Summary

1. Technical choices

General:

- Spring Boot 2.6.6 The most popular Java framework.
- Gradle 7.4.1 Automatic build tool, more performant, than Java
- Java 11 One of the long-term support versions of Java
- H2 in-memory database A reasonable choice for fast prototyping

Dependencies:

- Spring Data JPA
- Spring Web
- Spring Validation
- Springfox Swagger 3.0.0
- Springdoc OpenAPI UI 1.6.6
- Google Guava 31.1-jre

2. Implemented functionalities

Everything described in the YAML should work. Bonus tasks 1 and 2 are ready too. Bonus Task 3 is unfinished and available at not-ready branch on GitHub.

3. Deployment instructions

Run from terminal: ./gradlew bootRun

4. Things learned

I learned a lot during this project. It was my first time using Gradle, usually I started with Maven. I found out that API-first approach makes a development process much less chaotic. Learning about automatic documentation generation made me want to use it again in my future projects. Also I had to read about API standards, which will surely be useful.

5. Overall time consumption

I spent quite some time (5-6 hours) reading about OpenAPI and searching for dependency combinations, as I encountered some problems during code generation. From this point onwards everything went quite well, it took me about 7 hours to finish the main part, and then about an hour or two for the first two bonus tasks. Bonus task 3 took another hour, but I couldn't finish it in time.

Total time consumption: ~15 hours.