

# Developer: Home Assignment

# **Assignment**

The purpose of this assignment is for us to gain insight into how you design and write your own code given a problem. The assignment will be reviewed by developers at Trustly and will serve as a base for a technical interview.

We expect the code to be production ready. When you are done, submit your solution according to the instructions below. Don't hesitate to contact us if you have any questions.

Good luck and have fun!

## Your challenge

The problem to be solved is a known problem which you can read more about here: <a href="http://en.wikipedia.org/wiki/Monty\_Hall\_problem">http://en.wikipedia.org/wiki/Monty\_Hall\_problem</a>. If you don't want to know the answer before you solve it you should wait to read the link (recommended way).

### Problem description:

Assume that you are on a TV-show where you can win money by picking the right box. The host shows you three boxes and explains that one of them contains money. Then the host asks you to pick a box without opening it. When you have selected a box the host opens one of the other two boxes which will be empty. Now you get the question if you want to change your choice or stick to your original choice of box.

#### Your task:

Write a program that randomly simulates this game over and over with the purpose to answer this question: 'Do I have a better chance to win if I change my box?'

There is no need to create an interactive experience with a UI, focus on solving and answering the question.

### Requirements:

- Please use Java, Maven and Spring Boot when solving the assignment
- Include runnable unit tests
- Include a README.md with instructions on how the project should be built and run

• If it is not obvious by text output or similar, write down how the result should be interpreted

### Recommendations:

We strongly recommend using technologies referred to in the job ad. It is okay to not know everything, but there are lots of bonus points to gain from trying!

### Submitting:

Use one of two methods to submit your assignment:

- 1. Upload your code to github and send us the link OR
- 2. Send us the code as a zip-file. Please remove the ".zip" so that it does not get stuck by the spam-filter.