Descrierea textuala/tabelara a cazurilor de utilizare pentru Biblioteca

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| ID and name | UC – 01: Login | | |
| Primary actor | Library user | Secondary actors | - |
| Description | A user authenticates themselves to gain access to the library system. | | |
| Trigger | The user wants to access the library system to perform actions such as borrowing or returning books or a librarian needs to manage de books list. | | |
| Preconditions | PRE – 01: The user must be registered with the library system and must have a valid username and password. | | |
| Postconditions | POST – 01: The user gains access to the library system if authentication is successful.  POST – 02: If authentication fails, the user is prompted to re-enter their credentials. | | |
| Normal flow | **1.0 Login**   1. The user navigates to the login page of the library system. 2. The system presents the user with fields to enter their username and password. 3. The user enters their username and password. 4. The system verifies the entered credentials against the stored user data. 5. If the credentials are valid, the system grants access to the user. 6. The user gains access to the library system's functionalities. | | |
| Alternative flows | **1.1 Invalid username and password**   1. The system detects that the entered credentials are invalid. 2. The system prompts the user with an error message indicating that the credentials are incorrect. 3. The user is directed to re-enter their username and password. | | |
| Exceptions | **1. Technical issues**:   1. The system encounters technical difficulties during the authentication process (server error). | | |

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| ID and name | UC – 02: View books list | | |
| Primary actor | Library user | Secondary actors | - |
| Description | The process by which a user views the list of available book copies in the library system after authentication. | | |
| Trigger | The user wants to browse the list of available book copies in the library system. | | |
| Preconditions | PRE – 01: The user must be authenticated in the library system. | | |
| Postconditions | POST – 01: The librarian is presented with the list of available book copies. | | |
| Normal flow | **2.0 View books list**   1. After successful authentication, the user navigates to the section for viewing available books in the library system. 2. The system retrieves the list of available book copies from the database. 3. The system displays the list of available book copies to the user. 4. The user browses through the list of available book copies. | | |
| Alternative flows | **None** | | |
| Exceptions | **1. Technical issues**:   1. The system encounters technical difficulties during the searching process (server error). | | |

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| ID and name | UC – 03: Borrow books | | |
| Primary actor | Subscriber | Secondary actors | - |
| Description | The process by which a subscriber borrows one or more books from the library system. | | |
| Trigger | The subscriber wants to borrow a book from the library system. | | |
| Preconditions | PRE – 01: The user must be authenticated in the library system.  PRE – 02: There must be available copies of the book the subscriber wishes to borrow. | | |
| Postconditions | POST – 01: The subscriber successfully borrows the selected books. | | |
| Normal flow | **3.0 Borrow books**   1. After successful authentication, the subscriber navigates to the section for borrowing books in the library system. 2. The system presents the subscriber with a list of available book copies. 3. The subscriber selects the book(s) they wish to borrow from the list. 4. The system verifies the availability of the selected book(s). 5. If the selected book(s) are available, the system records the borrowing transaction. 6. The subscriber receives a confirmation message indicating successful borrowing. | | |
| Alternative flows | **3.1 Books not available**   1. The system detects that the selected book(s) are not available. 2. The system prompts the subscriber with an error message indicating the unavailability of the selected book(s). 3. The subscriber may choose to select alternative book(s) or cancel the borrowing process. | | |
| Exceptions | **3.2 Technical issues**   1. The system encounters technical difficulties during the borrowing process (database error). | | |

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| ID and name | UC – 04: Return books | | |
| Primary actor | Subscriber | Secondary actors | Librarian |
| Description | The process by which a subscriber returns one or more books to the library system, facilitated by the librarian. | | |
| Trigger | The subscriber wants to return one or more books to the library system. | | |
| Preconditions | PRE – 01: The users must be authenticated in the library system.  PRE – 02: The subscriber must have borrowed one or more books from the library system. | | |
| Postconditions | POST – 01: The returned book(s) are successfully processed by the librarian and made available for other subscribers. | | |
| Normal flow | **4.0 Return books**   1. The subscriber brings the book(s) they wish to return to the library. 2. The subscriber navigates to the designated return area in the library. 3. The librarian receives the returned book(s) from the subscriber. 4. The librarian verifies the condition and availability of the returned book(s). 5. If the returned book(s) meet the required criteria, the librarian updates the system records to reflect the return. 6. The librarian confirms the successful return of the book(s) to the subscriber. | | |
| Alternative flows | none | | |
| Exceptions | **4.2 Damaged or missing book(s)**   1. The librarian detects that the returned book(s) are damaged or missing. 2. The librarian informs the subscriber of the issue and discusses potential penalties or replacement options. 3. The librarian updates the system records accordingly. | | |

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| ID and name | UC – 05: Manage books list | | |
| Primary actor | Librarian | Secondary actors | - |
| Description | The process by which the librarian manages the list of books in the library system, including adding, deleting, and modifying book records. | | |
| Trigger | The librarian wants to perform actions related to managing the book list, such as adding, deleting, or modifying book records. | | |
| Preconditions | PRE – 01: The librarian must be authenticated in the library system. | | |
| Postconditions | POST – 01: The book list is updated according to the actions performed by the librarian. | | |
| Normal flow | **5.0 Manage books list**   1. The librarian navigates to the section for managing the book list in the library system. 2. The system presents the librarian with options to add, delete, or modify book records.2 3. The librarian selects the desired action:  * If adding a book: * The librarian provides the necessary details for the new book record. * The system verifies the input and adds the new book record to the database. * If deleting a book: * The librarian selects the book(s) to be deleted from the list. * The system removes the selected book record(s) from the database. * If modifying a book: * The librarian selects the book whose details need to be modified. * The librarian updates the relevant information for the selected book. * The system updates the book record in the database with the modified details.  1. The librarian confirms the successful completion of the chosen action. | | |
| Alternative flows | none | | |
| Exceptions | **5.2.1 Invalid input**   1. The librarian provides invalid or incomplete information for adding a new book record. 2. The system prompts the librarian with an error message indicating the issue and requests corrected input.   **5.2.2 Technical issues:**   1. The system encounters technical difficulties while performing the requested action (database error). 2. The system displays an error message informing the librarian of the issue and advises them to try again later. | | |