Hi Infra Software Engineer!

Key measurements: Correctness, clean-code (and readability), efficiency, scalability & architecture.
Acceptable languages: Java, NodeJS (With Typescript).
Submission: Email to ssheli@bigid.com with zip file attachment (or link to the file) + Running instructions.
* You may use any external tool or libraries you need.

The Task:

1. Create an environment that has the following services:
    a. API Gateway / Server
    b. DB (Any kind you want)
    c. If you feel like adding another service, do it.
2. Model the following DB entities:
    a. user
    b. article - each article has an author which is a user.
    c. comment - each comment is related to an article.
3. The system should allow the following operations by HTTP calls:
    a. **Create** for each entity (user, article and comment).
    b. **Get** for each entity (user, article and comment).
    c. **Find words**: For a given list of words (As Strings), you should return the id/s of the article/s that contains the words in the article's body, along with the exact locations of the words. The expected format for a match is:
    [{string1:[{article_id: , offsets: [_,_,_,...]}]},
    string2:[{article_id: , offsets: [_,_,_,...]}]}]

For example:

If we had this article with id=1:

> "hello Ipsum hello is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries"

And the given list of strings = ["hello", "simply", "print"]

The response should include:
[{“hello”:[{article_id: 1, offsets: [0, 12]}], {“simply”:[{article_id: 1, offsets: [21]}]]

where 0 and 12 are the char index of the first char of the string “hello” And 21 is the index of the first char of “simply”

Bonus http call:

a. **Find most common word** – New endpoint that given a word, will find the article that has the most occurrences of this word, and return its ID

Good luck! :)