Your task is to write library application. It is quite obvious how library works, so no point to explain it here :).

Non-functional requirements:

- should be written in Java ( Java 8 is recommended but other version are fine too),

- should NOT contain any user interface (by UI I mean REST API, Swing, gwt, vaadin, html, command line, javascript etc),

- recommended way of delivery is link to GitHub repository with readme containing instructions how to build application and run tests. Also acceptable is to send us zipped sources with build instruction inside,

- it is not necessary to maintain application state between application execution (so don't bother with setting up database or writing data to flat files etc.),

- unit tests will be additional benefit

- please do not use Spring or Hibernate

Library requirements

1. Library contains books to lend (at the beginning there are no books in the library)

2. Book consist of title, year and author.

4. Each book should have unique identifier (ID) across application.

5. Should be possible to add new book to the library. ID should not be passed as argument. ID should be generated inside Library.

6. Should be possible to remove given book from the library (by ID) (such action should be possible only if the book with such ID exists and it is not currently lent).

7. Should allow to list all books in the library (distinctly). Returned information should contain information how many is available or lent. You can use simply System.out.println

8. Should allow to search book by title, author, year (also other combinations like title AND author).

9. Should allow to lent a book by ID ( should be forbidden if copy with given ID is already lent). Should allow to pass the name of the person who lend the book.

10. Should allow to see all book's details by ID (title, author, year, information if it is available or lent together with person name).

If you found requirements too difficult, please implement as much points as you can.