

Summary:

The following Lab1 submission is for an A grade on this assignment.

Two .java files: BookDemo.java and Library.java.
& this is the ReadMe file.

Both .java files mention their purposes at the beginning.

Tests:

1. BookDemo.java

```
Book book1 = new Book("The Mahabharata of Krishna-Dwaipayana Vyasa Vana Parva, Part  
1", "Vyasa", "John B. Hare", "11894");  
System.out.println(book1.getTitle());  
System.out.println(book1);  
  
// System.out.println();  
* Book book2 = new Book("The Ramayana, Volume 2. Aranya, Kishkindha, and Sundara  
Kandam", "Valmiki", "Dutt, Manmatha Nath", "57826");  
* System.out.println(book2);  
* System.out.println();  
  
* Book book3 = new Book("Vikram and the Vampire", "Burton, Richard Francis, Sir",  
"David Widger", "2400");  
System.out.println(book3);  
* System.out.println();  
  
* Book book4 = new Book("The Yoga Sutras of Patanjali: The Book of the Spiritual Man",  
"Patanjali", "J. C. Byers", "2526");  
* System.out.println(book4);  
* System.out.println();  
*/
```

- (base) koushalsmodi@Koushals-MacBook-Pro cs245 % javac Lab1/BookDemo.java
- (base) koushalsmodi@Koushals-MacBook-Pro cs245 % java -cp . Lab1.BookDemo
 Title: The Mahabharata of Krishna-Dwaipayana Vyasa Vana Parva, Part 1
 Author: Vyasa
 Publisher: John B. Hare
 EbookNo: 11894

Title: The Ramayana, Volume 2. Aranya, Kishkindha, and Sundara Kanda
 Author: Valmiki
 Publisher: Dutt, Manmatha Nath
 EbookNo: 57826

Title: Vikram and the Vampire
 Author: Burton, Richard Francis, Sir
 Publisher: David Widger
 EbookNo: 2400

Title: The Yoga Sutras of Patanjali: The Book of the Spiritual Man
 Author: Patanjali
 Publisher: J. C. Byers
 EbookNo: 2526

2. Library.java

```
public Library() {
    allBooks = new ArrayList<>();
    // title, author, publisher, and EbookNo
    allBooks.add(new Book("The Mahabharata of Krishna-Dwaipayana Vyasa Vana Parva,
Part 1", "Vyasa", "John B. Hare", "11894"));
    allBooks.add(new Book("The Ramayana, Volume 2. Aranya, Kishkindha, and Sundara
Kanda", "Valmiki", "Dutt, Manmatha Nath", "57826"));
    allBooks.add(new Book("Vikram and the Vampire", "Burton, Richard Francis, Sir",
"David Widger", "2400"));
    allBooks.add(new Book("The Yoga Sutras of Patanjali: The Book of the Spiritual
Man", "Patanjali", "J. C. Byers", "2526"));
    allBooks.add(new Book("Kate Bonnet: The Romance of a Pirate's Daughter", "Frank
R. Stockton", "Suzanne Shell", "17053"));
    allBooks.add(new Book("Autobiography of a Yogi", "Paramahansa Yogananda",
"Richard Tonsing", "7452"));
    allBooks.add(new Book("Pride and Prejudice", "Jane Austen", "Chuck Greif",
"1342"));
    allBooks.add(new Book("Frankenstein; Or, The Modern Prometheus", "Mary
Wollstonecraft Shelley", "Judith Boss", "84"));
}
```

More additions:

```
l1.addBook(new Book("Romeo and Juliet", "William Shakespeare", "PG Shakespeare Team",  
"1513"));  
(letter 1 and 1)^
```

List all books:

```
l1.listAllBooks();
```

Search for book:

```
l1.searchBooks("Autobiography of a Yogi");
```

Purchase a book and list the books in the user's library:

```
UserLibrary l2 = new UserLibrary(l1);  
l2.purchaseBook("Vikram and the Vampire");  
l2.listUserLibrary(); // list books the user has in his own library  
l2.purchaseBook("The Mahabharata of Krishna-Dwaipayana Vyasa Vana Parva, Part 1");
```

Read the Book Forward:

```
String filename = "/Users/koushalsmodi/Desktop/cs245/Lab1/Krishna.txt";  
l2.readUserBookForward("/Users/koushalsmodi/Desktop/cs245/Lab1/Krishna.txt");  
l2.listUserLibrary(); // list books the user has in his own library
```

- (base) koushalsmodi@Koushals-MacBook-Pro cs245 % javac Lab1/Library.java
- (base) koushalsmodi@Koushals-MacBook-Pro cs245 % java Lab1/Library
The Project Gutenberg eBook of The Mahabharata of Krishna-Dwaipayana Vyasa Translated into English Prose

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Title: The Mahabharata of Krishna-Dwaipayana Vyasa Translated into English Prose

Translator: Kisari Mohan Ganguli

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Most recently updated: March 8, 2013

Language: English

Credits: Produced by David King, Juliet Sutherland, and Charles Franks, John B. Hare and the Online Distributed Proofreading Team
Press Enter to continue:



Press Enter to continue:

Translated into English Prose from the Original Sanskrit Text

by

Kisari Mohan Ganguli

[1883-1896]

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TRANSLATOR'S PREFACE

The object of a translator should ever be to hold the mirror up to his author. That being so, his chief duty is to represent so far as
Press Enter to continue:

Search matching word's lines:

```
12.onlySearchLines("/Users/koushalsmodi/Desktop/cs245/Lab1/Krishna.txt", "cow");
```

- (base) koushalsmodi@Koushals-MacBook-Pro cs245 % java -cp . Lab1/Library the precious stones, gold and jewels; the wealth in cows, elephants, and cow among quadrupeds; as are these (among the things mentioned) so is the live upon the milk of these cows.' And his preceptor thereupon told him, this, went as before to tend the cows. And restrained by his preceptor, he attributes of matter, to be gifted with form! Three hundred and sixty cows away could not be girt round with a cord made of a hundred (cow) hides. the hoof of a cow. And Purandara, proud of his strength, beheld them with seated in a cow-pen and drinking to his fill the froth oozing out of the went to his father, and saw the sage sitting in the cow-pen, bearing the of that Muni, came back to his capital. The Muni had a son, born of a cow, And those animals also, that are called Go-langula (the cow-tailed), are is the foremost of all bipeds, a cow, the foremost of all quadrupeds, a great. And the blessed monarch performed both the cow and the horse-cows. Both the earth and the firmament exist owing to my truth and virtue; with Kasyapa, a daughter (Nandini) in the form of a cow. That foremost of all kine, Nandini, was the cow of plenty (capable of granting every those woods Nandini, the cow of plenty. And seeing that cow possessing the first of elephants, when Dyū was shown that cow, he began to admire her fair thighs, this excellent cow belongeth to that Rishi whose is this sweet milk of this cow remaineth in unchanged youth for ten thousand have this cow, O illustrious one, with her calf for that friend of mine. Therefore, O best of celestials, bring that cow so that my friend drinking that cow, aided by his brothers Prithu and the others. Indeed, Dyū, stealing the cow.

he had collected, he beheld not the cow with her calf there. He began to intelligence found not his cow on search, he saw by his ascetic vision he cursed the Vasus, saying, 'Because the Vasus have stolen my cow of great strength at the sight of a cow in rut. Then that foremost of men, unlettered mind, between a hero and a coward. Why dost thou desire the desirous of obtaining a cow from one who had many, and for that I wandered failed to obtain a milch cow. After I had come back unsuccessful, some of unlettered kind and a man of letters, between a coward and a hero. Why their energy, roared like two infuriate elephants contending for a cow—arrows into the hollow of a cow's horn hung up on a rope swaying to and of that illustrious Brahmana, like unto a cow running towards her tethered fruits, and clarified butter. For the illustrious Rishi had a cow yielding wondered much, beholding that cow with six elevated limbs and the applauding the cow named Nandini, addressed the Rishi, saying, 'O Brahmana, kingdom. Enjoy thou my kingdom (giving me thy cow).'

cow hath been kept by me for the sake of the gods, guests, and the Pitris, me not what I desire in exchange even for ten thousand cows, I will not abandon the practice of my order; I will take thy cow even by force!' Partha, then forcibly seized Nandini, that cow (white) like the swan or

"The Gandharva continued, 'Then the cow of Vasishtha, hearing the word glad hearts, like mighty bulls entering a cow-pen. Then Dhaumya, well—foremost of the Kurus gave away unto Brahmanas many thousands of cows and cows unto Brahmanas. Whatever regions of sacred waters and whatever other cowherd woman. But arrived at the palace, the renowned Subhadra looked thousand cows belonging to the country of Mathura, and yielding much milk unto Brahmanas ten thousand cows and coins of gold. The child from his

› (base) koushalsmodi@Koushals-MacBook-Pro cs245 % █

Read the book backwards:

```
l2.readUserBookBackward("/Users/koushalsmodi/Desktop/cs245/Lab1/The Mahabharata of
Krishna-Dwaipayana Vyasa.txt");
// 21957
I printed out the index for stop (last index), it was 21957
```

Purchase the book even if the title matches somewhat:

```
l2.partialMatch("The Mahabharata");
```

Match found for: the mahabharata

Match is: the mahabharata of krishna-dwaipayana vyasa vana parva, part 1

Book purchased: The Mahabharata of Krishna-Dwaipayana Vyasa Vana Parva, Part 1

```
l2.partialMatch("Yogi");
```

Match found for: yogi

Match is: autobiography of a yogi

Book purchased: Autobiography of a Yogi

```
// I entered the full name of the book below to check as well
```

```
l2.partialMatch("Autobiography of a Yogi");
```

Match found for: autobiography of a yogi

Match is: autobiography of a yogi

Book purchased: Autobiography of a Yogi

List top 10 words and their frequency

```
CountWords cw = new CountWords();
```

```
cw.readUserBookAllAtOnce("/Users/koushalsmodi/Desktop/cs245/Lab1/YogaSutras.txt");
```

```
cw.listTop10(cw.getWordFrequencies());
```

- (base) koushalsmodi@Koushals-MacBook-Pro cs245 % javac Lab1/Library.java
- (base) koushalsmodi@Koushals-MacBook-Pro cs245 % java Lab1/Library

```
Word: spiritual, Frequency: 365
```

```
Word: man, Frequency: 121
```

```
Word: consciousness, Frequency: 105
```

```
Word: may, Frequency: 97
```

```
Word: one, Frequency: 96
```

```
Word: power, Frequency: 94
```

```
Word: man,, Frequency: 86
```

```
Word: project, Frequency: 83
```

```
Word: life, Frequency: 82
```

```
Word: psychic, Frequency: 82
```

Some snapshots from the terminal:

Library.java

Including main code chunk:

```
public static void main(String[] args) {  
    Library l1 = new Library();  
    // adding a book  
    l1.addBook(new Book("Romeo and Juliet", "William Shakespeare", "PG Shakespeare  
Team", "1513"));  
    l1.listAllBooks();  
    l1.searchBooks("Autobiography of a Yogi"); // search for the book  
    System.out.println("cleared library now user library");  
}
```

```

        UserLibrary l2 = new UserLibrary(l1); // populating the library books, helpful
in the for loop for checking the book
        // user wants to buy the following books
        l2.purchaseBook("Vikram and the Vampire");
        l2.listUserLibrary(); // list books the user has in his own library
        l2.purchaseBook("The Mahabharata of Krishna-Dwaipayana Vyasa Vana Parva, Part
1");
        l2.listUserLibrary(); // list books the user has in his own library

    }

```

Output:

```

1 1. Purchase the books from the library
● (base) koushalsmodi@Koushals-MacBook-Pro cs245 % javac Lab1/Library.java
● (base) koushalsmodi@Koushals-MacBook-Pro cs245 % java -cp . Lab1/Library
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Author: Valmiki
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Publisher: J. C. Byers
EbookNo: 2526

Title: Kate Bonnet: The Romance of a Pirate's Daughter
Author: Frank R. Stockton
Publisher: Suzanne Shell
EbookNo: 17053

Title: Autobiography of a Yogi
Author: Paramahansa Yogananda
Publisher: Richard Tonsing
EbookNo: 7452

Title: Pride and Prejudice
Author: Jane Austen
Publisher: Chuck Greif
EbookNo: 1342

```

Title: Frankenstein; Or, The Modern Prometheus
Author: Mary Wollstonecraft Shelley
Publisher: Judith Boss
EbookNo: 84

Title: Romeo and Juliet
Author: William Shakespeare
Publisher: PG Shakespeare Team
EbookNo: 1513

Title: Autobiography of a Yogi
Author: Paramahansa Yogananda
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