BOOM!

Challenge for Backend Developers

Thank you for your interest for a job at BOOM. To better assess your skills, we would like to invite you to solve a task and to present your solution and your thoughts.

Goal

Please write a REST based application which can book an order for a photo shooting service and manage its evolution. You write a solution in Java/Scala/Python. The application should be scalable, maintainable and expandable.

Assumptions

The database integration is not mandatory so the application could be stateless (when you stop it, you lose all data). To simplify things you are required to import a set of photographers with a dedicated REST endpoint. Those photographers will be assigned to the Orders in order to complete the photo shooting services.

Before starting coding make sure you ask all the questions you need.

Finally, we will be happy to read your considerations, doubts and comments in a COMMENTS file you may include in your deliverable.

IMPORTANT: You receive 6 requirements. You can decide which ones to complete, and in what order. We assume that 4-8 hours should be enough to complete this exercise.

Requirements

R1 - The REST API allows to create a new Order. The order contains mandatory data: *Contact Data (*name, surname, email and cell number*), Photo Type* (RealEstate, Food, Events) and optional data: *Title*, *Logistic Info* (free text field) and *Date and Time*. Date and Time for the order must be within the business hours (8:00-20:00). When the order is created its state is PENDING state.

R2 - When an order is created without Date and Time, the order is created in the UNSCHEDULED state. It will be scheduled with a dedicated REST endpoint. This endpoint edits the order to set Date and Time. When Date and Time are set, the order moves to the PENDING state.

R3 - A PENDING order can be assigned to a photographer of the internal archive. When the photographer is assigned the Order moves to the "ASSIGNED" state. You can assume there's already a way to determine who the photographer is, given an unique ID of your liking.

R4 - The photographer can upload the photos only in a zip file. The upload is possible only for Orders in the ASSIGNED state. NOTE: we don't care about the actual zip transfer, nor the photo storage. You can assume that when this REST endpoint is called, the photos are considered uploaded. When the photos are uploaded the Order moves to the UPLOADED state.

R5 - When the Order is in the UPLOADED state, the Operators can verify the content of the zip file and accept the photos. In this case the Order moves to the "COMPLETED" state, otherwise it goes back to the "ASSIGNED" state.

R6 - At any time we can CANCEL the order. In that case no more operations are allowed on that order.

Your tasks

Create your own application. This application doesn't need any user interface, but must provide a REST interface based on HTTP / JSON. Respect REST principles and ensure clean code with high quality. The code should be easy to read, understand and maintain/expand.