

# PA165 - Lab session - Web Frameworks

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## Goal

Learn basic data handling using server-side Java frameworks Spring MVC and Stripes

## Prerequisites

Netbeans 7.3.x, Tomcat 7, Java 7, Maven 3

## Example application

Download the example application from IS, unzip it.

Compile and run it from command line using Maven:

```
module add maven-3.0.5
cd pa165-spring-mvc
mvn install
cd books-web-springmvc
mvn tomcat7:run
```

Visit the running application at <http://localhost:8080/books-web-springmvc/>

Compile and run it in NetBeans. Investigate how it works.

## Task 1

Create the missing JSP pages referenced from navigation menu.

Use the same page design as the rest of the application, use the WEB-INF/tags/layout.tag as page template.

## Task 2

Create the same list and edit pages for the Customer class. Its persistence is already implemented in the project books-jpa-impl, but add some validation in the project books-api.

Localize to two languages, preferably Czech and English.

## Task 3

Compare the SpringMVC implementation with Stripes in the project books-web-stripes.