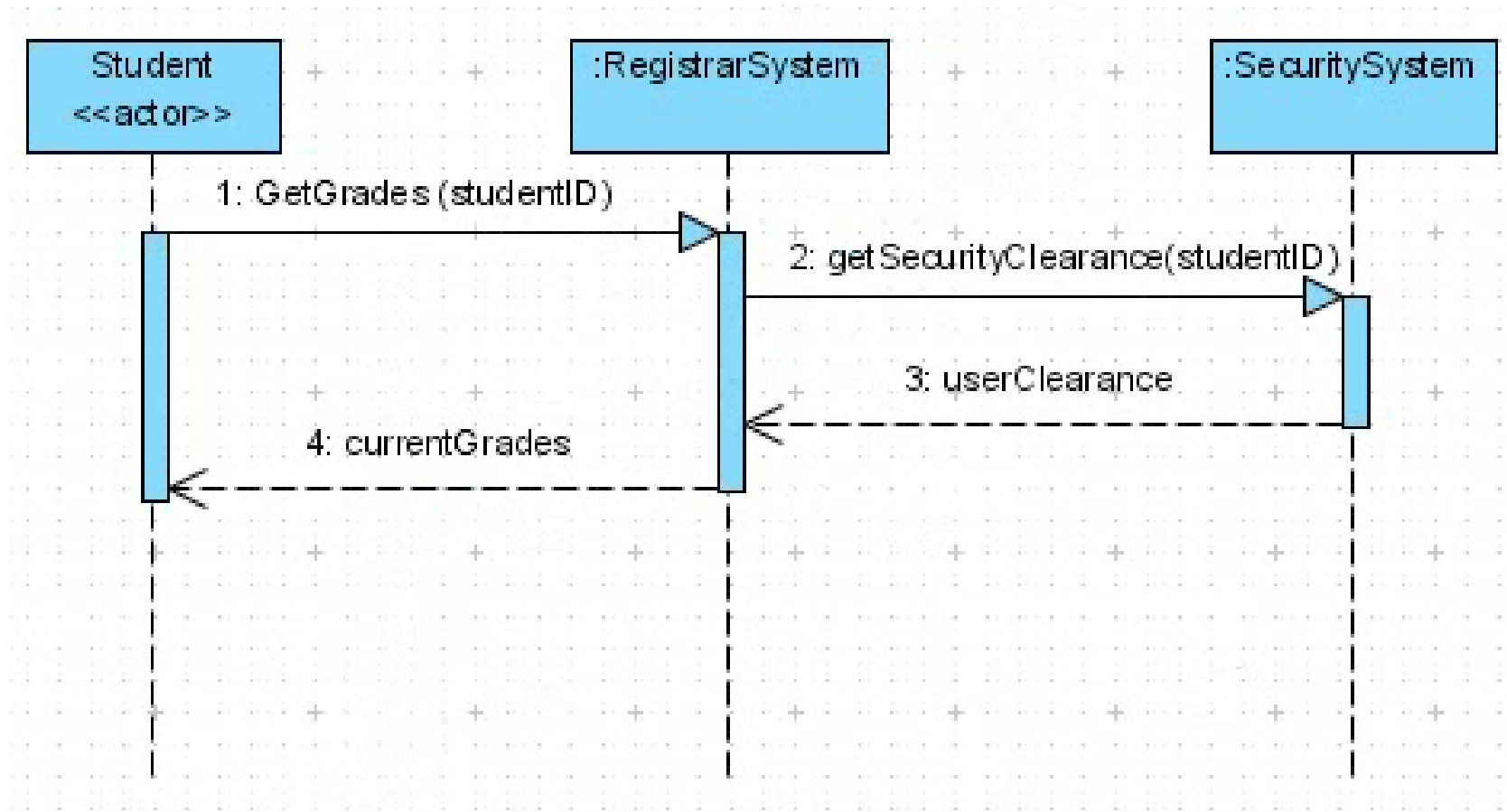
Sequence Diagram Layout



Sequence Diagram Messages



Sequence Diagram for Accessing Grades



Sequence Diagram Messages – cont'd

