

FUNDAMENTALS OF ALGORITHMS AND PROGRAMMING

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03 – Java – class - basics

Exercise 1.

Write a declaration of the **Account** class in which we store the following information about the owner of the account (as private fields): name, surname, balance, accountNumber.

The class contains the following public methods:

- constructor setting the private class fields based on its parameters
- a non-parametric constructor (does nothing)
- method `display` that displays all data on the screen
- method `toString`
- methods `get` that returns values of the private class fields
- methods `set` that allows to set values of the private class fields
- method `increaseBalance` that increases balance by value given as its parameter
- logical method `decreaseBalance` that decreases balance by value given as its parameter and returns `true` if the operation was successful (remember that the owner of the account can't be in debt)

Exercise 2.

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

- name
- surname
- `yearOfBirth`
- `salary` – represents basic monthly salary
- `employmentYear` – that represents the year in which he was hired

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 `display` that displays all data on the screen, including age and years of employment
- method `giveRise` that allows to give rise to the employee