Eyman Ahmed                     CS4398                    Group 4 Assignment 2 - Project
Joseph Antholzner
Charlie Cox
Bryan Patrick King Schilhab

Group repository link - https://github.com/CharlieCoxAustin/GroupAssignment2
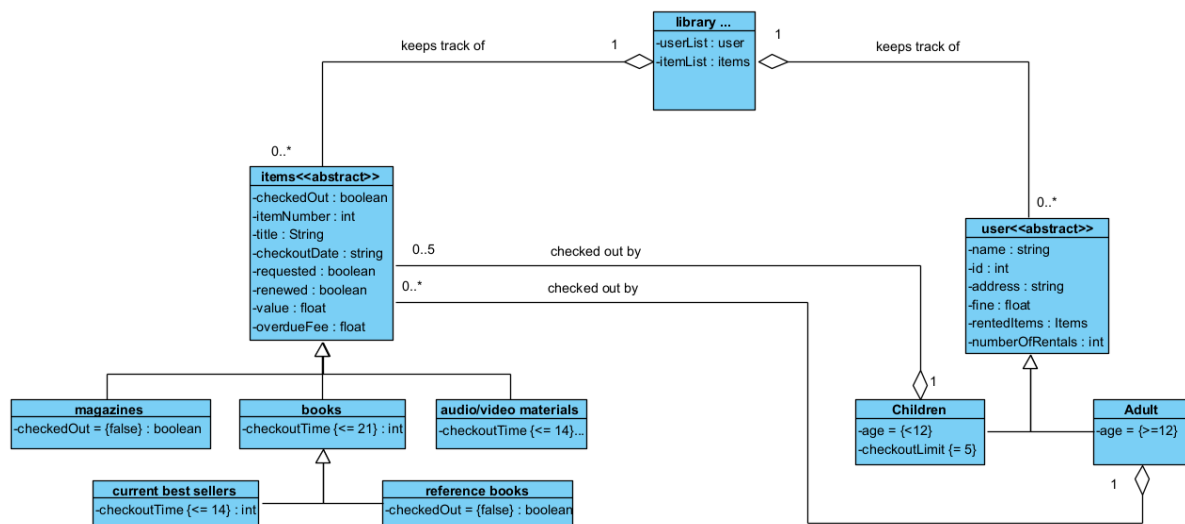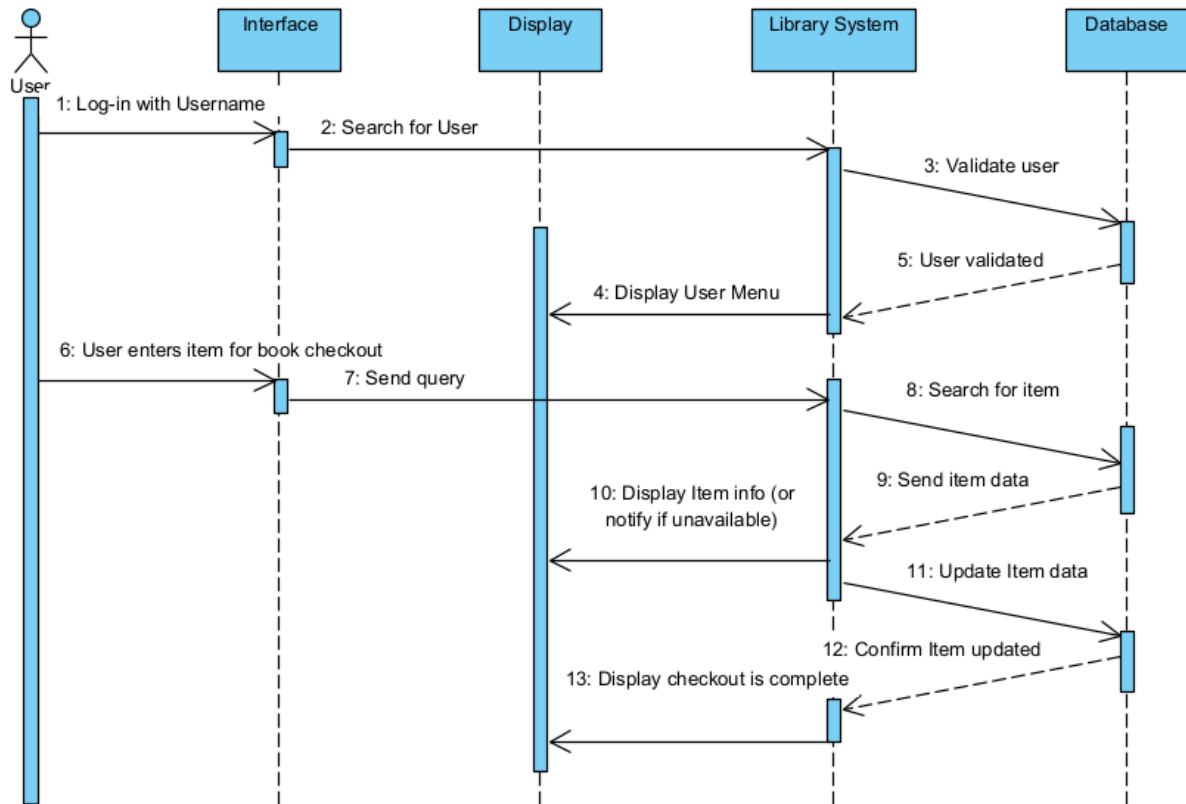
Program Requirements

1. Each user has one unique library card for as long as they are in the system.
2. The library needs to know the name, address, phone number, and library card number for each user.
3. At any particular point in time, the library may need to know or to calculate the items a user has checked out, when they are due, and any outstanding overdue fines.
4. Children (<=12) can only check out five items at a time.
5. A user can check out books or audio/video materials.
6. Books are checked out for three weeks, unless they are current best sellers, in which case the limit is two weeks.
7. Audio/video materials may be checked out for two weeks.
8. The overdue fine is ten cents per item per day, but cannot be higher than the value of the overdue item.
9. The library also has reference books and magazines, which cannot be checked out.
10. A user can request a book or audio/video item that is not currently in.
11. A user can renew an item once (and only once), unless there is an outstanding request for the item, in which case the user must return it.

Class Diagram

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Item Checkout Sequence Diagram

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## Item Return Sequence Diagram