Application Assignment

Introduction

Write a minimal backend and frontend app that communicate with each other. The goal of this assignment is to get to know more about your programming and problem solving skills.

This is a trivial task in industry so the aspects of evaluation will be in order of importance:

- Functionality (How it works, how easy it is to start and try it out.)
- Coding style (How you structured the code.)
- Speed (How much time was required to solve the task.)

Task 1 – Backend App

Create a simple backend application that exposes one REST API endpoint. The call parameters are:

- Request method: GET
- Path: /api/interview/magic
- Query parameter: “input”
- Response body: a JSON object in the following format: {“result”: [“string1”, “string2”, “string3”...]}

We recommend Node.js but you can use a backend stack of your choice.

Process the Request and produce a Response

- Given that the input string starts with “first ”,
- Then read the rest of the string and split it by whitespaces,
- And collect the pieces in an Array,
- And sort the Array by alphabetical order (ASC),
- And cut the last character of every Array item,
- And if an Array item consists of only one character, remove that item from the Array
- And return the resulting Array in the HTTP Response.

- Given that the input string starts with “second ”,
- Then read the rest of the string and split it by whitespaces,
- And collect the pieces in an Array,
- And sort the Array by alphabetical order (DESC),

- And add a capital “A” as the last character of every Array item,
- And return the resulting Array in the HTTP Response.

Task 2 – Frontend App

Create a simple frontend application that hosts only one screen that has:

1. A Form:
    a. One text input field
    b. One submit button
2. And a Text paragraph.

Layout

- Align the Form and the Text paragraph to the center, and
- Place one element below the other vertically.

Behavior

- Given that you typed something in the text input field,
- When you click the button,
- Then an HTTP request goes to the locally running backend server’s REST API.

- When the response arrives,
- Then it gets printed in the Text paragraph in a nice format.

The frontend app should be able to run on localhost and connect to the server-side app.
Use a frontend application framework of your choice. We recommend Angular / React / Vue.

Task 3 – Document and Share

Create a README file that contains information about how to start and use the two applications.

Create a Git monorepo in GitHub containing these two applications. (One folder that contains the backend and another folder that contains the frontend app.)

Share the monorepo with the following addresses:
https://github.com/szidijani (janos.szidor@moon42.com)
https://github.com/istvan-kare (istvan.kare@mooon42.com)
https://github.com/AronD00 (aron.darazs@moon42.com)
https://github.com/garymoon42 (gergely.vincze@moon42.com)
https://github.com/csgeiszt (csaba.geiszt@moon42.com)
https://github.com/moon42-norbert-sule (norbert.sule@moon42.com)