SEB

Full-Stack developer

Coding Exercise

Introduction

Thank you for wanting to join our team here at SEB. We've prepared this coding exercise to help us understand a little better your strengths as a developer and to provide a great starting point.

This exercise is split into two parts: one focused on backend and the other focused on frontend (JavaScript/TypeScript, HTML, CSS).

Whilst we use a range of the latest libraries and frameworks, in these exercises we are going to try to keep things a bit more basic, just Spring and React framework. So that we can focus on some core skills that don't change as often as the libraries and frameworks do.

Exercise description

The bank is producing a tool to recommend list of products to perspective customers. The rules which govern what products a customer may choose are based upon answers to questions that the customer has given.

- Web app should be responsive to browser's width and adopted to screen with width from 320px;
- Web application should work on at least on IE11 and Chrome;
- CSS should be written in SCSS syntax and all styles should be written by you;
- And don't forget tests ☺

Question	Possible Answers
Age	0-17, 18-64, 65+
Student	Yes, No
Income	0, 1-12000, 12001-40000, 40001+

Product	Rules
Current Account	Income > 0 & Age > 17
Current Account Plus	Income > 40000 & Age > 17
Junior Saver Account	Age < 18
Student Account	Student = Yes & Age > 17
Senior Account	Age >= 65
Debit Card	Income < 12001 & Age > 17
Credit Card	Income > 12000 & Age > 17
Gold Credit Card	Income > 40000 & Age > 17

Guidance

1. Write a Spring application with Restful API that returns a JSON representation of the recommended products for given answers to the questions.
2. Create single page application with questions form that calls the REST API and displays the list of products.
3. Place your solution on GitHub/GitLab/TFS/Bitbucket or any other version control system.
4. Provide documentation in README.md file that should contain at least information how to build and run your application.

All work should be your own. You will be expected to explain, discuss and extend your code in the interview.

The purpose of this exercise is to help us understand your core skills and how you design solutions. Often there isn't a single best answer so write your code how you see best and be prepared to discuss your choices in the interview.

You may use the latest version of Java, Spring and any JavaScript framework. You may use any testing library.

No persistence is required for this solution.