

Exercise 4 Strings e métodos estáticos

Topics

- Text manipulation - Strings (objects of type *java.lang.String*)
- Decomposition of complexity through methods / functions

Exercise 4.1

Build a program that reads a String (a word, phrase, or paragraph) and that presents, using only methods of the String class:

- a new sentence converted to lowercase;
- the last character of the sentence;
- the first 3 characters;
- Use other methods of the String class (at least three more) and check out the result in the program.

Exercise 4.2

Build a program that reads a sentence. Additionally, build static methods and use them in the main function, to perform each of the following operations:

- count the number of numeric characters (0..9) in the String;
Ex: public static int countDigits(String s){...}
- count the number of spaces;
- indicate whether it contains only lowercase letters;
- return a String, where all occurrences of several spaces in a row are replaced by a single space;
- indicate if the String is a palindrome.

Exercise 4.3

Write a program that reads a sentence from the keyboard and presents its acronym. Consider that the initials of words shorter than 3 characters will not be part of the acronym. Example:

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Write a sentence:  
University of Aveiro  
Acronym: UA
```

Exercise 4.4

Write a program that reads from the keyboard a date with month, and year, and the day of the week that starts that month (1 = Monday, 2 = Tuesday, 3 = Wednesday, 4 = Thursday, 5 = Friday, 6 = Saturday, 7 = Sunday) and draws the calendar for that month on the monitor in the format shown below. Implement the desired functionality with three functions: reading values, calculating days in the month, and printing results.

February 2019

Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		