

Labo02 - Run a Spring App Locally

Pedagogical intent

In this lab, we'll be taking the application we're going to evolve into our own hands, to discover the Spring architecture.

Task 01 - Run the app

Use Maven to package the solution

- [Maven Doc](#)

```
mvn package
```

- What operation does maven perform ?

It downloaded all the dependencies and compiled the project.

- What java dependencies are needed to make this work?

The dependencies are in the pom.xml file:

```
<webjars-bootstrap.version>5.3.2</webjars-bootstrap.version>
<webjars-font-awesome.version>4.7.0</webjars-font-awesome.version>

<checkstyle.version>10.12.5</checkstyle.version>
<jacoco.version>0.8.11</jacoco.version>
<libsass.version>0.2.29</libsass.version>
<lifecycle-mapping>1.0.0</lifecycle-mapping>
<maven-checkstyle.version>3.3.1</maven-checkstyle.version>
<nohttp-checkstyle.version>0.0.11</nohttp-checkstyle.version>
<spring-format.version>0.0.40</spring-format.version>
```

- Where do we find the pre-compiled application after that?

In the target folder

- Delete the folder containing the pre-compiled application, try again to observe the process.

- Is it a build ready for prod ?

No, it is not a build ready for prod.

Use Java to launch the application

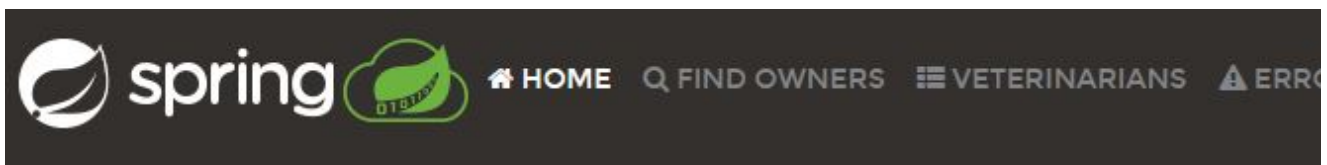
- [The java command](#)

```
java -jar target/spring-petclinic-3.2.0-SNAPSHOT.jar
```

- Try to access to the app via your browser

<http://localhost:8080/>

- You should get this page



Welcome



- Stop the app

Use the Spring Boot Maven plugin to launch the application

- [Maven plug in to run the app](#)

```
mvn spring-boot:run
```

Task 02 - Explore the app

Kind of app

- How can we access a home page via our browser?

```
http://localhost:8080/
```

- Go to `http://localhost:8080/owners/find` and add an owner
- Using the search function, can you find it?
- Relaunch the application and try again. How is data persistence ensured?

```
Yes i can find it. The data isn't persisted in the database.
```

- How many logic layers are implemented on this application?

```
Repository, Service, Controller
```

Task 03 - Docker - First Analysis

- At this stage of the analysis, can you imagine a little better what kind of needs Docker could help us with?

```
Docker could help us to deploy the application in a container and to have a database engine in another container.
```

- Try to list the tasks to be carried out to obtain two thirds, one hosting the application part locally and the second third using Docker for the database engine.

```
1. create a docker container for the database engine
2. create the database
3. configure the application to use the database
4. run the application and the database
```