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| ID and name | UC-1: Borrow a book | | |
| Primary actor | Customer | Secondary actors | Library system |
| Description | A customer wants to borrow books. | | |
| Trigger | A customer accesses the library system to borrow books. | | |
| Preconditions | PRE-1: Customer is logged in the library system. | | |
| Postconditions | POST-1: Inventory of books is updated. | | |
| Normal flow | 1.0 Borrow a single book  1. Customer views list of available books.  2. Customer selects and borrows the wanted book.  3. List of available books is updated.  4. Customer logs out. | | |
| Alternative flows | * 1. Wanted books not in inventory   1. Customer does not borrow any books.  1.2 Borrow multiple books  1. Customer wants to borrow another book.  2. Return to step 1 of normal flow. | | |
| Exceptions | 1.0 E1 Book is no longer in inventory  1. The book was already borrowed by another customer.  2. Return to step 1 of normal flow. | | |

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| ID and name | UC-2: Return a book | | |
| Primary actor | Librarian | Secondary actors | Library system |
| Description | A librarian wants to add the books returned by a customer back into the inventory. | | |
| Trigger | A librarian accesses the library system to update inventory. | | |
| Preconditions | PRE-1: Librarian is logged in the library system with admin account. | | |
| Postconditions | POST-1: Inventory of books is updated. | | |
| Normal flow | 1.0 Return a single book  1. Librarian completes return form.  2. Librarian adds back the borrowed books.  3. List of available books is updated. | | |
| Alternative flows | 1.2 Return multiple books  1. Librarian wants to add another book.  2. Return to step 1 of normal flow. | | |
| Exceptions | None | | |

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| ID and name | UC-3: Create account | | |
| Primary actor | Customer | Secondary actors | Library system |
| Description | A customer wants to create a new account. | | |
| Trigger | A customer accesses the library system to create a new account. | | |
| Preconditions | None | | |
| Postconditions | POST-1: Add customer info to database.  POST-2: Create new customer account. | | |
| Normal flow | 1.0 Create account  1. Customer adds personal information.  2. Customer chooses a username and password.  3. Add new customer info to database.  4. Create new account. | | |
| Alternative flows | None | | |
| Exceptions | 1.0 E1 Username already taken  1. Chosen username is already taken.  2. Return to step 2 of normal flow.  1.0 E2 Customer already has an account.  1. Terminate use case. | | |

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| ID and name | UC-4: Create librarian account | | |
| Primary actor | Librarian | Secondary actors | Library system |
| Description | A librarian wants to create a new admin account. | | |
| Trigger | A librarian accesses the library system to create a new admin account. | | |
| Preconditions | The admin is logged in on an admin account. | | |
| Postconditions | POST-1: Add librarian info to database.  POST-2: Create new librarian account. | | |
| Normal flow | 1.0 Create account  1. librarian adds personal information.  2. librarian chooses a username and password.  3. Add new admin info to database.  4. Create new account. | | |
| Alternative flows | None | | |
| Exceptions | 1.0 E1 Username already taken  1. Chosen username is already taken.  2. Return to step 2 of normal flow. | | |

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| ID and name | UC-5: Manage customer information | | |
| Primary actor | Librarian | Secondary actors | Library system |
| Description | A librarian wants to manage a customer’s information . | | |
| Trigger | A librarian accesses the library system to manage a customer’s information . | | |
| Preconditions | PRE-1: Librarian is logged into an admin account. | | |
| Postconditions | POST-1: Customer information is modified. | | |
| Normal flow | 1.0 Modify account  1. Librarian views list of customers.  2. Librarian chooses customer they want to modify.  3. Librarian modifies customer information.  4. New information is saved to database. | | |
| Alternative flows | None | | |
| Exceptions | 1.0 E1 Username already taken  1. Modified username is already taken.  2. Return to step 3 of normal flow.  E2 Account no longer exists  1. The account was deleted.  2. Terminate use case. | | |

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| ID and name | UC-6: Delete customer account | | |
| Primary actor | Librarian | Secondary actors | Library system |
| Description | A librarian wants to delete a customer’s account . | | |
| Trigger | A librarian accesses the library system to manage a customer’s information . | | |
| Preconditions | PRE-1: Librarian is logged into an admin account. | | |
| Postconditions | POST-1: Customer account is deleted. | | |
| Normal flow | 1.0 Delete account  1. Librarian views list of customers.  2. Librarian chooses customer account they want to delete.  3. Customer account is deleted. | | |
| Alternative flows | None | | |
| Exceptions | E3 Account no longer exists  1. The account was already deleted.  2. Terminate use case. | | |

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| ID and name | UC-7: Add book to inventory | | |
| Primary actor | Librarian | Secondary actors | Library system |
| Description | A librarian wants to add a book to the stock. | | |
| Trigger | A librarian accesses the library system to update the inventory and presses “add book” button. | | |
| Preconditions | PRE-1: Librarian is logged into an admin account. | | |
| Postconditions | POST-1:Book is added to inventory. | | |
| Normal flow | 1.0 Add book  1. Librarian enters book information.  2. Book is added to database. | | |
| Alternative flows | None | | |
| Exceptions | 1.0 E1 Invalid title  1. The title is invalid  2. Return to step 1 of normal flow.  E2 Invalid author  1. The author information is invalid  2. Return to step 1 of normal flow. | | |

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| ID and name | UC-8: Modify book from inventory | | |
| Primary actor | Librarian | Secondary actors | Library system |
| Description | A librarian wants to modify a book from the stock. | | |
| Trigger | A librarian accesses the library system to update the inventory and selects a book. | | |
| Preconditions | PRE-1: Librarian is logged into an admin account. | | |
| Postconditions | POST-1:Book modifications are saved in the inventory. | | |
| Normal flow | 1.0 Modify book  1. Librarian enters book information.  2. Book is added to database. | | |
| Alternative flows | None | | |
| Exceptions | 1.0 E1 Invalid title  1. The title is invalid  2. Return to step 1 of normal flow.  E2 Invalid author  1. The author information is invalid  2. Return to step 1 of normal flow.  E3 Book is no longer in inventory  1. The book was deleted from the inventory.  2. Terminate use case. | | |

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| ID and name | UC-9: Delete book from inventory | | |
| Primary actor | Librarian | Secondary actors | Library system |
| Description | A librarian wants to delete a book from the stock. | | |
| Trigger | A librarian accesses the library system to update the inventory. | | |
| Preconditions | PRE-1: Librarian is logged into an admin account. | | |
| Postconditions | POST-1:Book is removed from the inventory. | | |
| Normal flow | 1.0 Delete book  1. Librarian selects the book to delete.  2. Book is removed from database. | | |
| Alternative flows | None | | |
| Exceptions | E1 Book is no longer in inventory  1. The book was deleted from the inventory.  2. Terminate use case. | | |

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| ID and name | UC-10: Log in | | |
| Primary actor | Customer, Librarian | Secondary actors | Library system |
| Description | A librarian or customer wants to log in. | | |
| Trigger | A librarian or customer presses log in button. | | |
| Preconditions | PRE-1: Librarian or customer has account. | | |
| Postconditions | POST-1: Customer or librarian gets access to account. | | |
| Normal flow | 1.0 Log in is successful  1. Account information is entered  2. Customer or librarian gets access to account. | | |
| Alternative flows | None | | |
| Exceptions | 1.0 E1 Unable to log in customer  1. Username not found: if forgotten, admin reset is required.  2. Incorrect password: if forgotten, admin reset is required. | | |

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| ID and name | UC-11: Log out | | |
| Primary actor | Customer, Librarian | Secondary actors | Library system |
| Description | A librarian or customer wants to log out. | | |
| Trigger | A librarian or customer presses log out button. | | |
| Preconditions | PRE-1: Librarian or customer is logged in. | | |
| Postconditions | POST-1: Customer or librarian logs out. | | |
| Normal flow | 1.0 Log out is successful  1. Customer or librarian logs out. | | |
| Alternative flows | None | | |
| Exceptions | None | | |

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| ID and name | UC-12: View borrowed books | | |
| Primary actor | Customer | Secondary actors | Library system |
| Description | A customer wants to see the list of books he has borrowed. | | |
| Trigger | A customer presses the view borrowed books button. | | |
| Preconditions | PRE-1: Customer is logged in. | | |
| Postconditions | None | | |
| Normal flow | 1.0 The list of borrowed books is shown  1. A list of all the customers borrowed books are shown. | | |
| Alternative flows | None | | |
| Exceptions | None | | |