# Designing an application with UML

## Objectives

Learn to design an application kernel – implement class diagrams in UML, taking into account dependency relations between classes, as well as generalization relationship. Design shall be performed with regard to object-oriented design principles.

## Tasks

* Design the kernel of an application in UML.
* Review the resulting design for correspondence to OOD key rules and principles.

**Detailed guidelines**

Choose one of the following tasks for UML design:

1. **University:** create a system for accounting students, attendance, and academic achievements. Optional: it must contain reviews of teachers.

2. **Shop:** should keep information about the goods and sales of the goods. Optional: The system should provide discounts for regular customers.

3. **Clinic:** to create a system for the appointment to the doctors, to the time of the doctors. Optional: keeping patient cards by physicians.

4. **Airport:** you must manage the landing of the aircrafts, with their distribution in time and runways. Optional: notifications about flight delays to passengers, via SMS.

5. **Restaurant:** to create a system of accounting for the employment of tables, selection of dishes from the menu, bill payment. Optional: allow the reservation of tables.