Homework 6

Reading:
1. Lecture notes on UML
2. To supplement the slides, read from “OMG UML 1.3 Specification”
   (the link to the specification can be found on the syllabus)
   It is a 808 pages long document, so better not print all of it, just the
   subsections that are assigned for reading.

   • UML summary
   • Subsections of Section 2.5.4 (UML Semantics, Core) on:
     o Association
     o Association Class
     o Class
     o Interface
     o Template
   • Subsections of Section (UML Notation Guide)
     o Static Structure Diagrams:
       ▪ Subsections 3.19 – 3.20, 3.22- 3.30
       ▪ Subsections 3.40, 3.44, 3.45, 3.47
     o Use case diagram
       ▪ Subsections 3.53 –3.57
     o Sequence Diagrams
       ▪ Subsections 3.58-3.63

Problem. UML Modeling.

Create a Class Diagram, a Use case Diagram, and a Sequence Diagram for the
problem from Homework 4.

A nonprofit organization depends on a number of different types of persons for its operation. The
organization is interested in the following attributes for all of these persons: social security
number, name, address and phone.

There are three types of persons that are of greatest interest: employees, volunteers and donors.
For each employee, the organization needs to keep track of the date they were hired, ad for each
volunteer a designation of the skill is required. A donor is a person who has donated one or more
items to organization. Each item is specified by name.

There are persons other than employees, volunteers and donors who are of interest to the
organization. At any given time each person can participate in organization in any combination of
the roles (e.g. could have a volunteer who is a donor, or an employee who’s also a volunteer).
At the end of each year the organization needs to identify the **top ten donors** (based on the amount of money their donated items cost); and **top ten volunteers** (based on the number of hours of service).