

TEST PROJECT NOTES APP

TEST PROJECT – THE NOTES APP

We would like to invite you to try out some technologies that may be new to you and that most of our teams are using, so we have designed this small “assignment” where you touch in on a few of them. We imagine that you can work with it for 3-4 hours (two evenings) and we expect that you touch in on all of them to get an idea of the concept of the technologies and get to reflect on the process of learning about them.

Application specification

The “Notes” application is a simple application allowing user to store its everyday notes.

Functional Requirements:

- User should be able to create notes that have Title, Created Date, Text and Tags that can be empty
- The only allowed tags are “BUSINESS”, “PERSONAL” and “IMPORTANT”
- User should be always able to update and delete notes
- The app should allow to obtain stats per each note that would calculate the number of unique words used in the note’s text sorted descending.
For instance, given a text “note is just a note” it should return a Map as follows {“note”: 2, “is”: 1, “just”: 1, “a”: 1}
- The app should not allow to create notes without title or text
- The app should allow listing the notes showing only their “Title” and “Created Date”.
Getting the note text should be done in the separate page/request
- While listing the notes the user should be able to filter by “Tags”
- Notes should always be sorted in the way the user would see the newest first
- Listing notes should support pagination as the user might have a lot of notes

Nonfunctional requirements:

- Do **NOT** create UI. Provide a RESTful API that would fulfill the given requirements
- Use **MongoDb** as a database to store user notes - Use **SpringBoot** as the backend framework
- Add Tests for your **REST** controllers and services
- Use one of your preferred build systems like Gradle or Maven to ship your app as a Docker image.
- Host your project on GitHub and setup CI that builds a target Docker image
- Add a README file in the repository root describing the project, API and usage

Preparation for the interview

Please reflect on your experience of working with this/these task(s).

1. What did you find most interesting?
2. What did you find most cumbersome?
3. What would you do better if you have more time?
4. What would you do to prepare the app for bigger loads and more data?
5. How would you monitor application health and usage stats?

It's not important to finish all the tasks, our idea with this assignment is to give you a chance to get acquainted with some technologies that we use a lot and to be able to reflect on the process of learning new technologies which is something most of our teams do a lot.

Good luck, and if you have any comments, questions or feedback to this or anything else please don't hesitate to contact us.

Regards,
Teletronics Hiring Team