Overview

As a consultant, you have been hired to build a small web application for a customer to track contacts. Provided the solution meets the functional and technical requirements below, you are free to use any resources, libraries, and technologies to implement the system. There is no right approach.

The solution provided will be used as the basis for your interview. Be prepared to discuss your approach.

Functional Requirements

There are four user stories associated with the customer requirement:

1. As a user I want to create a new contact by entering the first name, last name, email, and phone number so that I can track the people I know.
2. As a user I want to be able to search for a contact by first and/or last name so that I can find contact information quickly.
3. As a user I want to be able to update contacts when their last name, email, or phone number change so that I can keep my contact information up to date.
4. As a user I need to be able to delete a person I no longer associate with so that I can keep my contact list clean.

Technical Requirements

The customer has some limitations on the technology set that can be used to implement the functional requirements and they are as follows:

1. Java 11 or higher
2. Maven 3.6.1
   a. groupId=com.<your name>
   b. artifactId=<your name>
3. SQLite
4. Runtime must be executable from Maven (e.g. mvn jetty:run-war) options include:
   a. Embedded Jetty 9.4.18 or higher
   b. Embedded Tomcat 9.0.20 or higher
   c. Spring Boot 2.1.5 or higher

If your name were Jane Smith then <your name> would be smith_jane for the configuration specified above.

Delivery

When delivering the software, please ensure the following.

1. The software must be delivered as a zip of the complete Maven project sans the target directories.
2. Include the Maven command to run the project (e.g. mvn jetty:run-war) in a README.txt inside the zip.
3. The zip name must be <your name>.zip conforming to the <your name> naming convention specified in the technical requirements.

Evaluation

When we receive your zip, we will execute the following on an environment running the Java and Maven versions specified in the technical requirements:

1. Unzip the contents
2. Run mvn test
3. Run the command specified in README.txt (e.g. mvn jetty:run-war)

If the project does not meet the technical requirements or either of the Maven command executions fail, we will not evaluate the code and thus not proceed with the interview process. We will perform the following actions once the project is up and running:

1. Test the live site to ensure it works per the functional requirements specified above
2. Perform a code review