**Solution - Assignment on Collection**

class Book {

@Field String title

@Field String author

@Field int year

}

class Library {

@Field List<Book> books = []

def addBook(Book book) {

if (book.title.isEmpty()) {

throw new IllegalArgumentException("Title cannot be empty.")

}

if (book.author.isEmpty()) {

throw new IllegalArgumentException("Author cannot be empty.")

}

if (book.year <= 0) {

throw new IllegalArgumentException("Year must be greater than zero.")

}

books.add(book)

}

def removeBook(Book book) {

books.remove(book)

}

def findBooksByAuthor(String author) {

books.findAll { it.author == author }

}

def findBooksPublishedAfter(int year) {

books.findAll { it.year >= year }

}

}

def library = new Library()

library.addBook(new Book(title: "The Hitchhiker's Guide to the Galaxy", author: "Douglas Adams", year: 1979))

library.addBook(new Book(title: "The Lord of the Rings", author: "J.R.R. Tolkien", year: 1954))

library.addBook(new Book(title: "The Catcher in the Rye", author: "J.D. Salinger", year: 1951))

library.removeBook(library.books[0])

println library.findBooksByAuthor("J.R.R. Tolkien")

println library.findBooksPublishedAfter(1951)

In this solution, we create the **Book** class with the **@Field** annotation to generate getters and setters for its properties. We then create the **Library** class with the **books** list property and methods to add, remove, and find books in the list.

In the **addBook()** method, we add validation to ensure that the book object being added has a non-empty title, author, and a positive year value. If any of these conditions are not met, an exception with a helpful error message is thrown.

In the **Main** class, we create a new **Library** object and add several **Book** objects to its **books** list using the **addBook()** method. We then use the **removeBook()** method to remove one of the **Book** objects from the **books** list. Finally, we use the **findBooksByAuthor()** and **findBooksPublishedAfter()** methods to find all **Book** objects in the **books** list that were written by a specific author and published after a specific year, and print them to the console.