

Team 5 - Sprint 2 review report

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What has been done in this Sprint:

- Product Backlog tasks renamed according to teacher's comments
- Entity Relation diagram
- Use Case diagram
- Activity Diagram
- MariaDb docker image
- Implemented CRUD functionalities for signUp, login, authentication, book search, book reservation and notification.
- User interface components made for login & signup pages using JavaFX (SceneBuilder)
- User authentication implemented (password and JWT token)
- Project connected to database (MariaDB)
- Unit tests (Mockito & Test Containers)
- Coverage test

Diagrams can be found in the presentation slides:

https://docs.google.com/presentation/d/1_HW6M7aj72Mpyno_kwDf-4hRLyY31ogkDvQ452mHWtQ/edit#slide=id.gc6fa3c898_0_0

Highlights:

- 92% coverage ([jacoco](#) report)
- MVC structure
- JavaFx for frontend
- JUnit test
- Mockito, a Java-based mocking framework, was used for testing.
- Testcontainers for managing and running Docker containers were part of the integration tests.

User stories that were covered in Sprint 2:

Total 20

1. As a student, I want to search for books by title, author, or subject so that I can find the book I need quickly.
2. As a student, I want to search for books by authors so that I can find all books written by a specific author.
3. As a student, I want to search for books by category so that I can find books related to a particular topic.

4. As a student, I want to search for books by language so that I can easily find the book I'm looking for based on its language.
5. As a student, I want to see a list of books that match my search criteria so that I can easily choose which book to check out.
6. As a student, I want to be informed if no books match my search query so that I can try a different search term.
7. As a student, I want to filter search results by categories like availability or publication year so that I can narrow down my search.
8. As a user, I want to access a login page where I can enter my credentials so that I can securely log into my account.
9. As a user, I want to stay logged in during my session so that I don't have to log in repeatedly.
10. As a user, I want my login credentials to be checked so that I can access my account securely.
11. As a user, I want my password to be stored securely so that my account stays safe.

Went beyond the planned user stories in Sprint Backlog:

12. As a registered user, I want to reserve a book by providing my user ID and the book ID, So that I can secure the book for borrowing before visiting the library.

The necessary functions to support this story were added in the backend.

13. As a user, I want to receive a notification when I successfully reserve a book, So that I am informed about my reservation status and details.

The necessary functions to support this story like notification entity and service were added in the backend.

14. As a user, I want to extend my book reservation if I need more time, So that I can keep the book for a longer period without losing my reservation.

The necessary functions to support this story like reservation table and its association with notification were added in the backend.

15. As a registered user, I want to securely log in to the library system using authentication tokens, So that I can access my account and perform actions without repeatedly entering my credentials.

JWT authentication token was added in the structure.

16. As a registered user, I want to update my personal information (e.g., name, email, password, and profile details), So that my account remains up to date and accurate.

Necessary functions were added to userDao to meet this requirement.

17. As a registered user, I want to view the total number of books I have currently reserved, So that I can keep track of my active reservations and manage them accordingly.

Backend functionality for the required user story was added.

18. As a user, I want to search for books that include multiple authors, So that I can find books written by collaborative authors or by more than one contributor.

Necessary "AuthorWrite" table was included to cater this user story.

19. As a user, I want to see all my bookings, So that I can view and manage my past and current reservations.

Necessary functionality was added.

20. As a user, I want to search multiple books that belong to the same author, So that I can view all works by a specific author.

Necessary "AuthorWrite" table was included to cater this user story.

User stories postponed for Sprint 3:

Total 2

- As a user, I want to reset my password if I forget it so that I can regain access to my account.
- As a registered user, I want to reserve a book by providing my user ID and the book ID, So that I can secure the book for borrowing before visiting the library. (UI)

Links:

Trello Board:

<https://trello.com/invite/6788cc212a6f1987f1962a73/ATTId1715e59aeaeac17d0697b89f38cfe6112A119F2>

Project Plan:

<https://docs.google.com/document/d/1cBcAMCsVLn4YdTJM0GVeyacR28mT-nDtQAtnz6zaK-U/edit?tab=t.0#heading=h.i5rl37uape1q>

Product Vision:

https://docs.google.com/document/d/1Qx3SjP0i-4q8esQl8oSoVJ3i1KyWueDi_WeF6HdgCjw/edit?tab=t.0

Figma UI Blueprint/Prototype: <https://www.figma.com/design/X7R1B4GjCMiose5WzugAeH/Luku-Library?node-id=0-1&t=9U1t0CaPzW5wkWEX-1>

Project repository:

<https://github.com/S-Vilka/Luku>

Time tracking:

<https://docs.google.com/spreadsheets/d/1eZd5gefDUNXUTLmKXAKxe8vcABDskQgsFFfQB-iQHcw/edit?usp=sharing>