**eShop: Use Case Description**

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| **Use Case Number: 1** | | |
| **Date Created: 07/25/2019** | | **Last Revision Date: 07/25/2019** |
| **Name** | Create Account | |
| **Brief description** | Customer, admin and supplier create account with all account credentials | |
| **Actors** | User (Customer, admin and supplier) | |
| **Preconditions :** | | |
| The system allows customers, admin and suppliers to create account in accordance with their role | | |
| **Flows of Events:** | | |
| **Basic flow**   1. System: provides GUI for entering user credentials 2. User: Enter valid credentials (username, password, etc.) 3. User: Click submit and wait for create account approval 4. System: confirmation that accounted is created successfully | | |
| **Alternative Flows**  At 2. When mandatory information is not provided   1. User will be notified to enter mandatory information   At 2. When invalid information is not provided   1. User will be notified to enter valid information   At 3. When the account already exists   1. User will be notified as there is an account already | | |
| **Post conditions** | | |
| **‘Successfully account created’ notification will be sent to account creators’ email** | | |
| **Business Rules** | | |
| * All account creators should be responsible, and they should provide true information * Admin must be an employee or service provider of the e-shop and must be approved as Admin * Supplier must have legal rights to sell the book | | |

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| **Use Case Number: 2** | | |
| **Date Created: 07/25/2019** | | **Last Revision Date: 07/25/2019** |
| **Name** | Block Account | |
| **Brief description** | When account holder is not behaving in accordance with the rule and regulation of the e-shop’s online system, the admin will block the account | |
| **Actors** | Admin | |
| **Preconditions:** | | |
| Valid account holder uses the account in an improper way | | |
| **Flows of Events:** | | |
| **Basic flow**  1. Admin: Check the account and keep record of all misdeeds  2. Admin: Block the account  3. System: keep record of the blocked account  4. System: deny any attempt of blocked users from using the system | | |
| **Alternative Flows** | | |
| **Post conditions** | | |
| Account blocked notification is sent to the account holder | | |
| **Business Rules** | | |
| * Account holders should have only one account * Only Admin can block the account | | |

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| **Use Case Number: 3** | | |
| **Date Created: 07/25/2019** | | **Last Revision Date: 07/25/2019** |
| **Name** | Unblock Account | |
| **Brief description** | When the account holder whose account was suspended made all the necessary conditions to be unblocked, the admin will unblock the account | |
| **Actors** | Admin | |
| **Preconditions:** | | |
| The admin has proved as the blocked account holder has settled all doubts, resolved misbehaving and agreed to act in accordance with the rule and regulation of the e-shop system | | |
| **Flows of Events:** | | |
| **Basic flow**  1. Admin: unblock the account  2. Admin: re-grant all roles and privileges to the account holder  3. System: update record of the unblocked account  4. System: keep record of roles and privileges granted to the unblocked account | | |
| **Alternative Flows** | | |
| **Post conditions** | | |
| Account unblocked notification is sent to the account holder | | |
| **Business Rules** | | |
| * Only the Admin can unblock the account | | |

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| **Use Case Number: 4** | | |
| **Date Created: 07/25/2019** | | **Last Revision Date: 07/25/2019** |
| **Name** | Login | |
| **Brief description** | User can login to the e-shop system using valid login credentials | |
| **Actors** | User (Customer, Admin, Supplier, Manager) | |
| **Preconditions:** | | |
| There is GUI for login where user can enter login credentials | | |
| **Flows of Events:** | | |
| **Basic flow**  1. User: Enter login credentials  2. System: Check if valid data is added  3. System: checks if all input credentials are correct  4. User: get all entitled roles | | |
| **Alternative Flows**  **At 2. When user enter invalid credential**  **User will be notified to enter valid credential**  **At 3.**   1. **When user added incorrect credentials**   **The system will notify to enter correct credentials**   1. **When user forget login credentials**   **The system will sent password recovery link to users’ email that the user will create new password** | | |
| **Post conditions** | | |
| The user will login successful to the e-shop system and act in accordance with the assigned role | | |
| **Business Rules** | | |
| * Login information must be confidential | | |

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| **Use Case Number: 5** | | |
| **Date Created: 07/25/2019** | | **Last Revision Date: 07/25/2019** |
| **Name** | Search Book using book information | |
| **Brief description** | A user searches a desired book | |
| **Actors** | User (Customer, Supplier, Admin, Manager) | |
| **Preconditions :** | | |
| User must be logged in to the system | | |
| **Flows of Events:** | | |
| **Basic flow**   1. User : Enter search query (Book Title, author, isbn) to the system 2. User: Enter sorting criteria 3. User: Request list of books that meets the search query 4. System: Displays list of books that meets the search query according to the sorting criteria | | |
| **Alternative Flows**  At 2. When there are no books that meet search criteria   1. The system will display “No book found” message | | |
| **Post conditions** | | |
| List of books with their information are displayed sorted by sorting criteria  User is displayed option to add the books to cart | | |
| **Business Rules** | | |
| * The system can and may display other books after the list of books that meet the search criteria | | |

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| **Use Case Number: 6** | | |
| **Date Created: 07/25/2019** | | **Last Revision Date: 07/25/2019** |
| **Name** | Search Book using category | |
| **Brief description** | A user searches a desired book | |
| **Actors** | User (Customer, Supplier, Admin, Manager) | |
| **Preconditions :** | | |
| User must be logged in to the system | | |
| **Flows of Events:** | | |
| **Basic flow**   1. User : Enter one or more book category 2. User: Enters sorting criteria 3. User: Request list of books that meets the search query 4. System: Displays list of books that meets the search query according to the sorting criteria | | |
| **Alternative Flows**  At 2. When there are no books that meet search criteria   1. The system will display “No book found” message | | |
| **Post conditions** | | |
| List of books with their information are displayed sorted by sorting criteria  User is displayed option to add the books to cart | | |
| **Business Rules** | | |
| * The system can and may display other books after the list of books that meet the search criteria | | |

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| **Use Case Number: 7** | | |
| **Date Created: 07/25/2019** | | **Last Revision Date: 07/25/2019** |
| **Name** | Register book | |
| **Brief description** | A supplier registers a book with all its information and inventory data to the system | |
| **Actors** | Supplier | |
| **Preconditions :** | | |
| a supplier must have a valid supplier account and logged in to the system | | |
| **Flows of Events:** | | |
| **Basic flow**   1. Supplier : Enter book information to the system 2. Supplier: Requests approval for the books entered 3. System: Displays request sent information | | |
| **Alternative Flows**  At 2. When the book already exists,   1. The system will recommend update book info.   At 2. When mandatory information are not provided   1. The supplier will be informed on which information he/she must provide   At 2. When information entered is not valid   1. Supplier will be informed about the invalid data entered | | |
| Post conditions | | |
| Approval request is sent to manager | | |
| **Business Rules** | | |
| * Supplier must have matching inventory with the provided information * Supplier must have legal rights to sell the book | | |

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| **Use Case Number: 8** | | |
| **Date Created: 07/25/2019** | | **Last Revision Date: 07/25/2019** |
| **Name** | Approve Book | |
| **Brief description** | A manager approves book to be sold in the system | |
| **Actors** | Manager | |
| **Preconditions :** | | |
| Manager must be logged in to the system and accessing approving user interface | | |
| **Flows of Events:** | | |
| **Basic flow**   1. System: Displays list of books that need approval 2. Manager: Selects a book or all books listed 3. Manager: Approve books to be sold on the system 4. System: Sends approval message to a supplier (s) | | |
| **Alternative Flows**  At 1. When there are no books waiting for approval   1. System: displays “No book to be approved” message   At 3 when a manager decides to disapprove a book to be sold on the system   1. Manager: disapprove the book(s) to be sold on the system 2. System: Send disapproval message to supplier(s) | | |
| **Post conditions** | | |
| * Supplier is informed about the approval status of the book * The book is removed from approval list | | |
| **Business Rules** | | |
| * Disapproved book cannot be entered to the system * The same book can be entered by multiple suppliers | | |

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| **Use Case Number: 9** | | |
| **Date Created: 07/25/2019** | | **Last Revision Date: 07/25/2019** |
| **Name** | Update Book information | |
| **Brief description** | A supplier changes some information of a book | |
| **Actors** | Supplier | |
| **Preconditions :** | | |
| A supplier must be logged in to the system  A supplier must have searched the book.  A supplier must have selected a book that is supplied by him/her | | |
| **Flows of Events:** | | |
| **Basic flow**   1. System: Presents editable information of the selected book 2. Supplier: Enters the updated information of the selected book 3. Supplier: requests update of the book information 4. System: displays the updated information of the book | | |
| **Alternative Flows**  At 3. When information entered is not valid  Supplier will be informed about the invalid data entered | | |
| **Post conditions** | | |
| * Book information is updated * The book will not appear on search result with the older information * The book will appear on search result with the updated information | | |
| **Business Rules** | | |
| * ISBN of a book cannot be changed | | |

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| **Use Case Number: 10** | | |
| **Date Created: 07/25/2019** | | **Last Revision Date: 07/25/2019** |
| **Name** | Add to Cart | |
| **Brief description** | A customer browse books, selects a book item of interest and notifies to the system to add it to the cart. | |
| **Actors** | Customer | |
| **Preconditions :** | | |
| **A customer must have a valid account in the system and must have logged in.** | | |
| **Flows of Events:** | | |
| **Basic flow**   1. **System: Displays available books** 2. **Customer: Browse books** 3. **Customer: Clicks a book of interest** 4. **System: Checks the availability of the book in the store** 5. **System: Confirms the availability of the book to the customer** 6. **System: Accepts the choice and inserts to the cart** | | |
| **Alternative Flows**  **At 1. When the book is not available**   1. **Not available message will be displayed** 2. **Available books will be displayed.**   **At 2. When the customer does not confirm to add to the cart**   1. **The system will display the available books** | | |
| **Post conditions** | | |
| **Place Order option will be available.** | | |
| **Business Rules** | | |
| * **Customer can add any number of books to the cart.** * **Customer must be at legal age to buy certain books.** | | |

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| **Use Case Number: 11** | | |
| **Date Created: 07/25/2019** | | **Last Revision Date: 07/25/2019** |
| **Name** | Place Order | |
| **Brief description** | A customer will place order after selecting the books and adding to the cart. A customer will pay for the order and initiates delivery. | |
| **Actors** | Customer | |
| **Preconditions :** | | |
| **A customer must have added books to the cart.** | | |
| **Flows of Events:** | | |
| **Basic flow**   1. **System: Displays list of books in the cart.** 2. **Customer: Clicks to place order** 3. **System: Requests the customer confirmation to place the order.** 4. **Customer: Confirms to place the order.** 5. **System: Accepts the confirmation.** 6. **System: Requests the customer to provide payment detail.** 7. **Customer: Provides payment details.** 8. **System: Accepts the payment information and validates its legality.** 9. **System: Sends delivery information to the Supplier.** 10. **System: Displays confirmation message to the customer with the delivery date.** | | |
| **Alternative Flows**  **At 1: When the customer clicks not to place the order.**   1. **The System requests confirmation about not to place the order.** 2. **The Customer confirms not to place the order.** 3. **The system deletes the list in the cart.** 4. **The system will display the available books to the customer.**   **At 2: When the customer does not provided payment information.**   1. **The system will not place the order.** 2. **The system will delete the lists of books in the cart.** 3. **The system will display the available books to the customer.** | | |
| **Post conditions** | | |
| **System must generate tracking number for the order.**  **System must send confirmation email to the customer.**  **Supplier must accept the order.** | | |
| **Business Rules** | | |
| Customer must provide a credit card or debit card only. | | |

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| **Use Case Number: 12** | | |
| **Date Created: 07/25/2019** | | **Last Revision Date: 07/25/2019** |
| **Name** | Send Delivery Request | |
| **Brief description** | After a customer place order, the system will initiates a delivery request information to the supplier. | |
| **Actors** | System | |
| **Preconditions :** | | |
| **A customer must place an order.** | | |
| **Flows of Events:** | | |
| **Basic flow**   1. **System: Collects the necessary information about the customer** 2. **System: Adds the books details placed by the customer.** 3. **System: Generates a tracking number for the order.** 4. **System: Sends the information to the respective suppliers of the books.** | | |
| **Alternative Flows** | | |
| **Post conditions** | | |
| **Suppliers must send confirmation to the system.** | | |
| **Business Rules** | | |
| **Suppliers must send confirmation to the system.** | | |

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| **Use Case Number: 13** | | |
| **Date Created: 07/25/2019** | | **Last Revision Date: 07/25/2019** |
| **Name** | Notify Delivery Initiation | |
| **Brief description** | The system will send a notification about the delivery status to the customer after receiving acceptance confirmation from the supplier. | |
| **Actors** | System | |
| **Preconditions :** | | |
| **A supplier must send delivery request acceptance message to the system.** | | |
| **Flows of Events:** | | |
| **Basic flow**   1. **System: Accepts a delivery request acceptance message from the supplier.** 2. **System: Sends a tracking number and estimated arrival date to the customer.** | | |
| **Alternative Flows**  **At 1: When the Supplier does not send acceptance message.**   1. **The system will send an error message to the customer** | | |
| **Post conditions** | | |
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| **Business Rules** | | |
| Suppliers must deliver the placed order within the time provided. | | |

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| **Use Case Number: 14** | | |
| **Date Created: 07/25/2019** | | **Last Revision Date: 07/25/2019** |
| **Name** | Subscribe for Book update | |
| **Brief description** | The system will send frequent updates about the new arrivals, price changes on books, sale availability and others to the subscribed customers. | |
| **Actors** | System | |
| **Preconditions :** | | |
| **There must be at least one subscriber for book update** | | |
| **Flows of Events:** | | |
| **Basic flow**   1. **System: Collects information about new books supplied, books with price changes, books with availability (number changes), books on sale** 2. **System: Sends the information subscribers** | | |
| **Alternative Flows**  **At 1: When there is no subscriber**   1. **The system will do nothing.**   **At 2: When there is no change about the books**   1. **The system will do nothing.** | | |
| **Post conditions** | | |
| **The system will save each update information to the database for reference.** | | |
| **Business Rules** | | |
| **Customers can join the subscriber list anytime.** | | |

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| **Use Case Number: 15** | | |
| **Date Created: 07/25/2019** | | **Last Revision Date: 07/25/2019** |
| **Name** | Generate Sales/Inventory Report | |
| **Brief description** | Manager generate sales and inventory report. The report could be generated on demand on daily base, weekly base or monthly. | |
| **Actors** | Manager | |
| **Preconditions:** | | |
| Stock management and transaction records are interrelated that record of every book sale and it’s transaction is recorded | | |
| **Flows of Events:** | | |
| **Basic flow**  1. Manager: request sales/inventory report based on some criteria  2. System: generate sales/inventory report according to the requested criteria  3. Manager: keep record of the report for archive | | |
| **Alternative Flows**  **At 1. If the manager request report based on invalid criteria**   1. The system will send notification as the criteria is invalid | | |
| **Post conditions** | | |
| Based on the generated report, the manager will make decision.  The manager may send inventory report to the suppliers that they will replenish the stock accordingly | | |
| **Business Rules** | | |
| * The inventory report and sales report are highly integrated that every transaction is recorded | | |

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| **Use Case Number: 16** | | |
| **Date Created: 07/25/2019** | | **Last Revision Date: 07/25/2019** |
| **Name** | Send summary sales report | |
| **Brief description** | The system can generate summary of sales based on pre-scheduled time interval, it can be daily, weekly, and monthly | |
| **Actors** | System | |
| **Preconditions:** | | |
| Every transaction is recorded by the system | | |
| **Flows of Events:** | | |
| **Basic flow**  1. System: generates summary of sales report in a regular base  2. Manager: receive the sales summary and cross check if the system summary matches with the actual sales summary | | |
| **Alternative Flows**  **At 1:**   1. If system summary is not identical with the actual sales report, then the manager will cross check every sale. 2. If there will be some discrepancy between system summary and actual sale, then the manager will figure out the source of the difference and resolve the problem | | |
| **Post conditions** | | |
| Checking if summary of sales from the system is identical with the actual sales summary, the manager will keep record of the summary for archive. | | |
| **Business Rules** | | |
| * System sales summary should be consistent with inventory and every transaction | | |

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| **Use Case Number: 17** | | |
| **Date Created: 07/25/2019** | | **Last Revision Date: 07/25/2019** |
| **Name** | Rate book | |
| **Brief description** | Based on their experience, customers can rate books and they could recommend their favorite book | |
| **Actors** | Customer | |
| **Preconditions:** | | |
| A customer has valid account in the system  The book to be rated is available in the system | | |
| **Flows of Events:** | | |
| **Basic flow**  1. Customer: Select the book  2. Customer: Rate the book and submit the rating  3. System: keep record of rated book and the rate-value | | |
| **Alternative Flows** | | |
| **Post conditions** | | |
| The rating of the book will be available on the e-shop system that any interested person (including non-account holders) could see the rating. | | |
| **Business Rules** | | |
| * Multiple rating is not allowed, that customer could provide one rating per book | | |

UseCase Diagram

