

Senior Backend Developer – Test Instructions

Objectives

- Show us how you write code
- Set up ground for a live pair-programming exercise
- Design a micro-service(s)-based solution

How to come across well

We value code that is readable, and conforms to clean code principles. We follow the practice of unit/integration tests and we'd like to see evidence that you do too.

Problem Statement

Let's imagine we've decided to write a new survey microservice. We're starting with an MVP that will have the following features:

- Create a survey with multiple-choice questions
- Disable some question(s) in the survey (we should not delete any questions)
- Answer a survey's questions
- Get the relative distribution of a selected answer by question

Building the Feature(s)

You need to pick just one, maximum two of these features for the take-home part of the exercise.

Do not focus on aspects like authentication, authorization or anything front-end related here. Apart from this, everything is on the table. We would like to see how you approach and structure a project. And be ready to demo the implemented parts.

How the Interview works

The process for the technical evaluation is as follows:

- Please read the instructions carefully.
- You should only take one, or maximum two features.
- Take some time to plan how you'll tackle your chosen feature(s).
- Once you actually sit down to write code, please do not spend more than 3-4 hours of work.
- In the interview, you will briefly explain the task you completed, and you'll drive a pair-programming session working on one of the remaining features.

Assumptions and Important Notes

You should go with the simplest solution that fulfills the MVP feature(s). **We will evaluate code quality, readability, test coverage and correctness of implemented feature(s).** You can also use in memory DB, you do not need to (and shouldn't) write it to a database. Correctness in a simple implementation beats an unfinished complex one.

Please pay attention to potential concurrency bugs and make sure that any code you write is **thread-safe but efficient**.

We will also be looking for solid **OOP design, effective tests, and a well-thought out API**.

Our team is mainly using **Spring Boot on JDK11** for our microservices.

Sample Survey

Testing Survey?

Where does Santa Claus live?

☐ Hawaii

☒ Finland

☐ Sweden

☐ China

Were you satisfied with your Christmas presents?

☒ Very satisfied

☐ Somewhat satisfied

☐ Neither satisfied or dissatisfied

☐ Dissatisfied

☐ Very dissatisfied

Submit

Material Submission

Please upload your code in any public git repository and reply to the email.