

#1: Fitness Repetition Exercise

In this exercise you are going to make a program that can show lists of Employees and members of a Fitness Club. ## Employees There are 2 types of Employees:
* Administration personnel * Instructors

The administration personnel are employed full time (37 hours a week), and all have a fixed salary of 23000 a month, and have 5 weeks of vacation a year.

Instructors are hired on an hourly basis, and are paid 199 per hour. They don't have any paid vacation.

Members

The members can have 2 types of membership * Basic * Full The Basic membership costs 199.- a month, and the Full membership 299.-

You should make a program that consists of the following Classes and uses inheritance in the specified way:

Then make a file containing a main method and call the file FitnessMain.java. In this file you should write some code that prints out something like this in your console. (the data (names, cpr etc.) are up to you to decide, they don't have to be the same as here).

Read data from a text file

Now make a text file named persons.txt. This file should contain the name and cpr of all employees and all members. Every person should be on a separate line and there should be a blank space between the name and the cpr number.

Make a new file called fileHandling.java and in this file should be the code for reading from the persons.txt file and adding it to an ArrayList of Person. You will have to use a Scanner Object to read from the file. Make one method that reads from the text file and adds it to the ArrayList (this method could be private). and make a get method that returns an ArrayList of Person and call that method in your main method. Then print out the content in the console. The console should look something like this:

If you made it this far you should be happy !!

If you feel like it you could do the same for Employees only and Members Only. Keep it "simple" and create a unique text file for each so you will end up with 3 text files: persons.txt, employees.txt and members.txt

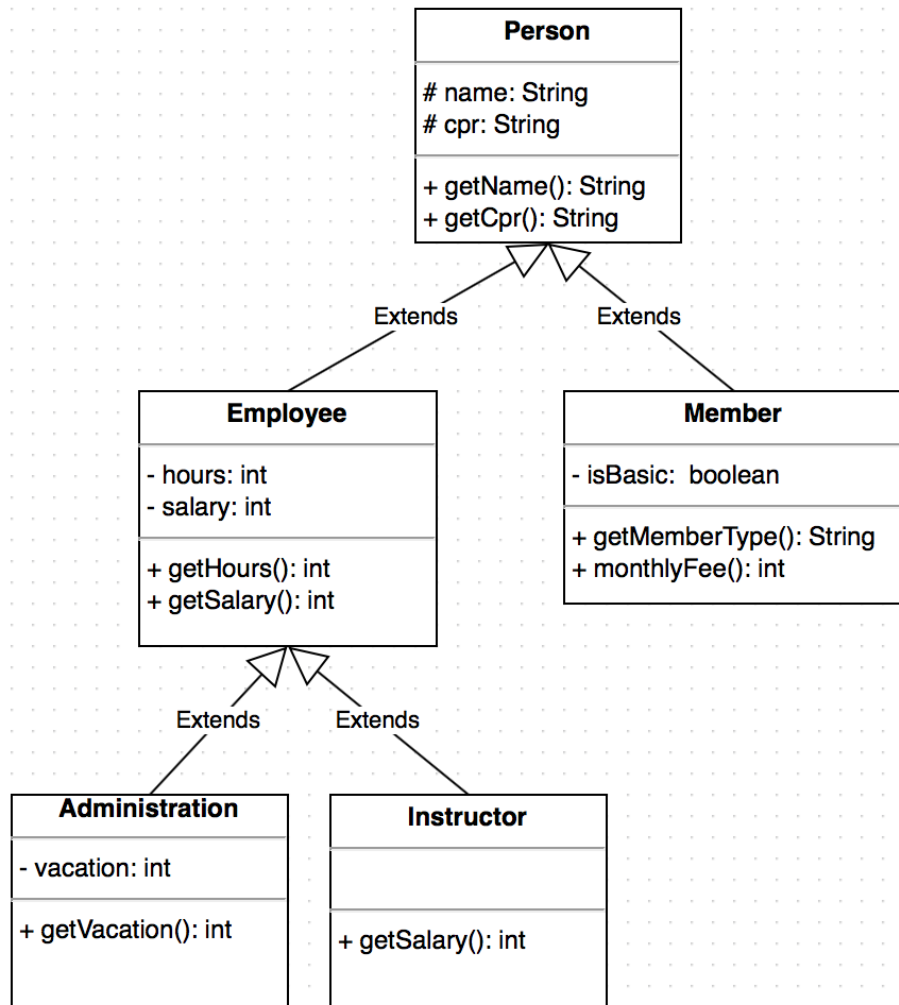


Figure 1: Fitness Class Diagram

FITNESS EMPLOYEES

Name	Cpr	Hours	Salary	Vacation
Claus	221175-1011	37	23000	5
Tove	011080-1014	20	9120	
Anna	011080-1012	37	23000	5
Henning	011080-1014	15	6840	

FITNESS MEMBERS

Name	Cpr	Member type	Fee
Morten	130195-1303	Full	299
Martin	221175-1011	Basic	199
Martina	050970-1409	Full	299
Marcel	221175-1011	Basic	199

EMPLOYEES & MEMBERS Name and cpr

Name	Cpr
Claus	221175-1011
Tove	011080-1014
Anna	011080-1012
Henning	011080-1014
Morten	130195-1303
Martin	221175-1011
Martina	050970-1409
Marcel	221175-1011

Figure 2: Console Output

EMPLOYEES & MEMBERS Name and cpr

Name	Cpr
Claus	221175-1011
Tove	011080-1014
Anna	011080-1012
Henning	011080-1014
Morten	130195-1303
Martin	221175-1011
Martina	050970-1409

Figure 3: Console Output

Xtra

Make an adjustment to the program so the user can search for a member or employee by typing the name or cpr number of a person in the console. Then show this person's data in the console. You have to use the ArrayList method “contains” to search an ArrayList (p. 682 in the book).

Xtra 2

Make your program able to add a new user to the text files through input from the console.

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