

National Research University Higher School of Economics
Faculty of Computer Science
Bachelor's Program "HSE University and University of London Double Degree
Program in Data Science and Business Analytics"

Introduction to Programming

Workshop #10

Wed 12.02.2021

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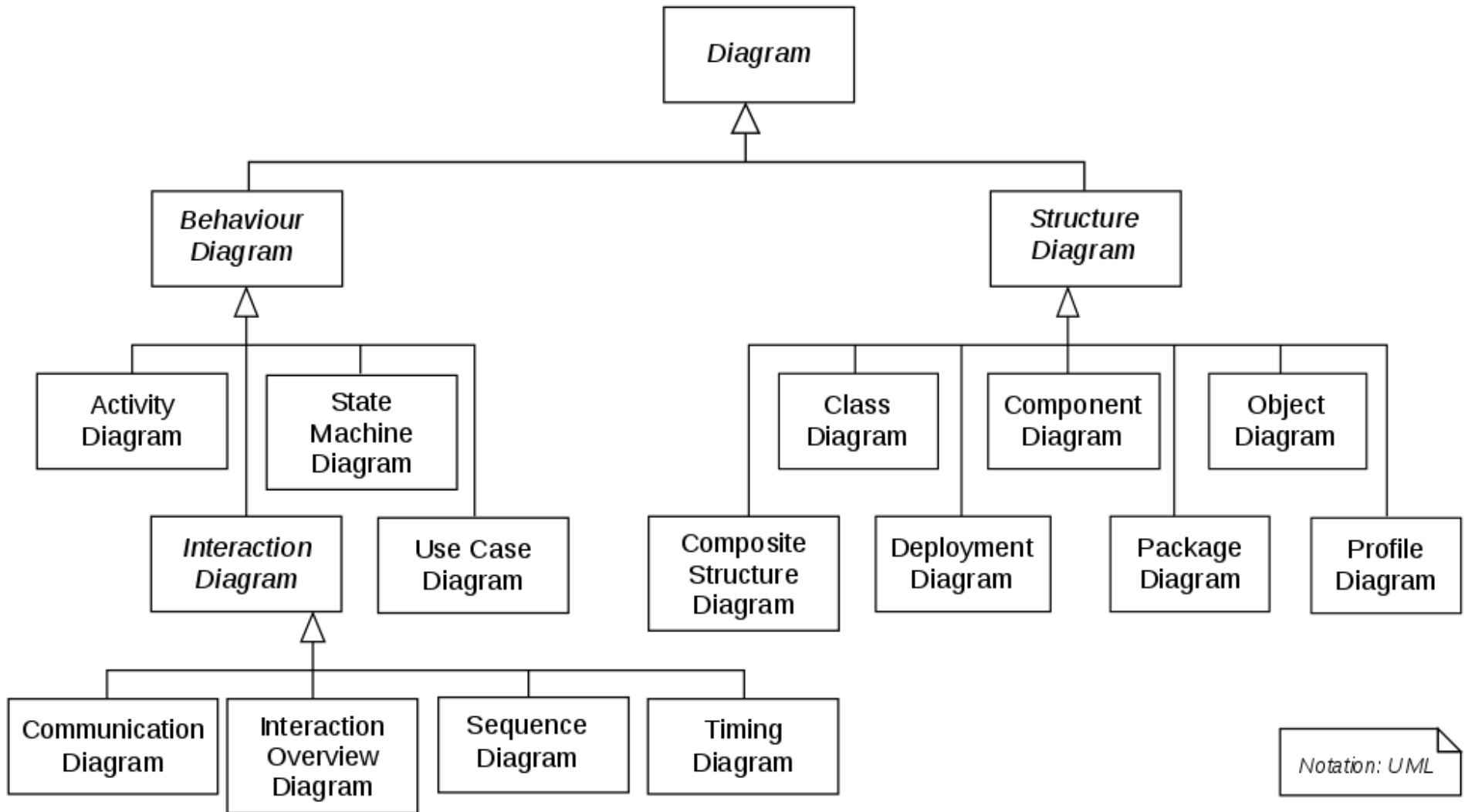
Today's Outline

- Quick review on UML and sequence diagrams.
- Check solution of Quiz of 11.02.2021
- Complete together solutions of previous workshop
- ...

Quick Review on UML (Unified Modeling Language)

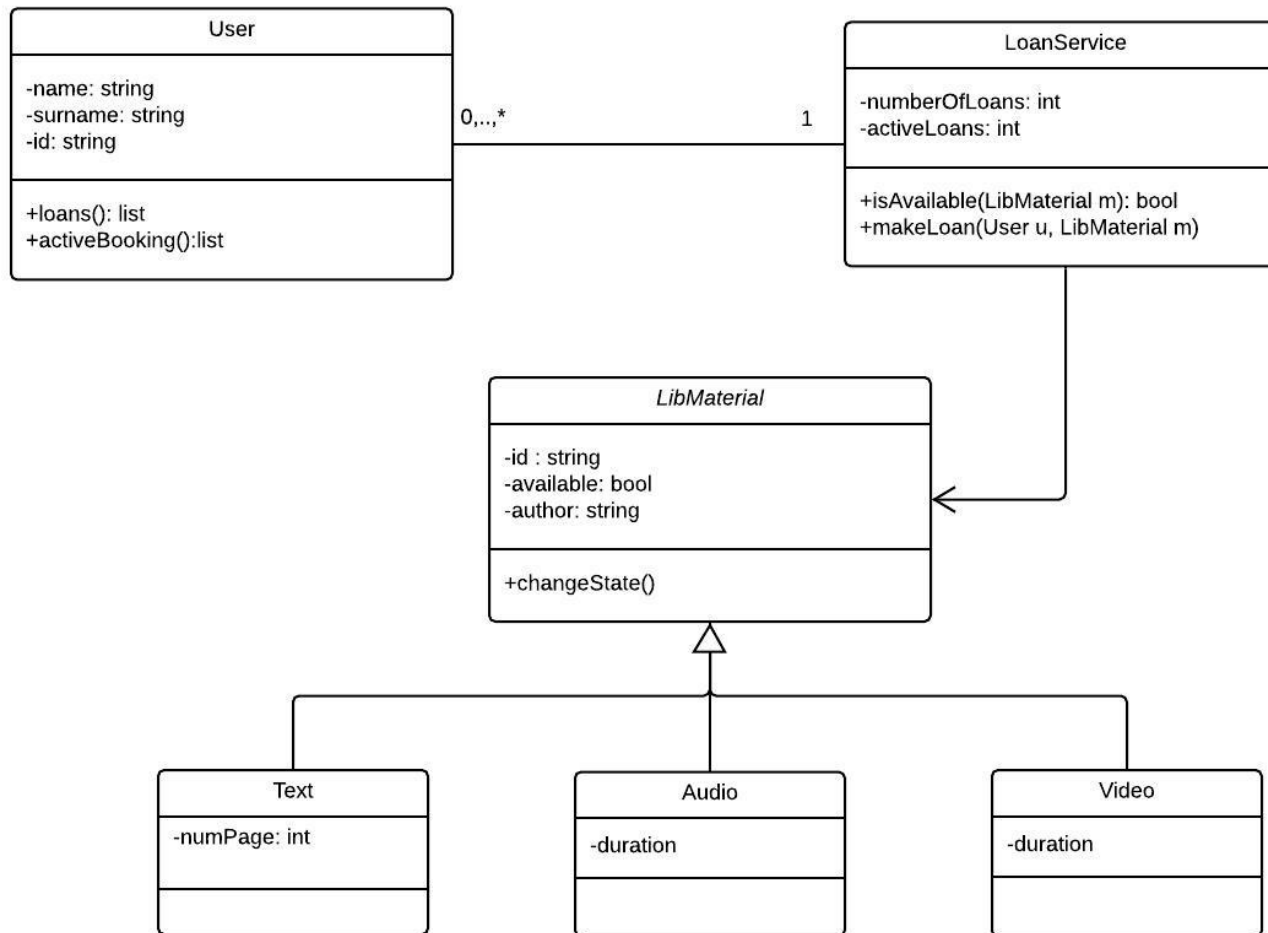
- UML is a general-purpose modeling language in software engineering. The language provide different diagrams for system design.
- Initially developed in 1994. It became an approved ISO standard in 2005.
- UML diagrams provide two kinds of diagrams.
- **Behavioral diagrams:** Diagrams that allow to describe the life-cycle and dynamic interaction between components of a program.
- **Structural diagrams:** Diagrams that allow to describe the logical organization of a program (for example, data elements).

UML Diagrams



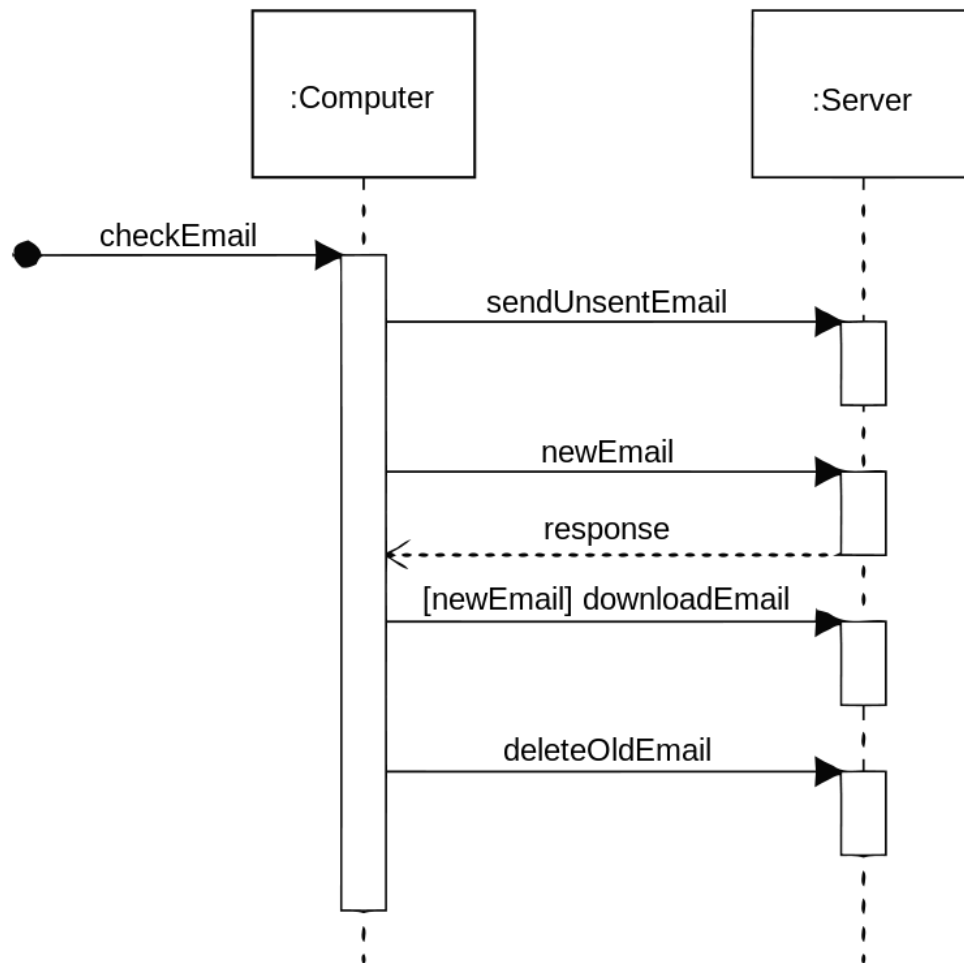
UML Class diagram

- It is a kind of structural diagram, to show the structure of object classes and their relationship.



UML Sequence Diagram

- A sequence diagram is a kind of *behavioral diagram*, that allows to describe interactions between components of a program or a system in a time sequence.



UML Sequence Diagram (example from exercise 1 of "Titanic")

