Spring Core Unit

Lesson 3 Lab 1: DVD Library Version 3

SOFTWARE GUILD

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Lesson 3 Lab 1: DVD Library Version 3

Overview

In this lab, you will refactor the second version of your DVD Library lab into a Maven/Spring project and will use the dependency injection features of the Spring container to handle all dependency management for your DAO object.

Process

Step 01 - Build and Install DvdLibraryDao jar:

The first thing to do is to build the DvdLibraryDao jar and install it in your local repository, following these steps:

1. Pull from the Java-April2015 GitHub repo.
2. Open the DVDLibraryDAO project in NetBeans.
3. Right click on the pom.xml file and select **Run Maven → Goals…**
4. In the Run Maven dialog box, type **clean install** and click OK.
5. If you get the Build Success message in the console output window, you have successfully built the library and installed it in your local .m2 Maven repository, so it will be available as a dependency to other projects.

Step 02 - Create Project and Add Maven Dependencies:

Create a new Maven project called DVDLibraryV3. Open the pom.xml file and add the following dependencies:

DvdLibraryDao:

```
<dependency>
    <groupId>com.swcguild</groupId>
    <artifactId>DvdLibraryDao</artifactId>
    <version>1.0</version>
</dependency>
```

JUnit 4.11:

```
<dependency>
    <groupId>junit</groupId>
    <artifactId>junit</artifactId>
    <version>4.11</version>
    <scope>test</scope>
</dependency>
```

Spring Core:

```
<dependency>
    <groupId>org.springframework</groupId>
    <artifactId>spring-context</artifactId>
    <version>4.0.3.RELEASE</version>
</dependency>
```

Step 03 - Refactor Existing Code Into New Project:

Now you can move existing code from DVD Library Version 2 into the new project.

It would be advisable to start with the DAO because it must be changed to implement the DvdLibraryDao interface defined in the DvdLibraryDao jar file. You must also use the Dvd model object defined in the jar file. Re-implement your DAO object as specified and create a test suite to ensure that it works (you should be able to reuse tests from Version 2) before you move on any further.

After the DAO is done and tested, start to move controller and UI code from Version 2 to Version 3, modifying as necessary. Make sure that your UI supports all of the operations defined in the new DAO interface — you don't have to worry about any functionality that isn't defined in this interface. Also, make sure that you externalize all dependencies to the Spring configuration file and use the ApplicationContext to get references to all appropriate objects.

Step 04 - Trade Components

Once everyone is done with Step 03, you will incorporate someone else's DAO implementation into your project. Simply copy the code contained in your DAO, put it in an email, and send it to the person on your left. When you get your neighbor's implementation, create a new class in your project (make sure it has a different name than yours) and modify the Spring configuration file to use the new implementation. Make sure all tests still pass and all program functionality still works.