



Junior Machine Learning Engineer

Assignment



 **EXUS**[®]



Summary

The objective of this assignment is to build a book recommender. To do that, you need to design and implement a recommendation algorithm.

Algorithm

For the recommendation algorithm we ask you to implement at least some version of collaborative filtering that takes into account the books a user has read. You may use the Book-Crossing dataset (<http://www2.informatik.uni-freiburg.de/~ciegler/BX/>) as your source.

Deliverable

We expect you to deliver a private repo with your final solution (on Bitbucket/Github or any similar service) **within 5 days** from the day you received this assignment. The repo should include the following (at least):

- a notebook which will reflect your workflow (i.e the steps you took to complete the project, from data analysis to training, evaluation and model export). Comments on the decisions you made over the steps are more than welcome!

If any extra datasets are required, please do not include them in the repo. Instead, provide a file with instructions in the repo on how to download/import them in your project.

Notes

- You need to provide a working prototype of the application. You are free to implement your project in any technology stack you prefer between Python or R (Python is strongly preferred though)
- You may include additional features and/or performance optimizations that you may find relevant or could showcase your skills, but first please be sure that you have completed the requirements before proceeding further
- Your solution will be judged based on the requirements listed above and application of best practices on programming and data science. Expect to be asked about your algorithmic and implementation choices, problems you encountered and how you can test your solution's performance

Good luck!