**SOFTWARE ENGINEERING PROBLEM SPECIFICATION TABLE**

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| --- | --- |
| CLIENT | ReadX (an Egyptian conglomerate) |
| USER | The regular users and premium users of the ReadX platform |
| FUNCTIONAL REQUIREMENTS | 1. Register users, both regular and premium. 2. Manage bibliographic products: register, modify, and delete books and magazines. 3. Automatically generate objects in the system for each user type and bibliographic product. 4. Allow users to purchase a book. 5. Allow users to subscribe to a magazine. 6. Allow users to simulate a reading session (both regular and premium). 7. Present the user with their Bibliographic Product Library. 8. Generate reports with the registered data:  * For each type of bibliographic product (book and magazine), provide the total accumulated pages read throughout the platform (product type and number of pages read). * Inform the most read genre for books and the most read category for magazines in the platform (genre or category name and number of pages read). * Provide the Top 5 most read books and the Top 5 most read magazines in the platform (book or magazine name, genre or category name, and number of pages read). * For each genre, inform the number of books sold and the total sales value ($). * For each category, inform the number of active subscriptions and the total payment made for subscriptions ($). |
| PROBLEM CONTEXT | ReadX, an Egyptian conglomerate, has hired you due to your extensive programming experience to develop a software prototype that will allow them to manage their publishing business worldwide. |
| NON-FUNCTIONAL REQUIREMENTS | * Performance * Scalability * Usability * Compatibility * Portability * Accessibility |

**FUNCTIONAL REQUIREMENTS**

| Name or ID | Register User | | |
| --- | --- | --- | --- |
| Summary | Register users, both regular and premium. | | |
| Inputs | Name | Type of data | Selection or Repetition Condition |
| name | String |  |
| identification | String |  |
| registrationDate | String |  |
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| Result or Postcondition | The user is successfully registered. | | |
| Outputs | Name | Type of data | Selection or Repetition Condition |
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| Name or ID | Manage bibliographic products | | |
| --- | --- | --- | --- |
| Summary | Manage bibliographic products: register, modify, and delete books and magazines. | | |
| Inputs | Name | Type of data | Selection or Repetition Condition |
| option | String |  |
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|  |  |  |
| Result or Postcondition | Correct Option | | |
| Outputs | Name | Type of data | Selection or Repetition Condition |
| registerBook | Method |  |
| registerMagazine | Method |  |
| updateBook | Method |  |
| updateMagazine | Method |  |
| deleteMagazine | Method |  |
| deleteBook | Method |  |

| Name or ID | Purchase a book. | | |
| --- | --- | --- | --- |
| Summary | Allow users to purchase a book. | | |
| Inputs | Name | Type of data | Selection or Repetition Condition |
| userID | String |  |
| bookID | String |  |
|  |  |  |
|  |  |  |
|  |  |  |
| Result or Postcondition | The specified user successfully purchases the specified book. | | |
| Outputs | Name | Type of data | Selection or Repetition Condition |
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| Name or ID | Subscribe to a magazine | | |
| --- | --- | --- | --- |
| Summary | Allow users to subscribe to a magazine. | | |
| Inputs | Name | Type of data | Selection or Repetition Condition |
| userID | String |  |
| magazineID | String |  |
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| Result or Postcondition | The specified user successfully subscribed the specified magazine. | | |
| Outputs | Name | Type of data | Selection or Repetition Condition |
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| Name or ID | Simulate reading session | | |
| --- | --- | --- | --- |
| Summary | Allow users to simulate a reading session (both regular and premium). | | |
| Inputs | Name | Type of data | Selection or Repetition Condition |
| userID | String |  |
| productID | String |  |
|  |  |  |
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|  |  |  |
| Result or Postcondition | The reading session for the specified user and product is simulated. | | |
| Outputs | Name | Type of data | Selection or Repetition Condition |
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