Coding Challenge – Airport Gate Management System

During this selection process, we require each candidate to complete a task in order to make sure you have the skills needed for this position.

Disclaimer: The only purpose of this task is to assess candidate skills. Everything sent as a result of the task will not be used for commercial purposes.

The deadline is 5 days from the day when the task was sent.

The task must be sent as a link to the git repository.

Once the task is completed, please send your results to
katarina.stojkovic@fatcatcoders.com

Good luck and have fun! 🍀

Description

Create a REST service that manages available gates for planes to park at an airport. The REST service should accept a flight number and return the assigned gate. The service should also accept requests to update a gate as available. If a gate is not available, an appropriate response should be returned from the REST service.

Technical Requirements

- The gates and flights should be managed in a relational database.
- Any database errors should be handled gracefully.
- The solution should use spring and hibernate frameworks.
- It should be thread safe and able to handle multiple concurrent requests.
- The code should be written so that it is as simple as possible for administrators and other developers to follow and debug any issues.
- Developers should keep in mind
  - Code Clarity
  - Maintainability
  - Resilience

○ Security

Extra Challenge

Update the solution so that certain gates are only available between certain times. If a request for a gate arrives to the REST service at a specific time, the service should check what gates are available at the current time as well as whether or not they are currently in use.

Administrators should be able to update the times that gates are available at.

Additional requirements:

- Provide a clearly defined Readme file with instructions for starting the project
- The project must not depend on previously pre-installed software on the computer (maven, gradle, database …).
- Wrap all external systems used in the project (SQL database, etc.) in Docker Image or use in-memory SQLbase (H2 or similar).