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

Project: Phone Book

Hard 5 minutes

82 users solved this problem.
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Description

Ever see a huge 2000+ page book full of various organizations and people, written with a small font and with multiple columns on each page? If you're unprepared, it's an impossible task to find the information you need. In fact, even computers can struggle with the task of searching among millions of entries from the start of the directory to its end.

Various algorithms can perform tasks differently; some are slower than others. In this project, you will implement several algorithms and compare the time efficiency among them using a big dataset.

Then you need to download the file directory.txt. This file contains over a million people's phone numbers in multiple cities.

In this stage, you should implement the simplest search and find numbers for the people listed in the file find.txt.

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

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

Also notice, that you don't need to read the file "directory.txt" 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 can reject large files and you will see the message **"Failed to post submission to the Hyperskill"**.

Example

Below is an example of how should look your output:

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

54 / 54 Prerequisites

- ✓ Introduction to OOP — Stage 1/4 — 7
- ✓ Units of information — Stage 1/4 — 9
- ✓ Computer algorithms — Stage 1/4 — 4
- ✓ The big O notation — Stage 1/4 — 4
- ✓ Linear search — Stage 1/4

Show all

Code Editor IDE

Solve in IDE

✓ IDE is opened — If you don't see your IDE opened, switch to it manually

Comments (5) Hints (0) Useful links (0) Solutions (0)

Share something, Sergey Kubatko

Sort by: Last posted

AN **Adrian Nachev** 4 months ago Report

@Dealer put it anywhere on your drive and just use the full path to the files in your project. Also they recommend to put

@Dealer, put it anywhere on your drive and just use the full path to the files in your project. Also they recommend to put the files outside the project directory, due to potential submission issues. @TheSirion you can use System.currentTimeMillis().

0 Reply

T **TheSirion** 4 months ago Report

How do I clock the time it takes for the algorithms to complete? None of the prerequisites listed teaches this.

0 Reply

DK **Diwakar Krishnamoorthy** 5 months ago Report

How to pass the input files?

0 Reply

AS **Aleksej Semenihin** 5 months ago Report

when I pass this task on Android Studio - "Failed to post submission to the Hyperskill".
In log i see exception java.lang.Throwable: {"detail":"CSRF Failed: Referer checking failed - no Referer."}

0 Reply

D **Daler** 6 months ago Report

Where should the files be in this code? Always throws FileNotFoundexception because can't find files find.txtx and directory.txt.

0 Reply