JAVA ENGINEER

CODING CHALLENGE

Document Microservice

Build a simple document microservice running on the JVM that manages storage and retrieval of documents for users.

Description

Users can have 0 (zero) or more documents attached. These documents can be uploaded/downloaded and the metadata can be modified. Create a REST API and an implementation that fulfils the requirements below and honours the constraints.

Desired functionality

- Overview of currently attached documents for a user
- Upload, download and modification functionality
- Document names should be unique per user
- Documents should have some metadata like name and type (eg. passport)

Non-functional requirements

- The solution does not need to persist data across restarts but it is a bonus if it does. Make sure that your build/run script builds, installs and configures any such database.
- If the solution uses a database, please use h2 or some other in-memory database
- Do not use 3rd party software that entails us to install software on our machines. If 3rd party software is a necessity, create a docker image with a fully prepared environment.

What we will look at

- Design
- Clean code
- Testability
- Software craftsmanship

What you shall think about

- Concurrency
- Scalability
- Atomicity
- Idempotency

Final thoughts
If you think some part of the exercise is unclear, don't worry. Decide for yourself what would be a logical thing to do, and explain in your comments why you did what you did.

It is OK to reduce the scope of the assignment where necessary, but please provide a brief description of what would need to be changed in order for your service to be production-ready.

You are free to choose frameworks and libraries for the task yourself but please provide instructions on how to run your service and how the API looks.