

Name	Description	Priority (1-Highest, 3-Lowest)	Rationale
Creating Accounts	All accounts are created by the user.	1	The user creating the account will have the ability to choose their username and password.
Required Account Information	All user accounts shall contain the following information: First and last name, date of birth, home address, email address, and phone number.	1	The system must be able to distinguish between multiple users upon account creation as well as to retain information to contact users, send them mail, and to verify their age.
Searching Inventory	The library system shall have a search function that indexes the complete list of the library's inventory.	1	Users need a way to find any item within the library system.
Search Criteria	The search function shall sort the items by author, new release, genre, year, and popularity/rating.	1	Users need to be able to sort their searching using many different criteria
Search Box Functions	The search box will implement boolean logic.	3	Boolean logic allows users to search for more specific or general items all at once.
Media Offered for Checkout	The library shall support the following inventory for checkout: books, DVDs, magazines, audiobooks, and eBooks.	1	The library has certain items that it wants user to be able to check out.
Login Credentials	The user shall be able to login with their unique username and password.	1	The user needs to be able to log in to their account to access their information.
Checking Out Media	The system shall allow users to check out the following types of media for the specified times: DVDs: 7 days, Magazines: 7 days, all other types of media: 30 days.	1	The library needs to be able to rent different types of media for differing amounts of time.
Adding New Media	The system shall allow librarians to input new items into the system given the following information when applicable: Media name, author, genre, a short description, year of release, ratings, and whether or not it is a new release.	1	The librarians need to be able to add new incoming material into the system in a way that the system indexes it properly.
Librarian Account Access	Librarians shall have full access to users' accounts and information.	1	Librarians are acting as the system administrators and must be able to display all important user account information.
Renewal	The system shall allow users to renew their rental for the following times on certain media: DVDs: 7 days, Magazines: 7 days, all other types of media: 30 days.	1	Allowing users to renew their rentals prevents them from returning and checking out that media multiple times.
Restrictions on Renewals	Users shall not be able to renew a piece of media if another user has that piece of media on hold.	1	A users should not be able to hold a piece of media for an extended period of time if another user wishes to rent it.
Library System Database	The library system consists of a single electronic database where all information is stored.	1	The library needs a system to store the information required for all operations of the system.
User Types	The library system shall support different account types for the following users: average user, teacher, and child.	1	The library needs to differentiate between different users to give certain users benefits/discounts based on the type.
Notification of Fines	The system shall notify users of any fines they may have when they log in to the system.	1	The library wants users to know if they have a fine.
Fines	If a user fails to return their media by the due date, they are fined \$0.01 every day until they return that media.	1	The library wants to incentivise users to return their books on time.

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Maximum Fine per Piece of Media	The maximum amount of fines a user can receive for being late on a return is \$15.	1	The library wants to prevent users from incurring too high of fines for an item that does not cost that much.
Fine Rollover	Daily fines increment at midnight.	1	Having a specific time makes it easier to keep track of when fines accumulate.
Maximum Amount of Fines	The system shall prevent users from checking out any additional materials if they have \$100 in fines.	1	The library does not want any user who abuses the system to be able to check out any more media.
Genre Tags	The system shall have tags on books based on the genre.	1	The User may be interested in a certain type of genre, but do not know which book to get. This will show the user a list of books based on their genre interest.
Operation Hours Displayed	The system shall display the hours the library is open: 10am-7pm Mon-Thu, Fri: 10am-5pm, Sat and Sun: open from 12pm to 5pm.	1	Users should be able to easily obtain necessary information about the physical library.
Media Return	Media returned in-person at the library shall be marked as returned by a librarian, allowing the item to be checked out once more (unless a hold is in place).	1	Books must be returned for the library to maintain its inventory, and the system must be made aware of the this so users with a hold may be notified, or the book may once more be checked out for pickup.
Waitlist Notification	Users with a hold on a book that has been returned shall be notified of the return when they are the first on the waitlist.	2	Users need to be able to know when they are able to check out a book they have been waiting for.
User Notifications	The system shall send emails or text messages (based on user selection) to notify users of impending fines, or books returning to shelves.	1	Users should be made aware of when a book is available (a hold has begun), and also when they accrue fines, in case they are unaware.
Timing System	The system should have time stamps to keep track of then they have checked out a book, or a hold became available to them.	1	There are many time-based systems (fines, checkouts, holds) in the database, and thus the system must be able to count the number of days since a transaction occurred. Since these vary by user, it should be tied to user accounts.
Anonymous Searching	Users shall be able to search the system without signing in first.	2	Signing in to view items in the library is not necessary and is more convenient to the user.
Determining a New Release	The system shall use the same method as Amazon for determining if a piece of media is a new release.	2	Amazon is the most popular website for purchasing books.
Mature Content Filter	The library system shall support a filter that displays/hides mature content. The filter always hides mature content from child accounts and is not toggleable.	2	The library does not want children accessing mature content, but does want adults to be able to show/hide mature content if they wish.
Waiting List	If a user wishes to check out a piece of media that is already checked out, they are placed on a waiting list with a maximum of 10 users.	2	The library needs to be able to keep track of how many users are waiting for a specific piece of media.
Displaying Wait List	The system shall allow other users to see how many other users are on the waitlist for a given piece of media without showing the names of those users.	2	Users may want to know how many people are waiting for a book before they decide to request it.

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Checkout Limit	A standard user shall only be allowed to take out a maximum of 10 items at any one time. A teacher shall be allowed to take out a maximum of 50 items at one time. Must wait 20 days after checking out a book to check it out again. Even after renewing it 3 times.	2	This prevents users from checking out extreme amounts of media and allows teacher to check out enough for their classes.
Requesting Materials	The Librarians shall be able to order books based on the user's book requests.	2	The users may want books that are not in the library, so they will send a request to the librarian.
Children Accounts	Child account type is set by the account DOB information, not by the user. Children age group: 5-16 (<16). Children can only check out 3 books at once. Not counted on the parent's account.	2	Children should be limited in the amount they can check out, and instead of having users designate themselves, it is simpler for the system to designate children accounts automatically.
Parented Accounts	Children accounts must be tied to a non-children account. Parents have control over their children's accounts. Fines from the children's accounts go to the parents. If a child's account is flagged, none of the parent's other children can check out books.	2	Children accounts should be linked to parent accounts for easier accountability on behalf of the children, since their parents are responsible for them.
Flagging Users	Librarians shall be able to flag user accounts for conditions (hidden from user, example: destroys books, etc).	2	Librarians may want to keep notes on users for personal reasons, or simply to mark them as problematic (e.g. if they have a history of returning damaged property)
Rating system	System shall keep track of popularity (amount of times it's been checked out) and also have a rating system based on user votes.	2	Users may be interested on what book is most popular
Announcements Section	The library system shall have a newsfeed/announcement section but no "events".	2	The library may have changes or information it would want to broadcast.
New Arrivals	The librarians will not be able to check out new arrivals.	2	librarians may want to be the first to get new arrivals, but they can not, only the users.
User Information	Users can check their account number/ID while logged in to the system.	2	Users should have access to their kIDs in case they need easy access/have forgotten, or for librarians to view.
Multiple Copies	There are multiple copies of the same book. Should be kept track of in the inventory system.	2	Self-explanatory. Librarians often have multiple copies, the system should be able to keep track of this.
Media removal	Any media can be retired and removed from the system by a librarian.	2	Books may be removed or lost, and the system must reflect this.
Renewal of new releases	Cannot renew a new release (new releases are ones released within 20 days).	2	New releases are likely to be in high demand, and so they should be made as available as possible.
Holds	Users can request that an item be held for them to pick up.	3	Users are not always able to pick up their materials next day.
Time to Claim Holds	A user that places a hold on a piece of media will have three days to claim that media after it comes available. If the media is not claimed within three days, the hold expires.	3	Having a time period for claiming media allows all users an equal chance for claiming a piece of media and prevents stagnation from users forgetting about their requests.
Library kiosks	Library has two library machines (kiosks) per genre section. Total of 10.	3	System should be accessible for visitors of the library who desire to search for media, or manage their accounts.

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Book wishlist	The users shall add books that they like to their list (wishlist).	3	the user may want to save some books, so that next time they log in, the list of wanted books is easily accessed in the wishlist
Closing User Accounts	Users can choose close their accounts even with fines and the fines are erased.	3	A user may wish to close their account.
Deactivating user accounts	Keep user information even after users are deregistered, including deceased users.	3	Data is extremely valuable.
Child Account Turnover	When children turn 16 they get a new full account and the fines stay with the parents.	3	The users are no longer children, and the system should automatically recognize them as such.
Coming Soon	There is a list of books "coming soon" to the library.	3	Users may be interested to see what is coming to the library.
Mass Checkout	Users shall be able to check out large numbers of individual books at once for book club purposes.	3	Book clubs often check out multiple copies, and for convenience this should be streamlined.
Library employees cannot be fined	Librarians don't have to pay fines.	3	Librarians are working at the library, and should have minor benefits to improve morale.
Duplicate accounts cannot be created	Check for duplicate accounts (phone numbers/emails can only have one account tied to them at a time).	3	Users should not be able to create multiple accounts, as that could be exploited to circumvent the checkout limit.