Science Gateway Assignment 1

The implementation is based on Micro service Architecture. Implementation mocks a small online library system. The frameworks used are Node.js (JavaScript), Spring Boot (Java) and Flask (Python.)

The submission can be found in /airavata-courses/nikchett/Assignment1

Set up details:

1. Download the node.js installation from - https://nodejs.org/en/ . Later install express.js https://www.tutorialspoint.com/expressjs/expressjs_environment.htm

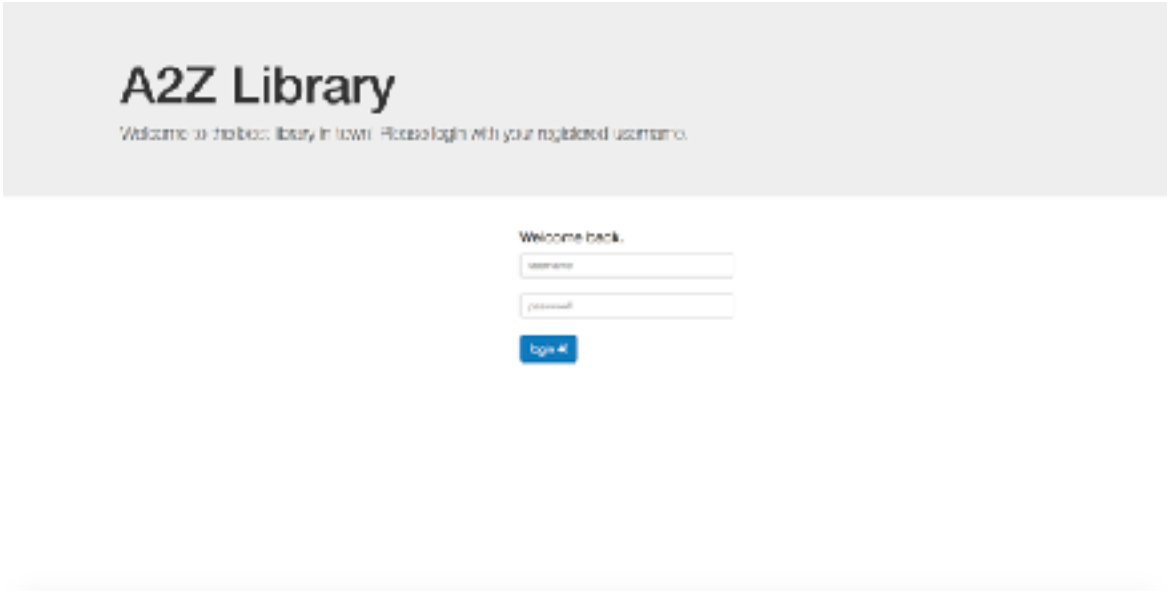
2. Download and install python and set up Flask - https://www.tutorialspoint.com/flask/flask_environment.htm

3. Download and set up Java, Eclipse latest version- Oxygen which has inbuilt maven set up. https://www.youtube.com/watch?v=msXL2oDexqw&list=PLqq-6Pq4lTTbx8p2oCgcAQGQyqN8XeA1x

The client files is in NodeUI which is configured to port - 3002. The API Gateway (Gateway) and One of the micro service (Folder : NodeAPI) is implemented using Node JS. Flask and SpringBoot folders in the repository contain implementation of 2 micro services.

The home page is hit via the Node.js server using url http://localhost:3002/ The login page is loaded.

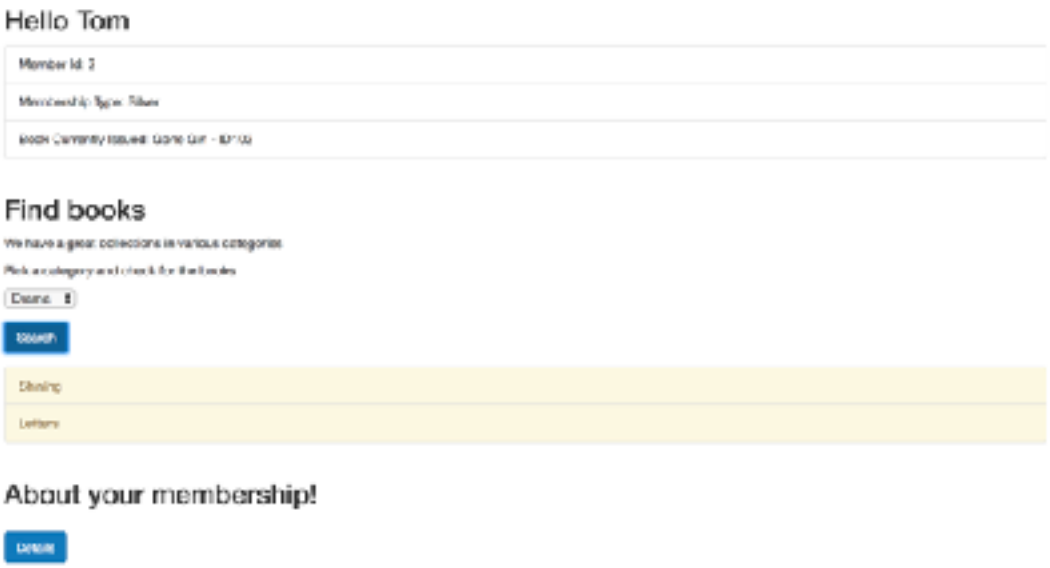
Enter username : Tom , password user123 (case sensitive).



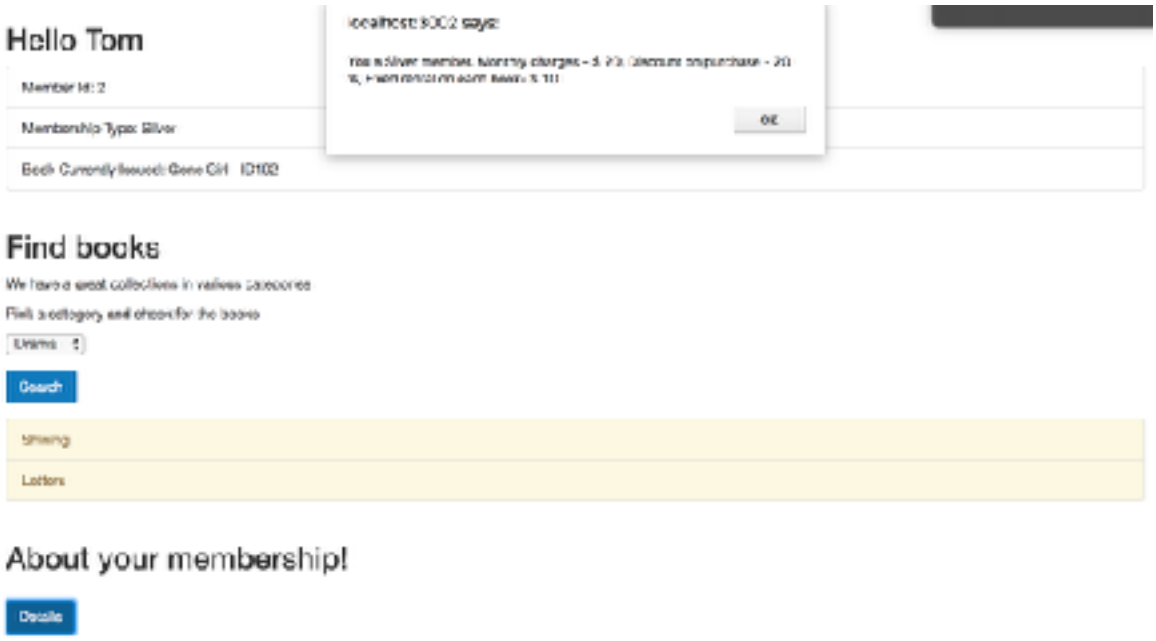
On click of Login, the client hits API Gateway (on port: 3000) and this redirects to micro service on SpringBoot(on port :8080).

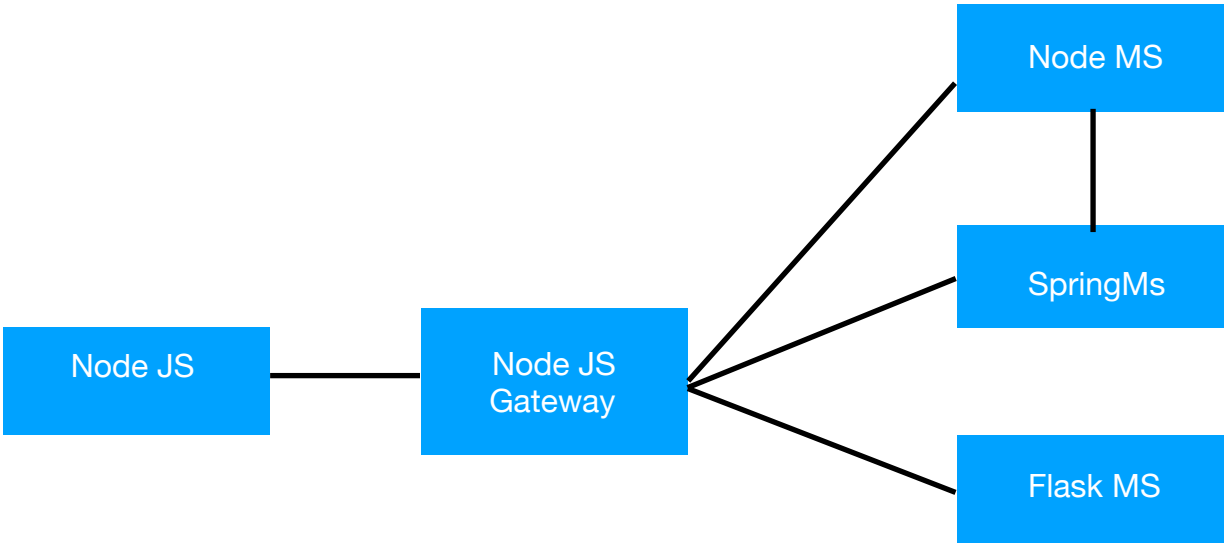
The micro service developed on spring boot verifies the login credentials and also interacts with the micro service developed on Node Js to fetch book name issued by the user using the Member ID as the query parameter.

On the home screen, details of the user are displayed which are fetch from the Spring Boot micro service. The user can find list of books by selecting category . This list is filtered by the Node.js micro service and returned to the API Gateway returns to the client.



The Flask micro services returns the membership details depending on the membership type of the user.

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SpringMs
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Node JS
Gateway
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