

SYSTEM REQUIREMENT NR 1.

UC Name	Check Performance
Summary	The manager evaluates the effectiveness of the librarian's performance, reviewing various metrics such as books sold, revenue generated etc.
Dependency	None
Actors	Primary Actor: Manager Librarian, System (for data retrieval)
Preconditions	The manager, being logged into the system, can readily access performance metrics as the librarian has been actively selling books.
Description of the Main Sequence	The manager accesses the performance evaluation feature in the system. The system retrieves relevant data regarding book sales, revenue, customer feedback, etc. The manager reviews the performance metrics presented by the system.
Description of the Alternative Sequence	None
Non functional requirements	Performance: The system should retrieve and present performance data. Security: Access to performance evaluation features should be restricted to managers only, ensuring data confidentiality. In addition, the system should be capable of handling large volumes of performance data efficiently as the sales grow.
Postconditions	The manager has reviewed the performance metrics. The system remains available for further interactions.

SYSTEM REQUIREMENT NR 2.

UC Name	Reservation Notification System
Summary	Users receive notifications when a book they want to reserve becomes available in the library's stock.
Dependency	None
Actors	Primary Actor: User Librarian, System (for notification management)
Preconditions	The user has requested to reserve a book that is currently out of stock and chooses to receive notifications for book availability.
Description of the Main Sequence	The system checks the inventory status of all books. When a reserved book becomes available in the stock, the system identifies the user(s) who have requested notification for this book and sends a notification to the relevant user(s) informing them about its availability.
Description of the Alternative Sequence	If the system encounters any errors while sending notifications, it may retry sending the notification.

Non functional requirements	<p>Reliability: The notification system should be reliable, ensuring that users receive notifications consistently.</p> <p>Scalability: The system should be capable of handling a large number of reservation requests and notifications efficiently.</p> <p>Privacy: The users' personal information should be kept confidential.</p>
Postconditions	<p>The user(s) have been notified about the availability of the reserved book.</p> <p>Users have the option to proceed with reserving the book or take other actions based on the notification.</p>

SYSTEM REQUIREMENTS NR 3.

UC Name	Search and Browse by Various Criteria
Summary	Users can search for and browse books in the library's book list using different filters such as title, ISBN, price, etc.
Dependency	None
Actors	Primary Actor: User System (for data retrieval)
Preconditions	The user is logged into the library management system and the library's book list is available in the system.
Description of the Main Sequence	<p>The user accesses the search functionality within the system. The system presents the user with various search criteria options that the user can search from such as title, ISBN, author, genre, price, etc.</p> <p>The system retrieves relevant books based on the selected criteria and presents them to the user and he can further filter or sort the search results if desired.</p>
Description of the Alternative Sequence	If the user's search criteria presents no results, the system notifies the user.
Non functional requirements	<p>Usability: The search interface should be user-friendly, allowing users to easily navigate and find desired books.</p> <p>Performance: The system should retrieve search results quickly, even when dealing with large volumes of data.</p>
Postconditions	<p>The user has successfully searched for and/or browsed books based on their chosen criteria.</p> <p>Users can view detailed information about the books they are interested in.</p> <p>The system remains available for further interactions.</p>

SYSTEM REQUIREMENT NR 4.

UC Name	Encryption of Sensitive Information
Summary	Sensitive information within the library management system is encrypted to protect it from unauthorized access.
Dependency	None
Actors	The system
Preconditions	Sensitive information such as user credentials, financial data, and personal information is stored within the system.
Description of the Main Sequence	<p>The system identifies sensitive information that requires encryption, including user passwords, financial transactions, and personal data. The system proceeds to encrypt the identified sensitive information. This sensitive data is securely stored within the system's database or files.</p> <p>When sensitive information needs to be accessed, the system decrypts it using authorized access methods.</p>
Description of the Alternative Sequence	If there are any issues with the encryption process, the system logs the error.
Non functional requirements	<p>Security: Encryption should use strong algorithms and techniques to ensure the confidentiality of sensitive information.</p> <p>Performance: Encryption and decryption processes should not impact system performance.</p>
Postconditions	Sensitive information stored within the system is encrypted and protected from unauthorized access. Authorized users can securely access and decrypt sensitive information as needed.

SYSTEM REQUIREMENTS NR 5.

UC Name	Role-based Access Control
Summary	Different users have access to different functionalities and data within the library management system based on their roles (Librarian, Manager, Administrator).
Dependency	None
Actors	Primary Actor: System Librarian, Manager, Administrator
Preconditions	Users are registered within the system with assigned roles (Librarian, Manager, Admin). Each role has specific permissions and access rights defined within the system.
Description of the Main Sequence	When a user logs into the system, the system verifies the user's credentials. Upon successful authentication, the system determines the role of the user based on their login credentials and grants access to its functionalities.

Description of the Alternative Sequence	If there are any issues with verifying the user's credentials or determining their role, the system may deny access and notify the user.
Non functional requirements	Security: Role assignments and permissions should be securely managed and enforced to prevent unauthorized access to sensitive data and functionalities.
Postconditions	Users are granted access to functionalities and data according to their assigned roles and permissions. Unauthorized access attempts are prevented, ensuring the security of the system.