Laboratory 1
(3-9 October 2017)

TASKS:

A. Please read the course rules at
http://www.cs.ubbcluj.ro/~craciunf/MetodeAvansateDeProgramare/CourseRules.pdf

B. Please solve the following Lab-Assignment 1:
DEADLINE of Lab-Assignment 1 is week 3 (17.10.2017 – 23.10.2017)

1. Please install Eclipse or any other Java IDE on your laptop and try to become familiar with that tool. Please use the latest Java JDK.

2. For a short introduction in Java please take a look at the Java tutorial from https://docs.oracle.com/javase/tutorial/getStarted/index.html.

3. Please choose one problem from the file examples.txt and implement it in Java using the Model-View-Controler (MVC) architectural pattern as follows:
   3.1. Model: contains the classes which correspond to the problem entities. Those classes can either form a hierarchy or implement the same interface. If you choose the class hierarchy you must use the method overriding for the method required to solve the problem. If you choose to implement the same interface, that interface must contain the method required to solve the problem.
   3.2. Repository: is a in-memory repository. Please use fixed size array to implement the collection of the problem entities.
   3.3. Controller: implements the functionality required by the problem and the operations to add and remove entities from the repository. It maintains a reference to the repository. The reference type is an interface such that we can easily replace the repository implementation.
   3.4. View: consists of an text interface with the following functionalities: input an entity from the keyboard, delete an entity

and the main functionality which solve the problem. However in order to avoid IO operations the text interface is not compulsory for the maximum grade. For the maximum grade you can also hardcode the test examples inside the main method.

3.5. Please use exceptions to treat the errors.

3.6. Please use different packages to implement the repositoy, the model, the controller and the view.

4. A similar example to this lab assignment is discussed at the Seminar 1.

Note that the lab assignments will be always discussed at the seminar. Please consult the file LabAssignmentsSchedule.pdf to see the assignments schedule.