

Developer Hiring Test

Why this test?

At Nesscale, we build applications for the web, so understanding how web applications work, is a prerequisite for any new engineer.

If you have never worked on web applications before, this test will also help you evaluate whether this is something you are skilled at or can easily learn doing.

Library Management Web Application

A local library is in dire need of a web application to ease their work. The library management system must allow a librarian to track books and their quantity, books issued to members, book fees.

For the sake of simplicity, you don't have to implement sessions and roles, you can assume that the app will be used by the librarian only.

The following functionalities are expected from the application:

Base Library System

Librarians must be able to maintain:

- Books with stock maintained
- Members
- Transactions

The use cases included here are to:

- Perform general CRUD operations on Books and Members
- Issue a book to a member
- Issue a book return from a member
- Search for a book by name and author

- Charge a rent fee on book returns
- Make sure a member's outstanding debt is not more than Rs.500

Reports

- Most popular books with quantity available in the library and total quantity.
- Highest paying Customers.

Tests

Basic [Unit Tests](#) to test your business logic.

Optional Features

These are features not essential to the interview, but something that we would definitely appreciate

- Ability to download the reports
- Charts in report views
- Sessions with a guest view for users to view available books

How to Submit

Once this application is ready, push your code to [GitHub](#) and add a [README.md](#) file in your repository. Add screenshots showing the screens and reports in your README.

After this, just drop in an email at info@nesscale.com saying that your project is done.

Next Steps

After this, we will get in touch with you and you will have to walk us through your code. We will then ask for a few changes or additional features that will help us evaluate how well you know your code base.