

Software Lifecycle Management

Marking API

You want to develop a quick API that helps you to translate the percentage value into the grade. Your API should be able to:

- Return the grade regarding to the input percentage value

Project

You should implement a REST-based server in Java (use [Spring Boot](#)). The service should be able to return the desired information using REST.

Requirements

Use GitHub or Azure DevOps for the project and follow the correct DevOps procedure. Use a Kanban board to manage your User Stories and use a git branching model (preferable gitflow) to manage your code. Track your development process by updating your Kanban board and write at least one unit tests for every requirement. A Continuous Integration pipeline that produces the finished software artifact should be implemented as well.

Document

- the whole process
- the user stories
- the repository URL
- the usage of the software

in a Readme file with explanatory text. Submit the code (including the .git folder and ALM files) as a zip file (please put the Readme inside the zip file).

You can use external resources as long as you mark them: “ // taken from: <URL> ”

Points

- Documentation of the process: 15%
- Requirement definitions (User Stories): 15%
- Correct status / Linking / Branching (Kanban, Git): 15%
- Implementation: 15%
- Testing: 15%
- Pipeline (Continuous Integration and Maven): 15%
- Artefacts (Continuous Delivery): 10%

All elements must be present in the documentation.

References

FHTW Marking System:

percentage value (input)	Grade (output)
>= 88%	1
>= 75% and < 88%	2
>= 63% and < 75%	3
>= 50% and < 63%	4
< 50%	5

Route Examples:

api/mark?percentage=90 → 1

api/mark?percentage=50 → 4

api/mark?percentage=0 → 5