OpenHouse.AI - Back End Coding Exercise

The purpose of this coding exercise is two-fold:

1. We would like to assess your ability to receive a terse set of requirements to develop an algorithm that is callable through a RESTful API endpoint in **Java, Kotlin** or **Python**.
2. You are able to get a feel for the type of work you'd be regularly engaging in at OpenHouse.AI.

Requirements

Create a Spring Boot app, Flask app, or use a similar framework that you prefer, as a RESTful Web Service to consume, store, and process logs from a frontend application and to make the stored logs retrievable for batch processing.

The FE will be sending logs every 5 minutes from up to 100 users. The logs will need to be retrieved in large volumes on a weekly basis for batch processing. A sample log is available in this folder. The logs should be retrievable by any combination of user, time range and log type. The response should be a list of logs.

Done Criteria:

- The submitted program can be a deployed application which we can test remotely or a repository which we can deploy and test locally per your documentation
- The source code and the documentation should be submitted for our code review
- Clear REST API documentation should be provided as part of the submission
- Additional documentation, comments and answers to the follow-up question can be submitted with the README.md

Follow Up Question

Provide your comments on how you would make this solution cloud-scalable. (In our real-world production system, we are streaming logs from up to 10k users simultaneously and query millions of data points on a weekly basis. We embrace the concepts from The Twelve-Factor App)

Evaluation Considerations

- Is your code well tested?
- Is the service performant for the use cases provided?
- Is the data stored efficiently?
- Do you provide error handling and appropriate REST status codes?

- Is the code deployable? How would you deploy it into a cloud computing service (AWS, GCP, Heroku, etc.) if you have not already done so?