

Harvard Extension School

Cambridge, MA 02138

Spring Term, 2017

Part 2 – Assignment 2 (Spring Security)

CSCI E-57

Java Enterprise Development
and the Spring Framework

Submitted to:

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Professor

Submitted by:

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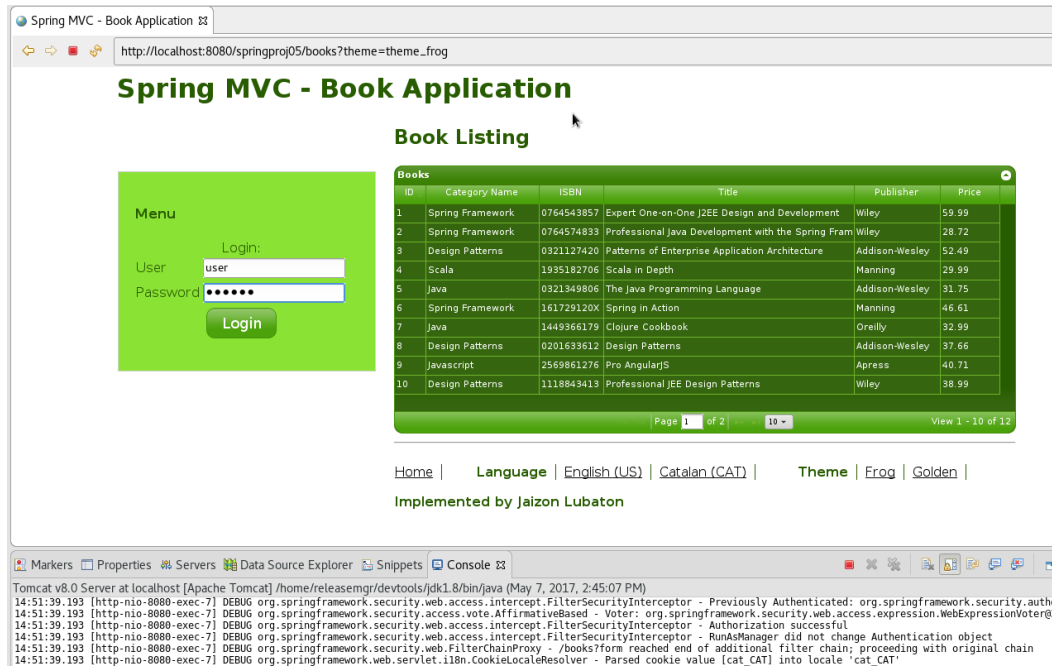
jahskee@yahoo.com

Harvard UID: 51263324

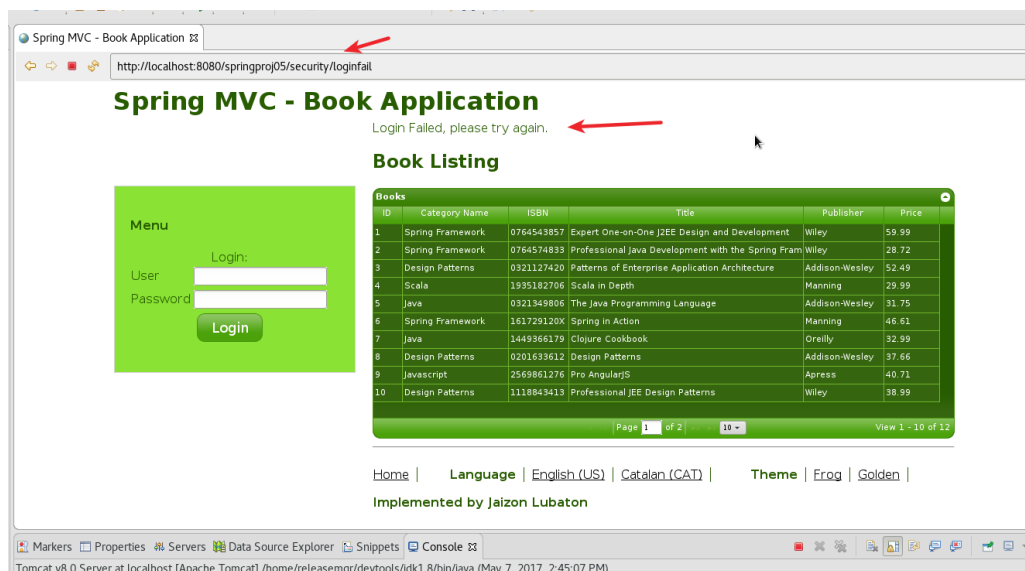
Introduction

Spring security is one of the most important modules of the Spring Framework, and we added this feature to the web application that we previously created in Part 2 – Assignment 1. I also prepared a video to supplement this document <https://youtu.be/OS5RX2ayq6k>.

1. The initial screen of the application is accessible to the public, and no user is logged in. The login form is displayed and prompts the user to log in.



2. The user entered a wrong password, and the error message "Login failed, please try again." is displayed. The new URL is <http://localhost:8080/springproj05/security/loginfail>.



The screenshot shows a web browser window with the address bar displaying "http://localhost:8080/springproj05/books". The page title is "Spring MVC - Book Application". The main content area has a green background and contains two sections:

- Menu**: Located on the left side, it includes a button labeled "Add Book". A red arrow points to this button.
- Book Listing**: A table listing books with columns: ID, Category Name, ISBN, Title, Publisher, and Price. The table contains 10 entries. A red arrow points to the "Welcome user" link in the top right corner of the page.

| ID | Category Name | ISBN | Title | Publisher | Price |
|----|------------------|------------|--|----------------|---------|
| 1 | Spring Framework | 0764543857 | Expert One-on-One J2EE Design and Development | Wiley | \$59.99 |
| 2 | Spring Framework | 0764574833 | Professional Java Development with the Spring Fram | Wiley | 28.72 |
| 3 | Design Patterns | 0321127420 | Patterns of Enterprise Application Architecture | Addison-Wesley | \$24.99 |
| 4 | Scala | 1935182706 | Scala in Depth | Manning | 29.99 |
| 5 | Java | 0321349806 | The Java Programming Language | Addison-Wesley | \$1.75 |
| 6 | Spring Framework | 161729120X | Spring in Action | Manning | 46.61 |
| 7 | Java | 1449366179 | Closure Cookbook | Oreilly | \$2.99 |
| 8 | Design Patterns | 0201633612 | Design Patterns | Addison-Wesley | \$7.66 |
| 9 | Javascript | 2569861276 | Pro AngularJS | Apress | 40.71 |
| 10 | Design Patterns | 1118849413 | Professional JEE Design Patterns | Wiley | 38.99 |

At the bottom of the book listing table, there are pagination controls: "Page 1 of 2", "10", and "View 1 - 10 of 12". Below the table, there are links for "Home", "Language" (with sub-links for "English (US)", "Catalan (CAT)", "Theme", "Frog", and "Golden"), and "Implemented by Jaizon Lubaton".

Spring MVC - Book Application

http://localhost:8080/springproj05/books/3

Spring MVC - Book Application

Welcome user
[Logout](#)

Book Information

Menu

Add Book

| | |
|---------------|---|
| ID | 3 |
| Title | Patterns of Enterprise Application Architecture |
| Category Name | Design Patterns |
| ISBN | 0321127420 |
| Publisher | Addison-Wesley |
| Price | \$52.49 |

Edit Book

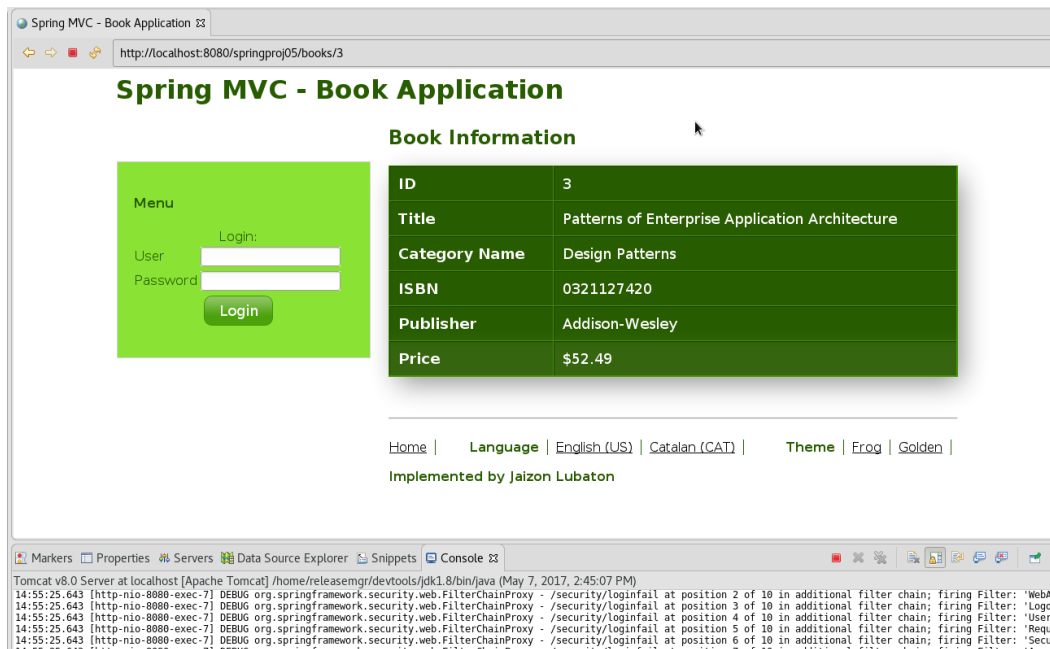
[Home](#) |
 [Language](#) |
 [English \(US\)](#) |
 [Catalan \(CAT\)](#) |
 [Theme](#) |
 [Frog](#) |
 [Golden](#) |
 [Feedback](#)

Implemented by Jaizon Lubaton

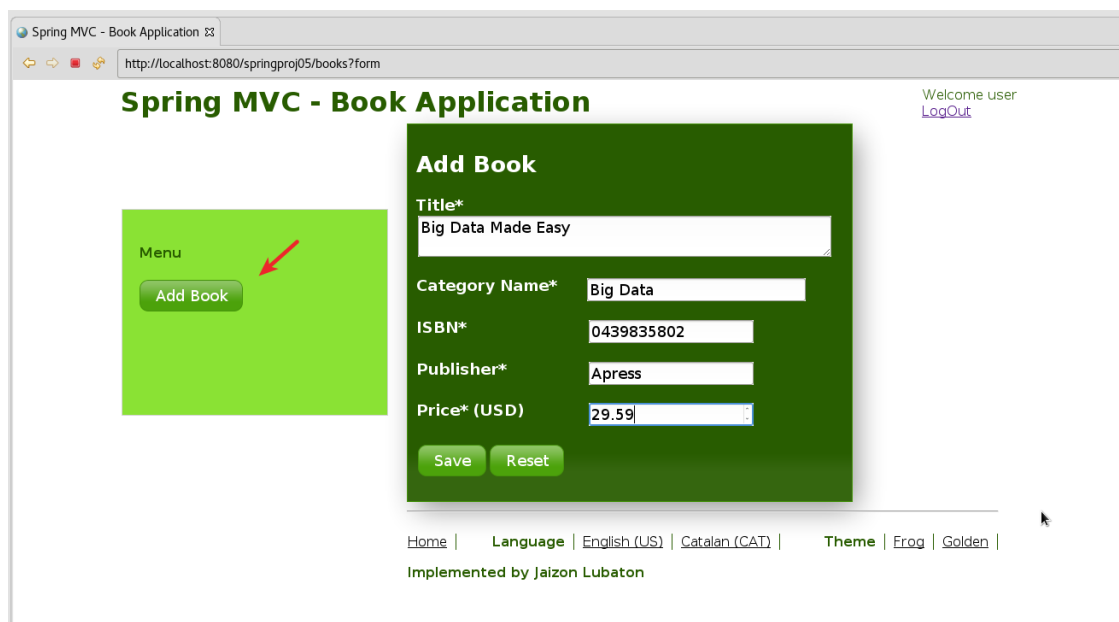
Markers Properties Servers Data Source Explorer Snippets Console

Tomcat v8.0 Server at localhost [Apache Tomcat] /home/releasemgr/devtools/jdk1.8/bin/java (May 7, 2017, 2:45:07 PM)

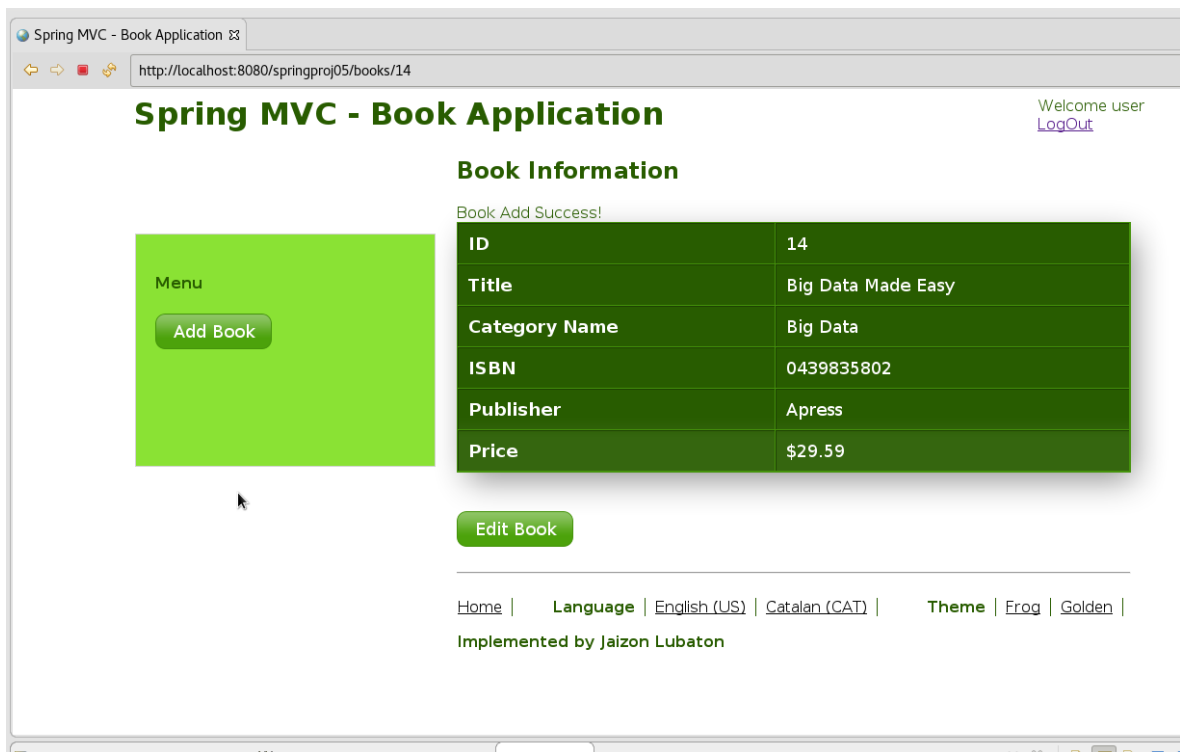
5. After clicking log out, let us again view the previously displayed page, and we see the login page is again visible, but the “Add Book” and ‘Edit Book” buttons disappeared. It is because the user is not logged in.



6. We again login to the web application and “New Book” button is visible and let’s click it. Let us try adding a new book titled “Big Data Made Easy,” then click save.



7. The new book was saved by the web application.



8. We can confirm the addition of the new record, "Big Data Made Easy" by checking it in the database.

The screenshot shows a database table view titled 'book @springdb1 (02-localhost) - Table'. The table has columns: id, category_name, isbn, title, publisher, and price_decimal. The data is as follows:

| id | category_name | isbn | title | publisher | price_decimal |
|----|------------------|------------|---|----------------|---------------|
| 1 | Spring Framework | 0764543857 | Expert One-on-One J2EE Design and Development | Wiley | 59.99 |
| 2 | Spring Framework | 0764574833 | Professional Java Development with the Spring Framework | Wiley | 28.72 |
| 3 | Design Patterns | 0321127420 | Patterns of Enterprise Application Architecture | Addison-Wesley | 52.49 |
| 4 | Scala | 1935182706 | Scala in Depth | Manning | 29.99 |
| 5 | Java | 0321349806 | The Java Programming Language | Addison-Wesley | 28.9 |
| 6 | Spring Framework | 161729120X | Spring in Action | Manning | 46.61 |
| 7 | Java | 1449366179 | Clojure Cookbook | Oreilly | 32.99 |
| 8 | Design Patterns | 0201633612 | Design Patterns | Addison-Wesley | 37.66 |
| 9 | Javascript | 2569861276 | Pro AngularJS | Apress | 40.71 |
| 10 | Design Patterns | 1118843413 | Professional JEE Design Patterns | Wiley | 38.99 |
| 11 | Spring Framework | 8760351290 | Pro Spring Security | Apress | 29.65 |
| 12 | Java | 1617291999 | Java 8 in Action | Manning | 35.49 |
| 13 | Java | 0321356683 | Effective Java | Addison-Wesley | 32.45 |
| 14 | Big Data | 0439835802 | Big Data Made Easy | Apress | 29.59 |

A red arrow points to the row with id 14, confirming the addition of the new record.

Demonstration the Use of Annotation to Secure Controller Methods

9. To test the Controller method security, In the browser address bar, we type `http://localhost:8080/springproj05/book?form`.

The screenshot shows a web browser window titled "Spring MVC - Book Application" with the address bar containing `http://localhost:8080/springproj05/books?form`. The page displays a green-themed interface with a "Menu" section on the left containing a "Login" button and a "Book Listing" section on the right showing a table of books. The table has columns for ID, Category Name, ISBN, Title, Publisher, and Price. The bottom of the page includes navigation links for Home, Language, Theme, and Footer information.

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| 2 | Spring Framework | 0764574833 | Professional Java Development with the Spring Fram | Wiley | 28.72 |
| 3 | Design Patterns | 0321127420 | Patterns of Enterprise Application Architecture | Addison-Wesley | 52.49 |
| 4 | Scala | 1935182706 | Scala in Depth | Manning | 29.99 |
| 5 | Java | 0321349806 | The Java Programming Language | Addison-Wesley | 31.75 |
| 6 | Spring Framework | 161729120X | Spring in Action | Manning | 46.61 |
| 7 | Java | 1449366179 | Clojure Cookbook | Oreilly | 32.99 |
| 8 | Design Patterns | 0201633612 | Design Patterns | Addison-Wesley | 37.66 |
| 9 | Javascript | 2569861276 | Pro AngularJS | Apress | 40.71 |
| 10 | Design Patterns | 1118843413 | Professional JEE Design Patterns | Wiley | 38.99 |

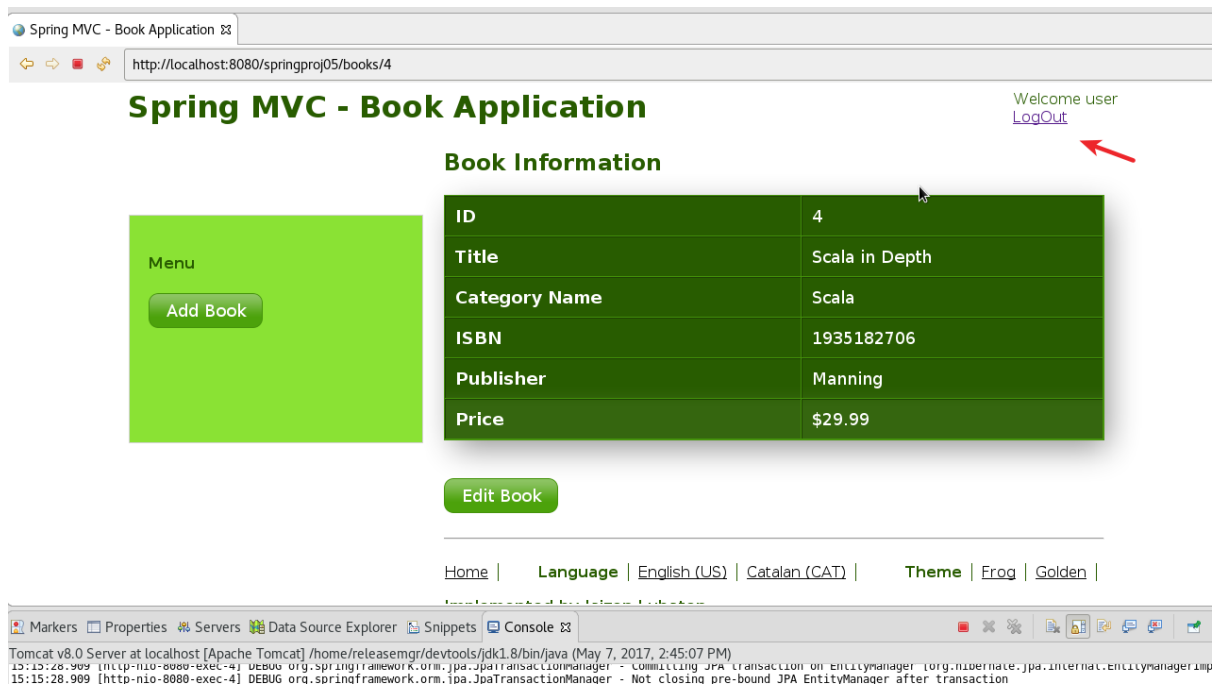
10. However, after typing the URL shown above, we are redirected to the URL `http://localhost:8080/springproj05/books`. This event demonstrates that anonymous users cannot edit or add a record.

The screenshot shows a web browser window titled "Spring MVC - Book Application" with the address bar containing `http://localhost:8080/springproj05/books`. The page displays a green-themed interface with a "Menu" section on the left containing a "Login" button and a "Book Listing" section on the right showing a table of books. The table has columns for ID, Category Name, ISBN, Title, Publisher, and Price. The bottom of the page includes navigation links for Home, Language, Theme, and Footer information.

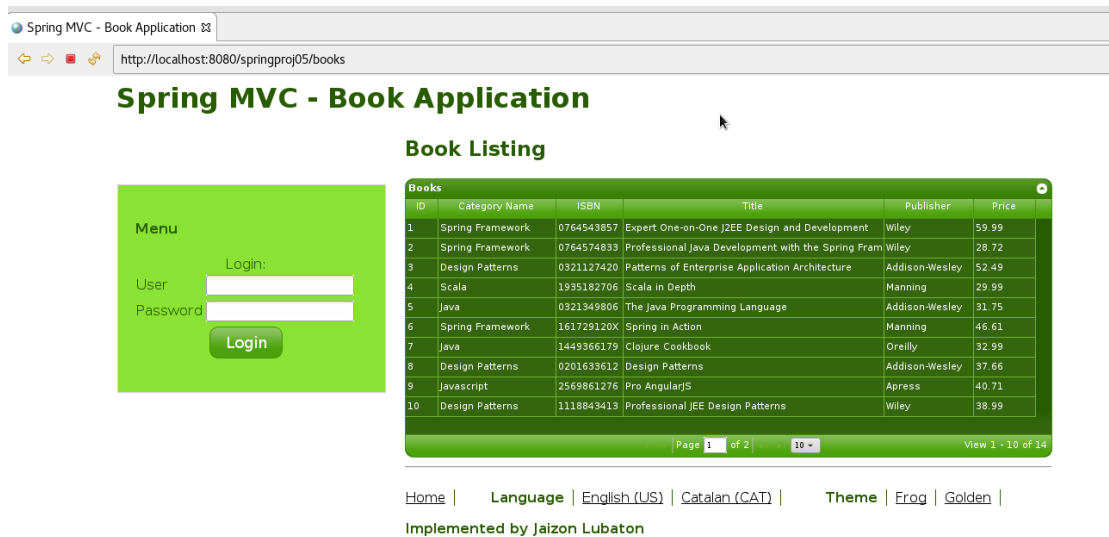
| ID | Category Name | ISBN | Title | Publisher | Price |
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| 1 | Spring Framework | 0764543857 | Expert One-on-One J2EE Design and Development | Wiley | 59.99 |
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| 3 | Design Patterns | 0321127420 | Patterns of Enterprise Application Architecture | Addison-Wesley | 52.49 |
| 4 | Scala | 1935182706 | Scala in Depth | Manning | 29.99 |
| 5 | Java | 0321349806 | The Java Programming Language | Addison-Wesley | 31.75 |
| 6 | Spring Framework | 161729120X | Spring in Action | Manning | 46.61 |
| 7 | Java | 1449366179 | Clojure Cookbook | Oreilly | 32.99 |
| 8 | Design Patterns | 0201633612 | Design Patterns | Addison-Wesley | 37.66 |
| 9 | Javascript | 2569861276 | Pro AngularJS | Apress | 40.71 |
| 10 | Design Patterns | 1118843413 | Professional JEE Design Patterns | Wiley | 38.99 |

Using the Logout Link

11. When the user is logged in, the log out link appears at the right most corner, as shown in the picture below.



12. After clicking log out, the user is back to view mode and login form is again visible.



Thank You,
Jaizon Lubaton