

Challenge Sibs by HexaGroup Consulting

Main responsibility

Create a Rest API to “Order Management”.

The API must contain

- Users can Create and Manage Orders.
- A domain for each entity.
- Each domain should have its separate layers with Clean Architecture principles. Ex: Service, Controller, Repository.

The API has 4 entities:

Item

- name

User

- name
- email

StockMovement

- creationDate
- item
- quantity

Order

- creationDate
- item
- quantity
- user (who created the order)
- status

Requirements

1. **Items** can be **ordered** and **orders** are automatically fulfilled as soon as the **item stock** allows it.
- *Items podem ser pedidos, pedidos são automaticamente realizados quando existe estoque do item disponível.*
2. When an **order** is created, it must be filled with current **stock**. If there is no current **stock** of the **item**, the **pending status** must be used.
- *Quando um pedido é criado, ele deve ser preenchido com o estoque atual. Se não houver estoque atual do item, o status pendente é usado.*
3. When a **stock movement** is created, the system must try to assign it to an **order** that is not completed (**pending**).
- *Quando um movimento de estoque é criado, o sistema deve tentar atribuí-lo a um pedido que não está concluído (pendente).*
4. When an **order** is complete, send a notification by **email** to the user that created it.
- *Quando um pedido for concluído, envie uma notificação por e-mail para o usuário que o criou.*

5. Trace the list of **stock movements** that were used to complete the **order**, and vice-versa.
 - *Trace a lista de movimentos de estoque que foram usados para concluir o pedido e vice-versa.*
6. Write a **log file** with: orders completed, stock movements, emails sent, and errors.

The API should make by:

- Java 8+
- Spring Boot with Spring JPA
- PostgreSQL
- Git and GitFlow
- Log4j or another