Application Overview

You have to provide a running web application, which should do the following:

Warehouse Management

A warehouse would like to manage its inventory. For this they need a new system which should provide the following functionalities.

The system should provide:

- Basic login/logout functionality for all users. User roles are as follows:
    - CLIENT
    - WAREHOUSE_MANAGER
    - SYSTEM_ADMIN
- CLIENT users should have the following functionalities:
    - Can create a new order for items in the warehouse.
    - An order may have different statuses during its lifecycle:
        - CREATED
        - AWAITING_APPROVAL
        - APPROVED
        - DECLINED
        - UNDER_DELIVERY
        - FULFILLED
        - CANCELED
    - Update the order if the status is CREATED/DECLINED
        - Add new items to the order
        - Remove items from the order
        - Modify the quantity of the items in the order
    - Cancel his order if the status is not FULFILLED, UNDER_DELIVERY or CANCELED
    - Submit his order if the status is CREATED or DECLINED. If the order is successfully submitted then the status becomes AWAITING_APPROVAL
    - View his orders and filter them by status.

- WAREHOUSE_ MANAGER users should have the following functionalities:
    - View all orders and filter them by status. The list is not detailed and should only contains basic information. (Orders are sorted by their submission date starting from the newest)
    - View detailed information about a specific order.
    - Approve/Decline an order which is awaiting approval.
        - Status should change accordingly.
        - If the order is declined then a reason can be submitted.
    - Manage items in the inventory. (Basic CRUD operations on items)
    - Schedule a delivery for approved orders
        - Deliveries are all done within a day.
        - When scheduling a delivery the manager must select a date and 1 or more trucks.

- A truck can only complete one delivery a day and can carry at most 10 items.
- Sundays are off as the truck drivers are not working.
- When the delivery is scheduled the status is set to UNDER_DELIVERY and the item quantity is updated.
  - Manager can also manage the trucks in the system. (Basic CRUD operations for trucks)
  - If the delivery is done the manager can pass the status of the order to FULFILLED.

- SYSTEM_ADMIN users should have the following functionalities:
  - Basic CRUD operations for the users.

- **Bonus:** Users can request a new password

Order should have the following fields:

- Order Number (Generated automatically)
- Submitted Date
- Status
- Items
  - Item
  - Requested Quantity
- Deadline Date

Trucks should have the following fields:

- Chassis number (Unique and entered manually)
- License Plate (Unique and entered manually)

Inventory Items should have the following fields:

- Item Name
- Quantity
- Unit Price

Technologies

The application should be well structured.

The following technologies/frameworks are mandatory:
- Spring Boot
- Spring Data JPA for the persistence layer
- MySQL (or any other RDBMS)
- Spring Security, implement JWT
- Maven for the dependencies between the modules besides the other proprietary libraries.
- Logging possibility via log4j.
- Swagger.

Optional: Module for the Frontend having also the client for the Rest Web Services using Angular.
Bonus: JUnit Tests

Note: Prepare the Postman requests for the endpoints if UI is not implemented.