System Requirements Specification Index

For

Library Management Console InMemory

Version 1.0

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1 Project Abstract

Library Management Console Application is a pure java application with Java collection, where it allows to manage the books and issue the books from the library.The Library Management System empowers users to perform CRUD (Create, Read, Update, Delete) operations and search functionalities in different criterias on books. Users can create new book entries, update existing book and subject information, delete books and many more relevant operations.

2 Business Requirements:

Screen Name	Console input screen
Problem Statement	1. User needs to enter into the application. 2. The user should be able to do the particular operations 3. The console should display the menu 1) Add Book 2) Get Book by Name 3) Search Books by Author 4) Search Books by Publisher 5) Issue a Book 6) Return a Book 7) Check Availability 8) List Borrowed Books 9) Renew a Book 10) Top Borrowers 11) Popular Books 12) Update Book 13) Get All Books 14) Get Books by Issued Date 15) Exit

3 Common Constraints

1. Take console input of number of books: (n)
2. Take input of details of each book and store it in a collection.
3. Take input of details of books to be issued (only 1 book at a time)
4. Take input of details of book to issue and store in a collection
5. Show the books stock remained after issuing books

4 Template Code Structure

4.1 Package: com.elibrary

Resources

Class/Interface	Description	Status
LibraryManagementApp.java(class)	**This represents bootstrap class i.e class with Main method, that shall contain all console interaction with the user.**	**Partially implemented**

4.2 Package: com.iiht.training.elibrary.model

Resources

Class/Interface	Description	Status
Book (class)	● This class contains all the properties of the Book class.	Already implemented.
User(class)	● This class contains all the properties of the User class	Already implemented.

4.3 Package: com.iiht.training.elibrary.inventory

Resources

Class/Interface	Description	Status
Inventory (class)	● This class contains all the methods which are used to write the business logic for the application ● You can create any number of private methods in the class	Partially implemented.

4.4 PACKAGE: COM.IIHT.TRAINING.ELIBRARY.EXCEPTION

Resources

Class/Interface	Description	Status
ISBNAlreadyExistsException (Class)	- Custom Exception to be thrown when trying to add a book for which ISBN is already exists	Already created.
AlreadyIssuedException (Class)	- Custom Exception to be thrown when trying to issue a book which is already issued.	Already created.

5 Execution Steps to Follow

1. **All actions like build, compile, running application, running test cases will be through Command Terminal.**
2. **To open the command terminal the test takers need to go to the Application menu (Three horizontal lines at left top) -> Terminal -> New Terminal.**
3. **This editor Auto Saves the code.**
4. **If you want to exit(logout) and continue the coding later anytime (using Save & Exit option on Assessment Landing Page) then you need to use CTRL+Shift+B-command compulsorily on code IDE. This will push or save the updated contents in the internal git/repository. Else the code will not be available in the next login.**
5. **These are time bound assessments the timer would stop if you logout and while logging in back using the same credentials the timer would resume from the same time it was stopped from the previous logout.**
6. **To run your project use command:**

```
mvn clean install exec:java -Dexec.mainClass="com.elibrary.LibraryManagementApp"
```

7. **To test your project, use the command**

```
mvn test
```

8. **You need to use CTRL+Shift+B - command compulsorily on code IDE, before final submission as well. This will push or save the updated contents in the internal git/repository, and will be used to evaluate the code quality.**