Java/Python Practical Test

Purpose

This page contains information for the backend practical coding challenge.

Back-end development task: File Monitoring

Overview

Develop an efficient file monitoring system.

There are 2 parts of this system; a random data generator and a file monitoring system.

- Generate a random writer that writes pseudo random strings (with at least 50% probability of generating “CDS” keyword. Note that we are strictly looking at "CDS" keyword only as a single value not the CDS keyword inside a random string) into two separate files at regular interval of time.
- A monitoring system that reads the generated files on a regular interval(preferably configurable) and monitors the occurrence of the specified keyword "CDS", preferably using regex.

Output:

- On matching of regex write “filename – count” in “search_results.log” file.

This is an open-ended task with no specific design, where the choices of programming language, design and implementation way is left to the coder.

Technologies

You can use any framework or library of your choice.

The result is expected to be a package containing single executable jar file

The resulting application shouldn’t require any client side code (HTML, java script etc).

Design Considerations

- The developed solution should be efficient.
- The design should sustain a longevity test. i.e. consider that the random writer is continuously running over a period of time.

Expectation:

Upon submitting the code we’ll be looking at the overall result of your work, including but not limited to:

- Ensuring the code executes and the displayed data is accurate
- The design and implementation
- Clarity and consistency of the code
- Coding patterns and best practices
- Technologies used
- Prepare design specification for "File Monitoring System" (i.e. it should not be more than 1 page) and present to the interview panel.
  It should also contain a class or architecture diagram for the system.