

User Stores

com.comp4004.test.story.TestUserStories

Librarian tries to create user

Scenario 1: Librarian successfully creates a new user if username does not exist

Steps:

1. Clerk inputs user's username and password
2. Terminal successfully creates new user with unique user id

Scenario 2: Librarian fails to create user with an already existing username

Steps:

1. Clerk inputs user's username and password
2. Terminal failed to create new user. No new user is added.

Librarian tries to delete user

Scenario 1: Librarian successfully removes existing user that has no loans and has privilege

Steps:

1. Clerk creates a new user
2. Clerk inputs user's username to remove
3. Terminal confirms that user has no loans
4. Terminal confirms that user has privilege
5. Terminal successfully removes user

Scenario 2: Librarian fails to remove user who has loans

Steps:

1. Clerk creates a new user
2. Clerk creates a new book and a new copy for that book
3. User logs in and borrows the copy of the book
4. Clerk fails to remove the user

Scenario 3: Librarian fails to remove user who has their privileges revoked

Steps:

1. Clerk creates a new user
2. Clerk creates a new book and a new copy of that book
3. User logs in
4. Terminal revokes user's privileges
5. Clerk fails to remove the user

Scenario 4: Librarian fails to remove user that does not exist

Steps:

1. Clerk enters non-existent username
2. Terminal fails to find user to delete
3. Clerk fails to delete user

com.comp4004.test.story.TestBookStories

Librarian tries to add a book

Scenario 1: Librarian successfully adds new book if ISBN does not match an existing book

Steps:

1. Clerk inputs unused ISBN and title
2. Terminal creates a new book

Scenario 2: Librarian fails to add book with existing ISBN

Steps:

1. Clerk inputs a used ISBN and a title
2. Terminal finds book with existing ISBN
3. Terminal fails to add new book

Librarian tries to delete a book

Scenario 1: Librarian successfully removes book that isn't being loaned and isn't being reserved

Steps:

1. Clerk creates a new book
2. Clerk removes new book

Scenario 2: Librarian fails to remove book that does not exist

Steps:

1. Clerk inputs book ISBN that does not exist
2. Terminal fails to find book and therefore does not delete book

Scenario 3: Librarian fails to remove book that is being loaned

Steps:

1. Clerk creates a new book and a new copy of the book
2. User logs in and borrows new book
3. Clerk fails to remove book

Scenario 4: Librarian fails to remove book that is being reserved

Steps:

1. Clerk creates a new book and a new copy of the book
2. User logs in and reserves new book
3. Clerk fails to remove book

com.comp4004.test.story.TestCopyStories

Librarian tries to add a copy

Scenario 1: Librarian successfully adds new copy if existing book has ISBN

Steps:

1. Clerk adds new book with an ISBN
2. Clerk successfully adds a copy to the new book

Scenario 2: Librarian fails to add a new copy if book doesn't exist

Steps:

1. Clerk add copy to unused ISBN
2. Terminal fails to find book
3. Clerk fails to add copy

Librarian tries to delete a copy

Scenario 1: Librarian successfully removes copy that isn't being loaned or reserved

Steps:

1. Clerk adds new book and copy for that book
2. Clerk successfully removes copy from book

Scenario 2: Librarian fails to remove copy that is being loaned

Steps:

1. Clerk add new book and copy for that book
2. User logs in and borrows copy of book
3. Clerk fails to remove copy

Scenario 3: Librarian fails to remove copy that is being reserved

Steps:

1. Clerk add new book and copy for that book
2. User logs in and reserves new copy
3. Clerk fails to remove copy

Scenario 4: Librarian fails to remove copy of book that doesn't exist

Steps:

1. Clerk inputs unused ISBN
2. Terminal fails to find book
3. Clerk fails to remove copy

Scenario 5: Librarian fails to remove copy that doesn't exist

Steps:

1. Clerk inputs existing ISBN and terminal finds book
2. Clerk inputs non-existent copy number of book
3. Terminal fails to find copy
4. Clerk fails to remove copy

[*com.comp4004.test.story.TestBorrowStories*](#)

User tries to borrow a book

Scenario 1: User, with privileges, successfully borrows a book that isn't being loaned and isn't on reserve

Steps:

1. Clerk creates a book with a copy
2. User logs in
3. User successfully borrows book

Scenario 2: User, with privileges, successfully borrows a book that they have reserved

Steps:

1. Clerk creates a book with a copy
2. User logs in and reserves the book
3. User successfully borrows book

Scenario 3: User fails to borrow book that does not exist

Steps:

1. User logs in and tries to borrow book with unused ISBN
2. Terminal fails to find book
3. User fails to borrow book

Scenario 4: User fails to borrow a copy of a book that does not exist

Steps:

1. User logs in and tries to borrow book with a used ISBN
2. Terminal finds book
3. User inputs a copy number that does not exist
4. Terminal fails to find copy of book
5. User fails to borrow book

Scenario 5: User fails to borrow book that is already loaned

Steps:

1. Clerk adds new book
2. User 1 logs in and borrows new book
3. User 2 logs in and tries to borrow new book
4. Terminal prompt that book is already loaned
5. User 2 fails to borrow book

Scenario 6: User fails to borrow book that is being reserved for another user

Steps:

1. Clerk adds new book
2. User 1 logs in and reserves new book
3. User 2 logs in and tries to borrow new book
4. Terminal prompt that book is being reserved
5. User 2 fails to borrow book

Scenario 7: User with no privileges fails to borrow book

Steps:

1. Clerks adds new book
2. User logs in and tries to borrow book
3. Terminal prompts that users privilege is revoked
4. User fails to borrow book

Scenario 8: User with maximum loans fails to borrow new book

Steps:

1. Clerk adds 11 new books
2. User logs in and successfully borrows 10 books
3. User tries to borrow 1 book
4. Terminal prompts that user has reached maximum number of active loans
5. User fails to borrow book

[*com.comp4004.test.story.TestRenewStories*](#)

User tries to renew a book

Scenario 1: User, with privilege, successfully renews a book that is not being reserved

Steps:

1. Clerk adds new book
2. User logs in and borrows new book
3. User successfully renews book

Scenario 2: User fails to renew book that does not exist

Steps:

1. Clerk adds new book
2. User logs in and borrows new book
3. User inputs unused ISBN of book to renew
4. Terminal fails to find book
5. User fails to renew book

Scenario 3: User fails to renew a copy that does not exist

Steps:

1. Clerk adds new book
2. User logs in and borrows new book
3. User inputs a non-existent copy number to renew
4. Terminal fails to find copy
5. User fails to renew book

Scenario 4: User fails to renew book that has not been loaned to the user

Steps:

1. Clerk adds new book
2. User logs in and borrows new book
3. User inputs book that they have not loaned
4. Terminal fails to find loan under user's data
5. User fails to renew book

Scenario 5: User with no privileges fails to renew book

Steps:

1. Clerk adds new book
2. User logs in and borrows new book
3. User tries to renew book
4. Terminal prompts that user has lost their privileges
5. User fails to renew book

Scenario 6: User fails to renew book a third time

Steps:

1. Clerk adds new book
2. User logs in and borrows new book
3. User renews book twice
4. User tries to renew book once more
5. Terminal prompts that the maximum amount of renewals has been reached
6. User fails to renew book

Scenario 7: User fails to renew a book that is being reserved

Steps:

1. Clerk adds new book
2. User 1 logs in and borrows new book
3. User 2 logs in and reserves book
4. User 1 tries to renew book
5. Terminal prompt that book is being reserved
6. User 1 fails to new book

com.comp4004.test.story.TestReturnStories

User tries to return a book

Scenario 1: User successfully returns a book

Steps:

1. Clerk adds new book
2. User logs in and borrows book
3. User successfully returns book

Scenario 2: User successfully returns a book late and fees are applied

Steps:

1. Clerk adds new book
2. User logs in and borrows book
3. User successfully returns book
4. Terminal checks that book is returned late
5. Terminal prompts that fees have been charged to users account

Scenario 3: User successfully returns a book late, fees are applied and privileges are revoked

Steps:

1. Clerk adds new book
2. User logs in and borrows book
3. User successfully returns book
4. Terminal checks that book is returned late and past overdue limit
5. Terminal prompts that fees have been charged to users account and that user has lost their privileges

Scenario 4: User fails to return a book that does not exist

Steps:

1. Clerk adds new book
2. User logs in and borrows book

3. User tries to return a book that does not exist
4. Terminal fails to find book
5. User fails to return book

Scenario 5: User fails to return a copy that does not exist

Steps:

1. Clerk adds new book
2. User logs in and borrows book
3. User tries to return a copy that does not exist
4. Terminal fails to find copy
5. User fails to return book

Scenario 4: User fails to return a book that they have not loaned

Steps:

1. Clerk adds new book
2. User logs in and borrows book
3. User tries to return a book that they didn't borrow
4. Terminal fails to find loan under user's information
5. User fails to return book

[*com.comp4004.test.story.TestFeeStories*](#)

Fees are added for books that are returned late

Scenario 1: User pays fees but not enough to regain their privileges

Steps:

1. Clerk creates a new user and a new book
2. User logs in and borrows a new book
3. User returns book 3 days later than overdue day
4. Terminal applies fee to user and revokes their privileges
5. User pays some of the fees
6. User tries to borrow a book
7. Terminal prompts that user's privileges are revoked

Scenario 2: User pays off fees and their privileges are no longer revoked

Steps:

1. Clerk creates a new user and a new book
2. User logs in and borrows a new book
3. User returns book 3 days later than overdue day
4. Terminal applies fee to user and revokes their privileges
5. User pays off all fees

6. User successfully borrows a book

Scenario 3: Fee fails to be applied because username does not exist

Steps:

1. Terminal tries to apply fee to user
2. Terminal fails to find user
3. Terminal fails to apply fee

com.comp4004.test.story.TestMonitorStories

Librarian should be able to view all books and users at once

Scenario 1: Librarian views all books and all users

Steps:

1. Clerk adds several users
2. Clerk adds several books and copies
3. Clerk successfully monitors the system

Scenario 2: Librarian views all books but there are no users so message is displayed accordingly

Steps:

1. Clerk add several books
2. Clerk successfully monitors all books
3. Terminal displays that there are no users in the system

Scenario 3: Librarians views all users but there are no books so message is displayed accordingly

Steps:

1. Clerk add several users
2. Clerk successfully monitors all users
3. Terminal display that there are no books in the system