

Student Name: \_\_\_\_\_

**Short Exam - after 1 week - EXAMPLE 2**

Time: 1 hour

There are 3 questions - you should answer on at least 2 correctly to get 80/100.

(To get 100 you should answer all questions correctly).

Closed materials! if you forgot something and need help, please ask the instructor.

**Question 1**

Implement a class named "School" with the following data:

- (1) Id of the School - String
- (2) ArrayList of Students: a Student has Name (String) and "Kita" (String)

Please make sure to use proper access modifiers (private, public etc.)

Implement the following methods inside class School:

[1] getStudentsByKita

This method gets as an input: String kita

The method shall return as an output an ArrayList of Students.

[2] getAllStudentsByKita

This method gets no input parameter

The method shall return as an output a Map of Students by Kita.

## Question 2

Implement a Main class with a main method that prints all Strings which are a palindrome. A palindrome is defined for this purpose as a word that can be read the same forward or backward, ignoring case and ignoring spaces.

Examples:

- Ekalaka Lake
- Ward Draw
- Nan

Use helper methods.

## Question 3

Implement a class for Resume (CV) with the following attributes:

- Person the Person whose this CV “belongs” to - Note: no need to implement the class Person, you can assume it is implemented elsewhere
- ArrayList of Occupations - a list of all relevant Jobs, a Job should have “from year” and “to year” (both would be just an int) and a Name (String)

Implement a method “getJobsInYear”

The method shall get as an input a year (int)

The method shall return List<Occupation> with all the Jobs the person was doing in this year (might be an empty list, a list of one Occupation or a list of many).