

Book Library Tool

Tech to use: NodeJS (TypeScript), ExpressJS, MongoDB

The Royal Library of Belgium would like to have a tool to easily manage their stock and allow customers to browse and reserve books online. The library currently has 100M references, and 50k users. Your job is to develop the backend system from scratch, which should contain the following functionalities:

- **Getting, adding or deleting:** It must be possible to get, add or delete a reference.
- **Catalog search:** Users should be able to search for books by genre, title or author.
- **Reservation & borrowing system:** Users should be able to borrow books online. The system would allow to track book availabilities. You can assume that 4 books exist per reference. A user cannot borrow more than 3 books or several copies of the same reference at the same time. The history of book reservations should be logged.
- **Reminders:** Users should be notified of upcoming due dates (2 days before) and reminded of late returns (7 days after the due date) by email.

As a bonus, the library would like to implement a points system for their users that would reward active users who bring books back on time.

Include a `README.md` doc for your API which explains how to use and test it. Some Jest unit tests should be present.

The book references can be seeded from *books_sample.csv* attached. You can mock any other data you may need such as users, in which case the collection schemas should be described.