Object-oriented programming – Java – 2023/2024
lab 02 – static, final, override

Exercise 1.

Write a declaration of the **Employee** class that contains the following private fields:

- name
- surname
- yearOfBirth (final field)
- jobName
- country
- city
- street
- monthlySalaryGross

The class contains the following public methods:
- a non-parametric constructor (does nothing)
- constructor setting the private class fields based on its parameters
- methods **get** that returns values of the private class fields
- methods **set** that allows to set values of the private class fields
- method **toString**
- method **displayAddress** that displays address data on the screen
- method **displayAllData** that displays all data on the screen
- nonparametric method **calculateGrossIncome** that returns the annual income of the employee
- method **calculateGrossIncome** that takes as parameter the number of months to calculate the result and returns the monthlySalaryGross multiplied by the number of months passed as the parameter

The company provides the same bonus value for every employee. Add static field **bonus** to store the value. Modify displayAllData method to include message about bonus value.

Exercise 2.

Extend the Employee class from exercise 1 by adding:

A static field **minimalPayment** to store the value of minimal payment.

Next add:

- nonparametric method **changeMonthlySalaryGross** that sets the monthlySalaryGross value to the minimal payment
- method **changeMonthlySalaryGross** that takes one parameter (rise) and increases monthlySalaryGross value by the value passed as the parameter

Exercise 3.

Extend the Employee class from exercise 1 an 2 by adding:

A static field **tax** to store the value of tax.

Next add:

• nonparametric method **calculateMonthlySalaryNet** that based on monthlySalaryGross and tax value returns the value of netto monthly salary
• nonparametric method **calculateNetIncome** that returns the annual net income of the employee
• method **calculateNetIncome** that takes as parameter the number of months to calculate the result and returns the monthly salary net value multiplied by the number of months passed as the parameter