

LIBRARY SCHEMA



User Story 01

Feature: As a data consumer, I want the user information are stored in mySql DB correctly in users table.

Background:

Given Establish the database connection

If we can start without given we can delete background

Scenario: verify users has unique IDs

When Execute query to get all IDs from users

Then verify all users has unique ID

Scenario: verify users table columns

When Execute query to get all columns

Then verify the below columns are listed in result

id
full_name
email
password
user_group_id
image
extra_data
status
is_admin
start_date
end_date
address

ONLY DB

users	
id	int(11) unsigned
full_name	varchar(255)
email	varchar(255)
password	varchar(255)
user_group_id	int(11)
image	text
extra_data	text
status	varchar(32)
is_admin	int(1)
start_date	date
end_date	date
address	text

User Story 02

Feature: As a librarian, I want to know borrowed books number

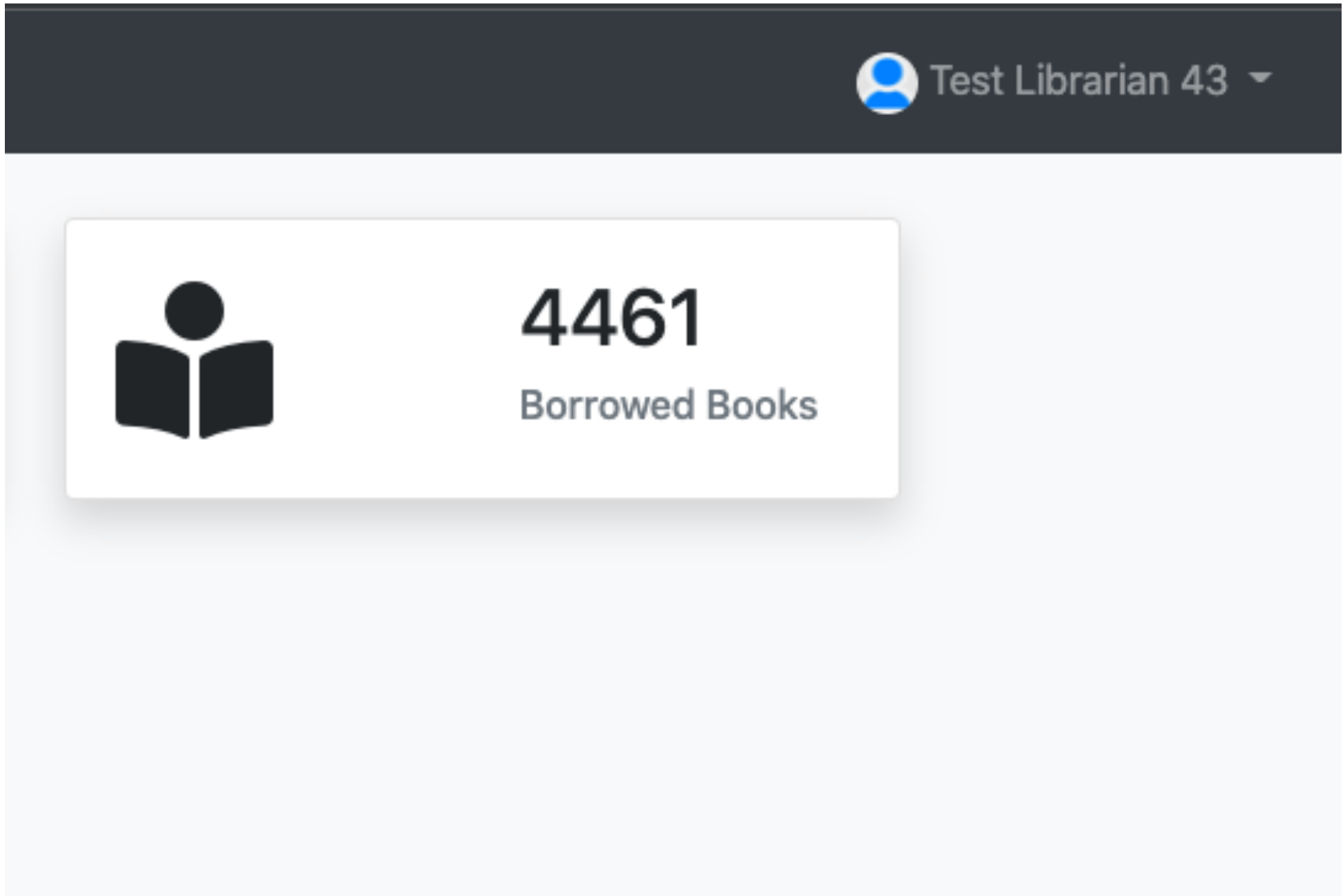
Scenario: verify the total amount of borrowed books

Given I login as a librarian

When I take borrowed books number

Then borrowed books number information must match with DB

UI



DB

1 row	
	borrowedBooks
1	4461

Query : `select count(*) as borrowedBooks from users u
inner join book_borrow b on u.id = b.user_id where is_returned = 0;`

User Story 03

Feature: As a data consumer, I want UI and DB book categories are match.

Scenario: verify book categories with DB

Given I login as a librarian

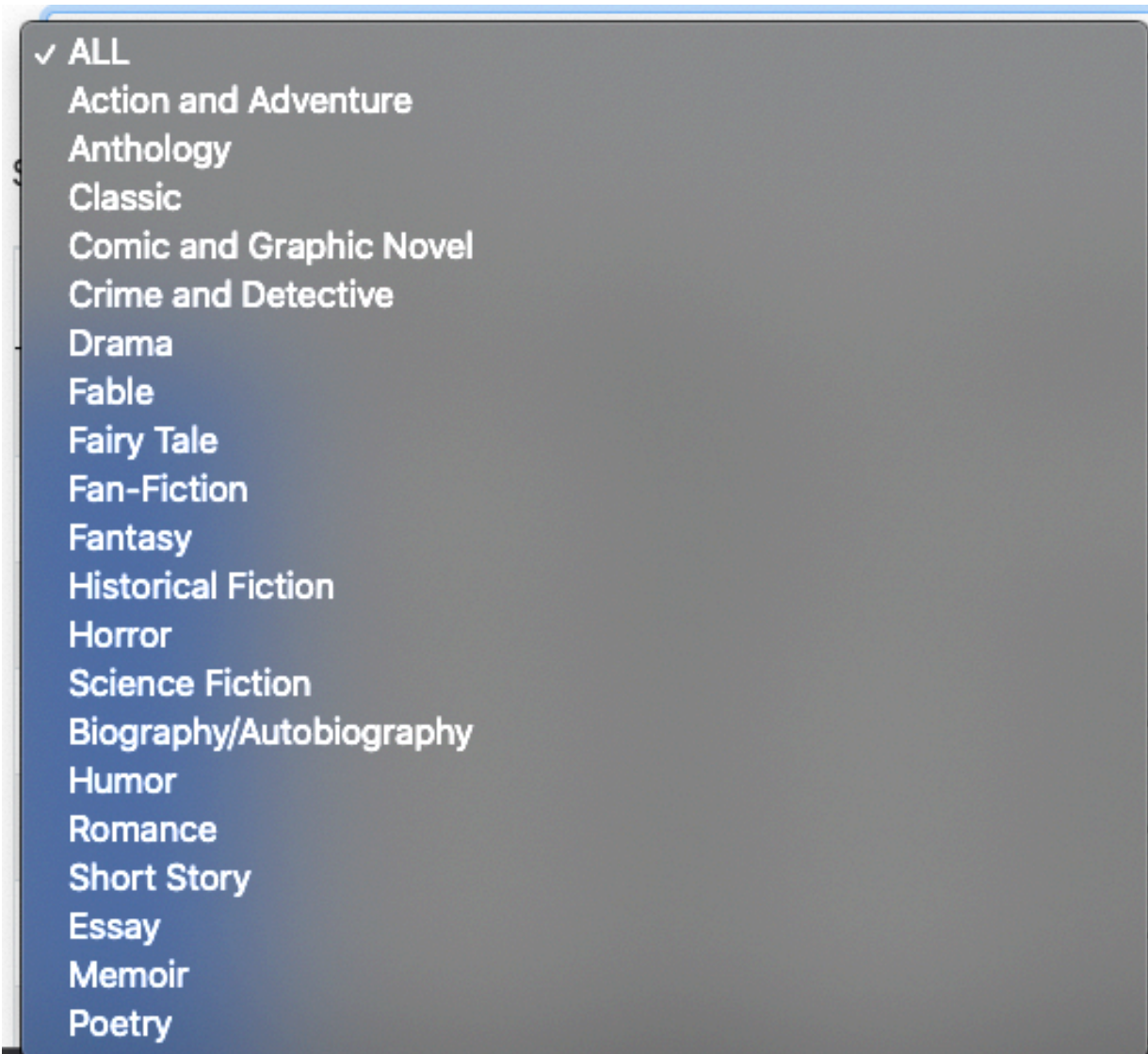
When I navigate to "Books" page

And I take all book categories in UI

And I execute query to get book categories

Then verify book categories must match book_categories table from db

UI



DB

	name
1	Action and Adventure
2	Anthology
3	Classic
4	Comic and Graphic Novel
5	Crime and Detective
6	Drama
7	Fable
8	Fairy Tale
9	Fan-Fiction
10	Fantasy
11	Historical Fiction
12	Horror
13	Science Fiction
14	Biography/Autobiography
15	Humor
16	Romance
17	Short Story
18	Essay
19	Memoir
20	Poetry

Query : `select name from book_categories;`

User Story 04

Feature: As a data consumer, I want UI and DB book information are match.

Scenario: Verify book information with DB
Given I login as a librarian
And I navigate to "Books" page
When I open book "Chordeiles minor"
Then book information must match the Database

UI

Book Categories

ALL

Show 10 records

Search: Chordeiles minor

Actions	ISBN	Name	Author	Category	Year	Borrowed By
<div>Edit Book</div>	387448631259	Chordeiles minor	Waylon Connold	Classic	2005	Test Student 22

Showing 1 to 1 of 1 entries

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DB

	name	author	year
1	Chordeiles minor	Waylon Connold	2005

Query : `select name, author, year from books where name='Chordeiles minor';`

User Story 05

Feature: As a librarian, I want to know genre of books are being borrowed the most

Scenario: verify the the common book genre that's being borrowed

Given Establish the database connection

When I execute query to find most popular book genre

Then verify "Action and Adventure" is the most popular book genre.

Since most popular genre is dynamic this feature needs to be update before release the assignment.

	name	`count(*)`
1	Action and Adventure	1889
2	Fan-Fiction	1137
3	Historical Fiction	835
4	Classic	545
5	Anthology	244
6	Drama	186
7	Fable	142
8	Horror	65
9	Comic and Graphic Novel	63
10	Fantasy	62
11	Science Fiction	56

Query :

```
select bc.name,count(*) from book_borrow bb
      inner join books b on bb.book_id = b.id
      inner join book_categories bc on b.book_category_id=bc.id
group by name
order by 2 desc;
```

User Story 06

Feature: Books module

As a librarian, I should be able to add new book into library

Scenario Outline: Verify added book is matching with DB

Given I login as a librarian

And I navigate to "**Books**" page

When the librarian click to add book

And the librarian enter book name "<Book Name>"

When the librarian enter ISBN "<ISBN>"

And the librarian enter year "<Year>"

When the librarian enter author "<Author>"

And the librarian choose the book category "<Book Category>"

And the librarian click to save changes

Then the librarian verify new book by "<Book Name>"

Then the librarian verify new book from database by "<Book Name>"

Examples:

<i>Book Name</i>	ISBN	Year	Author	Book Category
Clean Code	09112021	2021	Robert C.Martin	Drama
Head First Java	10112021	2021	Kathy Sierra	Action and Adventure
The Scrum Field Guide	11112021	2006	Mitch Lacey	Short Story

Query : `select id,name,author from books
where name = 'Clean Code' and author='Robert C.Martin'
order by id desc;`

User Story 06

STEP 1

Add Book

Book Name

ISBN

Year

Author

Book Category

Description

Clean Code

09112021

2021

Robert C.Martin

Drama

Close

Save changes

STEP 2

Test Librarian 43

The book has been created.

STEP 3

Book Categories

ALL

Show 10 records

Search: Clean Code

Actions	ISBN	Name	Author	Category	Year	Borrowed By
Edit Book	09112021	Clean Code	Robert C.Martin	Drama	2021	

Showing 1 to 1 of 1 entries

STEP 4 Database

1 row

	id	name	author
1	7661	Clean Code	Robert C.Martin

User Story 07

Feature: Books module

As a students, I should be able to borrow book

Scenario Outline: Student borrow new book

Given I login as a student

And I navigate to "**Books**" page

And I search book name called "**Head First Java**"

When I click Borrow Book

Then verify that book is shown in "**Borrowing Books**" page

And verify logged student has same book in database

Query :

```
select full_name,b.name,bb.borrowed_date from users u
inner join book_borrow bb on u.id = bb.user_id
inner join books b on bb.book_id = b.id
where full_name='Test Student 38'
order by 3 desc;
```

User Story 07

STEP 1

Book Categories

ALL

Show 10 records

Search: Head First Java

Actions	ISBN	Name	Author	Category	Year	Borrowed By
Borrow Book	10112021	Head First Java	Kathy Sierra	Action and Adventure	2021	

Showing 1 to 1 of 1 entries

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STEP 2

Test Student 38

The book has been borrowed...

STEP 3

Return Book	Clean Code	2021-11-09 22:49:42	2021-11-23 22:49:42	2021-11-09 23:00:26	RETURNED
Return Book	Head First Java	2021-11-09 23:02:47	2021-11-23 23:02:47	null	NOT RETURNED

STEP 4 Database

	full_name	name	
1	Test Student 38	Head First Java	2021-11-09 23:00:26
2	Test Student 38	Clean Code	2021-11-09 23:02:47
3	Test Student 38	kartalimin Sampiyonluk hikayesi	2021-11-09 23:00:26
4	Test Student 38	love	2021-11-09 23:02:47
5	Test Student 38	Edit Book	2021-11-09 23:00:26
6	Test Student 38	Edit Book	2021-11-09 23:02:47
7	Test Student 38	Edit Book	2021-11-09 23:00:26

User Story 08

Feature: Books module

As a data consumer, I should be able to see borrowed book number are matching with DB

Scenario Outline: Verify borrowed book numbers are matching with DB

Given I login as a student

And I navigate to "**Books**" page

And I search book name called "**Head First Java**"

When I click Borrow Book

Then verify that book is shown in "**Borrowing Books**"

And verify logged student has same book in database

Query :

```
select full_name,b.name,bb.borrowed_date from users u
inner join book_borrow bb on u.id = bb.user_id
inner join books b on bb.book_id = b.id
where full_name='Test Student 38'
order by 3 desc;
```

User Story 08

STEP 1

Book Categories

ALL

Show 10 records

Search: Head First Java

Actions	ISBN	Name	Author	Category	Year	Borrowed By
Borrow Book	10112021	Head First Java	Kathy Sierra	Action and Adventure	2021	

Showing 1 to 1 of 1 entries

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STEP 2

Test Student 38

The book has been borrowed...

STEP 3

Return Book	Clean Code	2021-11-09 22:49:42	2021-11-23 22:49:42	2021-11-09 23:00:26	RETURNED
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STEP 4 Database

	full_name	name	
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2	Test Student 38	Clean Code	2021-11-09 23:02:47
3	Test Student 38	kartalimin Sampiyonluk hikayesi	2021-11-09 23:00:26
4	Test Student 38	love	2021-11-09 23:02:47
5	Test Student 38	Edit Book	2021-11-09 23:00:26
6	Test Student 38	Edit Book	2021-11-09 23:02:47
7	Test Student 38	Edit Book	2021-11-09 23:00:26