

COMPLIANCE REPORT

for

GNOSIS: A LIBRARY INFORMATION SYSTEM

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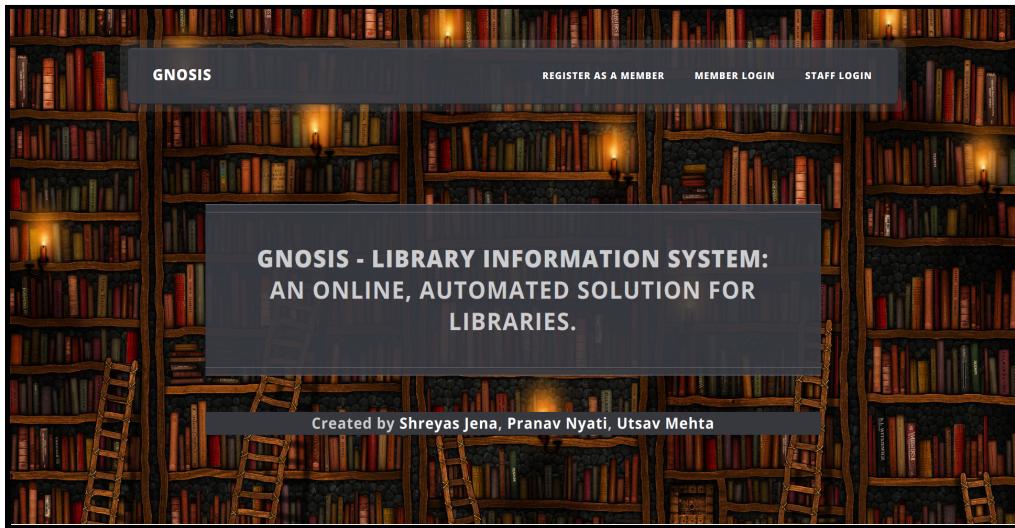
1. Introduction:

This is the Compliance Report document for **GNOSIS: A Library Information System** designed to manage all the functionalities related to a Library such as book issue/return and adding/deleting books. Here, we list down test cases that were mentioned in the test suite along with the obtained PASS/FAIL results that were obtained after testing the software. The exact test case and the golden outputs can be checked under the same corresponding sections in the test suite document. Also, note that for a positive test case, the expected result should be **PASSED**, while for a negative test case, the expected result should be **FAILED**.

2. Compliance Report for the Web-Based GUI Interface:

2.1 HomePage of the WebPortal:

- **Member Registration option (hyperlink)** : working properly
- **Member Login option (hyperlink)** : working properly
- **Staff Login option (hyperlink)** : working properly



2.2 Member Registration:

- **Text fields:** all text fields working properly. Ensures proper type checking of entered details.
(For example, the email field doesn't accept an entry if the email address doesn't have an '@' symbol)
- **Register button:** working properly
- **Scenario:**
 - A new user registers to the portal:
PASS CASE: PASSED
 - If the entered details match to an existing member:
FAIL CASE: shows appropriate error message to user through a prompt

GNOSIS Home Register As Member Member Login

Member Registration

First Name **Last Name**

Email **Student Roll Number / Faculty ID**

Register As

Password **Confirm Password**

Register

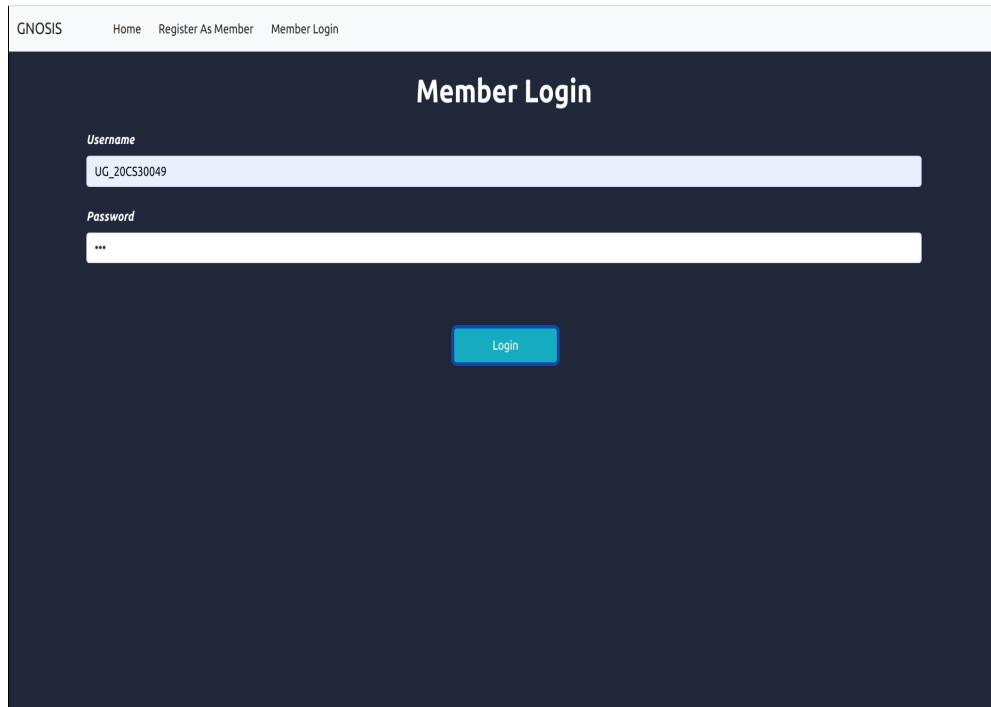
2.3 Member Login and Staff Login:

- All text fields and the ‘Submit’ button are working properly. (Proper type checking of entered details is ensured)
- Shows appropriate warning messages when the user enters invalid credentials:
 - Both Username and Password are correct
PASS CASE: PASSED (user is able to login)
 - Username is correct but Password is incorrect
FAIL CASE: doesn't allow user to login, shows appropriate message prompt
 - Username is incorrect but Password is correct
FAIL CASE: doesn't allow user to login, shows appropriate message prompt
 - Both Username and Password are incorrect
FAIL CASE: doesn't allow user to login, shows appropriate message prompt
 - If a Staff Member tries to login from Member login page

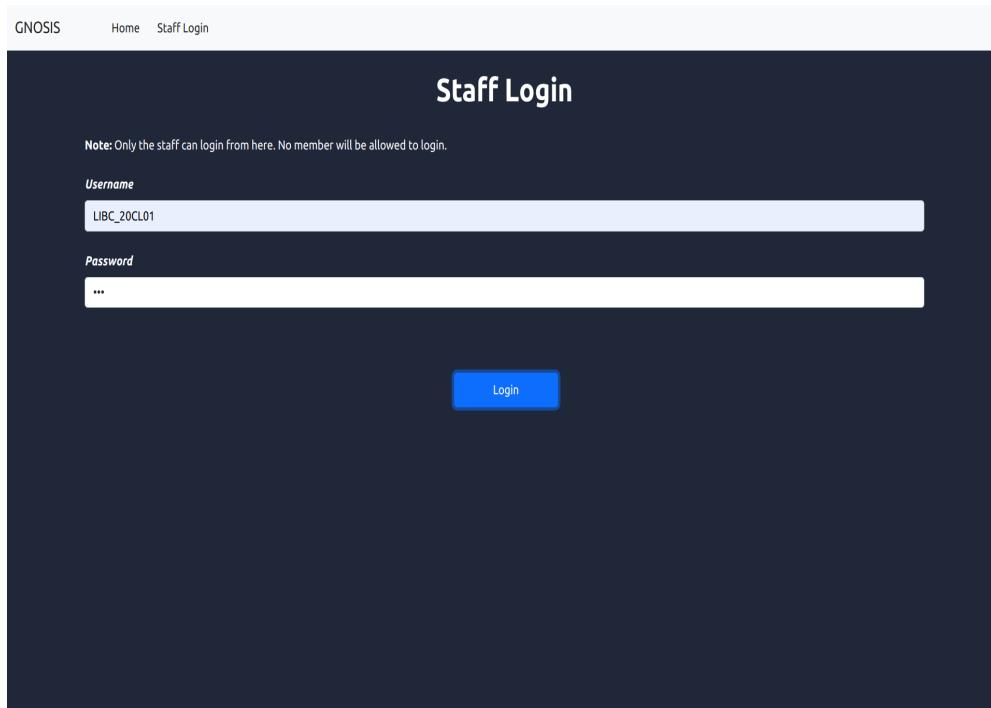
FAIL CASE: (doesn't allow staff member to login, shows appropriate message prompt)

- If a Member tries to login from Staff login page

FAIL CASE: (doesn't allow member to login, shows appropriate message prompt)



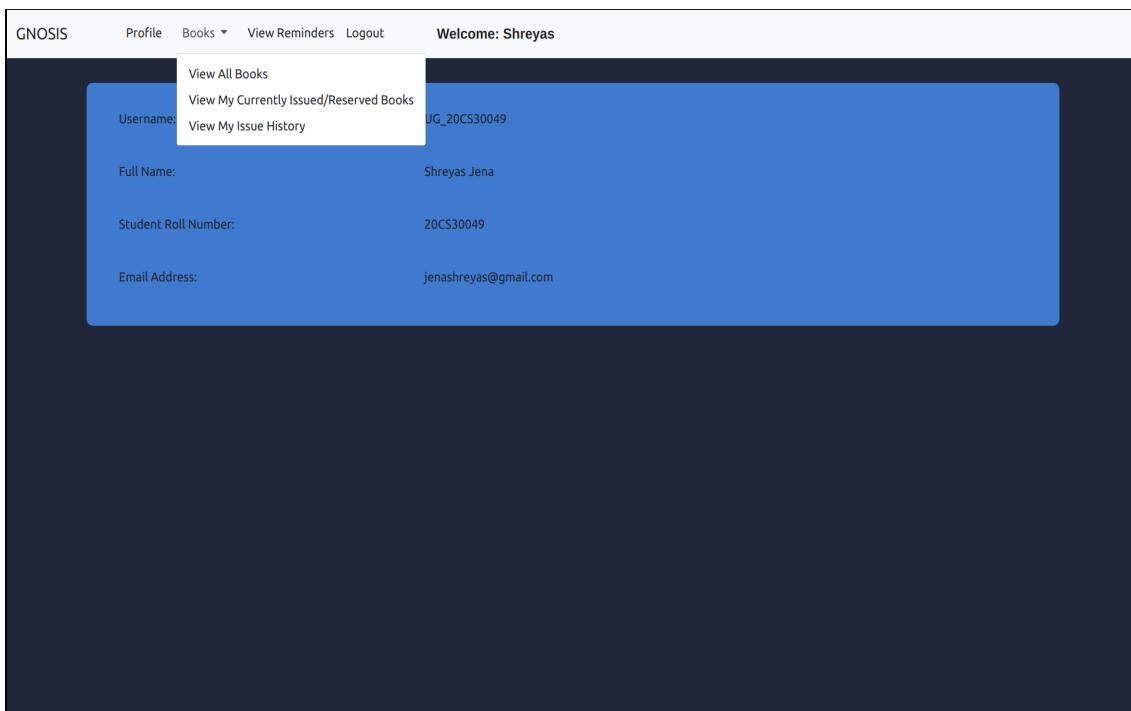
The screenshot shows the 'Member Login' page. At the top, there is a navigation bar with links for 'GNOSIS', 'Home', 'Register As Member', and 'Member Login'. The main area has a dark background with white text. It features two input fields: 'Username' containing 'UG_20CS30049' and 'Password' containing '***'. A blue 'Login' button is centered below the fields.



The screenshot shows the 'Staff Login' page. At the top, there is a navigation bar with links for 'GNOSIS', 'Home', and 'Staff Login'. Below the navigation, a note states: 'Note: Only the staff can login from here. No member will be allowed to login.' The main area has a dark background with white text. It features two input fields: 'Username' containing 'LIBC_20CL01' and 'Password' containing '***'. A blue 'Login' button is centered below the fields.

2.4 Member Profile and related GUI interface:

- **Member Profile:** displays all information correctly
- **Member Navigation Bar:** All hyperlinks working properly, drop down menu of **Books** working properly.



- **View All Books webpage:**

- **Issue** and **Reserve** buttons working properly.
- **Search bar** working properly
- If all books don't fit in a page, members can use **Prev**, **Next** buttons (working properly) to navigate through all books.

- **View Currently Issued/Reserved Books webpage:**
 - **Return** button and **Search Bar** working properly

The screenshot shows a dark-themed web application interface. At the top center, it says "Currently Issued Books". Below that is a search bar labeled "Search: []". Underneath is a table header with columns: Sr.No, ISBN, Title, Author(s), Issue Date, Due Date, and Return. A single row of data is shown: Sr.No 1, ISBN 47685, Title "Automata and Computability", Author(s) "Kozen", Issue Date "March 30, 2022", Due Date "April 30, 2022", and a blue "Return" button. At the bottom left, it says "Showing 1 to 1 of 1 entries". At the bottom right, there are "Previous", a page number "1", and "Next" buttons.

Currently Issued Books

Sr.No	ISBN	Title	Author(s)	Issue Date	Due Date	Return
1.	47685	Automata and Computability	Kozen	March 30, 2022	April 30, 2022	Return

Showing 1 to 1 of 1 entries

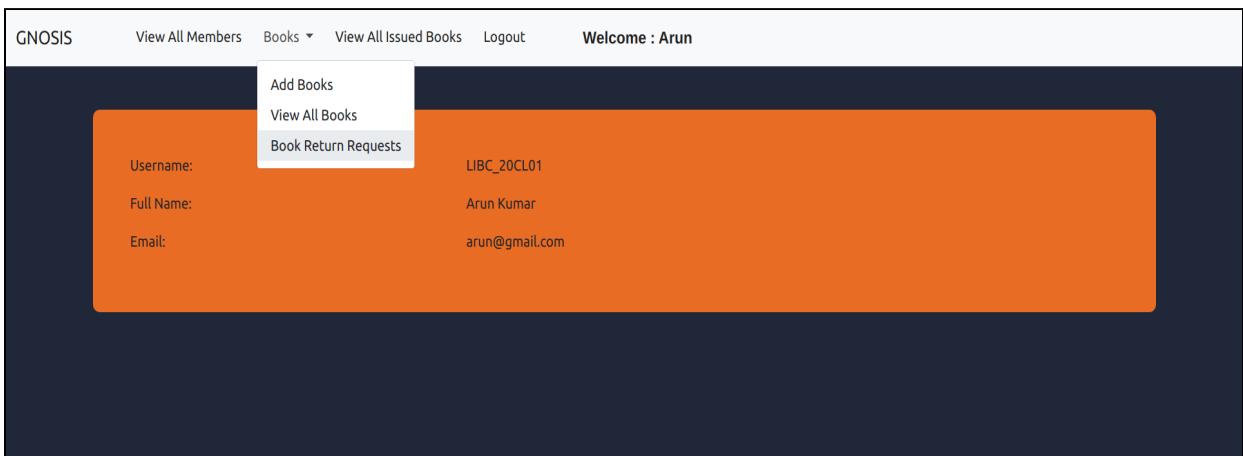
Previous 1 Next

Currently Reserved Books

- **View Book Issue History:**
 - **Search Bar** working properly
 - If all books don't fit in a page, members can use **Prev**, **Next** buttons (working properly) to navigate through all books.
- **View Reminders Webpage:**
 - All reminders displayed correctly. **Search Bar** working properly.
- **Logout (Hyperlink):** working properly

2.5 Staff Profile and related GUI interface:

- **Staff Profile:** displays all information correctly
- **Staff Navigation Bar:** All hyperlinks working properly, drop down menu of **Books** working properly.



- **View All Books webpage:**

- Shows the details of all books correctly
- If all books don't fit in a page, users can use **Prev**, **Next** buttons (working properly) to navigate through all books.
- **For the clerk:** also shows the **Delete button** to allow deletion of book (working properly)

Books								
<input placeholder="Search:" type="text"/>								
Sr. No	ISBN	Title	Author(s)	Rack Number	Issue Date	Issued By	Reserved By	Delete
1	47685	Automata and Computability	Kozen	E-104	None		Reserved by	<button>Delete</button>
2	20824	Introduction to Algorithms	Thomas Cormen	C-492	None		Reserved by	<button>Delete</button>
3	92572	The Alchemist	Paulo Coelho	D-253	None		Reserved by	<button>Delete</button>
4	46508	Sapiens	Yuval Noah Harari	D-987	None		Reserved by	<button>Delete</button>

Showing 1 to 4 of 4 entries

Previous 1 Next

- **View All Issued Books webpage:**

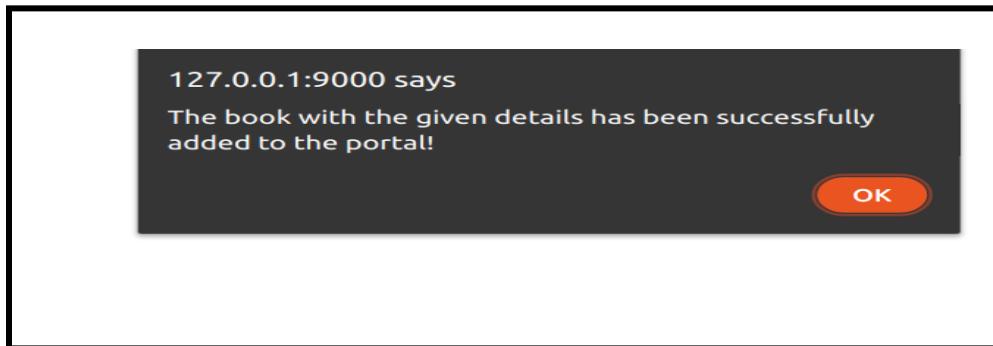
- **Search Bar** working properly
- If all books don't fit in a page, members can use **Prev, Next** buttons (working properly) to navigate through all books.

- **Book Return Requests webpage (Only For the Clerk):**

- **Approve** button working properly
- If all requests don't fit in a page, members can use **Prev, Next** buttons (working properly) to navigate through all the requests.

- **Add Books webpage (Only For the Clerk):**

- **Text fields:** all text fields working properly.
Proper type checking of entered details.
- **Add Book** button working properly



- **View All Members webpage:**

- **Search Bar** working properly
- **For the Librarian:** also shows the **Delete button** to allow deletion of member(working properly)

Members					
Search: <input type="text"/>					
Sr.No	Name	UserName	Email	Currently Issued Books	Currently Reserved Book
1.	Shreyas Jena	UG_20CS30049	jenashreyas@gmail.com		
2.	Pranav Nyati	UG_20CS30037	pranavnyati26@gmail.com		
3.	Utsav Mehta	PG_20CS10069	utsavmehta192002@gmail.com		
4.	Umang Singla	PG_20CS10068	umangsingla@gmail.com		
5.	Dibyo Halder	RS_20CD92R01	dibyo@gmail.com		
6.	Aryan Gupta	RS_20BS93R06	aryan@gmail.com		
7.	Geoff Hinton	FAC_GH5720023	ghinton@gmail.com		
8.	Andrew Ng	FAC_AN6920031	ang@gmail.com		
9.	Pieter Abbeel	FAC_PA7430026	pieter@gmail.com		

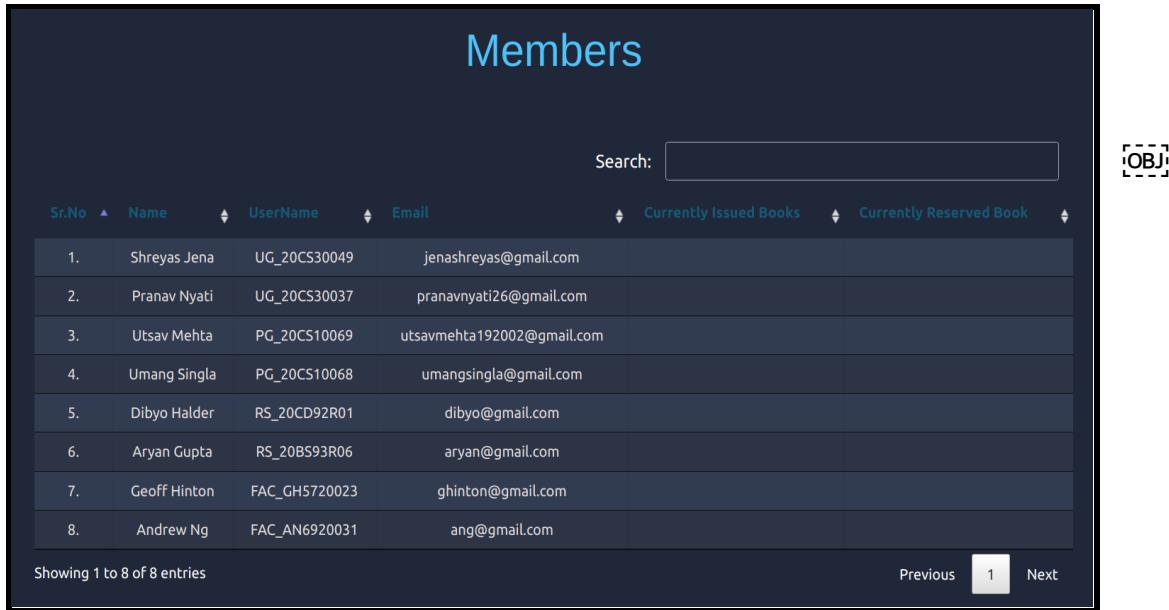
Showing 1 to 9 of 9 entries

Previous 1 Next

Members					
127.0.0.1:9000 says Are you sure you want to delete this member? <input type="button" value="Cancel"/> <input type="button" value="OK"/>					
Sr.No	Name	UserName	Email	Currently Issued Books	Currently Reserved Book
1.	Shreyas Jena	UG_20CS30049	jenashreyas@gmail.com		<input type="button" value="Delete"/>
2.	Pranav Nyati	UG_20CS30037	pranavnyati26@gmail.com		<input type="button" value="Delete"/>
3.	Utsav Mehta	PG_20CS10069	utsavmehta192002@gmail.com		<input type="button" value="Delete"/>
4.	Umang Singla	PG_20CS10068	umangsingla@gmail.com		<input type="button" value="Delete"/>
5.	Dibyo Halder	RS_20CD92R01	dibyo@gmail.com		<input type="button" value="Delete"/>
6.	Aryan Gupta	RS_20BS93R06	aryan@gmail.com		<input type="button" value="Delete"/>
7.	Geoff Hinton	FAC_GH5720023	ghinton@gmail.com		<input type="button" value="Delete"/>
8.	Andrew Ng	FAC_AN6920031	ang@gmail.com		<input type="button" value="Delete"/>
9.	Pieter Abbeel	FAC_PA7430026	pieter@gmail.com		<input type="button" value="Delete"/>

Showing 1 to 9 of 9 entries

Previous 1 Next



Sr.No	Name	UserName	Email	Currently Issued Books	Currently Reserved Book
1.	Shreyas Jena	UG_20CS30049	jenashreyas@gmail.com		
2.	Pranav Nyati	UG_20CS30037	pranavnyati26@gmail.com		
3.	Utsav Mehta	PG_20CS10069	utsavmehta192002@gmail.com		
4.	Umang Singla	PG_20CS10068	umangsingla@gmail.com		
5.	Dibyo Halder	RS_20CD92R01	dibyo@gmail.com		
6.	Aryan Gupta	RS_20BS93R06	aryan@gmail.com		
7.	Geoff Hinton	FAC_GH5720023	ghinton@gmail.com		
8.	Andrew Ng	FAC_AN6920031	ang@gmail.com		

Showing 1 to 8 of 8 entries

Previous 1 Next

- **Add Staff Member webpage (Only for the Librarian):**

- **Text fields:** all text fields working properly.
Proper type checking of entered details.
(For example, the email field doesn't accept an entry if the email address doesn't have an '@' symbol.)
- **Add Staff button:** working properly
- **Scenario:**
 - A new clerk is added to the portal:
PASS CASE: PASSED
 - Trying to register a new staff member (clerk) with a username that is already registered :
FAIL CASE: shows proper error prompt to the user (Exception Handling)

- **Logout (Hyperlink):** working properly

3. Compliance Report for the Backend Classes and DataBase Management:

3.1 Member Creation:

- **Creating a new UG member:**
PASS CASE: **PASSED**
- **Creating a new PG member:**
PASS CASE: **PASSED**
- **Creating a new RS member:**
PASS CASE: **PASSED**
- **Creating a new Faculty member:**
PASS CASE: **PASSED**
- **Trying to register a new member with a username that is already registered :**
FAIL CASE: **shows appropriate error prompt to the user (Exception Handling)**

Note: GUI web-interface for new member registration shown above
Testing of the Backend function for adding a new book:

Test file for testing member creation: “**test_member.py**”
Output on terminal:

```
utsav@utsavm:~/Desktop/LibInfoSis/LIS$ python3 manage.py test tests.test_member
TEST CASE 1: UG
PASS: New member created successfully!
Member details:
Full Name: nikhil gupta
Email: nikhilgupta6@gmail.com
Unique Institute ID:20CS10095
Username: UG_20CS10095
Book Limit: 2 books
Allowed Issue duration: 1 months
TEST CASE 2: UG
PASS: New member created successfully!
Member details:
Full Name: nikhil gupta
Email: nikhilgupta6@gmail.com
Unique Institute ID:20CS10093
Username: UG_20CS10093
Book Limit: 2 books
Allowed Issue duration: 1 months
TEST CASE 3: PG
PASS: New member created successfully!
Member details:
Full Name: Rakesh Dwivedi
Email: rakeshdwivedi@gmail.com
Unique Institute ID:19CS40511
Username: PG_19CS40511
Book Limit: 4 books
Allowed Issue duration: 1 months
TEST CASE 4: PG
PASS: New member created successfully!
Member details:
Full Name: nilesh jain
Email: xyz@gmail.com
Unique Institute ID:20CD83R10
Username: RS_20CD83R10
Book Limit: 6 books
Allowed Issue duration: 3 months
TEST CASE 5: FACULTY
PASS: New member created successfully!
Member details:
Full Name: Donald Knuth
Email: faculty_name@cse.iitkgp.ac.in
Unique Institute ID:DK_CS13937
Username: FAC_DK_CS13937
Book Limit: 10 books
Allowed Issue duration: 6 months
System check identified no issues (0 silenced).

-----
Ran 0 tests in 0.000s

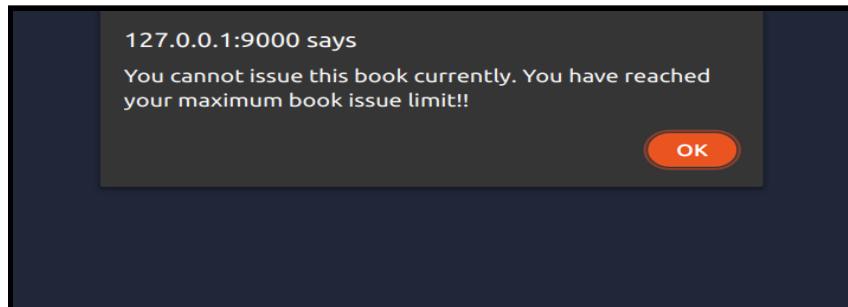
OK
utsav@utsavm:~/Desktop/LibInfoSis/LIS$
```

3.2 Member's Functions:

3.2.1 Book Issue by a Member:

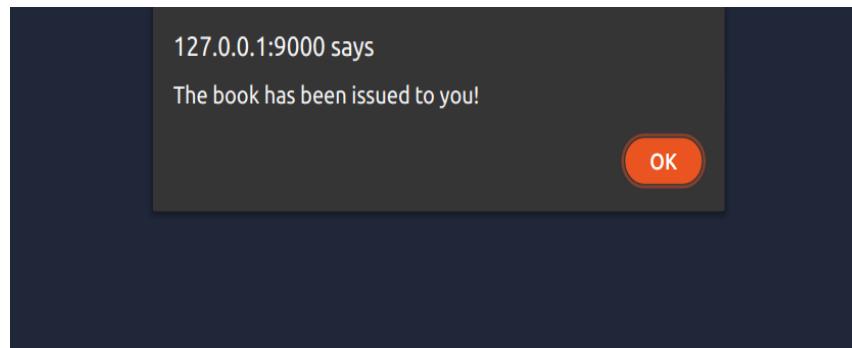
- If the user has reached his maximum issue limit:

FAIL CASE: Issue not allowed



- **If the user has not reached maximum issue limit:**

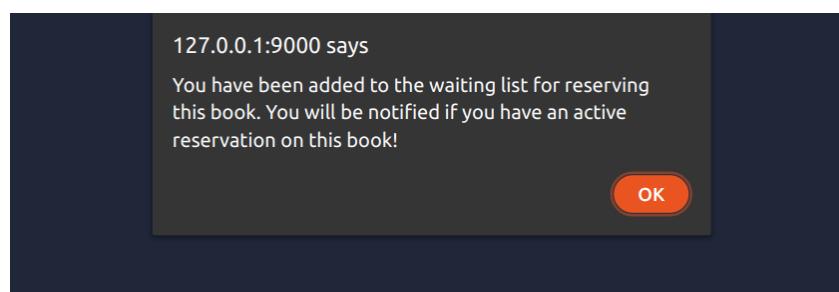
PASS CASE: Book is issued to him



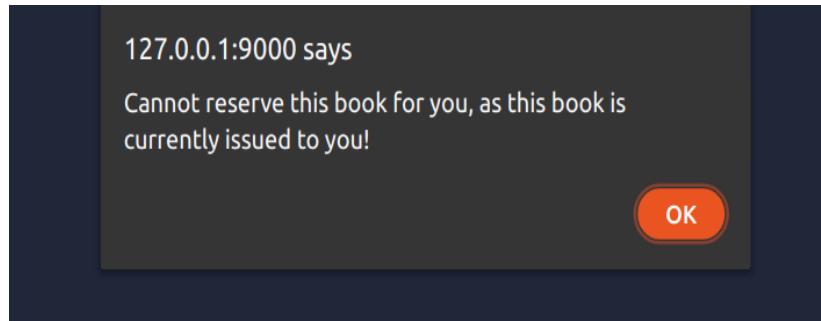
3.2.2 Reservation by a User:

- **If the user hasn't currently issued any other book, he can reserve a book**

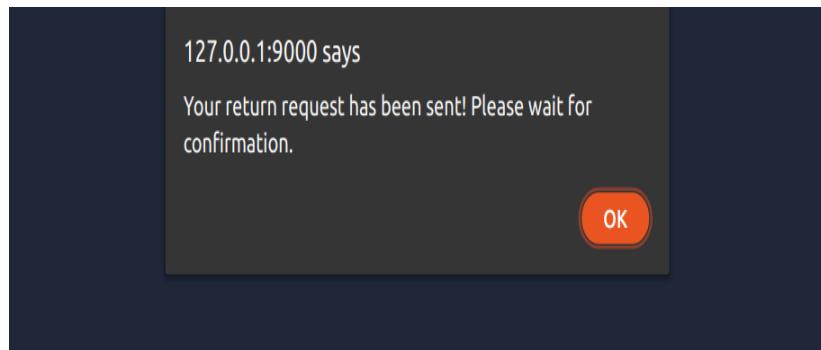
PASS CASE: PASSED



- **If the user himself has currently issued the book which he is trying to reserve:**
FAIL CASE: appropriate message shown to user,
reservation not done



3.2.3 Book Return Request by a User:



3.3 Clerk's Functions:

3.3.1 Adding a new book:

Note: GUI web-interface for adding new book shown above
Testing of the Backend function for adding a new book:

Book Object creation:

Test file : “test_book.py”

Output on terminal:

```
utsav@utsavm:~/Desktop/LibInfoSis/LIS$ python3 manage.py test tests.test_book
Trying Successful Book Creation:
Test Passed
Trying Unsuccessful Book Creation:
[ '"2019-29-3" value has the correct format (YYYY-MM-DD) but it is an invalid date.' ]
System check identified no issues (0 silenced).

-----
Ran 0 tests in 0.000s

OK
utsav@utsavm:~/Desktop/LibInfoSis/LIS$ █
```

3.3.2 Deleting a book:

Testing of the Backend function for deleting a book:

Book Object deletion:

Test file : “test_del_book.py”

Output: [OBJ]

[OBJ]

127.0.0.1:9000 says
Are you sure you want to delete this book?

Cancel OK

DOOKS

Sr. No	ISBN	Title	Author(s)	Rack Number	Issue Date	Issued By	Reserved By	Delete
1	47685	Automata and Computability	Kozen	E-104	None		Reserved by	<button>Delete</button>
2	20824	Introduction to Algorithms	Thomas Cormen	C-492	None		Reserved by	<button>Delete</button>
3	92572	The Alchemist	Paulo Coelho	D-253	None		Reserved by	<button>Delete</button>
4	46508	Sapiens	Yuval Noah Harari	D-987	None		Reserved by	<button>Delete</button>
5	49530	Black Beauty	Anna Sewell	F-935	None		Reserved by	<button>Delete</button>

Showing 1 to 5 of 5 entries

Previous 1 Next

Books

Sr. No	ISBN	Title	Author(s)	Rack Number	Issue Date	Issued By	Reserved By
1	47685	Automata and Computability	Kozen	E-104	None		Reserved by
2	20824	Introduction to Algorithms	Thomas Cormen	C-492	None		Reserved by
3	92572	The Alchemist	Paulo Coelho	D-253	None		Reserved by
4	46508	Sapiens	Yuval Noah Harari	D-987	None		Reserved by

Showing 1 to 4 of 4 entries

Previous 1 Next

3.3.3 Approve Return Requests:

Return Requests						
Sr.No	Book ISBN	Book Title	Issue Date	Member ID	Member Name	Action
1.	47685	Automata and Computability	March 30, 2022	UG_20CS30049	Shreyas Jena	<button>Approve</button>
Showing 1 to 1 of 1 entries						
Previous	1	Next				

3.4 Librarian's Functions:

3.4.1 Deleting a member:

Note: GUI web-interface for book deletion shown above

Testing of the Backend function for deleting a clerk:

Member Object deletion:

Test file : “test_del_member.py”

Output on terminal:

```
utsav@utsavm:~/Desktop/LibInfoSis/LIS$ python3 manage.py test tests.test_del_member
Creating a Member object
PASS: New member created successfully!
Member details:
Full Name: nikhil gupta
Email: nikhilgupta6@gmail.com
Unique Institute ID:20CS10040
Username: UG_20CS10040
Book Limit: 2 books
Allowed Issue duration: 1 months
TEST Deletion
User matching query does not exist.
System check identified no issues (0 silenced).

-----
Ran 0 tests in 0.000s

OK
utsav@utsavm:~/Desktop/LibInfoSis/LIS$
```

3.4.2 Creating a new clerk:

Testing of the Backend function for creating a new clerk:

Test file: “test_staff.py”

Output on terminal:

```
utsav@utsavm:~/Desktop/LibInfoSis/LIS$ python3 manage.py test tests.test_staff
TEST CASE 1:
PASS: New clerk created successfully
Clerk details:
Full Name: staff _1
Email: libc20146@gmail.com
Username: LIBC_20146

TEST CASE 2:
FAIL: New clerk creation failed
UNIQUE constraint failed: auth_user.username
The clerk couldn't be created as there already exists a clerk with the same username.
System check identified no issues (0 silenced).

-----
Ran 0 tests in 0.000s

OK
utsav@utsavm:~/Desktop/LibInfoSis/LIS$
```

3.4.3 Deletion of clerk :

Testing of the Backend function for deleting a new clerk:

Test file: “test_del_staff.py”

Output on terminal:

```
(.venv) nyati_pranav26@PranavNyati:~/Desktop/SE_LAB_Grp_Project/LibInfoSystem/LIS$ python3 manage.py test tests.test_del_staff
TEST CASE 1:
PASS: New clerk created successfully
Clerk details:
Full Name: pawan kumar
Email: libc20PK123@gmail.com
Username: LIBC_20PK123
TEST Deletion
User matching query does not exist.
User deleted successfully
Found 0 test(s).
System check identified no issues (0 silenced).
```

3.5 Book :

3.5.1 Book object creation:

Test file : “test_book.py”

Output on terminal:

```
utsav@utsavm:~/Desktop/LibInfoSis/LIS$ python3 manage.py test tests.test_book
Trying Successful Book Creation:
Test Passed
Trying Unsuccessful Book Creation:
[‘“2019-29-3” value has the correct format (YYYY-MM-DD) but it is an invalid date.’]
System check identified no issues (0 silenced).

-----
Ran 0 tests in 0.000s

OK
utsav@utsavm:~/Desktop/LibInfoSis/LIS$
```