Primera parte

Create a bridge network in Docke

```
docker network create jenkins
```

```
root@Kofi:~# docker network create jenkins
128692aec67861a56936c63c4559699c05ce167c75d8630c9bd0e0e60dc02033
```

In order to execute Docker commands inside Jenkins nodes, download and run the docker:dind Docker image

```
docker run \
    --name jenkins-docker \
    --rm \
    --detach \
    --privileged \
    --network jenkins \
    --network-alias docker \
    --env DOCKER_TLS_CERTDIR=/certs \
    --env Docker_certs:/certs/client \
    --volume jenkins-docker-certs:/certs/client \
    --volume jenkins-data:/var/jenkins_home \
    --publish 2376:2376 \
    docker:dind \
    --storage-driver overlay2
```

```
--env DOCKER_TLS_CERTDIR=/certs \
  -volume jenkins-docker-certs:/certs/client \
  -volume jenkins-data:/var/jenkins_home \
  -publish 2376:2376 \
docker:dind \
 --storage-driver overlay2
nable to find image 'docker:dind' locally
ind: Pulling from library/docker
18232174bc9: Already exists
8bfa185fe18: Pull complete
f4fb700ef54: Pull complete
8f138104438: Pull complete
4e97ed26239: Pull complete
26db062d70c: Pull complete
788442cb8d1: Pull complete
c9a479d2a38: Pull complete
bdfaa5ebfd9: Pull complete
916b2f09977: Pull complete
f415b007716: Pull complete
d3a6db14c03: Pull complete
edb9ca0b8ab: Pull complete
9bd16a408cc: Pull complete
fd0c4eb3cdc: Pull complete
896671e1615: Pull complete
igest: sha256:0336b60f3134d98d26a069856780f9e58dbc3219cde49ca85be14c8e3c3446e2
tatus: Downloaded newer image for docker:dind
f9b47c25172df3edfde6f2c925b6326fbff8756878272c2758788f705b26bad
oot@Kofi:~#
```

Customize the official Jenkins Docker image

```
cd ..
nano Dockerfile
```

```
FROM jenkins/jenkins:2.492.1-jdk17
USER root
RUN apt-get update && apt-get install -y lsb-release
RUN curl -fsSLo /usr/share/keyrings/docker-archive-keyring.asc \
https://download.docker.com/linux/debian/gpg
RUN echo "deb [arch=$(dpkg --print-architecture) \
signed-by=/usr/share/keyrings/docker-archive-keyring.asc] \
https://download.docker.com/linux/debian \
$(lsb_release -cs) stable" > /etc/apt/sources.list.d/docker.list
RUN apt-get update && apt-get install -y docker-ce-cli
USER jenkins
RUN jenkins-plugin-cli --plugins "blueocean docker-workflow"
```

Build a new docker image from this Dockerfile, and assign the image a meaningful name, such as "myjenkins-blueocean:2.492.1-1":

```
docker build -t myjenkins-blueocean:2.492.1-1 .
```

Run your own myjenkins-blueocean: 2.492.1-1 image as a container in Docker

```
docker run \
    --name jenkins-blueocean \
    --restart=on-failure \
    --detach \
    --network jenkins \
    --env DOCKER_HOST=tcp://docker:2376 \
    --env DOCKER_CERT_PATH=/certs/client \
    --env DOCKER_TLS_VERIFY=1 \
    --publish 8080:8080 \
    --publish 50000:50000 \
    --volume jenkins-data:/var/jenkins_home \
    --volume jenkins-docker-certs:/certs/client:ro \
    myjenkins-blueocean:2.492.1-1
```

```
root@Kofi:/home/jenkins# docker run \
--name jenkins-blueocean \
--restart=on-failure \
--detach \
--network jenkins \
--env DOCKER_HOST=tcp://docker:2376 \
--env DOCKER_CERT_PATH=/certs/client \
--env DOCKER_TLS_VERIFY=1 \
--publish 8080:8080 \
--publish 50000:50000 \
--volume jenkins-data:/var/jenkins_home \
--volume jenkins-docker-certs:/certs/client:ro \
myjenkins-blueocean:2.492.1-1
24156cc0156cb6a4b233748a716aa1028de8ad23d3cae8a222d228743a16d909
```

Jenkins initial setup is required. An admin user has been created and a password generated Please use the following password to proceed to installation:

f37dda5cd9424ace8c85c2a0a719b43a

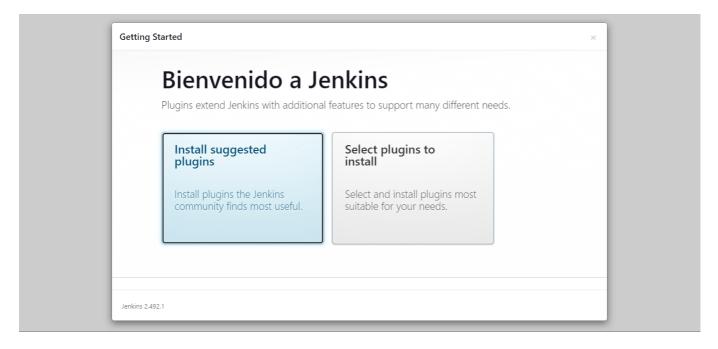
docker logs jenkins-blueocean

752b699f61024c06aad14779353911dc

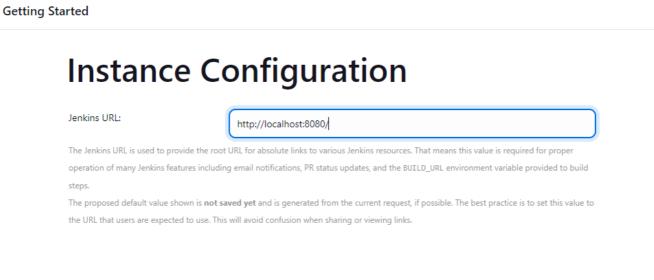
On the Unlock Jenkins page, paste this password into the Administrator password field and click Continue.



After unlocking Jenkins, the Customize Jenkins page appears. Install suggested plugins



Skip

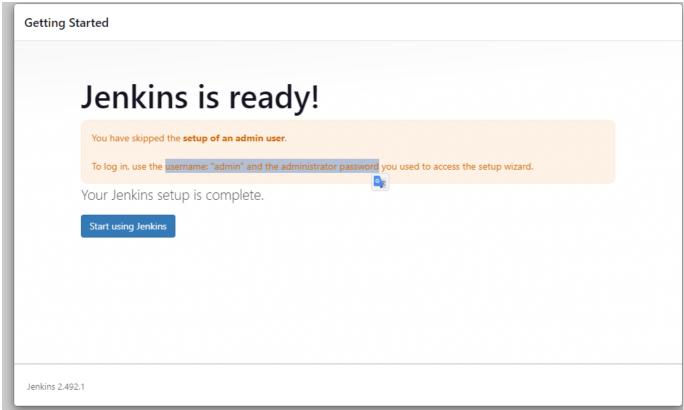


Jenkins 2.492.1

Not now

Save and Finish

When the Jenkins is ready page appears, click Start using Jenkins.



Segunda parte

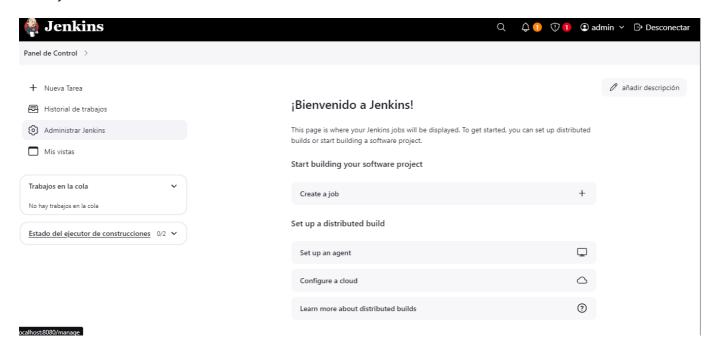
Instalar un agente de Jenkins y conectarlo con el controlador de Jenkins (El agente y el controlador deben estar en la misma red).

In a terminal window

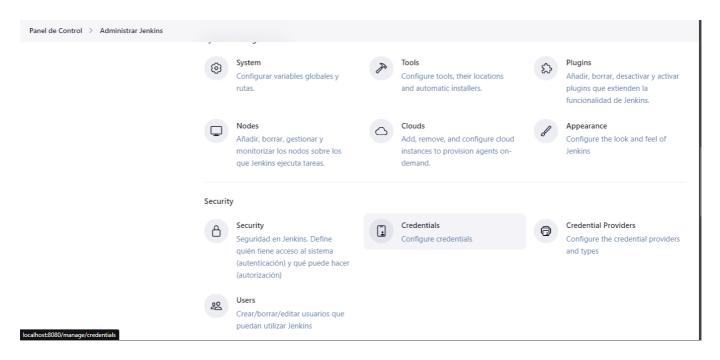
```
ssh-keygen -f ~/.ssh/jenkins_agent_key
```

```
root@Kofi:/home/jenkins# ssh-keygen -f ~/.ssh/jenkins_agent_key
Generating public/private rsa key pair.
Created directory '/root/.ssh'.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /root/.ssh/jenkins_agent_key
Your public key has been saved in /root/.ssh/jenkins_agent_key.pub
The key fingerprint is:
SHA256:UU0SFftpprRB+up0rmaPDWcCBdGgZrIStXRFy8Ktv0g root@Kofi
The key's randomart image is:
    -[RSA 3072]-
   0 .0*+ +=+.
      + 0.. ...
    * + o
             0
     0 . . 0 .
       . S . o =
            0 *
     E . o + +
      . .oX .
       .oo=B
     [SHA256]-
root@Kofi:/home/jenkins#
```

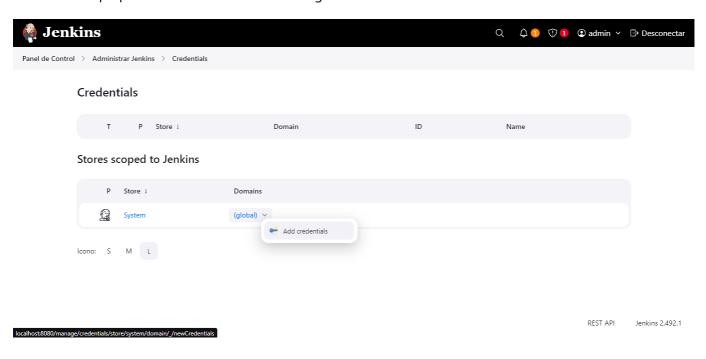
Go to your Jenkins dashboard



Go to Manage Jenkins option in main menu and click on the Manage Credentials button



Select the drop option Add Credentials from the global item



Fill in the form:

Kind: SSH Username with private key;

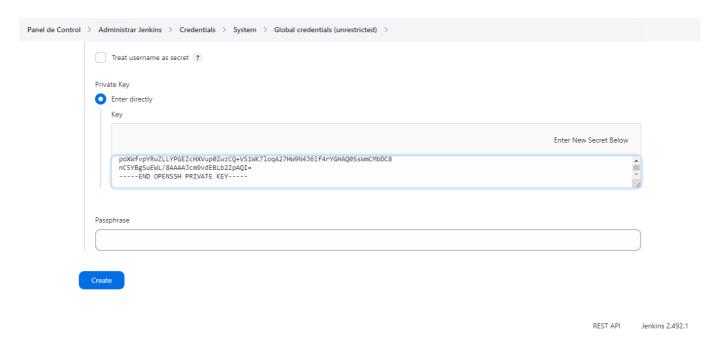
id: jenkins

description: The jenkins ssh key

username: jenkins

Private Key: select Enter directly and press the Add button to insert the content of your private key file at ~/.ssh/jenkins_agent_key

Passphrase: fill your passphrase used to generate the SSH key pair (leave empty if you didn't use one at the previous step) and then press the Create button



Here we will use the docker-ssh-agent image to create the agent containers.

```
cat ~/.ssh/jenkins_agent_key.pub

docker run -d --rm --name=agent1 --network jenkins -p 4444:22 -e
"JENKINS_AGENT_SSH_PUBKEY=ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAABgQCv0lBlJ+6PMrgw5yQpsF4a/izRB0j2CQfb3jtrCNPeByVkZdHLxH
5sE1y7dTQ+ZAvySy9b5ut1fC2S0HfuLlCCrVWhSB8YjRQNdIMKzx+p0FfjdR1GxJBGNqsygptuN8Kq5vfj
9LX9InKt6wf//FStd0ECcga6qbC+yxekD3x1sRfWs3/sCTuzBuPLmplgH6HgwcwsdF4vlmx4bq8ejJpTjE
8wmBmPsUSapKKxttX2HX+PYhSm3p4ldWzuYEu8dd98PEad9zLv9cSf05ulTOw1W86KYaSurZK8GW01uAo8
+eb5p/n/lQ+U/DBVTo3VSQlpFywbQhIsV2Ejh5RLluwxcvDFYTObZDClDS4PiyhUUsoRCPWbEpyFzsfshM
OYsY3ZF5x7DY62GVUR6HbwhUBCJ1Kh1X9irYhiJmWNBlE99fUdpF0MMPyANcssCbR2yUBXrB2h440dpKTk
FVrTmi7K+NSIolC7m9C8jQBJRwuD+/Iibq2VQL3p3vQ5THrvkYk=" jenkins/ssh-agent:alpine-jdk17
```

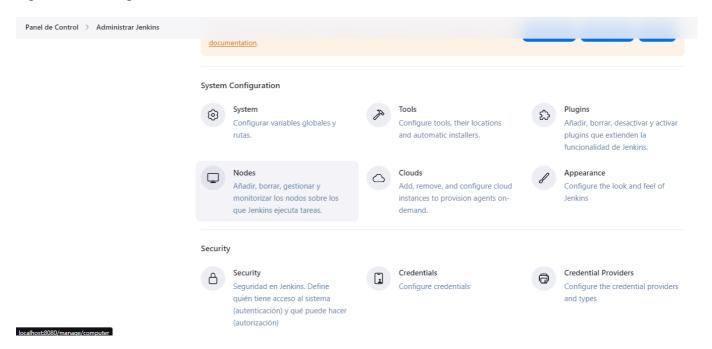
root@Kofi:/home/jenkins# docker run -d --rm --name=agent1 -p 22:22 \
-e "JENKINS_AGENT_SSH_PUBKEY=[AAAAB3NzaClyc2EAAAADAQABAAABgQCu3AM1mCV2Jj+mHPozjEGnTllhkNIkkFzS9nsDpWSBuouF1w6IIwzU+M/RurdfUdL
Tpv01BQ4pULuU8xo5fRORn7W9Av2r/xIJtrEAAke2CCcK3DvrOrBGC9RnfHGPT4vzbML5sdZJgEHReTPjfURcoZp800D0E9MhUAd1H0XY6fc8py3nx8TdPDKwNzk
MXLD8TlnBA/RRdKjjCWzZZ7BewoCM0QUUMGeP/AimnJIn63IspsashFaffRxXXxEQQx0y2z0L8RGgT0j6+WJANk/0zvdUZQV4wcHkotCPOrK9eafGS37lzg8jr4P
7C8gbc61PKJi+veQkJ1CQhEePZWTZt21udBvPYrhg/WLzX7svTXGW9j82zk01kN0PyCd+F2iHNG5YRzsVP3iHwnmIIs31USgFsuh7uJQI3bmRY8bI/eSc5Mka3wwY
wnfviZud50DpTtSWptmlw05+ohFAnplPugX2iiIJjDCqPXnfW4NM0buDi8v1K0dlrwiNlzIUc=]" \
jenkins/ssh-agent:alpine-jdk17
904b1202e5f163ac6a94a78915ad54d9bc6d9d90b71e8a13fbb1660e70cf8158

Verify the agent

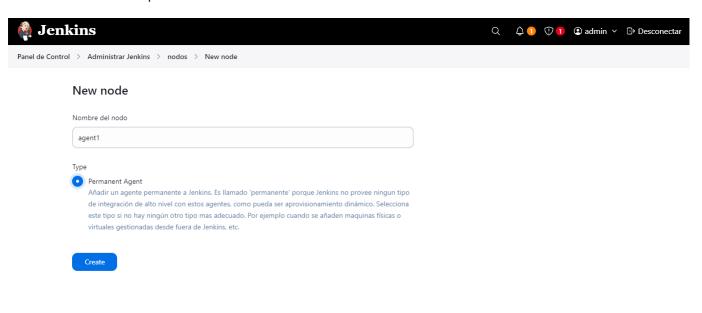
docker logs agent1

```
root@Kofi:/home/jenkins# docker logs agent1
+ [[ [AAAAB3NzaClyc2EAAAADAQABAAABgQCu3AM1mcV2Jj+mHPozjEGnTllhkNlkkFzS9nsDpWSBuouF1w6IIwzU+M/RurdfUdLTpv01BQUpUlLuU8xo5FRORn7
W9AY2r/xIJtrEAAke2CCcK3DvrOrBGC9RhfGPT4vzbML5sd2JgEHReTPjfURcoZp800D0E9MhUAdlH0XY6fc8py3nx8TdPDkwNzkMXlD8TlnBA/RFRdkjjCWzZZ7
BewocM0QUtbWGeP/AinmJIn63IspsashFaFFRxxXxEQQx0y2z0L8RGgT0j6+WJANk/0zvdUZQV4wcHkotCPDrK9eafGS37lzg8jr4P7C8gbc61PKJi+veQkJICQhEe
PZWTZt2ludBvPYrhg/WLzX7svTXGW9j82zk01kN0PyCd+F2iHNG5YRzsVP3iHwnmIIs31USgFsuh7uJQI3bmRY8bI/eSc5Mka3wwYwnfviZud50DpTtSWptmlw05+
ohFAnplPugX2iiIJjDCqPXnfW4NM0buDi8v1K0dlrwiNlzIUc=] == ssh-* ]]
+ [[ '' == ssh-* ]]
+ env
+ grep _
+ [[ 0 -gt 0 ]]
+ ssh-keygen -A
ssh-keygen -A
ssh-keygen generating new host keys: RSA ECDSA ED25519
+ exec /usr/sbin/sshd -D -e
Server listening on 0.0.0.0 port 22.
Server listening on :: port 22.
root@Kofi:/home/jenkins# |
```

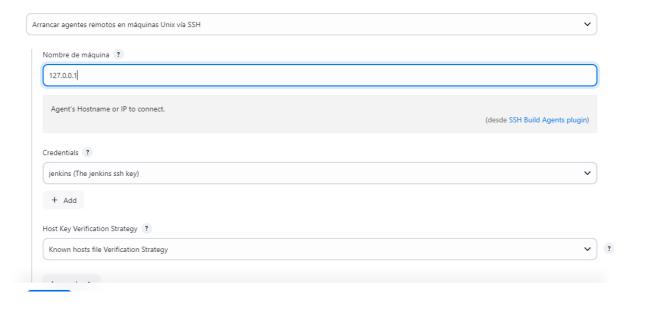
Ingresar a la configuración de Jenkins, Nodos



Crear un nuevo nodo que se lance al conectarlo al controlador.



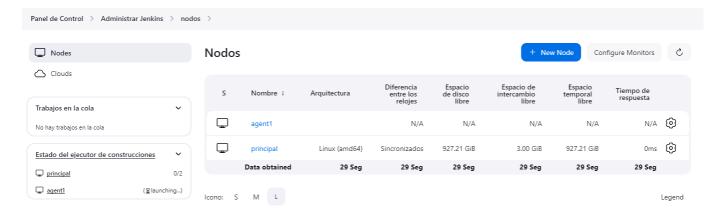
REST API Jenkins 2.492.1



Correr el comando generado por Jenkins para iniciar y conectar el agente.

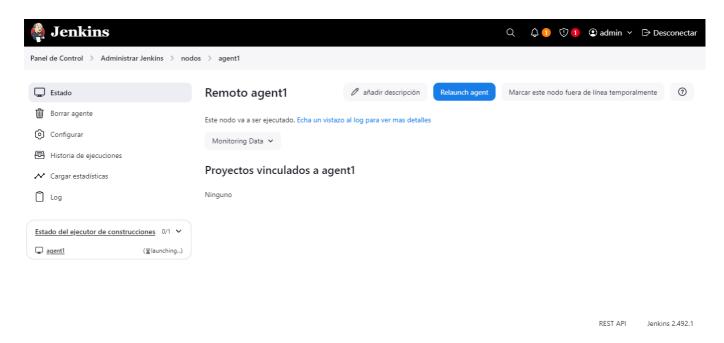
mkdir agent

Seleccionar el nodo



REST API Jenkins 2.492.1

Relanzar agente



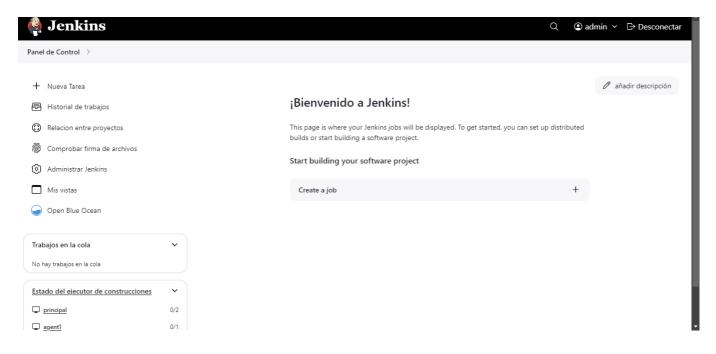
Si no funciona, podemos intentar pasar la clave directamente a jenkins

```
docker exec -it jenkins-blueocean sh -c "echo '----BEGIN OPENSSH PRIVATE KEY----
...' > /var/jenkins_home/.ssh/id_rsa"
docker exec -it jenkins-blueocean sh -c "chmod 600 /var/jenkins_home/.ssh/id_rsa"
```

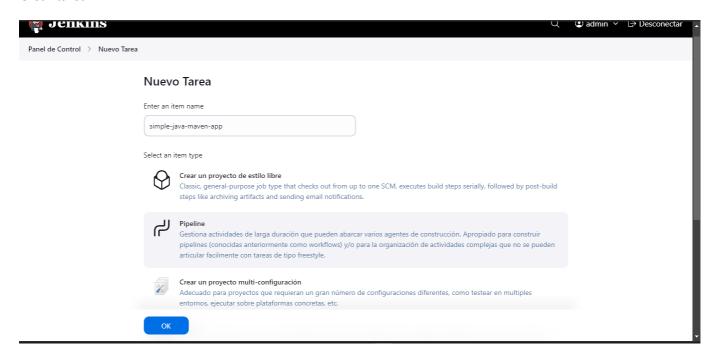


Tercera parte

Crear un ítem de tipo pipeline en Jenkins y configurar el script usando una aplicación sencilla (e.j., https://github.com/jenkins-docs/simple-java-maven-app). Ejecutar el pipeline y revisar la consola.

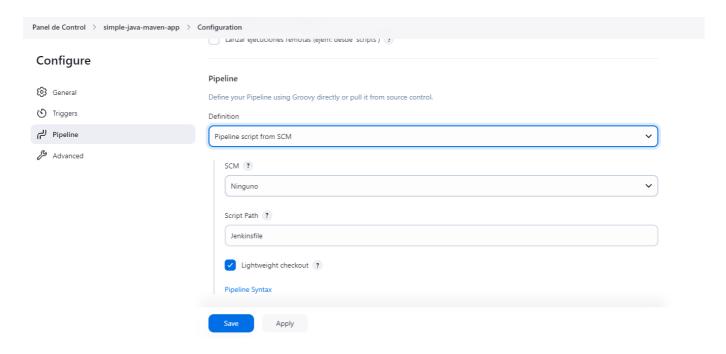


Crear tarea



En la página de configuración del pipeline, desplázate hacia abajo hasta la sección "Pipeline".

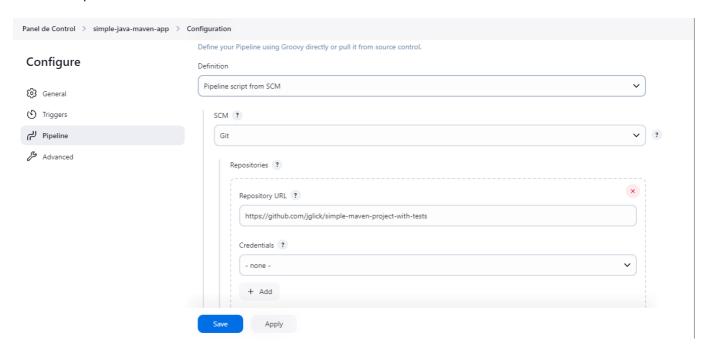
En la opción "Definition", selecciona "Pipeline script from SCM".



En "SCM", selecciona "Git".

En "Repository URL", ingresa la URL del repositorio de ejemplo:

Cambiar el path del Jenkinsfile si no esta en la raiz

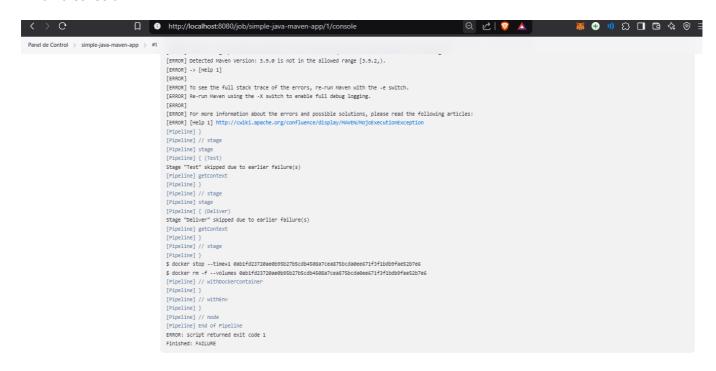


Una vez guardado, serás redirigido a la página del pipeline.

Haz clic en "Construir ahora" (o "Build Now") para ejecutar el pipeline.



Mirar la consola



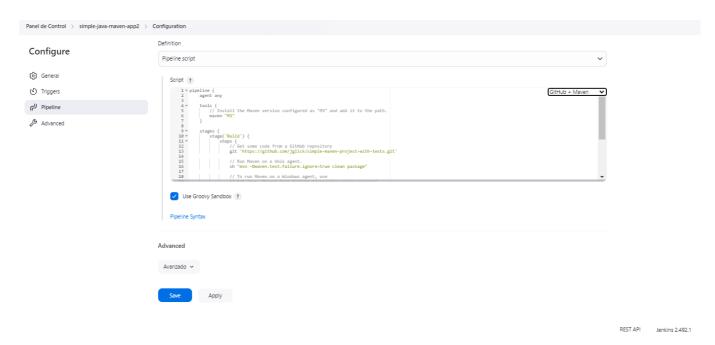
Da error porque el maven que esta jalando el jenkins no es el que pide en el pom.xml

Crear un ítem de tipo pipeline en Jenkins y configurar el script usando Github+Maven. Ejecutar el pipeline y revise la consola.

En la página de configuración del pipeline, desplázate hacia abajo hasta la sección "Pipeline".

En la opción "Definition", selecciona "Pipeline script".

Seleccionar Github+Maven



Ejecutar el pipeline y revise la consola.

```
Started by user admin
Obtained jenkins/Jenkinsfile from git https://github.com/jenkins-docs/simple-java-
maven-app
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins
 in /var/jenkins_home/workspace/simple-java-maven-app
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Checkout SCM)
[Pipeline] checkout
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/jenkins_home/workspace/simple-java-maven-
app/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/jenkins-docs/simple-java-maven-
app # timeout=10
Fetching upstream changes from https://github.com/jenkins-docs/simple-java-maven-
app
> git --version # timeout=10
> git --version # 'git version 2.39.5'
> git fetch --tags --force --progress -- https://github.com/jenkins-docs/simple-
java-maven-app +refs/heads/*:refs/remotes/origin/* # timeout=10
 > git rev-parse refs/remotes/origin/master^{commit} # timeout=10
Checking out Revision 05f17fbceabf683500da604bba18c6b8d7e3f109
(refs/remotes/origin/master)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f 05f17fbceabf683500da604bba18c6b8d7e3f109 # timeout=10
Commit message: "Merge pull request #1090 from jenkins-
docs/dependabot/maven/org.apache.maven.plugins-maven-compiler-plugin-3.14.0"
```

```
First time build. Skipping changelog.
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] isUnix
[Pipeline] withEnv
[Pipeline] {
[Pipeline] sh
+ docker inspect -f . maven:3.9.0
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] withDockerContainer
Jenkins seems to be running inside container
536f8b7b9379fa4822662cd3365920932964ae59eebb82511539a529eb38485a
but /var/jenkins_home/workspace/simple-java-maven-app could not be found among []
but /var/jenkins_home/workspace/simple-java-maven-app@tmp could not be found among
$ docker run -t -d -u 1000:1000 -v /root/.m2:/root/.m2 -w
/var/jenkins_home/workspace/simple-java-maven-app -v
/var/jenkins_home/workspace/simple-java-maven-
app:/var/jenkins_home/workspace/simple-java-maven-app:rw,z -v
/var/jenkins_home/workspace/simple-java-maven-
app@tmp:/var/jenkins_home/workspace/simple-java-maven-app@tmp:rw,z -e ******* -e
****** -e ****** -e ****** -e ****** -e ****** -e ****** -e ****** -e ******* -e ******* -
e ******* -e ******* -e ******* -e ******* -e ******* -e *******
-6 ******* -6 ******* -6 ******* -6 ******* -6 *******
****** -6 ****** -6 ****** - 4 ****** -6 ******* -6 ******* -6 ******* -6 *******
e ****** maven:3.9.0 cat
$ docker top 0ab1fd23720ae0b95b27b5cdb4508a7cea875bcda0ee671f3f1bdb9fae52b7e6 -eo
pid,comm
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Build)
[Pipeline] sh
+ mvn -B -DskipTests clean package
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.mycompany.app:my-app >-----
[INFO] Building my-app 1.0-SNAPSHOT
[INFO] from pom.xml
[INFO] ------[ jar ]------
[INFO]
[INFO] --- clean:3.2.0:clean (default-clean) @ my-app ---
[INFO] --- enforcer:3.5.0:enforce (enforce-maven) @ my-app ---
[INFO] Rule 1: org.apache.maven.enforcer.rules.version.RequireJavaVersion passed
[INFO] BUILD FAILURE
[INFO] -----
[INFO] Total time: 0.548 s
[INFO] Finished at: 2025-03-01T23:25:20Z
```

```
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-enforcer-
plugin:3.5.0:enforce (enforce-maven) on project my-app:
[ERROR] Rule 0: org.apache.maven.enforcer.rules.version.RequireMavenVersion failed
with message:
[ERROR] Detected Maven Version: 3.9.0 is not in the allowed range [3.9.2,).
[ERROR] -> [Help 1]
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e
switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR]
[ERROR] For more information about the errors and possible solutions, please read
the following articles:
[ERROR] [Help 1]
http://cwiki.apache.org/confluence/display/MAVEN/MojoExecutionException
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Test)
Stage "Test" skipped due to earlier failure(s)
[Pipeline] getContext
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Deliver)
Stage "Deliver" skipped due to earlier failure(s)
[Pipeline] getContext
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
$ docker stop --time=1
0ab1fd23720ae0b95b27b5cdb4508a7cea875bcda0ee671f3f1bdb9fae52b7e6
$ docker rm -f --volumes
0ab1fd23720ae0b95b27b5cdb4508a7cea875bcda0ee671f3f1bdb9fae52b7e6
[Pipeline] // withDockerContainer
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
ERROR: script returned exit code 1
Finished: FAILURE
```

```
Panel de Control > simple-java-maven-app2 > #1
                                                           Results :
                                                           Tests run: 7, Failures: 0, Errors: 0, Skipped: 0
                                                           [INFO] --- jar:3.4.1:jar (default-jar) @ simple-maven-project-with-tests ---
[INFO] Building jar: /var/jenkins_home/workspace/simple-java-maven-app2/target/simple-maven-project-with-tests-1.0-SNAPSHOT.jar
                                                           [INFO] Finished at: 2025-03-01T23:28:45Z
[INFO] ------
                                                           Post stage
                                                           [Pipeline] junit
Recording test results
                                                           [Checks API] No suitable checks publisher found.
                                                            Archiving artifacts
                                                            [Pipeline] // withE
[Pipeline] }
                                                            [Pipeline] // stage
                                                           [Pipeline] }
[Pipeline] // withEnv
                                                            [Pipeline] }
[Pipeline] // node
                                                            Finished: SUCCESS
                                                                                                                                                                                                                                                          REST API
                                                                                                                                                                                                                                                                        lenkins 2.492.1
```

Modificar el script anterior para que verifique si el proyecto ya existe, en este caso elimine la carpeta y luego lo descargue de nuevo el proyecto.

```
// agregar estas stages al pipeline
stage('Check and Clean Workspace') {
            steps {
                script {
                    // Define the directory of the project
                    def projectDir = "simple-maven-project-with-tests"
                    // Check if the directory exists
                    if (fileExists(projectDir)) {
                        echo "Project directory exists. Deleting..."
                        // Delete the directory
                        sh "rm -rf ${projectDir}"
                    } else {
                        echo "Project directory does not exist. Proceeding to
clone..."
                    }
                }
            }
        }
        stage('Clone Repository') {
            steps {
                // Get some code from a GitHub repository
                git 'https://github.com/jglick/simple-maven-project-with-
tests.git'
        }
```

Ejecutar el pipeline y revise la consola.

```
Started by user admin
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins
 in /var/jenkins_home/workspace/simple-java-maven-app2
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Tool Install)
[Pipeline] tool
[Pipeline] envVarsForTool
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Check and Clean Workspace)
[Pipeline] tool
[Pipeline] envVarsForTool
[Pipeline] withEnv
[Pipeline] {
[Pipeline] script
[Pipeline] {
[Pipeline] fileExists
[Pipeline] echo
Project directory does not exist. Proceeding to clone...
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Clone Repository)
[Pipeline] tool
```

```
[Pipeline] envVarsForTool
[Pipeline] withEnv
[Pipeline] {
[Pipeline] git
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/jenkins_home/workspace/simple-java-maven-
app2/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/jglick/simple-maven-project-
with-tests.git # timeout=10
Fetching upstream changes from https://github.com/jglick/simple-maven-project-
with-tests.git
 > git --version # timeout=10
 > git --version # 'git version 2.39.5'
 > git fetch --tags --force --progress -- https://github.com/jglick/simple-maven-
project-with-tests.git +refs/heads/*:refs/remotes/origin/* # timeout=10
 > git rev-parse refs/remotes/origin/master^{commit} # timeout=10
Checking out Revision 9a5e9832814aa17fa7e514e5890fc6cf913d9a77
(refs/remotes/origin/master)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f 9a5e9832814aa17fa7e514e5890fc6cf913d9a77 # timeout=10
 > git branch -a -v --no-abbrev # timeout=10
 > git branch -D master # timeout=10
 > git checkout -b master 9a5e9832814aa17fa7e514e5890fc6cf913d9a77 # timeout=10
Commit message: "Creating a main class so there is something for `javadoc:javadoc`
to do"
 > git rev-list --no-walk 9a5e9832814aa17fa7e514e5890fc6cf913d9a77 # timeout=10
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Build)
[Pipeline] tool
[Pipeline] envVarsForTool
[Pipeline] withEnv
[Pipeline] {
[Pipeline] sh
+ mvn -Dmaven.test.failure.ignore=true clean package
[INFO] Scanning for projects...
[INFO]
[INFO] -----< test:simple-maven-project-with-tests >------
[INFO] Building simple-maven-project-with-tests 1.0-SNAPSHOT
[INFO] from pom.xml
[INFO] ------[ jar ]------
[INFO]
[INFO] --- clean:3.2.0:clean (default-clean) @ simple-maven-project-with-tests ---
[INFO] Deleting /var/jenkins_home/workspace/simple-java-maven-app2/target
[INFO]
[INFO] --- resources:3.3.1:resources (default-resources) @ simple-maven-project-
with-tests ---
[INFO] skip non existing resourceDirectory /var/jenkins_home/workspace/simple-
```

```
java-maven-app2/src/main/resources
[INFO] --- compiler:3.13.0:compile (default-compile) @ simple-maven-project-with-
tests ---
[INFO] Recompiling the module because of changed source code.
[INFO] Compiling 1 source file with javac [debug target 1.8] to target/classes
[WARNING] bootstrap class path not set in conjunction with -source 8
[INFO]
[INFO] --- resources:3.3.1:testResources (default-testResources) @ simple-maven-
project-with-tests ---
[INFO] skip non existing resourceDirectory /var/jenkins_home/workspace/simple-
java-maven-app2/src/test/resources
[INFO] --- compiler:3.13.0:testCompile (default-testCompile) @ simple-maven-
project-with-tests ---
[INFO] Recompiling the module because of changed dependency.
[INFO] Compiling 3 source files with javac [debug target 1.8] to target/test-
classes
[WARNING] bootstrap class path not set in conjunction with -source 8
[INFO] /var/jenkins_home/workspace/simple-java-maven-
app2/src/test/java/test/Base.java: /var/jenkins_home/workspace/simple-java-maven-
app2/src/test/java/test/Base.java uses or overrides a deprecated API.
[INFO] /var/jenkins_home/workspace/simple-java-maven-
app2/src/test/java/test/Base.java: Recompile with -Xlint:deprecation for details.
[INFO]
[INFO] --- surefire:2.18.1:test (default-test) @ simple-maven-project-with-tests -
[INFO] Surefire report directory: /var/jenkins_home/workspace/simple-java-maven-
app2/target/surefire-reports
TESTS
Running test.SomeTest
Tests run: 6, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.003 sec - in
test.SomeTest
Running test.OtherTest
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0 sec - in
test.OtherTest
Results:
Tests run: 7, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] --- jar:3.4.1:jar (default-jar) @ simple-maven-project-with-tests ---
[INFO] Building jar: /var/jenkins_home/workspace/simple-java-maven-
app2/target/simple-maven-project-with-tests-1.0-SNAPSHOT.jar
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 1.627 s
[INFO] Finished at: 2025-03-01T23:43:46Z
```

```
Post stage
[Pipeline] junit
Recording test results
[Checks API] No suitable checks publisher found.
[Pipeline] archiveArtifacts
Archiving artifacts
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

Agregue un parámetro a Jenkins que permita escoger cual es la rama que se va a realizar la compilación, puede utilizar la rama declarative o testng disponibles en el proyecto de ejemplo

```
parameters {
    choice(
        name: 'BRANCH',
        choices: ['declarative', 'testng'],
        description: 'Select the branch to build'
    )
}
```

y en stages reemplazar

```
Ejecutar el pipeline y revise la consola.

Started by user admin

[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins
in /var/jenkins_home/workspace/simple-java-maven-app2
```

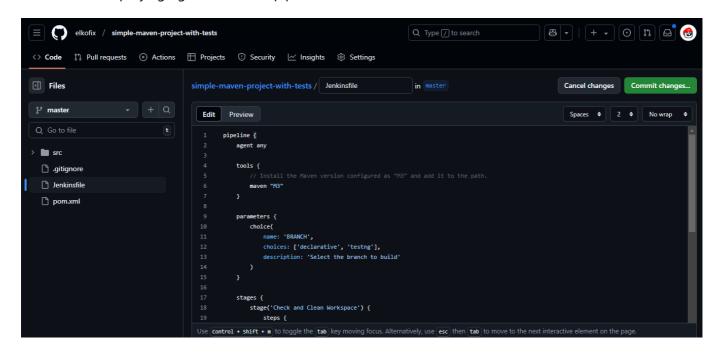
```
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Tool Install)
[Pipeline] tool
[Pipeline] envVarsForTool
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Check and Clean Workspace)
[Pipeline] tool
[Pipeline] envVarsForTool
[Pipeline] withEnv
[Pipeline] {
[Pipeline] script
[Pipeline] {
[Pipeline] fileExists
[Pipeline] echo
Project directory does not exist. Proceeding to clone...
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Clone Repository)
[Pipeline] tool
[Pipeline] envVarsForTool
[Pipeline] withEnv
[Pipeline] {
[Pipeline] git
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
No credentials specified
 > git rev-parse --resolve-git-dir /var/jenkins_home/workspace/simple-java-maven-
app2/.git # timeout=10
Fetching changes from the remote Git repository
 > git config remote.origin.url https://github.com/jglick/simple-maven-project-
with-tests.git # timeout=10
Fetching upstream changes from https://github.com/jglick/simple-maven-project-
with-tests.git
 > git --version # timeout=10
 > git --version # 'git version 2.39.5'
 > git fetch --tags --force --progress -- https://github.com/jglick/simple-maven-
project-with-tests.git +refs/heads/*:refs/remotes/origin/* # timeout=10
 > git rev-parse refs/remotes/origin/declarative^{commit} # timeout=10
Checking out Revision 88194bba5db3b3f5cd204e27c151b6788f896d9d
(refs/remotes/origin/declarative)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f 88194bba5db3b3f5cd204e27c151b6788f896d9d # timeout=10
 > git branch -a -v --no-abbrev # timeout=10
 > git branch -D declarative # timeout=10
```

```
> git checkout -b declarative 88194bba5db3b3f5cd204e27c151b6788f896d9d #
timeout=10
Commit message: "`label BUILD_TAG` deprecated"
 > git rev-list --no-walk 88194bba5db3b3f5cd204e27c151b6788f896d9d # timeout=10
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Build)
[Pipeline] tool
[Pipeline] envVarsForTool
[Pipeline] withEnv
[Pipeline] {
[Pipeline] sh
+ mvn -Dmaven.test.failure.ignore=true clean package
[INFO] Scanning for projects...
[INFO]
[INFO] -----< test:simple-maven-project-with-tests >------
[INFO] Building simple-maven-project-with-tests 1.0-SNAPSHOT
[INFO] from pom.xml
[INFO] ------[ jar ]------
[INFO]
[INFO] --- clean:3.2.0:clean (default-clean) @ simple-maven-project-with-tests ---
[INFO] Deleting /var/jenkins_home/workspace/simple-java-maven-app2/target
[INFO]
[INFO] --- resources:3.3.1:resources (default-resources) @ simple-maven-project-
with-tests ---
[INFO] skip non existing resourceDirectory /var/jenkins_home/workspace/simple-
java-maven-app2/src/main/resources
[INFO]
[INFO] --- compiler:3.13.0:compile (default-compile) @ simple-maven-project-with-
tests ---
[INFO] No sources to compile
[INFO]
[INFO] --- resources:3.3.1:testResources (default-testResources) @ simple-maven-
project-with-tests ---
[INFO] skip non existing resourceDirectory /var/jenkins_home/workspace/simple-
java-maven-app2/src/test/resources
[INFO]
[INFO] --- compiler:3.13.0:testCompile (default-testCompile) @ simple-maven-
project-with-tests ---
[INFO] Recompiling the module because of changed source code.
[INFO] Compiling 3 source files with javac [debug target 1.7] to target/test-
classes
[WARNING] bootstrap class path not set in conjunction with -source 7
[WARNING] source value 7 is obsolete and will be removed in a future release
[WARNING] target value 7 is obsolete and will be removed in a future release
[WARNING] To suppress warnings about obsolete options, use -Xlint:-options.
[INFO]
[INFO] --- surefire:2.18.1:test (default-test) @ simple-maven-project-with-tests -
[INFO] Surefire report directory: /var/jenkins_home/workspace/simple-java-maven-
app2/target/surefire-reports
```

```
TESTS
_____
Running test.SomeTest
Tests run: 6, Failures: 0, Errors: 0, Skipped: 1, Time elapsed: 0.002 sec - in
test.SomeTest
Running test.OtherTest
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0 sec - in
test.OtherTest
Results:
Tests run: 7, Failures: 0, Errors: 0, Skipped: 1
[INFO]
[INFO] --- jar:3.4.1:jar (default-jar) @ simple-maven-project-with-tests ---
[WARNING] JAR will be empty - no content was marked for inclusion!
[INFO] Building jar: /var/jenkins_home/workspace/simple-java-maven-
app2/target/simple-maven-project-with-tests-1.0-SNAPSHOT.jar
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] ------
[INFO] Total time: 1.807 s
[INFO] Finished at: 2025-03-01T23:49:54Z
[INFO] ------
Post stage
[Pipeline] junit
Recording test results
[Checks API] No suitable checks publisher found.
[Pipeline] archiveArtifacts
Archiving artifacts
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

```
Tests run: 7, Failures: 0, Errors: 0, Skipped: 1
[INFO] --- jar:3.4.1:jar (default-jar) @ simple-maven-project-with-tests
[WARNING] JAR will be empty - no content was marked for inclusion!
[INFO] Building jar: /var/jenkins_home/workspace/simple-java-maven-app2/target/simple-maven-project-with-tests-1.0-SNAPSHOT.jar
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 1.807 s
[INFO] Finished at: 2025-03-01T23:49:54Z
[INFO] ------
Post stage
[Pipeline] junit
Recording test results
[Checks API] No suitable checks publisher found.
[Pipeline] archiveArtifacts
Archiving artifacts
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

Forkeamos el repo y agregamos nuestro pipeline en el Jenkinsfile



Luego usamos la opcion de Pipeline script from SCM y con el link del repo

```
Started by user admin

Obtained Jenkinsfile from git https://github.com/elkofix/simple-maven-project-with-tests
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins
in /var/jenkins_home/workspace/simple-java-maven-app2
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Checkout SCM)
[Pipeline] checkout
```

```
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/jenkins_home/workspace/simple-java-maven-
app2/.git # timeout=10
Fetching changes from the remote Git repository
 > git config remote.origin.url https://github.com/elkofix/simple-maven-project-
with-tests # timeout=10
Fetching upstream changes from https://github.com/elkofix/simple-maven-project-
with-tests
 > git --version # timeout=10
 > git --version # 'git version 2.39.5'
 > git fetch --tags --force --progress -- https://github.com/elkofix/simple-maven-
project-with-tests +refs/heads/*:refs/remotes/origin/* # timeout=10
 > git rev-parse refs/remotes/origin/master^{commit} # timeout=10
Checking out Revision e687e649be5d96376437de41bed08e049397f0ba
(refs/remotes/origin/master)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f e687e649be5d96376437de41bed08e049397f0ba # timeout=10
Commit message: "Update Jenkinsfile"
First time build. Skipping changelog.
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Tool Install)
[Pipeline] tool
[Pipeline] envVarsForTool
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Check and Clean Workspace)
[Pipeline] tool
[Pipeline] envVarsForTool
[Pipeline] withEnv
[Pipeline] {
[Pipeline] script
[Pipeline] {
[Pipeline] fileExists
[Pipeline] echo
Project directory does not exist. Proceeding to clone...
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Clone Repository)
[Pipeline] tool
[Pipeline] envVarsForTool
```

```
[Pipeline] withEnv
[Pipeline] {
[Pipeline] git
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
No credentials specified
 > git rev-parse --resolve-git-dir /var/jenkins_home/workspace/simple-java-maven-
app2/.git # timeout=10
Fetching changes from the remote Git repository
 > git config remote.origin.url https://github.com/jglick/simple-maven-project-
with-tests.git # timeout=10
Fetching upstream changes from https://github.com/jglick/simple-maven-project-
with-tests.git
 > git --version # timeout=10
 > git --version # 'git version 2.39.5'
 > git fetch --tags --force --progress -- https://github.com/jglick/simple-maven-
project-with-tests.git +refs/heads/*:refs/remotes/origin/* # timeout=10
 > git rev-parse refs/remotes/origin/declarative^{commit} # timeout=10
Checking out Revision 88194bba5db3b3f5cd204e27c151b6788f896d9d
(refs/remotes/origin/declarative)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f 88194bba5db3b3f5cd204e27c151b6788f896d9d # timeout=10
 > git branch -a -v --no-abbrev # timeout=10
 > git branch -D declarative # timeout=10
 > git checkout -b declarative 88194bba5db3b3f5cd204e27c151b6788f896d9d #
timeout=10
Commit message: "`label BUILD_TAG` deprecated"
 > git rev-list --no-walk 88194bba5db3b3f5cd204e27c151b6788f896d9d # timeout=10
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Build)
[Pipeline] tool
[Pipeline] envVarsForTool
[Pipeline] withEnv
[Pipeline] {
[Pipeline] sh
+ mvn -Dmaven.test.failure.ignore=true clean package
[INFO] Scanning for projects...
[INFO]
[INFO] -----< test:simple-maven-project-with-tests >------
[INFO] Building simple-maven-project-with-tests 1.0-SNAPSHOT
[INFO] from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- clean:3.2.0:clean (default-clean) @ simple-maven-project-with-tests ---
[INFO] Deleting /var/jenkins_home/workspace/simple-java-maven-app2/target
[INFO]
[INFO] --- resources:3.3.1:resources (default-resources) @ simple-maven-project-
with-tests ---
[INFO] skip non existing resourceDirectory /var/jenkins_home/workspace/simple-
java-maven-app2/src/main/resources
```

```
[INFO]
[INFO] --- compiler:3.13.0:compile (default-compile) @ simple-maven-project-with-
[INFO] No sources to compile
[INFO]
[INFO] --- resources:3.3.1:testResources (default-testResources) @ simple-maven-
project-with-tests ---
[INFO] skip non existing resourceDirectory /var/jenkins_home/workspace/simple-
java-maven-app2/src/test/resources
[INFO]
[INFO] --- compiler:3.13.0:testCompile (default-testCompile) @ simple-maven-
project-with-tests ---
[INFO] Recompiling the module because of changed source code.
[INFO] Compiling 3 source files with javac [debug target 1.7] to target/test-
classes
[WARNING] bootstrap class path not set in conjunction with -source 7
[WARNING] source value 7 is obsolete and will be removed in a future release
[WARNING] target value 7 is obsolete and will be removed in a future release
[WARNING] To suppress warnings about obsolete options, use -Xlint:-options.
[INFO]
[INFO] --- surefire:2.18.1:test (default-test) @ simple-maven-project-with-tests -
[INFO] Surefire report directory: /var/jenkins_home/workspace/simple-java-maven-
app2/target/surefire-reports
______
TESTS
_____
Running test.SomeTest
Tests run: 6, Failures: 0, Errors: 0, Skipped: 2, Time elapsed: 0.003 sec - in
test.SomeTest
Running test.OtherTest
Tests run: 1, Failures: 0, Errors: 0, Skipped: 1, Time elapsed: 0.001 sec - in
test.OtherTest
Results:
Tests run: 7, Failures: 0, Errors: 0, Skipped: 3
[INFO]
[INFO] --- jar:3.4.1:jar (default-jar) @ simple-maven-project-with-tests ---
[WARNING] JAR will be empty - no content was marked for inclusion!
[INFO] Building jar: /var/jenkins_home/workspace/simple-java-maven-
app2/target/simple-maven-project-with-tests-1.0-SNAPSHOT.jar
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] ------
[INFO] Total time: 3.703 s
[INFO] Finished at: 2025-03-02T00:36:18Z
[INFO] -----
Post stage
[Pipeline] junit
Recording test results
[Checks API] No suitable checks publisher found.
```

```
[Pipeline] archiveArtifacts
Archiving artifacts
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] // mode
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

