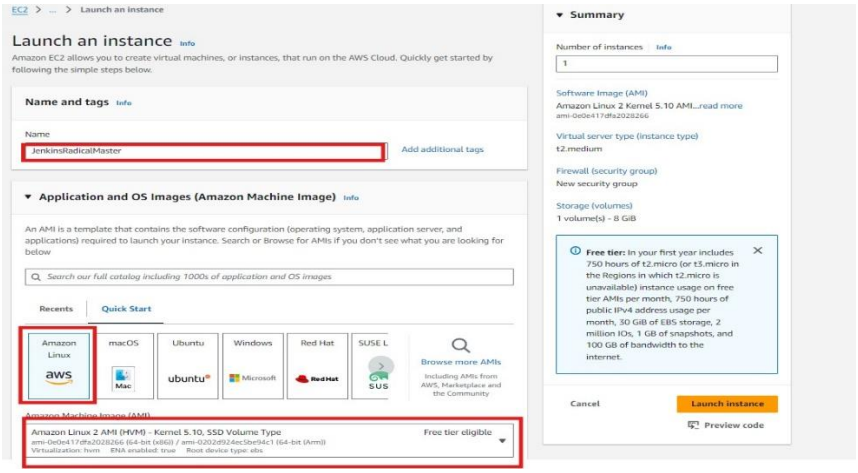
Jenkins Installation on AWS EC2 Instance

(Part 1)

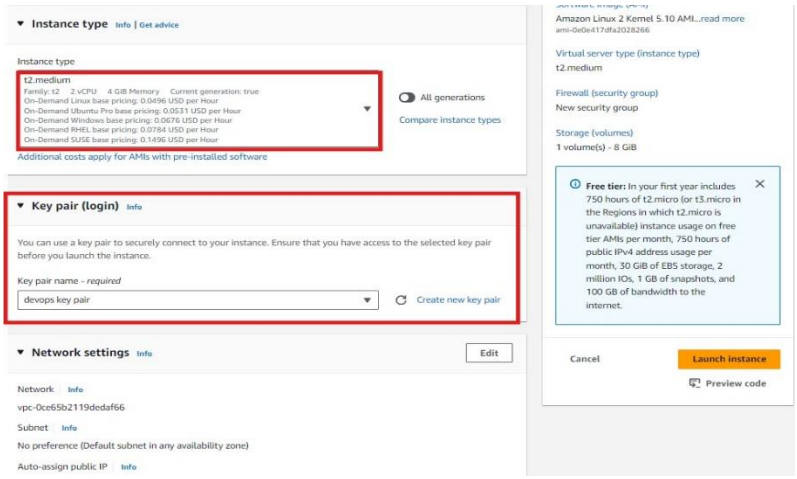
1. Create an EC2 Instance:

- Name the instance "JenkinsMaster".
- Set the Amazon Machine Image (AMI) to Amazon Linux 2 AMI.



2. Configure Instance Type:

- Choose t2.medium as the instance type for better performance.
- Use the default key pair for authentication.



3. Launch the Instance:

- After clicking Launch Instance, wait until the instance status shows Running.

4. Edit Security Group Inbound Rules:

- Go to the Security tab and open the Security Group link in a new tab.

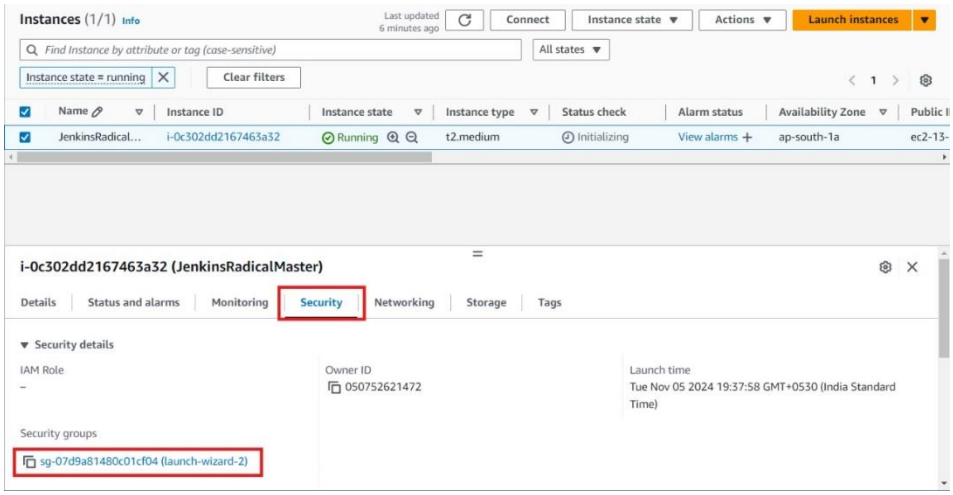
- Click on Edit inbound rules.

- Add a new rule:

  - Port Range: 8080

  - Source: Anywhere (IPv4)

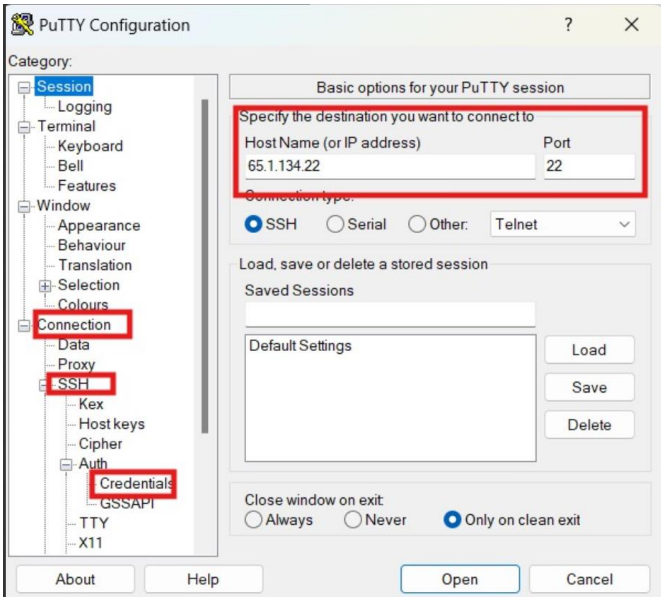
- Click Save changes.



5. Connect to the Instance via PuTTY:

- Open PuTTY and paste the Public IP Address of the EC2 instance.

- Navigate to Connection → SSH → Auth → Credentials, and add the default private key.



6. Log in to the Instance:

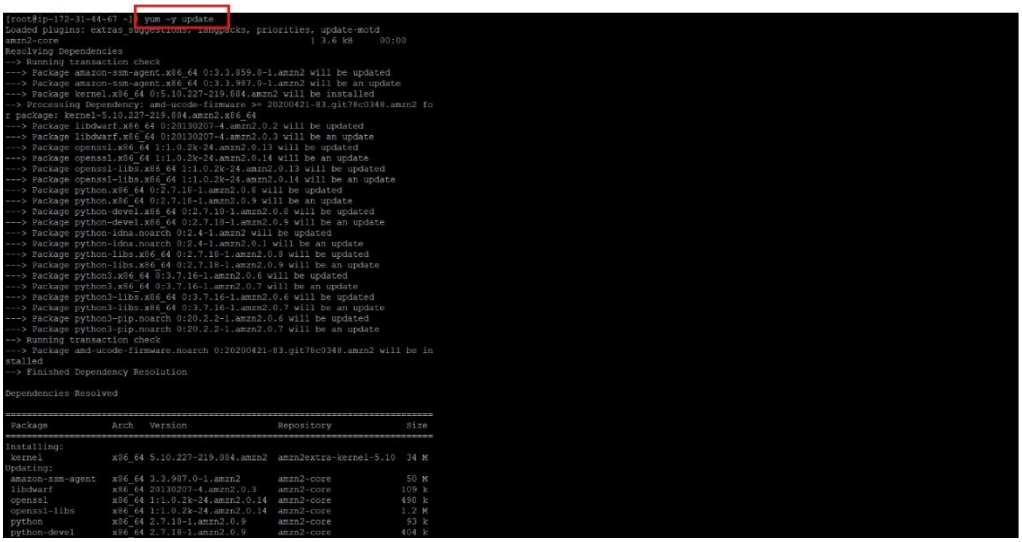
- Log in as `ec2-user`:

- Switch to superuser:

  sudo su -

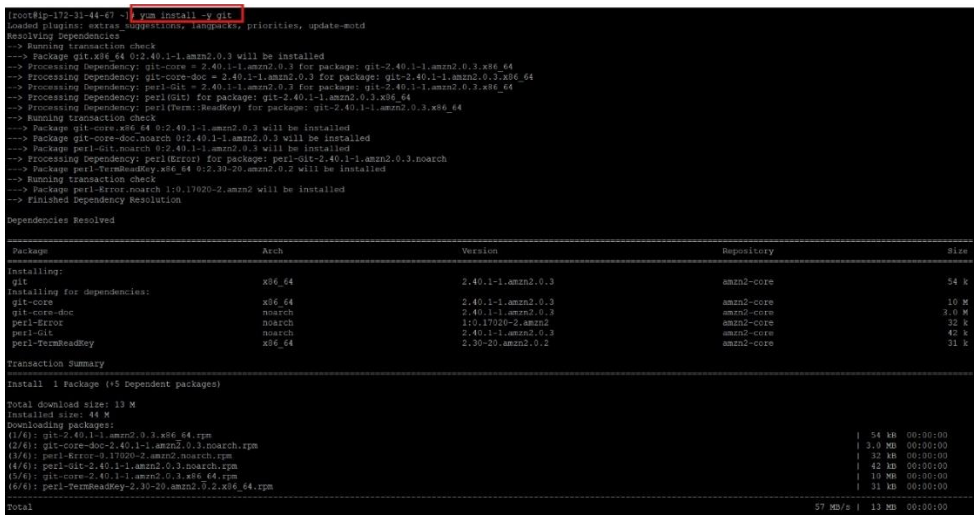
7. Update YUM Package Manager:

yum -y update



8. Install Git:

yum install -y git



9. Install Java:

yum install -y java-17-amazon-corretto

yum install -y java-17-amazon-corretto-devel

10. Install Maven:

- Download and extract Maven:

cd /opt

sudo wget https://dlcdn.apache.org/maven/maven-3/3.9.4/binaries/apache-maven-3.9.4-bin.tar.gz

sudo tar xvf apache-maven-3.9.4-bin.tar.gz

- Set up environment variables:

echo "export M2_HOME=/opt/apache-maven-3.9.4" >> ~/.bash_profile

echo "export M2=$M2_HOME/bin" >> ~/.bash_profile

echo "export PATH=$M2:$PATH" >> ~/.bash_profile

source ~/.bash_profile

echo $M2_HOME

11. Verify Installations:

- Check versions:

git --version

java --version

/opt/apache-maven-3.9.4/bin/mvn –version

12. Add Jenkins Repository and Key:

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

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

13. Install Jenkins and Dependencies:

sudo yum upgrade

sudo yum install fontconfig -y java-17-openjdk

sudo yum install -y Jenkins

14. Start Jenkins and Enable at Boot:

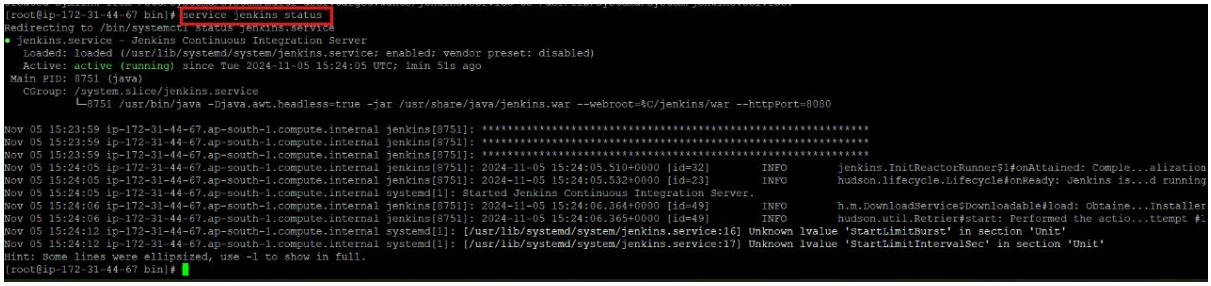
sudo systemctl daemon-reload

service jenkins start

chkconfig jenkins on

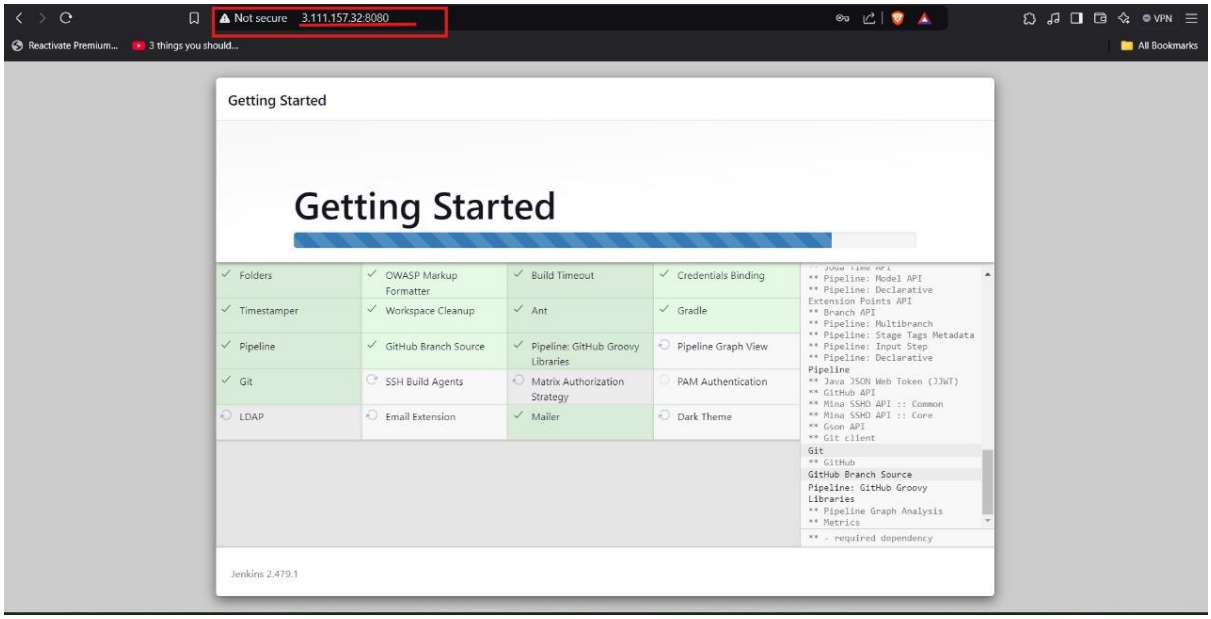
15. Check Jenkins Status:

service jenkins status



16. Access Jenkins Web Interface:

- Copy the Public IP address of the EC2 instance and open it in your browser, appending :8080 (e.g., `http://<your-ip>:8080`).



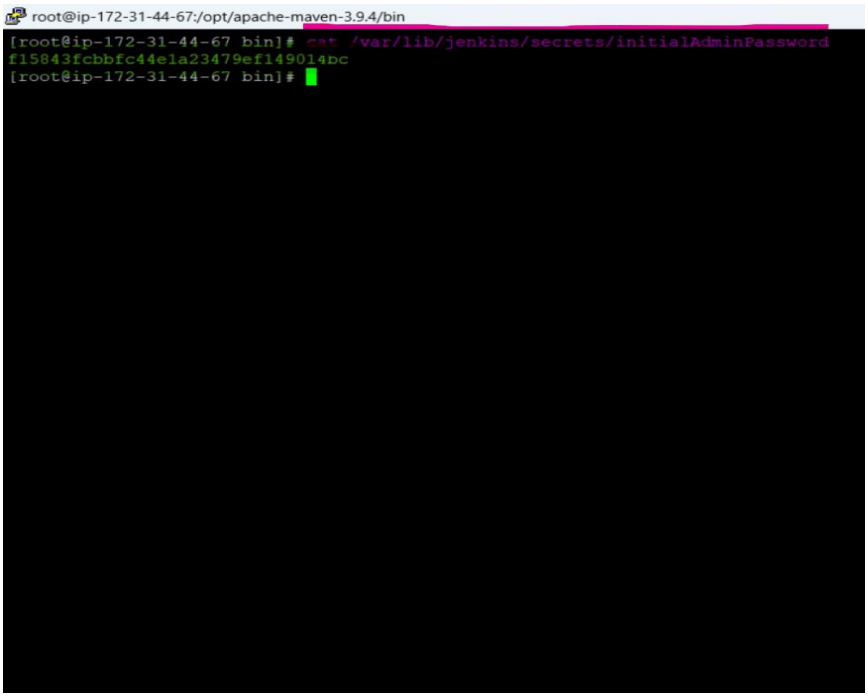
17. Unlock Jenkins:

- Copy the file path for the initial password provided by Jenkins.

- In PuTTY, view the password:

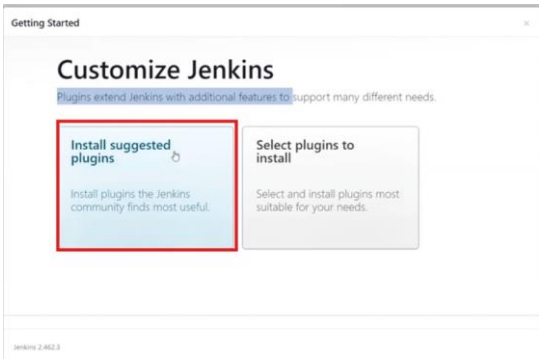
cat /var/lib/jenkins/secrets/initialAdminPassword

- Copy the password, paste it into the Jenkins unlock screen, and proceed.



18. Install Plugins:

- Select Install suggested plugins.



19. Set Up Admin User:

- Fill in the details:
  - Username: jenkinsmaster
  - Password: jenkinsmaster
  - Full Name: jenkinsmaster
  - Email: jenkinsmaster@gmail.com
- Click Save and Finish

20. Complete Installation:

- Once done, Jenkins is set up and ready to use.