Assessment Description:

You are tasked with creating a Java backend application that allows both individuals and businesses to manage their address book. The address book should store information about people and companies, including their names, addresses, and mobile phone numbers, VAT. The application should provide CRUD operations for managing contacts.

Requirements:

Data Model:
- Create a data model for contacts that includes the following fields:
    - ID (auto-generated unique identifier)
    - First Name
    - Last Name
    - Address
    - Mobile Phone Number
    - VAT

Endpoints:
- Implement RESTful API endpoints for the following operations:
    - Create a new contact
    - Read a contact by ID
    - Update an existing contact by ID
    - Delete a contact by ID
    - List all contacts
    -

Authentication and Authorization:
- Implement basic authentication using username and password.
- Implement role-based authorization with two roles: "individual" and "business."
- Individuals can only access and manage their own contacts.
- Businesses can access and manage all contacts associated with their business.

Database:
- Use a relational database to store contact data.
- Design the database schema to accommodate both individual and business contacts.

Bonus Points using JsonAPI standard (Optional) https://jsonapi.org/ :
- Implement pagination for listing contacts.
- Implement search functionality to search for contacts by name or mobile phone number.

Submission Guidelines:
- Provide a well-structured Java backend codebase with comments.
- Include database schema and setup instructions.
- Include clear API documentation.
- Share your code via a GitHub repository or a zip file.

Technology stack:
- Quarkus preferable(or springboot);
- Hibernate;
- Postgresql;
- JPA Buddy - optional;
- Liquibase - optional;
- API (Restful or GraphQL) ;

Evaluation Criteria: Candidates will be evaluated based on the following criteria:
- Creativity, Imaginative and Inventive.
- At least 40% should be completed.
- Correctness and completeness of the implementation.
- Code quality, organization, and readability.

This assessment will test the candidate's ability to design and build a robust Java backend system for managing contacts.