

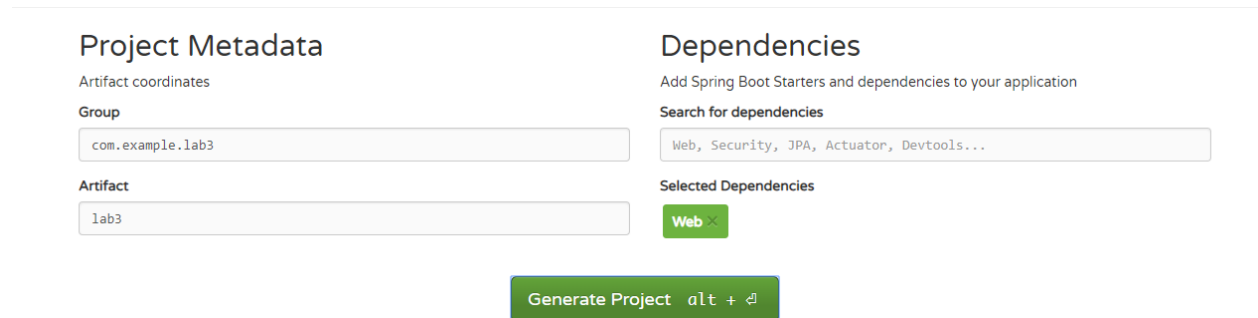
## Preparación

1. ASEGÚRESE DE DETENER TOMCAT. O cualquier servidor que esté corriendo en el puerto 8080.
2. Usando una consola del sistema, asegúrese que puede ejecutar `java -version`, y verá la versión de java.
3. Debe tener instalado MAVEN.

## Ejecución

1. vaya a <http://start.spring.io>
2. En Group escriba `com.cenfotec.lab5`
3. En artifact escriba `lab5`
4. En search for dependencies escriba `Web` y presione enter.

La pantalla debe verse así **(OMITA EL 3, DEBERÍA SER UN 5...)**



The screenshot shows the Spring Boot Start web application. It is divided into two main sections: 'Project Metadata' and 'Dependencies'. In the 'Project Metadata' section, the 'Group' field contains 'com.example.lab3' and the 'Artifact' field contains 'lab3'. In the 'Dependencies' section, the 'Search for dependencies' field contains 'Web, Security, JPA, Actuator, Devtools...'. Below this, the 'Selected Dependencies' section shows a green button labeled 'Web'. At the bottom center, there is a large green button labeled 'Generate Project' with a keyboard shortcut 'alt + d'.

5. Oprima Generate Project. Baje el archivo `lab5.zip`. descomprimalo.
6. Abra una Consola de Sistema. vaya al directorio donde descomprimió el archivo `lab5.zip`. Con la consola, vaya a `[directorio-donde-descomprimió]\lab5`. Si hace dir ahí deberá ver un archivo `pom.xml`
7. Escriba ahora `mvn spring-boot:run`

Deberá ver algo como esto

```
[INFO] --- maven-compiler-plugin:3.8.0:testCompile (default-testCompile) @ lab3 ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 1 source file to F:\spring\lab3\target\test-classes
[INFO] <<< spring-boot-maven-plugin:2.1.0.RELEASE:run (default-cli) < test-compile @ lab3 >>>
[INFO] --- spring-boot-maven-plugin:2.1.0.RELEASE:run (default-cli) @ lab3 ---

:: Spring Boot ::
(v2.1.0.RELEASE)

2018-11-02 23:13:37.600 INFO 14672 --- [main] com.example.lab3.lab3.Lab3Application : Starting Lab3Application on Mario-PC with PID 14672 (F:\spring\lab3\targe
2018-11-02 23:13:37.604 INFO 14672 --- [main] com.example.lab3.lab3.Lab3Application : No active profile set, falling back to default profiles: default
2018-11-02 23:13:38.496 INFO 14672 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port(s): 8080 (http)
2018-11-02 23:13:38.512 INFO 14672 --- [main] o.apache.catalina.core.StandardService : Starting service [Tomcat]
2018-11-02 23:13:38.512 INFO 14672 --- [main] org.apache.catalina.core.StandardEngine : Starting Servlet Engine: Apache Tomcat/9.0.12
2018-11-02 23:13:38.521 INFO 14672 --- [main] o.a.catalina.core.AppLifecycleListener : The APR based Apache Tomcat Native library which allows optimal performan
n production environments was not found on the java.library.path: [C:\Program Files\Java\jdk1.8.0_191\bin;C:\WINDOWS\Sun\Java\bin;C:\WINDOWS\system32;C:\WINDOWS;C:\Program Fi
(x86)\Common Files\Oracle\Java\javapath;C:\ProgramData\Oracle\Java\javapath;C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\WindowsPowerShell\v1.0
\Program Files (x86)\ATI Technologies\ATI.ACE\Core-Static;C:\Program Files (x86)\Windows Kits\8.1\Windows Performance Toolkit\;C:\Program Files\Microsoft SQL Server\110\Tools
n;C:\Program Files (x86)\Microsoft SDKs\TypeScript\1.0;C:\Program Files\Microsoft SQL Server\120\Tools\Binn\;C:\Program Files (x86)\Brackets\command;C:\Program Files\nodejs
\bin;C:\WINDOWS\system32\OpenSSH;F:\spring\apache-maven-3.6.0\bin\apache-maven-3.6.0\bin;C:\Users\Mario\AppData\Local\Programs\Python\Python35\Scripts;C:\Users\Mario\AppData\Local
grams\Python\Python35;C:\Users\Mario\AppData\Local\Microsoft\WindowsApps;C:\Users\Mario\AppData\Local\GitHubDesktop\bin;C:\Users\Mario\AppData\Local\atom\bin;C:\Users\Mario\
ata\Roaming\npm;C:\Users\Mario\AppData\Local\Microsoft\WindowsApps;...]
2018-11-02 23:13:38.592 INFO 14672 --- [main] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicationContext
2018-11-02 23:13:38.592 INFO 14672 --- [main] o.s.web.context.ContextLoader : Root WebApplicationContext: initialization completed in 845 ms
2018-11-02 23:13:38.616 INFO 14672 --- [main] o.s.b.w.servlet.ServletRegistrationBean : Servlet dispatcherServlet mapped to [/]
2018-11-02 23:13:38.619 INFO 14672 --- [main] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'characterEncodingFilter' to: [/]
2018-11-02 23:13:38.619 INFO 14672 --- [main] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'hiddenHttpMethodFilter' to: [/]
2018-11-02 23:13:38.619 INFO 14672 --- [main] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'formContentFilter' to: [/]
2018-11-02 23:13:38.620 INFO 14672 --- [main] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'requestContextFilter' to: [/]
2018-11-02 23:13:38.787 INFO 14672 --- [main] o.s.s.concurrent.ThreadPoolTaskExecutor : Initializing ExecutorService 'applicationTaskExecutor'
2018-11-02 23:13:38.945 INFO 14672 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port(s): 8080 (http) with context path ''
2018-11-02 23:13:38.948 INFO 14672 --- [main] com.example.lab3.lab3.Lab3Application : Started Lab3Application in 1.637 seconds (JVM running for 4.867)
2018-11-02 23:14:03.450 INFO 14672 --- [nio-8080-exec-1] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring DispatcherServlet 'dispatcherServlet'
2018-11-02 23:14:03.455 INFO 14672 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Initializing Servlet 'dispatcherServlet'
2018-11-02 23:14:03.460 INFO 14672 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Completed initialization in 4 ms
```

8. Ahora abra una pestaña de su browser y vaya a localhost:8080. Verá algo como esto:

## Whitelabel Error Page

This application has no explicit mapping for /error, so you are seeing this as a fallback.

Fri Nov 02 23:14:03 CST 2018

There was an unexpected error (type=Not Found, status=404).

No message available

NOTA: SI NO VE ESO, REVISE LA CONSOLA. Lo más probable tiene un servidor corriendo sobre el puerto 8080. Investigue cuál archivo de configuración cambiar agregando la línea server.port = XXXX (donde XXXX puede ser por ejemplo 8091) y vuelve a intentar ejecutar. Ahora, lógicamente tendrá que cargar el puerto que puso en el archivo de configuración.