Part 3 Assignment 2 – Spring MVC Security

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Notes on Term Project Part 3 Assignment 2

- This assignment is an extension of assignment 1 so I'm assuming that you already have tomcat running as well as MySql and that you already have the test data loaded in. Having changed, added, and deleted any books while grading assignment 1 shouldn't effect how assignment 2 works at all.
- Since Assignment 2 extends Assignment 1, security was implemented with Java configurations rather than xml configurations. I followed the textbook directions regarding how to implement Spring Security with java configs.
- The username is "user", the password is "password"

BUILDING THE ASSIGNMENT 2 WEB APP

Similar to assignment 1, you need to modify the projects pom.xml file in order to have maven build and copy the web app war file into your Tomcat directory. Change the pom file in this project the same way you changed it for assignment 1, setting your **outputDirectory** tag to the path of your own Tomcat **webapps** directory.

```xml
<build>
    <finalName>spring-mvc-webapp-2</finalName>
    <plugins>
        <plugin>
            <groupId>org.apache.tomcat.maven</groupId>
            <artifactId>tomcat7-maven-plugin</artifactId>
            <version>${tomcat7.maven.plugin.version}</version>
        </plugin>
        <plugin>
            <groupId>org.apache.maven.plugins</groupId>
            <artifactId>maven-war-plugin</artifactId>
            <version>${maven.war.plugin.version}</version>
            <configuration>
                <outputDirectory>/Users/brettbloethner/apache-tomcat-8.5.35/webapps/</outputDirectory>
            </configuration>
        </plugin>
    </plugins>
</build>
```

Once you've completed that, navigate to the project directory which should look like this.

```
[Bretts-MacBook-Pro-2:Part3Assignment2 brettbloethner$ ls
README.md                       spring-mvc-webapp-2.docx        src
pom.xml                         spring-mvc-webapp-2.iml         ~$ring-mvc-webapp-2.docx
Bretts-MacBook-Pro-2:Part3Assignment2 brettbloethner$
```

Run the maven war compile command **mvn compile war:war** . Your consoles output should look something like what's below

Wait a short amount of time to let Tomcat see the changes and restart the server. Visit the webapp at the url **localhost:8080/spring-mvc-webapp-2/** or **localhost:8080/spring-mvc-webapp-2/books** . The book list web page should look similar to assignment 1 with the exception of the new login fields in the left hand sidebar.

TESTING THE ASSIGNMENT 2 WEB APP

1. Testing login failure
   Visit the list all books page at **localhost:8080/spring-mvc-webapp-2/** or
   localhost:8080/spring-mvc-webapp-2/books . In the login form in the left-hand side menu, type "user" for the username and "wrongpassword" for the password. Press **Login**.

Notice how you get an error saying login failed and how your still on the book list screen. The **New Book** button is still not revealed.
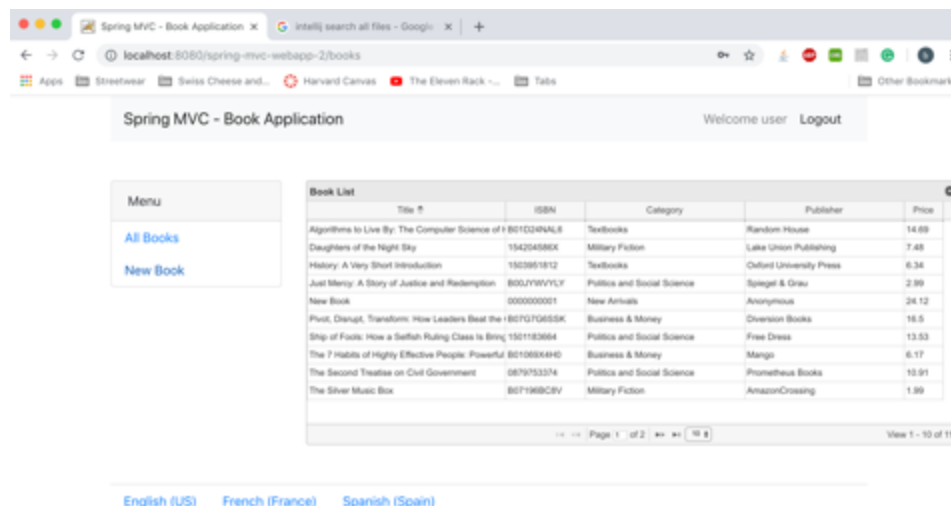
2. Testing login
   Visit the list all books page at **localhost:8080/spring-mvc-webapp-2/** or **localhost:8080/spring-mvc-webapp-2/books** . In the login form in the left-hand side menu, type "user" for the username and "password" for the password. Press **Login**.


Notice how you're now logged in. In the upper right-hand corner there is a i18n greeting with an option to logout. The login form has also been replaced with the **New Book** option since you are now an authenticated user.

3. Testing while logged in
   Now that you're logged in. Select a book by clicking any row in the data grid. You'll be taken to the show book page.
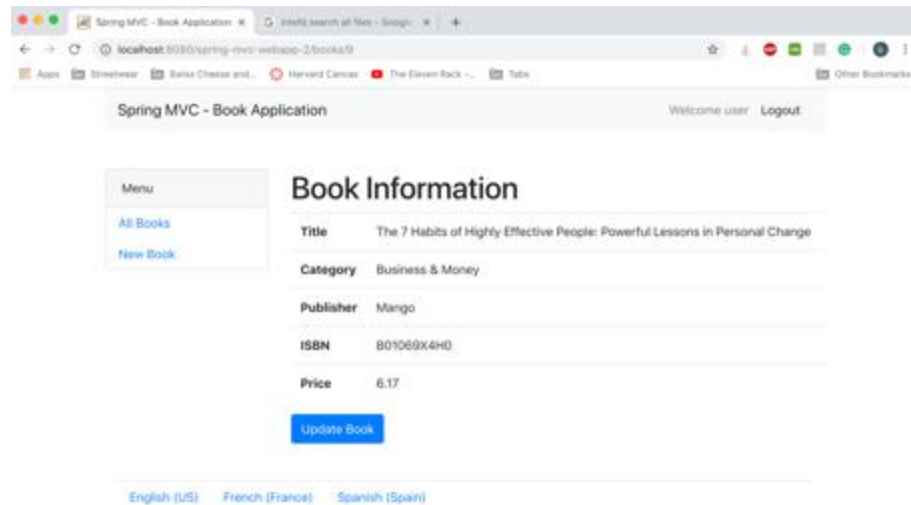
Notice how the show book page contains the **Update Book** button/link. Click the **New Book** link in the left-hand sidebar menu. Use the form to create a new book like how it was done in assignment 1.

Spring MVC - Book Application

Welcome user **Logout**
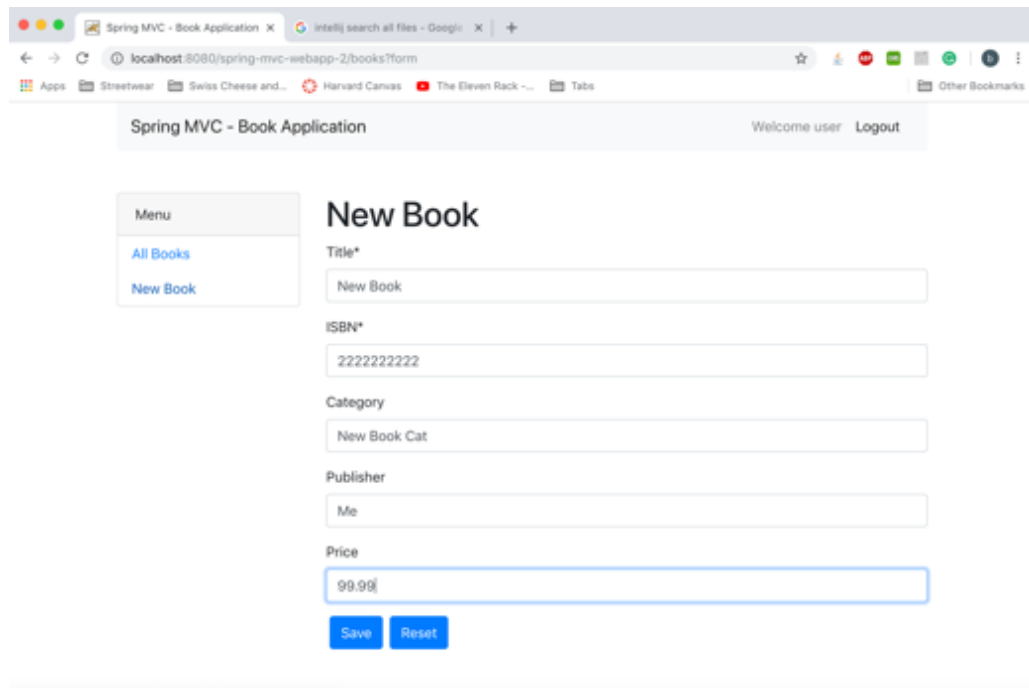
Menu

All Books

New Book

Book Information

Book saved successfully

Title	New Book
Category	New Book Cat
Publisher	Me
ISBN	2222222222
Price	99.99

Update Book

English (US)   French (France)   Spanish (Spain)

Spring MVC - Book Application

Welcome user **Logout**

Menu

All Books

New Book

Book List				⊕
Title ↑	ISBN	Category	Publisher	Price
Algorithms to Live By: The Computer Science of H	B01D24NAL6	Textbooks	Random House	14.69
Daughters of the Night Sky	154204586X	Military Fiction	Lake Union Publishing	7.48
History: A Very Short Introduction	1503951812	Textbooks	Oxford University Press	6.34
Just Mercy: A Story of Justice and Redemption	B00JYWVYLY	Politics and Social Science	Spiegel & Grau	2.99
New Book	0000000001	New Arrivals	Anonymous	24.12
New Book	2222222222	New Book Cat	Me	99.99
Pivot, Disrupt, Transform: How Leaders Beat the	B07G7G6SSK	Business & Money	Diversion Books	16.5
Ship of Fools: How a Selfish Ruling Class Is Bring	1501183664	Politics and Social Science	Free Dress	13.53
The 7 Habits of Highly Effective People: Powerful	B01069X4H0	Business & Money	Mango	6.17
The Second Treatise on Civil Government	0879753374	Politics and Social Science	Prometheus Books	10.91
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English (US)   French (France)   Spanish (Spain)

Notice how I was logged in throughout the entire process (from the left-hand sidebar menu and the top right nav bar indicator). The book was created successfully and the changes reflected in the database and book list view.

4. Testing while logged out
   Press the **Logout** link in the top right corner of the nav bar. Notice how you're redirected to the home page, the greeting and **Logout** link disappear and how the **New Book** link is replaced with the login form again.
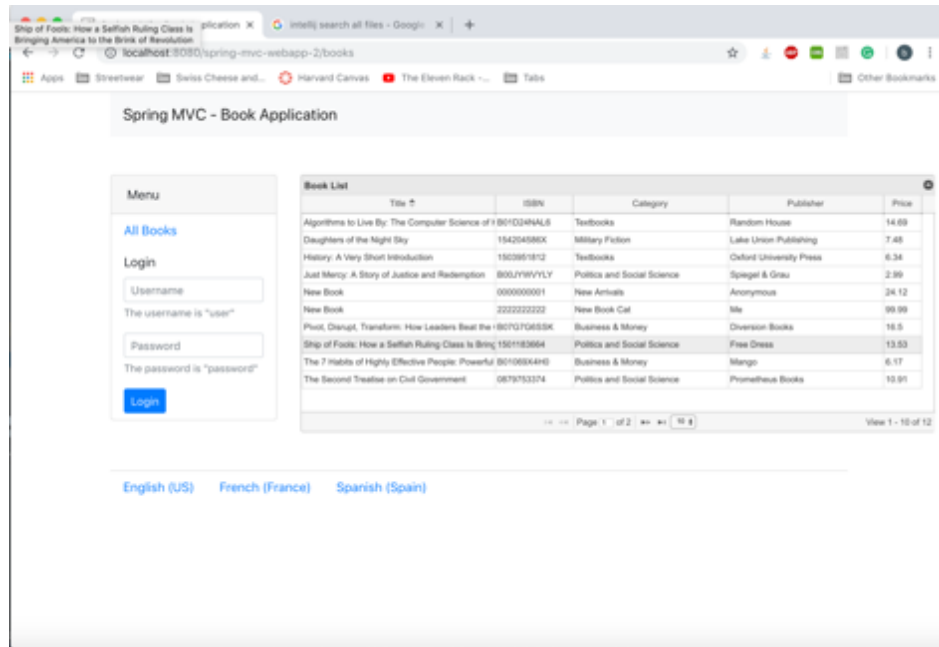
Now that you're logged out. Select a book by clicking any row in the data grid. You'll be taken to the show book page. Notice how you can no longer edit a books data, the **Update Book** button/link no longer exists.
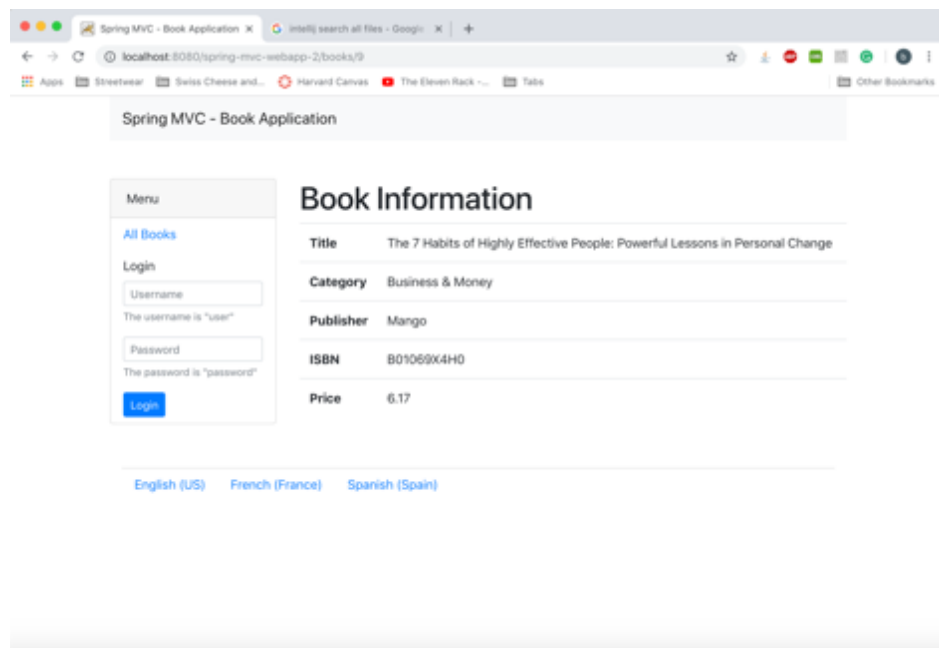
Now try access the new book form via url by visiting **localhost:8080/spring-mvc-webapp-2/books?form** in your google chrome browser. Notice how you're redirected to the home book list page with login form since you're not an authenticated user.