

README

This Java program implements a simple Library Management System with a user interface for interacting with the library. Users can perform various actions such as adding items (Books, DVDs, CDs), searching for items, borrowing and returning items, and saving/loading the library to/from a file.

PROJECT TITLE: Personal Library

AUTHORS: Isha Sheth, Diamond Hogans, Allal Sayedzada

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HOW TO START THIS PROJECT: Execute the compiled program.

USAGE INSTRUCTIONS: 1. Upon running the program, a menu will be displayed with options numbered from 1 to 7. Enter the corresponding number to choose an option. Follow the prompts to provide necessary information for the selected action.

FEATURES:

1. Add Item
 - a. Users can add new items to the library, including Books, DVDs, and CDs. The system prompts the user to choose the type of item and then collects relevant details for each item type.
2. Search Items
 - a. Users can search for items in the library by providing a search term (e.g., ISBN, director, author, artist). The system displays matching items or notifies the user if no items are found.
3. Borrow an Item
 - a. Users can borrow items by providing the item's unique identifier and their name and contact information. The system checks for item availability and updates the borrowing status accordingly.
4. Return an Item
 - a. Users can return borrowed items by providing the item's unique identifier. The system updates the item's status to indicate its return.
5. Export/Import Library to/from File
 - a. Users can export all library items to a file and load items from a file. The system prompts users for filenames during these operations. Before using the features (add, search, borrow, or return), the desired file must be loaded. Before closing a file, the user must export all items to the desired file to save any changes made.
 - i. If the user neglects to load an existing file before exporting, the existing file will be overridden. For example, if the user does not load

the “library file” before making changes but exports these changes to “library file” before closing the program everything in the “library file” will be deleted and replaced with the new changes.

6. Quit Program

- a. Ends the program.

EXCEPTION HANDLING: The program includes exception handling to address potential errors, such as invalid input, empty fields, or unexpected errors. Proper error messages guide the user in case of input issues.

SAVING AND LOADING: Users can save the current state of the library to a file through exporting and loading a library from a file. Ensure to provide valid filenames, and the system will handle the rest.

QUITTING THE PROGRAM: To exit the program, select option 7 from the menu. A farewell message will be displayed, indicating the program's termination.

ADDITIONAL NOTES: The system uses a simple console-based user interface for ease of interaction. It relies on a Library class to manage the collection of items and perform operations.