

Introduction to UML

Comp 30160: Object Oriented Design

What is UML?

UML stands for **U**nified **M**odeling **L**anguage.



It's a standard general-purpose modeling language used to create visual models of object-oriented software systems.

It can be used to model:

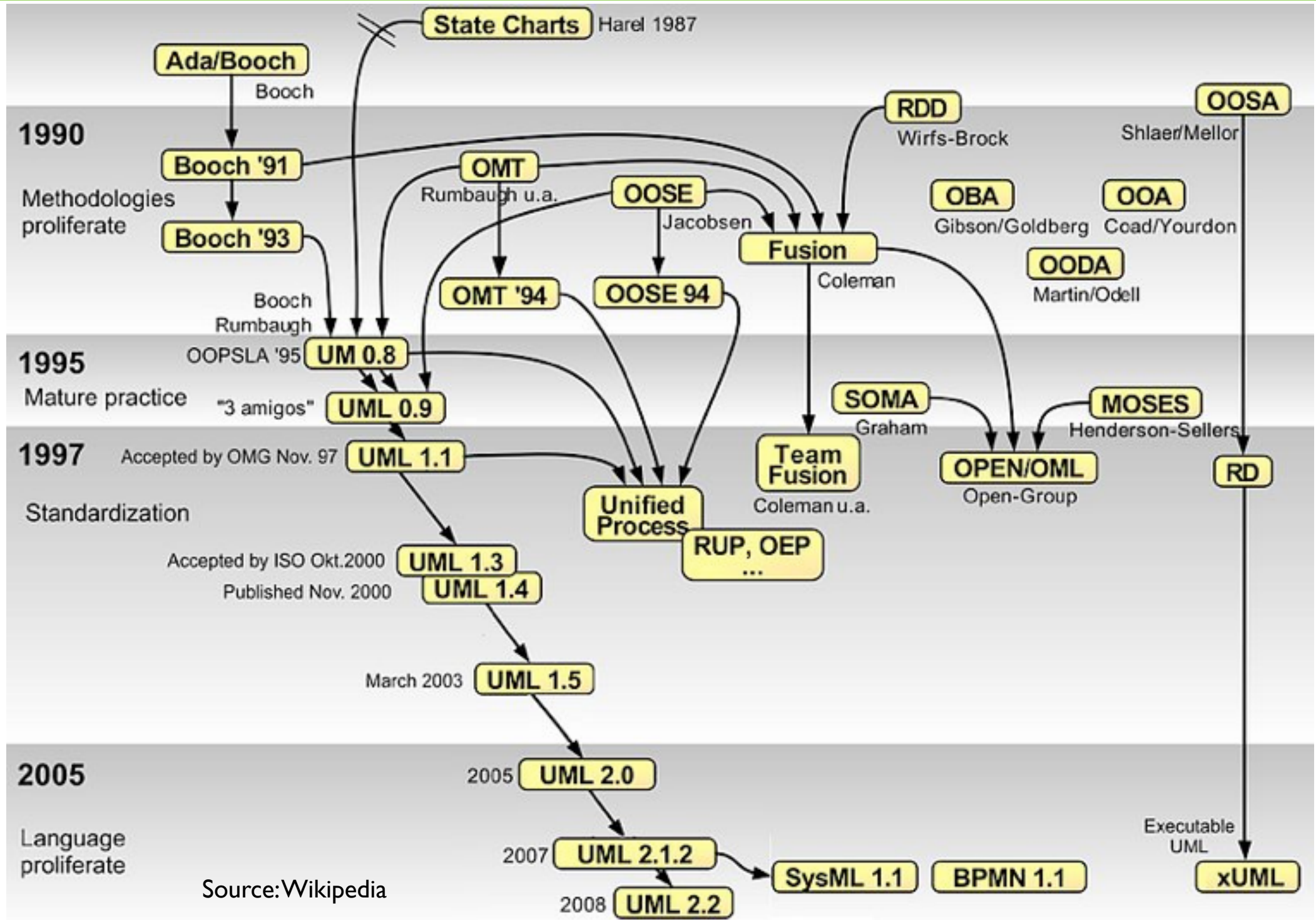
- system structure

- system behaviour

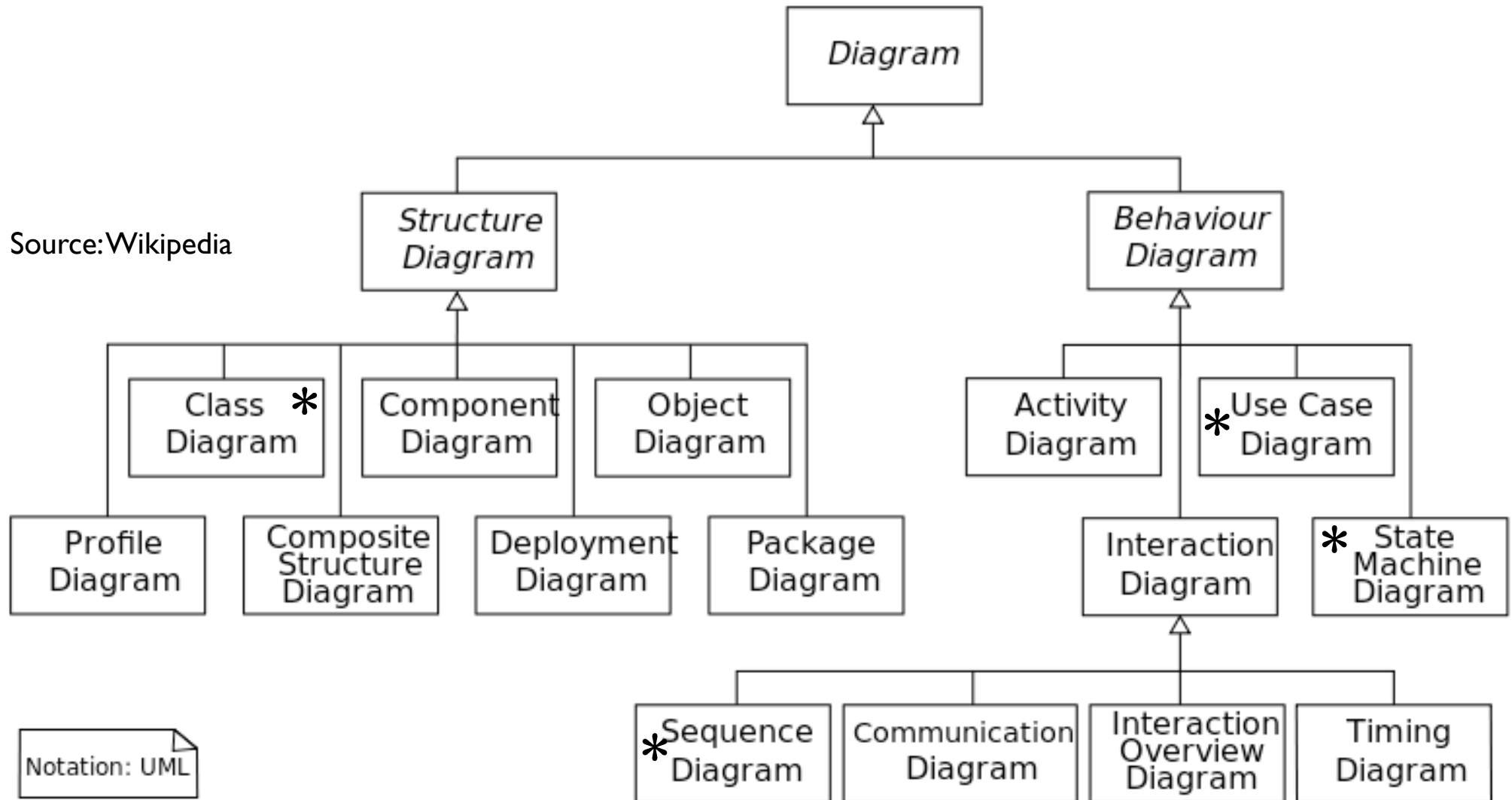
- system architecture

and more.

Where did UML come from?

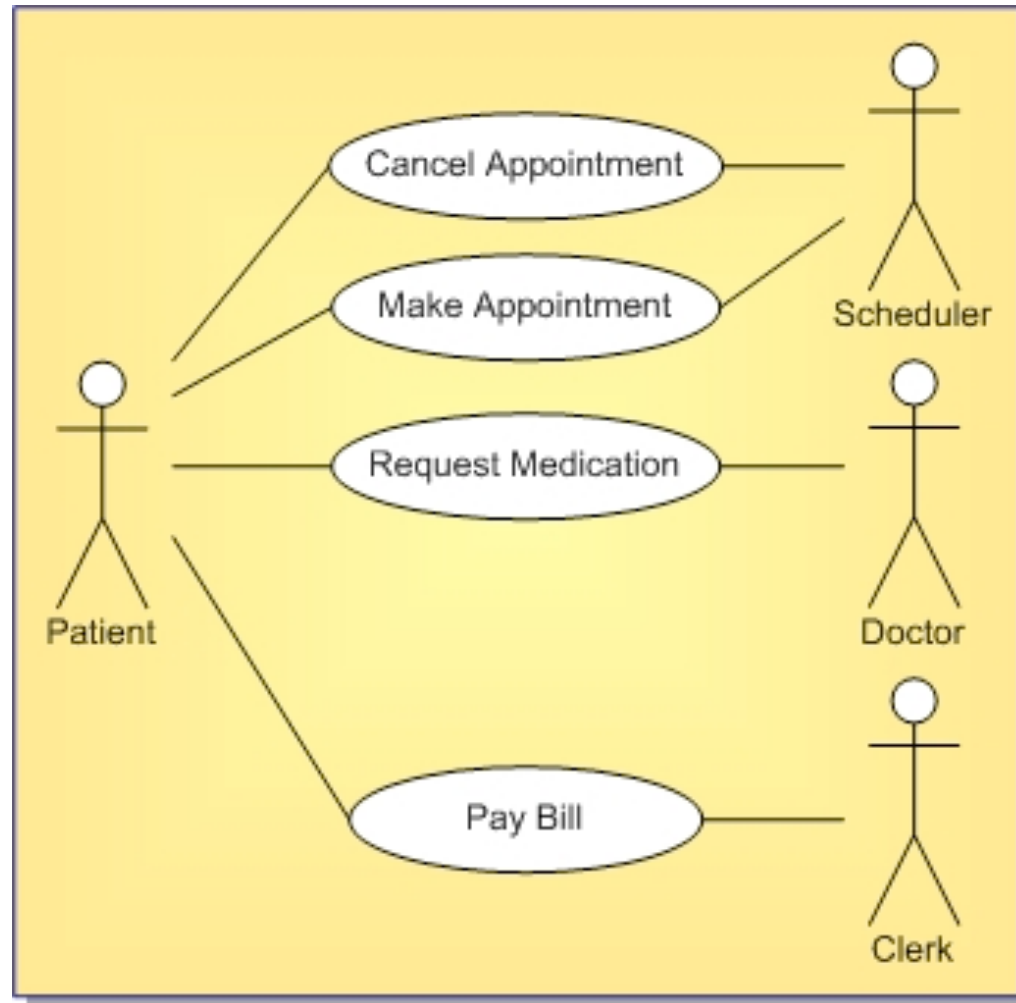


UML Diagram Types



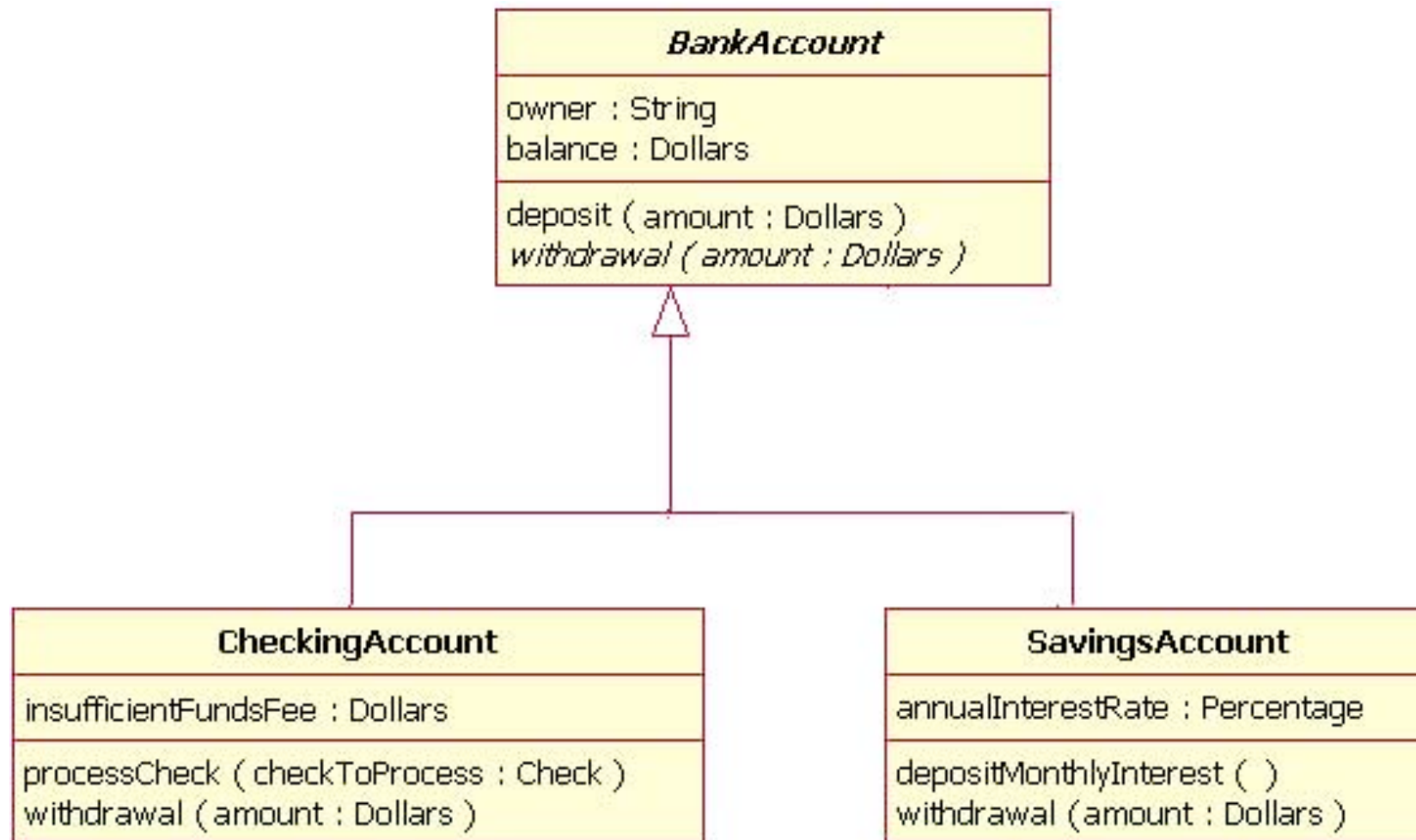
14 diagram types in total! We'll examine only a small number of them (indicated by an asterix).

Sample UML Use Case Diagram



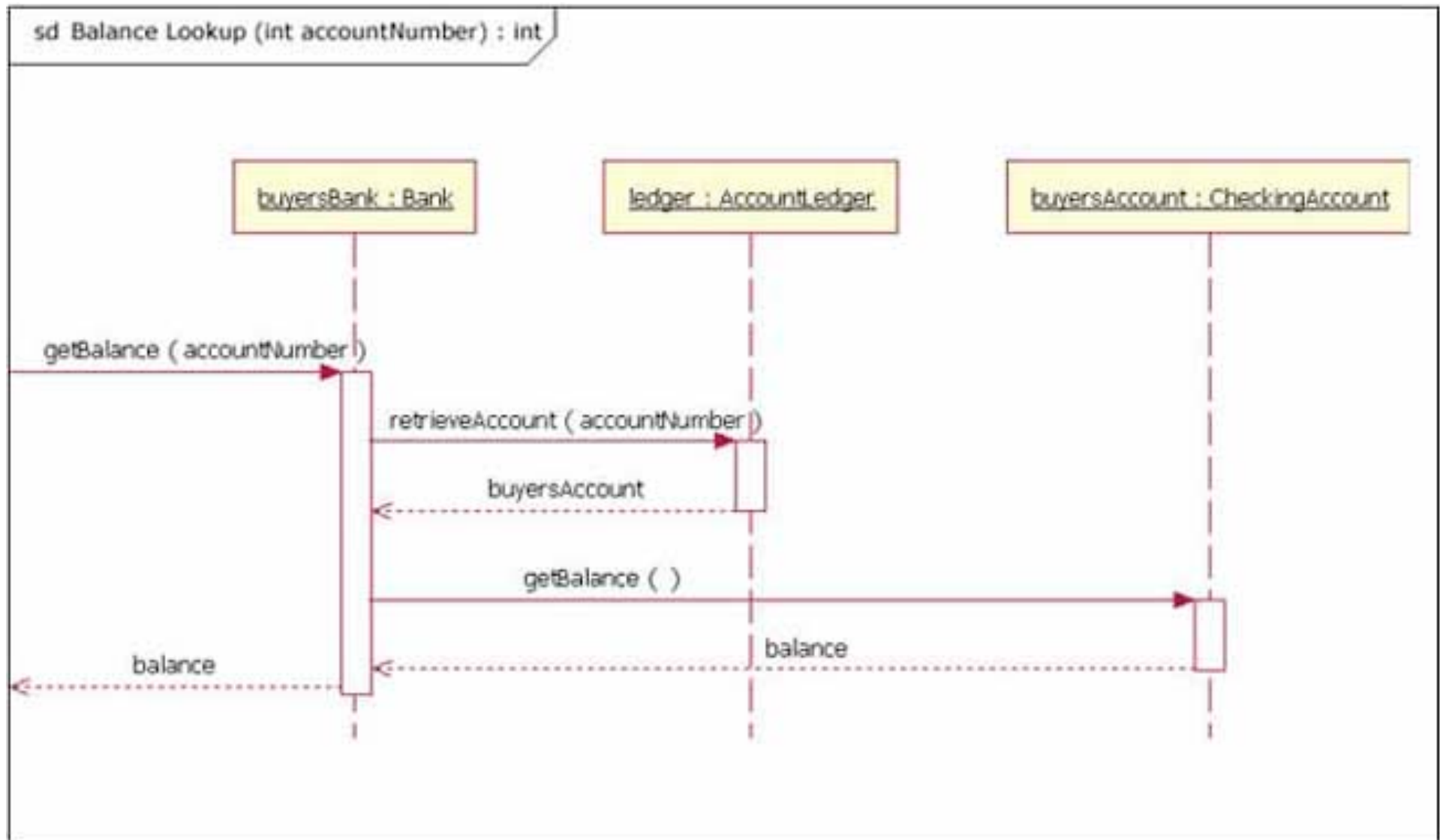
Source: Embarcadero Technologies

Sample UML Class Diagram



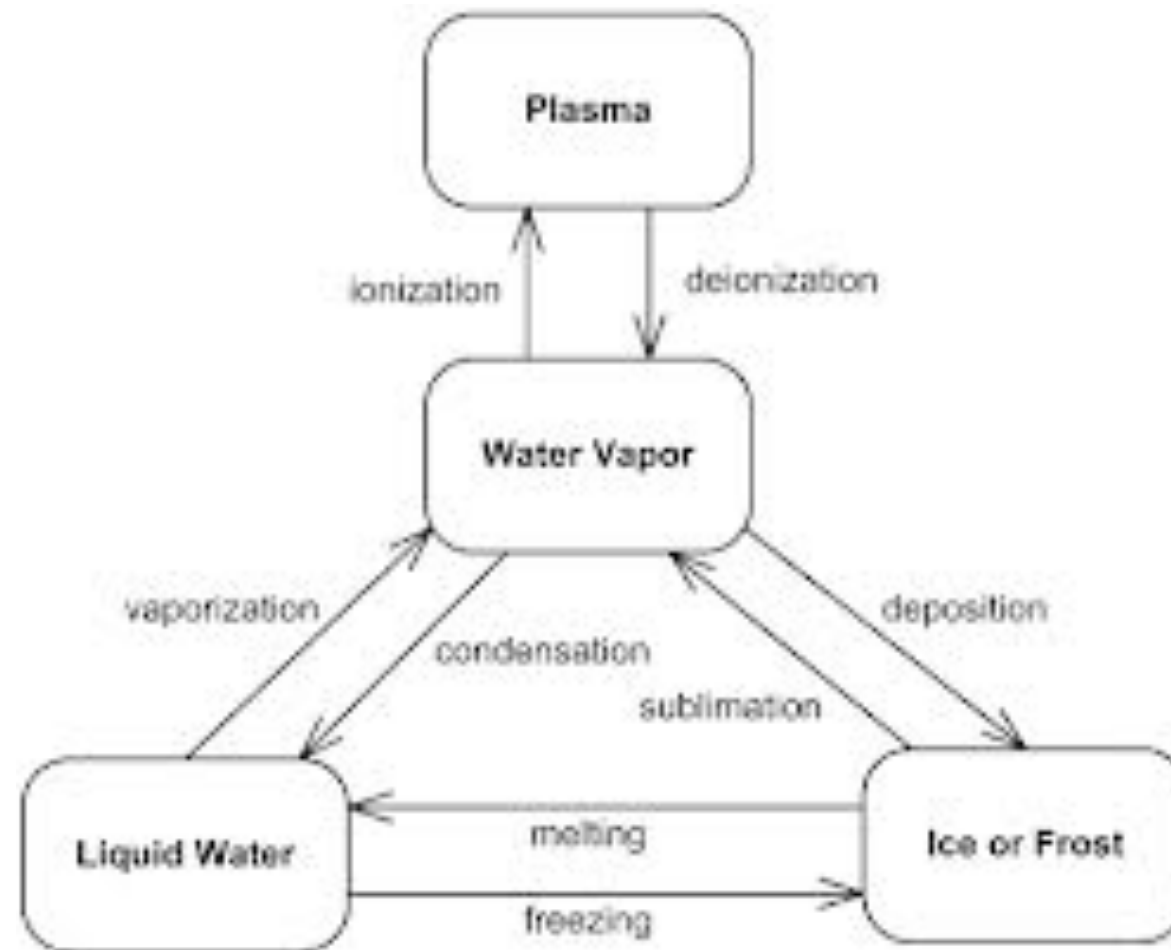
Source: Rational

Sample UML Sequence Diagram



Source: Rational

Sample UML State Machine



Source: uml-diagrams.org

Some Practical Notes

UML is a **large** standard that covers all aspects of OO modelling and metamodeling.

Many of the diagram types are not used much in practice.

Few companies actually use UML to create a design that is used to drive the software implementation.

However, all practicing software developers know basic UML and use it to communicate, e.g. in discussing alternative designs.

In the coming lectures, we'll explore the most common UML diagram types.