Water

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Please complete the following tables indicating which of the mandatory requirements you have completed. In cases where there is an issue or you interpreted the requirement in a specific way, please use the comment field to clarify the issue / your interpretation. In the status column indicate whether each requirement was: COMPLETED (you did it), NOT STARTED (you didn't do it), PARTIAL (you did part of it).

Member Login	Members can login using the top right dropdown menus of the header.	COMPLETED
View List of Loans	Members can use the dashboard (see header for button) to see their current list of loans.	COMPLETED
Renew Loans	Members can renew their loans from the dashboard.	COMPLETED
Reserve Available Artifacts	Members can reserve artifacts from the search, view artifact, and historical loans page. The system will check if the artifact is available before reserving. A status message will tell the user if the artifact is reserved successfully.	COMPLETED
Reserve On Loan Artifacts	If members could not reserve a desired artifact successfully in M3, they are added to a reservation queue for said artifact.	COMPLETED
View Loan History	Members can view their loan history from their dashboard, or in the historical loans page (accessible from header dropdown menu or dashboard).	COMPLETED
Search for Artifacts	Members can search for artifacts using the search bar in the header, they will see search recommendations as they type. Members can view search results in a search page and navigate to view individual artifacts from there.	COMPLETED
Update Profile	Members can view and update their profile from the header dropdown menu.	COMPLETED

Librarian Login	Librarians can login the same way as members, using the header drop down menu. The is of librarians Librarians and members are differentiated as account types "librarian" and "member".	COMPLETED
Add / Remove Artifacts	Librarians can add or remove artifacts using the admin/artifact/view page, accessible from the header. To remove, click the trash can on the admin/artifact/view page. To add, we implemented admin/artifact/create, which gets artifact information using Google's Book API.	COMPLETED
Search for Members	Librarians can search for and view all members using the members page, accessible from the header.	COMPLETED
View Members Current Loans	Librarians can view member current loans from the "View Loans" button on the admin/members/view page. This points to a search query that shows all loans a specific member has, sorted by status, then by issued date. Their current loans are the first four results, as members can only have four active loans at a time.	COMPLETED
View Members Past Loans	Librarians can view member current loans from the "View Loans" button on the admin/members/view page. This points to a search query that shows all loans a specific member has, sorted by status, then by issued date. Their past loans are after the current loans.	COMPLETED
Renew Loans	Librarians can renew existing loans from the admin/loans/view page, or update existing loans using the admin/loans/edit page.	COMPLETED
Reserve Artifacts	Librarians can reserve artifacts using the admin/reserves/view page, or create new reservations using the admin/reserves/create page.	COMPLETED
Record Loaned Artifacts	Librarians can record loaned artifacts using the admin/loans/create page, which on type searches the database for existing artifacts and members, then auto fills the necessary information to record a loan.	COMPLETED
Record Returned Artifacts	Librarians can record returned artifacts using the admins/loans/view page.	COMPLETED
Search for Artifacts	Librarians can search for and view all artifacts using the admin/artifacts/view page and can filter results by artifact type.	COMPLETED
Edit Member Profiles	Librarians can edit members profiles from the admin/member/view page. Librarians edit individual member profiles by navigating to admin/member/edit?id= page, where id stands for member id.	COMPLETED

Search for Artifacts	All users (members, public and admin) may search for artifacts using the search bar on the header and the search page. All users can view search results and individual artifact pages.	COMPLETED
Join Library	Users may join the library by registering for an account using the header dropdown menu. To join, users need to input full names, email addresses, and password. Passwords are hashed in the database.	COMPLETED

Describe any additional requirements you have completed above and beyond the spec of the project. Use as much space as you require to do this.

for testing purposes

- Librarian account with sample data: "hong.sng@ucdconnect.ie", "root"
- Librarian account: "a@a.com", "1234"
- Member account: "u@u.com", "1234"

The   shows latest and popular artifacts to entice non-members to browse them and join the library.

The   reports statistics on total fines and the number of artifacts, total, loaned, returned, and lost, over a period of day, month, and year.

(recommendations shown on type) and autofill relevant information is available for

- Members/non-members searching for artifacts
- Librarians recording existing artifacts as loaned/lost/reserved. The system will search for and recommend existing artifacts and members on type, and autofill into relevant form fields when selected.
- Librarians adding new artifacts. The system will search for and recommend artifacts using Google's Book API and autofill into relevant form fields when selected.

are queried from Google's Book API and show up when

- Member browses or views individual artifacts, search results, featured artifacts on homepage, and their current and historical loans.
- Librarian views, or edits individual artifacts, loans, losts, and reservations.

The queried images' URL is stored in the database. If the system is not connected to the internet or if no image exists in the API, users will see a placeholder artifact image.

to notify is action is carried out successfully

- A modal toast shows up for 10seconds when a member attempts to reserve/renew/remove an artifact.
- A status message shows up when a librarian attempts to create/edit/delete artifacts/reservations/losts/loans/members.

status – the system keeps track of a member's last active time for librarians and said member.

for certain tasks

Librarians can renew artifacts whenever; members can only renew artifacts 24hrs before the deadline.

Librarians can access both librarian site (admin dashboard and tasks like renewing and adding artifacts) and member site (member dashboard and browsing the system as a member). This is accessed from the header dropdown menu.

Summarise these requirements using the requirements table below.

Homepage	Shows latest and popular artifacts to entice users into joining the library.	COMPLETED
Librarian dashboard	Shows the total number of artifacts, lost, loaned, reserved, returned over a period of day, week, month.	COMPLETED
Instant Search	Recommends existing artifacts in the system as users search the system. Recommends existing artifacts and members as librarians create and update artifacts, loans, losts, reservations. Recommends non-existing artifacts using Google's Book API as librarians add artifacts to the system.	COMPLETED
Artifact Images	Queries and shows artifact images from Google's Book API as users browse and searches the system and as librarians create/edit artifacts, loans, losts, reservations.	COMPLETED
Custom Notifications	Notifies users and librarians if their action is carried out successfully.	COMPLETED
Member's last active status	Records when the user was last active, visible to user and librarians.	COMPLETED
Librarians' authority	Librarians can renew reservations and loans whenever they want; users can only do so 24hrs before the deadline. Librarians can access both librarian and member sites.	COMPLETED

Please summarise your experiences on the project: what did you learn; what challenges did you have to overcome; what would you have done differently if you could have started over.

I learned how to use custom JPA queries, using RedirectAttributes to add data to the model when redirecting URLs, using conditionals and objects in Thymeleaf, using Bcrypt to hash passwords, mapping entities together and entity id types.

The challenges I overcame were passing data between the models, writing custom JPA queries, passing data from artifact card HTML to modal, passing data from modal to the controller.

If I started over, I would research more into what Spring features are provided that may improve the speed and process of development.

Responsibilities & What I learned	Challenges	Things that can be done differently
Initial drafting and final cleaning up of wireframes, features, user stories, and reports.	Having to balance time between	