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Assignment2- Jenkins Master Slave pipeline.

The screenshot displays the AWS Management Console interface. On the left, the navigation menu includes 'New EC2 Experience', 'EC2 Dashboard', 'EC2 Global View', 'Events', 'Tags', 'Limits', 'Instances', 'Instance Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', 'Reserved Instances', 'Dedicated Hosts', 'Capacity Reservations', 'Images', 'AMIs', 'Elastic Block Store', 'Volumes', and 'Snapshots'. The main content area shows a list of instances with columns for Name, Instance ID, and State. The instance 'jenkins-master' (ID: i-01b7a8202666f0fd2) is selected and highlighted. Below the list, the 'Details' tab for this instance is visible, showing the Instance ID, AMI, and IP address. A terminal window is open on the right, showing the command prompt 'ubuntu@ip-172-31-20-32: ~' and the execution of various commands to install Jenkins, including 'apt-get update', 'apt-get install openjdk-8-jdk', 'apt-get install wget', 'wget -q -O - https://pkg.jenkins.io/debian-stable/jenkins.io.key', 'sudo apt-key add', 'echo deb http://pkg.jenkins.io/debian-stable binary /', 'echo deb http://www.duinsoft.nl/pkg deb all', and 'tee -a /etc/apt/sources.list'. The terminal output shows the successful installation of Jenkins and the update of the package list.

This screenshot is identical to the one above, showing the AWS Management Console with the 'jenkins-master' instance selected. The terminal window displays the same sequence of commands and output, confirming the successful installation and configuration of Jenkins on the EC2 instance.

us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#Instances:

Successfully started i-01b7a8202666f0fd2

Instances (1/3) Info

Name	Instance ID
jenkins-master	i-01b7a8202666f0fd2
slave1	i-0eb14d7b6b09b...
slave2	i-00f431272fac89...

Instance: i-01b7a8202666f0fd2 (jenkins-master)

Details Security Networking

Instance summary Info

Instance ID: i-01b7a8202666f0fd2 (jenkins-master)

IPv6 address: -

Instance state: Running

Public IPv4 DNS: ec2-52-14-30-52.us-east-2.compute.amazonaws.com | open address

```
ubuntu@ip-172-31-20-32:~$ sudo apt-get install jenkins
Reading package lists... Done
W: GPG error: https://www.dunsoft.nl/pkg/debs InRelease: The following signatures couldn't be verified because the public key is not available: NO_PUBKEY E18CE6625CB26B26
E: The repository 'http://www.dunsoft.nl/pkg/debs InRelease' is not signed.
N: Updating from such a repository can't be done securely, and is therefore disabled by default.
N: See apt-secure(8) manpage for repository creation and user configuration details.
ubuntu@ip-172-31-20-32:~$ sudo apt-get install jenkins
Reading package lists... Done
Building dependency tree
Reading state information... Done
jenkins is already the newest version (2.303.3).
0 upgraded, 0 newly installed, 0 to remove and 13 not upgraded.
ubuntu@ip-172-31-20-32:~$ service jenkins status
jenkins.service - LSB: Start Jenkins at boot time
Loaded: loaded (/etc/xdg/jenkins; generated)
Active: active (exited) since Sun 2021-11-14 13:42:29 UTC; 10min ago
Docs: man:systemd-sysv-generator(8)
Process: 437 ExecStart=/etc/init.d/jenkins start (code=exited, status=0/SUCCESS)
Nov 14 13:42:26 ip-172-31-20-32 systemd[1]: Starting LSB: Start Jenkins at boot time
Nov 14 13:42:27 ip-172-31-20-32 jenkins[437]: Correct java version found
Nov 14 13:42:27 ip-172-31-20-32 jenkins[437]: * Starting Jenkins Automation Se
Nov 14 13:42:27 ip-172-31-20-32 su[636]: (to jenkins) root on none
Nov 14 13:42:27 ip-172-31-20-32 su[636]: pam_unix(su-l:session): session opened
Nov 14 13:42:28 ip-172-31-20-32 su[636]: pam_unix(su-l:session): session closed
Nov 14 13:42:29 ip-172-31-20-32 jenkins[437]: ...done.
Nov 14 13:42:29 ip-172-31-20-32 systemd[1]: Started LSB: Start Jenkins at boot time
lines 1-14/14 (END) ...skipping...
jenkins.service - LSB: Start Jenkins at boot time
Loaded: loaded (/etc/xdg/jenkins; generated)
Active: active (exited) since Sun 2021-11-14 13:42:29 UTC; 10min ago
```

Sign in [Jenkins]

52.14.30.52:8080/login?from=%2F

Not secure

Welcome to Jenkins!

Username

Password

Sign in

☐ Keep me signed in

Browser tabs: Untitled document - Google, Instances | EC2 Management, Jenkins Tutorial for Beginners, dpkg - "cannot create /etc/...", GitHub - sahana-n-h/sahana, Configure Global Security [Jenkins]

Address bar: https://52.14.30.52:8080/configureSecurity/

Jenkins Dashboard > Configure Global Security

Configure Global Security

Authentication

☐ Disable remember me

Security Realm

☐ Delegate to servlet container
☒ Jenkins' own user database
 ☐ Allow users to sign up
☐ LDAP
☐ Unix user/group database
☐ None

Authorization

☐ Anyone can do anything
☐ Legacy mode
☒ Logged-in users can do anything
 ☐ Allow anonymous read access
☐ Matrix-based security

[Save](#) [Apply](#)

Browser tabs: Untitled document - Google, Instances | EC2 Management, Jenkins Tutorial for Beginners, dpkg - "cannot create /etc/...", GitHub - sahana-n-h/sahana, Configure Global Security [Jenkins]

Address bar: https://52.14.30.52:8080/configureSecurity/

Jenkins Dashboard > Configure Global Security

☐ Enable proxy compatibility

Hidden security warnings

[Security warnings...](#)

API Token

☐ Generate a legacy API token for each newly created user (Not recommended)
☐ Allow users to manually create a legacy API token (Not recommended)
☒ Enable API Token usage statistics

Agent → Controller Security

☒ Enable Agent → Controller Access Control
Rules can be tweaked [here](#)

SSH Server

SSHD Port
☐ Fixed: ☒ Random ☐ Disable

[Save](#) [Apply](#)

Jenkins 2.303.3

Book reportInstances | EC2 ManagDevOps-Jenkins - TechHow to install JenkinsJenkins Tutorial for Begslave1 ConfigurationUntitled document - G+Not secure52.14.30.52:8080/computer/slave1/configurehttps://ssp.postmat...16 Candlestick Patt...CSE Time Table Aug...ClassesDevOps - TechBytesReading list

Jenkins

search

12sahana-n-hlog out

DashboardNodesslave1

Back to List

Status

Delete Agent

Configure

Build History

Load Statistics

Log

Build Executor Status

Name

slave1

Description

Number of executors

1

Remote root directory

Remote directory is mandatory

Labels

Usage

Use this node as much as possible

Launch method

Launch agent by connecting it to the master

Save

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Jenkins

search

12sahana-n-hlog out

DashboardNodesslave1

Launch method

Launch agent by connecting it to the master

Disable WorkDir

Custom WorkDir path

/home/ubuntu/jenkins

Internal data directory

remoting

Fail if workspace is missing

Use WebSocket

Advanced...

Availability

Keep this agent online as much as possible

Node Properties

Disable deferred wipeout on this node

Environment variables

Tool Locations

Save

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Reading list

Jenkins

search

🔔1🔔2👤sahana-n-h🚪log out

DashboardNodesslave2

🏠Back to List

🔍Status

🗑Delete Agent

⚙Configure

📊Build History

📈Load Statistics

📄Log

Build Executor Status

Name

slave2

Description

Number of executors

1

Remote root directory

/home/ubuntu/jenkins

Labels

Usage

Use this node as much as possible

Launch method

Launch agent by connecting it to the master

Save

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Reading list

Jenkins

search

🔔1🔔2👤sahana-n-h🚪log out

DashboardNodesslave2

📈Load Statistics

📄Log

Build Executor Status

Remote root directory

/home/ubuntu/jenkins

Labels

Usage

Use this node as much as possible

Launch method

Launch agent by connecting it to the master

☐ Disable WorkDir

Custom WorkDir path

Internal data directory

remoting

☐ Fail if workspace is missing

☐ Use WebSocket

Advanced...

Save

Book reportInstances | EC2 M...DevOps-Jenkins -How to install Jeni...Jenkins Tutorial forNodes [Jenkins]Untitled documentDevops/Team_0...+x

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Reading list

Jenkins

search

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DashboardNodes

Back to Dashboard

Manage Jenkins

New Node

Configure Clouds

Node Monitoring

Build Queue

No builds in the queue.

Build Executor Status

master

1 idle

2 idle

slave1 (offline)

slave2 (offline)

S	Name	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	master	Linux (amd64)	In sync	4.84 GB		4.84 GB	0ms
	slave1		N/A	N/A	N/A	N/A	N/A
	slave2		N/A	N/A	N/A	N/A	N/A
Data obtained		0.33 sec	0.33 sec	0.33 sec	0.33 sec	0.33 sec	0.33 sec

Refresh status

REST APIJenkins 2.303.3

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Reading list

Jenkins

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DashboardNodesslave1

Back to List

Status

Delete Agent

Configure

Build History

Load Statistics

Log

Build Executor Status

Agent slave1

Mark this node temporarily offline

Connect agent to Jenkins one of these ways:

Launch

Launch agent from browser

Run from agent command line:

java -jar agent.jar -jnlpURL http://3.140.243.81:8080/computer/slave1/jenkins-agent.jnlp -secret e6a1a4b1ed1a28580b859eaceaf91606c325c5afb64afb00bf37943d243e539 -workDir "/home/ubuntu/jenkins"

Run from agent command line, with the secret stored in a file:

echo e6a1a4b1ed1a28580b859eaceaf91606c325c5afb64afb00bf37943d243e539 > secret-file
java -jar agent.jar -jnlpURL http://3.140.243.81:8080/computer/slave1/jenkins-agent.jnlp -secret @secret-file -workDir "/home/ubuntu/jenkins"

Projects tied to slave1

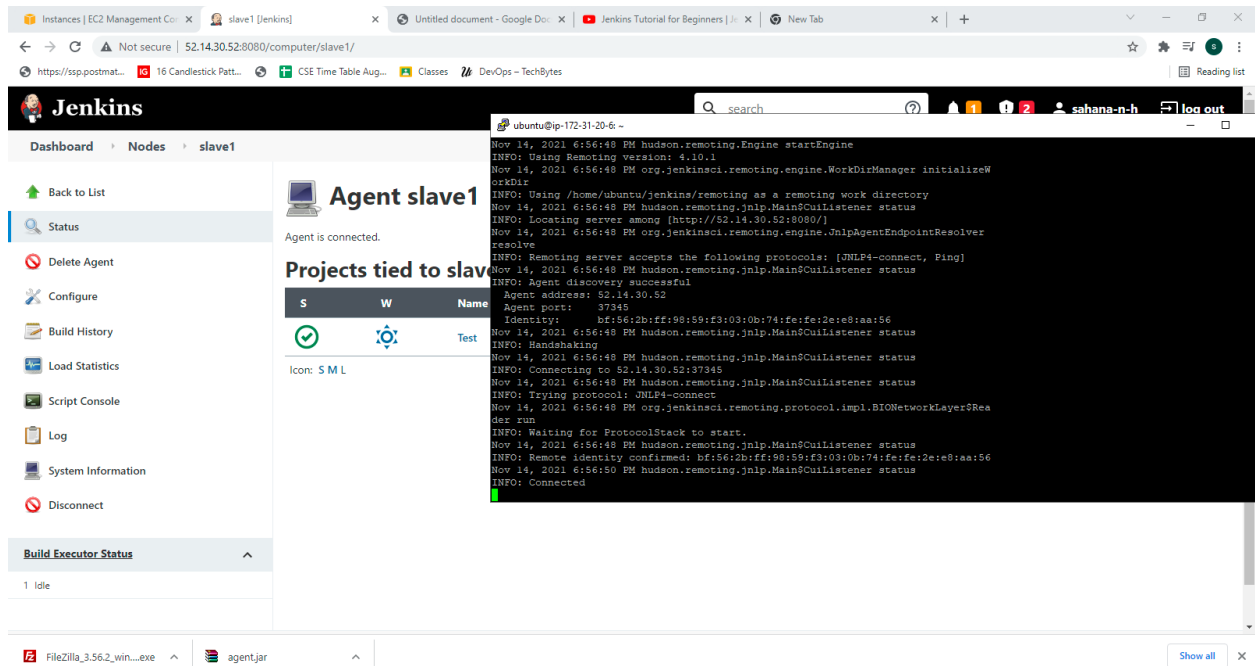
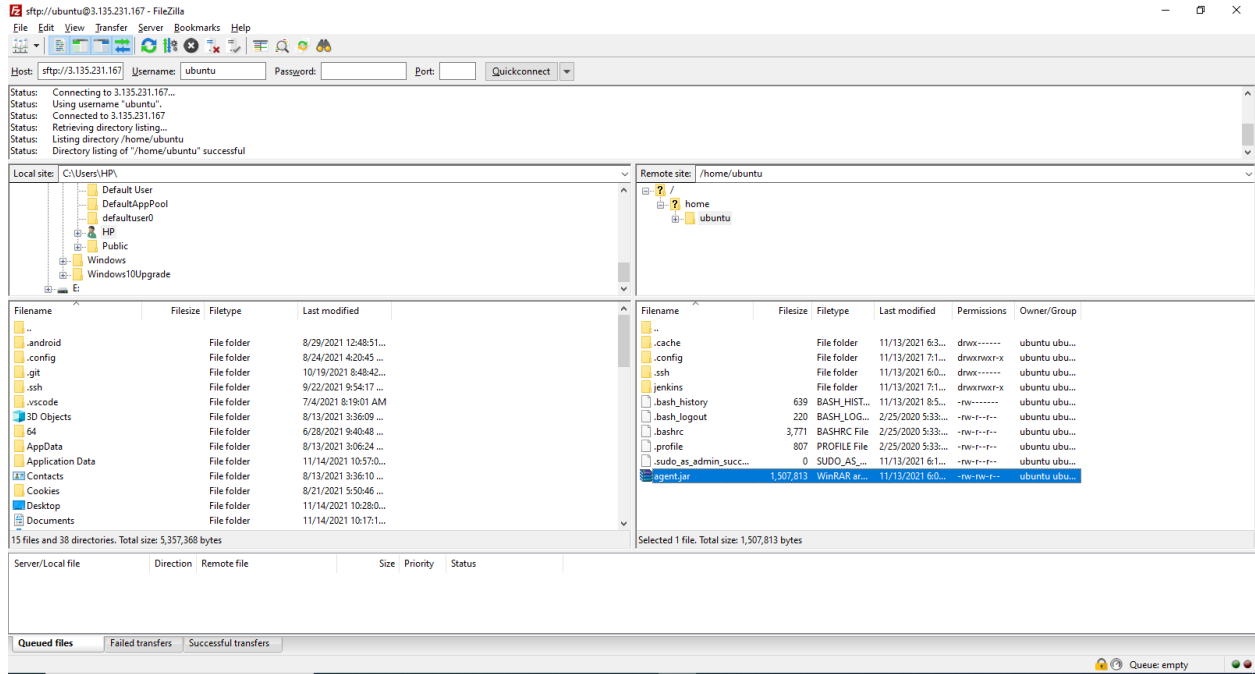
S	W	Name	Last Success	Last Failure	Last Duration
		Test	1 day 2 hr - #27	1 day 2 hr - #22	2.4 sec

Icons: S M L

LegendAtom feed for allAtom feed for failuresAtom feed for just latest builds

agent.jar

Show all



Jenkins Dashboard - Nodes - slave2

Agent slave2
Agent is connected.

Projects tied to slave2

S	W	Name	Last
		Prod	1 d

Icon: SML

Build Executor Status

1 idle

FileZilla_3.56.2_win...exe agent.jar

```
Nov 14, 2021 7:00:31 PM hudson.remoting.jnlp.Main$CuiListener status
INFO: Locating server among [http://52.14.30.52:8080/]
Nov 14, 2021 7:00:31 PM org.jenkinsci.remoting.engine.JnlpAgentEndpointResolver
resolve
INFO: Remoting server accepts the following protocols: [JNLP4-connect, Ping]
Nov 14, 2021 7:00:31 PM hudson.remoting.jnlp.Main$CuiListener status
INFO: Agent discovery successful
Agent address: 52.14.30.52
Agent port: 37345
Identity: bf:56:2b:ff:98:59:f3:03:0b:74:fe:fe:2e:e8:aa:56
Nov 14, 2021 7:00:31 PM hudson.remoting.jnlp.Main$CuiListener status
INFO: Handshaking
Nov 14, 2021 7:00:31 PM hudson.remoting.jnlp.Main$CuiListener status
INFO: Connecting to 52.14.30.52:37345
Nov 14, 2021 7:00:31 PM hudson.remoting.jnlp.Main$CuiListener status
INFO: Trying protocol: JNLP4-connect
Nov 14, 2021 7:00:31 PM org.jenkinsci.remoting.protocol.impl.BIONetworkLayer$Rea
des run
INFO: Waiting for ProtocolStack to start.
Nov 14, 2021 7:00:32 PM hudson.remoting.jnlp.Main$CuiListener status
INFO: Remote identity confirmed: bf:56:2b:ff:98:59:f3:03:0b:74:fe:fe:2e:e8:aa:56
Nov 14, 2021 7:00:33 PM hudson.remoting.jnlp.Main$CuiListener status
INFO: Connected
```

Jenkins Dashboard - Test

General

[Plain text] Preview

☐ Discard old builds

☒ GitHub project

Project url

https://github.com/sahana-n-h/jenkinsTest.git/

Advanced...

☐ This build requires lockable resources

☐ This project is parameterized

☐ Throttle builds

☐ Disable this project

☐ Execute concurrent builds if necessary

☒ Restrict where this project can be run

Label Expression

slave1

Label slave1 matches 1 node. Permissions or other restrictions provided by plugins may further reduce that list.

Advanced...

Save Apply

Instances | EC2 Manag... x Prod Config [Jenkins] x Jenkins Tutorial for Beg... x Add webhook x souvikdas2411/jenkins? x UPDATED SAHANA x Untitled document - G... x + -

Not secure | 52.14.30.52:8080/job/Prod/configure

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Dashboard > Prod >

General Source Code Management Build Triggers **Build Environment** Build Post-build Actions

Build Environment

- ☐ Delete workspace before build starts
- ☐ Use secret text(s) or file(s)
- ☐ Abort the build if it's stuck
- ☐ Add timestamps to the Console Output
- ☐ Inspect build log for published Gradle build scans
- ☐ With Ant

Build

Execute shell

Command

```
sudo docker rm -f $(sudo docker ps -a -q)
sudo docker build /home/ubuntu/jenkins/workspace/Prod -t production
sudo docker run -it -p 80:80 -d production
```

[See the list of available environment variables](#)

Advanced...

Add build step +

Post-build Actions

Save Apply

Instances | EC2 Manag... x Test Config [Jenkins] x Jenkins Tutorial for Beg... x Add webhook x souvikdas2411/jenkins? x UPDATED SAHANA x Untitled document - G... x + -

Not secure | 52.14.30.52:8080/job/Test/configure

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Dashboard > Test >

General Source Code Management Build Triggers **Build Environment** Build Post-build Actions

Build Environment

- ☐ Add timestamps to the Console Output
- ☐ Inspect build log for published Gradle build scans
- ☐ With Ant

Build

Execute shell

Command

```
sudo docker rm -f $(sudo docker ps -a -q)
sudo docker build /home/ubuntu/workspace/Test -t test
sudo docker run -it -p 82:80 -d test
```

[See the list of available environment variables](#)

Advanced...

Add build step +

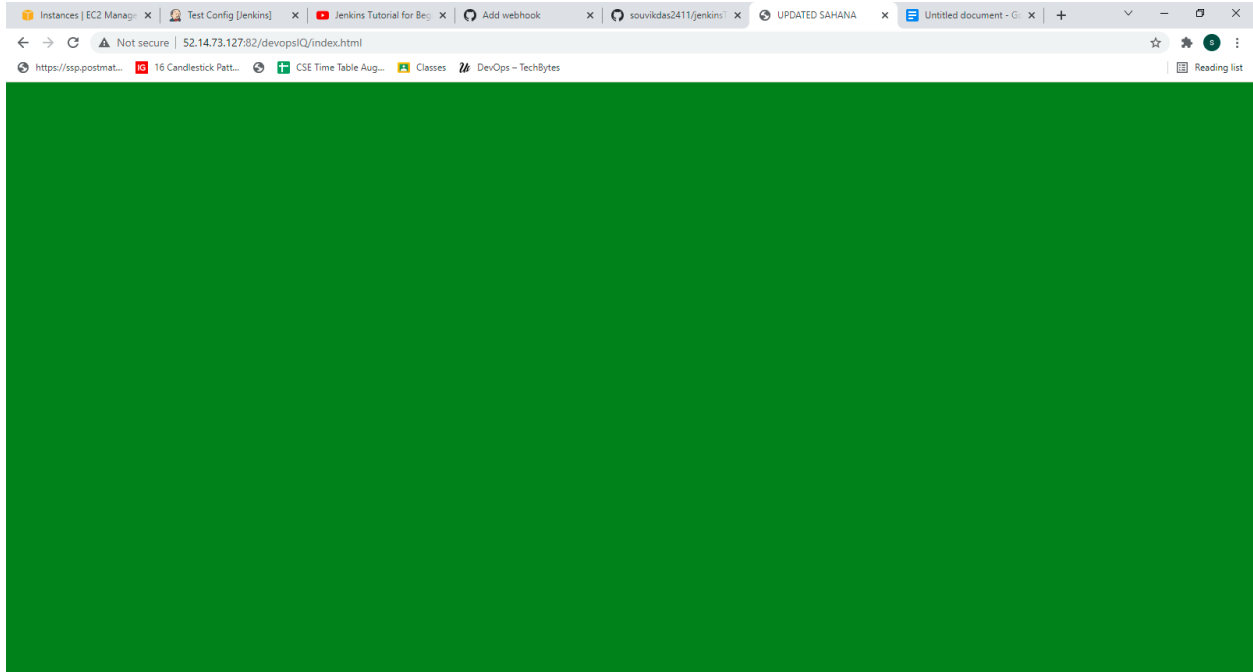
Post-build Actions

Build other projects

Projects to build

Prod

Save Apply



Instances | EC2 Manag... x | Test Config [Jenkins] x | Jenkins Tutorial for Beg... x | Add webhook x | souvikdas2411/jenkins... x | UPDATED SAHANA x | Untitled document - G... x | +

Not secure | 52.14.73.127:82/devopsIQ/index.html

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Reading list

Jenkins

search ?

1 2 sahana-n-h log out

Dashboard > CICD2 >

Build Pipeline: CICD2

Run History Configure Add Step Delete Manage

Pipeline	#31 Test	#38 Prod
#31	<div>Nov 14, 2021 7:31:50 PM</div> <div>3.4 sec</div>	<div>Nov 14, 2021 7:32:00 PM</div> <div>1.7 sec</div>

