

JUNIOR SOFTWARE DEVELOPER

Assessment

SCENARIO

Enviro365 Investments is seeking to automate the withdrawal notice process for its investors. The process currently makes use of PDF forms which investors must download, complete, sign and send to the service area via e-mail. This is a time-consuming exercise which requires the service team to re-capture the withdrawal details from the PDF form into the line of business system and creates room for service team to make mistakes. When volumes are high, this also results in a bad experience for the investors where some of the withdrawals are processed late. Having an automated process will result in an improved investor experience and time saved for the service area to focus on other important areas of the business.

The automated process should allow investors to select a product they are withdrawing from, capture the withdrawal amount, dates and banking details the money must be paid into. Once the withdrawal notice is completed, investors should receive a notification that shows them the balance before the withdrawal was made, the amount withdrawn and the closing balance

TASK

Build a Spring Boot application that exposes a REST API for consumers to:

- Retrieve investor information (personal, address and contact) along with a list of products the investor has invested in. Each product must provide a product ID, type (RETIREMENT/SAVINGS), name and the current balance.
- Create a new WITHDRAWAL NOTICE for a selected product.
- Download a statement of all notices created for a selected product as a csv file with date range provided



The following validations must be applied on submission of a WITHDRAWAL NOTICE via the API:

- If PRODUCT is RETIREMENT, then the investor's age must be greater than 65, otherwise respond with a validation error.
- If WITHDRAWAL AMOUNT is greater than current BALANCE, then a validation error must be returned

Investors cannot withdraw an AMOUNT more than 90% of the current BALANCE

DEADLINE

You have 5 days to complete the Assessment from the date you receive it.

SUBMISSION

Please submit your github link of the assessment on www.etalente.co.za

THINGS TO NOTE

1. All code should be written in a package
2. `com.enviro.assessment.grad001.yournameandsurname`
3. From a technical perspective, as per commonly accepted best practice, each record has a primary key called "id" that identifies it – this is a technical id, and
4. Please model and implement the interface in the way you consider to be the best way from an Object Oriented perspective.
5. As we will be accessing a real database as part of this exercise, please implement an in memory database (H2).
6. Your submission must be a Springboot application with a rest endpoints



YOU MAY UNDERGO A SUBSEQUENT INTERVIEW REGARDING YOUR SOLUTION, SO PLEASE BE PREPARED TO DISCUSS ANY DESIGN DECISIONS YOU MAY TAKEN / ASSUMED. PERHAPS MAKE RELEVANT COMMENTS IN YOUR CODE THAT WILL GUIDE YOUR DISCUSSIONS LATER.