

1. Exercise – Battelship

Implement a simple Battleship game using Java and Spring Boot. Use REST APIs that allow two players to place ships on a map and make guesses to sink the opponent's ships. The game should track the state of the map, including the positions of ships and the results of guesses. Store the data in a database of your choice.

Make sure to develop a proper domain with some domain logic, but keep it simple. The goal is not to have a perfectly functional game, but to have a basic application we can later on reuse for other exercises.

Requirements:

Your application should provide at least the following functionality:

- Create Games
- Add/Create Players
- Place Ships
- Guess ship position
- Simple display of the game state

Follow Spring Boots approach regarding code structure (controllers, services, repositories and entities).

Document your APIs using openapi as mentioned in the lecture. (See <https://springdoc.org/>)

Submission:

Hand in your solution in form of a .zip archive including the Spring Boot project. Make sure it is executable. Additional documentation should be added to a README.md placed in the root directory of the project.