



# I.E.S Jacarandá

## **Despliegue de Aplicaciones Web**

### Instalación de Jenkins y Tomcat

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Rodríguez

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**2DAW**

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## Pasos a seguir:

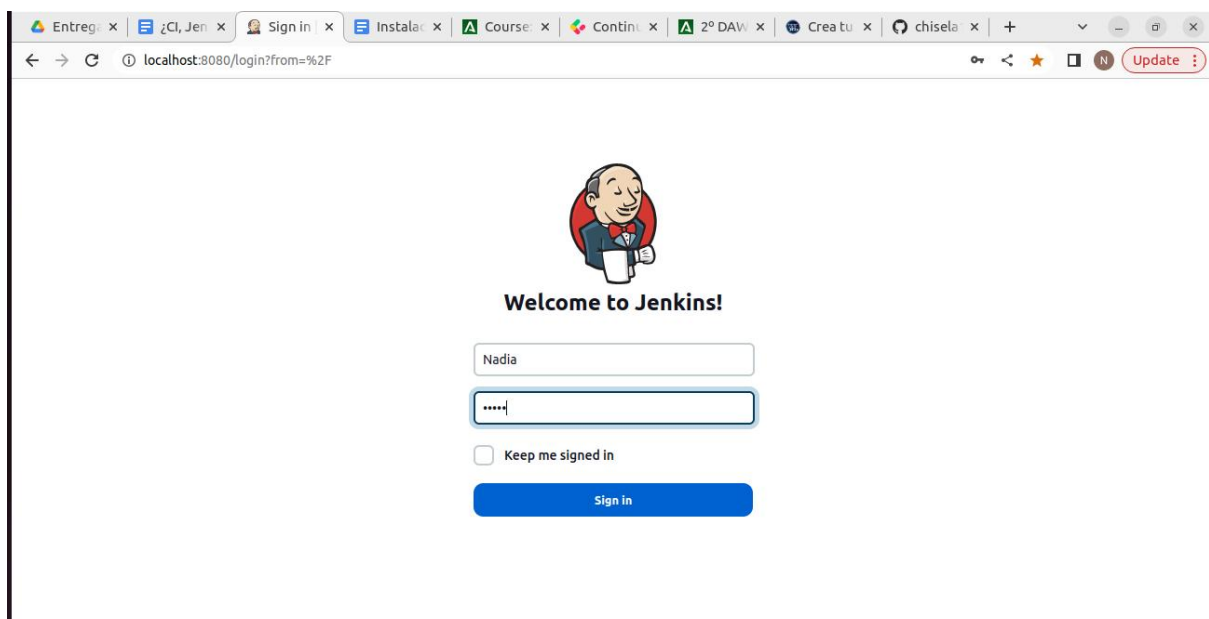
1. Primero levanta el contenedor de Jenkins que habíamos creado en el ejercicio anterior. Si no te acuerdas el id o nombre del contenedor usa el comando **docker ps -a**

```
estudiante@DAW1: ~  
estudiante@DAW1:~$ docker ps -a  
CONTAINER ID   IMAGE          PORTS          COMMAND          CREATED          NAMES  
STATUS  
5902004b7b31   jenkins/jenkins:lts   "/usr/bin/tini -- /u..."   6 days ago      jenkins  
Exited (143) 6 days ago  
10ac4df33588   wildflygreeting-app   "/opt/jboss/wildfly/..."   2 weeks ago     fervent_m  
Exited (0) 13 days ago  
oore
```

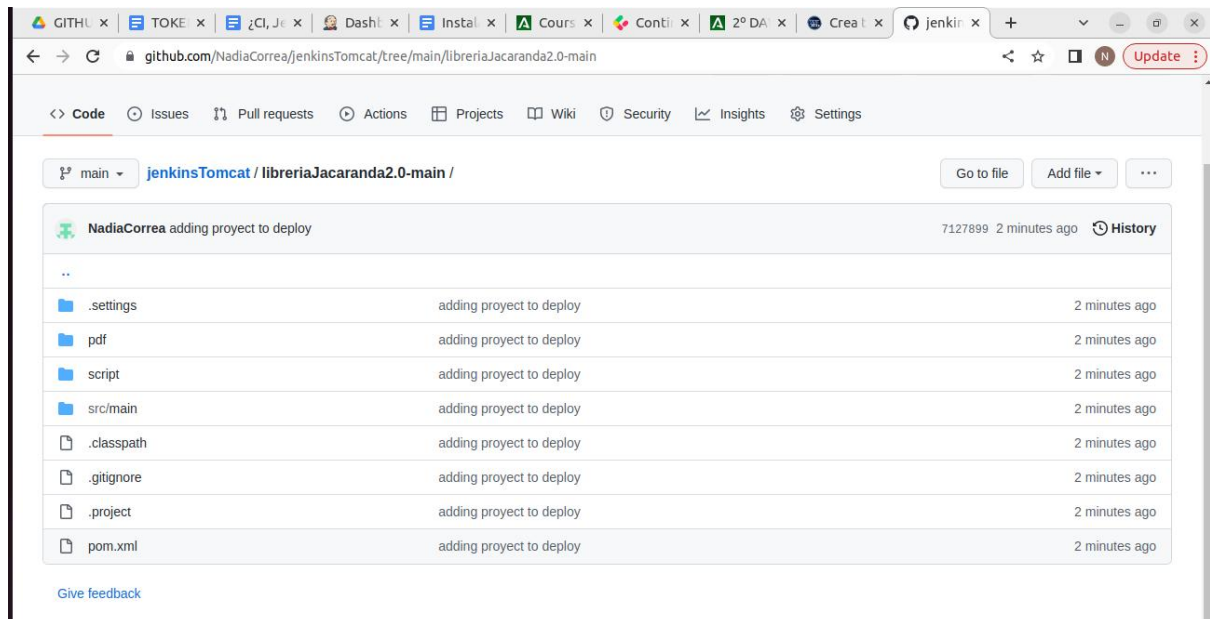
2. Para lanzarlo utiliza el comando **docker start IdContendor** y verifica que está levantado con el comando **docker ps**

```
estudiante@DAW1:~$ docker start 5902004b7b31  
5902004b7b31  
estudiante@DAW1:~$ docker ps  
CONTAINER ID   IMAGE          COMMAND          CREATED          STATUS  
S          PORTS          NAMES  
5902004b7b31   jenkins/jenkins:lts   "/usr/bin/tini -- /u..."   6 days ago      Up 5  
seconds      0.0.0.0:8080->8080/tcp, :::8080->8080/tcp, 0.0.0.0:50000->50000/tcp, :  
::50000->50000/tcp   jenkins  
estudiante@DAW1:~$
```

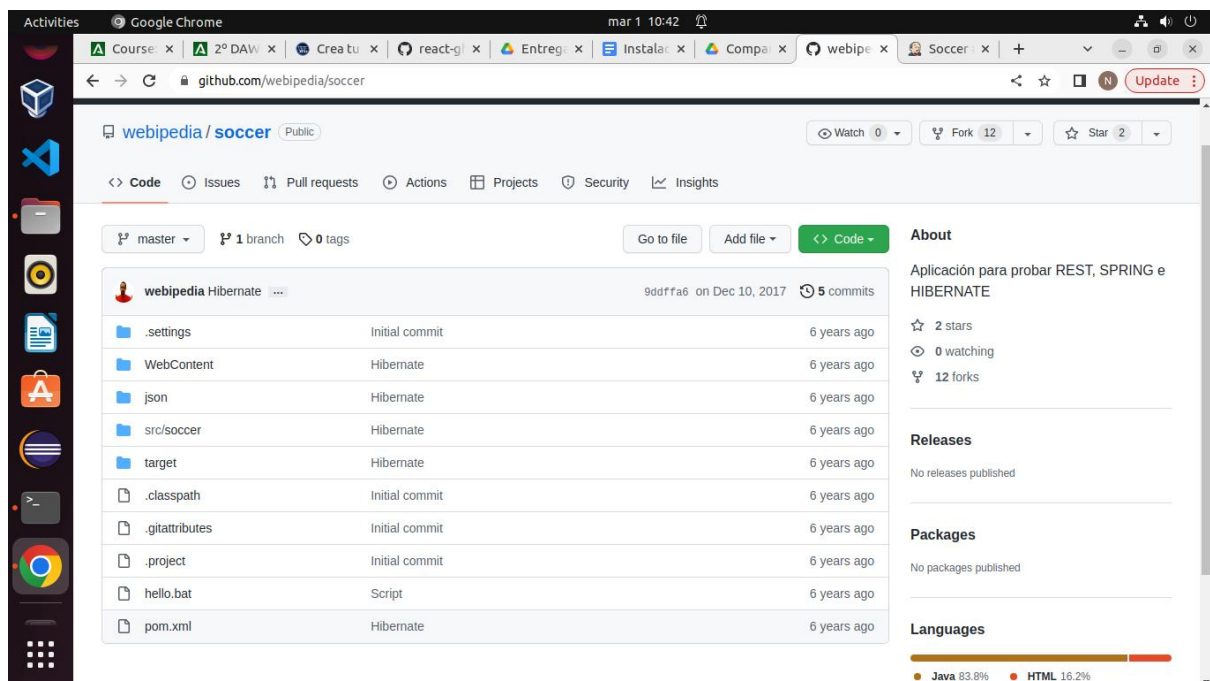
3. Accede a la URL que asignaste a Jenkins en el ejercicio anterior e introduce el usuario y la contraseña. En mi caso yo lo dejé como <http://localhost:8080/>



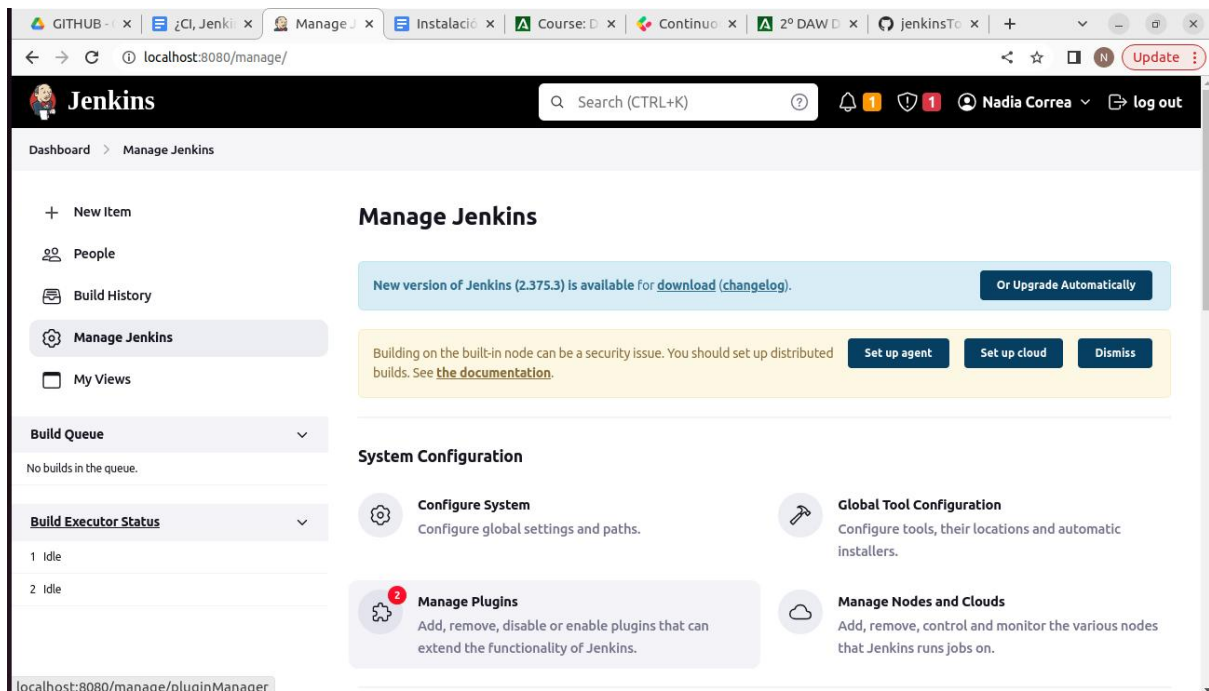
#### 4. Para poder seguir el tutorial debes tener un proyecto Maven en un repositorio en Github



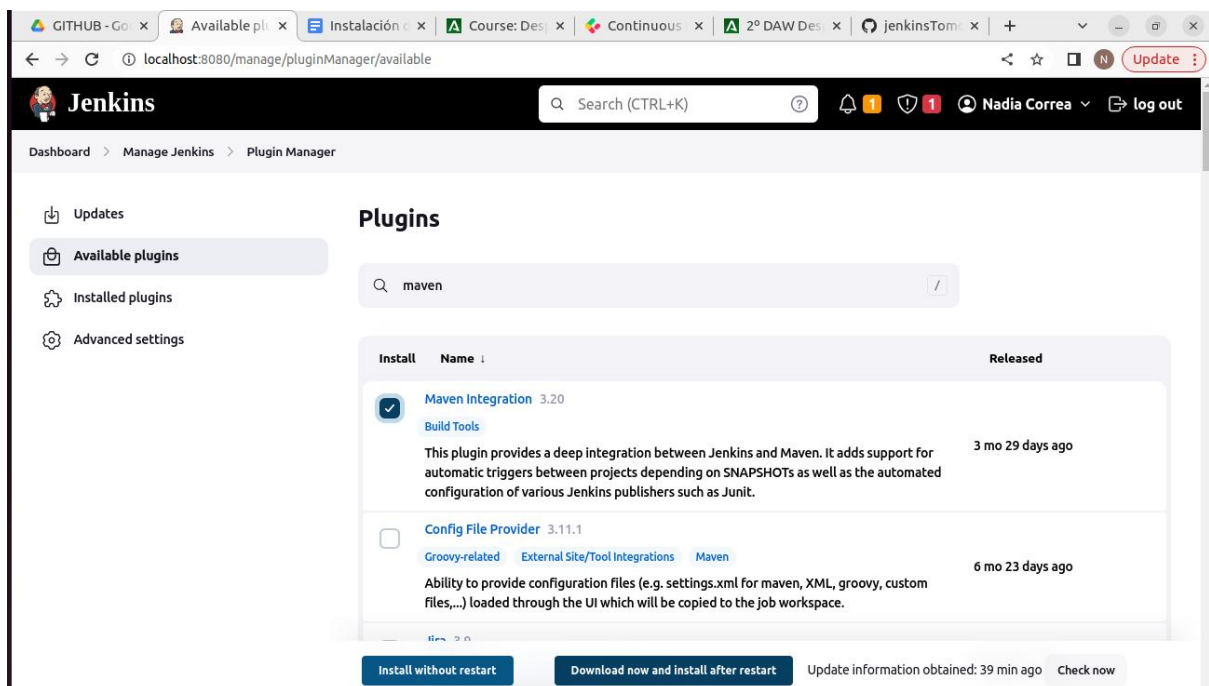
Actualización: He utilizado el repositorio del tutorial disponible en <https://github.com/webipedia/soccer>

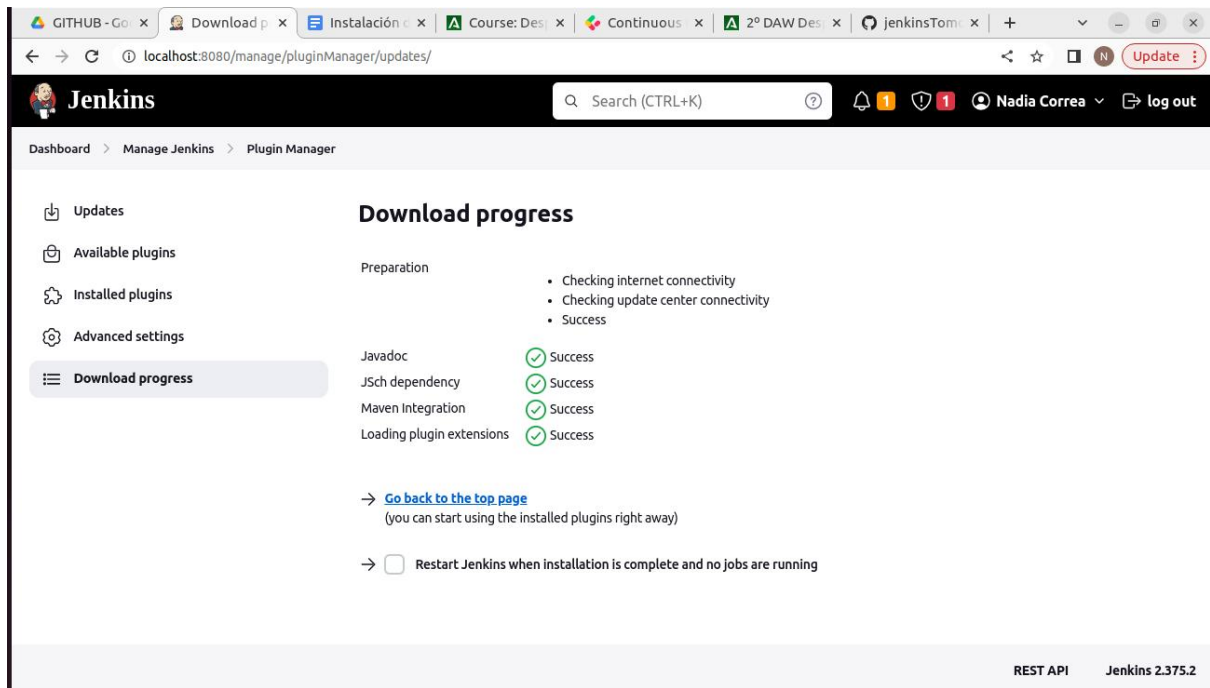


5. Y en la interfaz de Jenkins hay que instalar unos plugins: Para ello ve a Manage jenkins - y da click en manage plugins

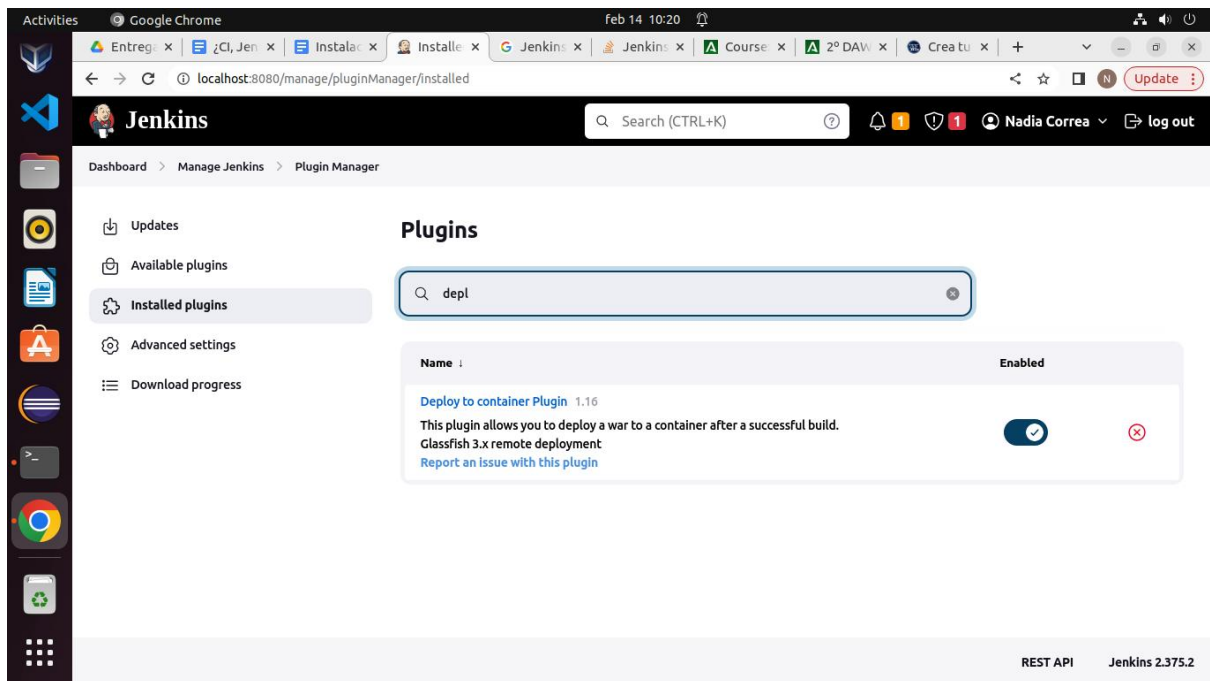


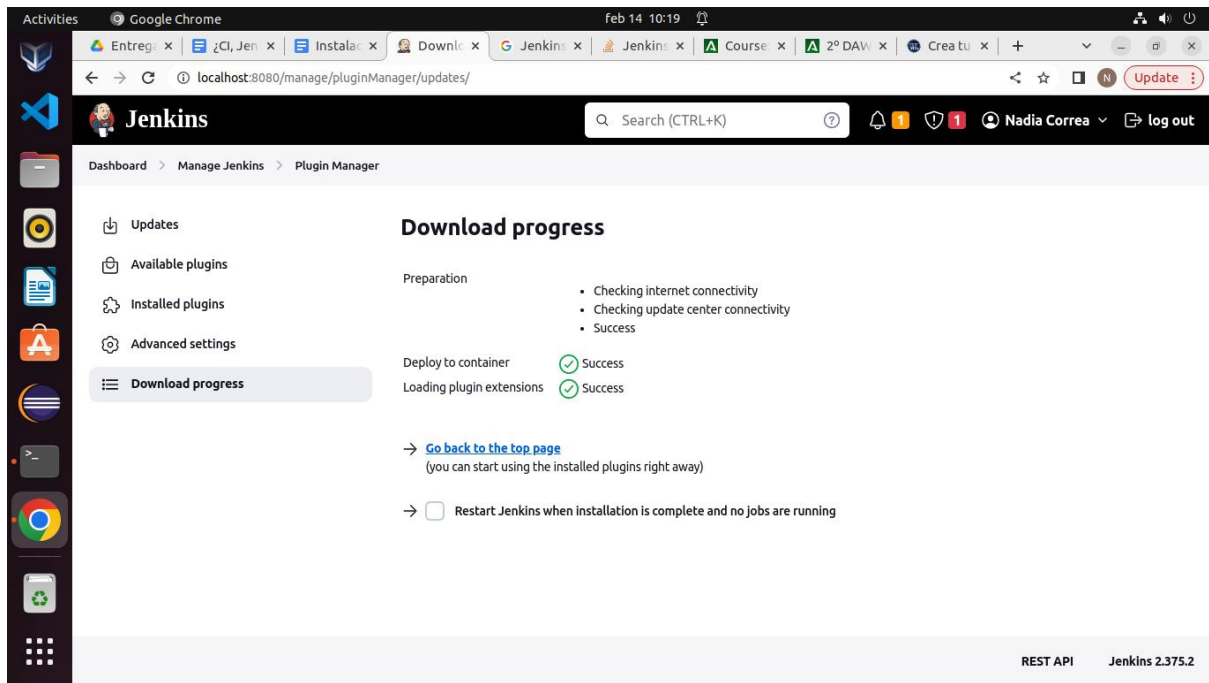
6. Buscar el plugin de Maven Integration e instalalo.



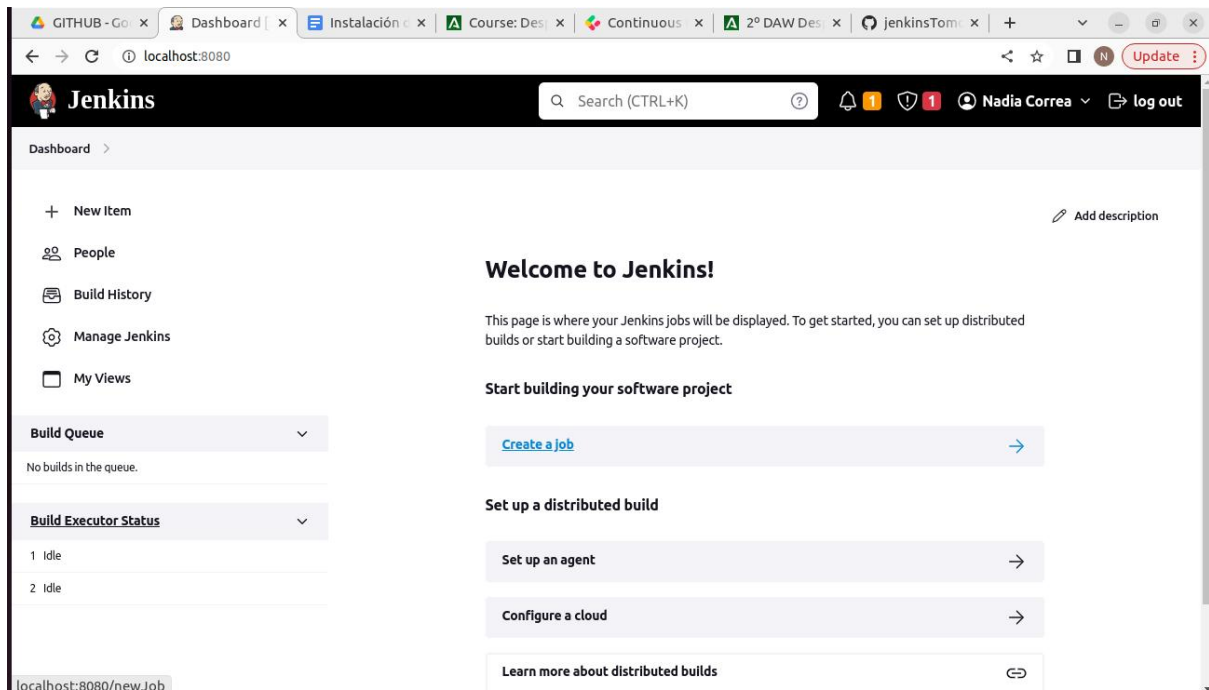


## 7. Luego haremos instalaremos el plugin de Deploy to Container Plugin



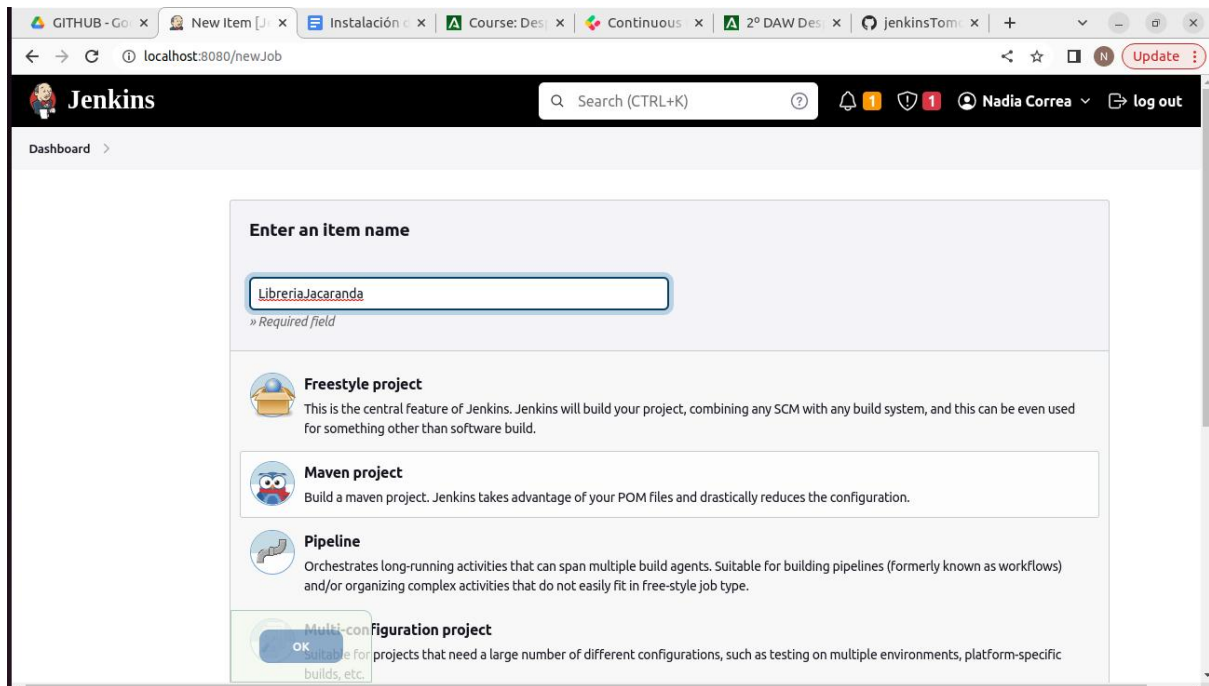


8. Ahora vamos a crear una nueva tarea, seleccionando la opción de create a job

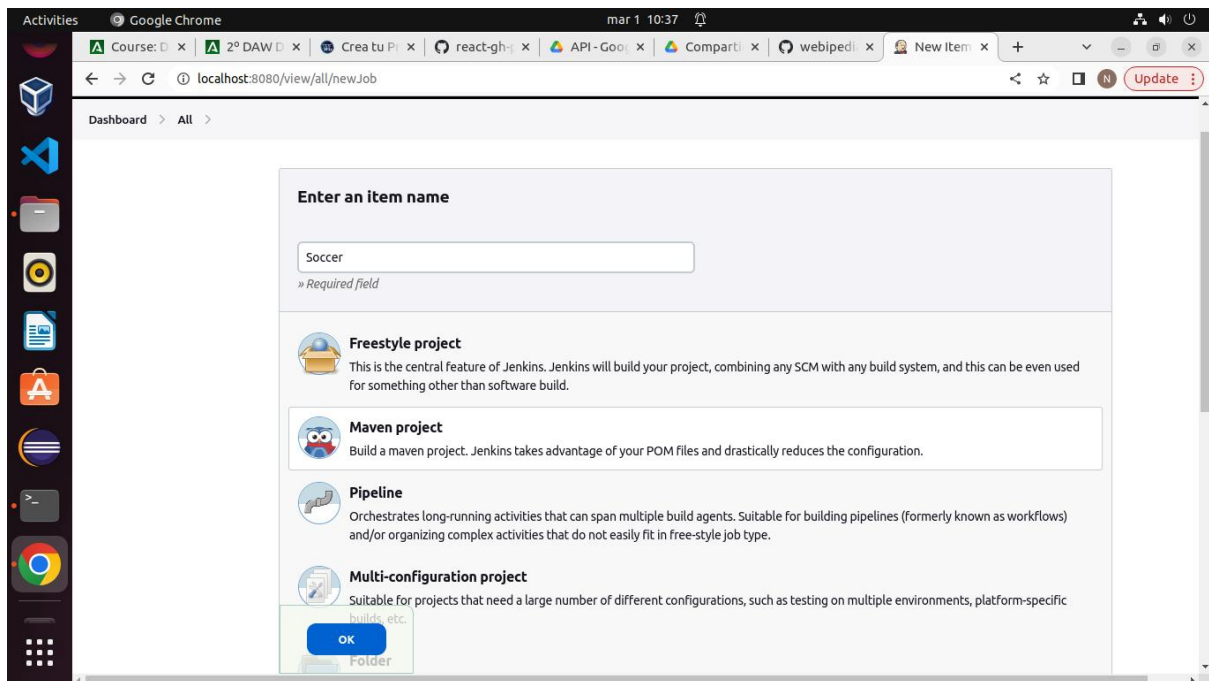




## 9. Le damos nombre a nuestro proyecto y seleccionamos la opción de Maven Project

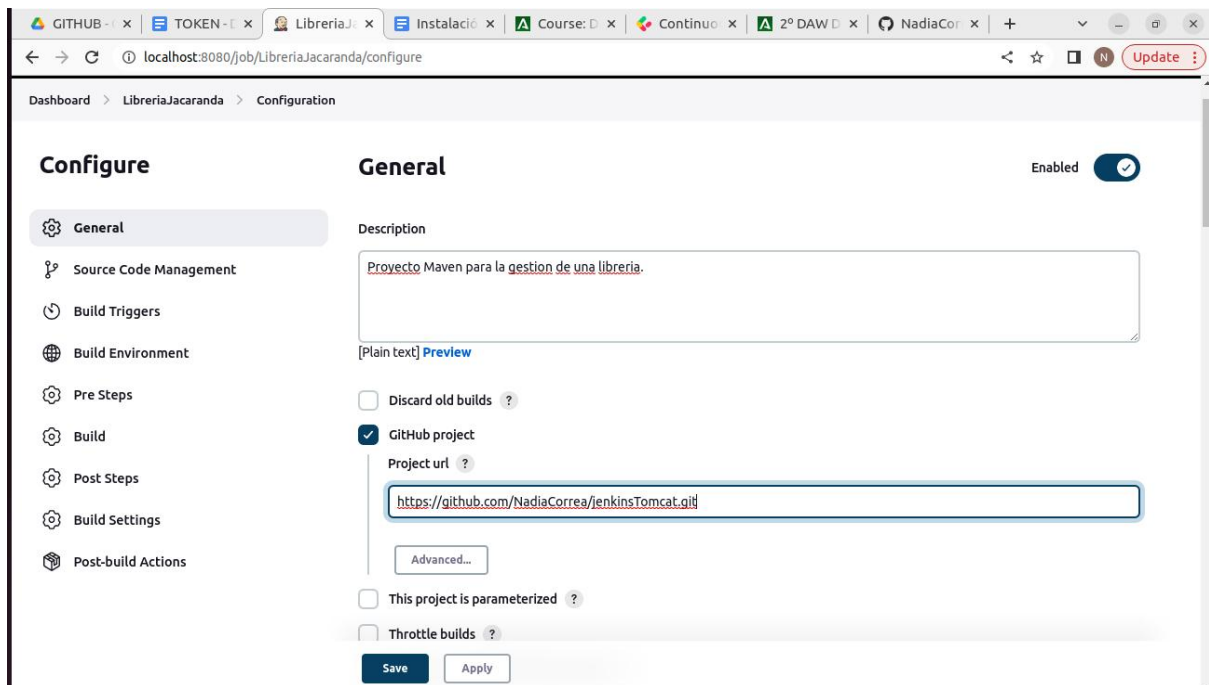


Actualización: Creé un nuevo proyecto para terminar el ejercicio llamado Soccer

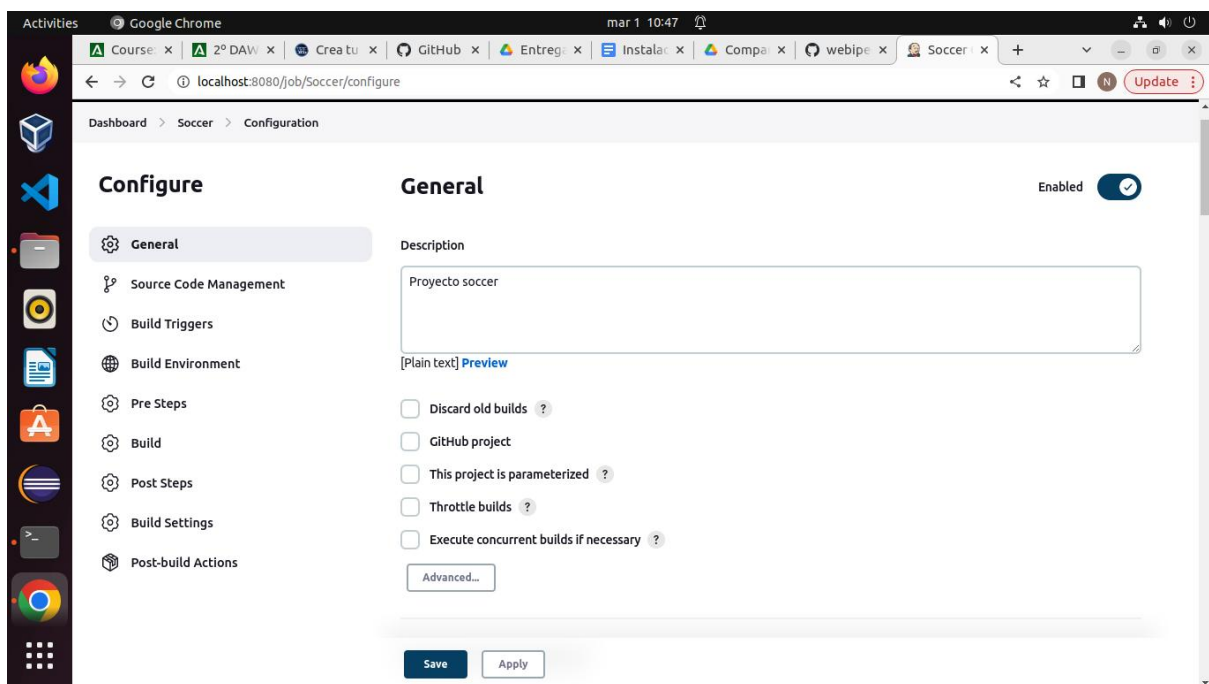




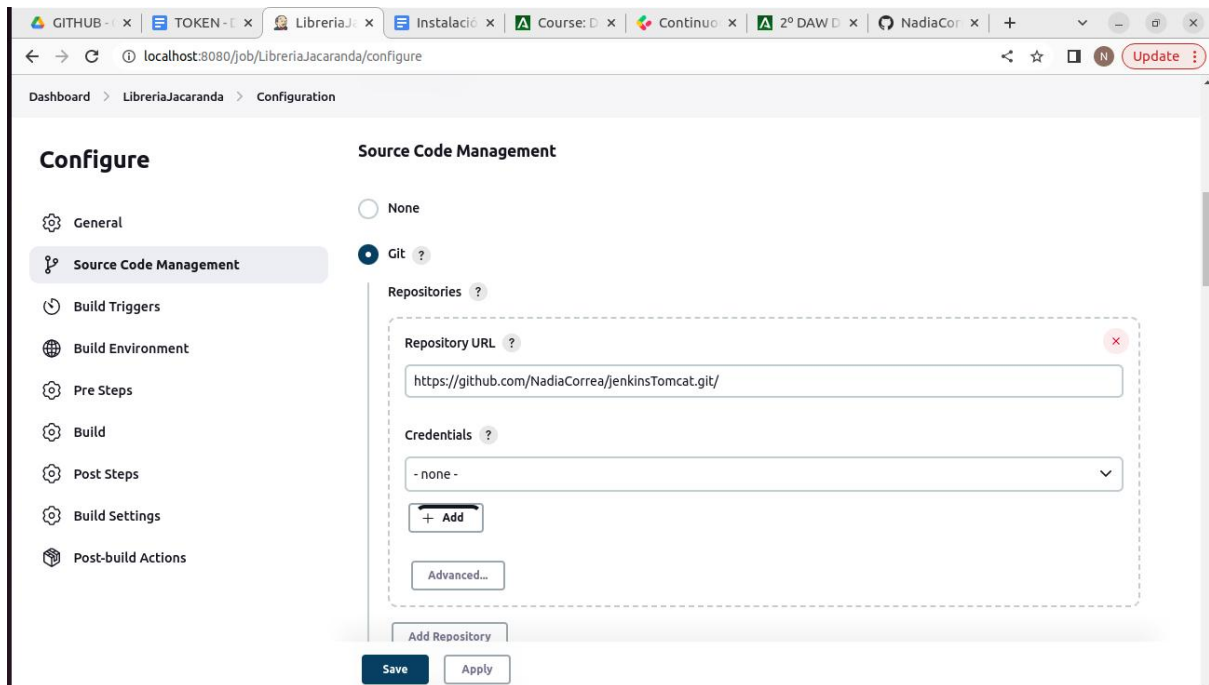
## 10. Añadimos breve descripción de nuestro proyecto



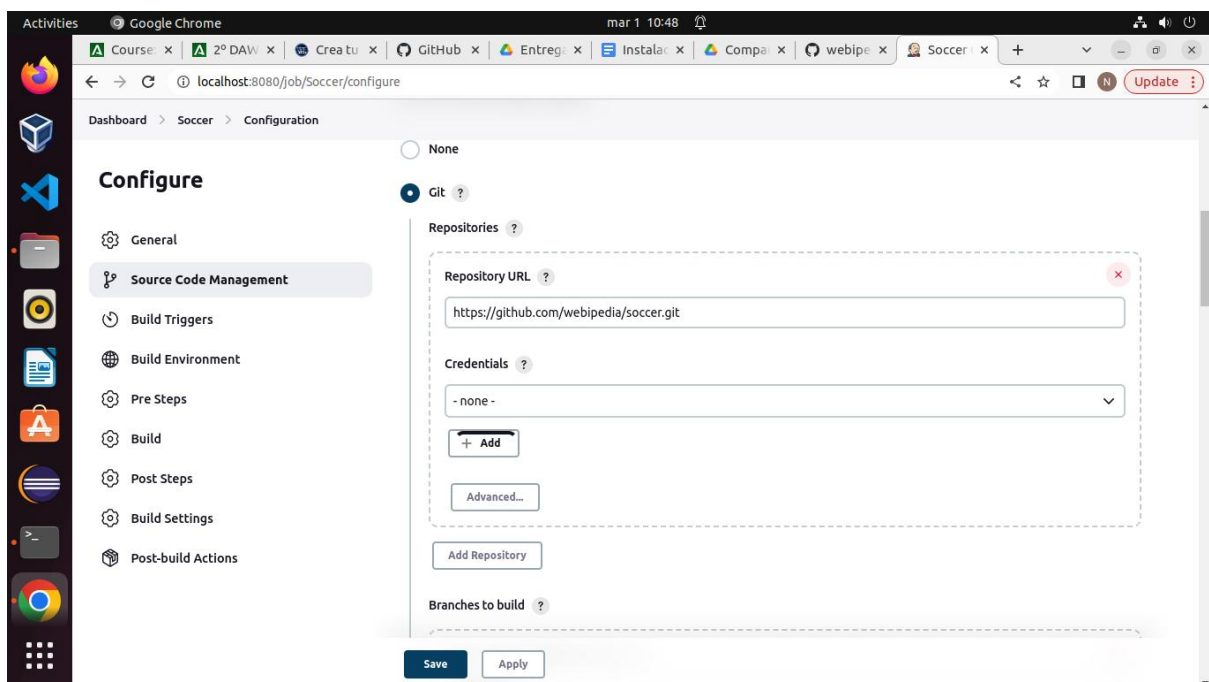
## Actualización: Nombre del nuevo proyecto



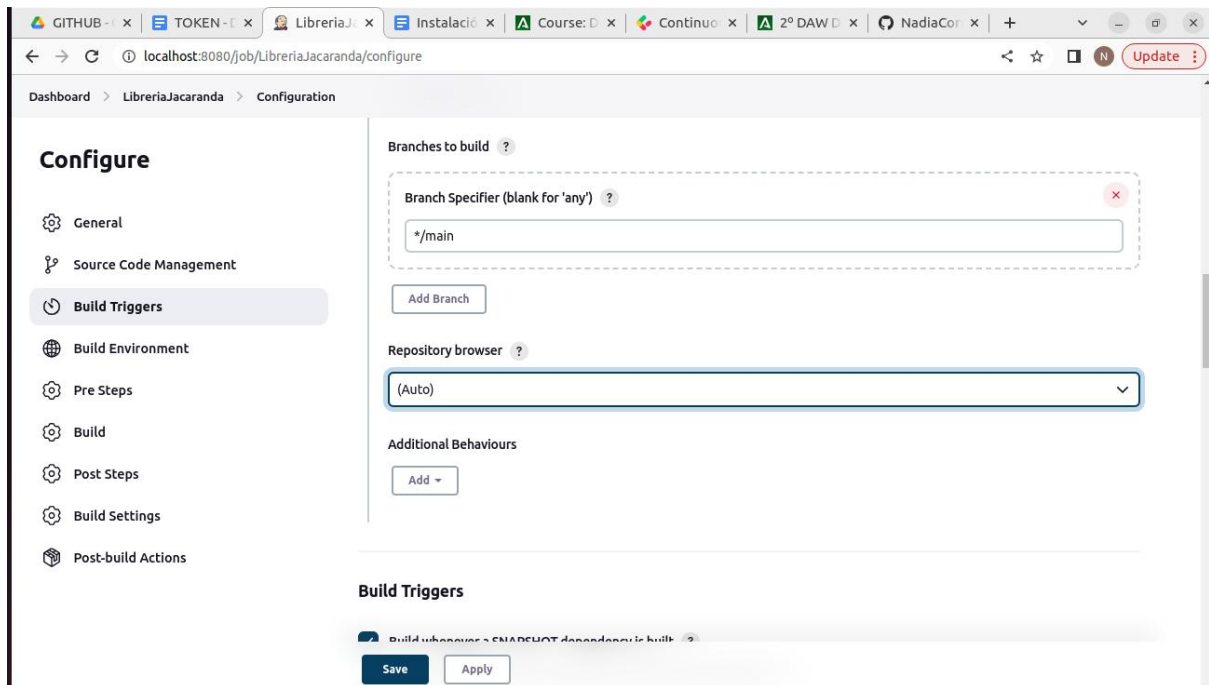
11. Escogemos la opción de Git ya que tenemos el proyecto alojado en Github y colocamos la URL del repositorio



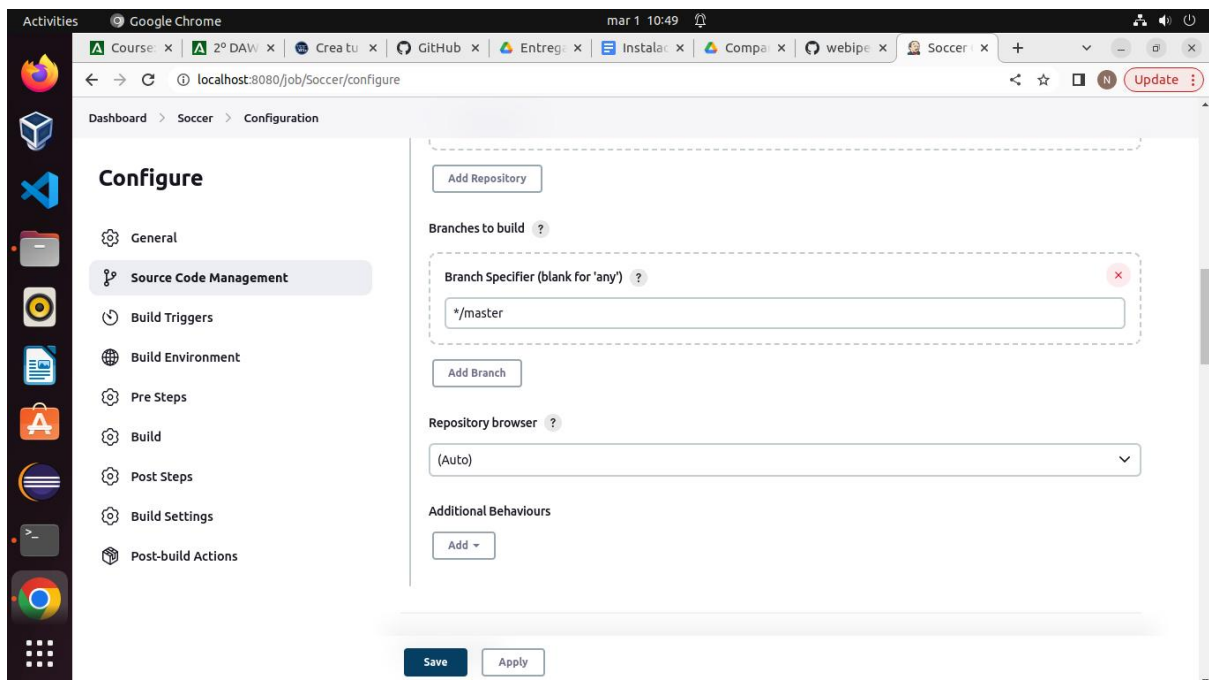
Actualización:



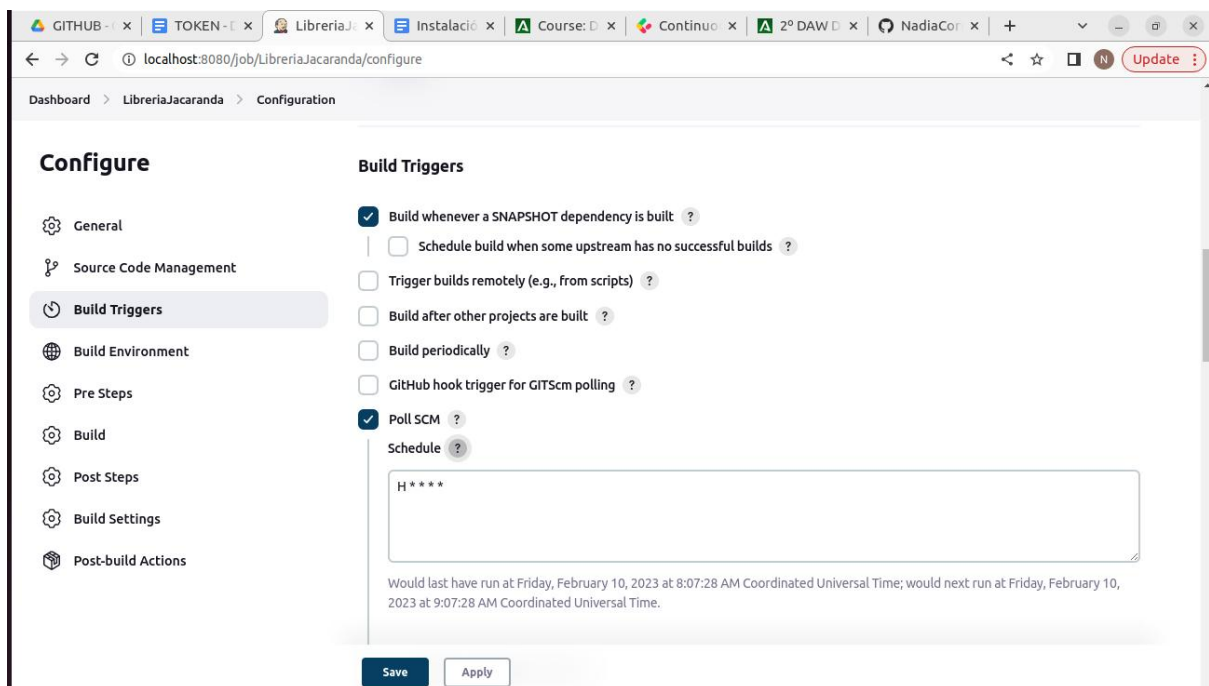
12. Ponemos el nombre de la rama en la que está el proyecto en este caso es main



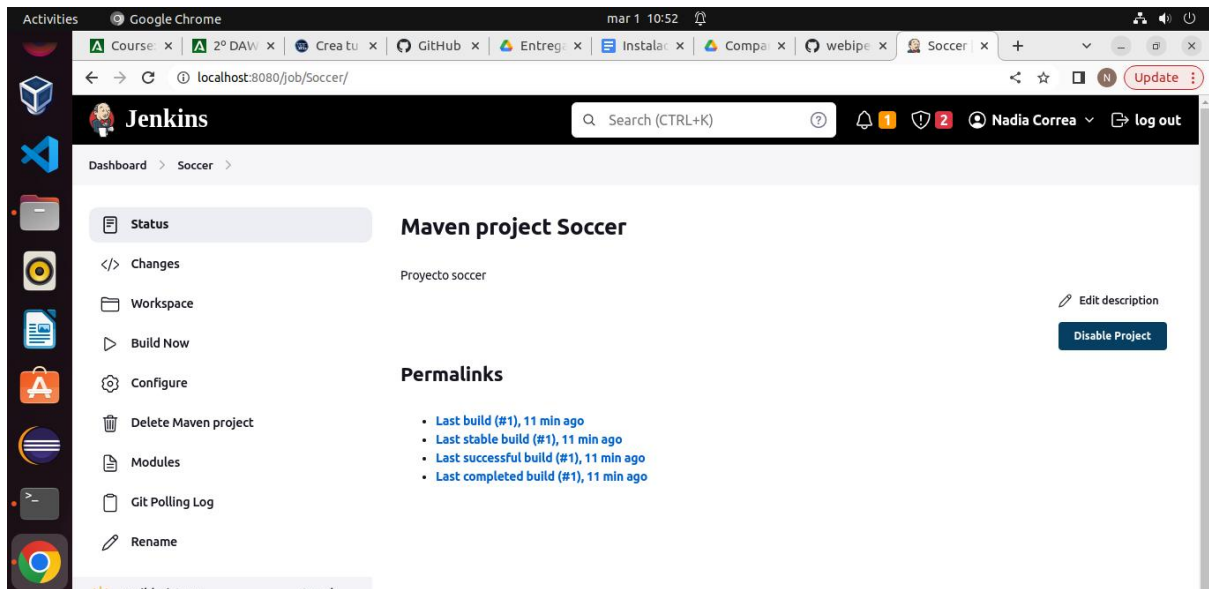
Actualización:



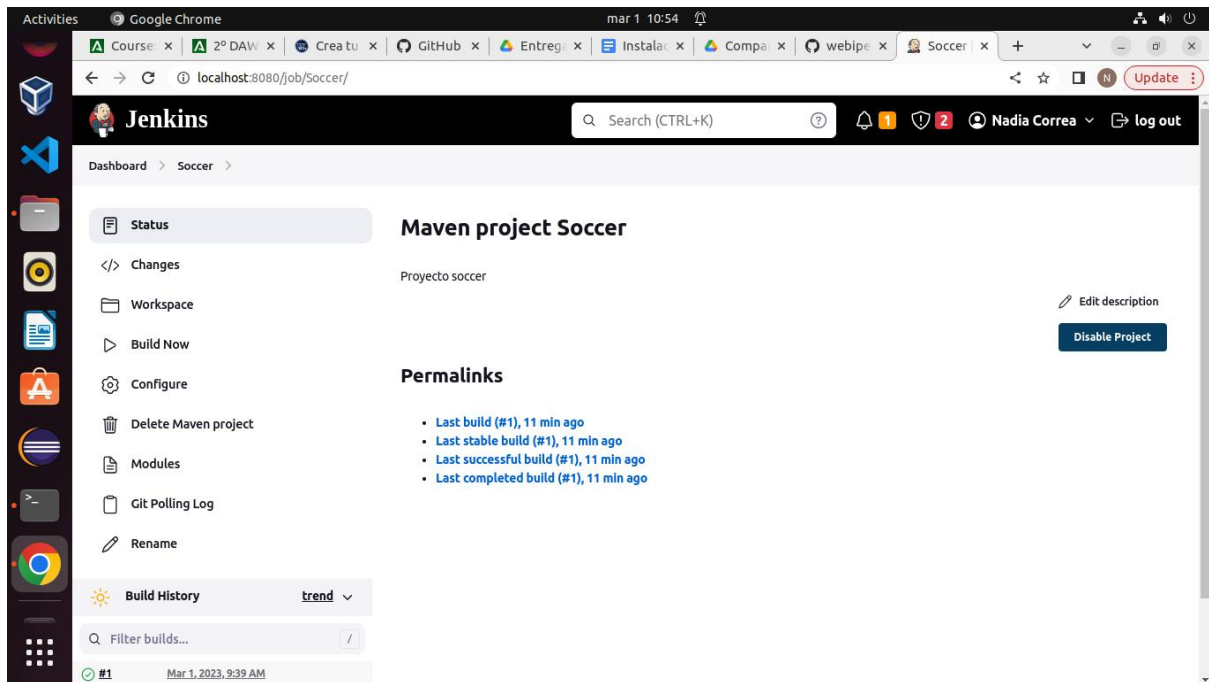
13. Incluimos la opción de programar la frecuencia con la cual Jenkins observará las variaciones en el repositorio en esta caso está programada para cada hora

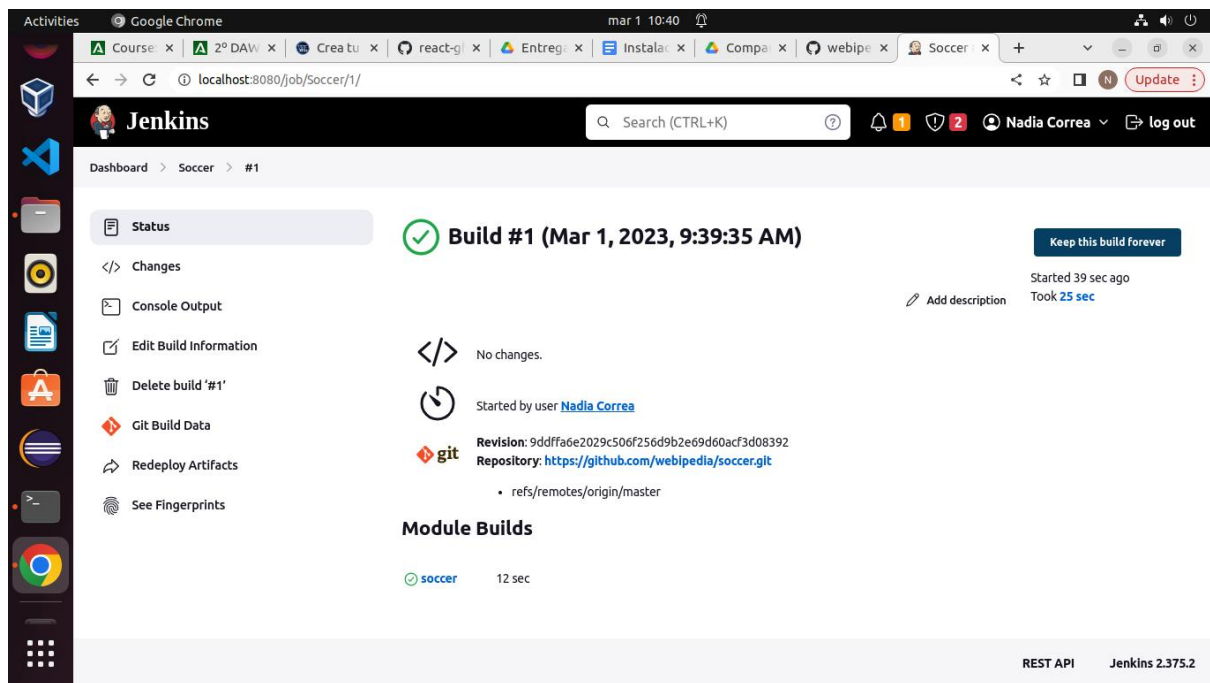


14. Y le damos click a save y luego a Build Now

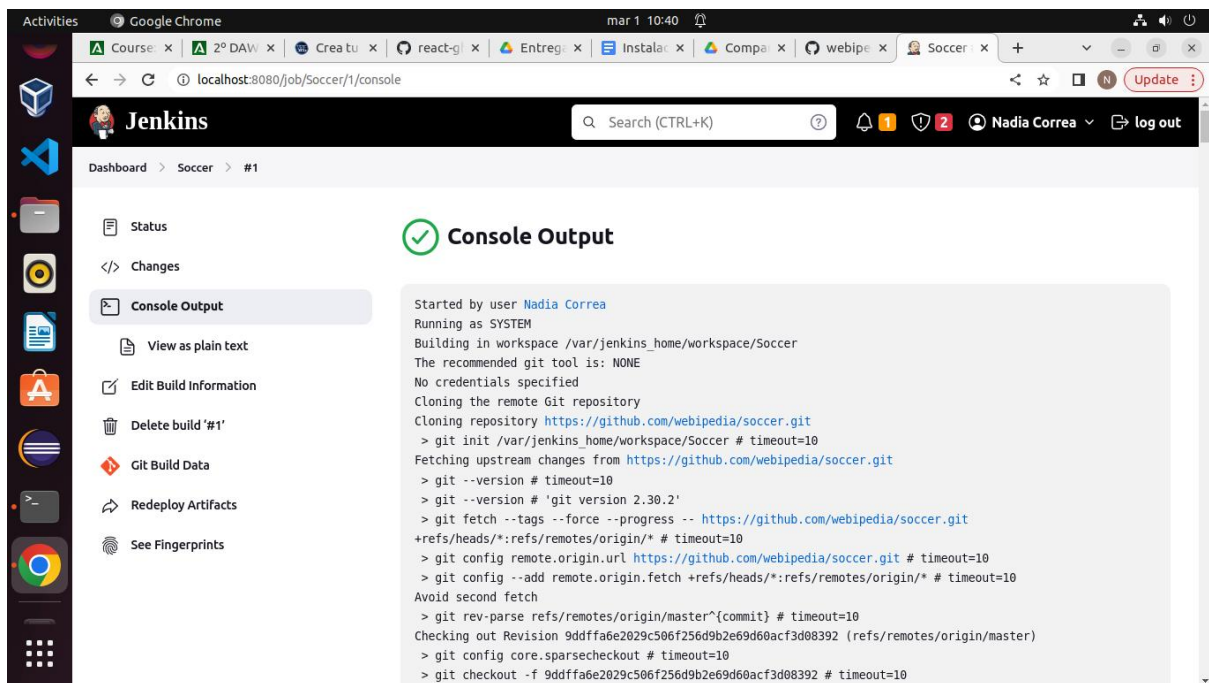


15. Y vemos que salga el símbolo del sol para confirmar que todo haya sido correcto.



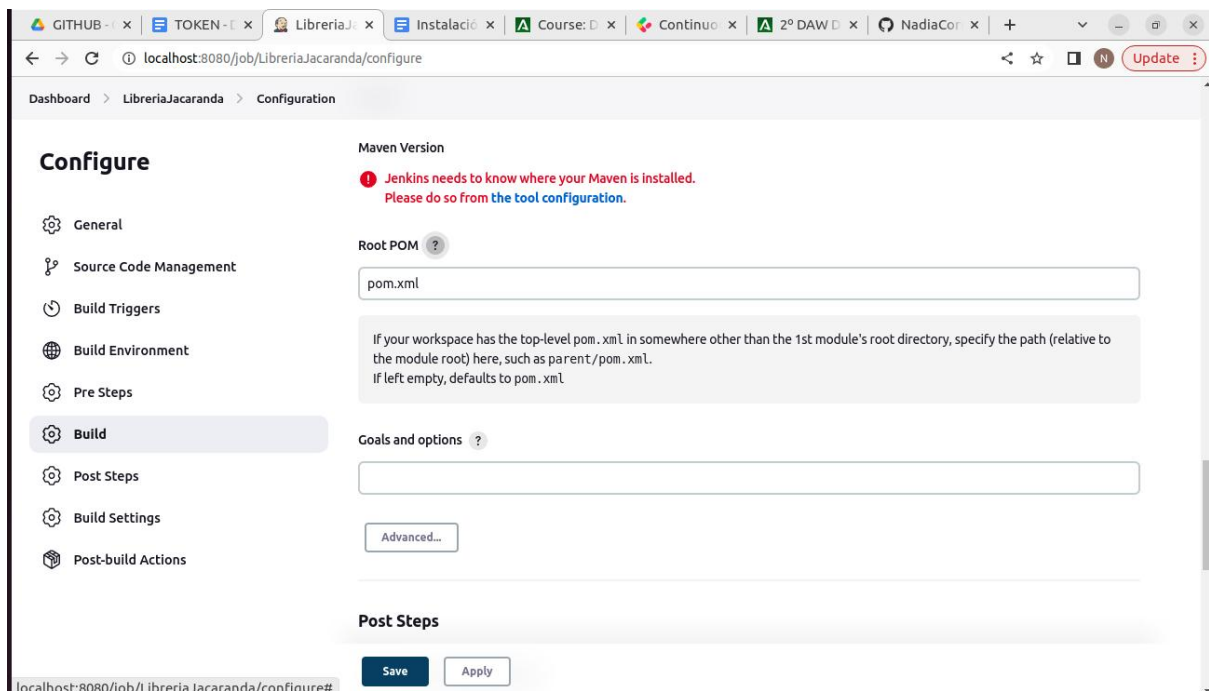


16. También podemos ver la información completa en el apartado de Console Output

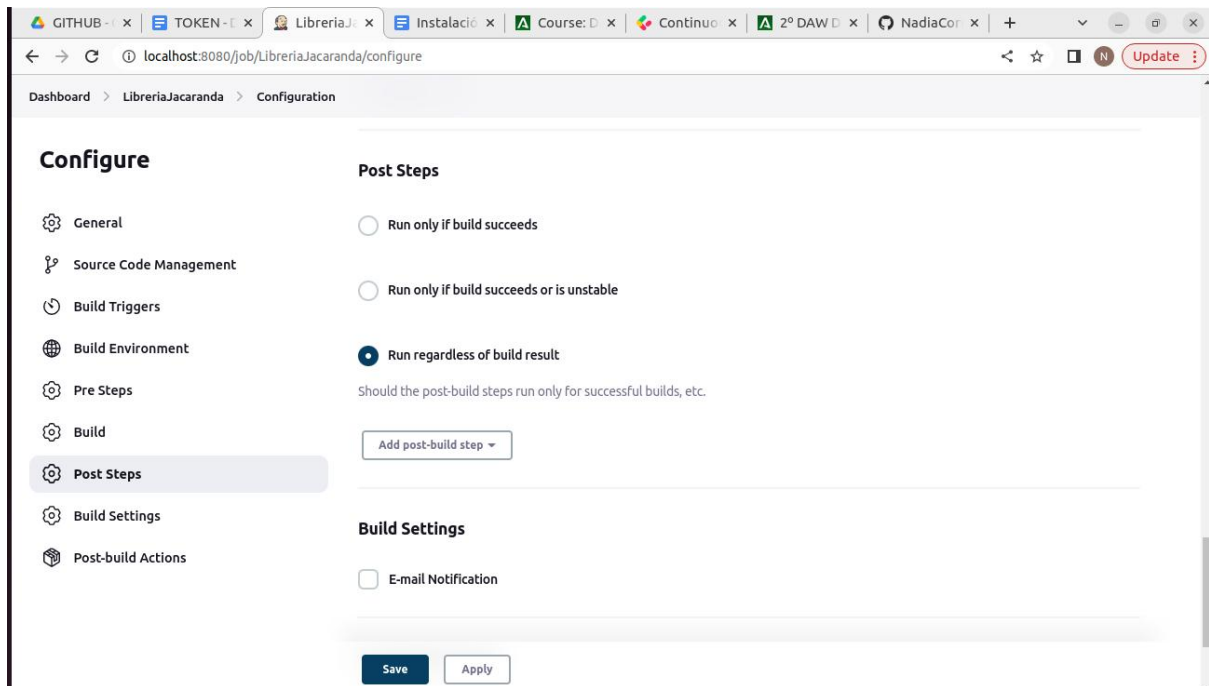


## Errores anteriores:

Este apartado describe los problemas encontrados en la realización del tutorial. Primero no encontraba al Maven. Lo solucioné incluyéndolo en la opción avanzada.







Luego daba un error por el Tomcat. Añadí el rol de manager script al tomcat-users.xml, luego me daba un error de assembling war y le puse en el pom

error assembling war: webxml attribute is required

```
<plugin>   <artifactId>maven-war-plugin</artifactId>   <version>2.4</version>   <configuration>
<failOnMissingWebXml>false</failOnMissingWebXml> </configuration> </plugin>
```

y luego el último error que me daba era:

ERROR: Build step failed with exception  
org.codehaus.cargo.container.ContainerException: Failed to redeploy

```
estudiante@DAW1:~$ docker start 62ed0f327135
62ed0f327135
estudiante@DAW1:~$ docker exec -it 62ed0f327135 /bin/bash
root@62ed0f327135:/usr/local/tomcat# ls
bin          lib          NOTICE     temp
BUILDING.txt LICENSE      README.md   webapps
conf         logs        RELEASE-NOTES webapps.dist
CONTRIBUTING.md native-jni-lib RUNNING.txt work
root@62ed0f327135:/usr/local/tomcat# cd conf
root@62ed0f327135:/usr/local/tomcat/conf# ls
Catalina      context.xml  logging.properties  tomcat-
users.xsd
catalina.policy  jaspic-providers.xml  server.xml           web.xml
catalina.properties  jaspic-providers.xsd  tomcat-users.xml
root@62ed0f327135:/usr/local/tomcat/conf# nano tomcat-users.xml
root@62ed0f327135:/usr/local/tomcat/conf#
```

Activities Terminal Feb 17 08:21

root@62ed0f327135: /usr/local/tomcat/conf

estudiante@DAW1: ~

GNU nano 6.2 tomcat-users.xml Click to go forward, hold to see history

```
-->
<!--
The sample user and role entries below are intended for use with the
examples web application. They are wrapped in a comment and thus are ignored
when reading this file. If you wish to configure these users for use with the
examples web application, do not forget to remove the <!-- ... --> that surrounds
them. You will also need to set the passwords to something appropriate.
-->
<!--
<role rolename="tomcat"/>
<role rolename="role1"/>
<user username="tomcat" password="<must-be-changed>" roles="tomcat"/>
<user username="both" password="<must-be-changed>" roles="tomcat,role1"/>
<user username="role1" password="<must-be-changed>" roles="role1"/>
-->
<role rolename="manager-gui"/>
<user username="tomcat" password="tomcat" roles="manager-gui, manager-script"/>
-->
</tomcat-users>

```

Help Write Out Where Is Cut Execute Location M-U Undo M-A Set Mark M-I To Bracket  
Exit Read File Replace Paste Justify Go To Line M-E Redo Copy Where Was

Activities Google Chrome Feb 21 10:49

localhost:8080/job/LibreriaJacaranda/10/console

Dashboard > LibreriaJacaranda > #10

Status

Changes

Console Output

View as plain text

Edit Build Information

Delete build '#10'

Git Build Data

Redeploy Artifacts

See Fingerprints

Previous Build

### Console Output

```
Started by user Nadia Correa
Running as SYSTEM
Building in workspace /var/jenkins_home/workspace/LibreriaJacaranda
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/jenkins_home/workspace/LibreriaJacaranda/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/NadiaCorrea/jenkinsTomcat.git # timeout=10
Fetching upstream changes from https://github.com/NadiaCorrea/jenkinsTomcat.git
> git --version # timeout=10
> git --version # 'git version 2.30.2'
> git fetch --tags --force --progress -- https://github.com/NadiaCorrea/jenkinsTomcat.git
+refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 32ea306e9b9714634fa0673f7821ba749b9a1268 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 32ea306e9b9714634fa0673f7821ba749b9a1268 # timeout=10
Commit message: "Update pom.xml"
> git rev-list --no-walk 32ea306e9b9714634fa0673f7821ba749b9a1268 # timeout=10
Parsing POMs
Established TCP socket on 33677
[LibreriaJacaranda] $ java -cp /var/jenkins_home/plugins/maven-plugin/WEB-INF/lib/maven35-agent-
1.14.jar:/var/jenkins_home/tmp/hudson-tacke-Maven-MavenInstallation/Maven/hot/plugin-placemrldc-

```

Activities Google Chrome Feb 21 10:50

localhost:8080/job/LibreriaJacaranda/10/console

Dashboard > LibreriaJacaranda > #10

```
[INFO] --- install:3.1.0:install (default-install) @ libreriaJacaranda ---
[INFO] Installing /var/jenkins_home/workspace/LibreriaJacaranda/pom.xml to
/root/.m2/repository/LibreriaJacaranda/LibreriaJacaranda/0.0.1-SNAPSHOT/LibreriaJacaranda-0.0.1-SNAPSHOT.pom
[INFO] Installing /var/jenkins_home/workspace/LibreriaJacaranda/target/LibreriaJacaranda-0.0.1-SNAPSHOT.war
to /root/.m2/repository/LibreriaJacaranda/LibreriaJacaranda/0.0.1-SNAPSHOT/LibreriaJacaranda-0.0.1-
SNAPSHOT.war
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 3.876 s
[INFO] Finished at: 2023-02-17T07:44:44Z
[INFO] -----
Waiting for Jenkins to finish collecting data
[JENKINS] Archiving /var/jenkins_home/workspace/LibreriaJacaranda/pom.xml to
LibreriaJacaranda/LibreriaJacaranda/0.0.1-SNAPSHOT/LibreriaJacaranda-0.0.1-SNAPSHOT.pom
[JENKINS] Archiving /var/jenkins_home/workspace/LibreriaJacaranda/target/LibreriaJacaranda-0.0.1-
SNAPSHOT.war to LibreriaJacaranda/LibreriaJacaranda/0.0.1-SNAPSHOT/LibreriaJacaranda-0.0.1-SNAPSHOT.war
[DeployPublisher][INFO] Attempting to deploy 1 war file(s)
[DeployPublisher][INFO] Deploying /var/jenkins_home/workspace/LibreriaJacaranda/target/LibreriaJacaranda-
0.0.1-SNAPSHOT.war to container Tomcat 9.x Remote with context /jenkinsTomcat
ERROR: Build step failed with exception
org.codehaus.cargo.container.ContainerException: Failed to redeploy
[/var/jenkins_home/workspace/LibreriaJacaranda/target/LibreriaJacaranda-0.0.1-SNAPSHOT.war]
at
org.codehaus.cargo.container.tomcat.internal.AbstractTomcatManagerDeployer.redeploy(AbstractTomcatManagerDep
loyer.java:176)
at hudson.plugins.deploy.CargoContainerAdapter.deploy(CargoContainerAdapter.java:81)
at hudson.plugins.deploy.CargoContainerAdapter$DeployCallable.invoke(CargoContainerAdapter.java:167)
```

Activities Google Chrome Feb 21 10:51

localhost:8080/job/LibreriaJacaranda/10/console

Dashboard > LibreriaJacaranda > #10

```
SNAPSHOT.war to LibreriaJacaranda/LibreriaJacaranda/0.0.1-SNAPSHOT/LibreriaJacaranda-0.0.1-SNAPSHOT.war
[DeployPublisher][INFO] Attempting to deploy 1 war file(s)
[DeployPublisher][INFO] Deploying /var/jenkins_home/workspace/LibreriaJacaranda/target/LibreriaJacaranda-
0.0.1-SNAPSHOT.war to container Tomcat 9.x Remote with context /jenkinsTomcat
ERROR: Build step failed with exception
org.codehaus.cargo.container.ContainerException: Failed to redeploy
[/var/jenkins_home/workspace/LibreriaJacaranda/target/LibreriaJacaranda-0.0.1-SNAPSHOT.war]
at
org.codehaus.cargo.container.tomcat.internal.AbstractTomcatManagerDeployer.redeploy(AbstractTomcatManagerDep
loyer.java:176)
at hudson.plugins.deploy.CargoContainerAdapter.deploy(CargoContainerAdapter.java:81)
at hudson.plugins.deploy.CargoContainerAdapter$DeployCallable.invoke(CargoContainerAdapter.java:167)
at hudson.plugins.deploy.CargoContainerAdapter$DeployCallable.invoke(CargoContainerAdapter.java:136)
at hudson.FilePath.act(FilePath.java:1192)
at hudson.FilePath.act(FilePath.java:1175)
at hudson.plugins.deploy.CargoContainerAdapter.redeployFile(CargoContainerAdapter.java:133)
at
hudson.plugins.deploy.PasswordProtectedAdapterCargo.redeployFile(PasswordProtectedAdapterCargo.java:95)
at hudson.plugins.deploy.DeployPublisher.perform(DeployPublisher.java:113)
at jenkins.tasks.SimpleBuildStep.perform(SimpleBuildStep.java:123)
at hudson.tasks.BuildStepCompatibilityLayer.perform(BuildStepCompatibilityLayer.java:80)
at hudson.tasks.BuildStepMonitor$3.perform(BuildStepMonitor.java:47)
at hudson.model.AbstractBuild$AbstractBuildExecution.perform(AbstractBuild.java:818)
at hudson.model.AbstractBuild$AbstractBuildExecution.performAllBuildSteps(AbstractBuild.java:767)
at
hudson.maven.MavenModuleSetBuild$MavenModuleSetBuildExecution.post2(MavenModuleSetBuild.java:1072)
at hudson.model.AbstractBuild$AbstractBuildExecution.post(AbstractBuild.java:711)
at hudson.model.Run.execute(Run.java:1925)
at hudson.maven.MavenModuleSetBuild.run(MavenModuleSetBuild.java:531)
```

## **Bibliografía**

Webipedia: Crea tu primer proyecto con Jenkins

Disponible en línea en:

<https://webipedia.es/tecnologia/cursos/jenkins-tutorial-primer-proyecto/>