



Senior Backend Developer assessment

Dear candidate

Thank you for applying for a position of a Senior Backend Developer at Speakap! In order to assess your skills, we'd like you to complete the following assignment.

Library

A library is keeping a log of transactions. Each transaction is either a check-out (somebody taking a book) or a check-in (somebody returning a book). Books are identified by ISBN. People are identified by `person_id`. Each transaction has a timestamp.

The library would like to know the following statistical data:

- which person has the most checkouts (which `person_id`)
- which book was checked out the longest time in total (summed up over all transactions)
- how many books are checked out at this moment
- who currently has the largest number of books (which `person_id`)

Design and write a program which:

- reads both xml and csv transaction log
- outputs json format as well as plain text. It should use the extension of the output filename to determine the format
- can handle very large transaction logs (both xml and csv)

- runs from the command line

You can assume that entries in the log are ordered by date (ascending) and that the input files don't have overlapping dates.

Please use the latest version of PHP if possible.

What we evaluate

- your decision making. Be prepared to explain why you've chosen certain way of solving the problem
- how you work with performance and memory
- your code quality and style
- installation and running instructions
- tests are plus

Please don't spend more than 4-5 hours on completing this assignment. When finished, create a zip archive and send it to us.

Good luck!