

# Library Management

## Notes for Candidate

1. Write code that you would be comfortable pushing to production. Some things to keep in mind
  - a. Test driven development
  - b. Proper modelling of classes/modules
  - c. Clean code
  - d. Do regular commits
2. Some principles to keep in mind when solving the test
  - a. KISS
  - b. DRY
3. It would be good to include your architectural decisions/thoughts/assumptions in README so that we can better evaluate the test?
4. **Don't** put the test on a public repo.

## Stories

1. User can view books in library

Scenario : As a User

I want to see the books present in the library

So that I can chose which book to borrow

Given , there are no books in the library

When , I view the books in the library

Then , I see an empty library

Given , there are books in the library

When , I view the books in the library

Then , I see the list of books in the library

2. User can borrow a book from the library

Given , there are books in the library

When , I choose a book to add to my borrowed list

Then , the book is added to my borrowed list

And , the book is removed from the library

**Note:**

- a. Each User has a borrowing limit of 2 books at any point of time

3. User can borrow a copy of a book from the library

Given , there are more than one copy of a book in the library

When , I choose a book to add to my borrowed list

Then , one copy of the book is added to my borrowed list

And , the library has at least one copy of the book left

Given , there is only one copy of a book in the library

When , I choose a book to add to my borrowed list

Then , one copy of the book is added to my borrowed list

And , the book is removed from the library

**Note:**

- a. Only 1 copy of a book can be borrowed by a User at any point of time

4. User can return books to the library

Given , I have 2 books in my borrowed list

When , I return one book to the library

Then , the book is removed from my borrowed list

And , the library reflects the updated stock of the book

Given , I have 2 books in my borrowed list

When , I return both books to the library

Then , my borrowed list is empty

And , the library reflects the updated stock of the books

**Note:**

Authentication and authorization of users is optional.

Create restful apis on the backend and consume on the frontend.

It is not important how you setup the initial library.

You can read it from file, you can run some script.

Anything that you find faster to work with the initial setup

**Language to use**

Frontend - React.JS

Backend - Node.JS(Express.JS)

Database - Any Sql or No-Sql will do