Akamai Krakow Devoxx Competition – 2019

Welcome to the Akamai Krakow Devoxx Competition 2019. Here you will find all information on how to participate and submit your solutions. This repository also contains tasks to be solved.

Tasks

each day we will provide tasks at 9:00 CEST time
there are 5 tasks - 3 x easy, 1 x medium, 1 x hard
at the end of day we will close the submission and evaluate solutions

Prizes

The prizes can be gathered from Akamai booth each day.

Evaluation

Solutions will be evaluated for correctness and performance
If your solution fails correctness, it will not be evaluated by performance test.
For correctness you will receive points as follows:

- Easy – 10
- Medium – 30
- Hard - 50

For performance you will receive additional points depending on performance ranking

Rules

- edit existing .java files
- use plain Java Coretto 11.0.3.7.1
- all solutions shall be done as main java app taking arguments from command lines and printing results to stdout
- keep the conventions of printouts, print only the solution to the stdout
- do not use precomputed solutions - it will be disqualified
- do not pass the solution to other users, remember that it's about fun and healthy competition :)

Assignment 1 - easy

Write a program that calculates number of palindromes in text file. File format is, each word in new single line. Words are unique in the file.

Assignment 2 - easy

Write a program that calculates sum of ASCII chars from string. Chars will be only basic ascii range 0-127.

Assignment 3 - easy

Write a program that calculates n-th Fibonnacci sequence number. Note - assume 1st element is "1".

Assignment 4 - medium

Write a program that calculates sum of digits of n-th element of Look-and-say sequence.
Note - assume 1st element is "1".

Assignment 5 - hard

Write program that returns n-th Vampire Number.

Assignment 6 - hard

Write a program that for given number N prints result of XORing elements of the set 7, N as decimal number.
Input:
* N - decimal number [7, 1000000000000000000]
Example outputs:

for n = 7, program should print 7
for n = 10, program should print decimal result of the following operation: 7 XOR 8 XOR 9 XOR 10

Assignment 7 - easy

Write a program that counts strings separated by comma (,) in given string. It should be noted, that comma (,) can be escaped by slash (/) i.e. (/,) and double slash (//) represents slash.
Input:
* string
Example outputs:
for string "a,b/,c" should print 2
for string "a//b" should print 1

Assigment 8 - easy

Write a program that for given number N counts number of bits set to 1 in the range 0, N where numbers are represented as strings.
Input:
* N - integer number [0, 2^31]
Example output:
for N = 1 should print 5
for N = 2 should print 8