



CONFIGUARE JENKINS THROUGH AWS EC2 INSTANCE

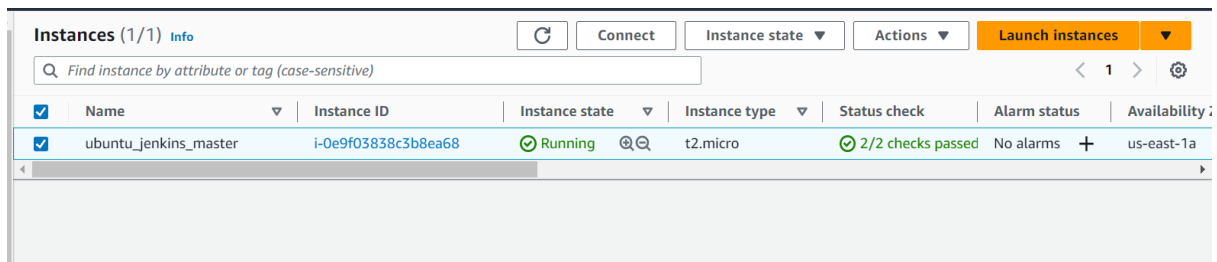
Devops Tools

Kaushik Dey

Configure Jenkins with ec2 Instance. – (Configure in Master system)

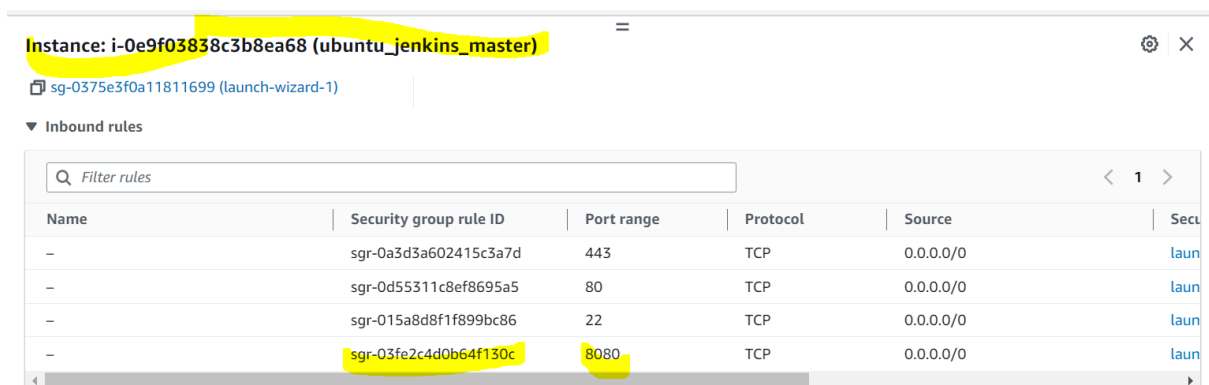
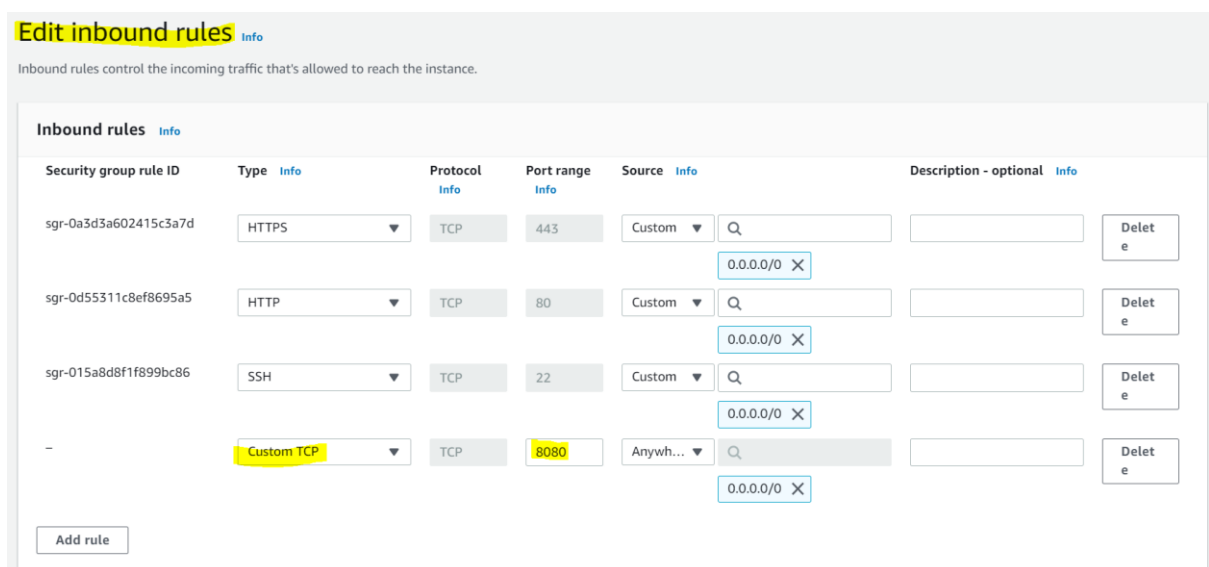
Step 1:

Ec2 instance we must create in AWS environment. In this case we are using Ubuntu, the screenshot is given below.



Step 2:

We must update the security group.



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Step 3:

Now connecting the ubuntu server via pem file, the screenshot is given below.

The screenshot shows the AWS Management Console interface. At the top, there's a header for 'Instances (1/1) Info'. Below it, a search bar and filters are visible. A table lists the instance 'ubuntu_jenkins_master' with ID 'i-Oe9f03838c3b8ea68', state 'Running', type 't2.micro', and status '2/2 checks passed'. Below the table, the 'Inbound rules' section is expanded, showing a table of security group rules. The rules table has columns: Name, Security group rule ID, Port range, Protocol, Source, and Security. It lists four rules for ports 443, 80, 22, and 8080, all using TCP protocol and allowing access from 0.0.0.0/0.

Name	Security group rule ID	Port range	Protocol	Source	Security
-	sgr-0a3d3a602415c3a7d	443	TCP	0.0.0.0/0	laun
-	sgr-0d55311c8ef8695a5	80	TCP	0.0.0.0/0	laun
-	sgr-015a8d8f1f899bc86	22	TCP	0.0.0.0/0	laun
-	sgr-03fe2c4d0b64f130c	8080	TCP	0.0.0.0/0	laun

Step 4 :

Now we can connect with SSH client.

The screenshot shows the 'Connect to instance' page in the AWS console. It provides instructions for connecting to the instance 'i-Oe9f03838c3b8ea68 (ubuntu_jenkins_master)' using the SSH client. The steps are: 1. Open an SSH client. 2. Locate your private key file. 3. Run the command 'chmod 400 ubuntu_jenkins_key.pem'. 4. Connect to the instance using its Public DNS: 'ec2-44-202-104-84.compute-1.amazonaws.com'. An example command is provided: 'ssh -i "ubuntu_jenkins_key.pem" ubuntu@ec2-44-202-104-84.compute-1.amazonaws.com'. A note states: 'Note: In most cases, the guessed user name is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI user name.'

Step 5 :

Now the machine is connected, the screenshot is given below.

The screenshot shows a terminal window with the prompt 'ubuntu@ip-172-31-92-157: ~'. The user has entered the command 'ssh -i "ubuntu_jenkins_key.pem" ubuntu@ec2-44-202-104-84.compute-1.amazonaws.com', and the prompt has changed to 'ubuntu@ip-172-31-92-157:~\$', indicating a successful connection.

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Step 6 : (very important step and crucial path)

Now we can perform some action. First install some prerequisite.

- 1) Sudo su.
- 2) `sudo apt-get update -y | sudo apt update -y`
for update the ubuntu very first time.
- 3) `sudo apt install openjdk-11-jre -y`
Need to install java for Jenkins installation.
- 4) `java -version`
check java is installed or not.
- 5) `curl -fsSL https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee \`
`/usr/share/keyrings/jenkins-keyring.asc > /dev/null`
- 6) `echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] \`
`https://pkg.jenkins.io/debian-stable binary/ | sudo tee \`
`/etc/apt/sources.list.d/jenkins.list > /dev/null`
- 7) `sudo apt-get update`
- 8) `sudo apt-get install jenkins`
- 9) `jenkins -version`
- 10) `systemctl start jenkins`
- 11) `Systemctl status jenkins`
- 12) `Systemctl enable jenkins`

we can also find this installation commands in following official website.

<https://www.jenkins.io/doc/book/installing/linux/#debianubuntu>

Step 7: with help of ec2 instance path and the port 8080 (jenkins by default port) we are successfully installed jenkins, the screen-shot is given below.



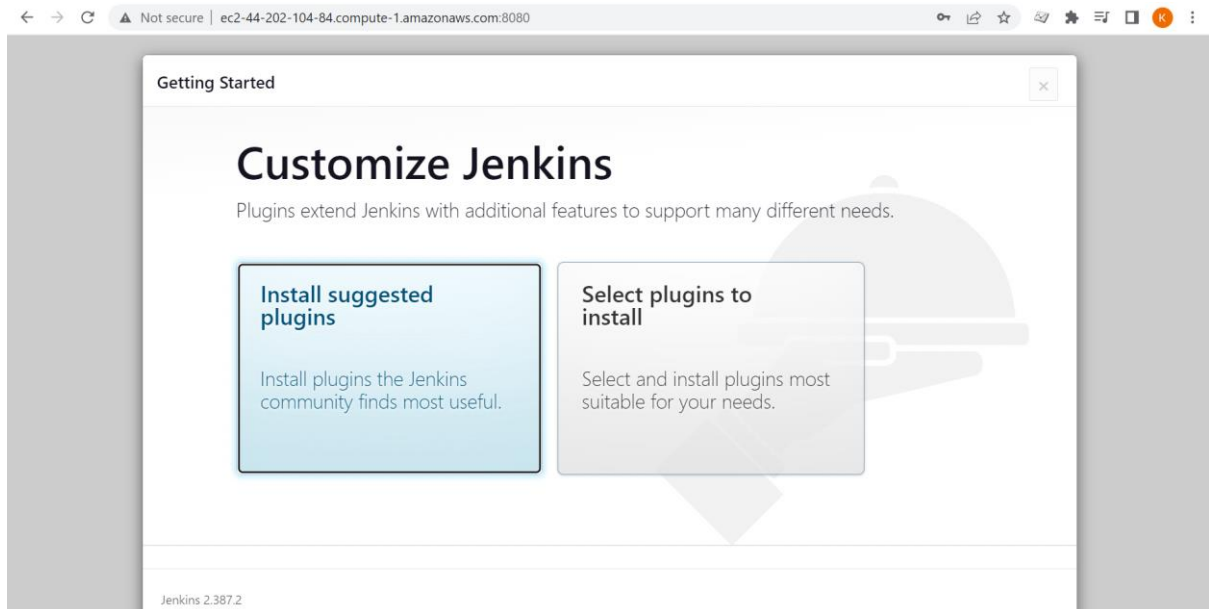
Step 8: now we have to provide the Administrator password and then jenkins UI will be showing.

1. Go to the `/var/lib/jenkins/secrets/initialAdminPassword`

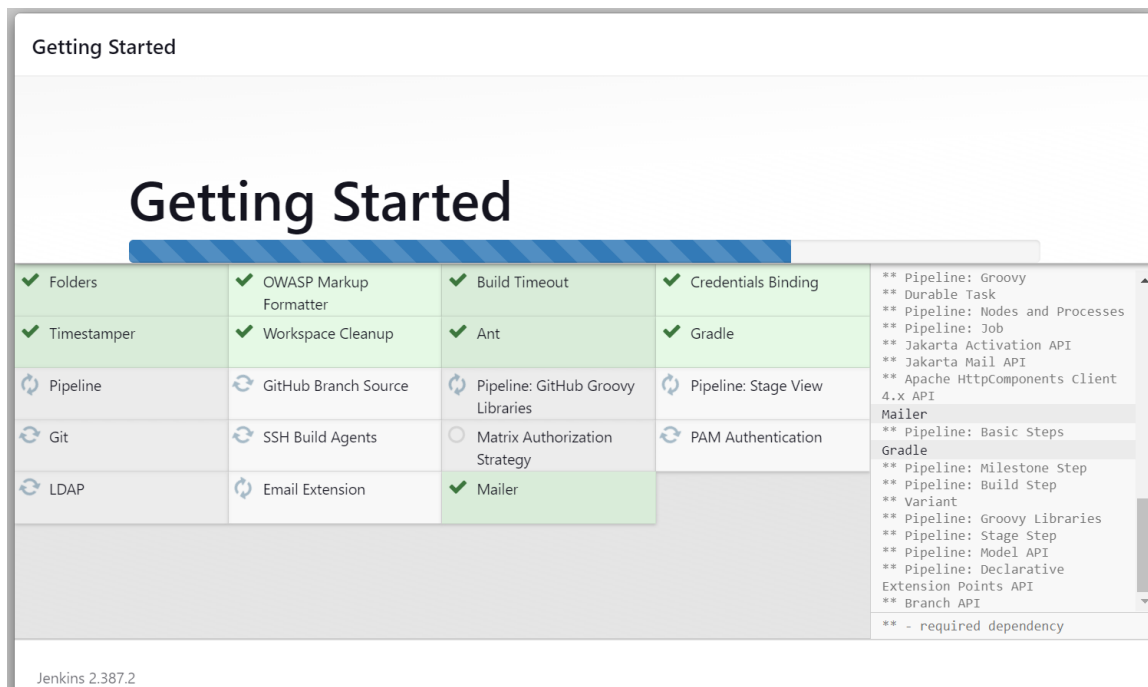
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2. The default path of jenkins : `cd /var/lib/jenkins`
3. Password is : **74a93a18e0b7419198f2524ce1ee2c3e**
(password we can get it from secrets folder)

Step 9 : we have to installed suggested plugins , the screenshot is given below.



Step 10 : plugins are installing, just check in your console, the screenshot is given below.



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```
root@ip-172-31-92-157: /var/lib/jenkins/plugins
antisamy-markup-formatter      instance-identity.jpi      script-security.jpi
antisamy-markup-formatter.jpi  icons-api                 snakeyaml-api
bootstrap5-api                icons-api.jpi             snakeyaml-api.jpi
bootstrap5-api.jpi            jackson2-api              ssh-credentials
bouncycastle-api              jackson2-api.jpi          ssh-credentials.jpi
bouncycastle-api.jpi          javax-activation-api       sshd
build-timeout                  javax-activation-api.jpi   sshd.jpi
build-timeout.jpi             javax-mail-api             structs
caffeine-api                   javax-mail-api.jpi         structs.jpi
caffeine-api.jpi              jaxb                       timestamper
cloudbees-folder              jaxb.jpi                  timestamper.jpi
cloudbees-folder.jpi          jquery3-api.jpi.tmp        token-macro
commons-lang3-api             mina-sshd-api-common       token-macro.jpi
commons-lang3-api.jpi         mina-sshd-api-common.jpi   trilead-api
commons-text-api              mina-sshd-api-core         trilead-api.jpi
commons-text-api.jpi          mina-sshd-api-core.jpi    workflow-api
credentials                    plain-credentials          workflow-api.jpi
credentials-binding            plain-credentials.jpi      workflow-step-api
credentials-binding.jpi        plugin-util-api            workflow-step-api.jpi
credentials.jpi                plugin-util-api.jpi        workflow-support
font-awesome-api              scm-api                    workflow-support.jpi
font-awesome-api.jpi          scm-api.jpi                script-security
```

Step 11: now we have to create our admin user , (this user is treated as admin user)

UserName : Kaushikbhai

Password : Ishan@900

confirmPassword : Ishan@900

Getting Started

Create First Admin User

Username

kaushikbhai

Password

.....

Confirm password

.....

Full name

Jenkins 2.387.2

[Skip and continue as admin](#)

[Save and Continue](#)

Configure Jenkins with ec2 Instance. – (Configure in Master system)

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 2.387.2 Not now Save and Finish

We should not save and finish as of this demo, because we are not using static or elastic Ip, so every time ec2 ip is refreshed, so as of now recommended is Not Now.

Step 12 : Now we can successfully installed jenkins in ec2 system. The screenshot is given below.

Getting Started

Jenkins is ready!

You have skipped the configuration of the Jenkins URL.

To configure the Jenkins URL, go to "Manage Jenkins" page.

Your Jenkins setup is complete.

Start using Jenkins

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Step 13 : now we can see the jenkins dashboard

