

## **DEPLOY JAR TO NEXUS USING JENKINS PIPELINE:**

### **PREQUISITES:**

#### **1) Install Jenkins in one Ec2 server--- name it as Jenkins Master**

##### **a) Install java**

yum install java-17 -y

yum install docker -y

systemctl start docker

systemctl enable docker

docker run -d -p 8080:8080 -p 50000:50000 jenkins/jenkins:lts

#### **2) Install Nexus in Another Ec2 server: t**

**Nexus works on t2.large**

**Delete Artifacts in Nexus Repository for every new build otherwise it through the error.**

##### **a) #!/bin/bash**

sudo su -

yum update -y

yum install docker -y

systemctl start docker

systemctl enable docker

docker run -d -p 8081:8081 --name nexus sonatype/nexus3

##### **b) Connect this nexus server to jenkins master --- nexus server act as a jenkins slave**

Install java

yum install java-17 -y

yum install git -y

yum install maven -y

curl -sO http://3.110.92.209:8080/jnlpJars/agent.jar

java -jar agent.jar -url http://3.110.92.209:8080/ -secret

7cc71cd20163ae6749af44e5ead385c8dfc7b220990f3c6553ac9ede4dced5 -name

"slave-1" -workDir "/home/ec2-user/"

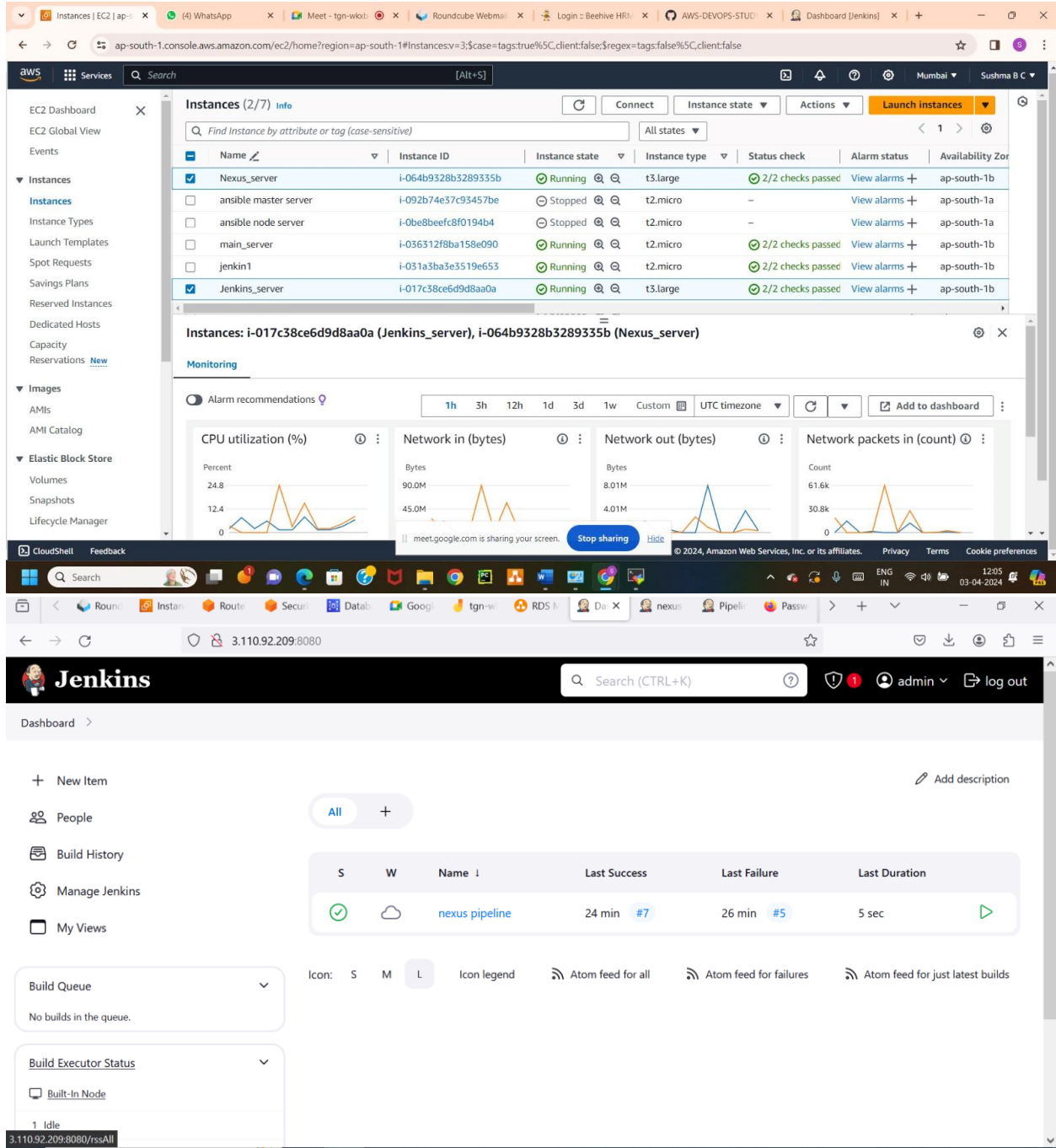
### **Plugins Required:**

1) Nexus Artifact Uploader

2) Maven Integration

Go to manage Jenkins – tools -add maven – name -maven

Apply-save



The image displays two overlapping screenshots. The top screenshot shows the AWS Management Console 'Instances' page for the 'ap-south-1' region. It lists several EC2 instances, including 'Nexus\_server' (Running, t3.large) and 'Jenkins\_server' (Running, t3.large). Below the list, monitoring graphs for CPU utilization, network in/out, and network packets are visible. The bottom screenshot shows the Jenkins Dashboard. It features a sidebar with navigation links like 'New Item', 'People', 'Build History', 'Manage Jenkins', and 'My Views'. The main area displays a table of build jobs, with 'nexus pipeline' being the active job, showing a last success at 24 min #7 and a last failure at 26 min #5. The dashboard also includes sections for 'Build Queue' (empty) and 'Build Executor Status' (1 idle executor).

**AWS Management Console - Instances**

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
Nexus_server	i-064b9328b3289335b	Running	t3.large	2/2 checks passed	View alarms +	ap-south-1b
ansible master server	i-092b74e57c93457be	Stopped	t2.micro	-	View alarms +	ap-south-1a
ansible node server	i-0be8beefc8f0194b4	Stopped	t2.micro	-	View alarms +	ap-south-1a
main_server	i-036312f8ba158e090	Running	t2.micro	2/2 checks passed	View alarms +	ap-south-1b
jenkin1	i-031a3ba3e3519e653	Running	t2.micro	2/2 checks passed	View alarms +	ap-south-1b
Jenkins_server	i-017c38ce6d9d8aa0a	Running	t3.large	2/2 checks passed	View alarms +	ap-south-1b

**Jenkins Dashboard**

Search (CTRL+K) | admin | log out

Dashboard >

+ New Item | Add description

People | All | +

S	W	Name	Last Success	Last Failure	Last Duration
✓	☁	nexus pipeline	24 min #7	26 min #5	5 sec

Icon: S M L | Icon legend | Atom feed for all | Atom feed for failures | Atom feed for just latest builds

Build Queue: No builds in the queue.

Build Executor Status: 1 Idle

The screenshot displays the Jenkins Plugin Manager interface. The browser address bar shows the URL `3.110.92.209:8080/manage/pluginManager/installed`. The Jenkins logo and search bar are at the top. The left sidebar contains navigation links: Updates, Available plugins, Installed plugins (selected), Advanced settings, and Download progress. The main content area shows a search bar with the text "NEXUS". Below the search bar, a table lists installed plugins. The first plugin is "Nexus Artifact Uploader 2.14", which is enabled. A yellow banner below the plugin name states: "This plugin is up for adoption! We are looking for new maintainers. Visit our [Adopt a Plugin](#) initiative for more information." The table has columns for Name and Enabled. The second screenshot shows the same interface but with the search bar containing "MAVEN INTE". It lists two plugins: "Maven Integration plugin 3.23" and "Pipeline Maven Integration Plugin 1396.veb\_f07b\_2fc1d8", both of which are enabled. At the bottom of the second screenshot, a URL is visible: `https://www.jenkins.io/participate/report-issue/redirect/#16033`.

REST API Jenkins 2.440.2

Dashboard > Manage Jenkins > Plugins

### Plugins

Q NEXUS

Name ↓	Enabled
<b>Nexus Artifact Uploader 2.14</b> This plugin to upload the artifact to Nexus Repository. <a href="#">Report an issue with this plugin</a> <b>This plugin is up for adoption! We are looking for new maintainers. Visit our <a href="#">Adopt a Plugin</a> initiative for more information.</b>	<input checked="" type="checkbox"/>

REST API Jenkins 2.440.2

Dashboard > Manage Jenkins > Plugins

### Plugins

Q MAVEN INTE

Name ↓	Enabled
<b>Maven Integration plugin 3.23</b> This plugin provides a deep integration between Jenkins and Maven. It adds support for automatic triggers between projects depending on SNAPSHOTS as well as the automated configuration of various Jenkins publishers such as Junit. <a href="#">Report an issue with this plugin</a>	<input checked="" type="checkbox"/>
<b>Pipeline Maven Integration Plugin 1396.veb_f07b_2fc1d8</b> This plugin provides integration with Pipeline, configures maven environment to use within a pipeline job by calling sh mvn or bat mvn. The selected maven installation will be configured and prepended to the path. <a href="#">Report an issue with this plugin</a>	<input checked="" type="checkbox"/>

<https://www.jenkins.io/participate/report-issue/redirect/#16033>

REST API Jenkins 2.440.2

The image shows two screenshots of the Jenkins web interface. The top screenshot is the 'Maven installations' configuration page. It features a form to add a new Maven installation. The 'Name' field is set to 'maven'. The 'Install automatically' checkbox is checked. Under the 'Install from Apache' section, the 'Version' is set to '3.9.6'. There are 'Save' and 'Apply' buttons at the bottom. The bottom screenshot is the 'Nodes' management page. It shows a table of nodes with columns: S, Name, Architecture, Clock Difference, Free Disk Space, Free Swap Space, Free Temp Space, and Response Time. Two nodes are listed: 'Built-In Node' and 'slave-1'. Both are in 'In sync' status. The 'Data obtained' row shows a 21 min duration for all metrics. On the left, there are sections for 'Build Queue' (empty) and 'Build Executor Status' (showing 1 idle executor for Built-In Node and 1 idle executor for slave-1). The top navigation bar includes the Jenkins logo, a search bar, and user information (admin).

**Maven installations**

Add Maven

**Maven**

Name

maven

☒ Install automatically ?

**Install from Apache**

Version

3.9.6

Save Apply

**Jenkins**

Search (CTRL+K)

admin log out

Dashboard > Manage Jenkins > Nodes

**Nodes**

+ New Node Configure Monitors

S	Name	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	Built-In Node	Linux (amd64)	In sync	4.67 GiB	0 B	4.67 GiB	0ms
	slave-1	Linux (amd64)	In sync	4.71 GiB	0 B	4.71 GiB	42ms
Data obtained		21 min	21 min	21 min	21 min	21 min	21 min

Icon: S M L

**Build Queue**

No builds in the queue.

**Build Executor Status**

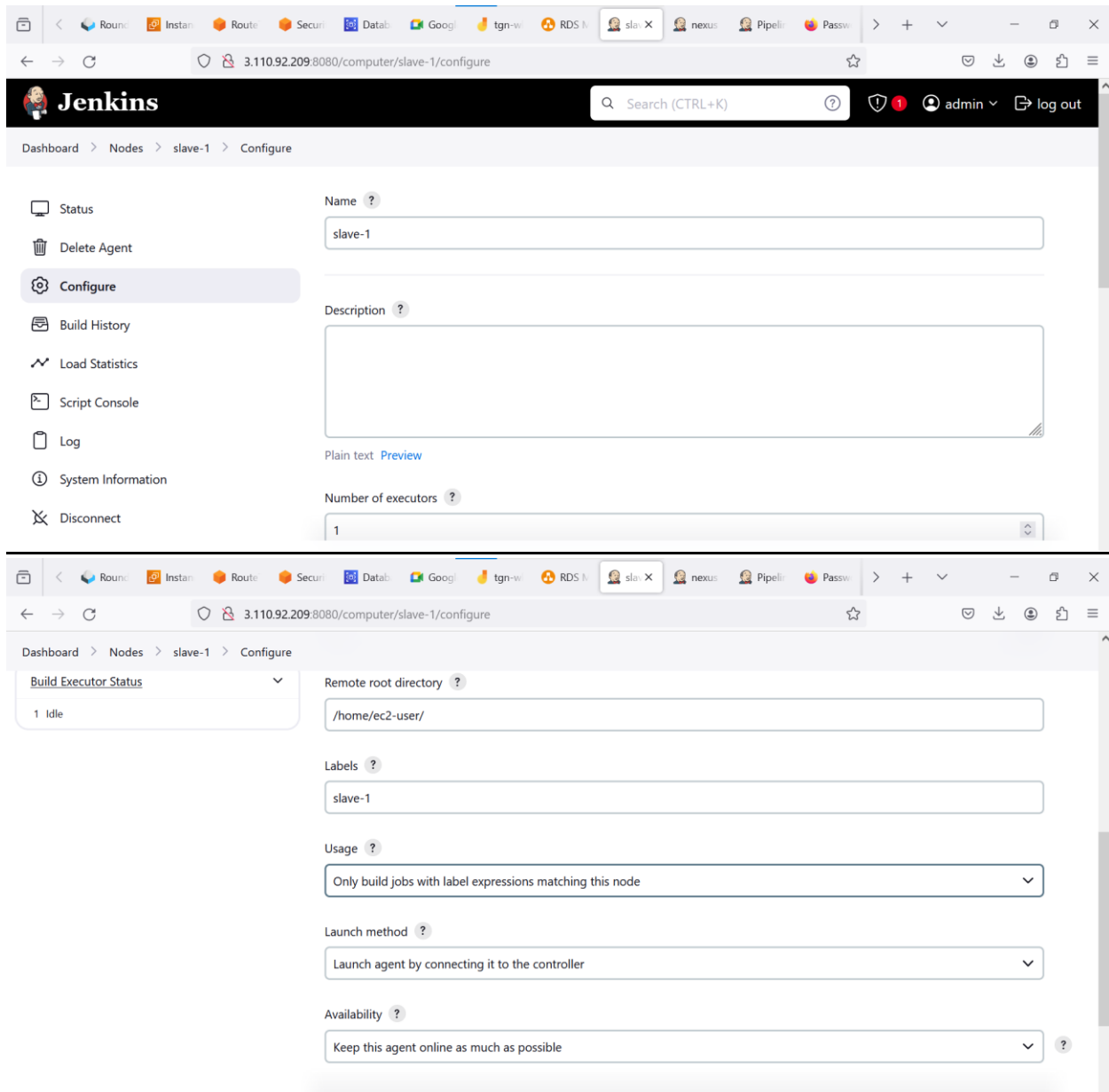
Built-In Node

1 Idle

2 Idle

slave-1

1 Idle



The image shows two screenshots of the Jenkins web interface. The top screenshot displays the 'Configure' page for a node named 'slave-1'. The left sidebar contains a list of actions: Status, Delete Agent, Configure (selected), Build History, Load Statistics, Script Console, Log, System Information, and Disconnect. The main configuration area includes fields for 'Name' (slave-1), 'Description' (empty), and 'Number of executors' (1). The bottom screenshot shows the 'Build Executor Status' section for the same node. It includes a table with one entry: '1 Idle'. Below the table are configuration options: 'Remote root directory' (/home/ec2-user/), 'Labels' (slave-1), 'Usage' (Only build jobs with label expressions matching this node), 'Launch method' (Launch agent by connecting it to the controller), and 'Availability' (Keep this agent online as much as possible).

Dashboard > Nodes > slave-1 > Configure

**Configure**

Name ?  
slave-1

Description ?  
Plain text [Preview](#)

Number of executors ?  
1

Dashboard > Nodes > slave-1 > Configure

**Build Executor Status**

Build Executor Status
1 Idle

Remote root directory ?  
/home/ec2-user/

Labels ?  
slave-1

Usage ?  
Only build jobs with label expressions matching this node

Launch method ?  
Launch agent by connecting it to the controller

Availability ?  
Keep this agent online as much as possible

The image shows a Jenkins web interface for 'Agent slave-1' and a terminal window showing the connection process.

**Jenkins Agent slave-1 Status:**

- Status:** Connection was broken (indicated by a red exclamation mark icon).
- Buttons:** Delete Agent, Configure, Build History, Load Statistics, Log, Build Executor Status (dropdown).
- Run from agent command line: (Unix):**

```
curl -sO http://3.110.92.209:8080/jnlpJars/agent.jar
java -jar agent.jar -url http://3.110.92.209:8080/ -secret 7cc71cd20163ae6749af44e5ead385c8dfc7b220990fce3c6553ac9ede4dced5 -name "slave-1" -workDir "/home/ec2-user/"
```
- Run from agent command line: (Windows):**

```
curl.exe -sO http://3.110.92.209:8080/jnlpJars/agent.jar
java -jar agent.jar -url http://3.110.92.209:8080/ -secret 7cc71cd20163ae6749af44e5ead385c8dfc7b220990fce3c6553ac9ede4dced5 -name "slave-1" -workDir "/home/ec2-user/"
```

**Terminal Output (nexus server):**

```
INFO: Connected
[root@ip-172-31-1-132 ec2-user]# curl -sO http://3.110.92.209:8080/jnlpJars/agent.jar
[root@ip-172-31-1-132 ec2-user]# java -jar agent.jar -url http://3.110.92.209:8080/ -secret 7cc71cd20163ae6749af44e5ead385c8dfc7b220990fce3c6553ac9ede4dced5 -name "slave-1" -workDir "/home/ec2-user/"
Apr 03, 2024 6:55:40 AM org.jenkinsci.remoting.engine.WorkDirManager initializeWorkDir
INFO: Using /home/ec2-user/remoting as a remoting work directory
Apr 03, 2024 6:55:41 AM org.jenkinsci.remoting.engine.WorkDirManager setupLogging
INFO: Both error and output logs will be printed to /home/ec2-user/remoting
Apr 03, 2024 6:55:41 AM hudson.remoting.Launcher createEngine
INFO: Setting up agent: slave-1
Apr 03, 2024 6:55:41 AM hudson.remoting.Engine startEngine
INFO: Using Remoting version: 3206.vb15dcf73f6a_9
Apr 03, 2024 6:55:41 AM org.jenkinsci.remoting.engine.WorkDirManager initializeWorkDir
INFO: Using /home/ec2-user/remoting as a remoting work directory
Apr 03, 2024 6:55:41 AM hudson.remoting.Launcher$CuiListener status
INFO: Locating server among [http://3.110.92.209:8080/]
Apr 03, 2024 6:55:41 AM org.jenkinsci.remoting.engine.JnlpAgentEndpointResolver resolve
INFO: Remoting server accepts the following protocols: [JNLP4-connect, Ping]
Apr 03, 2024 6:55:41 AM hudson.remoting.Launcher$CuiListener status
INFO: Agent discovery successful
Agent address: 3.110.92.209
Agent port: 50000
Identity: fb:c4:34:85:f1:d0:2f:7a:6d:f1:27:b4:1f:06:53:d9
Apr 03, 2024 6:55:41 AM hudson.remoting.Launcher$CuiListener status
INFO: Handshaking
Apr 03, 2024 6:55:41 AM hudson.remoting.Launcher$CuiListener status
INFO: Connecting to 3.110.92.209:50000
Apr 03, 2024 6:55:41 AM hudson.remoting.Launcher$CuiListener status
INFO: Server reports protocol JNLP4-connect-proxy not supported, skipping
Apr 03, 2024 6:55:41 AM hudson.remoting.Launcher$CuiListener status
INFO: Trying protocol: JNLP4-connect
Apr 03, 2024 6:55:41 AM org.jenkinsci.remoting.protocol.impl.BIONetworkLayer$Reader run
INFO: Waiting for ProtocolStack to start.
```

The screenshot displays the Jenkins web interface in a browser window. The top section shows a terminal window with logs for a Jenkins agent named 'slave-1'. The logs indicate the agent is successfully connecting to the master server at 3.110.92.209. Below the terminal, the Jenkins dashboard is visible, showing the 'Nodes' section. The 'Nodes' table lists two nodes: 'Built-In Node' and 'slave-1'. Both nodes are in 'In sync' status and have 4.67 GiB of free disk space. The 'slave-1' node has 4.71 GiB of free disk space. The 'Build Queue' section shows no builds in the queue. The 'Build Executor Status' section shows one idle executor for 'slave-1'.

**Terminal Logs:**

```
INFO: Using /home/ec2-user/remoting as a remoting work directory
Apr 03, 2024 6:55:41 AM org.jenkinsci.remoting.engine.WorkDirManager setupLogging
INFO: Both error and output logs will be printed to /home/ec2-user/remoting
Apr 03, 2024 6:55:41 AM hudson.remoting.Launcher createEngine
INFO: Setting up agent: slave-1
Apr 03, 2024 6:55:41 AM hudson.remoting.Engine startEngine
INFO: Using Remoting version: 3206.vb_15dcf73f6a_9
Apr 03, 2024 6:55:41 AM org.jenkinsci.remoting.engine.WorkDirManager initializeWorkDir
INFO: Using /home/ec2-user/remoting as a remoting work directory
Apr 03, 2024 6:55:41 AM hudson.remoting.Launcher$CuIListener status
INFO: Locating server among [http://3.110.92.209:8080/]
Apr 03, 2024 6:55:41 AM org.jenkinsci.remoting.engine.JnlpAgentEndpointResolver resolve
INFO: Remoting server accepts the following protocols: [JNLP4-connect, Ping]
Apr 03, 2024 6:55:41 AM hudson.remoting.Launcher$CuIListener status
INFO: Agent discovery successful
Agent address: 3.110.92.209
Agent port: 50000
Identity: fb:c4:34:85:f1:d0:2f:7a:6d:f1:27:b4:1f:06:53:d9
Apr 03, 2024 6:55:41 AM hudson.remoting.Launcher$CuIListener status
INFO: Handshaking
Apr 03, 2024 6:55:41 AM hudson.remoting.Launcher$CuIListener status
INFO: Connecting to 3.110.92.209:50000
Apr 03, 2024 6:55:41 AM hudson.remoting.Launcher$CuIListener status
INFO: Server reports protocol JNLP4-connect-proxy not supported, skipping
Apr 03, 2024 6:55:41 AM hudson.remoting.Launcher$CuIListener status
INFO: Trying protocol: JNLP4-connect
Apr 03, 2024 6:55:41 AM org.jenkinsci.remoting.protocol.impl.BIONetworkLayer$Reader run
INFO: Waiting for ProtocolStack to start.
Apr 03, 2024 6:55:41 AM hudson.remoting.Launcher$CuIListener status
INFO: Remote identity confirmed: fb:c4:34:85:f1:d0:2f:7a:6d:f1:27:b4:1f:06:53:d9
Apr 03, 2024 6:55:41 AM hudson.remoting.Launcher$CuIListener status
INFO: Connected
```

**Jenkins Dashboard:**

**Nodes**

S	Name	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	Built-In Node	Linux (amd64)	In sync	4.67 GiB	0 B	4.67 GiB	0ms
	slave-1	Linux (amd64)	In sync	4.71 GiB	0 B	4.71 GiB	52ms
Data obtained		40 sec	40 sec	40 sec	40 sec	40 sec	40 sec

Icon: S M L



```

nexus server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
Quick connect...
/home/ec2-user/
Name
.ssh
.bash_logout
.bash_profile
.bashrc
Remote monitoring
Follow terminal folder

Last login: Wed Apr 3 05:52:14 2024 from 49.37.251.41
#
#####
AL2 End of Life is 2025-06-30.
A newer version of Amazon Linux is available!
Amazon Linux 2023, GA and supported until 2028-03-15.
https://aws.amazon.com/linux/amazon-linux-2023/

[ec2-user@ip-172-31-1-132 ~]$ sudo su
[root@ip-172-31-1-132 ec2-user]# ls
[root@ip-172-31-1-132 ec2-user]# yum update -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core | 3.6 kB 00:00:00
No packages marked for update
[root@ip-172-31-1-132 ec2-user]# yum install docker -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
--> Package docker.x86_64 0:20.10.25-1.amzn2.0.4 will be installed
--> Processing Dependency: containerd >= 1.3.2 for package: docker-20.10.25-1.amzn2.0.4.x86_64
--> Processing Dependency: libcgroupp >= 0.40.rc1-5.15 for package: docker-20.10.25-1.amzn2.0.4.x86_64
--> Processing Dependency: runc >= 1.0.0 for package: docker-20.10.25-1.amzn2.0.4.x86_64
--> Processing Dependency: plgz for package: docker-20.10.25-1.amzn2.0.4.x86_64
--> Running transaction check
Complete!
[root@ip-172-31-1-132 ec2-user]# systemctl start docker
[root@ip-172-31-1-132 ec2-user]# systemctl enable docker
Created symlink from /etc/systemd/system/multi-user.target.wants/docker.service to /usr/lib/systemd/system/docker.service.
[root@ip-172-31-1-132 ec2-user]# docker run -d -p 8081:8081 --name nexus sonatype/nexus3
Unable to find image 'sonatype/nexus3:latest' locally
latest: Pulling from sonatype/nexus3
cb474d48f745: Pull complete
3d21efb7503f: Pull complete
428a33ed496b: Pull complete
4a98c4ff7edf: Pull complete
9f95cd8b1c18: Pull complete
4ffafcfcca8b: Pull complete
243b0522e060: Pull complete
Digest: sha256:ca83079c1a70a16cbc6fd5335878066a5ff4e2b5127069e5c6d315df75af37e7
Status: Downloaded newer image for sonatype/nexus3:latest
a16af8a858dcc3024ae37558054e19eb2daa563153f7f5e99bd4ccb7f261efca
[root@ip-172-31-1-132 ec2-user]# systemctl status docker
● docker.service - Docker Application Container Engine
   Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; vendor preset: disabled)
   Active: active (running) since Wed 2024-04-03 05:57:06 UTC; 28s ago
     Docs: https://docs.docker.com
    Main PID: 2940 (dockerd)
    CGroup: /system.slice/docker.service
            └─2940 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock --default-ulimit nofile=32768:65...
              └─3219 /usr/bin/docker-proxy -proto tcp -host-ip 0.0.0.0 -host-port 8081 -container-ip 172.17.0.2 -container-p...
                └─3225 /usr/bin/docker-proxy -proto tcp -host-ip :: -host-port 8081 -container-ip 172.17.0.2 -container-port 8...

Apr 03 05:57:05 ip-172-31-1-132.ap-south-1.compute.internal dockerd[2940]: time="2024-04-03T05:57:05.197689347Z" level=...pc
Apr 03 05:57:06 ip-172-31-1-132.ap-south-1.compute.internal dockerd[2940]: time="2024-04-03T05:57:06.496505105Z" level=...t
Apr 03 05:57:06 ip-172-31-1-132.ap-south-1.compute.internal dockerd[2940]: time="2024-04-03T05:57:06.496545229Z" level=...e
Apr 03 05:57:06 ip-172-31-1-132.ap-south-1.compute.internal dockerd[2940]: time="2024-04-03T05:57:06.496765938Z" level=...

```

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The image shows a terminal window and a web browser. The terminal window displays the status of the Docker service and its logs. The service is active and running. The logs show the Docker daemon starting and listening for connections. The web browser shows the Sonatype Nexus Repository OSS 3.67.0-03 interface, which includes a sidebar with navigation options (Welcome, Search, Browse, Upload) and a main content area with a 'Welcome' message and usage statistics.

**Terminal Output:**

```
Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; vendor preset: disabled)
Active: active (running) since Wed 2024-04-03 05:57:06 UTC; 28s ago
Docs: https://docs.docker.com
Main PID: 2940 (dockerd)
CGroup: /system.slice/docker.service
└─2940 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock --default-ulimit nfile=32768:65...
    └─3219 /usr/bin/docker-proxy -proto tcp -host-ip 0.0.0.0 -host-port 8081 -container-ip 172.17.0.2 -container-p...
    └─3225 /usr/bin/docker-proxy -proto tcp -host-ip :: -host-port 8081 -container-ip 172.17.0.2 -container-port 8...

Apr 03 05:57:05 ip-172-31-1-132.ap-south-1.compute.internal dockerd[2940]: time="2024-04-03T05:57:05.197689347Z" level=...pc
Apr 03 05:57:06 ip-172-31-1-132.ap-south-1.compute.internal dockerd[2940]: time="2024-04-03T05:57:06.496505105Z" level=...t
Apr 03 05:57:06 ip-172-31-1-132.ap-south-1.compute.internal dockerd[2940]: time="2024-04-03T05:57:06.496545229Z" level=...e
Apr 03 05:57:06 ip-172-31-1-132.ap-south-1.compute.internal dockerd[2940]: time="2024-04-03T05:57:06.496765938Z" level=...s
Apr 03 05:57:06 ip-172-31-1-132.ap-south-1.compute.internal dockerd[2940]: time="2024-04-03T05:57:06.662936792Z" level=...s
Apr 03 05:57:06 ip-172-31-1-132.ap-south-1.compute.internal dockerd[2940]: time="2024-04-03T05:57:06.722541809Z" level=...s
Apr 03 05:57:06 ip-172-31-1-132.ap-south-1.compute.internal dockerd[2940]: time="2024-04-03T05:57:06.739147762Z" level=...25
Apr 03 05:57:06 ip-172-31-1-132.ap-south-1.compute.internal dockerd[2940]: time="2024-04-03T05:57:06.739254757Z" level=...n
Apr 03 05:57:06 ip-172-31-1-132.ap-south-1.compute.internal systemd[1]: Started Docker Application Container Engine.
Apr 03 05:57:06 ip-172-31-1-132.ap-south-1.compute.internal dockerd[2940]: time="2024-04-03T05:57:06.769452178Z" level=...k"
Hint: Some lines were ellipsized, use -l to show in full.
[root@ip-172-31-1-132 ec2-user]# docker ps -a
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS
a16af8a858dc   sonatype/nexus3   "/opt/sonatype/nexus..." 18 seconds ago Up 15 seconds 0.0.0.0:8081->8081/tcp, :::8081->8081/tcp
nexus         nexus
[root@ip-172-31-1-132 ec2-user]# docker exec -it nexus /bin/bash
bash-4.4$ cd /nexus-data/
bash-4.4$ ls
admin.password  cache  elasticsearch  generated-bundles  javaprefs  karaf.pid  lock  orient  restore-from-backup
blobs           db     etc            instances          kar         keystores  log   port   tmp
bash-4.4$ cat admin.password
0068bd19-6d9e-45e3-a5e5-090467b4b624bash-4.4$ read escape sequence
```

**Web Browser:**

13.201.128.18:8081/#browse/welcome

**Sonatype Nexus Repository OSS 3.67.0-03**

**Welcome**

**Usage**

Total Components		Unique Logins		Requests Per Day	
0	100,000	0	20,000	0	20,000
Current	Threshold	Last 24 hours	Threshold	Last 24 hours	Threshold
0		0		0	
Highest Recorded Count (30 days)		Last 30 days		Highest Recorded Count (30 days)	

**System Health** **Cleanup Policies**

**Sonatype Nexus Repository OSS 3.67.0-03**

**Administration**

- Repository
  - Repositories**
  - Blob Stores
  - Proprietary Repositories
  - Content Selectors
  - Cleanup Policies
  - Routing Rules
- Security
  - Privileges
  - Roles

**Repositories** Manage repositories

[Create repository](#)

Name ↑	Type	Format	Blob Store	Status	URL	Health check	Firewall Re...
jenkins-re...	hosted	maven2	default	Online	<a href="#">copy</a>	<a href="#">Health check</a>	<a href="#">Firewall Rules</a>
madhu-repo	hosted	maven2	default	Online	<a href="#">copy</a>	<a href="#">Health check</a>	<a href="#">Firewall Rules</a>
maven-ce...	proxy	maven2	default	Online - Re...	<a href="#">copy</a>	<a href="#">Analyze</a>	<a href="#">Firewall Rules</a>
maven-pu...	group	maven2	default	Online	<a href="#">copy</a>	<a href="#">Health check</a>	<a href="#">Firewall Rules</a>
maven-rel...	hosted	maven2	default	Online	<a href="#">copy</a>	<a href="#">Health check</a>	<a href="#">Firewall Rules</a>
maven-sna...	hosted	maven2	default	Online	<a href="#">copy</a>	<a href="#">Health check</a>	<a href="#">Firewall Rules</a>
nuget-group	group	nuget	default	Online	<a href="#">copy</a>	<a href="#">Health check</a>	<a href="#">Firewall Rules</a>
nuget-host...	hosted	nuget	default	Online	<a href="#">copy</a>	<a href="#">Health check</a>	<a href="#">Firewall Rules</a>
nuget.org...	proxy	nuget	default	Online - Re...	<a href="#">copy</a>	<a href="#">Analyze</a>	<a href="#">Firewall Rules</a>

**Repositories** / [Select Recipe](#)

Recipe ↑
maven2 (group)
maven2 (hosted)
maven2 (proxy)
npm (group)
npm (hosted)
npm (proxy)
nuget (group)
nuget (hosted)
nuget (proxy)
p2 (proxy)
pypl (group)
pypl (hosted)
pypl (proxy)

**Sonatype Nexus Repository**  
OSS 3.67.0-03

Administration

- Repository
  - Repositories**
  - Blob Stores
  - Proprietary Repositories
  - Content Selectors
  - Cleanup Policies
  - Routing Rules
- Security
  - Privileges
  - Roles
  - Users
- Anonymous Access

**Repositories** / Select Recipe / Create Repository: maven2 (hosted)

**Name:** A unique identifier for this repository  
jenkins \_repo  
Only letters, digits, underscores(\_), hyphens(-), and dots(.) are allowed and may not start with underscore or dot.

**Online:** ☒ If checked, the repository accepts incoming requests

**Maven 2**

**Version policy:**  
What type of artifacts does this repository store?  
Release

**Layout policy:**  
Validate that all paths are maven artifact or metadata paths  
Strict

**Content Disposition:**  
Add Content-Disposition header as 'Attachment' to disable some content from being inline in a browser.  
Inline

**Storage**

☐ Components in this repository count as proprietary for namespace conflict attacks (requires Sonatype Nexus Firewall)

**Cleanup**

**Cleanup Policies:**  
Components that match any of the Applied policies will be deleted

**Available**

Filter

**Applied**

Create repository Cancel

The image shows two screenshots of the Sonatype Nexus Repository OSS 3.67.0-03 interface.

**Top Screenshot: Repository Settings**

The browser address bar shows the URL: `13.201.128.18:8081/#admin/repository/repositories/jenkins-repository`. The page title is "Sonatype Nexus Repository OSS 3.67.0-03". The left sidebar shows the "Administration" menu with "Repositories" selected. The main content area shows the "jenkins-repository" settings.

**Repository Settings:**

- Name:** jenkins-repository
- Format:** maven2
- Type:** hosted
- URL:** `http://13.201.128.18:8081/repository/jenkins-repository/`
- Online:** ☒ If checked, the repository accepts incoming requests

**Maven 2 Settings:**

- Version policy:** Release
- Layout policy:** Strict (dropdown menu)
- Content Disposition:** Add Content-Disposition header as 'Attachment' to disable some content from being inline in a browser.

**Bottom Screenshot: Job Type Selection**

The browser address bar shows the URL: `3.110.92.209:8080/view/all/newJob`. The page title is "Dashboard > All >". The main content area shows the "Enter an item name" form with the text "nexus-pipeline" entered. Below the form, there are four job type options:

- Freestyle project**: Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.
- Maven project**: Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.
- Pipeline**: Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.
- Multi-configuration project**: Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

An "OK" button is visible at the bottom of the job type selection area.

The screenshot displays the Jenkins 'Configure' page for a pipeline named 'nexus pipeline'. The left sidebar shows the 'Pipeline' tab selected. The main area is titled 'Pipeline' and contains a 'Definition' dropdown set to 'Pipeline script'. Below this is a 'Script' section with a text editor containing the following pipeline script:

```
1 pipeline {
2   agent {
3     label 'slave-1'
4   }
5
6   stages {
7     stage('Git - Clone the Code') {
8       steps {
9         git branch: 'AWS-DEVOPS-BRANCH', changelog: false, poll: false, url: 'https://github.com/shrika
10      }
11    }
12    stage('Maven- Build the Code') {
13      steps {
14        sh 'mvn clean install'
15      }
16    }
17  }
18 }
```

The script is partially visible, showing the first two stages: 'Git - Clone the Code' and 'Maven- Build the Code'. The second stage includes a shell step to run 'mvn clean install'. The third stage, 'Deploy to Nexus', is partially visible at the bottom of the editor.

The screenshot displays the 'Snippet Generator' section of the Nexus Pipeline Syntax tool. The interface is divided into a left sidebar with navigation links and a main content area. The sidebar includes links for 'Back', 'Snippet Generator' (active), 'Declarative Directive Generator', 'Declarative Online Documentation', 'Steps Reference', 'Global Variables Reference', 'Online Documentation', 'Examples Reference', and 'IntelliJ IDEA GDSDL'. The main content area is titled 'Overview' and explains the purpose of the Snippet Generator. Below this, the 'Steps' section allows users to select a sample step (currently 'git: Git') and configure its parameters: 'Repository URL' (https://github.com/shrikanthcr/AWS-DEVOPS-STUDY-MATERIALS.git) and 'Branch' (AWS-DEVOPS-BRANCH). A 'Generate Pipeline Script' button is present, which, when clicked, displays the generated Pipeline Script in a text area: `git branch: 'AWS-DEVOPS-BRANCH', changelog: false, poll: false, url: 'https://github.com/shrikanthcr/AWS-DEVOPS-STUDY-MATERIALS.git'`. Below the script, there are checkboxes for 'Include in polling?' and 'Include in changelog?'. The 'Global Variables' section at the bottom provides information about features not supported by the tool.

Dashboard > nexus pipeline > Pipeline Syntax

↑ Back

**Snippet Generator**

Declarative Directive Generator

Declarative Online Documentation

Steps Reference

Global Variables Reference

Online Documentation

Examples Reference

IntelliJ IDEA GDSDL

### Overview

This **Snippet Generator** will help you learn the Pipeline Script code which can be used to define various steps. Pick a step you are interested in from the list, configure it, click **Generate Pipeline Script**, and you will see a Pipeline Script statement that would call the step with that configuration. You may copy and paste the whole statement into your script, or pick up just the options you care about. (Most parameters are optional and can be omitted in your script, leaving them at default values.)

### Steps

Sample Step

git: Git

git ?

Repository URL ?

https://github.com/shrikanthcr/AWS-DEVOPS-STUDY-MATERIALS.git

Branch ?

AWS-DEVOPS-BRANCH

- none -

+ Add

☐ Include in polling? ?

☐ Include in changelog? ?

**Generate Pipeline Script**

```
git branch: 'AWS-DEVOPS-BRANCH', changelog: false, poll: false, url: 'https://github.com/shrikanthcr/AWS-DEVOPS-STUDY-MATERIALS.git'
```

Global Variables

There are many features of the Pipeline that are not steps. These are often exposed via global variables, which are not supported by the



The screenshot displays the Jenkins web interface at the URL `3.110.92.209:8080/job/nexus pipeline/pipeline-syntax/`. The page title is "Jenkins" and the user is logged in as "admin". The breadcrumb navigation shows "Dashboard > nexus pipeline > Pipeline Syntax".

**Overview**

This **Snippet Generator** will help you learn the Pipeline Script code which can be used to define various steps. Pick a step you are interested in from the list, configure it, click **Generate Pipeline Script**, and you will see a Pipeline Script statement that would call the step with that configuration. You may copy and paste the whole statement into your script, or pick up just the options you care about. (Most parameters are optional and can be omitted in your script, leaving them at default values.)

**Steps**

Sample Step

nexusArtifactUploader: Nexus Artifact Uploader

nexusArtifactUploader

**Nexus Details**

Nexus Version

NEXUS3

Protocol

HTTP

Nexus URL

13.201.128.18:8081

Credentials

The image shows two screenshots from a Jenkins web interface. The top screenshot is the 'Pipeline Syntax' configuration page for a job named 'nexus pipeline'. It contains the following fields:

- Protocol:** HTTP
- Nexus URL:** 13.201.128.18:8081
- Credentials:** admin/\*\*\*\*\* (nexus-login-id)
- GroupId:** facebook-lite
- Version:** 1.0.0
- Repository:** (empty)

The bottom screenshot is the 'Jenkins Credentials Provider: Jenkins Add Credentials' form. It contains the following fields:

- Domain:** Global credentials (unrestricted)
- Kind:** Username with password
- Scope:** Global (Jenkins, nodes, items, all child items, etc)
- Username:** admin
- Treat username as secret:** (checkbox, unchecked)

### Jenkins Credentials Provider: Jenkins

☐ Treat username as secret ?

Password ?  
.....

ID ?  
Nexus-Login-ID

Description ?  
Nexus-Login-ID

CancelAdd

Dashboard > nexus pipeline > Pipeline Syntax

Groupid  
facebook-lite

Version  
1.0.0

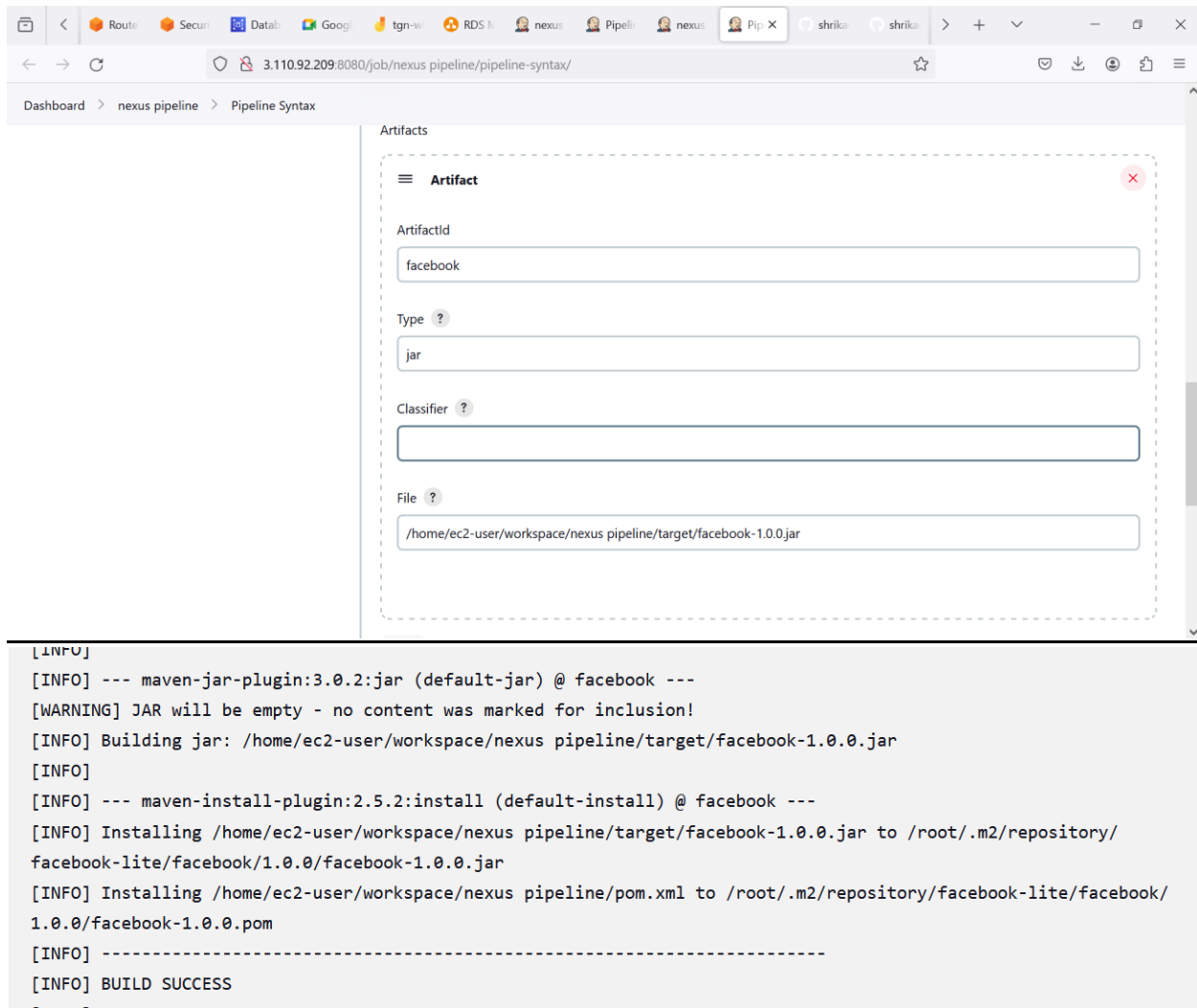
Repository ?  
madhu-repo

Artifacts

Artifact

ArtifactId  
facebook

Type ?



Dashboard > nexus pipeline > Pipeline Syntax

Artifacts

**Artifact**

ArtifactId  
facebook

Type ?  
jar

Classifier ?

File ?  
/home/ec2-user/workspace/nexus pipeline/target/facebook-1.0.0.jar

```
[INFO]
[INFO] --- maven-jar-plugin:3.0.2:jar (default-jar) @ facebook ---
[WARNING] JAR will be empty - no content was marked for inclusion!
[INFO] Building jar: /home/ec2-user/workspace/nexus pipeline/target/facebook-1.0.0.jar
[INFO]
[INFO] --- maven-install-plugin:2.5.2:install (default-install) @ facebook ---
[INFO] Installing /home/ec2-user/workspace/nexus pipeline/target/facebook-1.0.0.jar to /root/.m2/repository/
facebook-lite/facebook/1.0.0/facebook-1.0.0.jar
[INFO] Installing /home/ec2-user/workspace/nexus pipeline/pom.xml to /root/.m2/repository/facebook-lite/facebook/
1.0.0/facebook-1.0.0.pom
[INFO] -----
[INFO] BUILD SUCCESS
```

The image shows two screenshots of web interfaces. The top screenshot is the Jenkins dashboard for a pipeline named 'nexus pipeline'. It displays a 'Stage View' with three stages: 'Git - Clone the Code', 'Maven- Build the Code', and 'Deploy to Nexus'. The average stage times are 3s, 3s, and 898ms respectively. The average full run time is ~9s. The bottom screenshot is the Sonatype Nexus Repository interface, showing the 'Browse' view for the 'jenkins-repository'. It displays a directory structure with 'facebook-lite' and 'facebook' folders, and a '1.0.0' version. The files listed are 'facebook-1.0.0.jar', 'facebook-1.0.0.jar.md5', and 'facebook-1.0.0.jar.sha1'.

**Jenkins Dashboard:**

- Search: Search (CTRL+K)
- Dashboard > nexus pipeline
- Status: ✔ nexus pipeline
- Changes
- Build Now
- Configure
- Delete Pipeline
- Full Stage View
- Rename
- Pipeline Syntax
- Add description
- Disable Project

**Stage View:**

Stage	Git - Clone the Code	Maven- Build the Code	Deploy to Nexus
Average stage times:	3s	3s	898ms
Average full run time: ~9s			
#7 Apr 03 11:58 No Changes	753ms	3s	248ms

**Sonatype Nexus Repository:**

- Search components
- admin Sign out
- Browse / jenkins-repository
- Upload component HTML View Advanced search...
- facebook-lite
- facebook
- 1.0.0
- facebook-1.0.0.jar
- facebook-1.0.0.jar.md5
- facebook-1.0.0.jar.sha1

**PIPELINE:**

```

pipeline {
    agent {
        label 'slave-1'
    }
}

```

```
stages {
  stage('Git - Clone the Code') {
    steps {
      git branch: 'AWS-DEVOPS-BRANCH', changelog: false, poll: false, url:
'https://github.com/shrikanthcr/AWS-DEVOPS-STUDY-MATERIALS.git'
    }
  }
  stage('Maven- Build the Code') {
    steps {
      sh 'mvn clean install'
    }
  }
  stage('Deploy to Nexus') {
    steps {
      nexusArtifactUploader artifacts: [[artifactId: 'facebook', classifier: '', file: '/home/ec2-
user/workspace/nexus pipeline/target/facebook-1.0.0.jar', type: 'jar']], credentialsId: 'nexus-login-
id', groupId: 'facebook-lite', nexusUrl: '13.201.128.18:8081', nexusVersion: 'nexus3', protocol: 'http',
repository: 'madhu-repo', version: '1.0.0'
    }
  }
}
```