

## **Java Engineering** **Test**

Complete all the steps below as part of the Full Stack/ Backend Developer Test.

If you are applying for the Backend Java Developer position work just on Backend test task requirements and Frontend elements are nice to have.

Make sure to complete all the required steps first and only then do the optional ones after that if you have time.

Most of the steps are required, but some are optional. The optional ones are like extra credit, which means that it will make you look better than other candidates who have not completed the optional steps.

Please work on this completing as much of the test as you can.

Please send us whatever you have been able to complete and let us know how much time you worked on it.

**Due Date: Monday, 07/06/2020**

### **Test Description:**

- Non-Functional:
  - Unit Tests should exist for major use cases or some sort of test automation
  - Use Maven/Eclipse
- SpringBoot REST API:
  - Should contain at least one method
  - Should contain service level objects that can be queried
  - Should Provide Authentication Mechanism
- Backend:
  - The backend should be built on top of an RDBMS
  - Show example of Normalization
  - Utilize ORM like Hibernate
- Functionality:
  - We have Accounts, Farms, Customers, and Users
  - An account belongs to a Customer
  - A User has access to one or more accounts
  - A User has access to one or more farms tied to that account
  - A farm is tied to one account
- Data:
  - The data we track for Customers, Users, and Farms can be basic

- Use Cases:
  - I want to be able to Query the API for Users, Farms, and Customers
  - I want to be able to authenticate a User
  - I want to be able to query which Farms a user has access to
  - I want to be able to query which Accounts a user has access to
- **Extra Credit:**
  - A UI/Front End using Angular, React, or Vue
- **Extra Credit:**
  - Deploy the application to AWS/Azure/GCP

*Once you are done with the test, provide details on how to access the code and how to deploy the packages provided or access the deployed environment.*

**We will not use your test task in any commercial purposes.**

Thank you for your participation and **Good Luck!**