College Book Store

Contents

- Spring Introduction
- Abstract
- Business Case
- Requirements
- Pros and cons
- Outputs
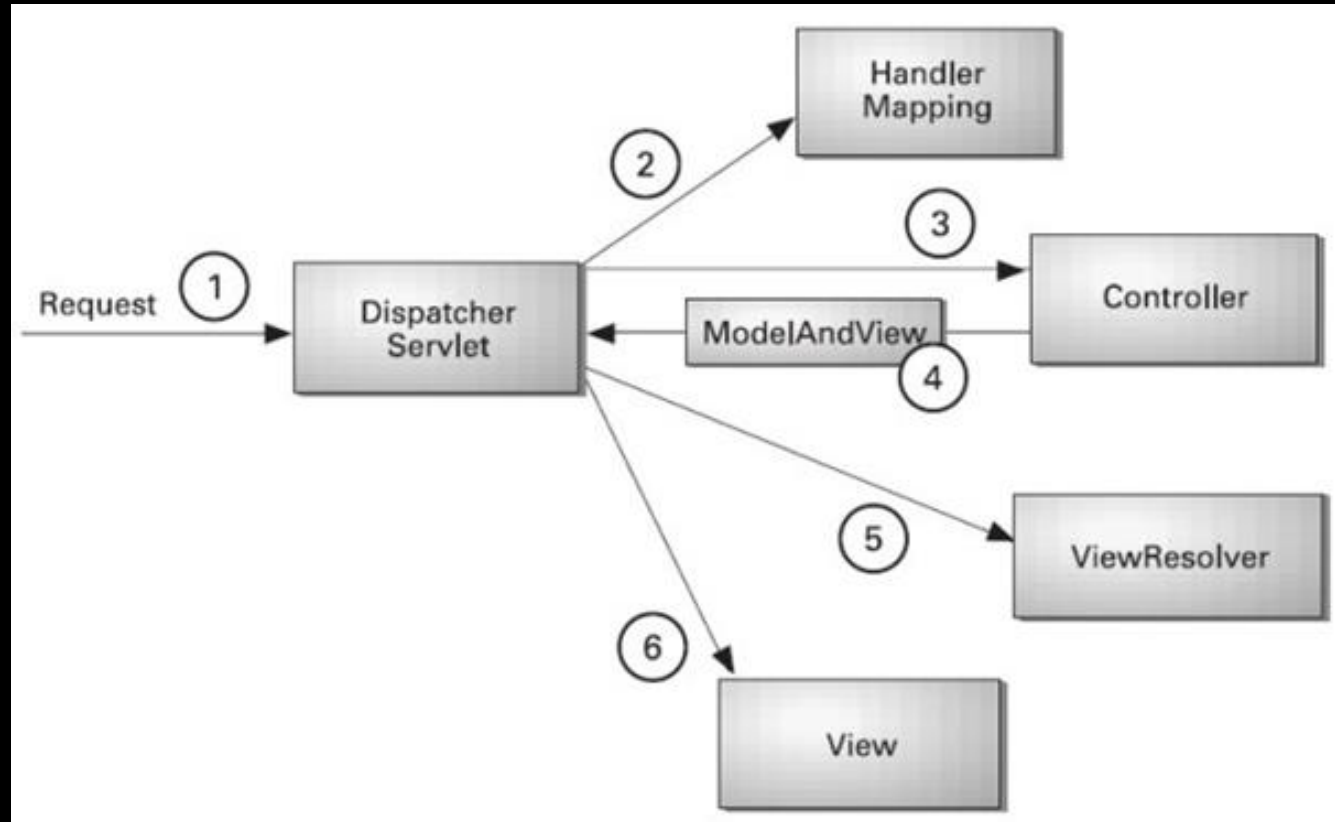- Conclusion

Spring MVC

A Spring MVC is a Java framework which is used to build web applications. It follows the Model-View-Controller design pattern. It implements all the basic features of a core spring framework like Inversion of Control, Dependency Injection.

A Spring MVC provides an elegant solution to use MVC in spring framework by the help of **DispatcherServlet**.Here **DispatcherServlet** is a class that receives the incoming request and maps it to the right resource such as controllers, models, and views.

Spring Web Model-View-Controller

- **Model** - A model contains the data of the application. A data can be a single object or a collection of objects.

- **Controller** - A controller contains the business logic of an application. Here, the @Controller annotation is used to mark the class as the controller.

- **View** - A view represents the provided information in a particular format. Generally, JSP+JSTL is used to create a view page. Although spring also supports other view technologies such as Apache Velocity, Thymeleaf and FreeMarker.

- **Front Controller** - In Spring Web MVC, the DispatcherServlet class works as the front controller. It is responsible to manage the flow of the Spring MVC application.

Understanding the flow of Spring Web MVC

Abstract

- The college bookstore software projects that acts as a central database containing various books in stock along with their title and author . This project is a website that acts as a central book store for college.

- The database stores various book related details. A user visiting the website can see a wide range of books arranged in respective categories

Business Case

Student Module:

- Student register: User will be provided with a personal account through registration
- Reserve Books: Only verified users can able to view books and reserve the required Book from catalog.

Employee Module:

- The Employee module contains student information and Books information
- Can add and delete a book
- Can place new orders on the books
- Approves the reservation of books related to students

Admin Module:

- The administrative module includes an admin who acts as an intermediator between users and Employee
- Admin Login: Login with authorized username and passwords.
- Verify Employee & Users: The Administrator verifies new users and can change the role of application users based on requirements

Requirements

Hardware :

- i3 Processor Based Computer
- 1 GB RAM
- 50 GB Hard Disk

Software:

- Spring Tool Suite (STS)
- Maven
- H2 Database
- Browser

Pros and Cons

Pros:

- Only authorized and verified people can access the application.
- User friendly interface .
- Students can search for the required books before visiting the library.
- For Employees and Admin easy to maintain the information about books and students.
- Employee can easily change the information related to student and books

Cons:

- Some of details of books are not displayed
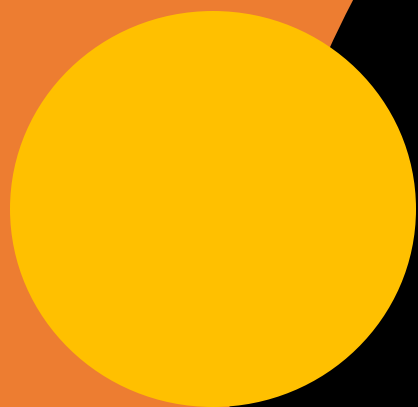- Works only in internet connected systems

Outputs

Manage Account

Username:	bookwurm
First name:	Martina
Last name:	Jansen
Email:	bookwurm@gmail.com
Phone number:	06-00492182
Address:	Nieuweweg 200
City:	Burgum
Account status:	● Account enabled ○ Account disabled
Role:	● User ○ Employee ○ Admin

[Save] [Cancel]

---

jdbc:h2:mem:testdb

- BOOKS
  - BOOK_ID
  - AUTHOR
  - EDITION
  - END_RESERVATION_DA
  - READY_FOR_PICK_UP
  - RELEASE_YEAR
  - RETURN_DATE
  - START_RESERVATION_
  - TIMES_EXTENDED
  - TITLE
  - RESERVED_BY_USER_I
  - THE_USER_USER_ID
  - Indexes
- NOTIFICATION
- USERS
- INFORMATION_SCHEMA
- Sequences
- Users
- H2 1.4.200 (2019-10-14)

[Run] [Run Selected] [Auto complete] [Clear] SQL statement:

select * from users;

from users;

ID	ADDRESS	CITY	EMAIL	ENABLED	FIRST_NAME	LAST_NAME	PASSWORD	PHONE_NUMBER	ROLE	USERNAME
	Huizumerlaan 158	Amsterdam	martijn.reede@gmail.com	TRUE	Martijn	Reede	$2a$10$rJ8Y6LYwlh9SxYgVfyLJ4.Eg/T0QliaLFGZnRJbJjf6LNJcnJAcsG	06-11433823	ROLE_ADMIN	admin
	Hugo de Grootstraat 174	Sliedrecht	cyrille.jones@gamail.com	TRUE	Cyrille	Jones	$2a$10$SxJUtJPJrwfi3IrTzsOdGuVnV/tXB0ZZeZf.PucEtgq7gG4UHXd3K	06-87054875	ROLE_EMPLOYEE	employee
	Leidijk 97	Groningen	kevin.leijnse@gmail.com	TRUE	Kevin	Leijnse	$2a$10$G.6shp4FyJPn51un.CeBLpkOLeab1sFhFG7P6eFs76TOL6QxaiPzo2VC	06-18756892	ROLE_USER	user
	Duinerlaan 173	Eelde	annemie.schuurbiers@gmail.com	TRUE	Annemie	Schuurbiers	$2a$10$G.buSt9bEcrmYAWOB0Z5Je2lLnizgnIkkepqNLKLVDCOJyH9o3kM6	06-83472443	ROLE_USER	aniemies
	Gangboord 90	Oosterhout	seppe.bruinink@gmail.com	TRUE	Seppe	Bruinink	$2a$10$65erNHRyvcy0vXpRdX57.ulqRSWozXyl4UZ3Fki2EYx5/7ZeW2Rna	06-13644621	ROLE_USER	seppe
	Onderkampstraat 30	Susteren	m.snel@gmail.com	TRUE	Mikael	Snel	$2a$10$cPwiUJZvxMUYP553Lcl7jekYyxPyuZ4vWlCtt/kh7i6lKw.W86Xz.	06-90982738	ROLE_USER	beukenplein
	Nieuweweg 200	Burgum	bookwurm@gmail.com	TRUE	Martina	Jansen	$2a$10$Ia3ktbvGB/DAUhEaixlXje.c/0.sDElNevvj07QCov3ZwvoZ2c3Ki	06-00492182	ROLE_USER	bookwurm
	Beukenkamp 84	Hoogezand	d.peerdeman@gmail.com	TRUE	Daniela	Peerdeman	$2a$10$26vuKuMuCl7GlgLCvr6sC.Y2OpcAW18qHWvBYl7tLkpwBphY6kHpi	06-88720394	ROLE_USER	daniela45
	Het Kanaal 170	Heerlen	simons@gmail.com	TRUE	Gert	Simons	$2a$10$szilEmwApHFsrDP7CXvoQuxjtwkdHDcrG0hO37Y3pLq/avPg8ZYsu	06-18392031	ROLE_USER	blackandyellow
	Itersonstraat 195	Assen	edo.vandeijck@gmail.com	TRUE	Edo	van Deijck	$2a$10$CCglja297i9lbnvf31TOie2UJpQMUxXlWUZBXJFdBEe2uo1rOYMbK	06-98374821	ROLE_USER	superman123

, 1 ms)

Conclusion

- College bookstore has many advantages compared to its counterparts such as physical book store, the bookstore allows it's user to shop at one place where in physical store the books are scattered at the different places which consumes a lot of time

Thank you