

## Programming III

### Laboratory 6

#### Objectives

- generics
- comparing objects

#### Exercises

1. Resolve the following requests:

a) Create a class Person that has like attributes first name, last name, last attendee studies and year of birth.

b) Create a generic class Pair that has two members the (x,y). Create set/get methods, constructor, a method that allows the displaying of an object of type pair and a methods for switching the order of pair members.

c) Create a list of type pairs of Persons and display the list

d) Sort the list of pairs of person based on first pair member last name, and if 2 persons have the same last name, based on second pair member last name

e) Create a map with the last attendee studies and the list of persons that done that studies (from the list of pair). Display the map

f) From Person class derive classes Employee that has a salary and a class Student that has an attribute telling how many semester it performed without taxes.

g) Create a method that allows to display list of Persons, list of Employee and lists of Students but does not allow to display list of pairs of persons

h) Modify the pair class in order to allow the creation only just of pairs of persons

g) Find the oldest Person from the list of pairs

2. Create a class Flower that has a name, a species and a price.

a) Create a list of lowers and display it

b) using aggregate operation

- calculate the average price from the flower list
- display the flowers that belongs to a species that is passed like argument on command line
- extract a list of flowers that name starts with a substring

OBS: For each requirement create a separate method