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**TABLA DE ESPECIFICACIÓN DEL PROBLEMA DE INGENIERÍA DE SOFTWARE**

|  |  |
| --- | --- |
| CLIENTE | ReadXX |
| USUARIO | ReadXX’s clients |
| REQUERIMIENTOS FUNCIONALES | 1. User register 2. Register book 3. Register magazine 4. Delete book 5. Delete magazine 6. Modify book 7. Modify magazine 8. Purchase of books 9. Subscription to magazines 10. Presentation of the Library 11. Simulation of a reading session 12. Cumulative total number of pages read across the platform. 13. Report the most read book genre and magazine category for the entire platform. 14. Report the Top 5 most read books and Top 5 most read magazines on the platform. 15. Report the number of books sold and the total value of sales 16. Inform the number of active subscriptions and the total value paid for subscriptions. 17. Automatically generate in the system |
| CONTEXTO DEL PROBLEMA | ReadX is an Egyptian conglomerate, which needs to develop a software prototype that will allow them to run their publishing business globally. |
| REQUERIMIENTOS NO FUNCIONALES |  |

| Nombre o identificador | **User register** | | |
| --- | --- | --- | --- |
| Resumen | The program must allow registering regular and premium users | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| name | String | 50 characters maximum |
| identificationCard | String | 8 numerical digits at least |
| bindingDate | Calendar | *DD/MM/YYYY* |
| userType | String | should be regular or premium |
| Resultado o postcondición | The user will be registered with their respective data and type of user and a confirmation message will be displayed. If the user is registered correctly the message will be "The registration has been successful" otherwise "The user could not be registered". | | |
| Salidas | Nombre salida | Tipo de dato | Condición de selección o repetición |
| msgConfirmation | String |  |

| Nombre o identificador | **Register book** | | |
| --- | --- | --- | --- |
| Resumen | The system must allow registering both books | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| id | String | 3 hexadecimal characters, must be unique |
| name | String | 100 characters maximum |
| pagNum | int | numeric characters |
| review | Sstring | A single paragraph, maximum 600 words |
| publicationDate | Date | dd/mm/yyyy |
| gander | BookGander | It must be one of the valid genres (Science Fiction, Fantasy and Historical Novel) |
| url | Strig | Character string without spaces that leads to a repository with the book cover |
| saleValue | double | Value in dollars |
| Resultado o postcondición | The book will be registered | | |
| Salidas | Nombre salida | Tipo de dato | Condición de selección o repetición |
| objBook | Book |  |

| Nombre o identificador | **Register magazine** | | |
| --- | --- | --- | --- |
| Resumen | The system must allow registeri magazines | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| id | String | 3 hexadecimal characters, must be unique |
| name | String | 100 characters maximum |
| pagNum | int | numeric characters |
| publicationDate | Date | dd/mm/yyyy |
| category | MagazineCategory | Must be one of the valid categories (Varieties, Design and Scientific) |
|  | url | String | Character string without spaces that leads to a repository with the cover of the magazine |
|  | suscriptionValue | Double | Value in dollars |
|  | periodicity |  |  |
| Resultado o postcondición | The magazine will be registered | | |
| Salidas | Nombre salida | Tipo de dato | Condición de selección o repetición |
| objMagazine | Magazine |  |

| Nombre o identificador | **Delete book** | | |
| --- | --- | --- | --- |
| Resumen | The system must allow deleting books | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| id | String | 3 hexadecimal characters, must be unique |
| Resultado o postcondición | The book will be removed | | |

| Nombre o identificador | **Delete Magazine** | | |
| --- | --- | --- | --- |
| Resumen | The system must allow deleting magazines | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| id | String | 3 hexadecimal characters, must be unique |
| Resultado o postcondición | The magazine will be removed | | |

| Nombre o identificador | **Modify book** | | |
| --- | --- | --- | --- |
| Resumen | The system must allow to modify the registered books, through their id | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| id | String | 3 hexadecimal characters, must be unique |
| info | int | It is a number between 1 and 9 corresponding to the attribute that you want to modify |
| modified | String | the new information that will be given to the attribute |
| Resultado o postcondición | Book’s components will be modified | | |
| Salidas | Nombre salida | Tipo de dato | Condición de selección o repetición |
| objBook | Book |  |

| Nombre o identificador | **Modify magazine** | | |
| --- | --- | --- | --- |
| Resumen | The system must allow to modify the registered books, through their id | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| id | String | 3 alphanumeric characters, must be unique |
| info | int | It is a number between 1 and 9 corresponding to the attribute that you want to modify |
| modified | String | the new information that will be given to the attribute |
| Resultado o postcondición | magazines’s components will be modified | | |
| Salidas | Nombre salida | Tipo de dato | Condición de selección o repetición |
| objMagazine | Magazine |  |

| Nombre o identificador | **Purchase of books** | | |
| --- | --- | --- | --- |
| Resumen | When users purchase a book, the date of the transaction and the amount paid must be stored in an invoice, as well as the number of copies sold or active subscriptions updated, as appropriate to the type of bibliographic product. . Additionally, the user must be allowed to unsubscribe from a magazine at any time. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| id | String | must be unique |
| producID | String | 3 hexadecimal characters, must be unique |
| Resultado o postcondición | The book will be purchased, or if the entered id does not correspond to any registered book, a message is sent indicating that there is no book with that id | | |
| Salidas | Nombre salida | Tipo de dato | Condición de selección o repetición |
| msg | String | message confirming the correct purchase of the book |

| Nombre o identificador | **Subscription to magazines** | | |
| --- | --- | --- | --- |
| Resumen | When users subscribe to a magazine, the date of the transaction and the amount paid must be stored in an invoice, as well as the number of copies sold or active subscriptions updated, as appropriate to the type of bibliographic product. . Additionally, the user must be allowed to unsubscribe from a magazine at any time. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| id | String | must be unique |
| producID | String | 3 alphanumeric characters, must be unique |
| Resultado o postcondición | If you open subscribed to the journal, or if the id entered does not correspond to any registered journal, a message is sent indicating that there is no magazine with that id | | |
| Salidas | Nombre salida | Tipo de dato | Condición de selección o repetición |
| msg | String | message confirming the correct purchase of the magazine |

| Nombre o identificador | **Simulation of a reading session** | | |
| --- | --- | --- | --- |
| Resumen | The system must dispay the name of the bibliographic product, the current page that is being read, and navigation options to read the previous page, the next page, and to return to the Library. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| id | String | must be unique |
| productID | String | must be a hexadecimal or alpanumeric character |
| numberPagRead | int |  |
| Resultado o postcondición | The user will be shown the name of the bibliographic product, the current page that is being read and some navigation options to read the previous page, the next page and to return to the library and in the event that a wrong data is entered, a message will be displayed. Mistake. | | |
| Salidas | Nombre salida | Tipo de dato | Condición de selección o repetición |
| msg | String |  |

| Nombre o identificador | **Presentation of the Library** | | |
| --- | --- | --- | --- |
| Resumen | Its prototype is required to have a menu that allows the user to quickly view its collection of bibliographic products, resembling a library. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| id | string | must be unique |
| Resultado o postcondición | The library corresponding to the user referring to the entered id will be displayed | | |
| Salidas | Nombre salida | Tipo de dato | Condición de selección o repetición |
| msg | String | In the event that the hay id does not correspond to any registered user, a message will appear informing it |

| Nombre o identificador | **Cumulative total number of pages read of across the platform** | | |
| --- | --- | --- | --- |
| Resumen | The system must show for each type of bibliographic product, book and magazine, inform the accumulated total number of pages read in the entire platform | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| Resultado o postcondición | The user will be informed of the number of pages read | | |
| Salidas | Nombre salida | Tipo de dato | Condición de selección o repetición |
| msg | String | Message Informing the total number of pages read from books and magazines with (type of product and number of pages read. |

| Nombre o identificador | **Report the most read book genre and magazine category for the entire platform.** | | |
| --- | --- | --- | --- |
| Resumen | The system must report the most read book genre and magazine category for the entire platform | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| Resultado o postcondición | The user will be informed of the most read genre and category | | |
| Salidas | Nombre salida | Tipo de dato | Condición de selección o repetición |
| msg | String |  |

| Nombre o identificador | **Report the Top 5 most read books and Top 5 most read magazines on the platform** | | |
| --- | --- | --- | --- |
| Resumen | The system must report the Top 5 books and the Top 5 most read magazines on the platform | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| Resultado o postcondición | The system must report the Top 5 books and the Top 5 most read magazines on the platform | | |
| Salidas | Nombre salida | Tipo de dato | Condición de selección o repetición |
| msg | String |  |

| Nombre o identificador | **Report the number of books for gander sold and the total value of sales** | | |
| --- | --- | --- | --- |
| Resumen | The system must generate a report with the number of books sold and the total value of sales for each genre. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| Resultado o postcondición | You will be shown the number of books sold for each genre and their total sales value. | | |
| Salidas | Nombre salida | Tipo de dato | Condición de selección o repetición |
| ms | String |  |

| Nombre o identificador | **Inform the number of active subscriptions and the total value paid for subscriptions.** | | |
| --- | --- | --- | --- |
| Resumen | The system should generate a report with the number of active subscriptions and the total value of sales for each category | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| Resultado o postcondición | You will be shown the number of subscriptions for each category and their total sales value | | |
| Salidas | Nombre salida | Tipo de dato | Condición de selección o repetición |
| msg | String |  |

| Nombre o identificador | **Automatically generate in the system** | | |
| --- | --- | --- | --- |
| Resumen | The system must be able to automatically generate objects in the system for each type of user and bibliographic product. | | |
| Entradas | Nombre entrada | Tipo de dato | Condición de selección o repetición |
| Resultado o postcondición | Books and magazines will be created automatically | | |
| Salidas | Nombre salida | Tipo de dato | Condición de selección o repetición |
| objBook | Book |  |
| objMagazine | Magazine |  |