Heuristic Evaluation Report

Project: Luku (JavaFX library book reservation system)
Evaluator: Group 5 (Mahnoor Fatima, Sergei Vilka, Trung Vu)
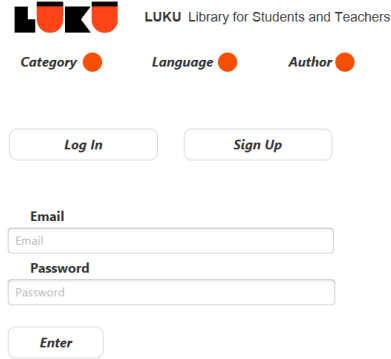Date: 27.04.2025

Severity ratings:
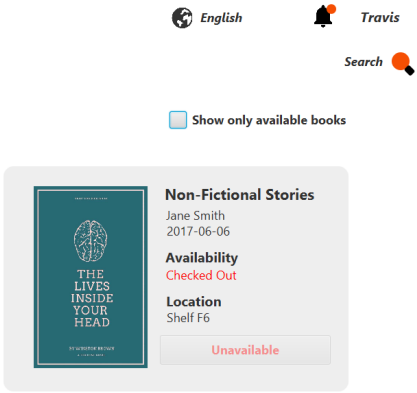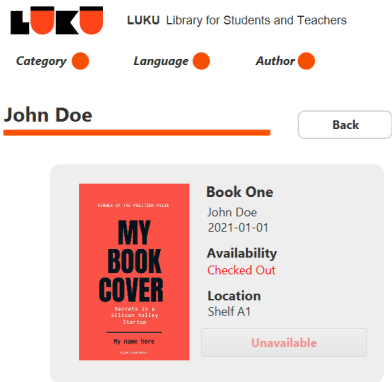0 - not a problem
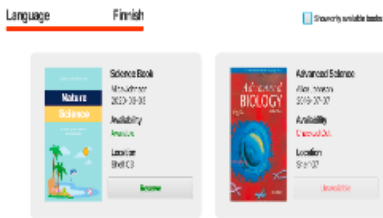1 - cosmetic problem
2 - minor usability problem
3 - major usability problem
4- usability catastrophe

No	Heuristic	Description of the Issue	Screenshot (if applicable)	Severity (0-4)	Suggested Improvement
1	H1-1: Simple & natural dialog	The interface includes terms that are friendly for novice users		0 (Not a usability problem)	No suggestions needed.
2	H1-2: Speak the users' language	Notifications use US date format, which can be confusing for users in Europe. Time is just marked with T, which can also be confusing.	See Attachment 1	2 (Minor Usability Problem)	Implement European date format. Change T for Time.
		The application uses localization to make user feel at home.		0 (Not a usability problem)	No suggestions needed.

No	Heuristic	Description of the Issue	Screenshot (if applicable)	Severity (0-4)	Suggested Improvement
3	H1-3: Minimize users' memory load	Users must remember their login credentials and manually re-enter them each time they log in.		2 (Minor usability problem)	Implement a "Remember Me" feature or integrate single sign-on (SSO) functionality.
		After session timeout, users are left hanging — no visual indication, no message, no redirect. This forces them to figure out what's happening, increasing cognitive load.		3 (Major usability problem)	Show auto-logout countdown or alert: "You've been logged out due to inactivity." Include options to "Login Again" or "Stay Logged In."
		The user previous reservations that were returned, should also be visible in the "my booking" section.		2 (Minor usability problem)	The user should not remember all the previous bookings made.
4	H1-4: Consistency	Button styles and labels are consistent across different pages		0 (Not a usability problem)	No suggestions needed
		The application employs same primary, secondary and tertiary buttons and label styles to hold consistency.		0 (Not a usability problem)	No suggestions needed.

No	Heuristic	Description of the Issue	Screenshot (if applicable)	Severity (0-4)	Suggested Improvement
5	H1-5: Feedback	Actions like reserving a book or extending a reservation do provide feedback to the user, based on notifications, but quite mild to capture user's attention		2 (Minor usability problem)	Add confirmation messages or visual indicators (e.g., a success toast or modal) after user actions.
		All feedback is provided by visual effect and not audio effect.		2 (Minor usability problem)	Add sound effects so application usability can be increased
		When the session expires, users receive no feedback and remain on a stale page.		4 (Usability catastrophe)	Provide a popup: "You've been logged out due to inactivity." Include button: "Login again."
6	H1-6: Clearly marked exits	The application has a "Back" button for Author page to go back to the authors but lacks a clear "Cancel" button for users who accidentally click "Reserve" to reserve a book.		3 (Major usability problem)	Add clearly marked "Cancel" or "Back" buttons to all pages that need this function to allow users to exit or undo actions easily.

No	Heuristic	Description of the Issue	Screenshot (if applicable)	Severity (0-4)	Suggested Improvement
		After applying search filters and navigating to a book's details, there's no clear way to return to the previous results. Users are forced to reselect the category or start over from the main page, making navigation tedious and repetitive.		2 (Minor usability problem)	Add a "back" button like in author's book search
7	H1-7: Shortcuts	There are no keyboard shortcuts or quick navigation options for power users.		2 (Minor usability problem)	Introduce keyboard shortcuts for common actions like reserving a book or navigating between pages.
8	H1-8: Precise & constructive error messages	When user is inactive and automatically logged out. The error message "Invalid Token" is vague and does not provide actionable steps for the user.		3 (Major usability problem)	Provide detailed error messages, such as "Your session has expired. Please log in again."
9	H1-9: Prevent errors	Users who try to reserve the same book at the same time might experience error, which leads to double-booking		4 (Usability catastrophe)	Lock the book ID so that only one user can modify the book availability status, hence no double booking
		The "cancel" functionality should be there for users who clicks "reserve button" accidently.		2 (Minor usability problem)	Add a prompt window something like "Are you sure you want to reserve this book"?
		The "cancel" functionality should be there for users who clicks "return button" accidently.		2 (Minor usability problem)	Add a prompt window something like "Are you sure you want to return this book"?

No	Heuristic	Description of the Issue	Screenshot (if applicable)	Severity (0-4)	Suggested Improvement
		No confirmation when extending the borrowed book; accidental extensions possible.		2 (Minor usability problem)	Add a confirmation when extending the borrowed book.
10	H1-10: Help and documentation	The application lacks a help section or tooltips to guide users on how to perform actions like reserving a book.		3 (Major usability problem)	Add a help section or tooltips for key features to assist users in understanding the application.

Attachement 1:

2025-04-24T17:38:27

Dear Alex, you have borrowed the book 'History Book'. Please return it by 2025-05-08T17:38:27.