Coding assignment for java backend engineer

Dear candidate,

Thank you in advance for taking your time to complete our coding assignment.

You will have up to 4 hours to complete the test.

Purpose

Main purpose of this assignment is to test practical skills of designing, coding, testing and building java applications.

Prerequisites

Basic java knowledge, along with experience in OOP, API design, testing frameworks, dependency injection, and understanding of basic algorithms and data structures is a necessary prerequisite for taking this test.

Assignment

We ask you to implement an application which represents basic project management flow. It will store all records in database (preferably in-memory database).

Project model should be used when implementing endpoints. Project status can be IN_PROGRESS or FINISHED.

```
Long id;
String name;
StatusEnum status;
LocalDateTime dateCreated;
boolean archived;
```

Endpoints to implement

Endpoint	Description	Request body	Response body
POST /projects	Create new project	```{ "name": "test", "status": "IN_PROGRESS" }```	```{ "id": "234", "name": "test", "status": "IN_PROGRESS", "dateCreated": "2021-03-16T17:33", "archived": false }```

| GET /projects | Get all projects that are **NOT** archived | | ```json
[{
        "id": "234",
        "name": "test",
        "status": "IN_PROGRESS",
        "dateCreated": "2021-03-16T17:
33",
        "archived": false
},
{
        "id": "112",
        "name": "demo",
        "status": "FINISHED",
        "dateCreated": "2021-02-23T11:
32",
        "archived": false
}]
``` |
| PUT /projects/ {id} | Archive project | | ```json
{
        "id": "234",
        "name": "test",
        "status": "IN_PROGRESS",
        "dateCreated": "2021-03-16T17:
33",
        "archived": true
}
``` |

Requirements

1. Implementation should be done in Java 11 and preferably by using Spring Boot framework and Maven
2. Application is covered with unit tests and api endpoint tests
3. Application is using in-memory database
4. Documentation of the implemented functionality and instructions how to run are present (consider adding javadocs and README file).
   We expect it to be run with a single command
5. If you feel you are running out of time, please add comments in README file where you can describe steps that you were planning to do in order to complete assignment.
6. You are expected to do this assignment on your own
7. Please do not disclose anything out of this assignment

Please send your solution in ZIP archive via email.

We hope you will enjoy this assignment and should you have any questions please reach out to us.

Thanks again for your interest!