

## 2. Exercise – Battleship Microservices with REST IPC

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Analyze your implementation of the Battleship application and divide it into multiple microservices. Try to find independent functionalities to split the application. Implement inter service communication using REST APIs.

Try to have some domain logic in each microservice if possible. Try to organize your domain models according to DDD aggregates and use primary keys (ids) for referencing entities via REST APIs.

### Requirements:

- Your architecture should at least consist of three individual microservices (three Spring Boot projects)
- Remember that each microservices has its own persistence (database)
- **A user should not interact with individual microservices. Keep the openapi Dashboard from Exercise 1 and use inter service communication to maintain the same functionality as in Exercise 1.**

Make sure that each microservices has a unique port in the application.properties/application.yaml.

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/>)

The path to access openapi will be: <http://localhost:8080/swagger-ui/index.html>

### Submission:

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