

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:

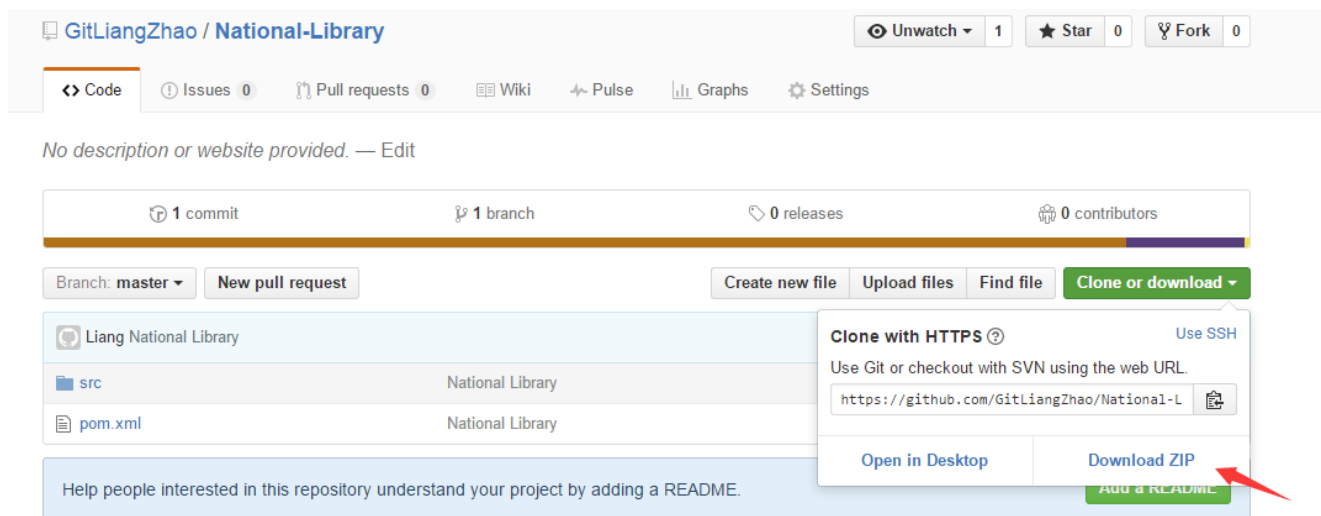
- *Java*
- *Spring MVC*
- *Bootstrap*
- *jQuery*
- *H2 database*
(database file `src\main\resources\database\h2\NationalLibrary.mv.db`)
- *Mybatis*
- *Maven build*
- *Github repository*

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*

 National-Library-master

```
C:\Users\Liang Zhao\Downloads\National-Library-master
2016/06/14 00:48 <DIR> .
2016/06/14 00:48 <DIR> ..
2016/06/14 00:24      8,996 pom.xml
2016/06/14 00:28 <DIR> src
```

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) @ NationalLibrary ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] Copying 19 resources
[INFO]
[INFO] --- maven-compiler-plugin:3.5.1:compile (default-compile) @ NationalLibrary ---
[INFO]
[INFO] --- maven-jar-plugin:2.5:jar (default-jar) @ NationalLibrary ---
[INFO] Building jar: C:\Users\Liang Zhao\Downloads\National-Library-master\NationalLibrary-1.0.jar
[INFO]
[INFO] --- maven-install-plugin:2.5.2:install (default-install) @ NationalLibrary ---
[INFO] Installing C:\Users\Liang Zhao\Downloads\National-Library-master\NationalLibrary-1.0.jar to C:\Users\Liang Zhao\AppData\Local\maven\repository\com\example\nationallibrary\NationalLibrary\1.0\NationalLibrary-1.0.jar
[INFO]
[INFO] --- maven-deploy-plugin:2.8.2:deploy (default-deploy) @ NationalLibrary ---
[INFO] Deploying to C:\Users\Liang Zhao\AppData\Local\maven\repository\com\example\nationallibrary\NationalLibrary\1.0
[INFO]
[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 in
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

Category:Books
News:Books


All
Culture
Economics
Life
Programming




« A Guide to Australian Identity and Culture »
Author: Adele, Charlotte
Available/Stock: 1/1




« Australian Language & Culture (Language Reference) »
Author: Paul Smitz Barry Blake
Available/Stock: 3/4



« Lonely Planet Australian Language & Culture »
Author: Lonely Planet
Available/Stock: 3/3



« Medievalism and the Gothic in Australian Culture »
Author: Trigg, Stephanie
Available/Stock: 1/1

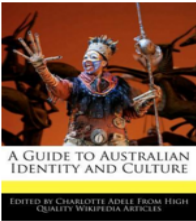


« Sleep Right, Sleep Tight »

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 .)*

A Guide to Australian Identity and Culture



ISBN: 16632655
Author: Adele, Charlotte
Publisher: Adele, Charlotte
Date of Publish: 0171-07
Price: \$65.00
Category: Culture
Store Location: K12
Date of Store: 2016-06
Borrowed: 0
Stock: 1

Introduction of Author
No Content

Content
No Content

Catalog
No Content

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- *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

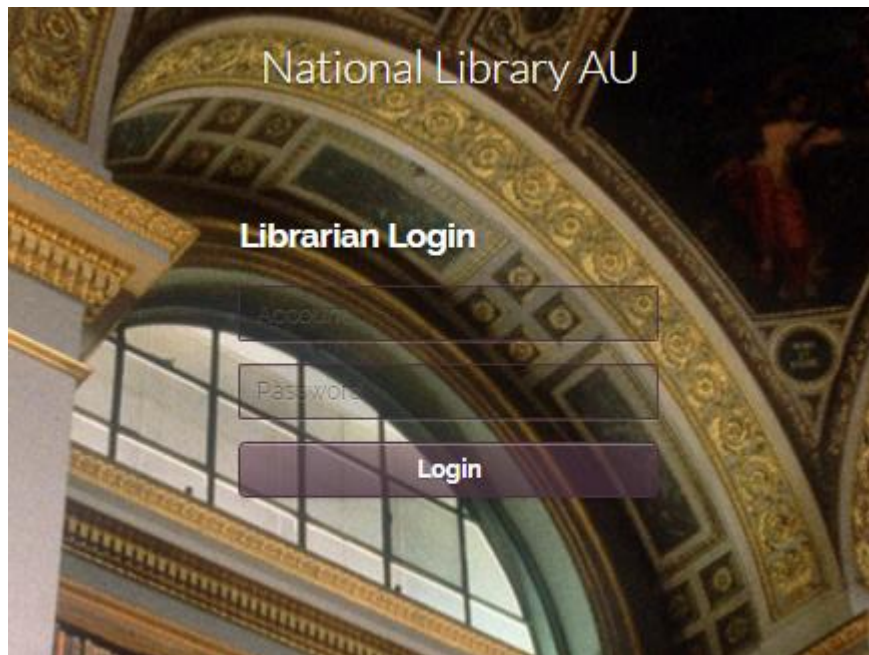
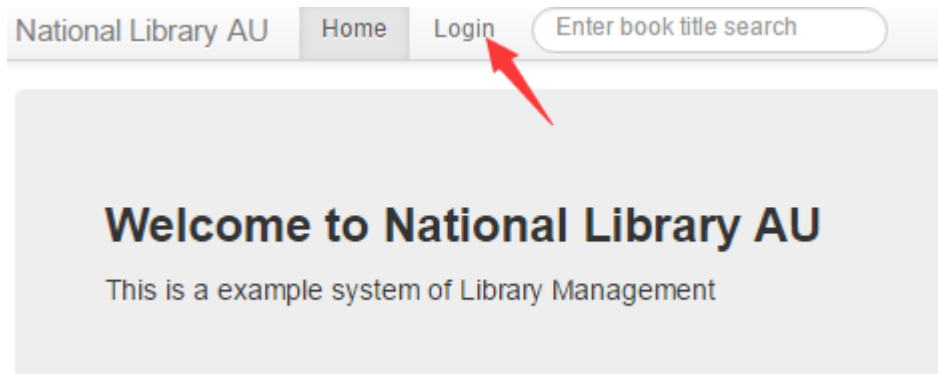
Result 17 records

<p>«The C Programming Language»</p> <p>Author: Brian W. Kernighan Dennis M. Ritchie</p> <p>ISBN: 1236999</p> <p>Available/Stock: 0/1</p>	<p>«Introduction to Algorithms»</p> <p>Author: Thomas H. Cormen Charles E. Leiserson Ronald L.</p> <p>ISBN: 1433399</p> <p>Available/Stock: 1/2</p>
<p>«Structure and Interpretation of Computer Programs -</p> <p>Author: Harold Abelson Gerald Jay Sussman</p> <p>ISBN: 1451622</p> <p>Available/Stock: 2/2</p>	<p>«Economics»</p> <p>Author: Paul A. Samuelson William D. Nordhaus</p> <p>ISBN: 1494210</p> <p>Available/Stock: 1/2</p>
<p>«Recent Developments in Growth Theory (Internationa</p> <p>Author: Daron Acemoglu (EDT)</p> <p>ISBN: 1850263</p> <p>Available/Stock: 1/1</p>	<p>«Core Python Programming»</p> <p>Author: Wesley J. Chun</p> <p>ISBN: 1874839</p> <p>Available/Stock: 4/5</p>
<p>«Australian Language & Culture (Language Reference)</p> <p>Author: Paul Smitz Barry Blake</p> <p>ISBN: 3231284</p> <p>Available/Stock: 3/4</p>	<p>«Programming Applications for Microsoft Windows»</p> <p>Author: Jeffrey Richter</p> <p>ISBN: 3330098</p> <p>Available/Stock: 0/1</p>

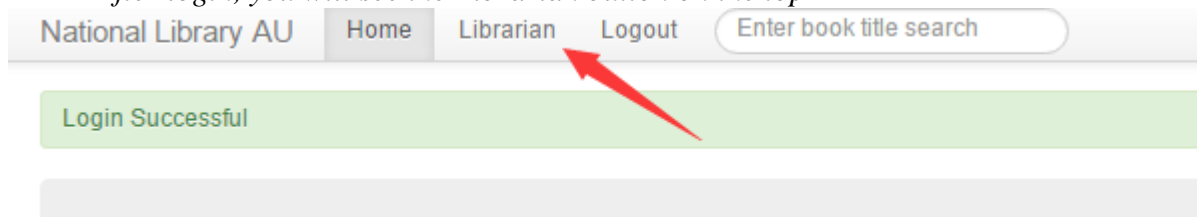
Last Page 1 2 3 Next Page

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.



- After login, you will see the Librarian button on the top



6. Patrons Management

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

Result 17 records

<p>Jerry Male</p> <p>Member CardID: 2</p> <p>Mobile: 0432121323</p> <p>Membership Type: Member</p> <p>Book Borrowed: 3</p> <p><input type="button" value="Borrowed"/> <input type="button" value="More"/></p>	<p>Sam Male</p> <p>Member CardID: 4</p> <p>Mobile: 0456345987</p> <p>Membership Type: Member</p> <p>Book Borrowed: 1</p> <p><input type="button" value="Borrowed"/> <input type="button" value="More"/></p>	<p>Helen Female</p> <p>Member CardID: 5</p> <p>Mobile: 0421636352</p> <p>Membership Type: Member</p> <p>Book Borrowed: 2</p> <p><input type="button" value="Borrowed"/> <input type="button" value="More"/></p>	<p>liang Male</p> <p>Member CardID: 6</p> <p>Mobile: 0488822481</p> <p>Membership Type: Member</p> <p>Book Borrowed: 1</p> <p><input type="button" value="Borrowed"/> <input type="button" value="More"/></p>
<p>Nicholas Male</p>	<p>Leigh Male</p>	<p>Michael Male</p>	<p>Ved Male</p>

- 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.

liang Male

Patron Card Number: 6
Mobile: 0488822481
Identity Card: 53287163
Work Place: Australian Bureau of Statistics
Address: ABS House 45 Benjamin Way, Belconnen ACT 2617
Membership: Member
Created Date: 2062-11-20
Number of Borrow: 1
Report Loss: No

Member CardID: 10
Member CardID: 11

The screenshot displays a web application for library management. At the top, there are two panels for patron details. The left panel is for 'Jerry Male', showing Member CardID: 2, Mobile: 0432121323, Membership Type: Member, and Book Borrowed: 3. Below this are buttons for 'Borrowed' (blue) and 'More' (red). A red arrow points to the 'Borrowed' button. The right panel is for 'Sam Male', showing Member Card, Mobile: 04563, Membership T, and Book Borrowe. Below this is a 'Bo' button. Below the patron panels is a navigation bar with tabs: Patrons, Books, Borrow, Patron Category, Book Category, and Librarian. Below the navigation bar is a search area with a text input containing '2', a 'Books Number' label, a 'Search' button, and two buttons: 'Borrow' (green) and 'Records' (green). Below the search area is a section titled 'Records'. It contains three cards, each representing a borrowed book. Card 1: Patron Card Number: 2, Patron Name: Jerry, Book Number: 6021272, Book Name: API Design for C++, Date of borrowed: 2016-06-10, Date of return: Not yet return. Card 2: Patron Card Number: 2, Patron Name: Jerry, Book Number: 1236999, Book Name: The C Programming Language, Date of borrowed: 2016-06-10, Date of return: 2016-06-10. Card 3: Patron Card Number: 2, Patron Name: Jerry, Book Number: 3231284, Book Name: Australian Language & Culture (Language Reference), Date of borrowed: 2016-06-10, Date of return: Not yet return. Each card has 'Return' (blue) and 'Delete' (red) buttons. At the bottom of the 'Records' section is a pagination bar with 'Last Page', '1', and 'Next Page' buttons.

- 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

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

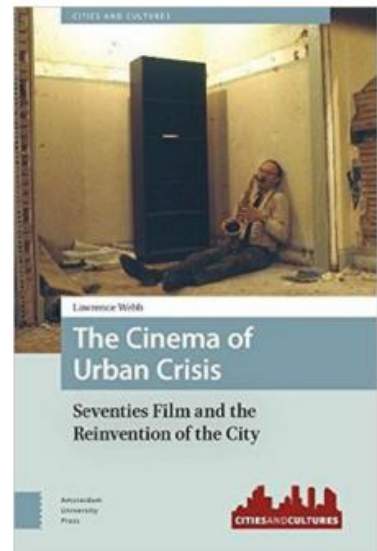
All

Store Location

Stock

Add

Cancel



Patrons

Books

Borrow

Patron Category

Book Category

Librarian

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](#)

Borrow

Patron Card Number:

Patron Name: [liang](#)

Membership: [Member](#)

Limited to Borrow: [5](#)

Borrowed: [3](#)

Book Number:

Book Name: [La Bella Figura](#)

Author: [Severgnini, Beppe](#)

Type: [Life](#)

Limited Borrow Day: [30](#)

Number of books: [3](#)

Available: [3](#)

- 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.

Records

1

ReturnDelete

Patron Card Number: 5
Patron Name: [Helen](#)
Book Number: [1494210](#)
Book Name: [Economics](#)
Date of borrowed: [2016-06-10](#)
Date of return: [Not yet return](#)

2

ReturnDelete

Patron Card Number: 5
Patron Name: [Helen](#)
Book Number: [1433399](#)
Book Name: [Introduction to Algorithms](#)
Date of borrowed: [2016-06-10](#)
Date of return: [Not yet return](#)

3

ReturnDelete

Patron Card Number: 1
Patron Name: [Steven](#)
Book Number: [1874839](#)
Book Name: [Core Python Programming](#)
Date of borrowed: [2016-06-10](#)
Date of return: [Not yet return](#)

4

ReturnDelete

Patron Card Number: 3
Patron Name: [Lisa](#)
Book Number: [2023370](#)
Book Name: [Beautiful Code](#)
Date of borrowed: [2016-06-10](#)
Date of return: [Not yet return](#)

5

Delete

Patron Card Number: 6
Patron Name: [liang](#)
Book Number: [1874839](#)
Book Name: [Core Python Programming](#)
Date of borrowed: [2016-06-10](#)
Date of return: [2016-06-13](#)

6

ReturnDelete

Patron Card Number: 8
Patron Name: [Anne](#)
Book Number: [1432042](#)
Book Name: [Code Complete](#)
Date of borrowed: [2016-06-13](#)
Date of return: [Not yet return](#)

7

ReturnDelete

8

Delete

9

ReturnDelete

➤ 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 .

[Patrons](#)
[Books](#)
[Borrow](#)
[Patron Category](#)
[Book Category](#)
[Librarian](#)

Add Category

Patron Category

Serial	Category Name	Number of Borrow	
0	Member	5	<div>Delete</div>
1	VIP	10	<div>Delete</div>

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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

Book Category

Serial	Category Name	Borrow Days	Fine of Every Day	
0	Life	30	1Cents	<input type="button" value="Delete"/>
1	Programming	30	1Cents	<input type="button" value="Delete"/>
2	Economics	30	1Cents	<input type="button" value="Delete"/>
3	Cultures	30	1Cents	<input type="button" value="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

Serial	User Name	Password	Type	
0	admin	admin	Librarian	<input type="button" value="Delete"/>
1	Josh	123	Librarian	<input type="button" value="Delete"/>
2	liang	zhao	Librarian	<input type="button" value="Delete"/>
3	library	au	Librarian	<input type="button" value="Delete"/>

12. Logout

- Click logout to return to main page.

National Library AU

Home

Librarian

Logout

Enter book title search

Login Successful

