

USE CASES

ID and name	UC-1: Reader Authentication		
Primary actor	Reader	Secondary actors	-
Description	A reader authenticates into the system.		
Trigger	A reader wants to authenticate.		
Preconditions	PRE-1: The reader is registered in the system.		
Postconditions	None		
Normal flow	1.0 Successful Authentication <ol style="list-style-type: none"> 1. The reader opens the application. 2. The system displays a form with 2 fields: one for username and the other for the account password. 3. The reader enters their login credentials. 4. The system recognizes the entered data, and the reader is successfully authenticated. 		
Alternative flows	None		
Exceptions	E1. The reader enters incorrect login details.		

ID and name	UC-2: Librarian Authentication		
Primary actor	Librarian	Secondary actors	-
Description	A librarian authenticates into the system.		
Trigger	A librarian wants to authenticate.		
Preconditions	PRE-1: The librarian is registered in the system.		
Postconditions	None		
Normal flow	1.0 Successful Authentication <ol style="list-style-type: none"> 1. The librarian opens the application. 2. The system displays a form with 2 fields: one for username and the other for the account password. 3. The librarian enters their login credentials. 4. The system recognizes the entered data, and the librarian is successfully authenticated. 		
Alternative flows	None		
Exceptions	E1. The librarian enters incorrect login details.		

ID and name	UC-3: Book Rental		
Primary actor	Reader	Secondary actors	-
Description	A reader wants to borrow some books from the library.		
Trigger	A reader wants to borrow books.		
Preconditions	PRE-1: The reader is registered in the system.		
Postconditions	POST-1: The rental is stored in the system. POST-2: The list of available books is updated.		
Normal flow	1.0 Reader rents desired books and chooses card payment		

	<ol style="list-style-type: none"> 1. The reader chooses to borrow some books. 2. The system displays the list of available books. 3. The reader selects the books they wish to borrow. 4. The system updates the list of books to be rented by the reader. 5. The reader chooses to view the list of selected books. 6. The system displays the details of the list. 7. The reader chooses to finalize the rental order. 8. The system requests, via a form, the entry of the rental period—the number of weeks. 9. The reader selects a number of weeks and submits the information. 10. The system notifies the user that the rental order was successfully placed via an on-screen message.
Alternative flows	-
Exceptions	-

ID and name	UC-4: Book Return		
Primary actor	Reader	Secondary actors	-
Description	A reader wants to return some books.		
Trigger	A reader returns some books.		
Preconditions	PRE-1: The reader is registered in the system.		
Postconditions	POST-1: The list of available books is updated.		
Normal flow	1.0 Reader returns rented books <ol style="list-style-type: none"> 1. The reader chooses to return some books. 2. The system displays the list of books borrowed and not yet returned by the reader. 3. The reader selects the books they wish to return and submits the return request. 4. The librarian approves the return. 5. The system displays a message to the reader confirming the successful return. 		
Alternative flows	-		
Exceptions	The book does not exist in this library.		

ID and name	UC-5: View Rental History		
Primary actor	Reader	Secondary actors	-
Description	A reader wants to view their past rentals.		
Trigger	A reader wants to access their rental history.		
Preconditions	PRE-1: The reader is registered in the system.		
Postconditions	-		
Normal flow	1.0 Reader views rental history		

	<ol style="list-style-type: none"> 1. The reader chooses, by pressing a button, to view their book rental history. 2. The system displays the reader's rental history.
Alternative flows	-
Exceptions	-

ID and name	UC-6: Add a Reader		
Primary actor	Librarian	Secondary actors	-
Description	A librarian wants to add a reader to the library system.		
Trigger	A librarian wants to add a new reader.		
Preconditions	PRE-1: The librarian is logged into the application.		
Postconditions	POST-1: The reader is registered in the system.		
Normal flow	1.0 Librarian adds a reader <ol style="list-style-type: none"> 1. The librarian chooses, by pressing a button, to add a new reader. 2. The system displays a series of fields to be filled with the reader's information (name, surname, username, password, etc.). 3. The librarian fills in all the fields and submits the reader addition. 4. The system confirms the addition of the reader by displaying a message. 		
Alternative flows	1.1 Librarian does not fill in all fields <ul style="list-style-type: none"> • The system displays an error message indicating that all fields must be completed. • Returns to step 2 of the normal flow. 		
Exceptions	-		

ID and name	UC-7: Delete a Reader		
Primary actor	Librarian	Secondary actors	-
Description	A librarian wants to delete a reader from the library system.		
Trigger	A librarian wants to delete a reader from the system.		
Preconditions	PRE-1: The librarian is logged into the application.		
Postconditions	POST-1: The reader is deleted from the system.		
Normal flow	1.0 Librarian deletes a reader <ol style="list-style-type: none"> 1. The librarian chooses, by pressing a button, to delete a reader. 2. The system asks the librarian to select a reader from the reader table. 3. The librarian enters the ID and submits the deletion. 4. The system confirms the deletion of the reader by displaying a message. 		
Alternative flows	1.1 Reader not selected <ul style="list-style-type: none"> • The system specifies that a reader must be selected. 		

	<ul style="list-style-type: none"> Returns to step 2 of the normal flow. 1.2 Reader does not exist with the entered ID <ul style="list-style-type: none"> The system specifies that no reader exists with the entered ID. Returns to step 2 of the normal flow.
Exceptions	-

ID and name	UC-8: Update a Reader		
Primary actor	Librarian	Secondary actors	-
Description	A librarian wants to update a reader's information in the library system.		
Trigger	A librarian wants to modify a reader's details.		
Preconditions	PRE-1: The librarian is logged into the application.		
Postconditions	POST-1: The reader's information is updated in the system.		
Normal flow	1.0 Librarian updates reader information <ol style="list-style-type: none"> The librarian clicks a button to update a reader's details. The system prompts the librarian to select a reader from the reader table and enter the updated information. The librarian fills in the fields and submits the updates. The system confirms the update with a success message. 		
Alternative flows	1.1 No reader selected <ul style="list-style-type: none"> The system displays an error: "Please select a reader." Returns to step 2 of the normal flow. 1.2 Incomplete fields <ul style="list-style-type: none"> The system displays an error: "All fields must be completed." Returns to step 2 of the normal flow. 		
Exceptions	-		

ID and name	UC-9: View Readers		
Primary actor	Librarian	Secondary actors	-
Description	A librarian wants to view the list of library readers.		
Trigger	A librarian accesses the reader management section.		
Preconditions	PRE-1: The librarian is registered in the system.		
Postconditions	-		
Normal flow	1.0 Librarian views reader list <ol style="list-style-type: none"> The system automatically displays the reader list in the "Readers" tab. 		
Alternative flows	-		
Exceptions	-		

ID and name	UC-10: Add a Book		
Primary actor	Librarian	Secondary actors	-
Description	A librarian wants to add a book to the library system.		
Trigger	PRE-1: The librarian is registered in the system.		
Preconditions	PRE-1: The librarian is logged in.		
Postconditions	POST-1: The book is added to the system.		
Normal flow	1.0 Librarian adds a book <ol style="list-style-type: none"> 1. The librarian clicks "Add Book." 2. The system displays a form with fields (title, author, publisher, etc.). 3. The librarian fills in all fields and submits. 4. The system confirms the addition with a success message. 		
Alternative flows	1.1 Incomplete fields <ul style="list-style-type: none"> • The system displays: "All fields must be filled correctly." • Returns to step 2 of the normal flow. 		
Exceptions	-		

ID and name	UC-11: Delete a Book		
Primary actor	Librarian	Secondary actors	-
Description	A librarian wants to remove a book from the library system.		
Trigger	A librarian initiates book deletion.		
Preconditions	PRE-1: The librarian is registered in the system.		
Postconditions	POST-1: The book is removed from the system.		
Normal flow	1.0 Librarian deletes a book <ol style="list-style-type: none"> 1. The librarian clicks "Delete Book." 2. The system prompts selection of a book from the catalog. 3. The librarian selects a book and confirms deletion. 4. The system confirms deletion with a success message. 		
Alternative flows	1.1 No book selected <ul style="list-style-type: none"> • The system displays: "Please select a book." • Returns to step 2 of the normal flow. 		
Exceptions	-		

ID and name	UC-12: View Books		
Primary actor	Librarian	Secondary actors	-
Description	A librarian wants to view the library's book catalog.		
Trigger	-		
Preconditions	PRE-1: The librarian is registered in the system.		
Postconditions	-		
Normal flow	1.0 Librarian views book list 1. The system automatically displays the book list in the "Books" tab.		
Alternative flows	-		
Exceptions	-		

Iterations:

- **Iteration 1**

- UC-2: Librarian Authentication
- UC-1: Reader Authentication
- UC-10: Add a Book
- UC-12: View Books

- **Iteration 2**

- UC-6: Add a Reader
- UC-7: Delete a Reader
- UC-8: Update Reader Information
- UC-11: Delete a Book

- **Iteration 3**

- UC-9: View Readers
- UC-3: Book Rental
- UC-4: Book Return
- UC-5: View Rental History