

# Master Slave Node

Create EC2 instance named as jenkins

The screenshot shows the AWS EC2 Instances page with the following details:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4
Docker	i-0141ee92a35a88e78	Stopped	t3.micro	-	<a href="#">View alarms</a>	us-east-1c	-
Jenkins	i-0d054d4c3d3640eed	Terminated	t3.micro	-	<a href="#">View alarms</a>	us-east-1c	-
node-1	i-05938268b0c477c32	Terminated	t3.micro	-	<a href="#">View alarms</a>	us-east-1c	-
Jenkins	i-03dfaea63e63a7ae	Running	t3.micro	3/3 checks passed	<a href="#">View alarms</a>	us-east-1b	ec2-98-94-2
node-1	i-0e39446da985948f3	Running	t3.micro	Initializing	<a href="#">View alarms</a>	us-east-1b	ec2-44-212

Note: Make sure your security group is open for port 8080

Install java on both instance

sudo apt update

sudo apt install fontconfig openjdk-21-jre

java -version

Install jenkins on instance

sudo wget -O /etc/apt/keyrings/jenkins-keyring.asc \

<https://pkg.jenkins.io/debian-stable/jenkins.io-2026.key>

echo "deb [signed-by=/etc/apt/keyrings/jenkins-keyring.asc]" \

<https://pkg.jenkins.io/debian-stable binary/> | sudo tee \

/etc/apt/sources.list.d/jenkins.list > /dev/null

sudo apt update

sudo apt install Jenkins

change host name

sudo hostnamectl set-hostname masternode-1

```
ubuntu@ip-172-31-89-24:~$ sudo hostnamectl set-hostname masternode-1
ubuntu@ip-172-31-89-24:~$ bash
ubuntu@masternode-1:~$ |
```

## Install jenkin

Getting Started

# Jenkins is ready!

Your Jenkins setup is complete.

[Start using Jenkins](#)

Jenkins 2.541.1

## Create EC2 instance named as node-1

The screenshot shows the AWS EC2 Instances page. The left sidebar is collapsed, and the main area displays a table of instances. The table has columns for Name, Instance ID, Instance state, Instance type, Status check, Alarm status, Availability Zone, and Public IPv4. There are five instances listed:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4
Docker	i-0141ee92a35a8e78	Stopped	t3.micro	-	<a href="#">View alarms +</a>	us-east-1c	-
jenkin	i-0d054d4cd3640ed	Terminated	t3.micro	-	<a href="#">View alarms +</a>	us-east-1c	-
node-1	i-03938268b0c477c32	Terminated	t3.micro	-	<a href="#">View alarms +</a>	us-east-1c	-
Jenkin	i-03dfaear63e63a7ae	Running	t3.micro	3/3 checks passed	<a href="#">View alarms +</a>	us-east-1b	ec2-98-94-2
node-1	i-0e39446da985948f3	Running	t3.micro	Initializing	<a href="#">View alarms +</a>	us-east-1b	ec2-44-212

Note: Make sure your security group is open for port 8080

## Install java on node-1 instance

sudo apt update

sudo apt install fontconfig openjdk-21-jre

java -version

## change hostname as a node-1

sudo hostnaamectl set-hostname node-1

bash

```
ubuntu@ip-172-31-80-23:~$ sudo hostnamectl set-hostname node-1
ubuntu@ip-172-31-80-23:~$ bash
```

## Setting – Nodes – Available plugins – build agent - install

The screenshot shows the Jenkins 'Manage Jenkins' dashboard. At the top, there are three buttons: 'Set up agent', 'Set up cloud', and 'Dismiss'. Below this, a message about Content Security Policy (CSP) is displayed. The main area is divided into several sections:

- System Configuration**: Includes links for 'System', 'Nodes', 'Tools', 'Clouds', and 'Plugins'.
- Security**: Includes links for 'Security' and 'Users'.
- Plugins**: A search bar shows 'build agent'. A table lists available plugins:

Install	Name	Released	Health
<input checked="" type="checkbox"/>	SSH Build Agents 3.1097.v868116049892	3 days 6 hr ago	(100)
<input type="checkbox"/>	Docker Slaves 1.0.7	8 yr 6 mo ago	(73)
<input type="checkbox"/>	Libvirt Agents 315.v5d33b_333a_551	5 mo 22 days ago	(96)
<input type="checkbox"/>	Chaos Butler 1.0	9 yr 5 mo ago	(25)

## Plugins

## Download progress

-  Updates
-  Available plugins
-  Installed plugins
-  Advanced settings
-  Download progress

## Preparation

- Checking internet connectivity
- Checking update center connectivity
- Success

## Loading plugin extensions

-  Success
-  Success
-  Success
-  Success
-  Success
-  Success
-  Success
-  Success
-  Success
-  Success
-  Success

## EDDSA API

## Gson API

## Trilead API

## commons-lang3 v3.x Jenkins API

## Ionicons API

## Structs

## commons-text API

## bouncycastle API

## Credentials

## Variant

## SSH Credentials

## SSH Build Agents

## Loading plugin extensions

## Restart jenkins



 Jenkins is restarting

Your browser will reload automatically when Jenkins is ready.

**Safe Restart**  
Builds on agents can usually continue.

## Setting – Nodes

**System Configuration**

- System**: Configure global settings and paths.
- Tools**: Configure tools, their locations and automatic installers.
- Plugins**: Add, remove, disable or enable plugins that can extend the functionality of Jenkins.
- Nodes**: Add, remove, control and monitor the various nodes that Jenkins runs jobs on.
- Clouds**: Add, remove, and configure cloud instances to provision agents on-demand.
- Appearance**: Configure the look and feel of Jenkins.

**Security**

- Security**: Secure Jenkins; define who is allowed to access/use the system.
- Users**: Create/delete/modify users that can log in to this Jenkins.

## Create new node named as slave-1

**Nodes**

Add, remove, control and monitor the various nodes that Jenkins runs jobs on.

S	Name ↓	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
1	Built-In Node	Linux (amd64)	In sync	3.91 GiB	0 B	3.91 GiB	0ms
	Data obtained	46 sec	46 sec	46 sec	46 sec	46 sec	46 sec

Icon: S M L Legend

Node name: slave-1

Select:  Permanent Agent

Click: Create

**New node**

Node name

Type

Permanent Agent

Adds a plain, permanent agent to Jenkins. This is called "permanent" because Jenkins doesn't provide higher level of integration with these agents, such as dynamic provisioning. Select this type if no other agent types apply — for example such as when you are adding a physical computer, virtual machines managed outside Jenkins, etc.

**Create**

Name: slave-1

Number of executors: 1

Remote root directory: /home/ubuntu

## Labels:

slave-1

Scroll down 

 Jenkins / Manage Jenkins / Nodes

---

Name ?  
slave-1

---

Description ?

Plain text [Preview](#)

---

Number of executors ?  
1

---

Remote root directory ?  
/home/ubuntu

---

Labels ?  
slave-1

## Launch Method

## Launch agents via SSH

## Host

Put your EC2 node-1 private IP(172.31.80.23)

## Add Credentials

X

Select a type of credential



Username with password

Commonly used for authentication to services like Git, APIs, or registries.



SSH Username with private key



Certificate

Upload a PKCS#12 or PEM encoded certificate and private key.

Next

Credentials : SSH Username with private key

- ID: fct-1
- Username: ubuntu
- Private Key: Paste your EC2 .pem file content

Click: **Create**

Add SSH Username with private key

ID ?  
fct-1

Description ?

Username  
ubuntu

Treat username as secret ?

Private Key

Enter directly

Key

Enter New Secret Below

```
P1M6FmOakz5mnR0eSwlQk4scwWN9/b//ho36unCBRqW1C3EAj6Z8hCM  
XaD3zJ0uu  
SRBTE+z/dk2riYvT+LiaWxevm3Sb2cwT7cobpZECgYB50bxSRmGKAu6  
2aixVY+Op
```

Create

Host Key Verification Strategy : Non verifying Verification Strategy

Availability : Keep this agent online as much as possible

SAVE

Jenkins / Manage Jenkins / Nodes

Usage ?  
Use this node as much as possible

Launch method ?  
Launch agents via SSH

Host ?  
172.31.80.23

Credentials ?  
ubuntu

+ Add

Host Key Verification Strategy ?  
Known hosts file Verification Strategy

Advanced

Availability ?  
Keep this agent online as much as possible

Save

Jenkins / Manage Jenkins / Nodes

### Nodes

Add, remove, control and monitor the various nodes that Jenkins runs jobs on.

S	Name	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	Built-In Node	Linux (amd64)	In sync	3.91 GiB	0 B	3.91 GiB	0ms
	slave-1		N/A	N/A	N/A	N/A	N/A
	Data obtained	7 ms	9 ms	7 ms	4 ms	2 ms	3 ms

Icon: S M L

+ New Node Configure Monitors

Legend

## Create a new job

Jenkins / All / New Item

### New Item

Enter an item name  
node-1

Select an item type

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.

OK

The screenshot shows the Jenkins configuration page for a project named 'node-1'. In the 'General' section, the 'Restrict where this project can be run' checkbox is checked, with the label expression 'slave-1' entered. Under 'Source Code Management', the 'None' option is selected. In the 'Triggers' section, none of the options (Trigger builds remotely, Build after other projects are built, Build periodically, Poll SCM) are checked. The 'Build Steps' section contains one step: 'Execute shell' with the command 'git clone https://github.com/AratiYadav21/HTML.git'. Buttons for 'Save' and 'Apply' are at the bottom.

`git clone https://github.com/AratiYadav21/HTML.git`

## Build Now

The screenshot shows the Jenkins dashboard. On the left, there are links for 'New Item', 'Build History', 'Project Relationship', 'Check File Fingerprint', 'Build Queue' (empty), and 'Build Executor Status'. The 'Build Executor Status' section shows three nodes: 'Built-in Node' (0/2), 'slave-1' (0/1), and 'slave-2' (0/1). The main area displays the 'Build History' for the 'node-1' project, showing a single successful build (green checkmark) from 5 min 26 sec ago. A 'Save' button is visible at the bottom right.

Note : Same steps for slave-2