The task is to create a simple Spring MVC application.
You will seed it with some data and build a simple screen or two to display that data with a few actions.
I want to be able to clone the repo from github and then type mvn jetty:run from the command line and have it run out of the box. (Please don't use the Jetty Eclipse Plugin rather use the org.mortbay.jetty plugin) Seed it on startup with books and people.

Provide some instructions: On where you repo is, startup instructions and whatever else you might think is relevant to look at

Core Features:

  *   I would to see a list of people in the database.
  *   I would like to see a list of books in the database.
  *   For each person I would like to click a button where you perform an ajax query to the database to extract the books they have lent and then display the book details inline.

Tech required:

  *   Maven as the build tool.
  *   Spring MVC. You can use any version from 4 upwards. (However I am happy with Spring Boot but ensure that Bootstrap and JQuery are used)
  *   Use in memory database like H2. Or choose whatever one you are comfortable with. I am not fussed whether you use Hibernate or standard JPA to access the database. Our current project uses JDBI (http://jdbi.org/) but again choose whatever is familiar to you.
  *   We use freemarker as our view technology but choose whatever view technology you are comfortable with.
  *   Use bootstrap as our CSS framework. The goal is not a beautiful app but rather something functional and default Bootstrap widgets are all good to use.
  *   Use Jquery.
  *   A couple of unit tests would also help

Data Model:

  *   A person just needs a name, phone number, email address.
  *   Books just need a title, author and ISBN.
  *   If you add more that is fine.

National Library AU

Follow the task request to finish this task.

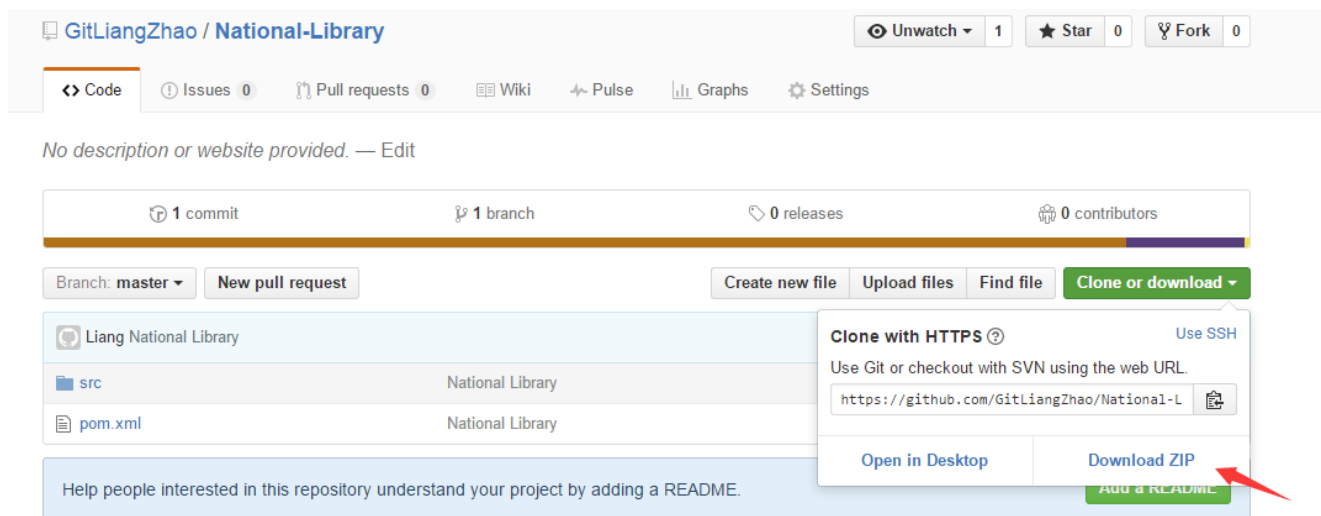1. **Example National Library system details:**
   - *Java*
   - *Spring MVC*
   - *Bootstrap*
   - *JQuery*
   - *H2 database*
     (database file src\main\resources\database\h2\NationalLibrary.mv.db)
   - *Mybatis*
   - *Maven build*
   - *Github repository*

2. **GitHub** *repository URL*
   https://github.com/GitLiangZhao/National-Library.git

3. **Download and run**
   ➢ *Download project from github as zip or clone project to your local*

   ➢ *Unzip it and cd into the project*

a) *Run "mvn install" until it build success.*

```
C:\Users\Liang Zhao\Downloads\National-Library-master>mvn install
[INFO] Scanning for projects...
[INFO]
[INFO] ------------------------------------------------------------------------
[INFO] Building NationalLibrary Webapp 1.0
[INFO] ------------------------------------------------------------------------
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ Nationa
brary ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] Copying 19 resources
[INFO]
[INFO] --- maven-compiler-plugin:3.5.1:compile (default-compile) @ NationalLi
```

```
-1.0.pom
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time: 11.330 s
[INFO] Finished at: 2016-06-14T00:50:03+10:00
[INFO] Final Memory: 24M/144M
[INFO] ------------------------------------------------------------------------
```

b) *Run "mvn jetty:run" to start the project*

```
六月 14, 2016 12:53:17 上午 org.springframework.web.servlet.DispatcherServlet i
itServletBean
信息: FrameworkServlet 'dispatcherServlet': initialization completed in 1221 ms
[INFO] Started SelectChannelConnector@0.0.0.0:80
[INFO] Started Jetty Server
[INFO] Starting scanner at interval of 3 seconds.
```

➢ *Open any Browsers and type* http://localhost/NationalLibrary/ *start running the project , and it should be redirect to "**NationalLibrary/index.do**" to open the main page*
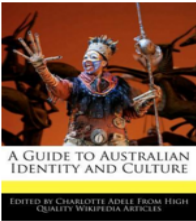
4. Main page of the Library

The book list shows on the main page with four example categories
- ➢ *Click one of the category to search and show the books under the categories.*
- ➢ *Click Book name to show the Book information on the open page. (I have used an open source web service API provided by one of the Chinese books website which the name is "douban" to get all the books information .)*

- ➢ *Click "More.." will redirect to list of all books*

《Recent Developments in Growth Theory (International Library of Critical Writings in Economics)》

Author: Daron Acemoglu (EDT)

Available/Stock: 1/1

More...
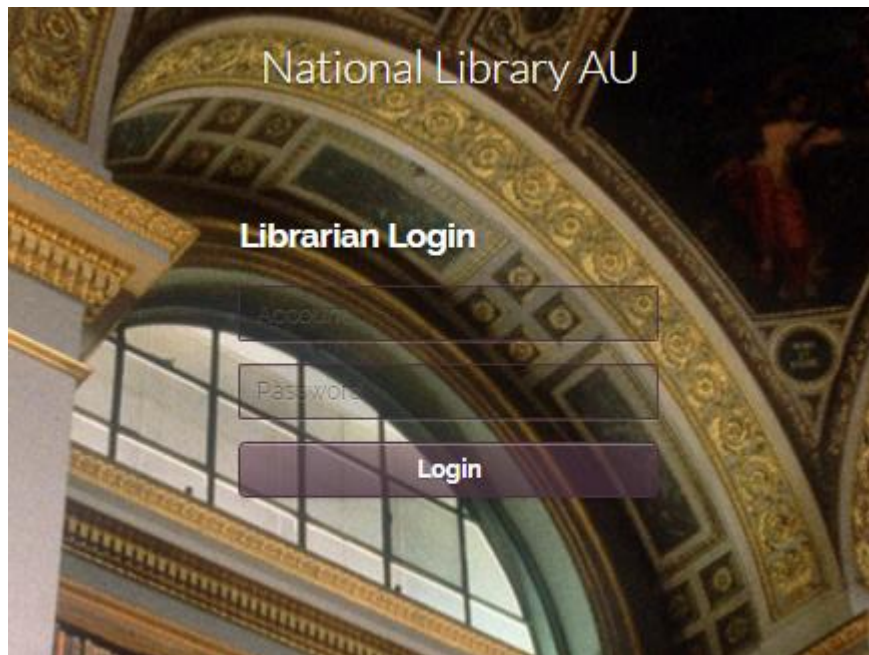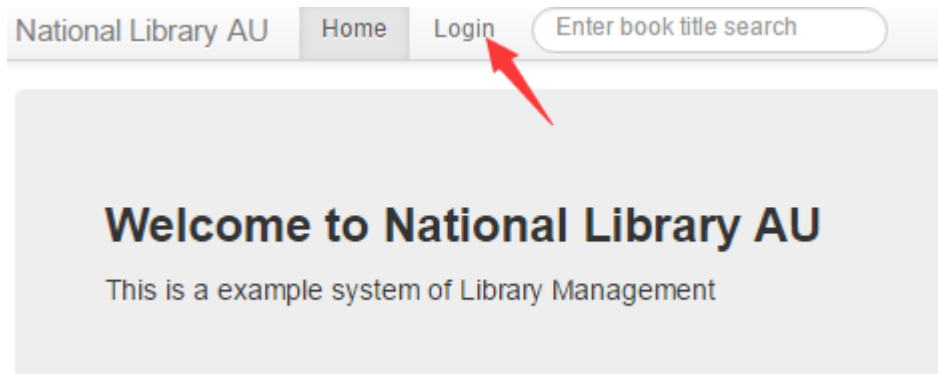
| Book Name | All ▼ | Search |

Result 17 records

《The C Programming Language》
Author: Brian W. Kernighan Dennis M. Ritchie
ISBN: 1236999
Available/Stock: 0/1

《Introduction to Algorithms》
Author: Thomas H. Cormen Charles E. Leiserson Ronald L.
ISBN: 1433399
Available/Stock: 1/2

《Structure and Interpretation of Computer Programs -
Author: Harold Abelson Gerald Jay Sussman
ISBN: 1451622
Available/Stock: 2/2

《Economics》
Author: Paul A. Samuelson William D. Nordhaus
ISBN: 1494210
Available/Stock: 1/2

《Recent Developments in Growth Theory (Internationa
Author: Daron Acemoglu (EDT)
ISBN: 1850263
Available/Stock: 1/1

《Core Python Programming》
Author: Wesley J. Chun
ISBN: 1874839
Available/Stock: 4/5

《Australian Language & Culture (Language Reference)
Author: Paul Smitz Barry Blake
ISBN: 3231284
Available/Stock: 3/4

《Programming Applications for Microsoft Windows》
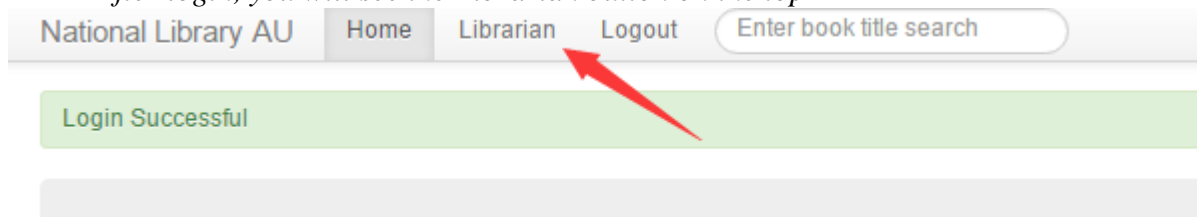Author: Jeffrey Richter
ISBN: 3330098
Available/Stock: 0/1

| Last Page | 1 | 2 | 3 | Next Page |

5. **Librarian Login module**
   ➢ *Click **Login** button on the top to login to the Librarian module. The application will redirect to librarian/login.do and login page. Use **admin** as name and password to login to the application. You can also try type incorrect information to see the checking funcation.*

National Library AU Home Login Enter book title search

Welcome to National Library AU

This is a example system of Library Management

National Library AU

Librarian Login

Account

Password

Login

> *After login, you will see the Librarian button on the top*

National Library AU Home Librarian Logout Enter book title search

Login Successful

6. Patrons Management

> *Click it to enter the Librarian function. There are 6 tabs here.*
> `Patrons, Books, Borrow, patron category, book category and Librarian.`

> ➢ *You can type member Id and select member type to search specific one, or you can just find one from the list. Click **More** to show the details and **borrowed** to show the records of the borrowed.*

> ➤ Also you can **Add** and **modify** details of the person, and **delete** the person as well.

7. Books Management

Same with patrons, you can search the book, add book, modify book and delete books

Note: Please aware because I used the open source API from the "douban", so if you internet has block the external access. then the image will not able to show and also you can' t add new book using the API.

There are few ISBN that you can use to test the add and search new book function.

<The Cinema of Urban Crisis> ISBN: 9789089646378

<Introduction to the Law of Contracts> ISBN: 9780766810235

<Doing Business in India & Understanding Pitfalls> ISBN: 9780955688270

| Title/ISBN | All ▾ | Search | Add Book |

Add Book

ISBN	9789089646378	Search
ISBN	26727909	
Book Name	The Cinema of Urban Crisis	
Author	Lawrence Webb	
Publisher	Amsterdam University Press	
Date of Publish	2015-9-15	
Price	USD 62.50	
Category	All ▾	
Store Location		
Stock		

Add **Cancel**
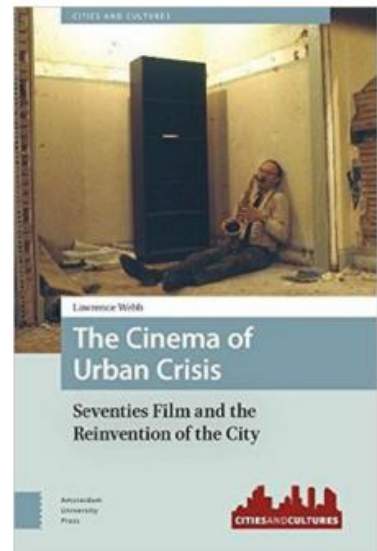
Patrons   Books   Borrow   Patron Category   Book Category   Librarian

| Title/ISBN | All ▾ | Search | Add Book |

Result 17 records

《The C Programming Language》
Author: Brian W. Kernighan Dennis M. Ritchie
ISBN: 1236999
Available/Stock: 0/1
Delete **Modify**

《Introduction to Algorithms》
Author: Thomas H. Cormen Charles E. Leiserson Ronald L.
ISBN: 1433399
Available/Stock: 1/2
Delete **Modify**

《Structure and Interpretation of Computer Programs -
Author: Harold Abelson Gerald Jay Sussman
ISBN: 1451622
Available/Stock: 2/2
Delete **Modify**

《Economics》
Author: Paul A. Samuelson William D. Nordhaus
ISBN: 1494210
Available/Stock: 1/2
Delete **Modify**

《Recent Developments in Growth Theory (Internationa
Author: Daron Acemoglu (EDT)
ISBN: 1850263
Available/Stock: 1/1
Delete **Modify**

《Core Python Programming》
Author: Wesley J. Chun
ISBN: 1874839
Available/Stock: 4/5
Delete **Modify**

8. Borrow Management

Patrons   Books   Borrow   Patron Category   Book Category   Librarian

Patron Card Number   Books Number   Search   Borrow   Records

Borrow

Patron Card Number: 6   Search

Patron Name: liang
Membership: Member
Limited to Borrow: 5
Borrowed: 3

Book Number: 6752250   Search

Book Name: La Bella Figura
Author: Severgnini, Beppe
Type: Life
Limited Borrow Day: 30
Number of books: 3
Available: 3

Confirm   Cancel

> ➢ *Type Patron Card Number and book Number can link the person and book together to make a borrow.*
> ➢ *And Click **Records** to show all the borrows.*

> ➢ *Also you can return and delete records of the borrow.*

9. Patron Category Management
> ➢ *In here, you can define new membership type and delete it .*

10. Book Category Management

➢ *In here, you can add new category of the book and setup fine and days can be borrowed.*

| Patrons | Books | Borrow | Patron Category | Book Category | Librarian |

Add Category

| Category Name | Borrow Days | Fine of Every Day | Cents | Add |

Book Category

Serial	Category Name	Borrow Days	Fine of Every Day	
0	Life	30	1Cents	Delete
1	Programming	30	1Cents	Delete
2	Economics	30	1Cents	Delete
3	Cultures	30	1Cents	Delete

11. Librarian Management

➢ *In here, you can add more Librarian into the system and delete the existing one.*

| Patrons | Books | Borrow | Patron Category | Book Category | Librarian |

Add Librarian

| Librarian Name | Password | Librarian ▾ | Add |

Librarian

Serial	User Name	Password	Type	
0	admin	admin	Librarian	Delete
1	Josh	123	Librarian	Delete
2	liang	zhao	Librarian	Delete
3	library	au	Librarian	Delete

12. Logout

➢ *Click logout to return to main page.*

Login Successful