

USE CASE SPECIFICATIONS
(Library Management System)

Use Case ID	UC1
Use Case Name:	Issue book to patron
Relevant requirements:	Library database
Primary Actor:	librarian
Pre-conditions:	Patron should be registered, book should be available
Post-conditions:	Book record has been updated
Basic Flow or Main Scenario:	1- patron requests for issue of book 2- Librarian initiates book issue 3- Issue constraints are checked 4- Database is updated 5- Book is issued to the patron
Extensions or Alternate Flows:	-none-
Exceptions:	If constraints are not met, the request is not processed.
Related Use Cases:	Request a book (before) Change the database (after)

Use Case ID	UC1-1
Use Case Name:	Request book
Relevant requirements:	-none-
Primary Actor:	Patron
Pre-conditions:	Patron should be registered
Post-conditions:	"Issue book to patron" function is executed.
Basic Flow or Main Scenario:	Patron requests the librarian directly for the issue of the book.
Extensions or Alternate Flows:	The patron may search for the book and then place a request.
Exceptions:	-none-
Related Use Cases:	Issue book to patron

Use Case ID	UC2
Use Case Name:	Return book to library
Relevant requirements:	Library database
Primary Actor:	Librarian
Pre-conditions:	Patron should place request to return book, Patron should be registered
Post-conditions:	Book record is updated
Basic Flow or Main Scenario:	1- patron returns a book 2- Librarian initiates return of book 3- Librarian calculates fine 4- Fine is collected 5- other constraints are checked 6- Database is updated 5- Book is returned to the library
Extensions or Alternate Flows:	-none-
Exceptions:	If the constraints are not met or if the fine is not paid the request is not processed
Related Use Cases:	Return book (before) Change availability status (after)

Use Case ID	UC2-1
Use Case Name:	Return book
Relevant requirements:	-none-
Primary Actor:	Patron
Pre-conditions:	Patron should be registered
Post-conditions:	"Return book to library" function is executed.
Basic Flow or Main Scenario:	Patron hands over book to librarian to initiate return of the book
Extensions or Alternate Flows:	The fine is paid to librarian
Exceptions:	-none-
Related Use Cases:	Return book to library

Use Case ID	UC2-2
Use Case Name:	Calculate overdue
Relevant requirements:	-none-
Primary Actor:	Librarian
Pre-conditions:	Return book
Post-conditions:	"Return book to library" function is initiated.
Basic Flow or Main Scenario:	Patron hands over the book to the librarian to initiate return of the book, librarian then calculates overdue.
Extensions or Alternate Flows:	-none-
Exceptions:	Overdue is not calculated if the book is returned before the due date.
Related Use Cases:	Return book to library.

Use Case ID	UC1-UC2-1
Use Case Name:	Change availability status
Relevant requirements:	Library database
Primary Actor:	Librarian
Pre-conditions:	Issue of book or return book to library function must be initiated.
Post-conditions:	Book record is updated
Basic Flow or Main Scenario:	Patron either requests for issue or return of book, the result of the requests reflect on the database through this function.
Extensions or Alternate Flows:	-none-
Exceptions:	If the constraints are not met the request is not processed
Related Use Cases:	Issue book to patron, return book to library.

Use Case ID	UC3
Use Case Name:	Search for a book
Relevant requirements:	Library database
Primary Actor:	Patron
Pre-conditions:	-none-
Post-conditions:	Book details are displayed
Basic Flow or Main Scenario:	Patron enters book details and gets a list of book details.
Extensions or Alternate Flows:	-none-
Exceptions:	-none-
Related Use Cases:	-none-

Use Case ID	UC4
Use Case Name:	Update patron DB
Relevant requirements:	Request for registration
Primary Actor:	Librarian
Pre-conditions:	Patron requests for registration as a new user
Post-conditions:	Patron db is updated
Basic Flow or Main Scenario:	Patron registers to be a new user, the librarian adds the user to the database.
Extensions or Alternate Flows:	-none-
Exceptions:	-none-
Related Use Cases:	-none-

Use Case ID	UC5
Use Case Name:	Prepare library DB
Relevant requirements:	Information about books available
Primary Actor:	Librarian
Pre-conditions:	-none-
Post-conditions:	Main database with all books available is created.
Basic Flow or Main Scenario:	Information about books available is stored into a database.
Extensions or Alternate Flows:	-none-
Exceptions:	-none-
Related Use Cases:	Update book record

Use Case ID	UC5-1
Use Case Name:	Update book DB
Relevant requirements:	Library database
Primary Actor:	Librarian
Pre-conditions:	There exist new arrivals or outdated books.
Post-conditions:	New books are added to the database and outdated ones are removed
Basic Flow or Main Scenario:	The librarian either adds new books into the database or deletes information about the outdated books
Extensions or Alternate Flows:	-none-
Exceptions:	-none-
Related Use Cases:	-none-

Team members:

21z225 - M Hemali

21z253 - Sathya M