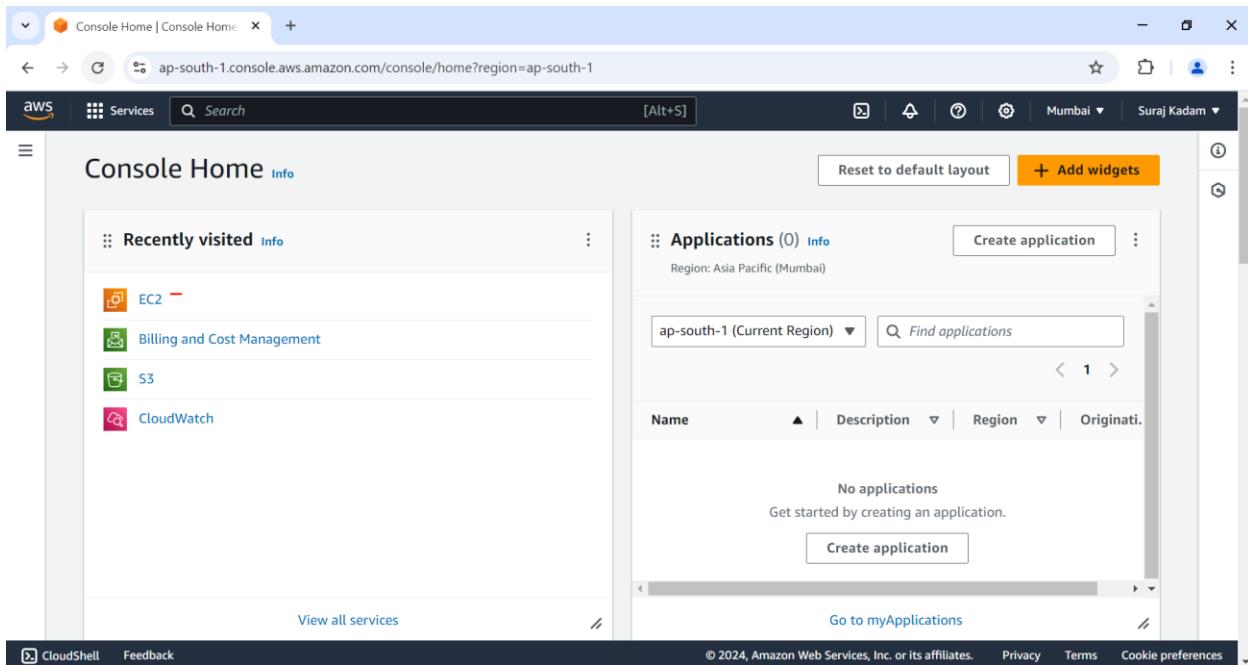
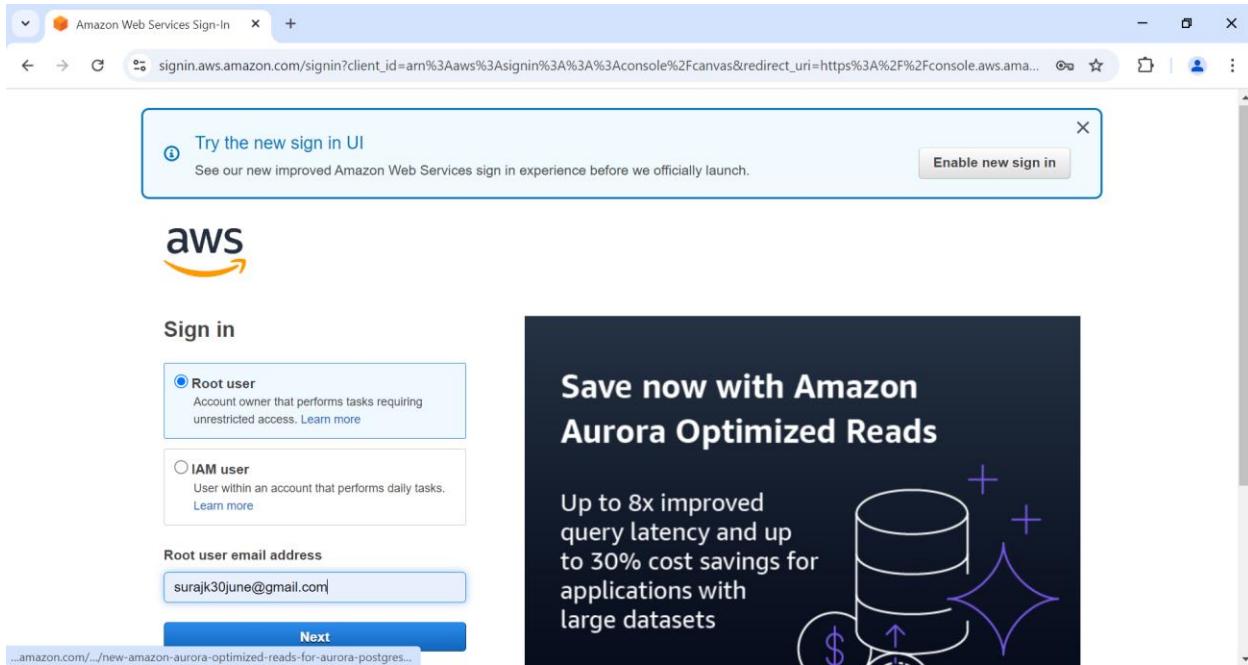
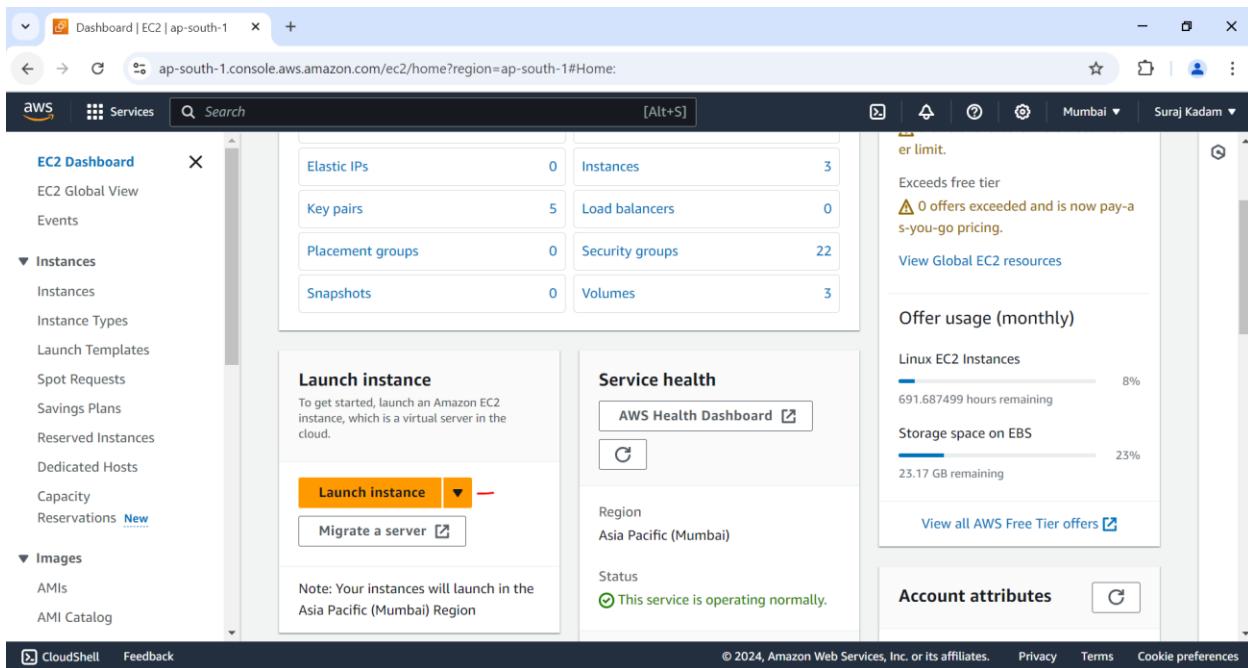


Jenkins Setup

Step 1: Login into your AWS cloud account and navigate to EC2 service

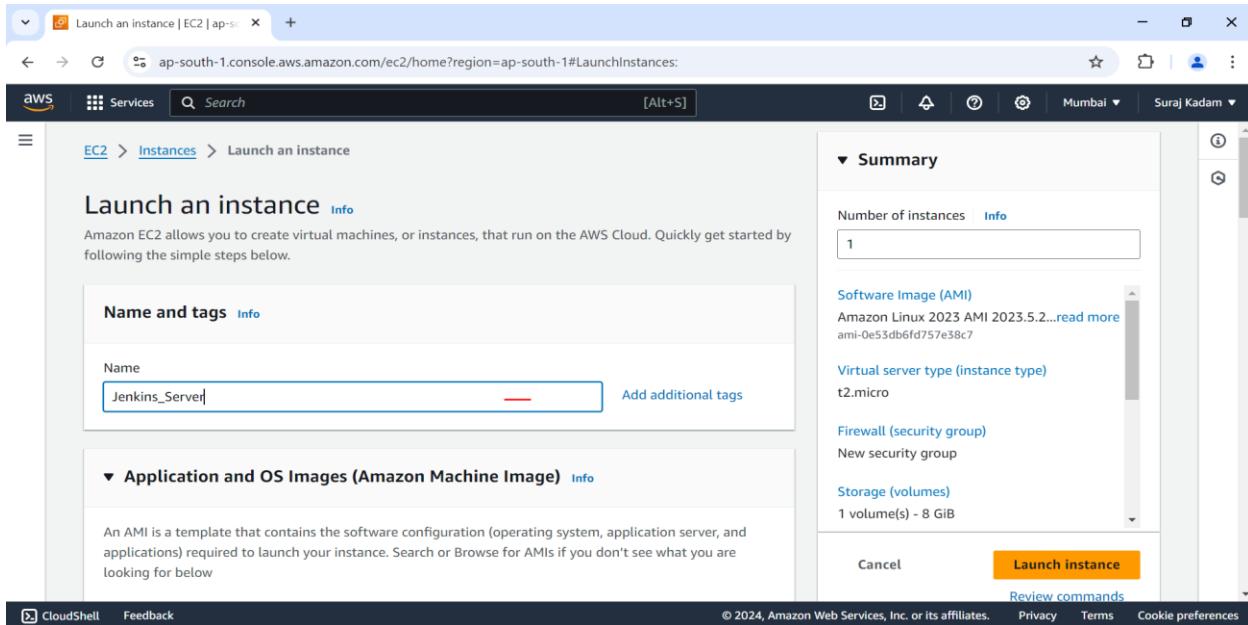


Step 2: Click on Launch Instance.

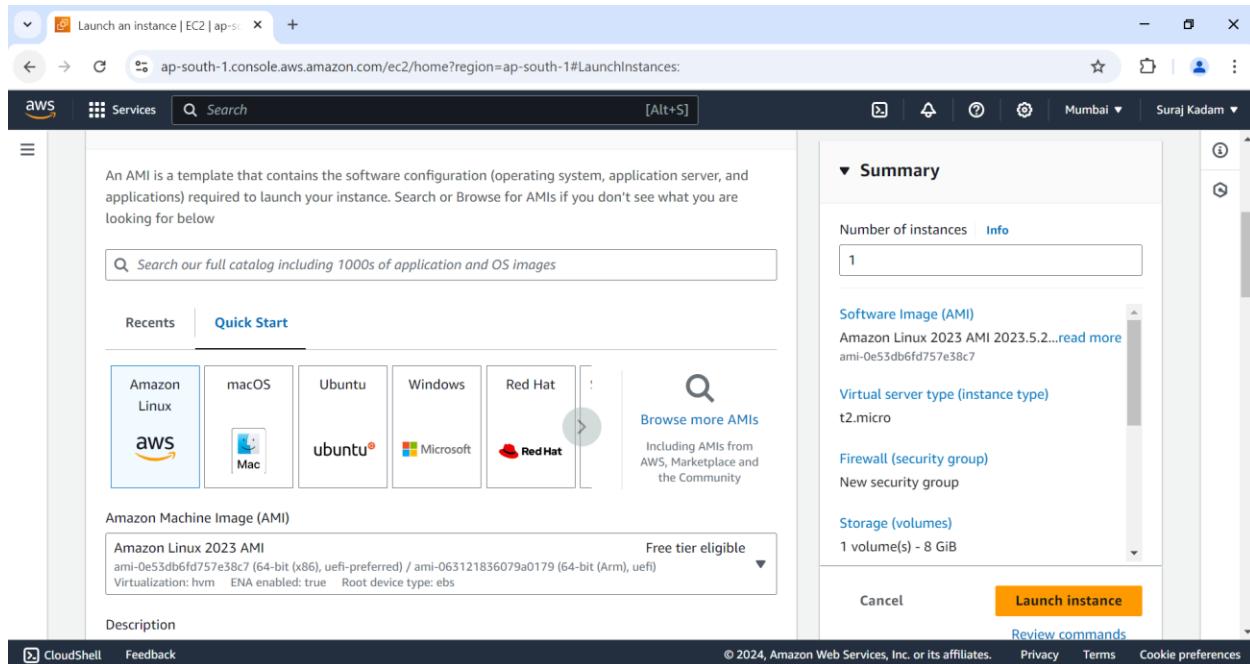


The screenshot shows the AWS EC2 Dashboard. On the left, there's a sidebar with various EC2-related options like Instances, Images, and AMIs. The main area has a summary table with metrics such as Elastic IPs (0), Instances (3), Key pairs (5), Load balancers (0), Placement groups (0), Security groups (22), Snapshots (0), and Volumes (3). In the center, there's a prominent 'Launch instance' button. To the right, there's a 'Service health' section showing the AWS Health Dashboard and a note that the service is operating normally. The top navigation bar includes the AWS logo, a search bar, and account information for 'Suraj Kadam'.

Step-3: Give name for instance and select AMI



The screenshot shows the 'Launch an instance' wizard. Step 1 is 'Name and tags'. It has a 'Name' field containing 'Jenkins_Server' and a 'Add additional tags' link. Step 2 is 'Application and OS Images (Amazon Machine Image)'. It contains a note about what an AMI is and a 'Search or Browse for AMIs' link. To the right, there's a 'Summary' panel with fields for 'Number of instances' (set to 1), 'Software Image (AMI)' (selected as 'Amazon Linux 2023 AMI 2023.5.2...'), 'Virtual server type (instance type)' (set to 't2.micro'), 'Firewall (security group)' (set to 'New security group'), and 'Storage (volumes)' (set to '1 volume(s) - 8 GiB'). At the bottom, there are 'Cancel', 'Launch instance', and 'Review commands' buttons.

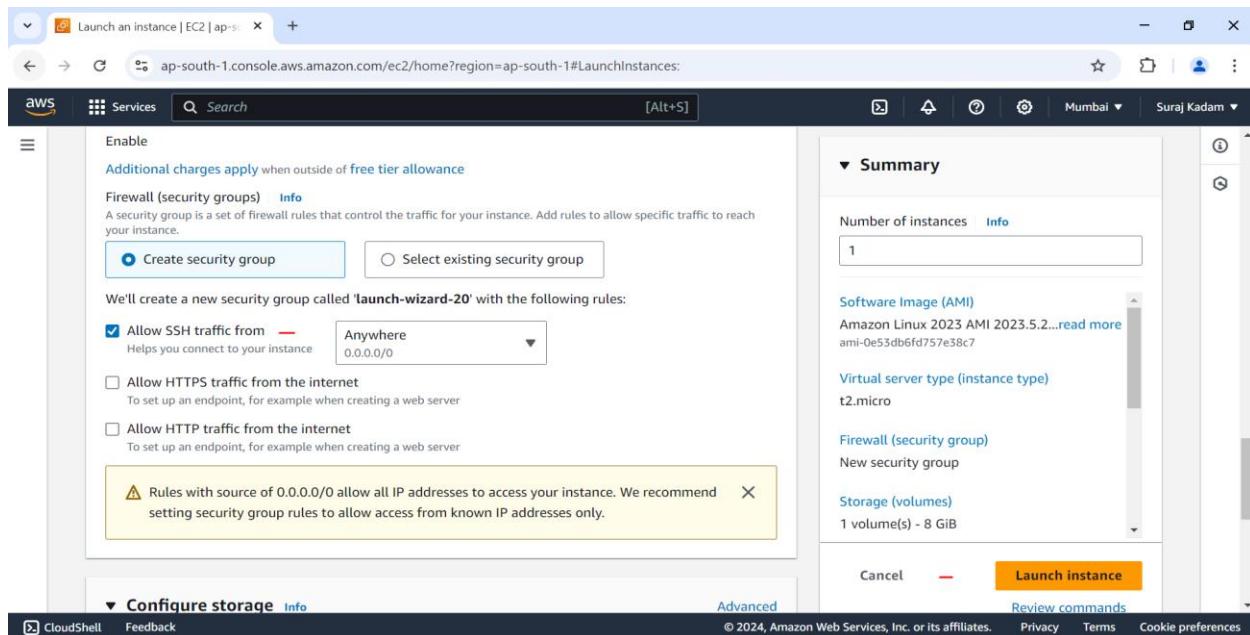


Step –4: Keep instance type as t2.mico and select Key Pair

Note: If Key pair not available, create new pair and select it.

(When we create a new key pair, it will download .pem file. Keep it safe. We need that .pem file to connect with the Machine using SSH)

Step –5: Select Security group Settings to allow SSH traffic and click on ‘Launch Instance’



Step –6: Once instance got created then click on Instance id which is showing like below

The screenshot shows the AWS EC2 Instances launch success page. At the top, there is a green success message: "Successfully initiated launch of instance (i-097d2fef27e295122)". Below this, there is a "Next Steps" section with several options:

- Create billing and free tier usage alerts
- Connect to your instance
- Connect an RDS database
- Create EBS snapshot policy

At the bottom of the page, there are links for CloudShell, Feedback, and a copyright notice: "© 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences".

Step – 7: Select Instance name checkbox and see Public IP of instance

The screenshot shows the AWS EC2 Instances details page for the instance i-097d2fef27e295122, which is named Jenkins_Server. The instance is currently running. The public IPv4 address listed is 13.233.28.252. The private IPv4 address listed is 172.31.10.54. The public IPv4 DNS is ec2-13-233-28-252.ap-south-1.compute.amazonaws.com.

Step –8: Click on connect button and connect to Jenkins VM

The screenshot shows the AWS EC2 Instances page. On the left, the navigation pane includes links for EC2 Dashboard, EC2 Global View, Events, Instances (with Jenkins selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, and Images (AMIs and AMI Catalog). The main content area displays 'Instances (1/1) Info' with a last update of '1 minute ago'. A search bar at the top right says 'Find Instance by attribute or tag (case-sensitive)'. Below it is a table with one row for 'Jenkins_Server'. The table columns are Name, Instance ID, Instance state, Instance type, and Status check. The instance details are shown in a modal window titled 'i-097d2fef27e295122 (Jenkins_Server)'. The 'Details' tab is selected, showing the Instance ID (i-097d2fef27e295122), Public IPv4 address (13.233.28.252), Private IPv4 addresses (172.31.10.54), and Public IPv4 DNS (ec2-13-233-28-252.ap-south-1.compute.amazonaws.com).

The screenshot shows the 'Connect to instance' dialog for the Jenkins_Server instance. It starts with an 'Instance ID' field containing 'i-097d2fef27e295122 (Jenkins_Server)'. Below it is a 'Connection Type' section with two options: 'Connect using EC2 Instance Connect' (selected) and 'Connect using EC2 Instance Connect Endpoint'. The 'Connect using EC2 Instance Connect' option is described as connecting with a public IPv4 address. The 'Public IP address' field shows '13.233.28.252'. The 'Username' field contains 'ec2-user'. A note at the bottom states: 'Note: In most cases, the default username, ec2-user, is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.' At the bottom right are 'Cancel' and 'Connect' buttons.

Note: After successful connection with Virtual Machin, we can see below terminal

```
[ec2-user@ip-172-31-10-54 ~]$
```

Step -9: Update Packages using the command below.

```
$ sudo yum update
```

```
[ec2-user@ip-172-31-10-54 ~]$ sudo yum update
Last metadata expiration check: 0:04:39 ago on Sun Sep  8 07:41:30 2024.
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-10-54 ~]$
```

Step- 10: Check Java Version

```

Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023

[ec2-user@ip-172-31-10-54 ~]$ sudo yum update
Last metadata expiration check: 0:04:39 ago on Sun Sep  8 07:41:30 2024.
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-10-54 ~]$ java --version
-bash: java: command not found
[ec2-user@ip-172-31-10-54 ~]$

```

Step –11: Install Java using Below command we required jdk version 17

`sudo dnf install java-17-amazon-corretto -y`

```

java --version
-bash: java: command not found
[ec2-user@ip-172-31-10-54 ~]$ sudo dnf install java-17-amazon-corretto -y
Last metadata expiration check: 0:07:29 ago on Sun Sep  8 07:41:30 2024.
Dependencies resolved.

=====
Package           Architecture Version      Repository   Size
=====
Installing:
  java-17-amazon-corretto          x86_64    1:17.0.12+7-1.amzn2023.1  amazonlinux  187 k
Installing dependencies:
  alsalib                         x86_64    1.2.7.2-1.amzn2023.0.2    amazonlinux  504 k
  cairo                          x86_64    1.17.6-2.amzn2023.0.1    amazonlinux  684 k
  dejavu-sans-fonts               noarch   2.37-16.amzn2023.0.2    amazonlinux  1.3 M
  dejavu-sans-mono-fonts          noarch   2.37-16.amzn2023.0.2    amazonlinux  467 k
  dejavu-serif-fonts              noarch   2.37-16.amzn2023.0.2    amazonlinux  1.0 M
  fontconfig                      x86_64    2.13.94-2.amzn2023.0.2   amazonlinux  273 k
  fonts-filesystem                noarch   1:2.0.5-12.amzn2023.0.2  amazonlinux  9.5 k
  freetype                        x86_64    2.13.2-5.amzn2023.0.1   amazonlinux  423 k
  giflib                          x86_64    5.2.1-9.amzn2023.0.1    amazonlinux  49 k
  google-noto-fonts-common        noarch   20201206-2.amzn2023.0.2  amazonlinux  15 k
  google-noto-sans-vf-fonts       noarch   20201206-2.amzn2023.0.2  amazonlinux  492 k
  graphite2                       x86_64    1.3.14-7.amzn2023.0.2   amazonlinux  97 k
  harfbuzz                        x86_64    7.0.0-2.amzn2023.0.1    amazonlinux  868 k
  java-17-amazon-corretto-headless x86_64    1:17.0.12+7-1.amzn2023.1  amazonlinux  91 M
  javapackages-filesystem         noarch   6.0.0-7.amzn2023.0.6    amazonlinux  12 k
  langpacks-core-font-en          noarch   3.0.21.amzn2023.0.4     amazonlinux  10 k
  libICE                           x86_64    1.0.10-6.amzn2023.0.2   amazonlinux  71 k

=====

```

Step –12: Verify Java Version

```

Launch an instance | EC2 | ap-south-1 | EC2 Instance Connect | ap-south-1 | + | - | X | 
ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-097d2fef27e295122&osUser=ec2-user&region=ap... | 
Services | Search | [Alt+S] | 
Mumbai | Suraj Kadam | 
Verifying : xml-common-0.6.3-56.amzn2023.0.2.noarch
Installed:
alsa-lib-1.2.7.2-1.amzn2023.0.2.x86_64
dejavu-sans-fonts-2.37-16.amzn2023.0.2.noarch
dejavu-serif-fonts-2.37-16.amzn2023.0.2.noarch
fonts-fileref-1:0.5-12.amzn2023.0.2.noarch
giflib-5.2.1-9.amzn2023.0.1.x86_64
google-noto-sans-vf-fonts-20201206-2.amzn2023.0.2.noarch
harfbuzz-7.0.0-2.amzn2023.0.1.x86_64
java-17-amazon-corretto-headless-1:17.0.12+7-1.amzn2023.1.x86_64
langpacks-core-font-en-3.0-21.amzn2023.0.4.noarch
libSM-1.2.3-8.amzn2023.0.2.x86_64
libX11-common-1.7.2-3.amzn2023.0.4.noarch
libXext-1.3.4-6.amzn2023.0.2.x86_64
libXinerama-1.1.4-8.amzn2023.0.2.x86_64
libXrender-0.9.10-14.amzn2023.0.2.x86_64
libXtst-1.2.3-14.amzn2023.0.2.x86_64
libjpeg-turbo-2.1.4-2.amzn2023.0.5.x86_64
libxcb-1.13.1-7.amzn2023.0.2.x86_64
xml-common-0.6.3-56.amzn2023.0.2.noarch

cairo-1.17.6-2.amzn2023.0.1.x86_64
dejavu-sans-mono-fonts-2.37-16.amzn2023.0.2.noarch
fontconfig-2.13.94-2.amzn2023.0.2.x86_64
freetype-2.13.2-5.amzn2023.0.1.x86_64
google-noto-fonts-common-20201206-2.amzn2023.0.2.noarch
graphite2-1.3.14-7.amzn2023.0.2.x86_64
java-17-amazon-corretto-1:17.0.12+7-1.amzn2023.1.x86_64
javapackages-filesystem-6.0.0-7.amzn2023.0.6.noarch
libICE-1.0.10-6.amzn2023.0.2.x86_64
libJVM-1.7.0-10-6.amzn2023.0.2.x86_64
libX11-1.7.2-3.amzn2023.0.4.x86_64
libXau-1.0.9-6.amzn2023.0.2.x86_64
libXi-1.7.10-6.amzn2023.0.2.x86_64
libXrandr-1.5.2-6.amzn2023.0.2.x86_64
libXt-1.2.0-4.amzn2023.0.2.x86_64
libbrotli-1.0.9-4.amzn2023.0.2.x86_64
libpng-2:1.6.37-10.amzn2023.0.6.x86_64
pixman-0.40.0-3.amzn2023.0.3.x86_64

Complete!
[ec2-user@ip-172-31-10-54 ~]$ java --version
openjdk 17.0.12 2024-07-16 LTS
OpenJDK Runtime Environment Corretto-17.0.12.7.1 (build 17.0.12+7-LTS)
OpenJDK 64-Bit Server VM Corretto-17.0.12.7.1 (build 17.0.12+7-LTS, mixed mode, sharing)
[ec2-user@ip-172-31-10-54 ~]$ 
```

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Step- 13: Add Jenkins key to repository by executing below commands.

```

sudo wget -O /etc/yum.repos.d/jenkins.repo
https://pkg.jenkins.io/redhat/jenkins.repo

```

```

Launch an instance | EC2 | ap-south-1 | EC2 Instance Connect | ap-south-1 | + | - | X | 
ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-097d2fef27e295122&osUser=ec2-user&region=ap... | 
Services | Search | [Alt+S] | 
Mumbai | Suraj Kadam | 
libSM-1.2.3-8.amzn2023.0.2.x86_64
libX11-common-1.7.2-3.amzn2023.0.4.noarch
libXext-1.3.4-6.amzn2023.0.2.x86_64
libXinerama-1.1.4-8.amzn2023.0.2.x86_64
libXrender-0.9.10-14.amzn2023.0.2.x86_64
libXtst-1.2.3-14.amzn2023.0.2.x86_64
libjpeg-turbo-2.1.4-2.amzn2023.0.5.x86_64
libxcb-1.13.1-7.amzn2023.0.2.x86_64
xml-common-0.6.3-56.amzn2023.0.2.noarch

libX11-1.7.2-3.amzn2023.0.4.x86_64
libXau-1.0.9-6.amzn2023.0.2.x86_64
libXi-1.7.10-6.amzn2023.0.2.x86_64
libXrandr-1.5.2-6.amzn2023.0.2.x86_64
libXt-1.2.0-4.amzn2023.0.2.x86_64
libbrotli-1.0.9-4.amzn2023.0.2.x86_64
libpng-2:1.6.37-10.amzn2023.0.6.x86_64
pixman-0.40.0-3.amzn2023.0.3.x86_64

Complete!
[ec2-user@ip-172-31-10-54 ~]$ java --version
openjdk 17.0.12 2024-07-16 LTS
OpenJDK Runtime Environment Corretto-17.0.12.7.1 (build 17.0.12+7-LTS)
OpenJDK 64-Bit Server VM Corretto-17.0.12.7.1 (build 17.0.12+7-LTS, mixed mode, sharing)
[ec2-user@ip-172-31-10-54 ~]$ sudo wget -O /etc/yum.repos.d/jenkins.repo https://pkg.jenkins.io/redhat/jenkins.repo
--2024-09-08 07:51:59-- https://pkg.jenkins.io/redhat/jenkins.repo
Resolving pkg.jenkins.io (pkg.jenkins.io)... 151.101.154.133, 2a04:e42:24:::645
Connecting to pkg.jenkins.io (pkg.jenkins.io)|151.101.154.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 71
Saving to: '/etc/yum.repos.d/jenkins.repo'

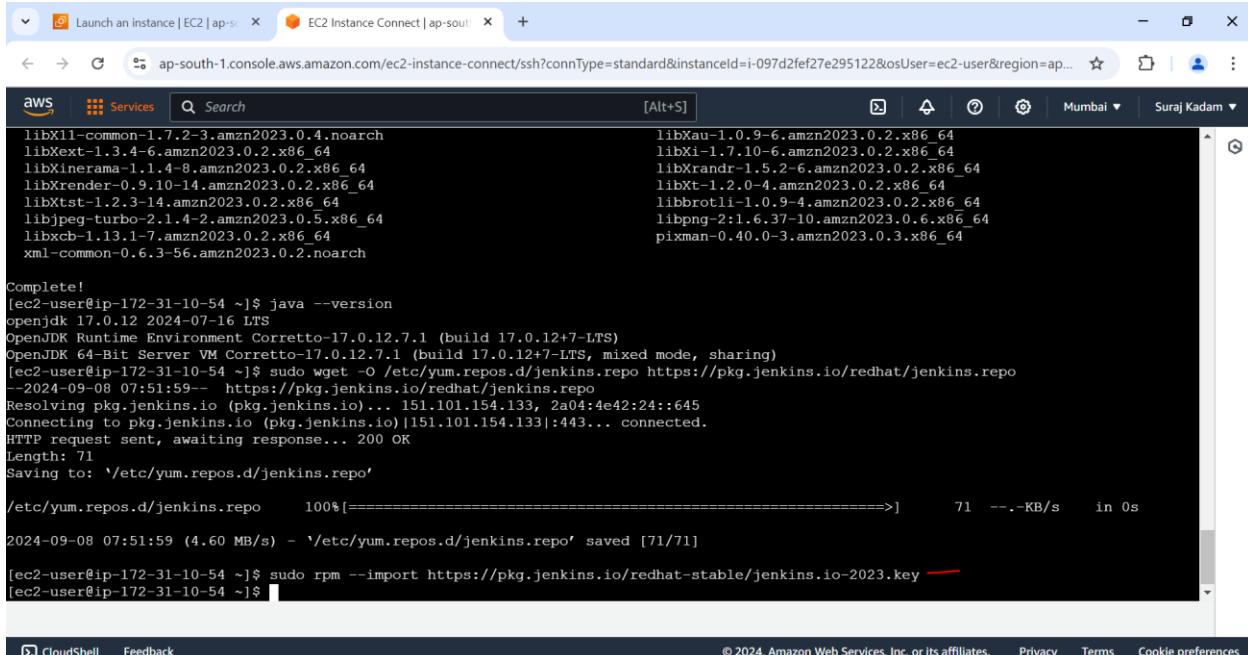
/etc/yum.repos.d/jenkins.repo    100%[=====] 71 --.-KB/s   in 0s

2024-09-08 07:51:59 (4.60 MB/s) - '/etc/yum.repos.d/jenkins.repo' saved [71/71]
[ec2-user@ip-172-31-10-54 ~]$ 
```

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Import a key file from Jenkins-CI to enable installation from the package

```
$ sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io-2023.key
```



```
Launch an instance | EC2 | ap-sou EC2 Instance Connect | ap-sout + - X
ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-097d2fef27e295122&osUser=ec2-user&region=ap... ☆ 📁 🌐 🌐 Mumbai ▾ Suraj Kadam ▾
aws Services Search [Alt+S] 🔍
libX11-common-1.7.2-3.amzn2023.0.4.noarch libXau-1.0.9-6.amzn2023.0.2.x86_64
libXext-1.3.4-6.amzn2023.0.2.x86_64 libXi-1.7.10-6.amzn2023.0.2.x86_64
libXinerama-1.1.4-8.amzn2023.0.2.x86_64 libXrandr-1.5.2-6.amzn2023.0.2.x86_64
libXtender-0.9.10-14.amzn2023.0.2.x86_64 libXt-1.2.0-4.amzn2023.0.2.x86_64
libXtst-1.2.3-14.amzn2023.0.2.x86_64 libbrotli-1.0.9-4.amzn2023.0.2.x86_64
libjpeg-turbo-2.1.4-2.amzn2023.0.5.x86_64 libpng-2:1.6.37-10.amzn2023.0.6.x86_64
libxcb-1.13.1-7.amzn2023.0.2.x86_64 pixman-0.40.0-3.amzn2023.0.3.x86_64
xml-common-0.6.3-56.amzn2023.0.2.noarch

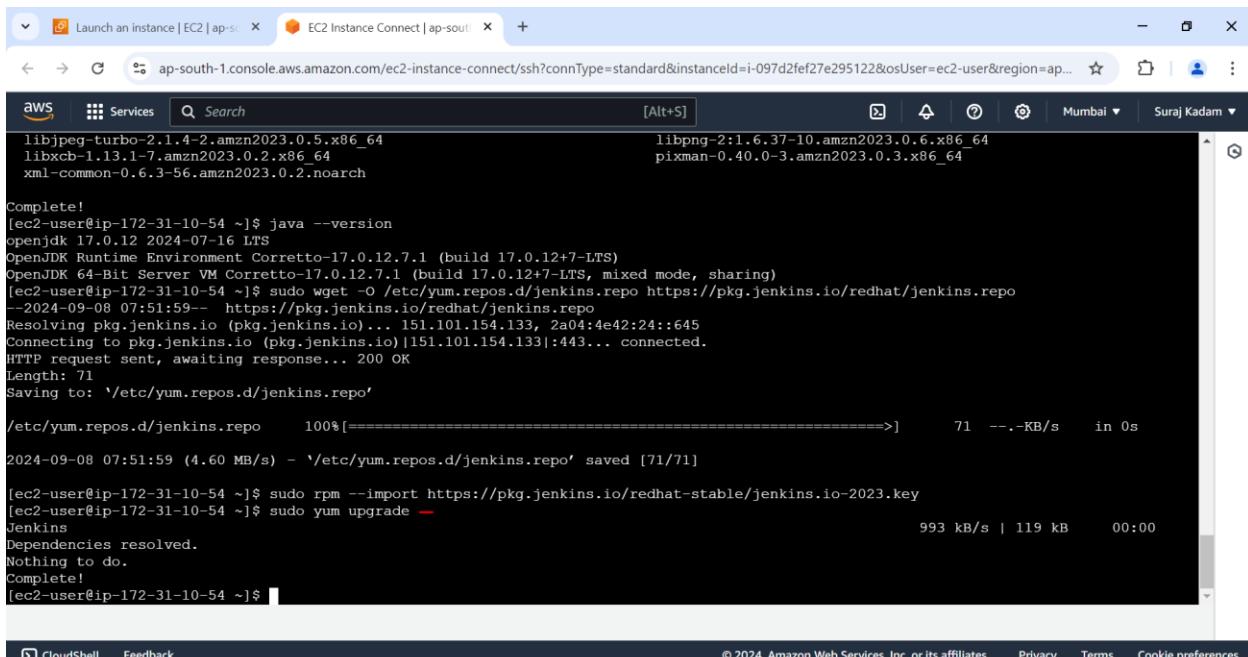
Complete!
[ec2-user@ip-172-31-10-54 ~]$ java --version
openjdk 17.0.12 2024-07-16 LTS
OpenJDK Runtime Environment Corretto-17.0.12.7.1 (build 17.0.12+7-LTS)
OpenJDK 64-Bit Server VM Corretto-17.0.12.7.1 (build 17.0.12+7-LTS, mixed mode, sharing)
[ec2-user@ip-172-31-10-54 ~]$ sudo wget -O /etc/yum.repos.d/jenkins.repo https://pkg.jenkins.io/redhat/jenkins.repo
--2024-09-08 07:51:59-- https://pkg.jenkins.io/redhat/jenkins.repo
Resolving pkg.jenkins.io (pkg.jenkins.io)... 151.101.154.133, 2a04:4e42:24::645
Connecting to pkg.jenkins.io (pkg.jenkins.io)|151.101.154.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 71
Saving to: '/etc/yum.repos.d/jenkins.repo'

/etc/yum.repos.d/jenkins.repo    100%[=====] 71  --.-KB/s   in 0s

2024-09-08 07:51:59 (4.60 MB/s) - '/etc/yum.repos.d/jenkins.repo' saved [71/71]

[ec2-user@ip-172-31-10-54 ~]$ sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io-2023.key
[ec2-user@ip-172-31-10-54 ~]$
```

```
$ sudo yum upgrade
```



```
Launch an instance | EC2 | ap-sou EC2 Instance Connect | ap-sout + - X
ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-097d2fef27e295122&osUser=ec2-user&region=ap... ☆ 📁 🌐 🌐 Mumbai ▾ Suraj Kadam ▾
aws Services Search [Alt+S] 🔍
libjpeg-turbo-2.1.4-2.amzn2023.0.5.x86_64 libpng-2:1.6.37-10.amzn2023.0.6.x86_64
libxcb-1.13.1-7.amzn2023.0.2.x86_64 pixman-0.40.0-3.amzn2023.0.3.x86_64
xml-common-0.6.3-56.amzn2023.0.2.noarch

Complete!
[ec2-user@ip-172-31-10-54 ~]$ java --version
openjdk 17.0.12 2024-07-16 LTS
OpenJDK Runtime Environment Corretto-17.0.12.7.1 (build 17.0.12+7-LTS)
OpenJDK 64-Bit Server VM Corretto-17.0.12.7.1 (build 17.0.12+7-LTS, mixed mode, sharing)
[ec2-user@ip-172-31-10-54 ~]$ sudo wget -O /etc/yum.repos.d/jenkins.repo https://pkg.jenkins.io/redhat/jenkins.repo
--2024-09-08 07:51:59-- https://pkg.jenkins.io/redhat/jenkins.repo
Resolving pkg.jenkins.io (pkg.jenkins.io)... 151.101.154.133, 2a04:4e42:24::645
Connecting to pkg.jenkins.io (pkg.jenkins.io)|151.101.154.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 71
Saving to: '/etc/yum.repos.d/jenkins.repo'

/etc/yum.repos.d/jenkins.repo    100%[=====] 71  --.-KB/s   in 0s

2024-09-08 07:51:59 (4.60 MB/s) - '/etc/yum.repos.d/jenkins.repo' saved [71/71]

[ec2-user@ip-172-31-10-54 ~]$ sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io-2023.key
[ec2-user@ip-172-31-10-54 ~]$ sudo yum upgrade
Jenkins
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-10-54 ~]$
```

Step – 14: Install Jenkins software using below command

```
$ sudo yum install jenkins -y
```

The screenshot shows a terminal window in the AWS CloudShell interface. The user has run the command `sudo yum install jenkins`. The output shows the package being installed from the `jenkins` repository. The transaction summary indicates one package is being installed, totaling 91 MB at 14 MB/s. The transaction check and test both succeed. Finally, the scriptlet for Jenkins is run.

```
Complete!
[ec2-user@ip-172-31-10-54 ~]$ sudo yum install jenkins --
Last metadata expiration check: 0:00:54 ago on Sun Sep 8 07:54:42 2024.
Dependencies resolved.

Transaction Summary
Install 1 Package

Total download size: 91 M
Installed size: 91 M
Is this ok [y/N]: y
Downloading Packages:
jenkins-2.475-1.1.noarch.rpm                                              14 MB/s | 91 MB   00:06

Total
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing :                                                 1/1
    Running scriptlet: jenkins-2.475-1.1.noarch
  Installing  : jenkins-2.475-1.1.noarch
  Running scriptlet: jenkins-2.475-1.1.noarch
  Verifying   : jenkins-2.475-1.1.noarch

Installed:
  jenkins-2.475-1.1.noarch

Complete!
```

Step- 15: Check the status of Jenkins server using below command

```
sudo systemctl status jenkins
```

The screenshot shows the status of the Jenkins service using the command `sudo systemctl status jenkins`. The output indicates that the Jenkins service is currently inactive (dead). It was loaded from the `/usr/lib/systemd/system/Jenkins.service` file and is set to start at boot.

```
Total download size: 91 M
Installed size: 91 M
Is this ok [y/N]: y
Downloading Packages:
jenkins-2.475-1.1.noarch.rpm                                              14 MB/s | 91 MB   00:06

Total
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing :                                                 1/1
    Running scriptlet: jenkins-2.475-1.1.noarch
  Installing  : jenkins-2.475-1.1.noarch
  Running scriptlet: jenkins-2.475-1.1.noarch
  Verifying   : jenkins-2.475-1.1.noarch

Installed:
  jenkins-2.475-1.1.noarch

Complete!
[ec2-user@ip-172-31-10-54 ~]$ sudo systemctl status jenkins --
● jenkins.service - Jenkins Continuous Integration Server
  Loaded: loaded (/usr/lib/systemd/system/Jenkins.service; disabled; preset: disabled)
    Active: inactive (dead)
      Docs: man:systemd-syscall.service(8)

[ec2-user@ip-172-31-10-54 ~]$
```

Step –16: Enable the Jenkins service to start at boot

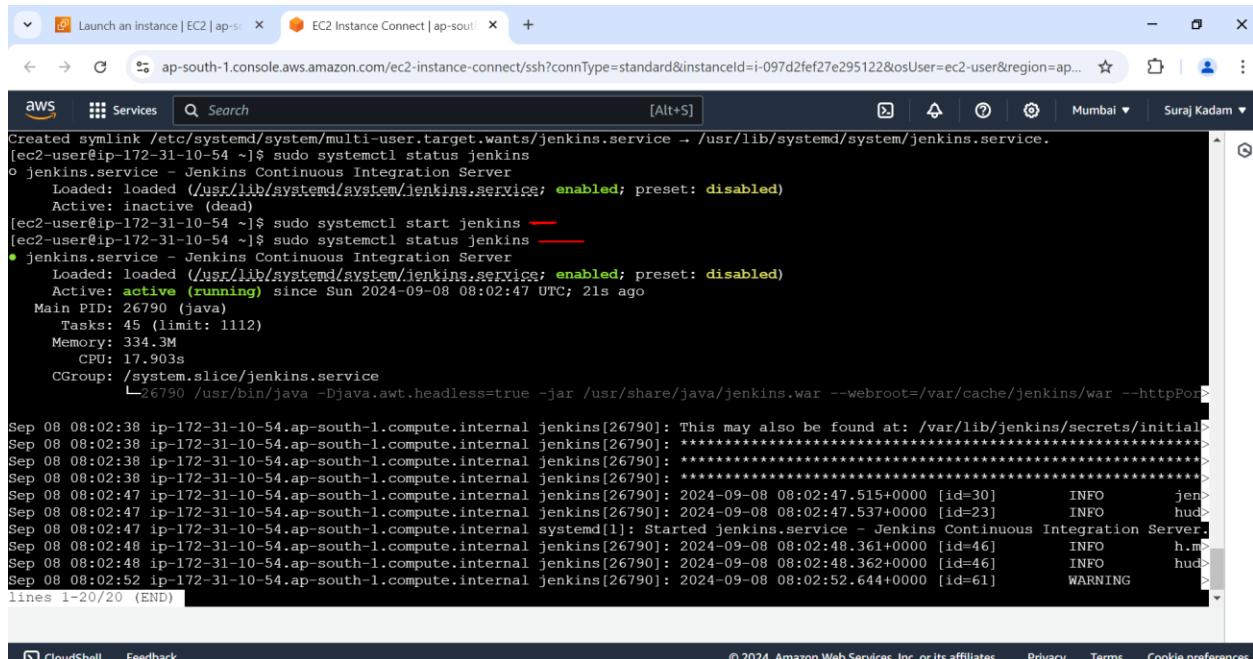
```
$ sudo systemctl enable jenkins
```

```
v Launch an instance | EC2 | ap-sou EC2 Instance Connect | ap-sout +  
← → C ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-097d2fef27e295122&osUser=ec2-user&region=ap... ☆ 🔍 🌐 🌐 Mumbai Suraj Kadam  
aws Services Search [Alt+S] 🔍 🌐 🌐 Mumbai Suraj Kadam  
Installed size: 91 M  
Is this ok [y/N]: y  
Downloading Packages:  
jenkins-2.475-1.1.noarch.rpm  
-----  
Total 14 MB/s | 91 MB 00:06  
Running transaction check  
Transaction check succeeded.  
Running transaction test  
Transaction test succeeded.  
Running transaction  
Preparing : 1/1  
Running scriptlet: jenkins-2.475-1.1.noarch 1/1  
Installing : jenkins-2.475-1.1.noarch 1/1  
Running scriptlet: jenkins-2.475-1.1.noarch 1/1  
Verifying : jenkins-2.475-1.1.noarch 1/1  
  
Installed:  
jenkins-2.475-1.1.noarch  
  
Complete!  
[ec2-user@ip-172-31-10-54 ~]$ sudo systemctl status jenkins  
● jenkins.service - Jenkins Continuous Integration Server  
   Loaded: loaded (/usr/lib/systemd/system/jenkins.service; disabled; preset: disabled)  
     Active: inactive (dead)  
[ec2-user@ip-172-31-10-54 ~]$ sudo systemctl enable jenkins  
Created symlink /etc/systemd/system/multi-user.target.wants/jenkins.service → /usr/lib/systemd/system/jenkins.service.  
[ec2-user@ip-172-31-10-54 ~]$
```

```
v Launch an instance | EC2 | ap-sou EC2 Instance Connect | ap-sout +  
← → C ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-097d2fef27e295122&osUser=ec2-user&region=ap... ☆ 🔍 🌐 🌐 Mumbai Suraj Kadam  
aws Services Search [Alt+S] 🔍 🌐 🌐 Mumbai Suraj Kadam  
Total 14 MB/s | 91 MB 00:06  
Running transaction check  
Transaction check succeeded.  
Running transaction test  
Transaction test succeeded.  
Running transaction  
Preparing : 1/1  
Running scriptlet: jenkins-2.475-1.1.noarch 1/1  
Installing : jenkins-2.475-1.1.noarch 1/1  
Running scriptlet: jenkins-2.475-1.1.noarch 1/1  
Verifying : jenkins-2.475-1.1.noarch 1/1  
  
Installed:  
jenkins-2.475-1.1.noarch  
  
Complete!  
[ec2-user@ip-172-31-10-54 ~]$ sudo systemctl status jenkins  
● jenkins.service - Jenkins Continuous Integration Server  
   Loaded: loaded (/usr/lib/systemd/system/jenkins.service; disabled; preset: disabled)  
     Active: inactive (dead)  
[ec2-user@ip-172-31-10-54 ~]$ sudo systemctl enable jenkins  
Created symlink /etc/systemd/system/multi-user.target.wants/jenkins.service → /usr/lib/systemd/system/jenkins.service.  
[ec2-user@ip-172-31-10-54 ~]$ sudo systemctl status jenkins  
● jenkins.service - Jenkins Continuous Integration Server  
   Loaded: loaded (/usr/lib/systemd/system/jenkins.service; enabled; preset: disabled)  
     Active: inactive (dead)  
[ec2-user@ip-172-31-10-54 ~]$
```

Step – 17: Start Jenkins as a service

```
$ sudo systemctl start jenkins
```



The screenshot shows the AWS CloudShell interface with two tabs open: "Launch an instance | EC2 | ap-south-1" and "EC2 Instance Connect | ap-south-1". The main terminal window displays the output of a command to start the Jenkins service on an EC2 instance. The logs show the Jenkins service being loaded and started successfully, with the status changing from "inactive (dead)" to "active (running)". The Jenkins service is running on port 22790.

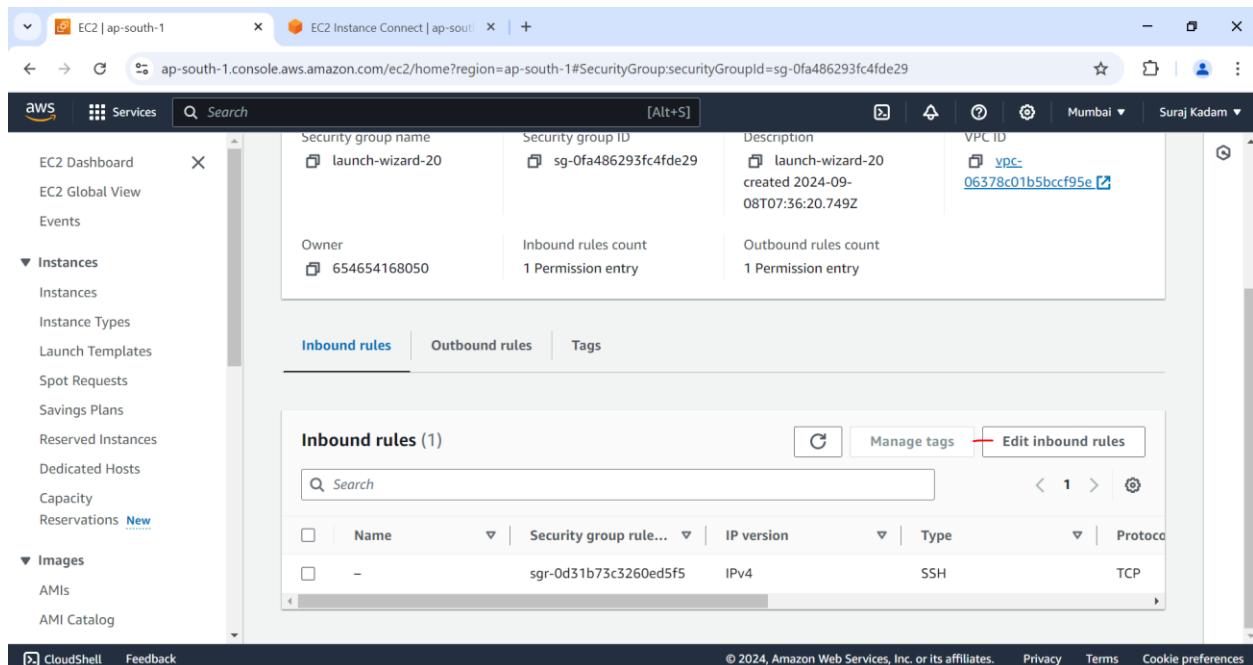
```

Created symlink /etc/systemd/system/multi-user.target.wants/jenkins.service → /usr/lib/systemd/system/jenkins.service.
[ec2-user@ip-172-31-10-54 ~]$ sudo systemctl status jenkins
● jenkins.service - Jenkins Continuous Integration Server
    Loaded: loaded (/usr/lib/systemd/system/jenkins.service; enabled; preset: disabled)
      Active: inactive (dead)
[ec2-user@ip-172-31-10-54 ~]$ sudo systemctl start jenkins
[ec2-user@ip-172-31-10-54 ~]$ sudo systemctl status jenkins
● jenkins.service - Jenkins Continuous Integration Server
    Loaded: loaded (/usr/lib/systemd/system/jenkins.service; enabled; preset: disabled)
      Active: active (running) since Sun 2024-09-08 08:02:47 UTC; 21s ago
        Main PID: 26790 (java)
           Tasks: 45 (limit: 1112)
          Memory: 334.3M
             CPU: 17.903s
            CGroup: /system.slice/jenkins.service
                   ↳ 26790 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=/var/cache/jenkins/war --httpPort=22790

Sep 08 08:02:38 ip-172-31-10-54.ap-south-1.compute.internal jenkins[26790]: This may also be found at: /var/lib/jenkins/secrets/initialAdminPassword
Sep 08 08:02:38 ip-172-31-10-54.ap-south-1.compute.internal jenkins[26790]: ****
Sep 08 08:02:47 ip-172-31-10-54.ap-south-1.compute.internal jenkins[26790]: 2024-09-08 08:02:47.515+0000 [id=30]      INFO  jen...
Sep 08 08:02:47 ip-172-31-10-54.ap-south-1.compute.internal jenkins[26790]: 2024-09-08 08:02:47.537+0000 [id=23]      INFO  hudson...
Sep 08 08:02:47 ip-172-31-10-54.ap-south-1.compute.internal systemd[1]: Started Jenkins.service - Jenkins Continuous Integration Server.
Sep 08 08:02:48 ip-172-31-10-54.ap-south-1.compute.internal jenkins[26790]: 2024-09-08 08:02:48.361+0000 [id=46]      INFO  hudson...
Sep 08 08:02:48 ip-172-31-10-54.ap-south-1.compute.internal jenkins[26790]: 2024-09-08 08:02:48.362+0000 [id=46]      INFO  hudson...
Sep 08 08:02:52 ip-172-31-10-54.ap-south-1.compute.internal jenkins[26790]: 2024-09-08 08:02:52.644+0000 [id=61]      WARNING

```

Step-18: Still, we are not able to access the service, so we must Open security group of our Jenkins VM



The screenshot shows the AWS EC2 Security Groups page for the Jenkins VM. It lists a single security group named "launch-wizard-20" with the ID "sg-0fa486293fc4fde29". The group has one inbound rule allowing SSH traffic (TCP port 22) from any IP address. The "Inbound rules" tab is selected.

Security group name	Security group ID	Description	VPC ID
launch-wizard-20	sg-0fa486293fc4fde29	launch-wizard-20 created 2024-09-08T07:36:20.749Z	VPC- 06378c01b5bccf95e

Owner	Inbound rules count	Outbound rules count
654654168050	1 Permission entry	1 Permission entry

Inbound rules (1)

Name	Security group rule...	IP version	Type	Protocol
-	sgr-0d31b73c3260ed5f5	IPv4	SSH	TCP

The screenshot shows the AWS EC2 Inbound Rules configuration page. A single rule is listed:

Security group rule ID	Type	Protocol	Port range	Source	Description - optional
sgr-0d31b73c3260ed5f5	SSH	TCP	22	Custom	Info

A warning message at the bottom states: "⚠️ Rules with source of 0.0.0.0/0 or ::/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only." There are buttons for "Add rule" and "Delete".

The screenshot shows the AWS EC2 Inbound Rules configuration page with two rules listed:

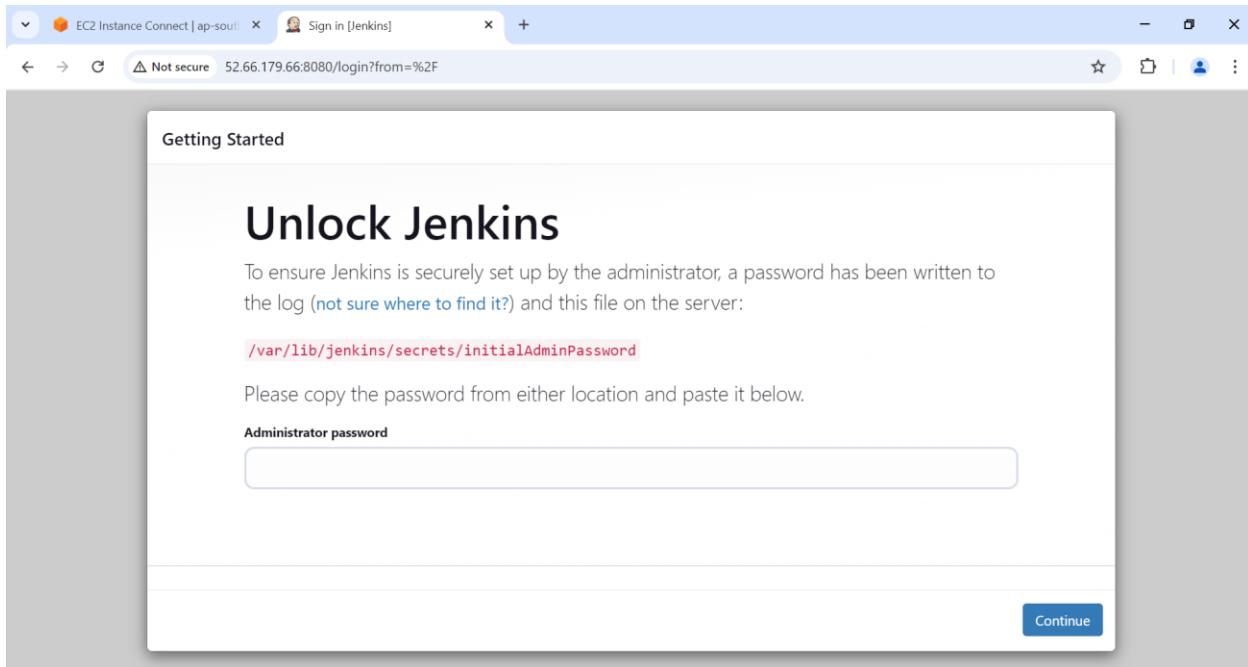
Security group rule ID	Type	Protocol	Port range	Source	Description - optional
sgr-0d31b73c3260ed5f5	SSH	TCP	22	Custom	Info
-	Custom TCP	TCP	8080	Any	Info

A warning message at the bottom states: "⚠️ Rules with source of 0.0.0.0/0 or ::/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only." There are buttons for "Add rule", "Delete", "Cancel", "Preview changes", and "Save rules".

Save rules

Step –19: To unlock Jenkins we need an admin password we can copy using the below command.

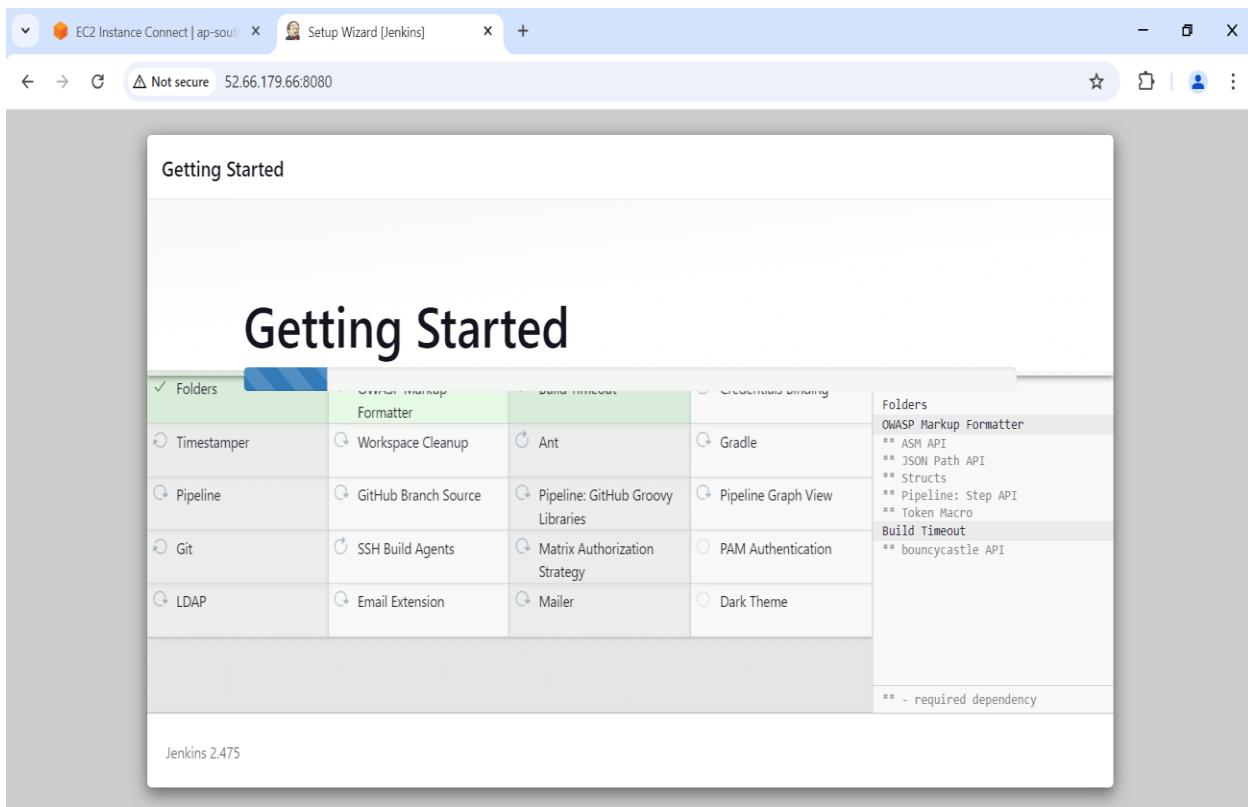
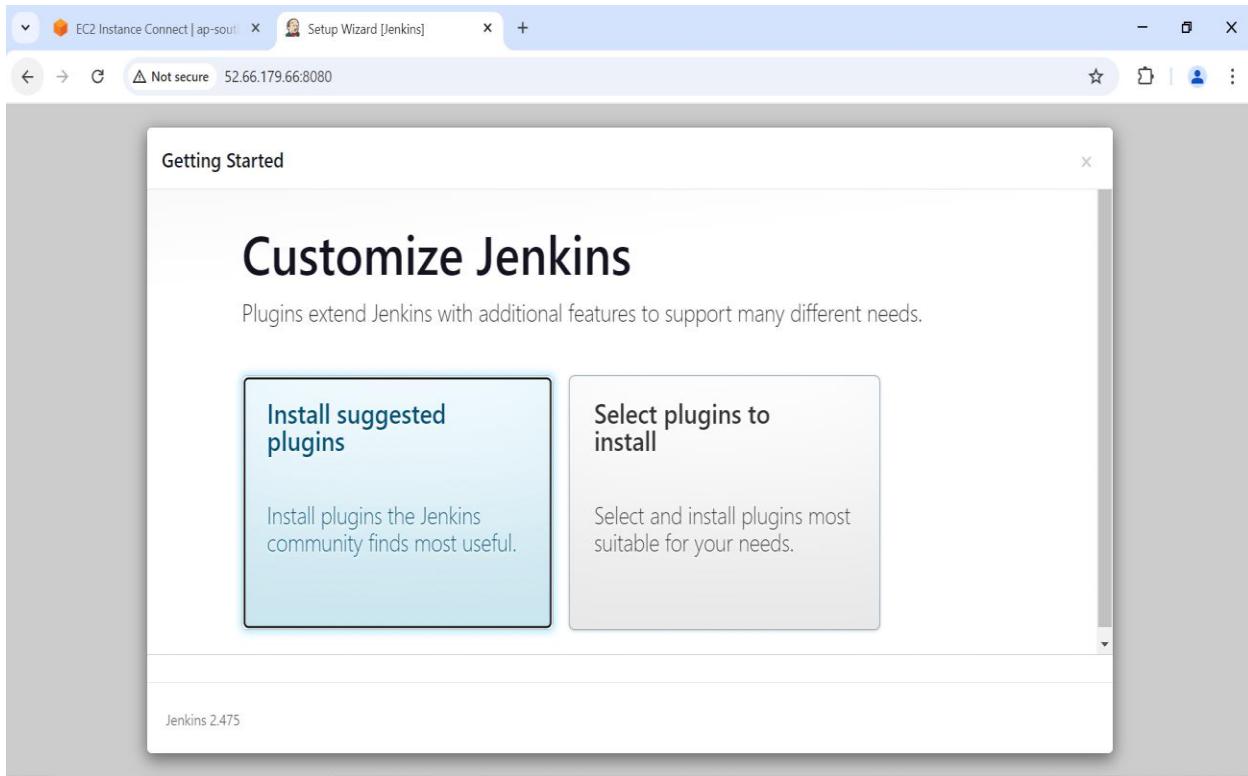
```
sudo cat /var/lib/jenkins/secrets/initialAdminPassword
```



```
Loaded: loaded (/usr/lib/systemd/system/jenkins.service; enabled; preset: disabled)
Active: inactive (dead)
[ec2-user@ip-172-31-10-54 ~]$ sudo systemctl start jenkins
[ec2-user@ip-172-31-10-54 ~]$ sudo systemctl status jenkins
● jenkins.service - Jenkins Continuous Integration Server
    Loaded: loaded (/usr/lib/systemd/system/jenkins.service; enabled; preset: disabled)
    Active: active (running) since Sun 2024-09-08 08:02:47 UTC; 21s ago
      Main PID: 26790 (java)
         Tasks: 45 (limit: 1112)
        Memory: 334.3M
          CPU: 17.903s
        CGroup: /system.slice/jenkins.service
               └─26790 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=/var/cache/jenkins/war --httpPort=8080

Sep 08 08:02:38 ip-172-31-10-54.ap-south-1.compute.internal jenkins[26790]: This may also be found at: /var/lib/jenkins/secrets/initialAdminPassword
Sep 08 08:02:38 ip-172-31-10-54.ap-south-1.compute.internal jenkins[26790]: ****
Sep 08 08:02:38 ip-172-31-10-54.ap-south-1.compute.internal jenkins[26790]: ****
Sep 08 08:02:38 ip-172-31-10-54.ap-south-1.compute.internal jenkins[26790]: ****
Sep 08 08:02:47 ip-172-31-10-54.ap-south-1.compute.internal jenkins[26790]: 2024-09-08 08:02:47.515+0000 [id=30]      INFO      jen>
Sep 08 08:02:47 ip-172-31-10-54.ap-south-1.compute.internal jenkins[26790]: 2024-09-08 08:02:47.537+0000 [id=23]      INFO      hud>
Sep 08 08:02:47 ip-172-31-10-54.ap-south-1.compute.internal systemd[1]: Started jenkins.service - Jenkins Continuous Integration Server.
Sep 08 08:02:48 ip-172-31-10-54.ap-south-1.compute.internal jenkins[26790]: 2024-09-08 08:02:48.361+0000 [id=46]      INFO      h.m>
Sep 08 08:02:48 ip-172-31-10-54.ap-south-1.compute.internal jenkins[26790]: 2024-09-08 08:02:48.362+0000 [id=46]      INFO      hud>
Sep 08 08:02:52 ip-172-31-10-54.ap-south-1.compute.internal jenkins[26790]: 2024-09-08 08:02:52.644+0000 [id=61]      WARNING 
lines 1-20/20 (END)
[ec2-user@ip-172-31-10-54 ~]$ sudo cat /var/lib/jenkins/secrets/initialAdminPassword -
6831fe436db940f7aa46f02a499d4e3a
[ec2-user@ip-172-31-10-54 ~]$
```

Step- 20: Click on install suggested plugins



Step – 21: Create admin User Account

EC2 Instance Connect | ap-southeast-1 | Setup Wizard [Jenkins]

Not secure 52.66.179.66:8080

Getting Started

Create First Admin User

Username

Password

Confirm password

Jenkins 2.475

[Skip and continue as admin](#)[Save and Continue](#)

EC2 Instance Connect | ap-southeast-1 | Setup Wizard [Jenkins]

Not secure 52.66.179.66:8080

Getting Started

Instance Configuration

Jenkins URL:

The Jenkins URL is used to provide the root URL for absolute links to various Jenkins resources. That means this value is required for proper operation of many Jenkins features including email notifications, PR status updates, and the `BUILD_URL` environment variable provided to build steps.

The proposed default value shown is **not saved yet** and is generated from the current request, if possible. The best practice is to set this value to the URL that users are expected to use. This will avoid confusion when sharing or viewing links.

Jenkins 2.475

[Not now](#) [Save and Finish](#)

EC2 Instance Connect | ap-sou... X Dashboard [Jenkins] X +

← → G Not secure 52.66.179.66:8080

 Jenkins

Search (CTRL+K) ? 🔔 1 ⚡ 1 Admin log out

Dashboard >

+ New Item

Build History

Manage Jenkins

My Views

Add description

Welcome to Jenkins!

This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.

Start building your software project

Build Queue

No builds in the queue.

Build Executor Status 0/2

 Built-In Node  offline

Create a job +

Set up a distributed build

Set up an agent

Configure a cloud

Learn more about distributed builds ?

