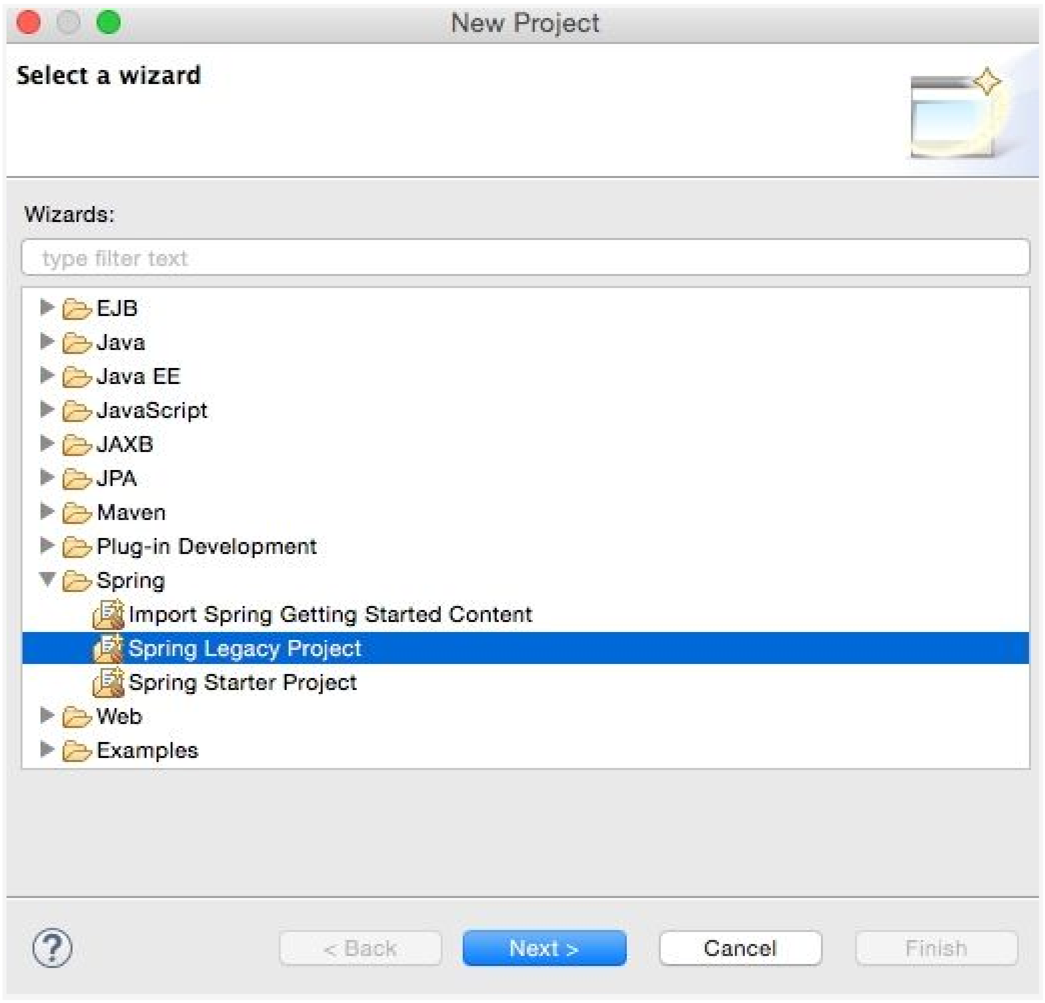
The following are the steps to develop the first RESTful service:

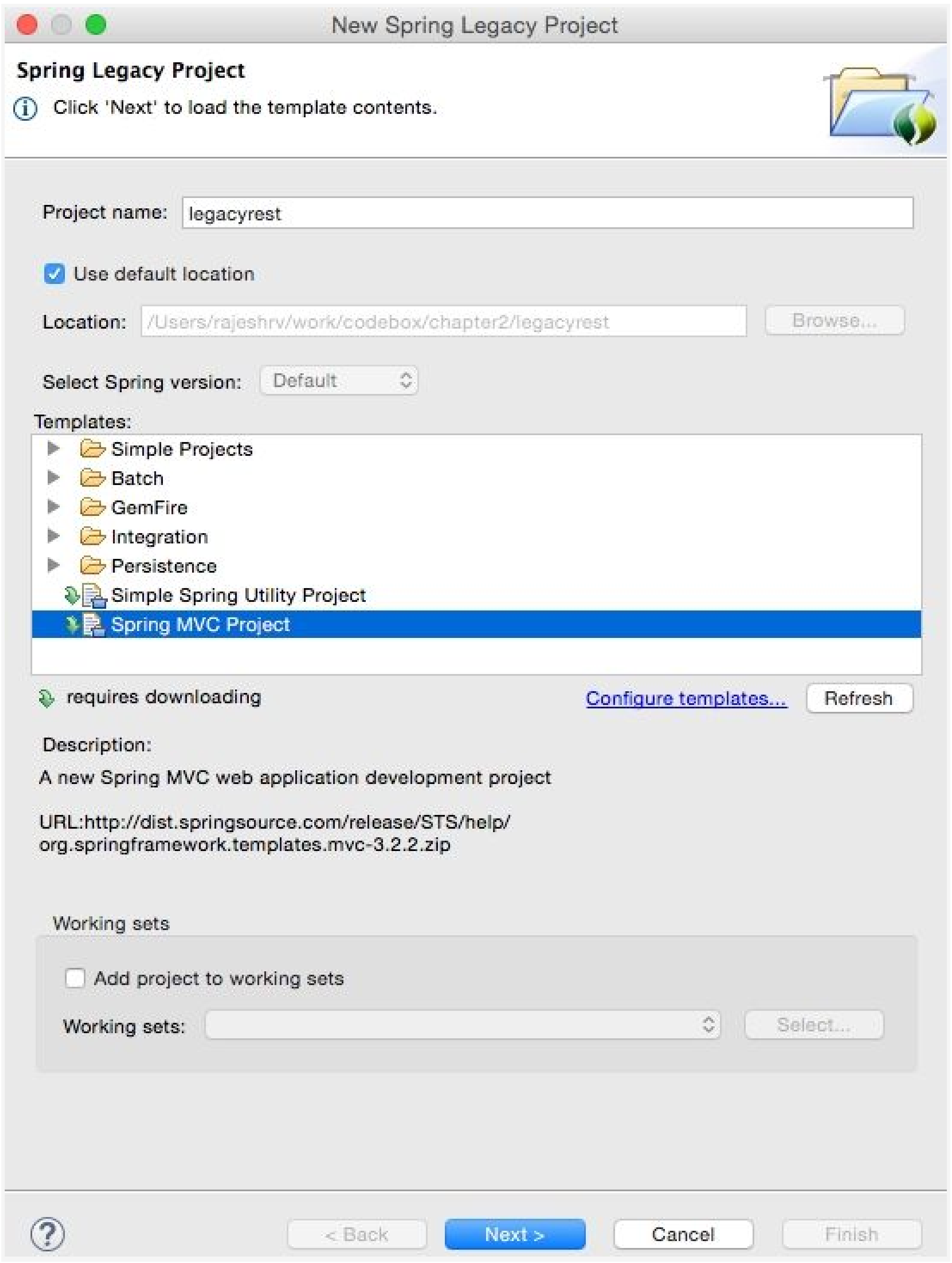
Start STS and set a workspace of choice for this project.

Navigate to **File** | **New** | **Project**.

Select **Spring Legacy Project** as shown in the following screenshot and click on **Next**:



Select **Spring MVC Project** as shown in the following diagram and click on **Next**:



New Spring Legacy Project

Spring Legacy Project

Click 'Next' to load the template contents.

Project name: legacyrest

☑ Use default location

Location: /Users/rajeshrv/work/codebox/chapter2/legacyrest

Select Spring version: Default

Templates:

- Simple Projects
- Batch
- GemFire
- Integration
- Persistence
- Simple Spring Utility Project
- Spring MVC Project

requires downloading

Description:

A new Spring MVC web application development project

URL:http://dist.springsource.com/release/STS/help/org.springframework.templates.mvc-3.2.2.zip

Working sets

☐ Add project to working sets

Working sets:

Select a top-level package name of choice. This example uses `org.rvslab.chapter2.legacyrest` as the top-level package.

Then, click on **Finish**.

This will create a project in the STS workspace with the name `legacyrest`.

Before proceeding further, `pom.xml` needs editing.

Change the Spring version to `4.2.6.RELEASE`, as follows:

Copy

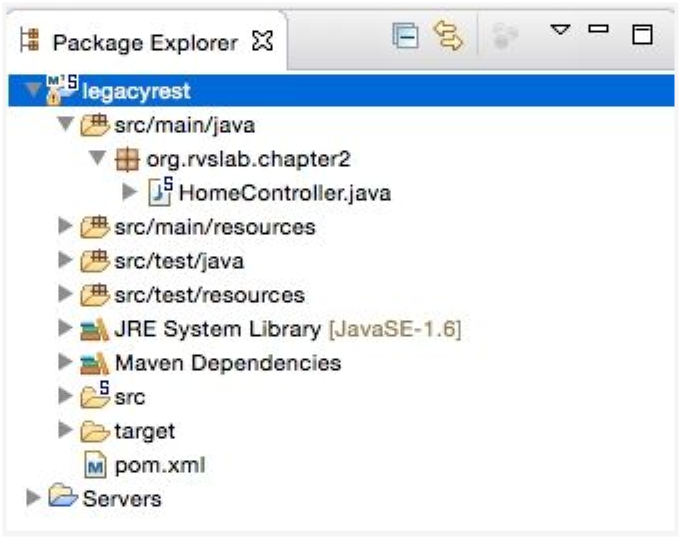
```
<org.springframework-version>4.2.6.RELEASE</org.springframework-version>
```

Add **Jackson** dependencies in the `pom.xml` file for JSON-to-POJO and POJO-to-JSON conversions. Note that the `2.*.*` version is used to ensure compatibility with Spring 4.

Copy

```
<dependency>
    <groupId>com.fasterxml.jackson.core</groupId>
    <artifactId>jackson-databind</artifactId>
    <version>2.6.4</version>
</dependency>
```

Some Java code needs to be added. In **Java Resources**, under **legacyrest**, expand the package and open the default **HomeController.java** file:



The default implementation is targeted more towards the MVC project. Rewriting `HomeController.java` to return a JSON value in response to the REST call will do the trick. The resulting `HomeController.java` file will look similar to the following:

Copy

```
@RestController
public class HomeController {
  @RequestMapping("/")
  public Greet sayHello(){
    return new Greet("Hello World!");
  }
}
class Greet {
  private String message;
  public Greet(String message) {
    this.message = message;
  }
  //add getter and setter
}
```

Examining the code, there are now two classes:

- `Greet`: This is a simple Java class with getters and setters to represent a data object. There is only one attribute in the `Greet` class, which is `message`.
- `HomeController.java`: This is nothing but a Spring controller REST endpoint to handle HTTP requests.

Note that the annotation used in `HomeController` is `@RestController`, which automatically injects `@Controller` and `@ResponseBody` and has the same effect as the following code:

Copy

```
@Controller
@ResponseBody
public class HomeController { }
```

The project can now be run by right-clicking on **legacyrest**, navigating to **Run As** | **Run On Server**, and then selecting the default server (**Pivotal tc Server Developer Edition v3.1**) that comes along with STS.

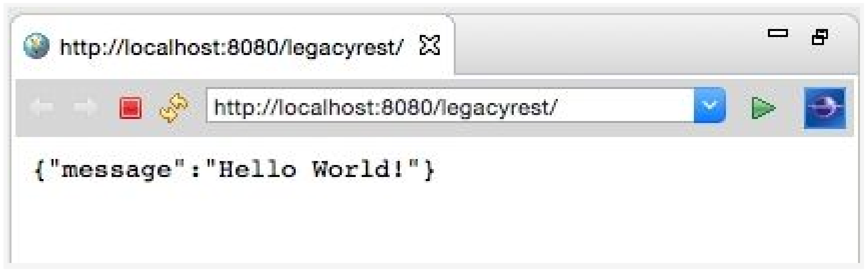
This should automatically start the server and deploy the web application on the TC server.

If the server started properly, the following message will appear in the console:

Copy

```
INFO : org.springframework.web.servlet.DispatcherServlet - FrameworkServlet
'appServlet': initialization completed in 906 ms
May 08, 2016 8:22:48 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in 2289 ms
```

If everything is fine, STS will open a browser window to `http://localhost:8080/legacyrest/` and display the JSON object as shown in the browser. Right-click on and navigate to **legacyrest** | **Properties** | **Web Project Settings** and review **Context Root** to identify the context root of the web application:


http://localhost:8080/legacyrest/
http://localhost:8080/legacyrest/

```
{"message":"Hello World!"}
```

The alternate build option is to use Maven. Right-click on the project and navigate to **Run As** | **Maven install**. This will generate `chapter2-1.0.0-BUILD-SNAPSHOT.war` under the target folder. This war is deployable in any servlet container such as Tomcat, JBoss, and so on.