Work on project. Stage 1/4: A needle in the hay

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Project: <u>Phone Book</u>

📶 Hard   🕐 9 seconds   ⍰

Description

Have you ever had to use one of those 2000+ page phone books full of various organizations and people's names, written in a small font and with multiple columns on each page? Finding the information you need in such books can be an ordeal. In fact, even computers struggle to search through the millions of entries in a directory.

In this project, you will create a phone book, implementing several algorithms, and comparing their efficiency when using a big dataset.

For this, you will need to download a file that contains the phone numbers of over a million people in multiple cities.

At this stage, you should implement the simplest possible search to find the numbers of a few people whose names are listed in our .txt file.

It takes a time to find all the records from the big file. We recommend you manually test your program with the simplified data: small_directory.txt and small_find.txt. But to pass all the tests you have to work with the big files above.

Note how long it takes you to do this when using a linear search so that you can compare results with other search methods.

To measure the time difference, you can use `System.currentTimeMillis()`.

Also notice that you don't need to read the file "directory.txt" again and again after each query. You should load all lines into memory and measure only the search process.

> Please, do not keep the downloaded files inside your project directory because the server may reject large files and you will see the message **"Failed to post submission to the Hyperskill"**.

49 / 49 Prerequisites

✓ Introduction to OOP [Stage 1] 16⭐ ⋯
✓ Objects [Stage 1] ⋯
✓ String templates [Stage 1] ⋯
✓ Integers in action [Stage 1] ⋯
✓ Declaring functions [Stage 1] ⋯

Show all

Example

Below is an example of how your output should look:

```
1    Start searching...
2    Found 500 / 500 entries. Time taken: 1 min. 56 sec. 328 ms.
```

🗎 Report a typo

HINT by 👤 Ilia Minaev

You need to call currentTimeMillis() before your search func and after.
for convert millis you can use String.format("%1\$tM min. %1\$tS sec. %1\$tL ms.", yourMillis)

Was this hint helpful?   👍 Yes   👎 No   Report

↓ Write a program

Code Editor   IDE

CONNECTION STATUS

✓ IDE is responding   IntelliJ IDEA 2020.2.3
✓ EduTools plugin is responding   2021.2-2020.2-1924

🟧 Solve in IDE

View solution (💎 **100**)

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