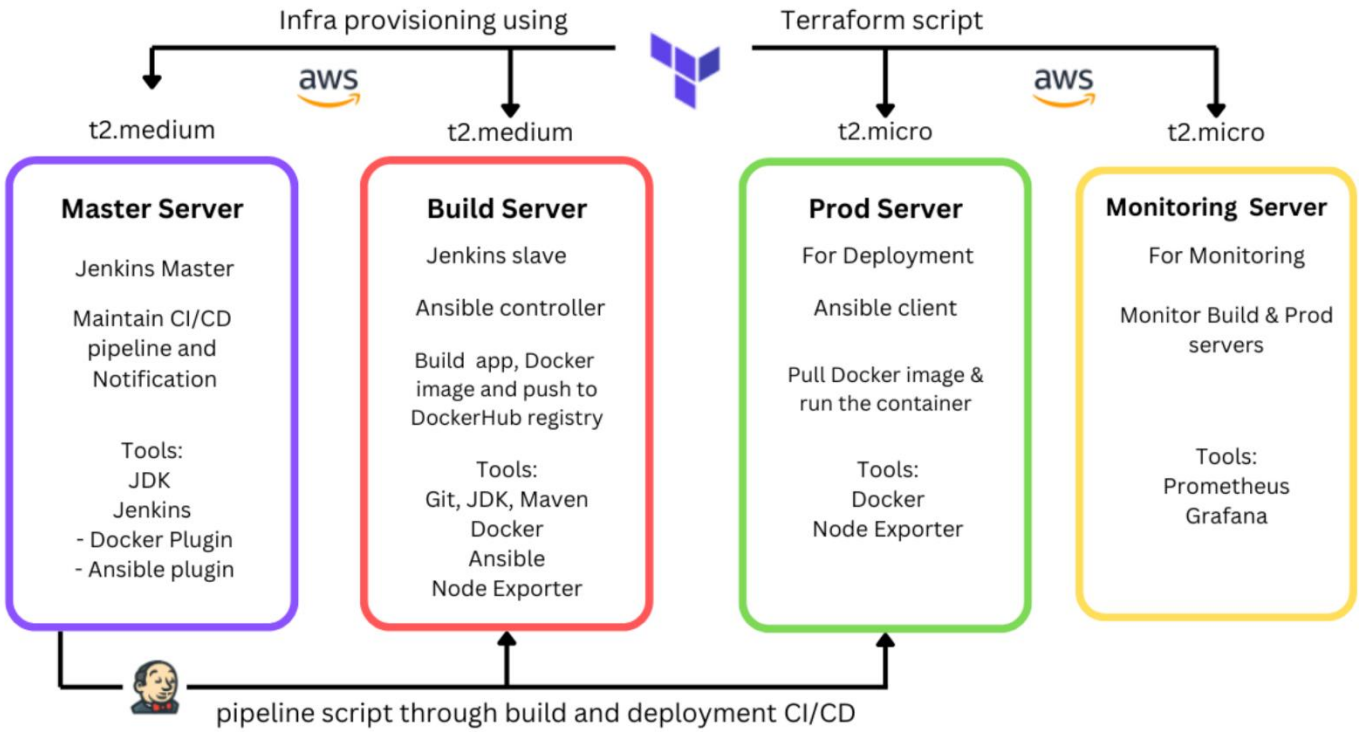
Live industry capstone DevOps Project 01

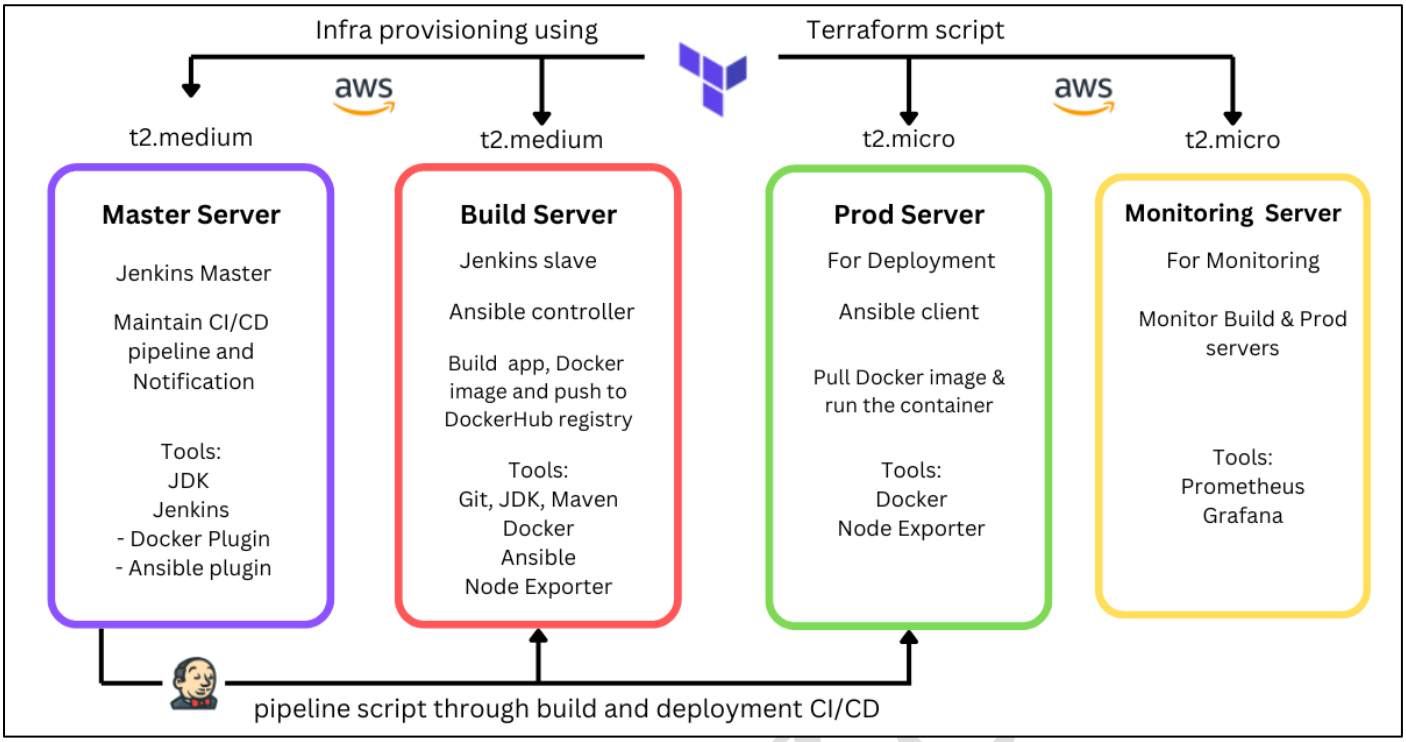
FinanceMe: Java Maven project

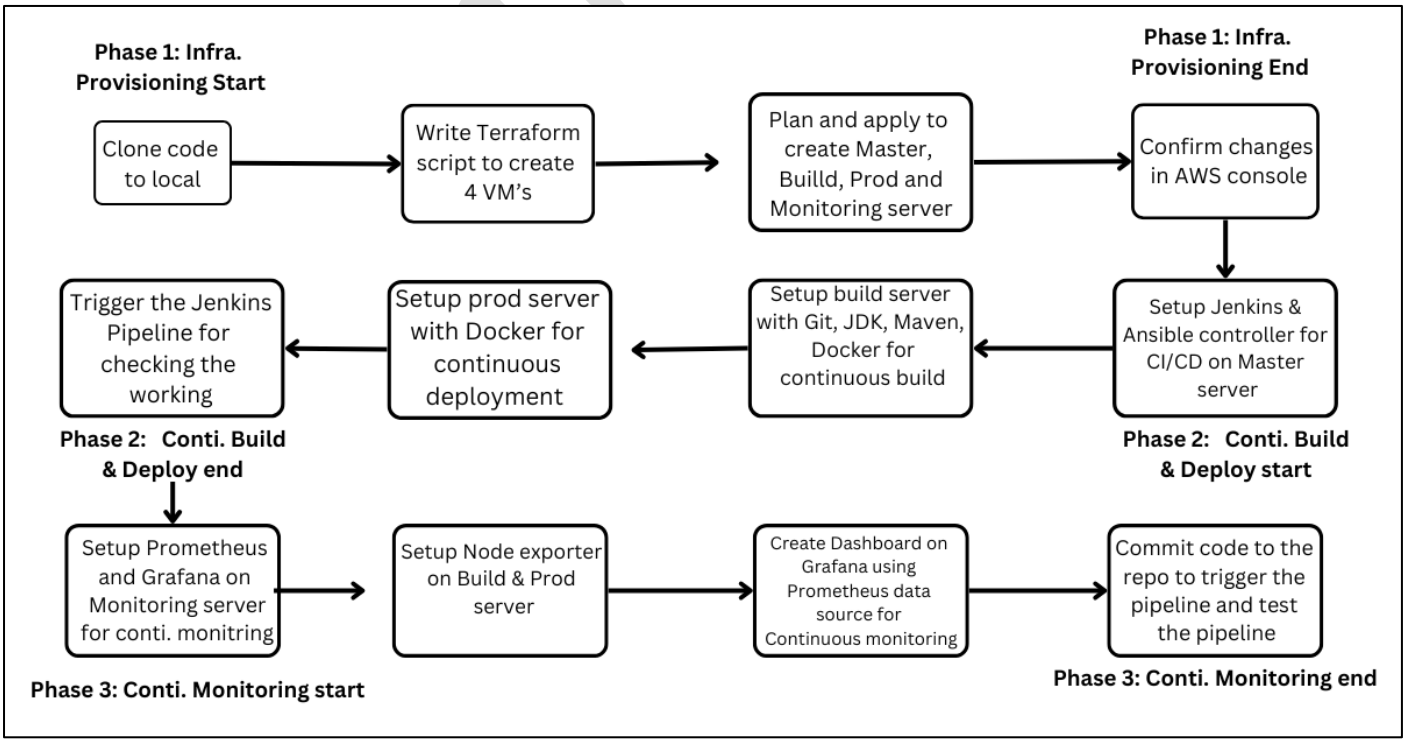
 # Banking & Finance domain #

DevOps Masterclass by Abhijit Zende



https://github.com/Abhiz2411/FinanceMe-Devops-Project-01/


Infra provisioning using
Terraform script
aws
aws
t2.medium
t2.medium
t2.micro
t2.micro
Master Server
Jenkins Master
Maintain CI/CD pipeline and Notification
Tools:
JDK
Jenkins
- Docker Plugin
- Ansible plugin
Build Server
Jenkins slave
Ansible controller
Build app, Docker image and push to DockerHub registry
Tools:
Git, JDK, Maven
Docker
Ansible
Node Exporter
Prod Server
For Deployment
Ansible client
Pull Docker image & run the container
Tools:
Docker
Node Exporter
Monitoring Server
For Monitoring
Monitor Build & Prod servers
Tools:
Prometheus
Grafana
pipeline script through build and deployment CI/CD


Phase 1: Infra. Provisioning Start
Clone code to local
Write Terraform script to create 4 VM's
Plan and apply to create Master, Builld, Prod and Monitoring server
Phase 1: Infra. Provisioning End
Confirm changes in AWS console
Setup Jenkins & Ansible controller for CI/CD on Master server
Phase 2: Conti. Build & Deploy start
Setup build server with Git, JDK, Maven, Docker for continuous build
Setup prod server with Docker for continuous deployment
Trigger the Jenkins Pipeline for checking the working
Phase 2: Conti. Build & Deploy end
Setup Prometheus and Grafana on Monitoring server for conti. monitring
Phase 3: Conti. Monitoring start
Setup Node exporter on Build & Prod server
Create Dashboard on Grafana using Prometheus data source for Continuous monitoring
Commit code to the repo to trigger the pipeline and test the pipeline
Phase 3: Conti. Monitoring end

Capstone Project: FinanceMe

Domain: Banking and Finance

Submitted by: Abhijit Lalasaheb Zende

Table of contents

1. Problem statement:

FinanceMe, a leading Banking and Financial Services provider, is currently facing significant challenges with its existing monolithic application architecture. As the company expanded its offerings—such as Banking, Funds Management, Loans, Debit and Credit Cards, and Investment Banking—the scalability, reliability, and manageability of its infrastructure have become increasingly complex. Specific issues include:

- **Scalability Constraints**: The monolithic architecture makes it difficult to scale individual application components, impacting performance during high-traffic periods.
- **High Manual Effort**: Testing, building, and deploying various modules require extensive manual effort, slowing down release cycles and increasing the risk of human error.
- **Difficulty with Incremental Builds**: The monolithic setup complicates incremental builds, making it challenging to isolate, test, and deploy changes in a controlled manner.
- **Inefficiency in Infrastructure Management**: The manual configuration and management of infrastructure are time-consuming, introducing delays and reducing agility.

Given these challenges, FinanceMe has decided to transition to a **microservices architecture** and implement **DevOps practices** to automate workflows and improve application reliability, scalability, and deployment efficiency.

2. Objective

To address FinanceMe's operational challenges, this project aims to transform the existing monolithic application into a microservices-based architecture, leveraging DevOps methodologies and automation. The key objectives include:

- **Implementing CI/CD Pipelines**: To enable automated build, test, and deployment processes, reducing manual intervention and improving consistency.

- **Infrastructure Automation**: Using Infrastructure-as-Code (IaC) principles, specifically through Terraform, to provision and manage cloud resources efficiently on AWS.
- **Automated Monitoring and Alerting**: Deploy a monitoring stack (Prometheus and Grafana) to track and alert on resource utilization across build and production servers.
- **Efficient Release Management**: Streamline release cycles, allowing for frequent, reliable, and fast deployment of new features and updates.

3. Goal

The primary goal of this project is to enable FinanceMe to deploy frequent, high-quality product updates in an automated, reliable, and scalable manner. Key goals include:

1. **Accelerate Deployment Frequency**: By automating builds, tests, and deployments, the project aims to reduce the time between development and production release, enabling faster feature delivery.
2. **Enhance Application Quality and Reliability**: Automation in testing, monitoring, and alerting will help catch and resolve issues earlier, ensuring robust and stable releases.
3. **Improve Feedback Loops**: Implementing CI/CD enables continuous feedback to developers and testers, fostering a collaborative environment where issues are identified and resolved quickly.
4. **Reduce Operational Overhead**: Automating infrastructure provisioning and monitoring will reduce manual work and operational costs, allowing the team to focus on innovation rather than maintenance.

4. Architecture diagram

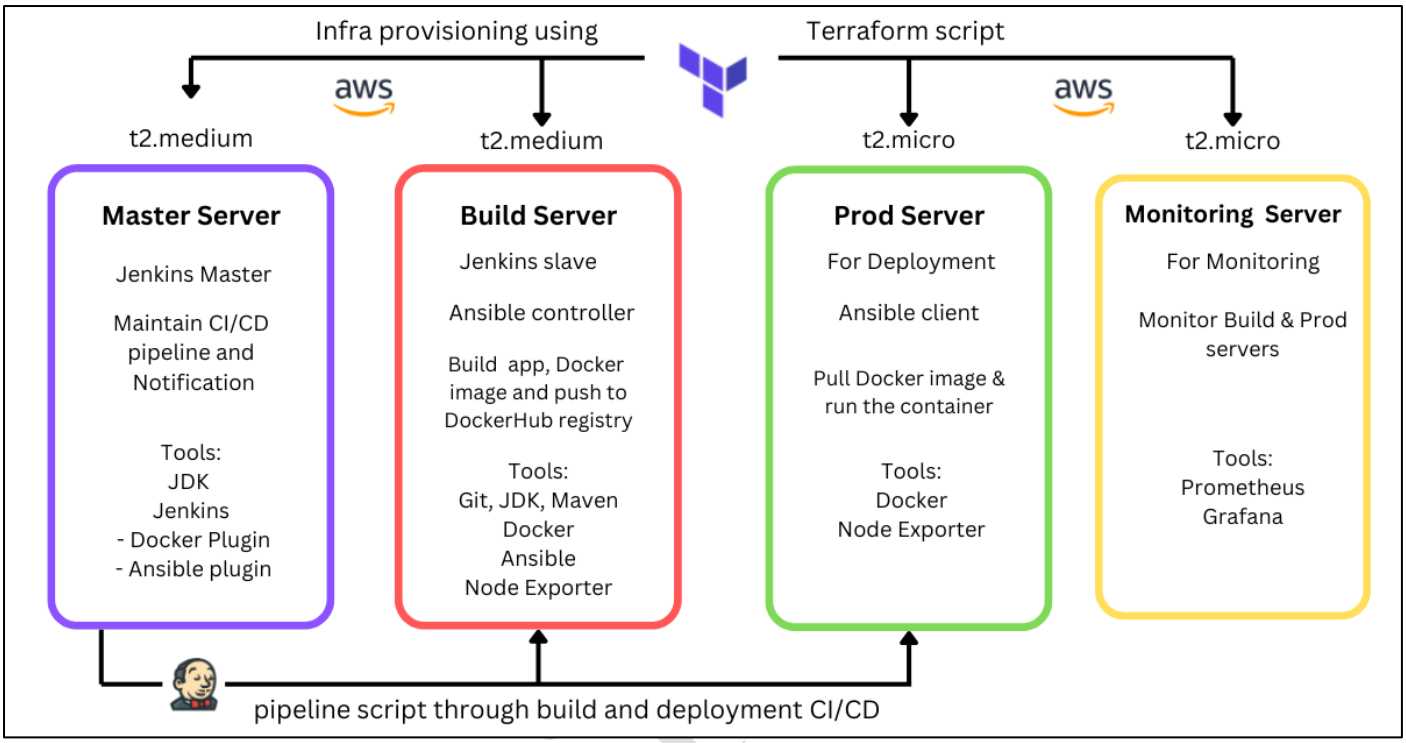


Fig. 4.01: Architecture diagram

5. Flow diagram

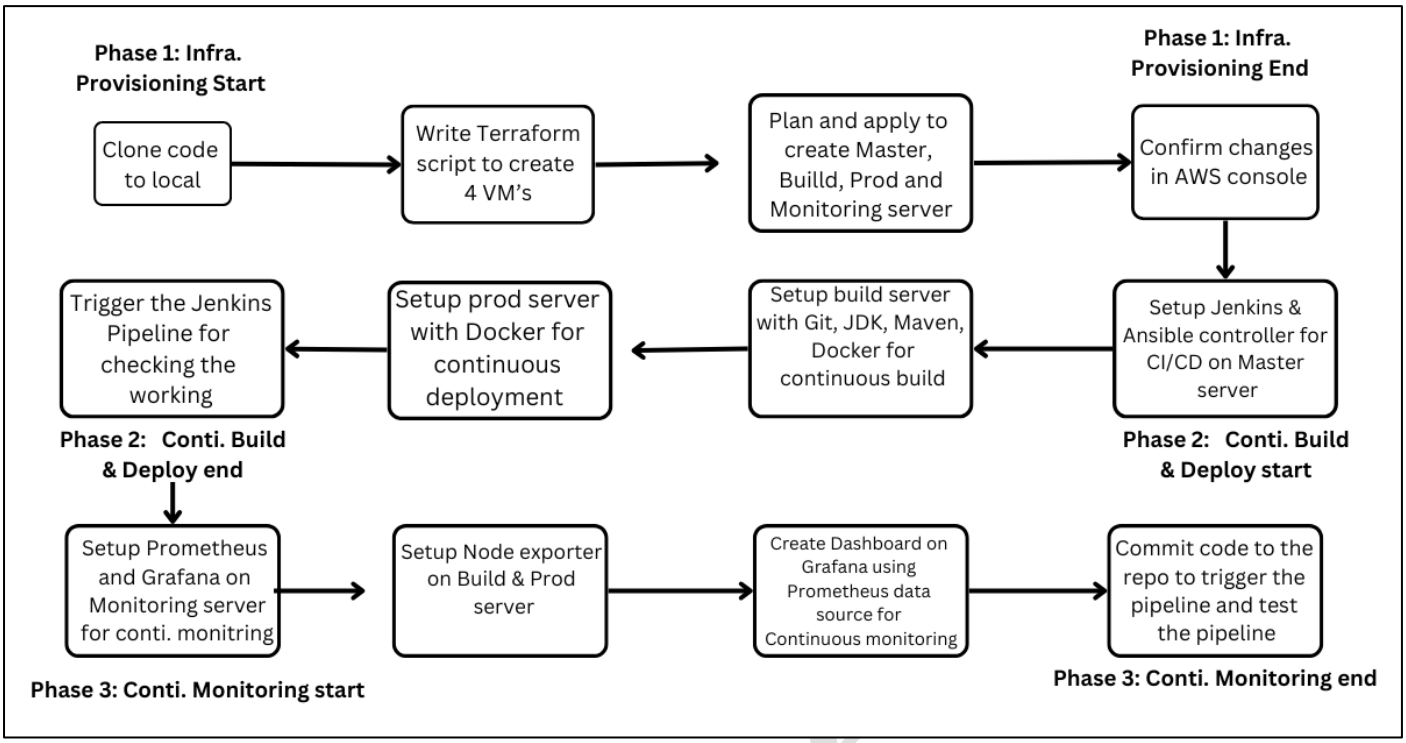


Fig.5.02: Flow diagram

6. Solution

As depicted in the flow chart diagram 5.01 [5 above] the project is divided into **3** main phases i.e. **1) Automating Infrastructure Provisioning phase, 2) Automating Build and Deployment phase and 3) Continuous monitoring phase**

1) Automating Infrastructure Provisioning phase:

- Automate infrastructure
- Create 4 AWS EC2 server instance using Terraform
- First **Master server** for Jenkins master node
- Second **Build server** for application and docker image build
- Third **Prod server** for deploying the docker image application
- Fourth **Monitoring server** for monitoring Build and Prod server

2) Automating Build and Deployment phase:

- Configure **Master** server as Jenkins master node to create a CI/CD pipeline project
- Configure **Build** server as Jenkins slave node to perform all the application builds and Docker image builds
- Configure **Build** server as **Ansible controller** to push the ansible-playbook desired tasks to the ansible client nodes for deployment
- Configure **Prod** server as **Ansible client** node as Build server will use Ansible controller with **Push** mechanism to deploy the application in the Prod server

3) Continuous monitoring phase

- Configure **Monitoring** server with **Prometheus** and **Grafana** for continuous monitoring
- Install **Node Exporter** on **Build** and **Prod** server to get metrics from both the servers
- Create a **New Dashboard** on Grafana with Prometheus as data source to continuously monitor **CPU utilization, Disk space utilization** and **Total available memory**

Phase 1- Automating Infrastructure Provisioning:

Steps:

Step 1: Clone the remote code repository to local

1. In our case we will be using 'Github' as our remote source code repository
2. First fork the repository to our GitHub account.
   a. If you don't have an GitHub account you can create one by following the link https://docs.github.com/en/get-started/start-your-journey/creating-an-account-on-github.
   b. The code is present at the remote repo: https://github.com/StarAgileDevOpsTraining/star-agile-banking-finance
   c. To fork the repository simply visit the remote repo. and click on **fork** option on top right to fork it in our own account by giving it a relevant name and description(optional)

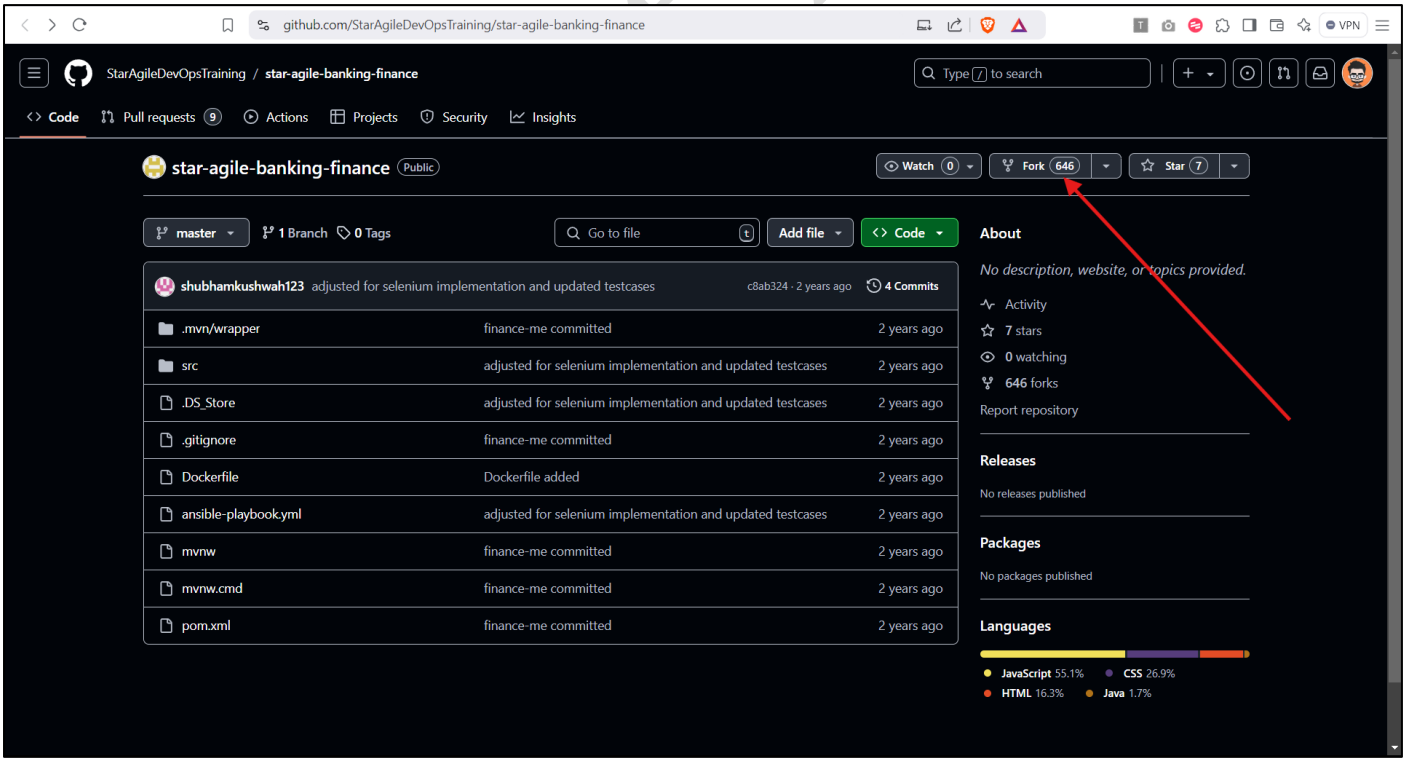


Fig. 1.01: Fork the repository

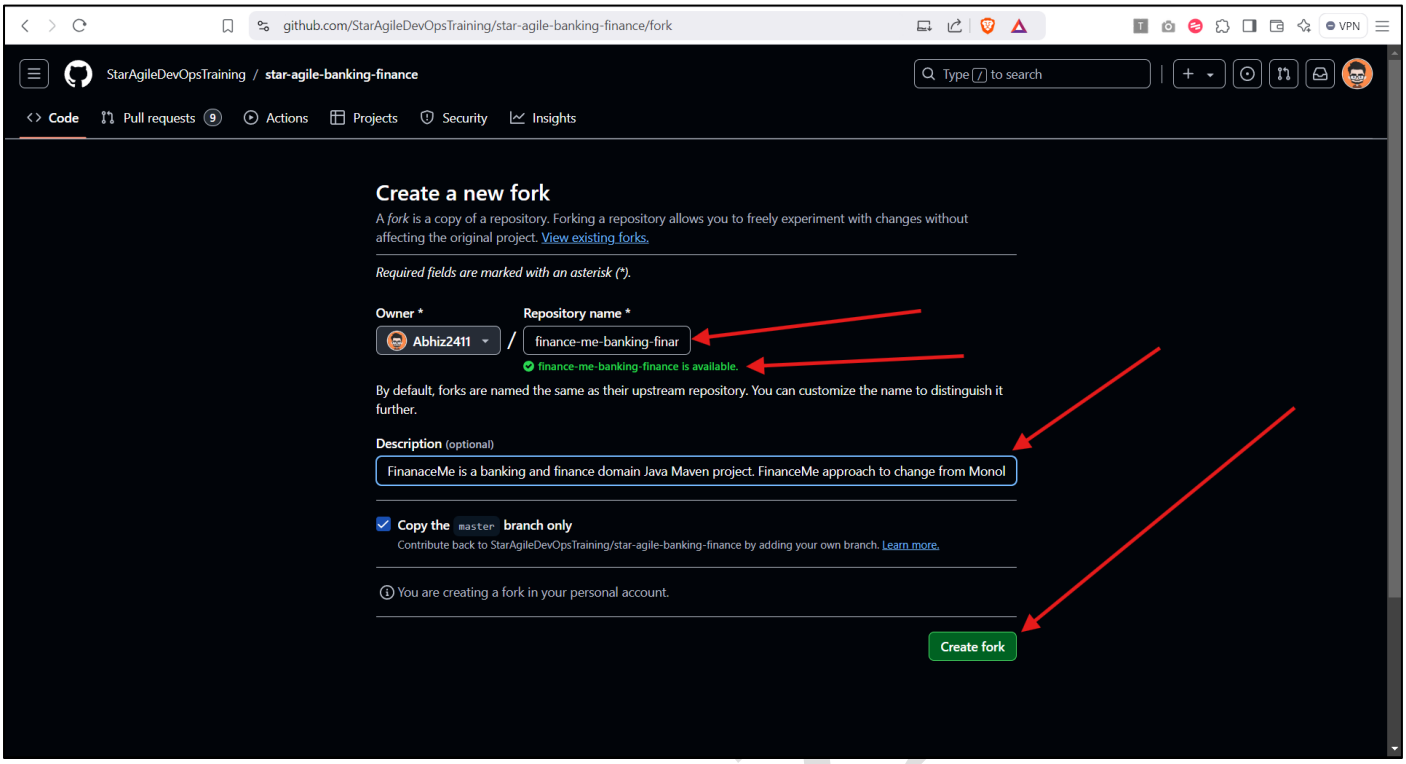


Fig. 1.02: Forking details

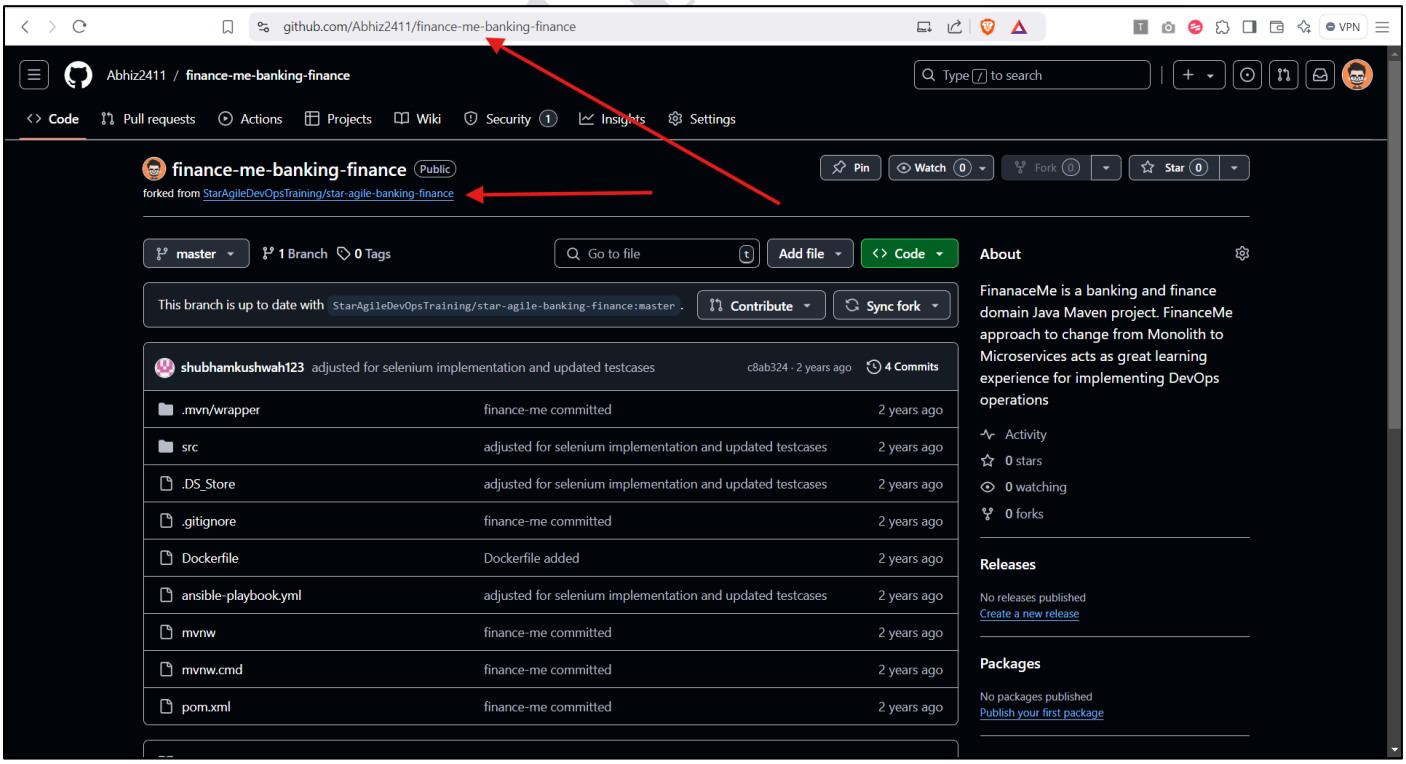


Fig. 1.03: Fork success

3. To clone the repository to our local machine and writing the code we will be using VS Code **IDE(Integrated Development Environment)**
    a. If VS Code is not installed in you machine then you can follow: https://code.visualstudio.com/download. Verify if **Git** is installed in your machine if not then install by following: https://git-scm.com/downloads.
    b. Copy the address of the remote repo by clicking on '**Code**' option on GitHub repo and then '**HTTPS**' and copy the address
    c. Once VS Code is installed open the inbuilt terminal using '**Ctrl + ~**'
    d. To clone the repo simply enter the command `git clone <https_address_of_repo.git>`
    e. Change working directory to the cloned repo. by using command `cd <directory_name>`

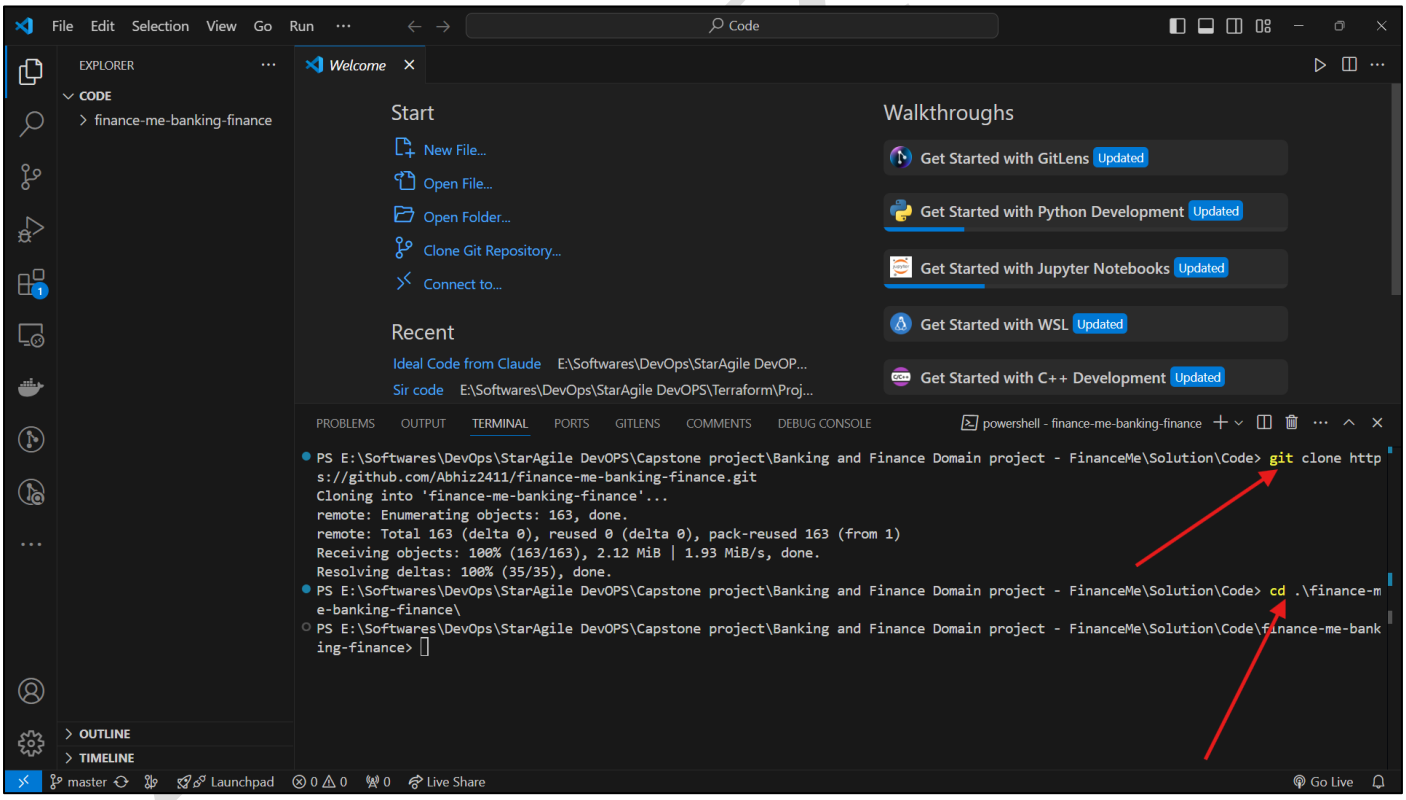


Fig. 1.04: Git clone to local repository

Step 2: Install and Configure Terraform for infrastructure provisioning:

1. Terraform is an **IAC(Infrastructure as Code)** tool used for Automating infrastructure provisioning. If Terraform is not installed and configured with VS Code then you can follow the link: https://developer.hashicorp.com/terraform/install
2. Once Terraform is installed and system path for terraform is set also install Terraform extension for VS code
3. We will be using **AWS** as our cloud service provider. So first configure AWS with our local.
   a. To open account on AWS follow the link: https://aws.amazon.com/resources/create-account/
   b. To Configure first create **Access token** from your **IAM user**
   c. Then enter `aws configure` command in your local terminal to configure your aws with local

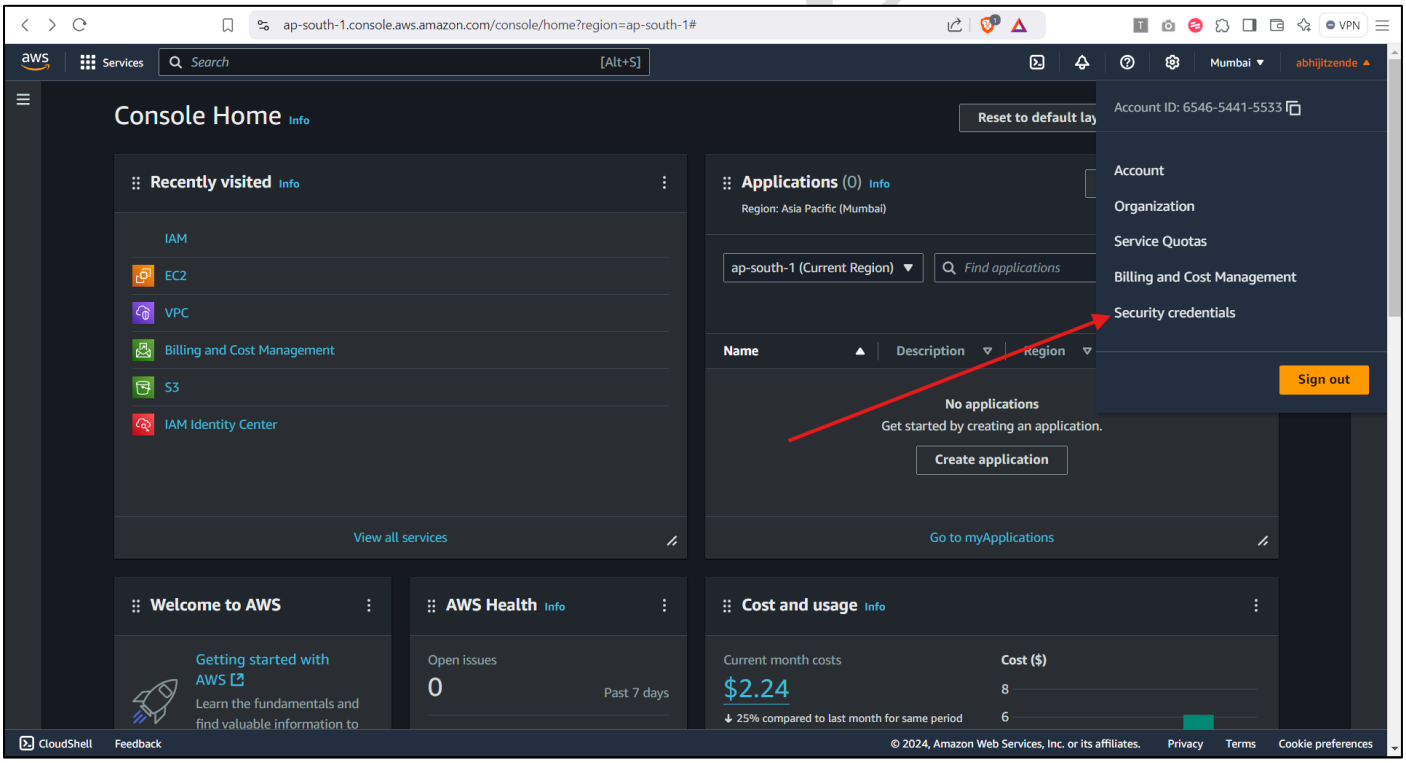


Fig. 2.01: AWS IAM account login

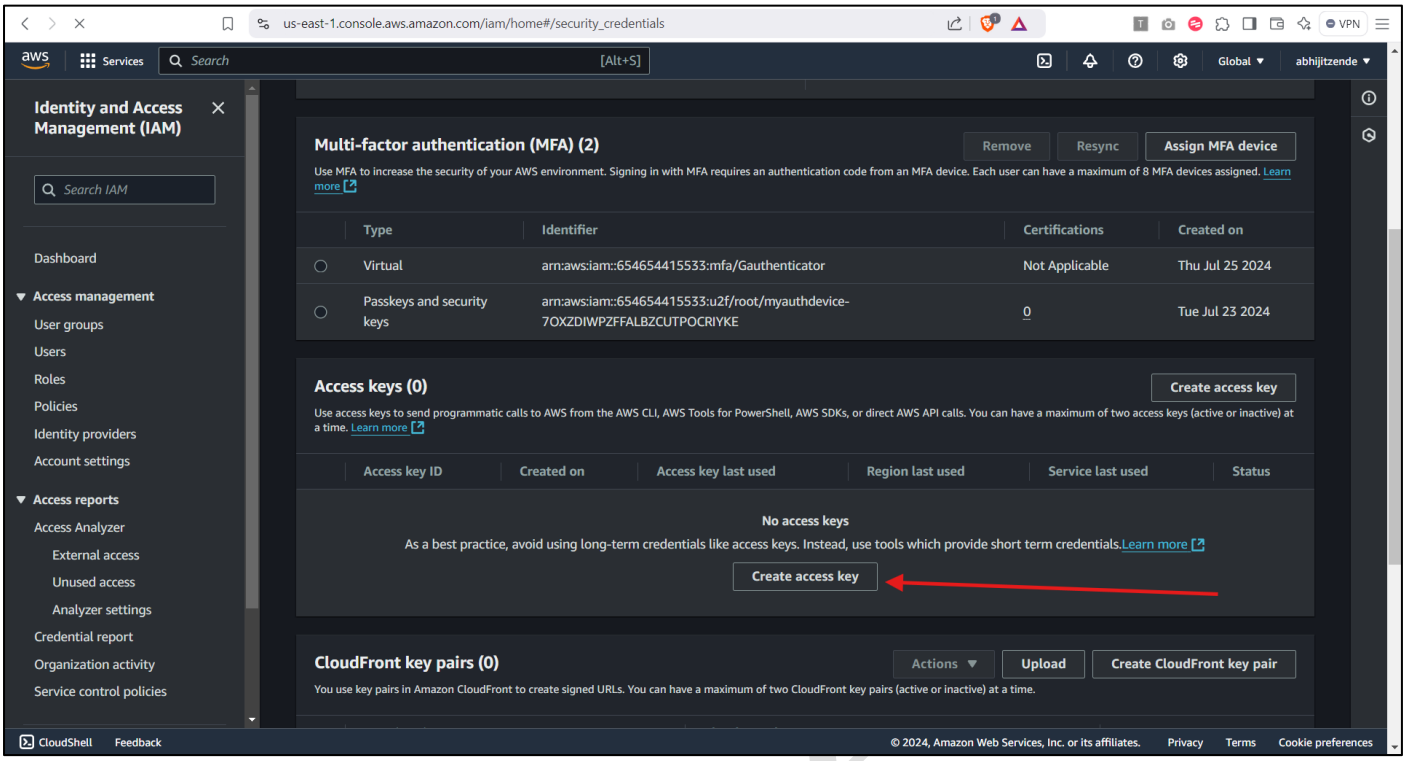


Fig. 2.02: Create Access key

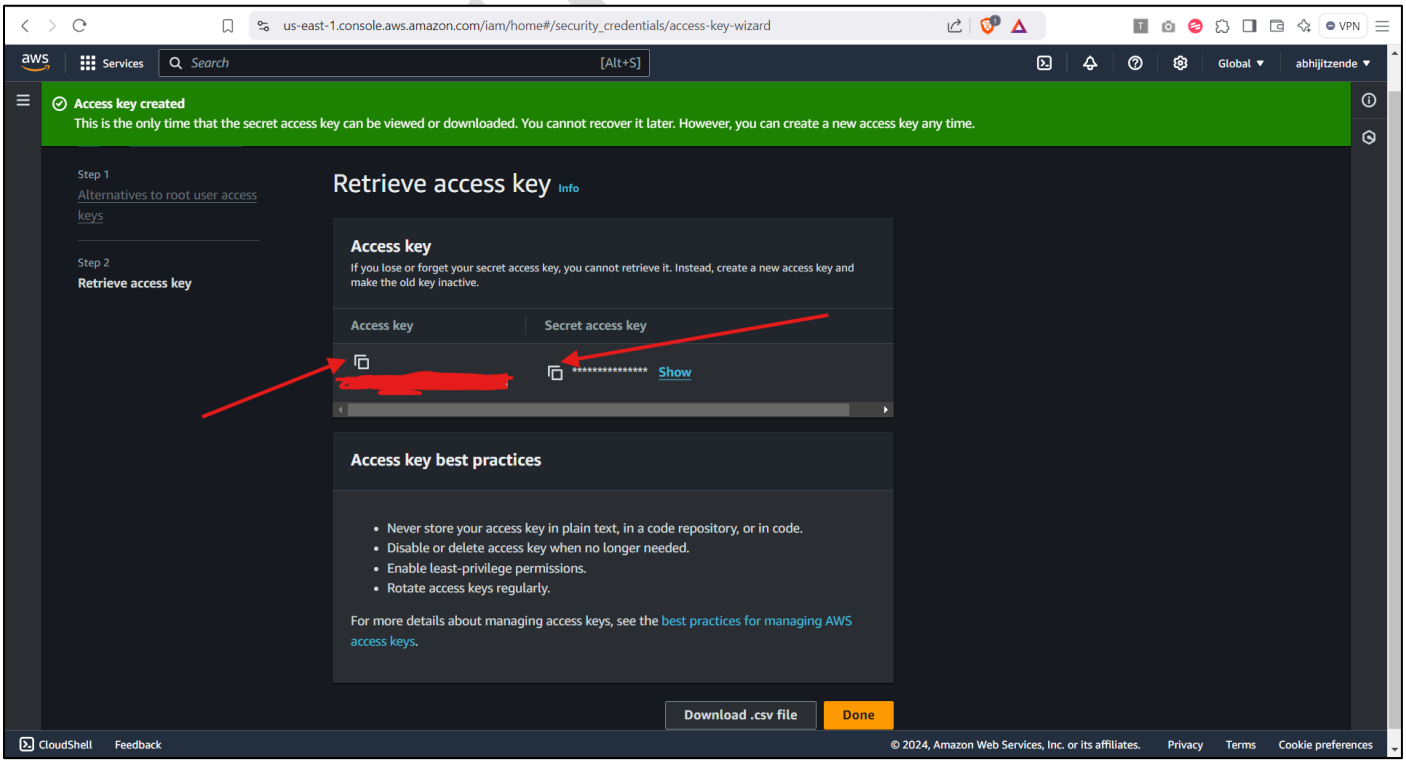


Fig. 2.03: Copy access key token

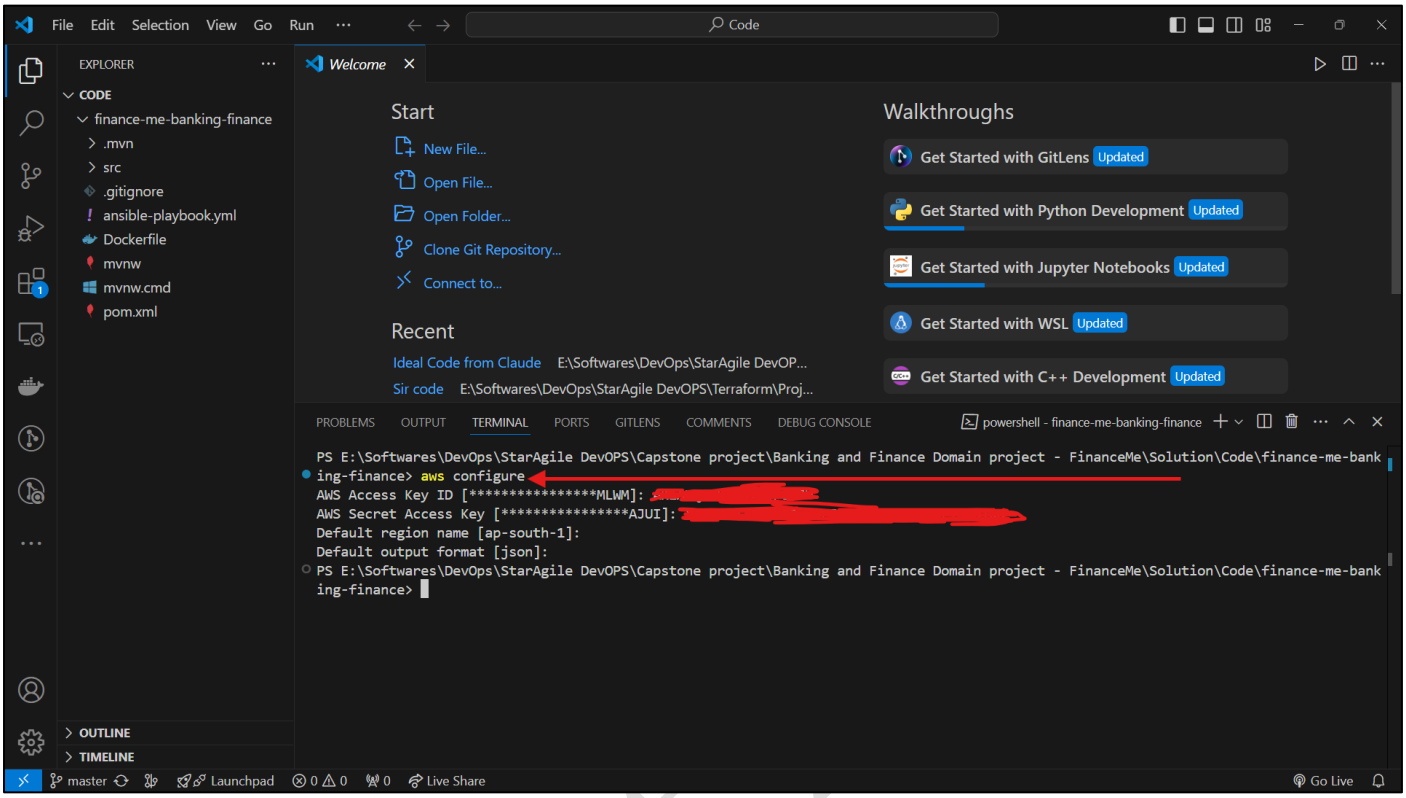


Fig. 2.04: AWS configure

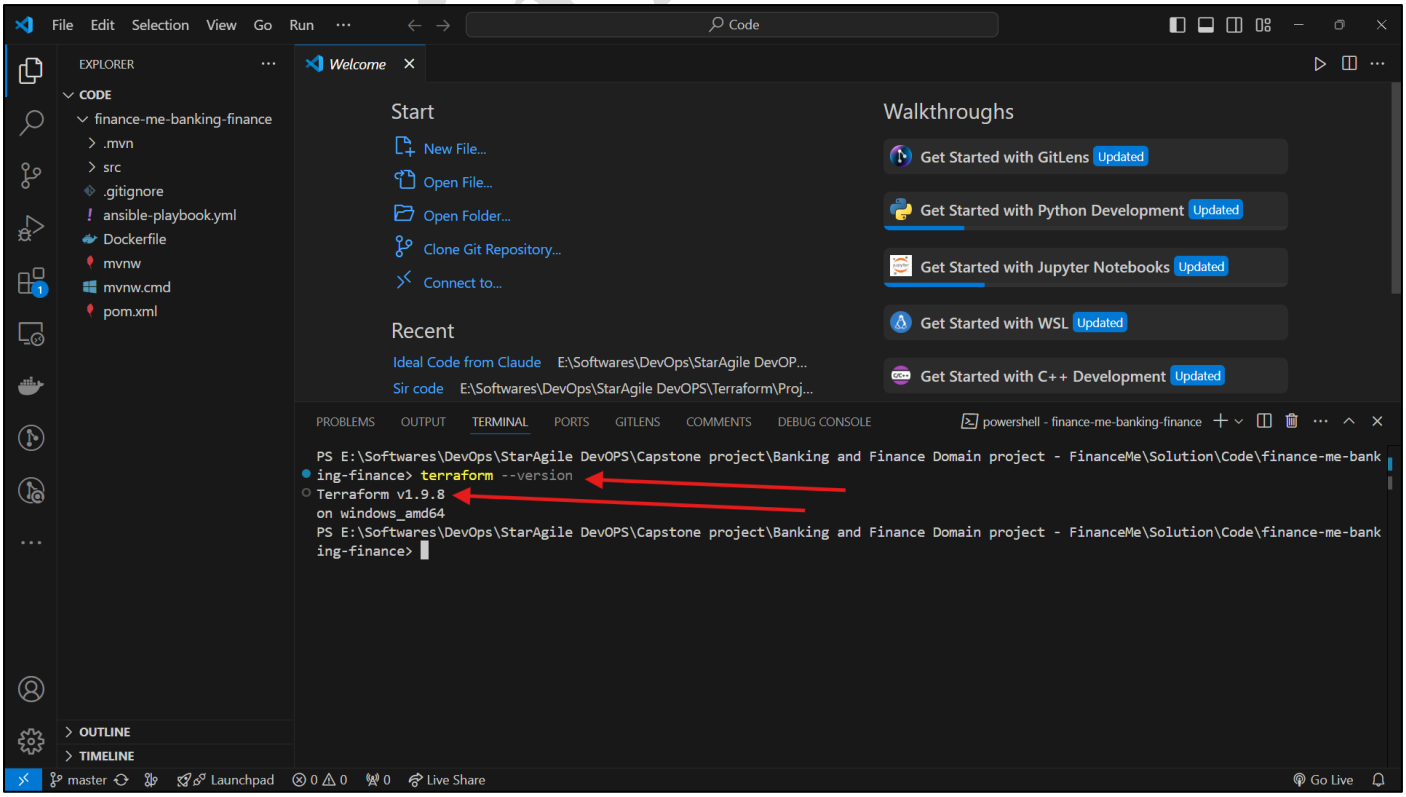


Fig. 2.05: Terraform installation verification

Step 3: Write terraform code to plan and provision resources:

1. Create a new folder '**Terraform**' inside the root directory to write the terraform code
2. Change directory to '**Terraform**' using cmd `cd Terraform`
3. Create a new file '**main.tf**' to write the terraform code to create **2 t2.medium Ubuntu 22.04 EC2 instances** for '**Master**' and '**Build**' server and **2 t2.micro Ubuntu 22.04 EC2 instances** for '**Prod**' and '**Monitoring**' server
    a. **Master server security group allowed inbound rule ports:**
        i. SSH Port: **22**
        ii. To Access Jenkins: **8080**
    b. **Build server security group allowed inbound rule ports:**
        i. SSH port: **22**
        ii. Node Exporter port: **9100**
    c. **Prod server security group allowed inbound rule ports:**
        i. SSH port: **22**
        ii. Node Exporter port: **9100**
        iii. Docker Open port for Maven app: **8084** (Can be config. of our own)
    d. **Monitoring server security group allowed inbound rule ports:**
        i. SSH port: **22**
        ii. Prometheus server port: **9090**
        iii. Grafana server port: **3000**
4. Enter command `terraform init` to start a terraform project
5. Enter cmd's `terraform fmt` and `terraform validate` to format and validate our code syntax
6. Enter command `terraform plan` to review our changes
7. Enter command `terraform apply` to apply the changes once reviewed the plan
8. Verify the resources on the AWS console

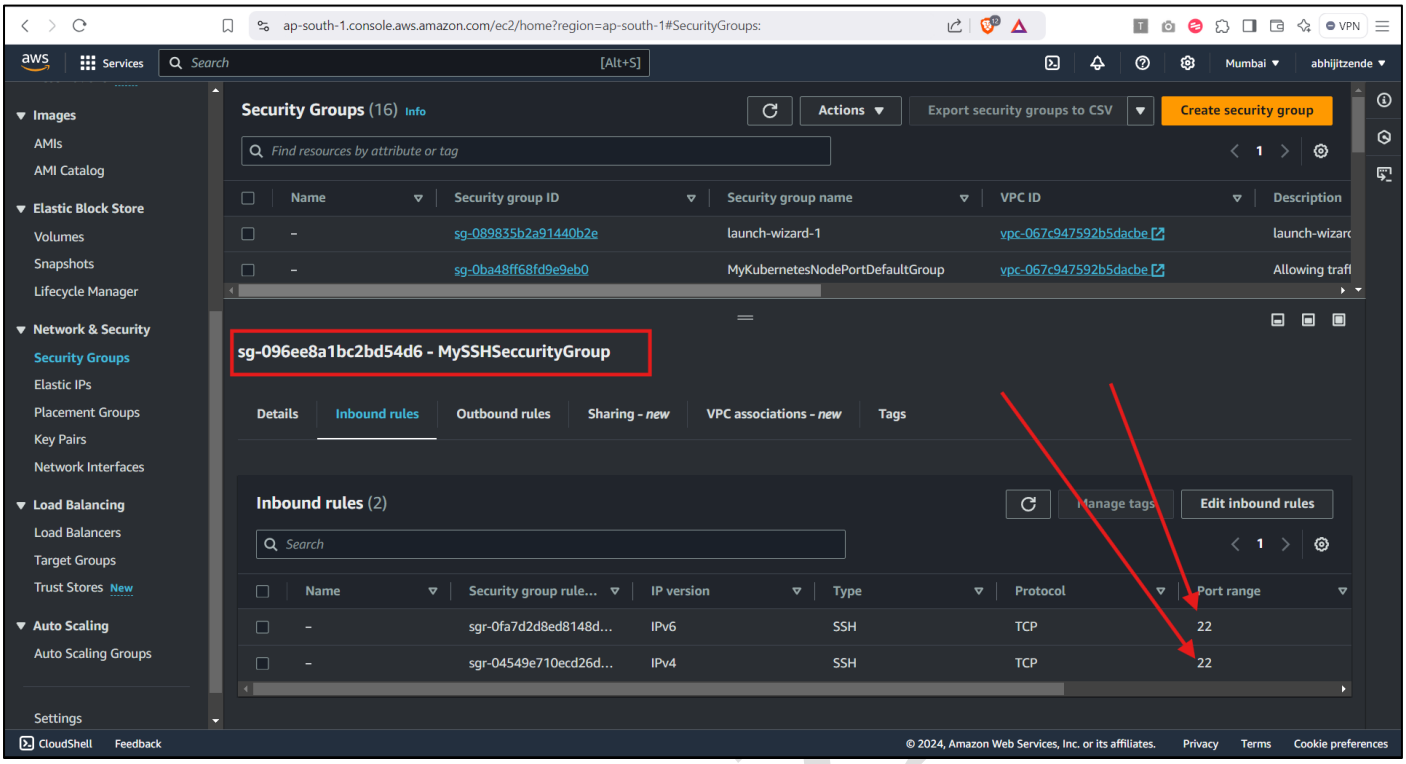


Fig. 3.01: SSH security group

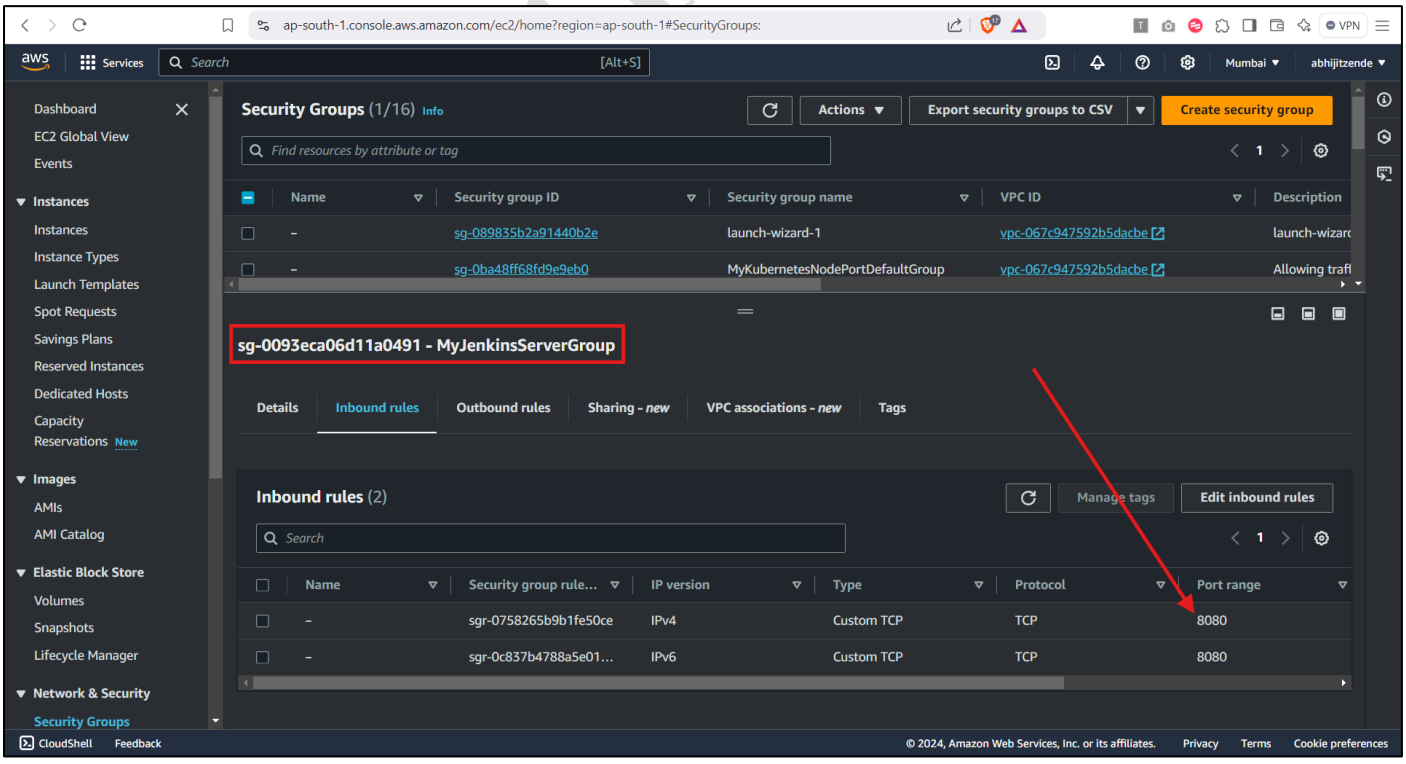


Fig. 3.02: Jenkins security group

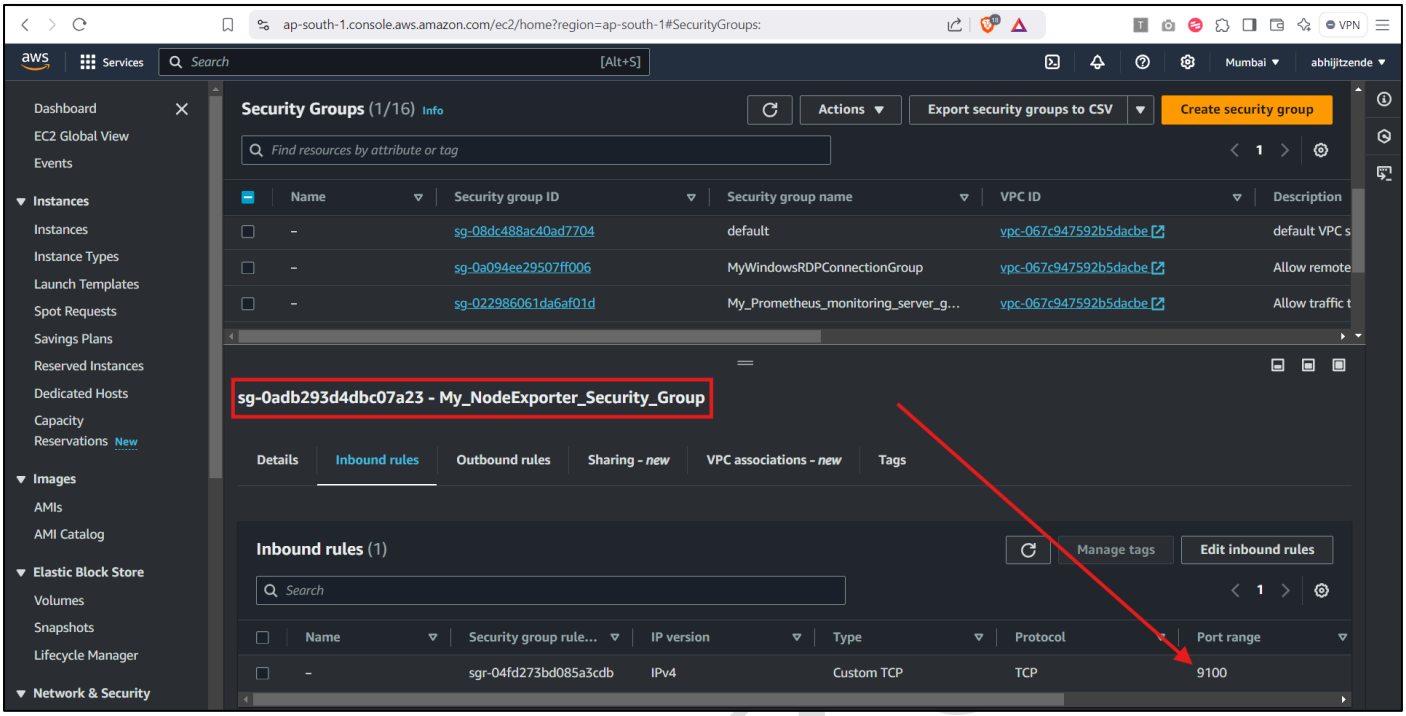


Fig. 3.03: Node Exporter security group

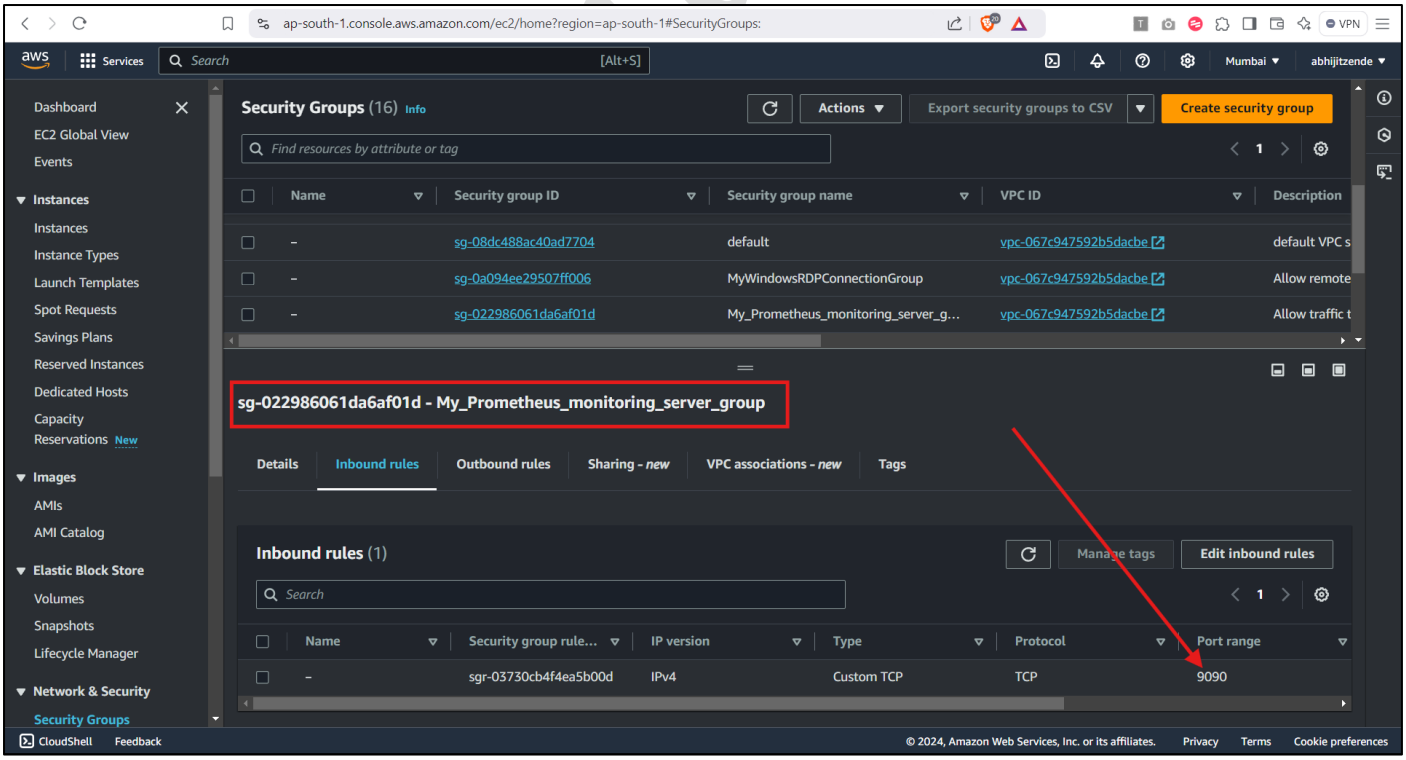


Fig. 3.04: Prometheus security group

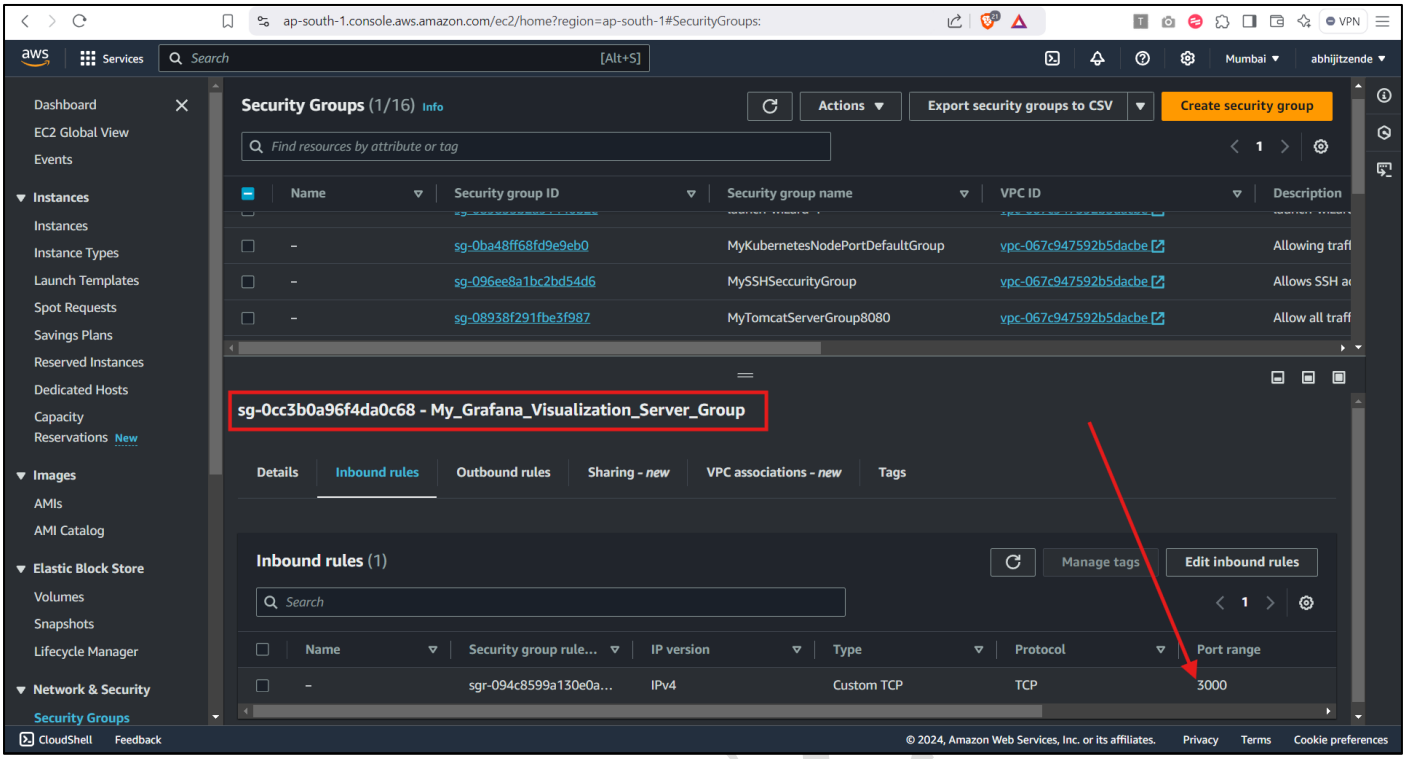


Fig. 3.05: Grafana security group

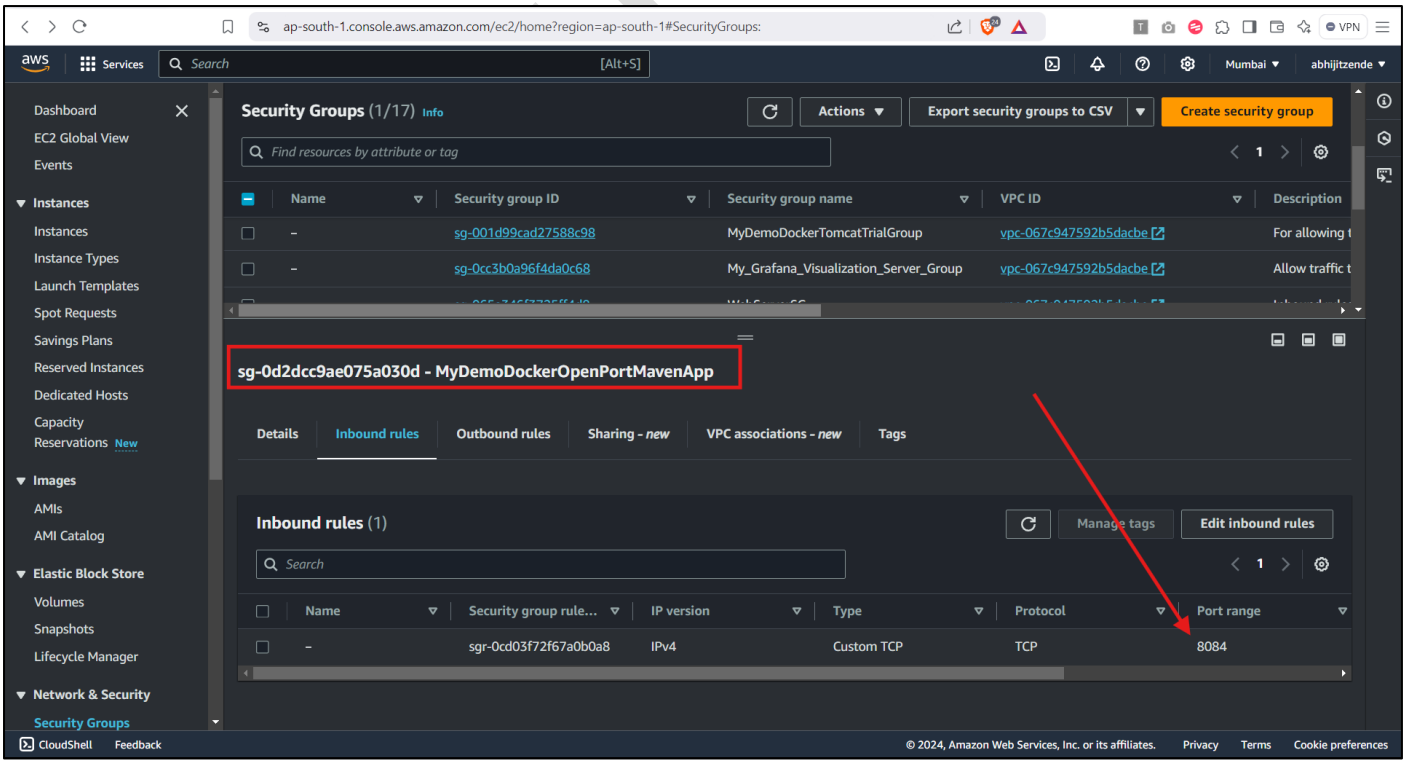


Fig. 3.06: Docker open port for project security group

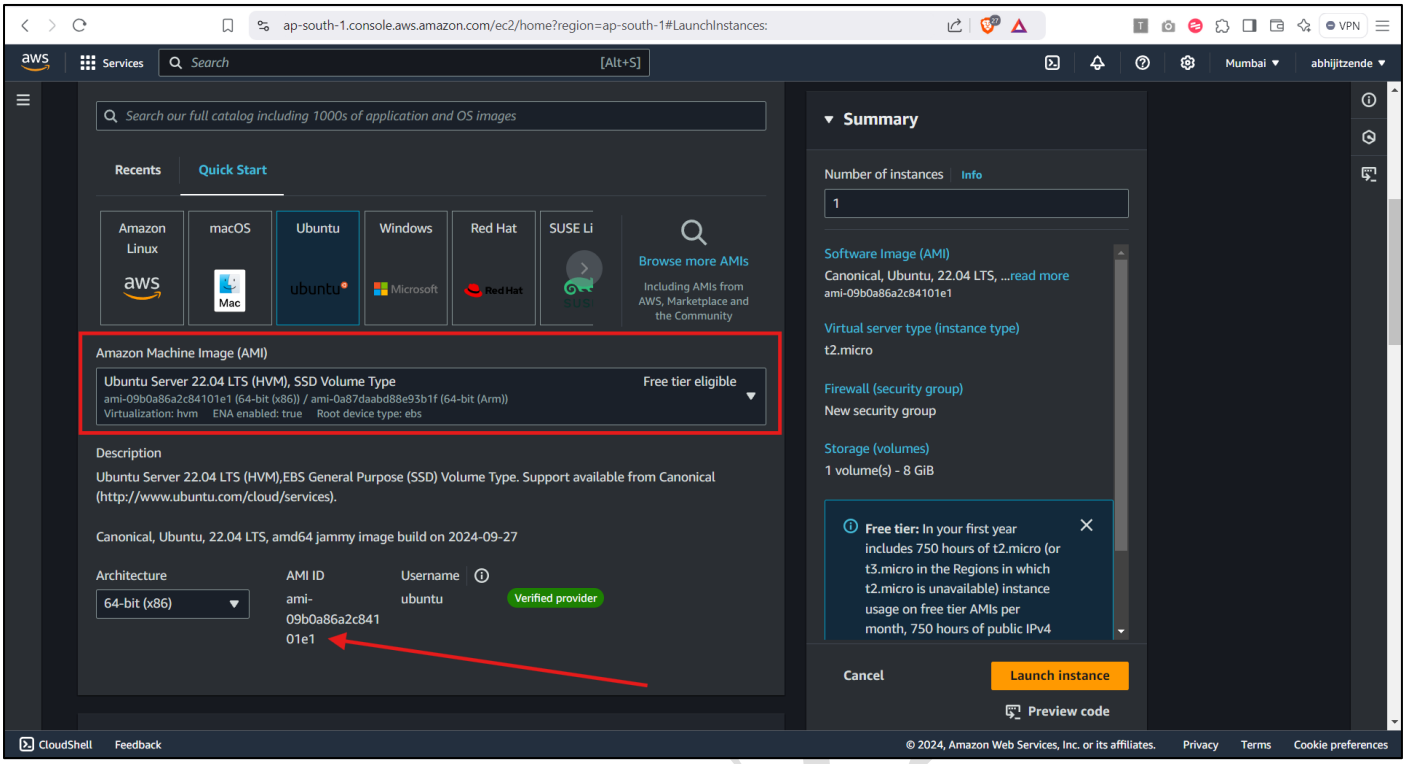


Fig. 3.07: AMI ID of Ubuntu 22.04 LTS

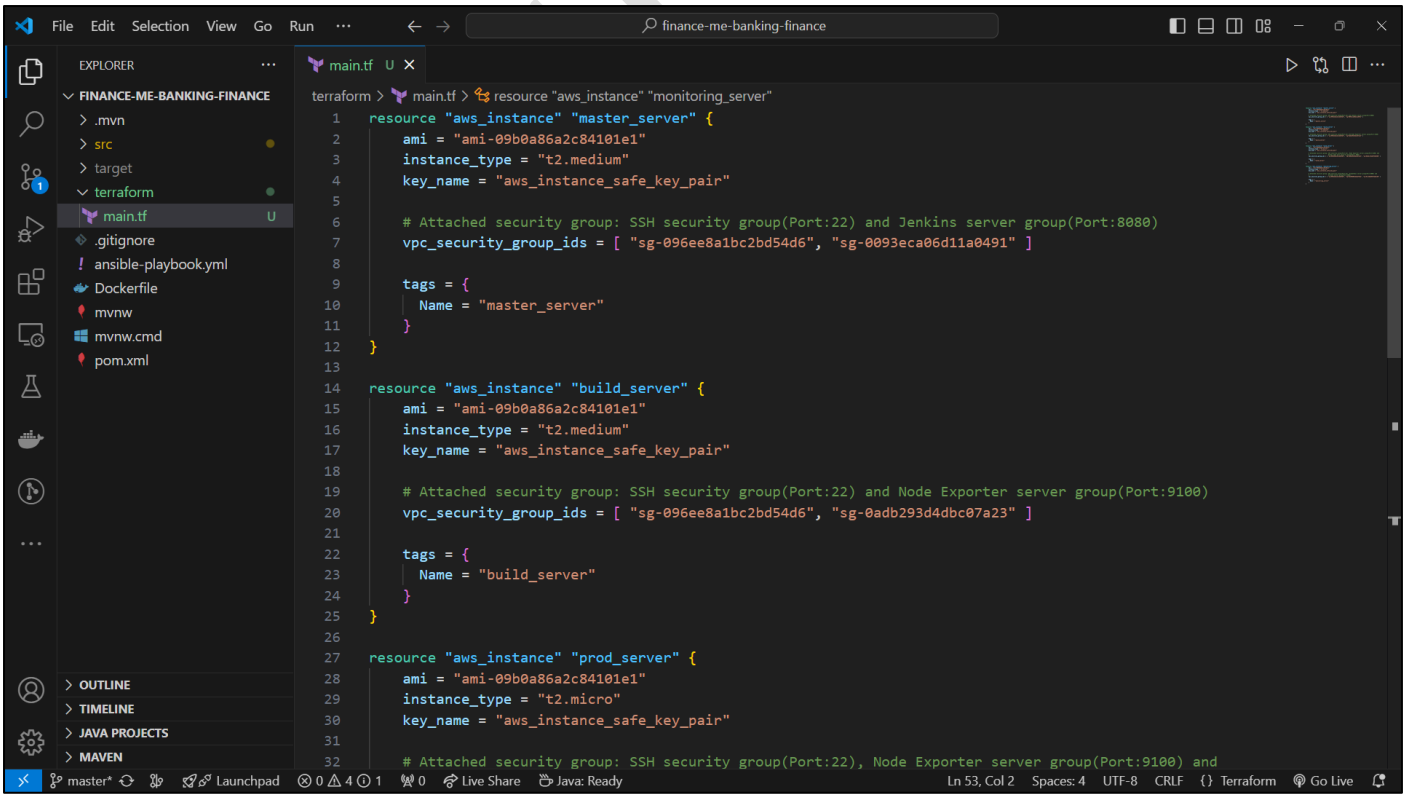


Fig. 3.08: Terraform code

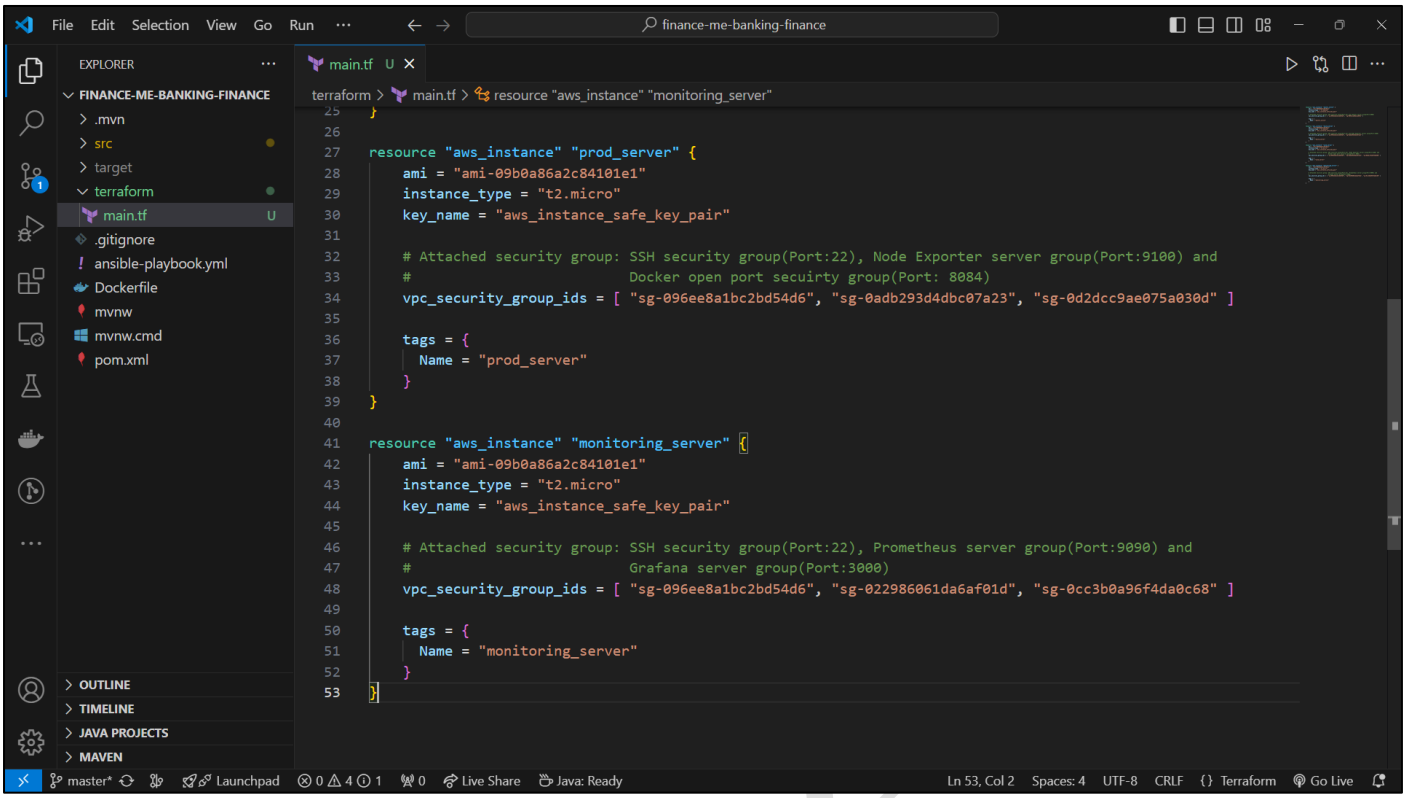


Fig. 3.09: Terraform code

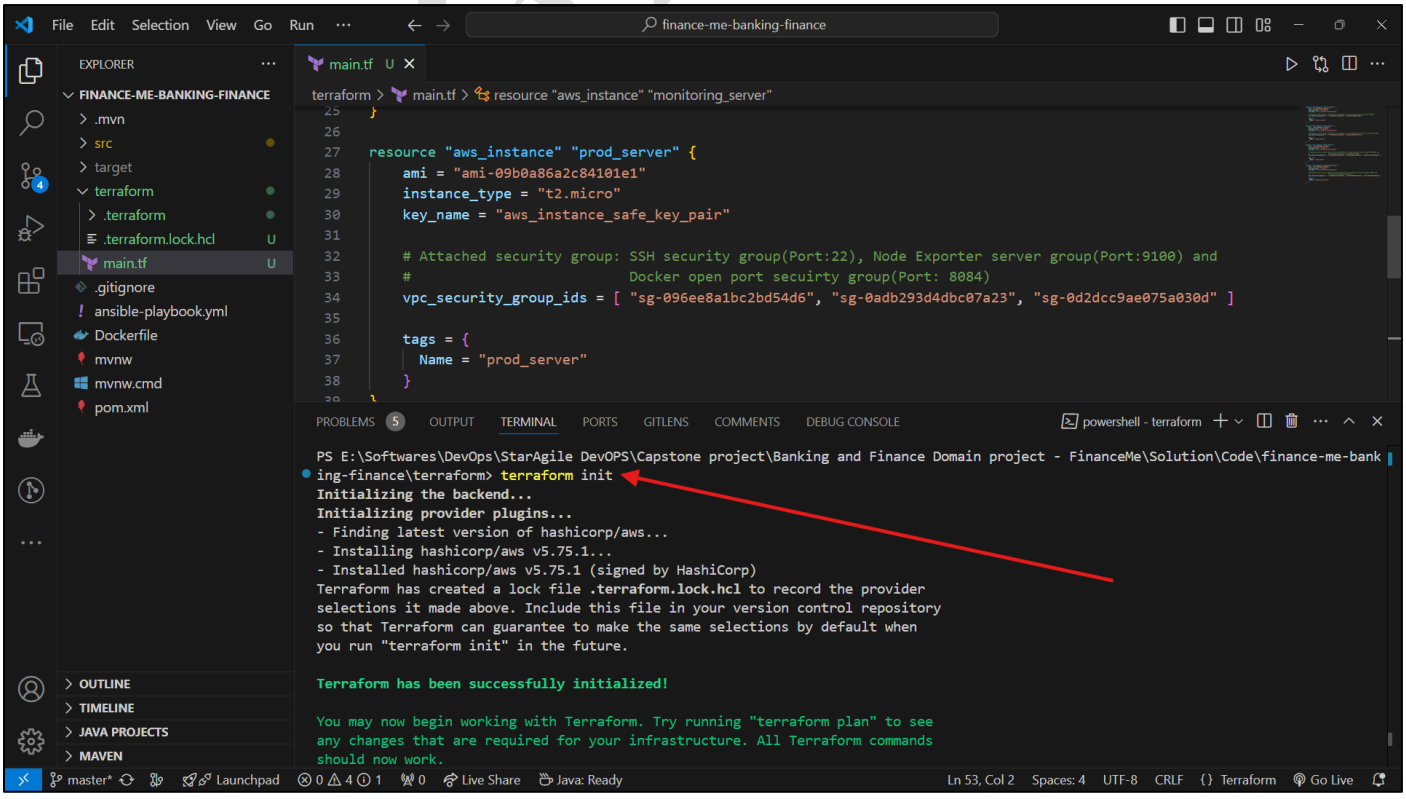


Fig. 3.10: Terraform init command

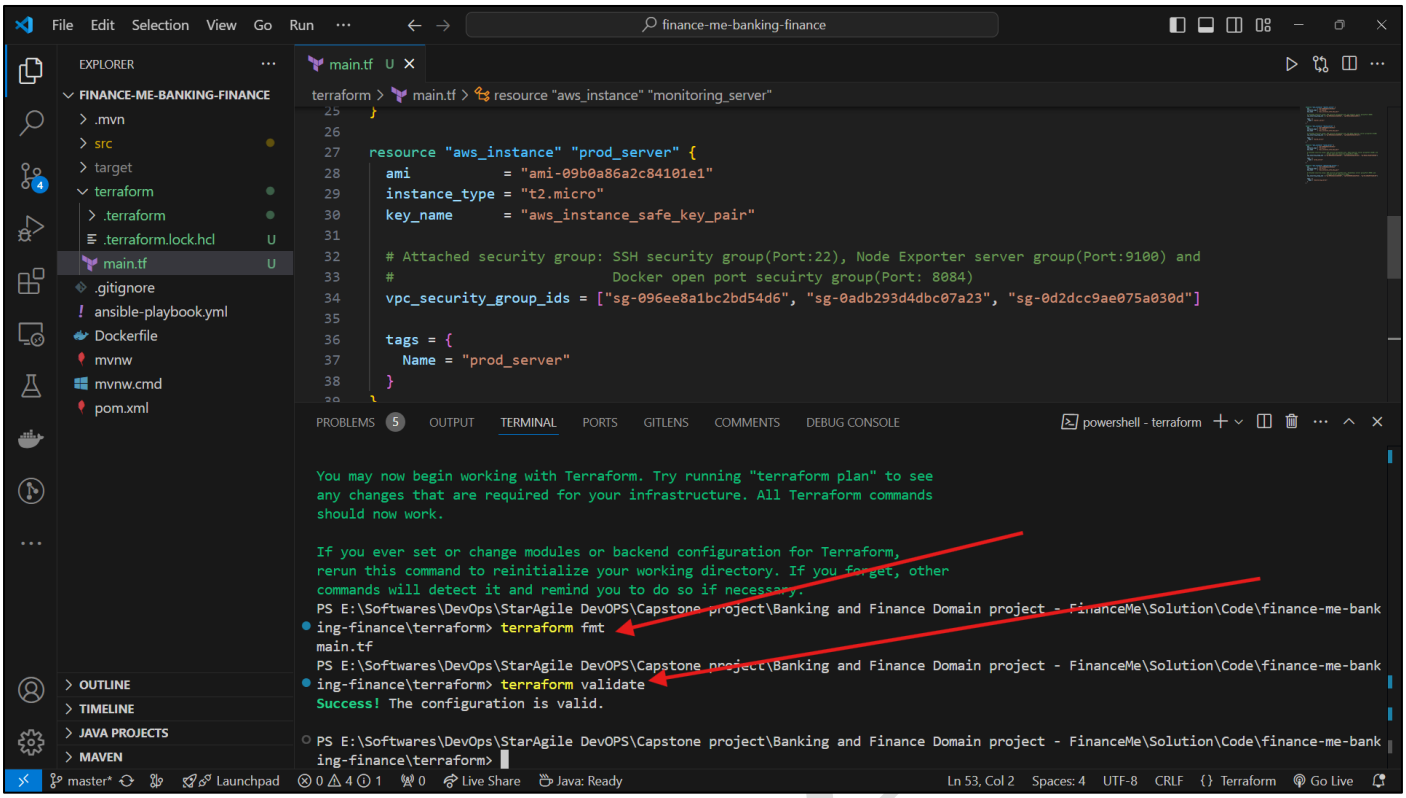


Fig. 3.11: Terraform fmt and terraform validate

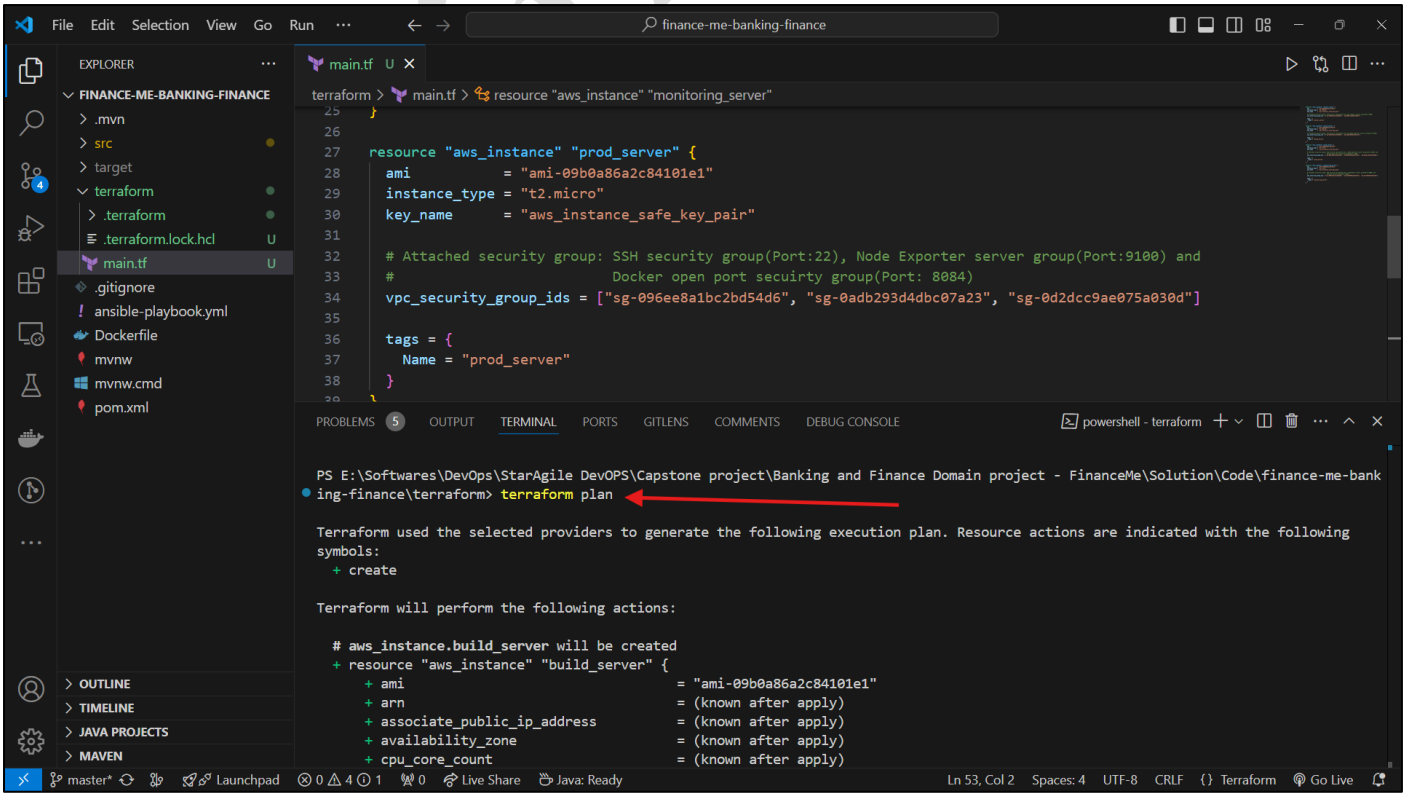


Fig. 3.12: terraform plan

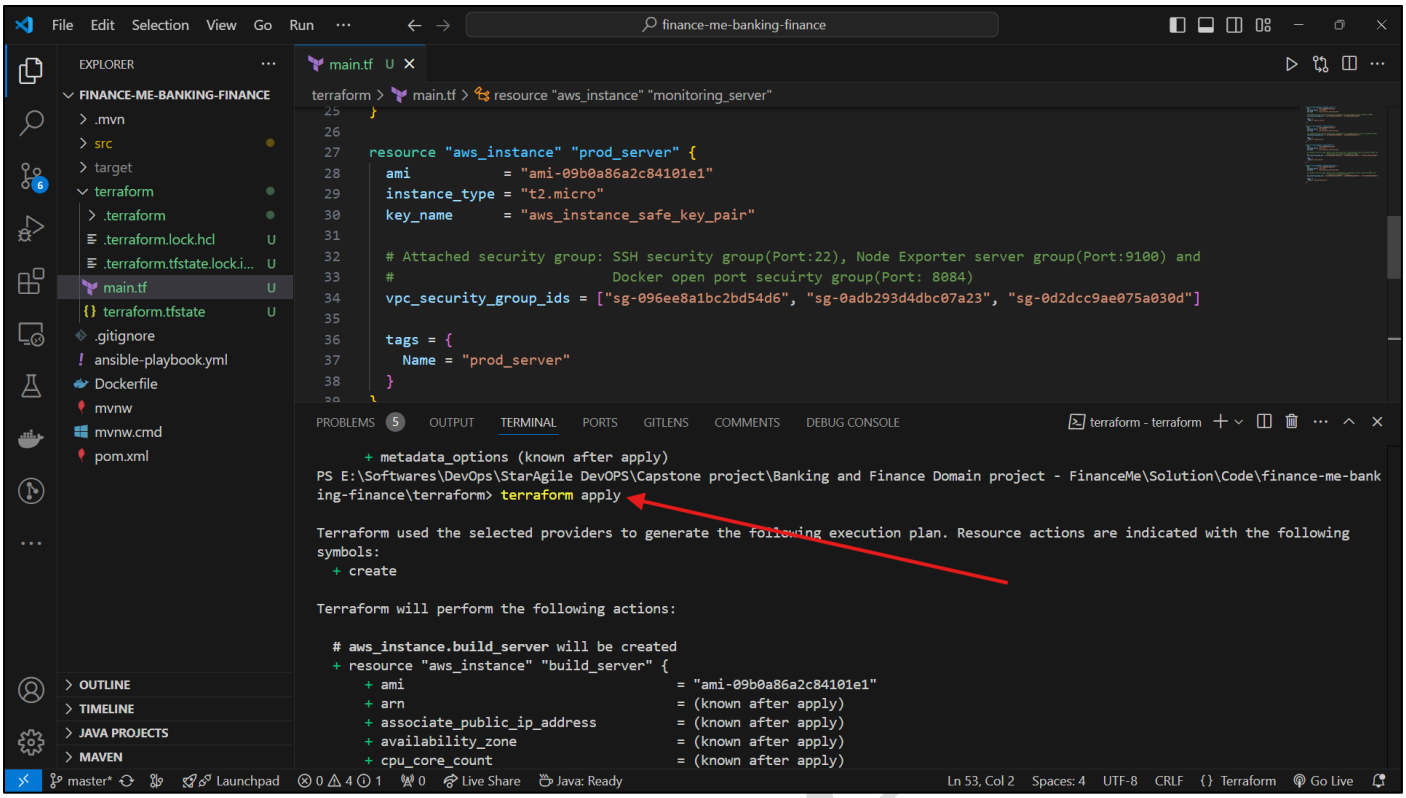


Fig. 3.13: terraform apply

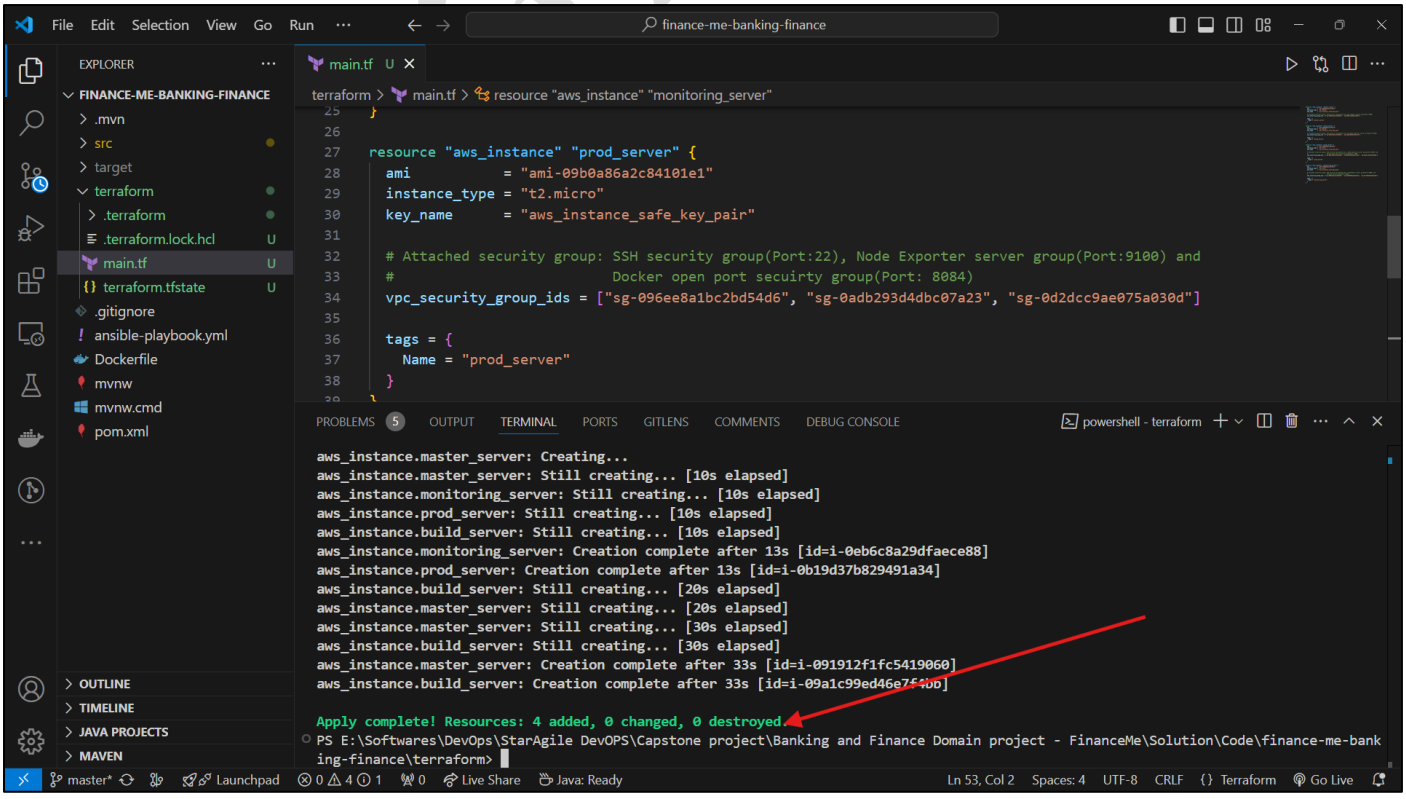


Fig. 3.14: Instance creation success

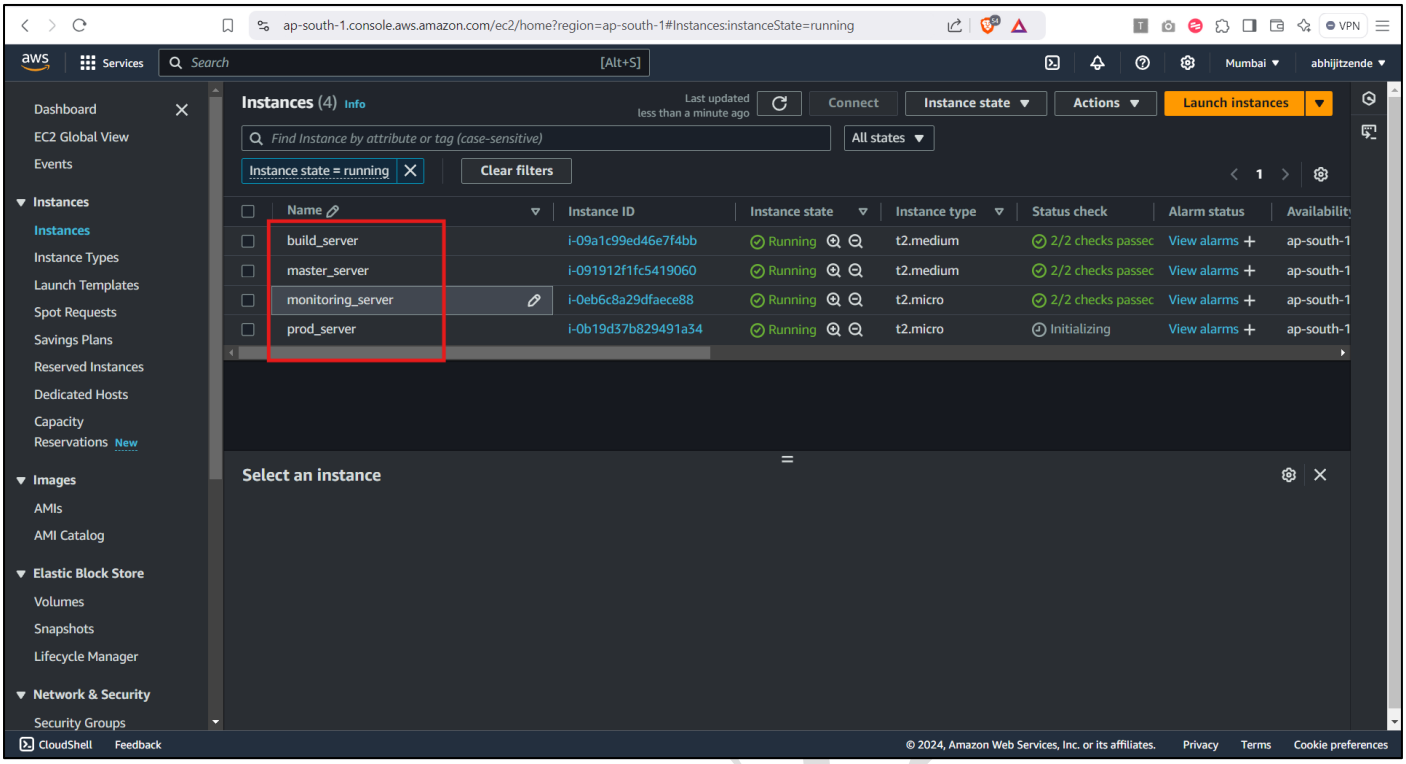


Fig. 3.15: AWS console

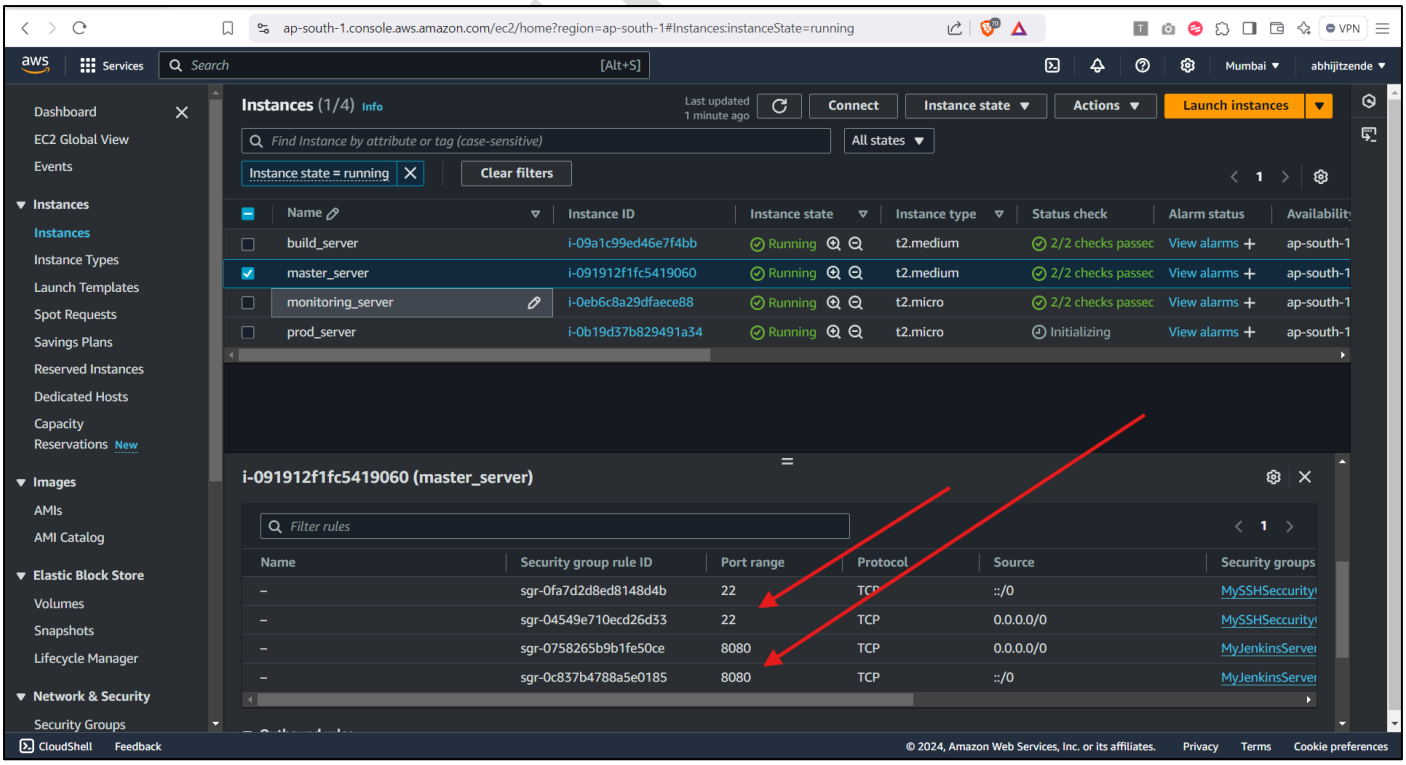


Fig. 3.16: Master server

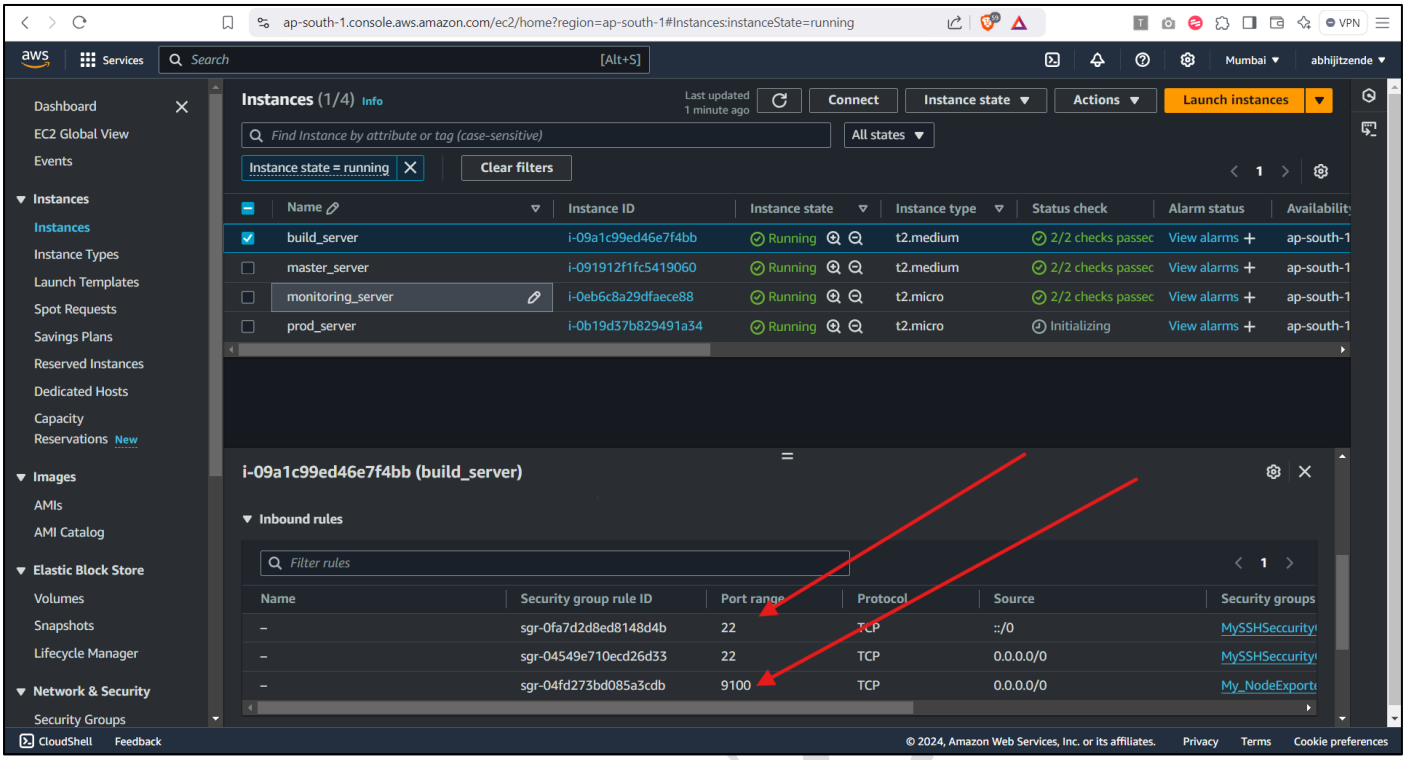


Fig. 3.17: Build server

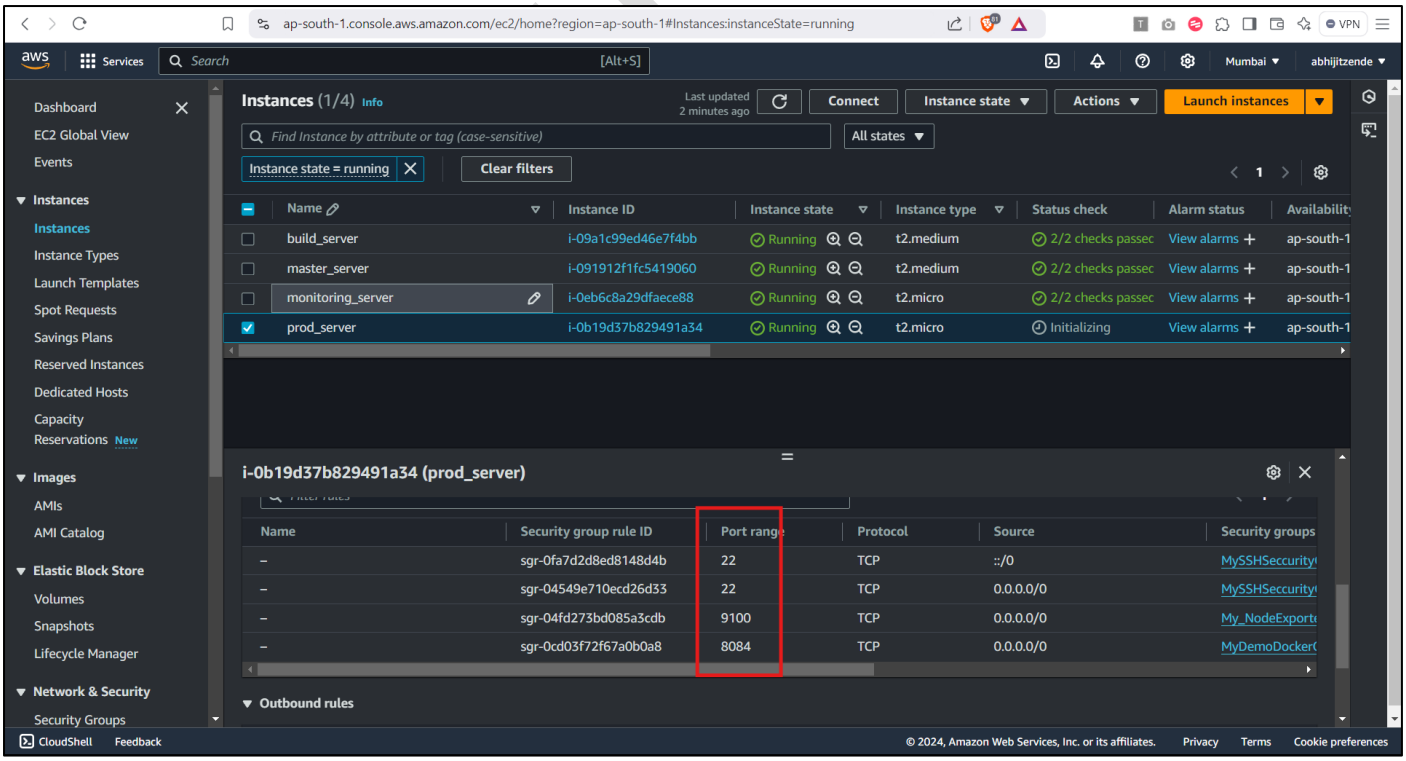


Fig. 3.18: Prod server

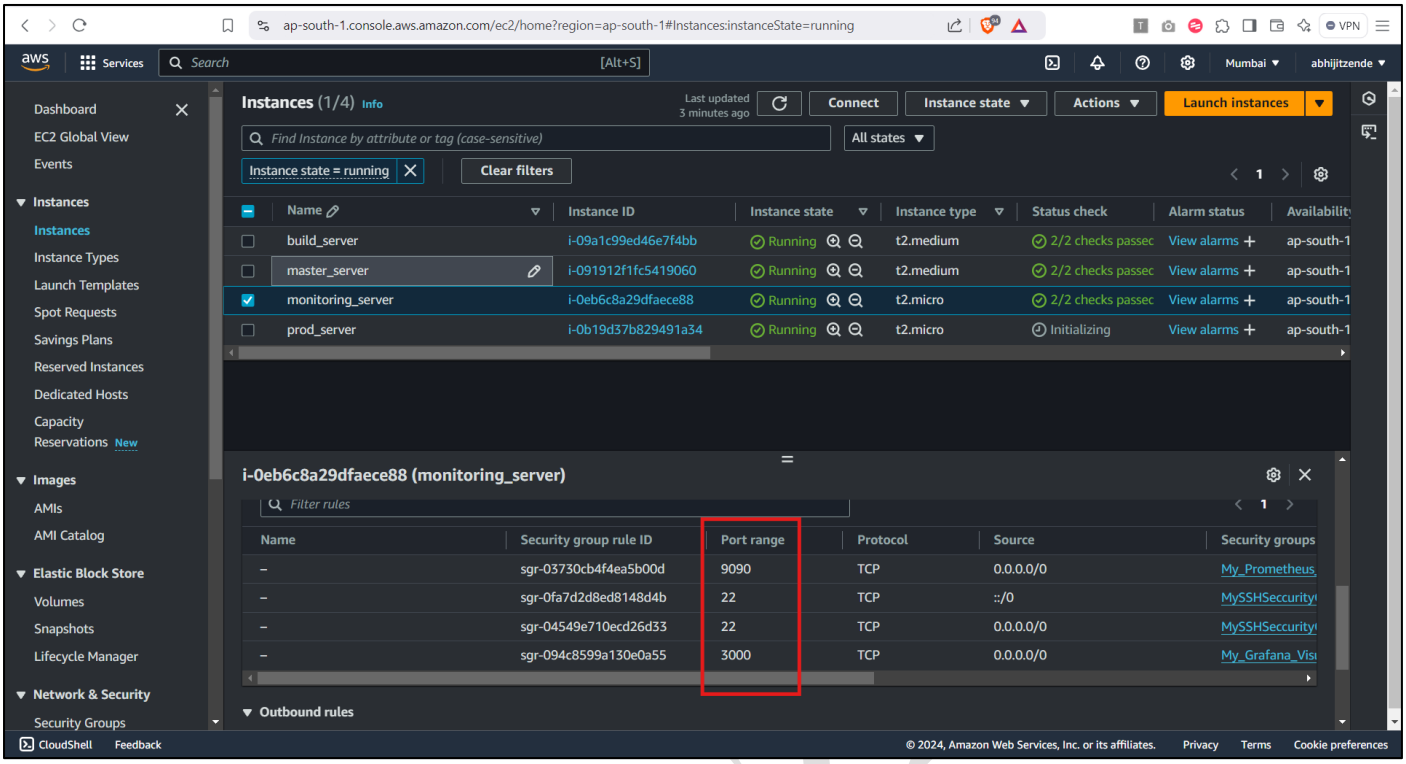


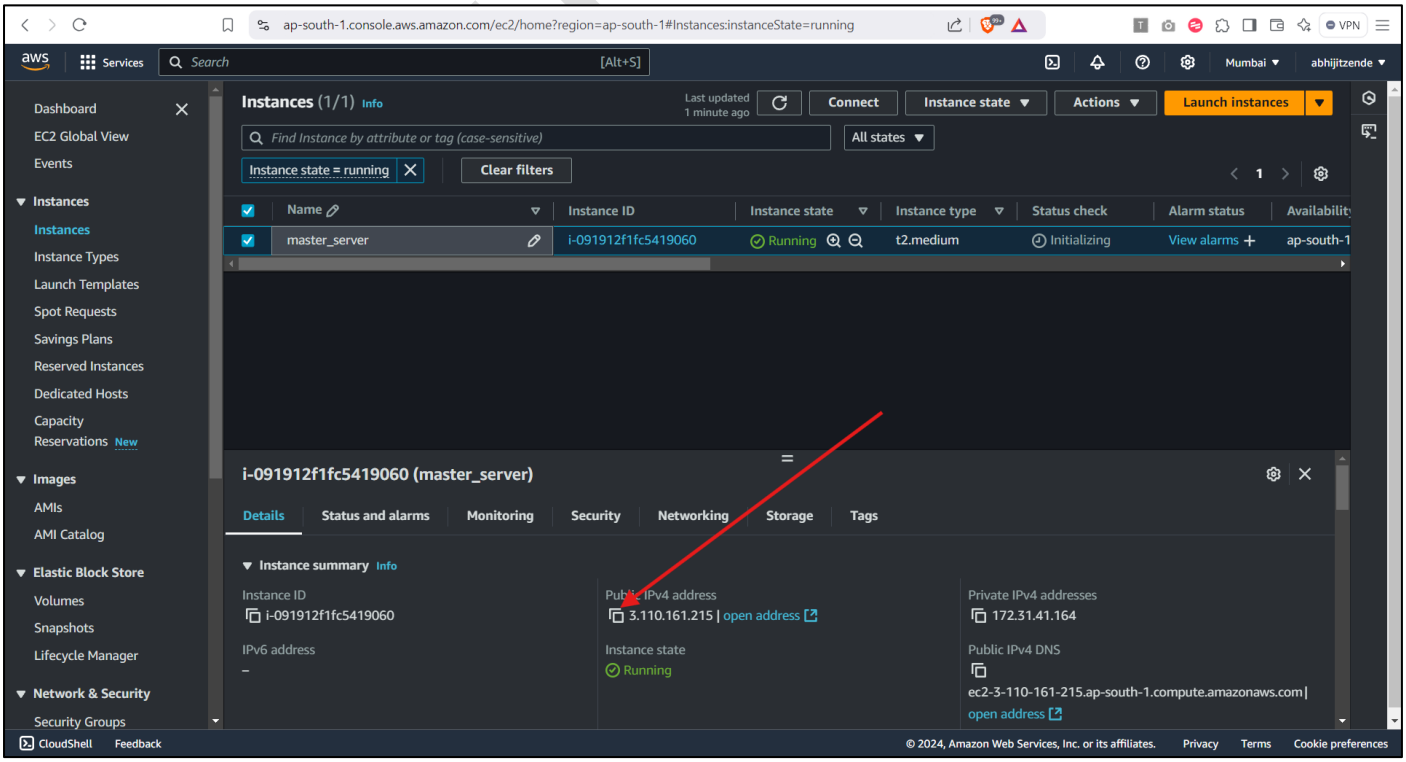
Fig. 3.19: Monitoring server

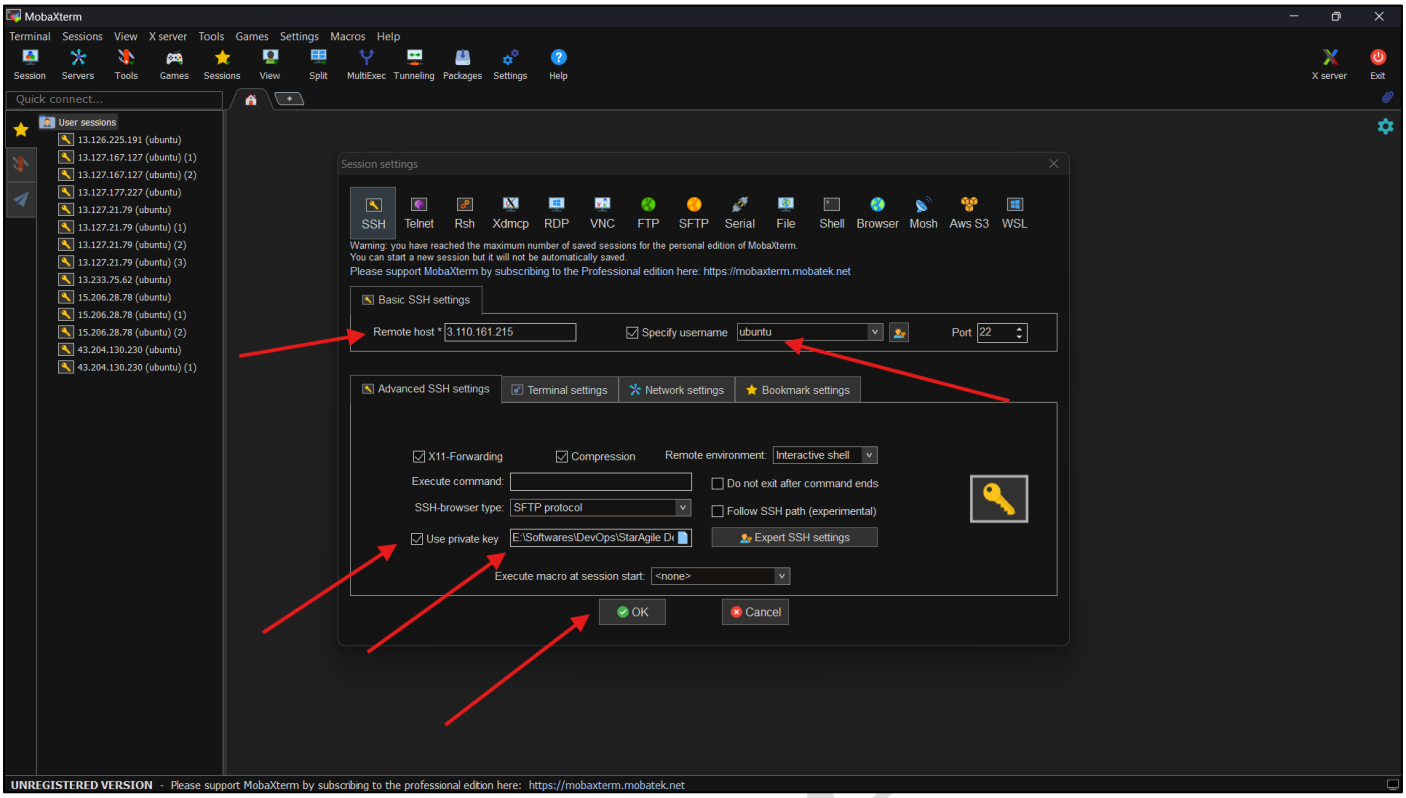
Phase 2 - Automating Build and Deployment phase:

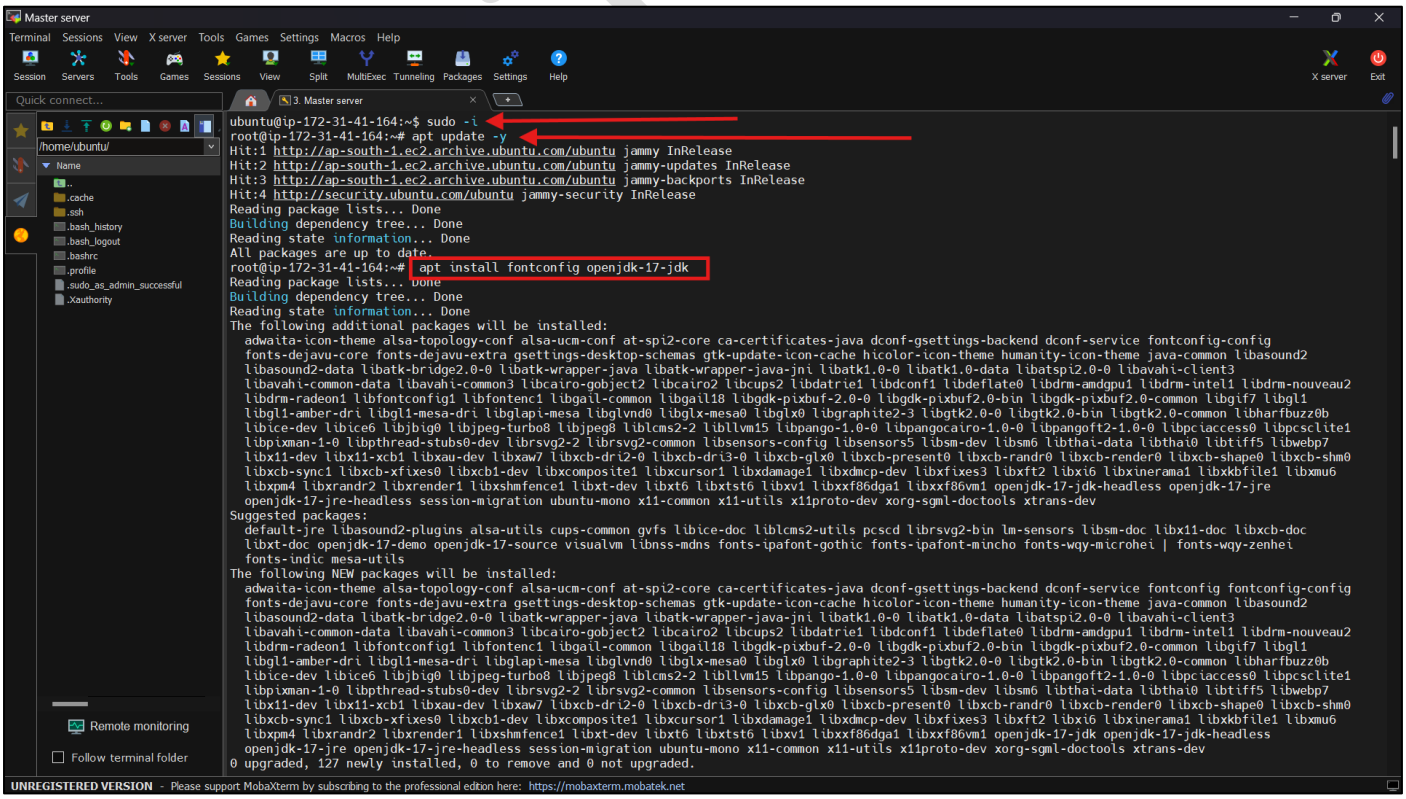
Steps:

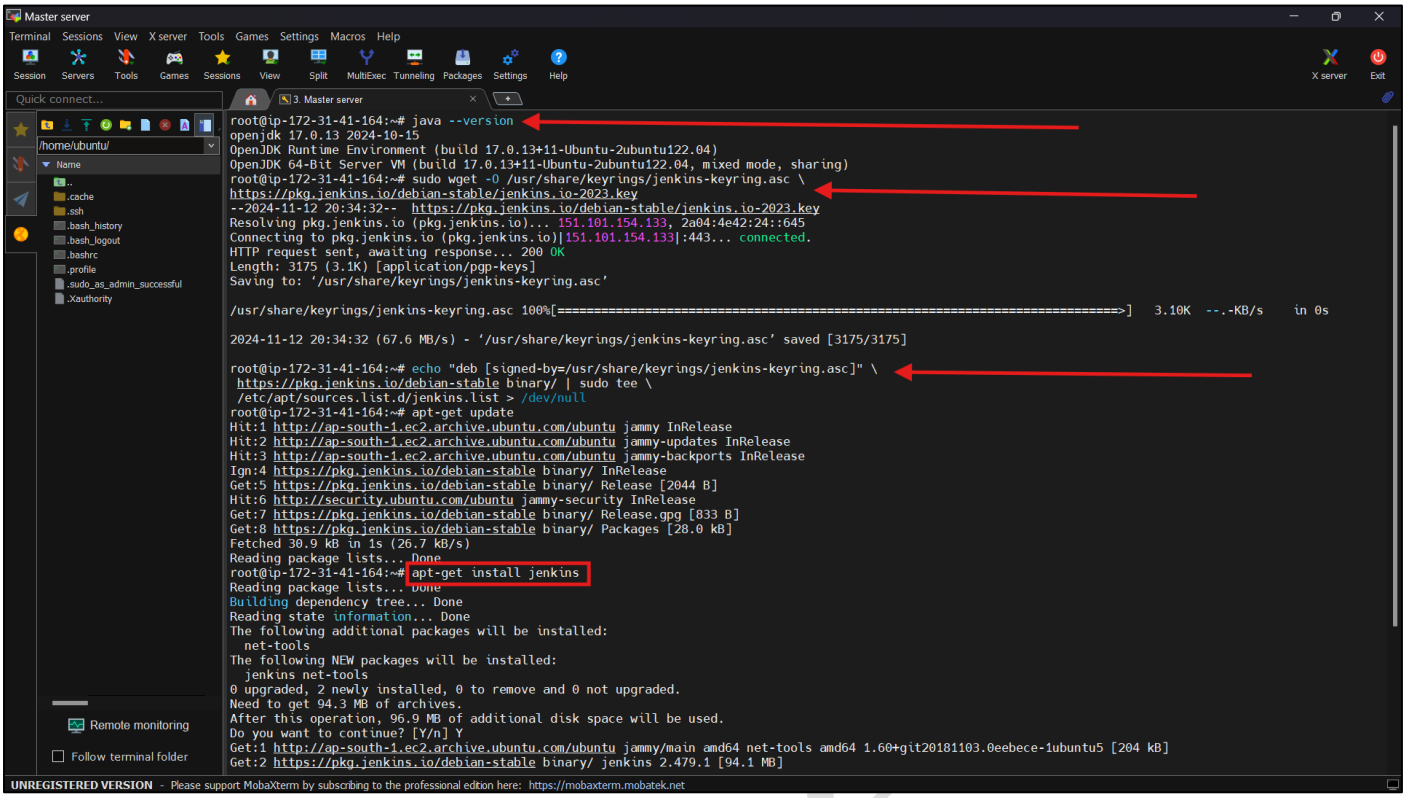
Step 1: Install and Setup Jenkins on Master server:

1. Download and Setup Jenkins on Master server
    a. SSH into the master server. If MobaXterm is not installed you can follow the link: https://mobaxterm.mobatek.net/download.html
    b. Install latest version of Git
    c. Install latest version of JDK
    d. Install latest version of Jenkins
    e. Create a user for handling Jenkins and elevate the privileges of that user
    f. Setup Jenkins Master-Slave architecture with Build server as slave node
    g. For more detailed guide follow: https://github.com/Abhiz2411/Jenkins-Jedi-CICD/blob/Main/Module-04-Continuous-Integration-using-Jenkins-Abhijit_Zende_GitHub_DevOps_Notes.pdf




MobaXterm
Session settings
SSH
Telnet
Rsh
Xdmcp
RDP
VNC
FTP
SFTP
Serial
File
Shell
Browser
Mosh
Aws S3
WSL
Basic SSH settings
Remote host * 3.110.161.215
Specify username
ubuntu
Port 22
Advanced SSH settings
Terminal settings
Network settings
Bookmark settings
X11-Forwarding
Compression
Remote environment: Interactive shell
Execute command:
Do not exit after command ends
SSH-browser type: SFTP protocol
Follow SSH path (experimental)
Use private key
Expert SSH settings
Execute macro at session start: <none>
OK
Cancel
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net


Master server
ubuntu@ip-172-31-41-164:~$ sudo -i
root@ip-172-31-41-164:~# apt update -y
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu jammy-security InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
All packages are up to date.
root@ip-172-31-41-164:~# apt install fontconfig openjdk-17-jdk
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
Suggested packages:
The following NEW packages will be installed:
0 upgraded, 127 newly installed, 0 to remove and 0 not upgraded.
Remote monitoring
Follow terminal folder
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net


Master server
root@ip-172-31-41-164:~# java --version
openjdk 17.0.13 2024-10-15
OpenJDK Runtime Environment (build 17.0.13+11-Ubuntu-2ubuntu122.04)
OpenJDK 64-Bit Server VM (build 17.0.13+11-Ubuntu-2ubuntu122.04, mixed mode, sharing)
root@ip-172-31-41-164:~# sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \
https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
--2024-11-12 20:34:32-- https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
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: 3175 (3.1K) [application/pgp-keys]
Saving to: '/usr/share/keyrings/jenkins-keyring.asc'
/usr/share/keyrings/jenkins-keyring.asc 100%[=>] 3.10K --.-KB/s in 0s
2024-11-12 20:34:32 (67.6 MB/s) - '/usr/share/keyrings/jenkins-keyring.asc' saved [3175/3175]
root@ip-172-31-41-164:~# 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
root@ip-172-31-41-164:~# apt-get update
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Ign:4 https://pkg.jenkins.io/debian-stable binary/ InRelease
Get:5 https://pkg.jenkins.io/debian-stable binary/ Release [2044 B]
Hit:6 http://security.ubuntu.com/ubuntu jammy-security InRelease
Get:7 https://pkg.jenkins.io/debian-stable binary/ Release.gpg [833 B]
Get:8 https://pkg.jenkins.io/debian-stable binary/ Packages [28.0 kB]
Fetched 30.9 kB in 1s (26.7 kB/s)
Reading package lists... Done
root@ip-172-31-41-164:~# apt-get install jenkins
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
net-tools
The following NEW packages will be installed:
jenkins net-tools
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.
Need to get 94.3 MB of archives.
After this operation, 96.9 MB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 net-tools amd64 1.60+git20181103.0eebece-1ubuntu5 [204 kB]
Get:2 https://pkg.jenkins.io/debian-stable binary/ jenkins 2.479.1 [94.1 MB]
Remote monitoring
Follow terminal folder
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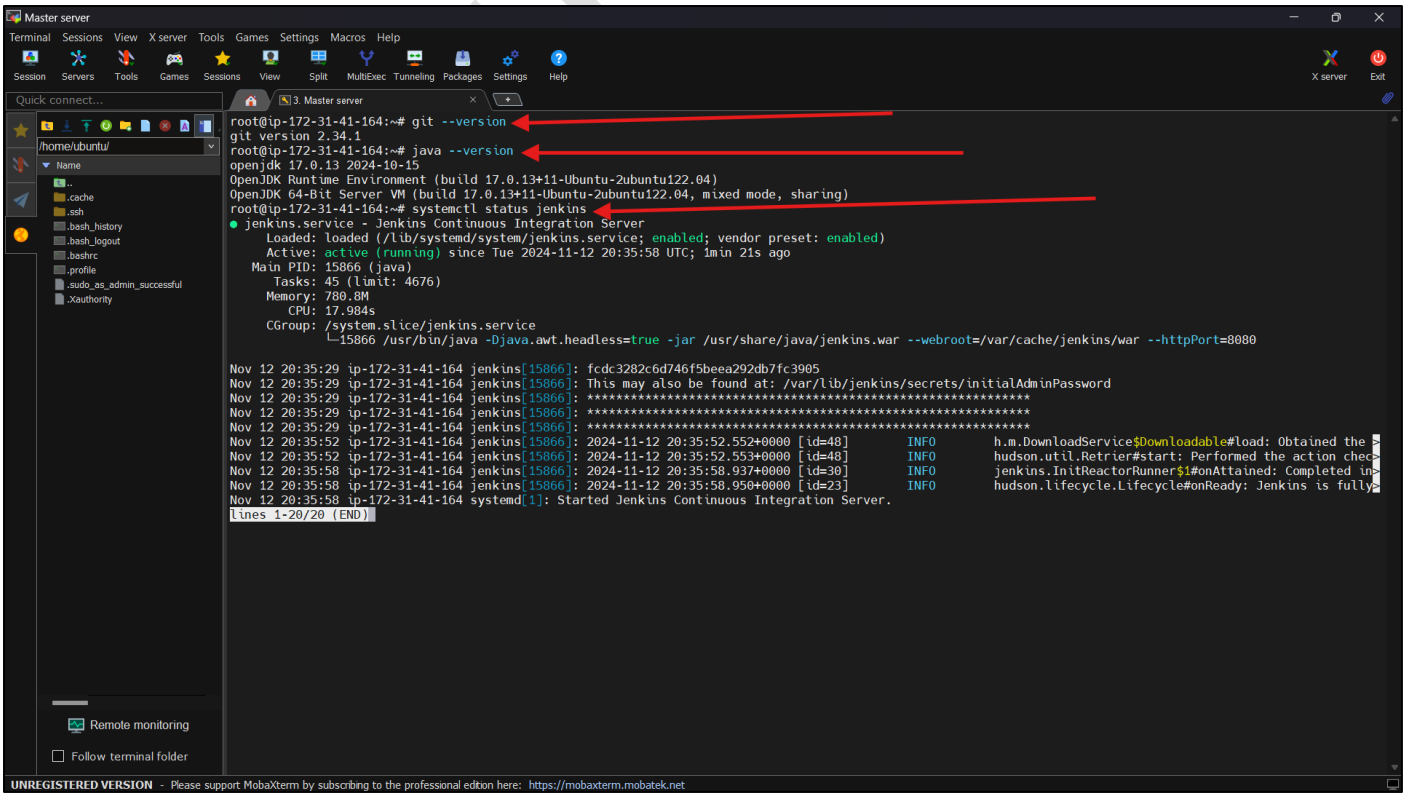
Master server
root@ip-172-31-41-164:~# git --version
git version 2.34.1
root@ip-172-31-41-164:~# java --version
openjdk 17.0.13 2024-10-15
OpenJDK Runtime Environment (build 17.0.13+11-Ubuntu-2ubuntu122.04)
OpenJDK 64-Bit Server VM (build 17.0.13+11-Ubuntu-2ubuntu122.04, mixed mode, sharing)
root@ip-172-31-41-164:~# systemctl status jenkins
● jenkins.service - Jenkins Continuous Integration Server
Loaded: loaded (/lib/systemd/system/jenkins.service; enabled; vendor preset: enabled)
Active: active (running) since Tue 2024-11-12 20:35:58 UTC; 1min 21s ago
Main PID: 15866 (java)
Tasks: 45 (limit: 4676)
Memory: 780.8M
CPU: 17.984s
CGroup: /system.slice/jenkins.service
└─15866 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=/var/cache/jenkins/war --httpPort=8080
Nov 12 20:35:29 ip-172-31-41-164 jenkins[15866]: fcdc3282c6d746f5beea292db7fc3905
Nov 12 20:35:29 ip-172-31-41-164 jenkins[15866]: This may also be found at: /var/lib/jenkins/secrets/initialAdminPassword
Nov 12 20:35:29 ip-172-31-41-164 jenkins[15866]: **
Nov 12 20:35:29 ip-172-31-41-164 jenkins[15866]: **
Nov 12 20:35:29 ip-172-31-41-164 jenkins[15866]: **
Nov 12 20:35:52 ip-172-31-41-164 jenkins[15866]: 2024-11-12 20:35:52.552+0000 [id=48] INFO h.m.DownloadService$Downloadable#load: Obtained the
Nov 12 20:35:52 ip-172-31-41-164 jenkins[15866]: 2024-11-12 20:35:52.553+0000 [id=48] INFO hudson.util.Retrier#start: Performed the action chec
Nov 12 20:35:58 ip-172-31-41-164 jenkins[15866]: 2024-11-12 20:35:58.937+0000 [id=30] INFO jenkins.InitReactorRunner$1#onAttained: Completed in
Nov 12 20:35:58 ip-172-31-41-164 jenkins[15866]: 2024-11-12 20:35:58.950+0000 [id=23] INFO hudson.lifecycle.Lifecycle#onReady: Jenkins is fully
Nov 12 20:35:58 ip-172-31-41-164 systemd[1]: Started Jenkins Continuous Integration Server.
lines 1-20/20 (END)
Remote monitoring
Follow terminal folder
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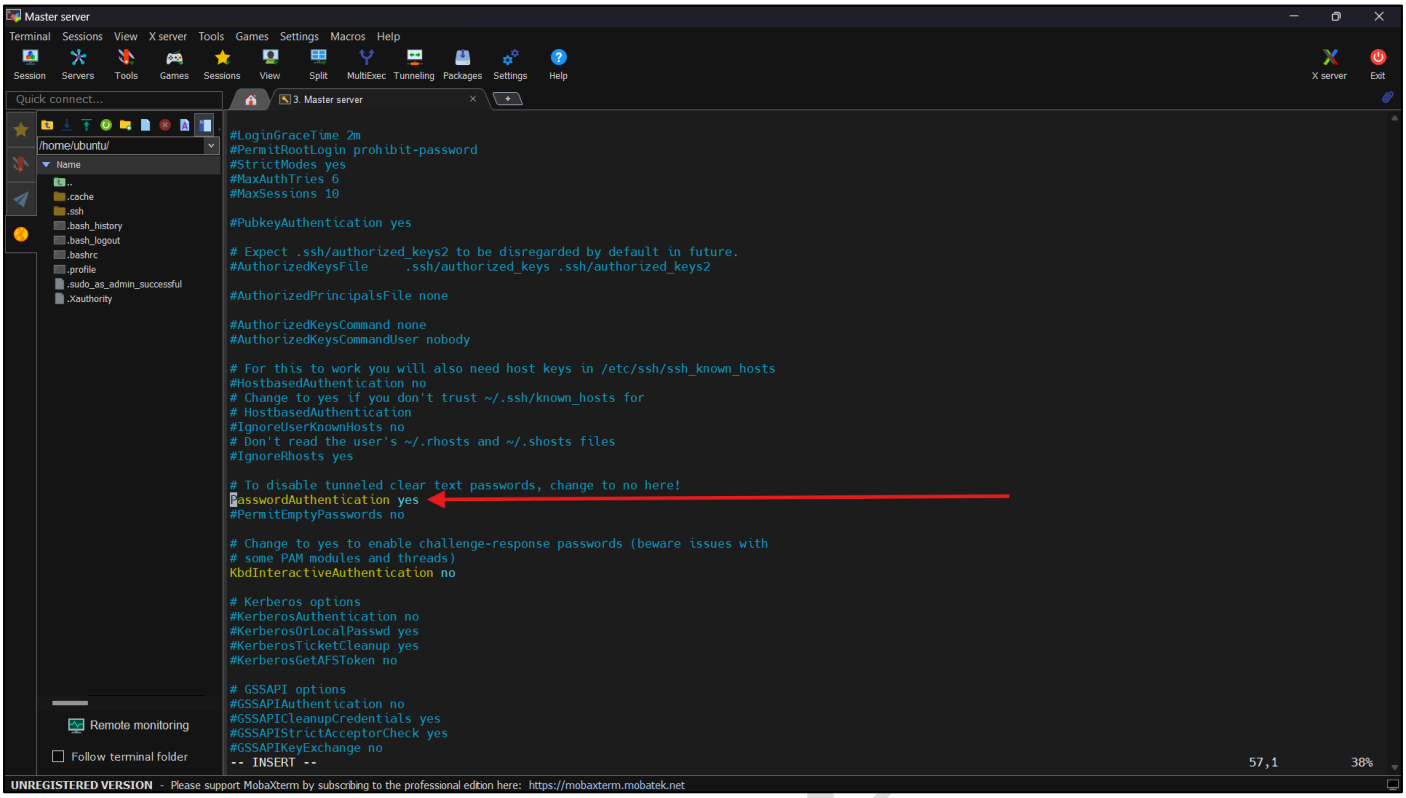
Master server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
3. Master server
/home/ubuntu/
Name
.cache
.ssh
.bash_history
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.Xauthority
#LoginGraceTime 2m
#PermitRootLogin prohibit-password
#StrictModes yes
#MaxAuthTries 6
#MaxSessions 10
#PubkeyAuthentication yes
Expect .ssh/authorized_keys2 to be disregarded by default in future.
#AuthorizedKeysFile .ssh/authorized_keys .ssh/authorized_keys2
#AuthorizedPrincipalsFile none
#AuthorizedKeysCommand none
#AuthorizedKeysCommandUser nobody
For this to work you will also need host keys in /etc/ssh/ssh_known_hosts
#HostbasedAuthentication no
Change to yes if you don't trust ~/.ssh/known_hosts for
HostbasedAuthentication
#IgnoreUserKnownHosts no
Don't read the user's ~/.rhosts and ~/.shosts files
#IgnoreRhosts yes
To disable tunneled clear text passwords, change to no here!
PasswordAuthentication yes
#PermitEmptyPasswords no
Change to yes to enable challenge-response passwords (beware issues with
some PAM modules and threads)
KbdInteractiveAuthentication no
Kerberos options
#KerberosAuthentication no
#KerberosOrLocalPasswd yes
#KerberosTicketCleanup yes
#KerberosGetAFSToken no
GSSAPI options
#GSSAPIAuthentication no
#GSSAPICleanupCredentials yes
#GSSAPIStrictAcceptorCheck yes
#GSSAPIKeyExchange no
-- INSERT --
57,1 38%
Remote monitoring
Follow terminal folder
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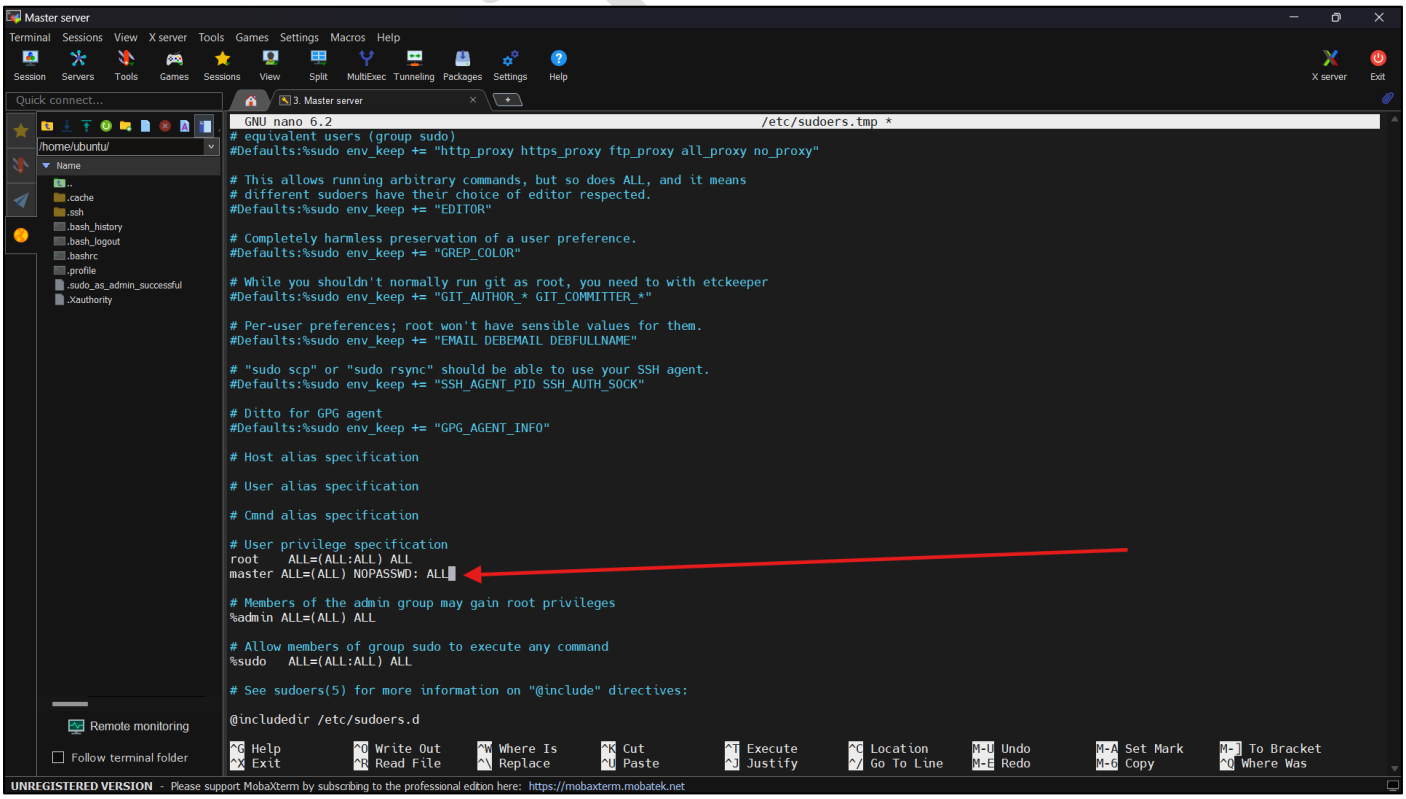
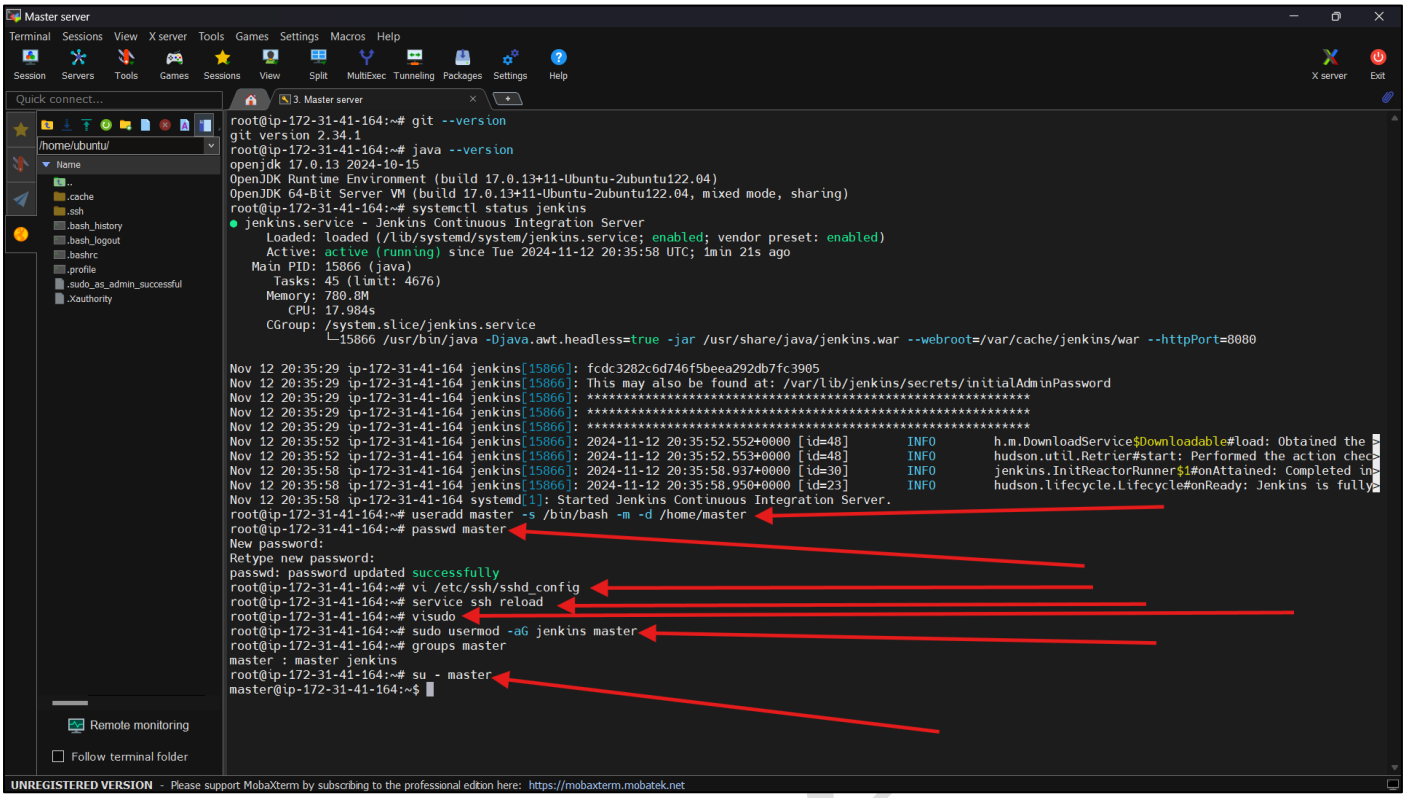

Master server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
3. Master server
/home/ubuntu/
Name
.cache
.ssh
.bash_history
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.Xauthority
GNU nano 6.2 /etc/sudoers.tmp *
equivalent users (group sudo)
#Defaults:%sudo env_keep += "http_proxy https_proxy ftp_proxy all_proxy no_proxy"
This allows running arbitrary commands, but so does ALL, and it means
different sudoers have their choice of editor respected.
#Defaults:%sudo env_keep += "EDITOR"
Completely harmless preservation of a user preference.
#Defaults:%sudo env_keep += "GREP_COLOR"
While you shouldn't normally run git as root, you need to with etckeeper
#Defaults:%sudo env_keep += "GIT_AUTHOR_* GIT_COMMITTER_*"
Per-user preferences; root won't have sensible values for them.
#Defaults:%sudo env_keep += "EMAIL DEBEMAIL DEBFULLNAME"
"sudo scp" or "sudo rsync" should be able to use your SSH agent.
#Defaults:%sudo env_keep += "SSH_AGENT_PID SSH_AUTH_SOCK"
Ditto for GPG agent
#Defaults:%sudo env_keep += "GPG_AGENT_INFO"
Host alias specification
User alias specification
Cmnd alias specification
User privilege specification
root ALL=(ALL:ALL) ALL
master ALL=(ALL) NOPASSWD: ALL
Members of the admin group may gain root privileges
%admin ALL=(ALL) ALL
Allow members of group sudo to execute any command
%sudo ALL=(ALL:ALL) ALL
See sudoers(5) for more information on "@include" directives:
@includedir /etc/sudoers.d
^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location M-U Undo M-A Set Mark M-] To Bracket
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^/ Go To Line M-E Redo M-6 Copy ^Q Where Was
Remote monitoring
Follow terminal folder
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net


Master server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
3. Master server
/home/ubuntu/
Name
.cache
.ssh
.bash_history
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.Xauthority
Remote monitoring
Follow terminal folder
root@ip-172-31-41-164:~# git --version
git version 2.34.1
root@ip-172-31-41-164:~# java --version
openjdk 17.0.13 2024-10-15
OpenJDK Runtime Environment (build 17.0.13+11-Ubuntu-2ubuntu122.04)
OpenJDK 64-Bit Server VM (build 17.0.13+11-Ubuntu-2ubuntu122.04, mixed mode, sharing)
root@ip-172-31-41-164:~# systemctl status jenkins
● jenkins.service - Jenkins Continuous Integration Server
Loaded: loaded (/lib/systemd/system/jenkins.service; enabled; vendor preset: enabled)
Active: active (running) since Tue 2024-11-12 20:35:58 UTC; 1min 21s ago
Main PID: 15866 (java)
Tasks: 45 (limit: 4676)
Memory: 780.8M
CPU: 17.984s
CGroup: /system.slice/jenkins.service
└─15866 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=/var/cache/jenkins/war --httpPort=8080
Nov 12 20:35:29 ip-172-31-41-164 jenkins[15866]: fcdc3282c6d746f5beea292db7fc3905
Nov 12 20:35:29 ip-172-31-41-164 jenkins[15866]: This may also be found at: /var/lib/jenkins/secrets/initialAdminPassword
Nov 12 20:35:29 ip-172-31-41-164 jenkins[15866]: **
Nov 12 20:35:29 ip-172-31-41-164 jenkins[15866]: **
Nov 12 20:35:29 ip-172-31-41-164 jenkins[15866]: **
Nov 12 20:35:52 ip-172-31-41-164 jenkins[15866]: 2024-11-12 20:35:52.552+0000 [id=48] INFO h.m.DownloadService$Downloadable#load: Obtained the
Nov 12 20:35:52 ip-172-31-41-164 jenkins[15866]: 2024-11-12 20:35:52.553+0000 [id=48] INFO hudson.util.Retrier#start: Performed the action chec
Nov 12 20:35:58 ip-172-31-41-164 jenkins[15866]: 2024-11-12 20:35:58.937+0000 [id=30] INFO jenkins.InitReactorRunner$1#onAttained: Completed in
Nov 12 20:35:58 ip-172-31-41-164 jenkins[15866]: 2024-11-12 20:35:58.950+0000 [id=23] INFO hudson.lifecycle.Lifecycle#onReady: Jenkins is fully
Nov 12 20:35:58 ip-172-31-41-164 systemd[1]: Started Jenkins Continuous Integration Server.
root@ip-172-31-41-164:~# useradd master -s /bin/bash -m -d /home/master
root@ip-172-31-41-164:~# passwd master
New password:
Retype new password:
passwd: password updated successfully
root@ip-172-31-41-164:~# vi /etc/ssh/sshd_config
root@ip-172-31-41-164:~# service ssh reload
root@ip-172-31-41-164:~# visudo
root@ip-172-31-41-164:~# sudo usermod -aG jenkins master
root@ip-172-31-41-164:~# groups master
master : master jenkins
root@ip-172-31-41-164:~# su - master
master@ip-172-31-41-164:~$
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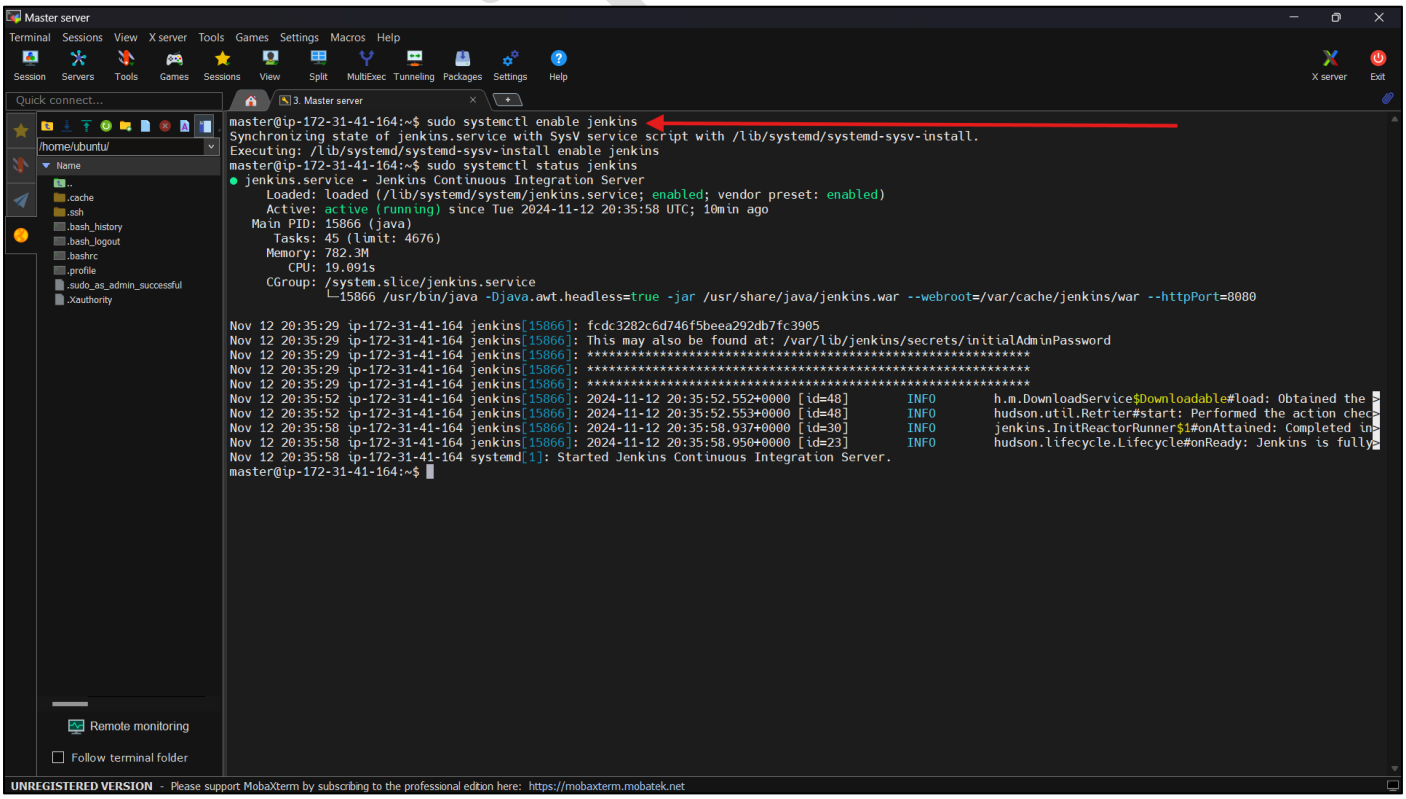
Master server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
3. Master server
/home/ubuntu/
Name
.cache
.ssh
.bash_history
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.Xauthority
Remote monitoring
Follow terminal folder
master@ip-172-31-41-164:~$ sudo systemctl enable jenkins
Synchronizing state of jenkins.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable jenkins
master@ip-172-31-41-164:~$ sudo systemctl status jenkins
● jenkins.service - Jenkins Continuous Integration Server
Loaded: loaded (/lib/systemd/system/jenkins.service; enabled; vendor preset: enabled)
Active: active (running) since Tue 2024-11-12 20:35:58 UTC; 10min ago
Main PID: 15866 (java)
Tasks: 45 (limit: 4676)
Memory: 782.3M
CPU: 19.091s
CGroup: /system.slice/jenkins.service
└─15866 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=/var/cache/jenkins/war --httpPort=8080
Nov 12 20:35:29 ip-172-31-41-164 jenkins[15866]: fcdc3282c6d746f5beea292db7fc3905
Nov 12 20:35:29 ip-172-31-41-164 jenkins[15866]: This may also be found at: /var/lib/jenkins/secrets/initialAdminPassword
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Nov 12 20:35:29 ip-172-31-41-164 jenkins[15866]: **
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Nov 12 20:35:58 ip-172-31-41-164 systemd[1]: Started Jenkins Continuous Integration Server.
master@ip-172-31-41-164:~$
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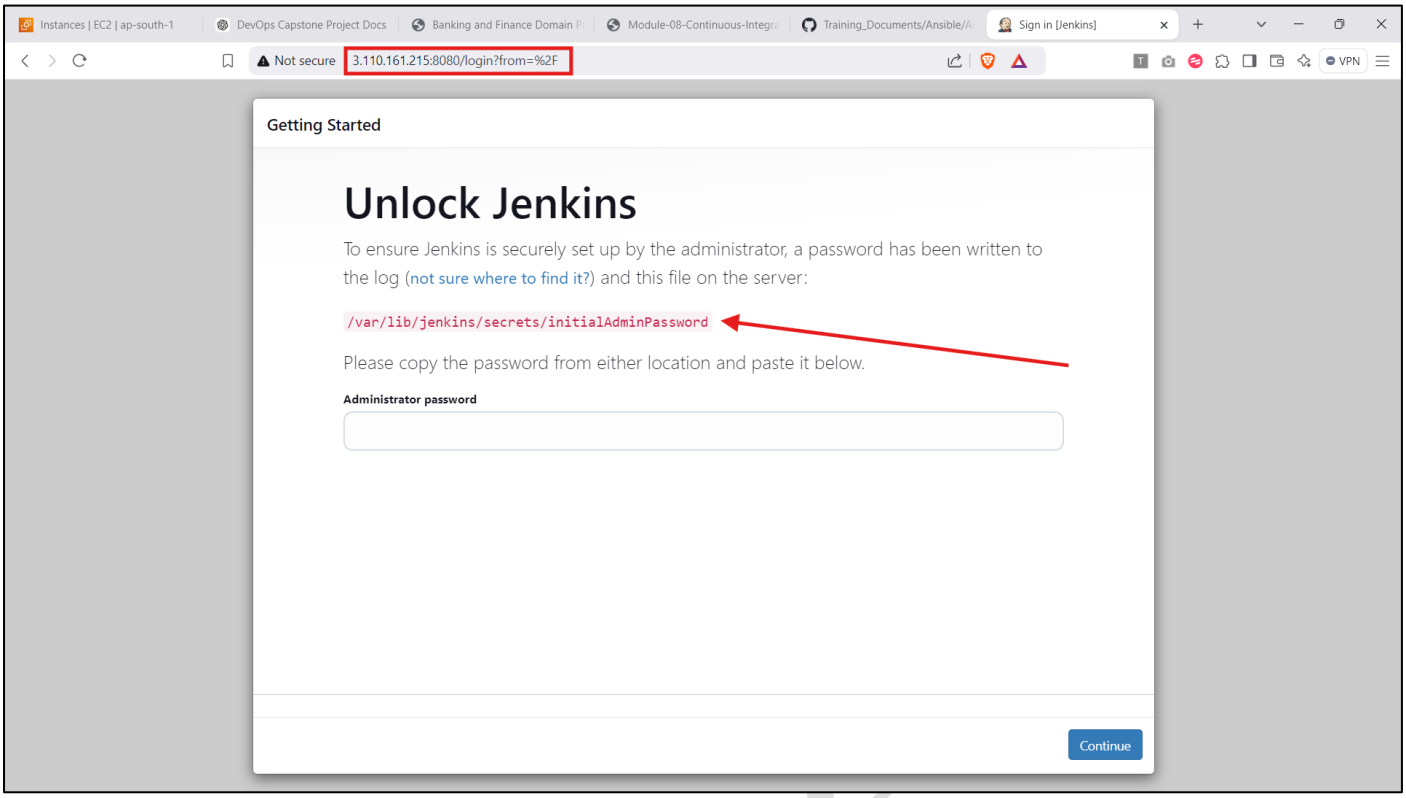
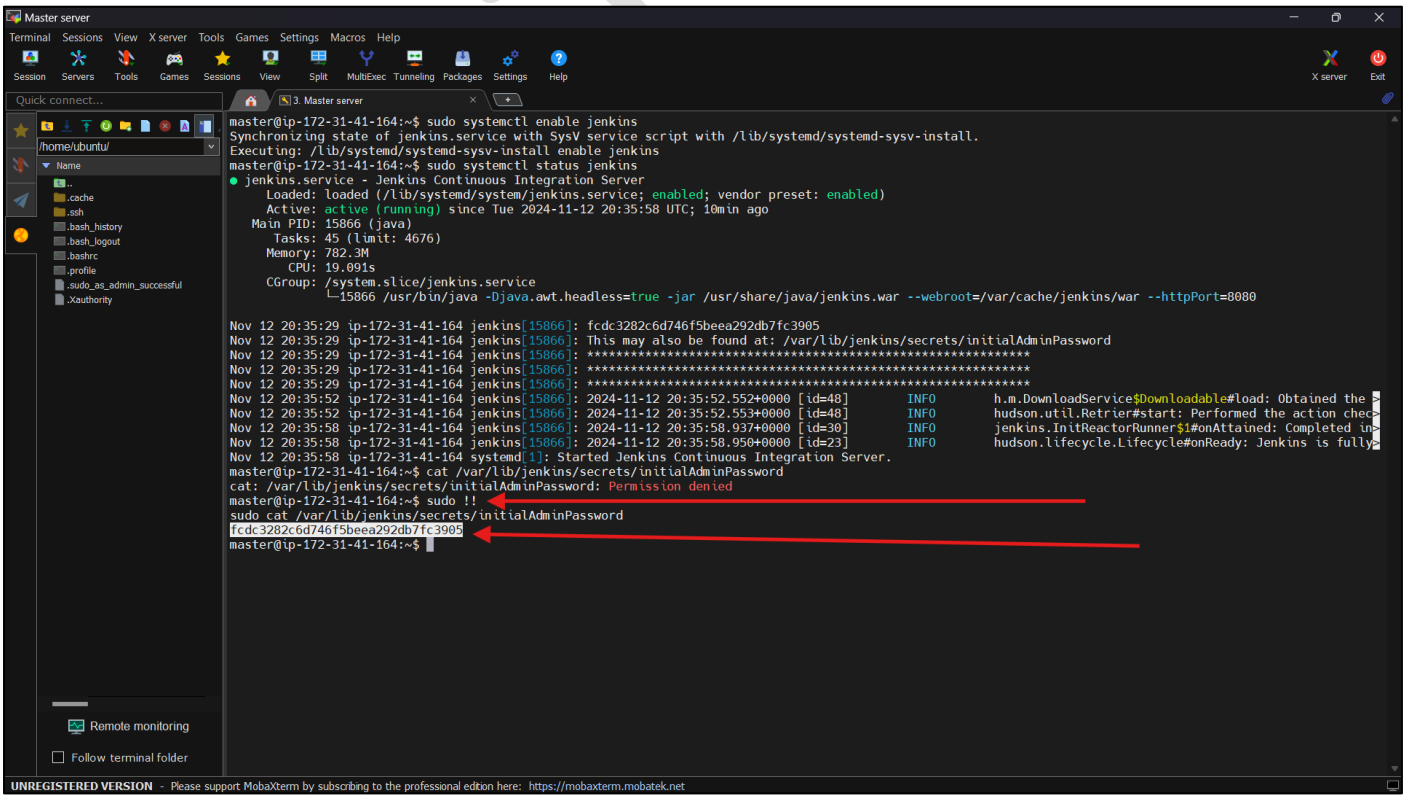

Instances | EC2 | ap-south-1
DevOps Capstone Project Docs
Banking and Finance Domain P
Module-08-Continuous-Integra
Training_Documents/Ansible/A
Sign in [Jenkins]
Not secure
3.110.161.215:8080/login?from=%2F
VPN
Getting Started
Unlock Jenkins
To ensure Jenkins is securely set up by the administrator, a password has been written to the log (not sure where to find it?) and this file on the server:
/var/lib/jenkins/secrets/initialAdminPassword
Please copy the password from either location and paste it below.
Administrator password
Continue


Master server
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Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
3. Master server
/home/ubuntu/
Name
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.ssh
.bash_history
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.Xauthority
master@ip-172-31-41-164:~$ sudo systemctl enable jenkins
Synchronizing state of jenkins.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable jenkins
master@ip-172-31-41-164:~$ sudo systemctl status jenkins
● jenkins.service - Jenkins Continuous Integration Server
Loaded: loaded (/lib/systemd/system/jenkins.service; enabled; vendor preset: enabled)
Active: active (running) since Tue 2024-11-12 20:35:58 UTC; 10min ago
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Tasks: 45 (limit: 4676)
Memory: 782.3M
CPU: 19.091s
CGroup: /system.slice/jenkins.service
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Nov 12 20:35:58 ip-172-31-41-164 systemd[1]: Started Jenkins Continuous Integration Server.
master@ip-172-31-41-164:~$ cat /var/lib/jenkins/secrets/initialAdminPassword
cat: /var/lib/jenkins/secrets/initialAdminPassword: Permission denied
master@ip-172-31-41-164:~$ sudo !!
sudo cat /var/lib/jenkins/secrets/initialAdminPassword
fcdc3282c6d746f5beea292db7fc3905
master@ip-172-31-41-164:~$
Remote monitoring
Follow terminal folder
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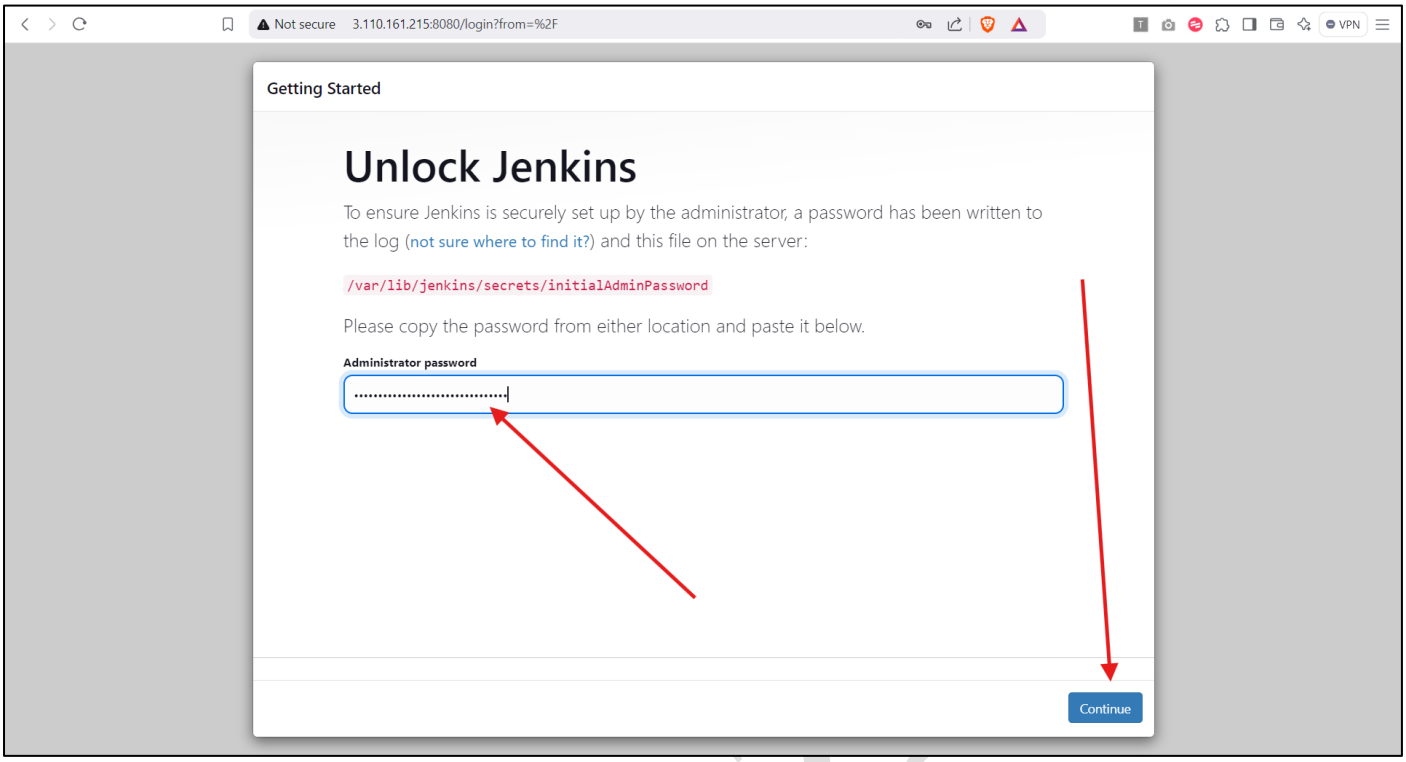
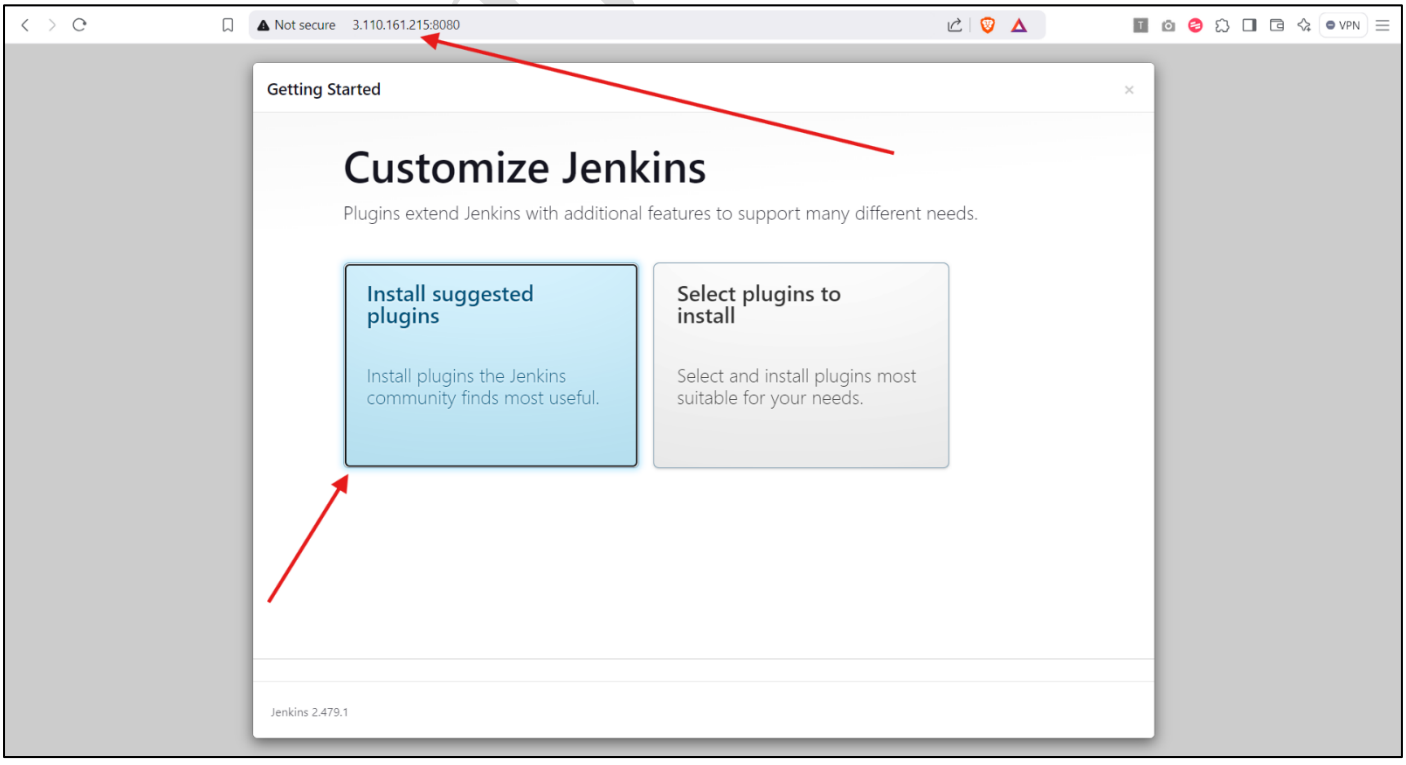
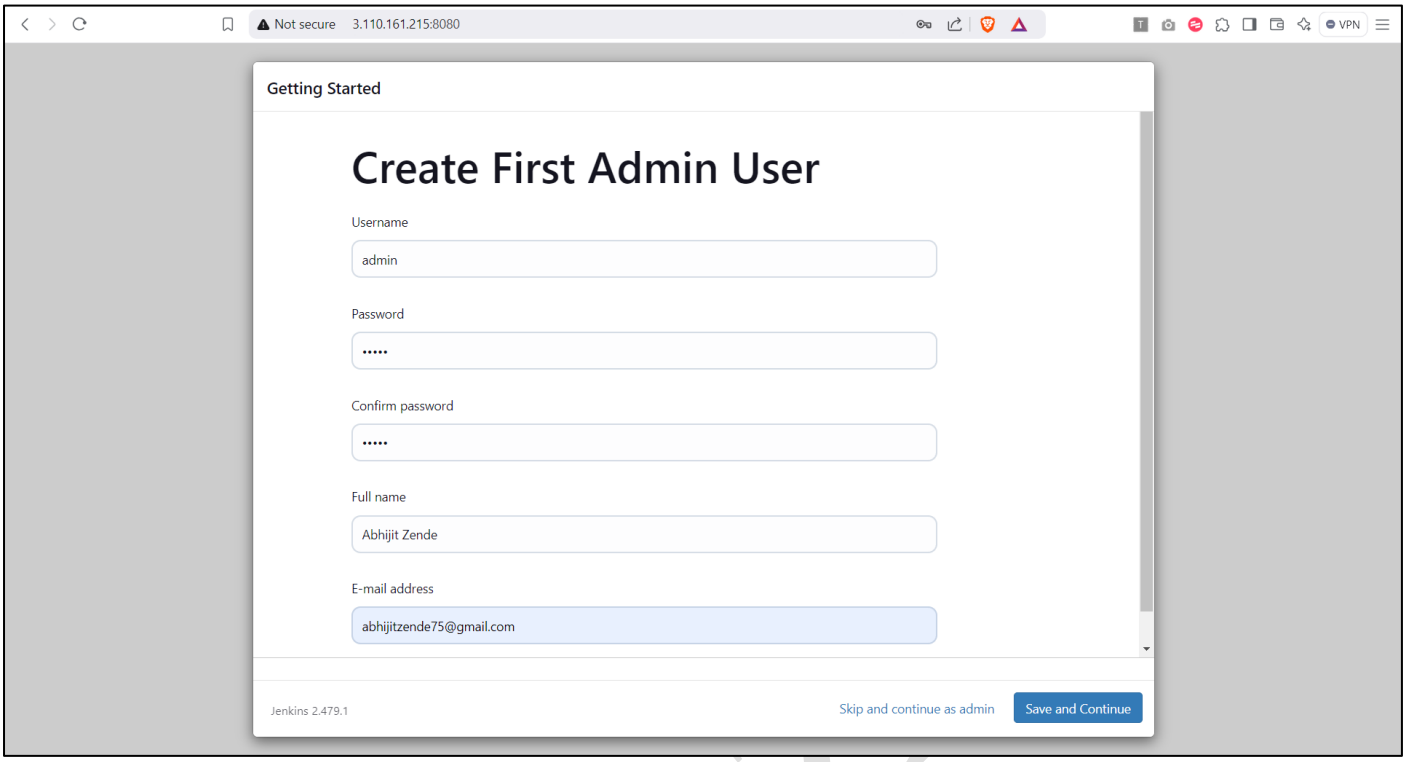
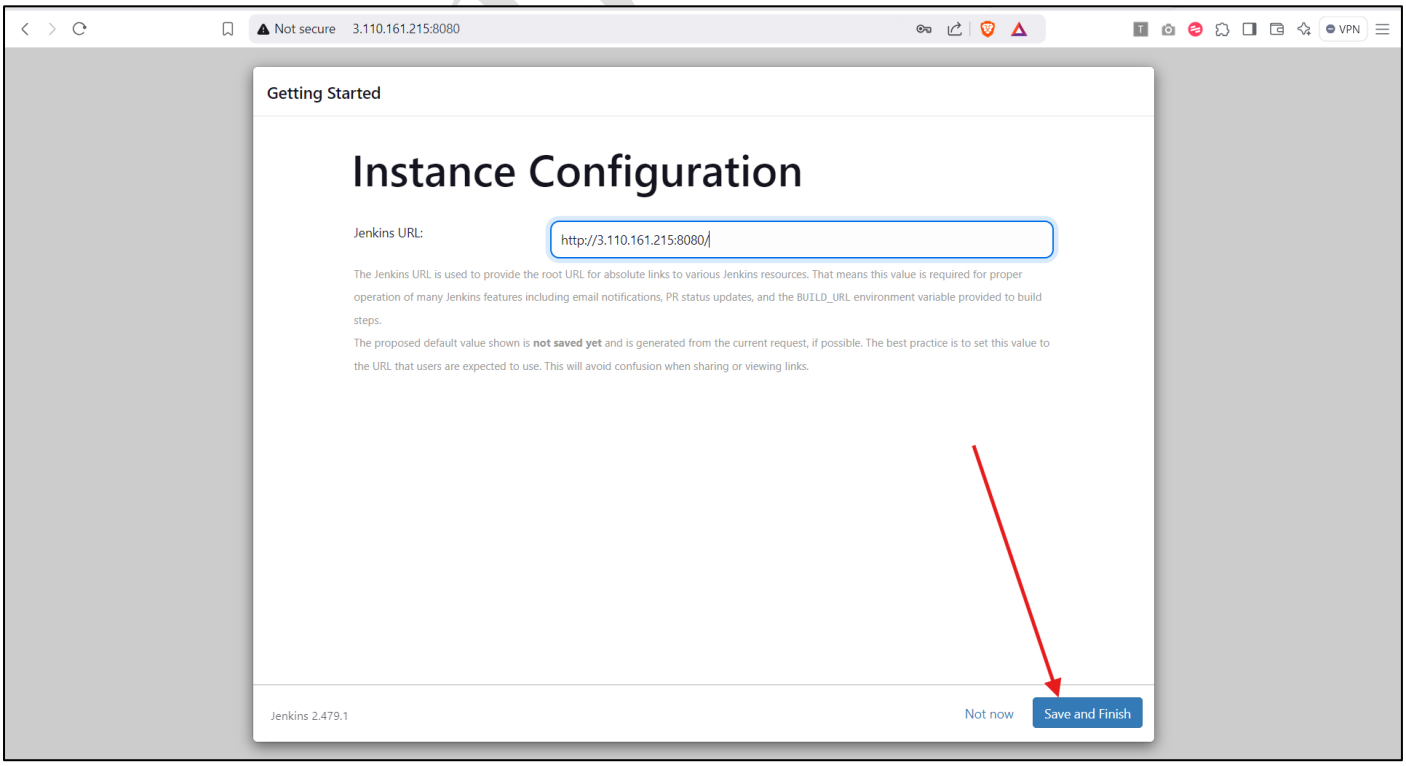
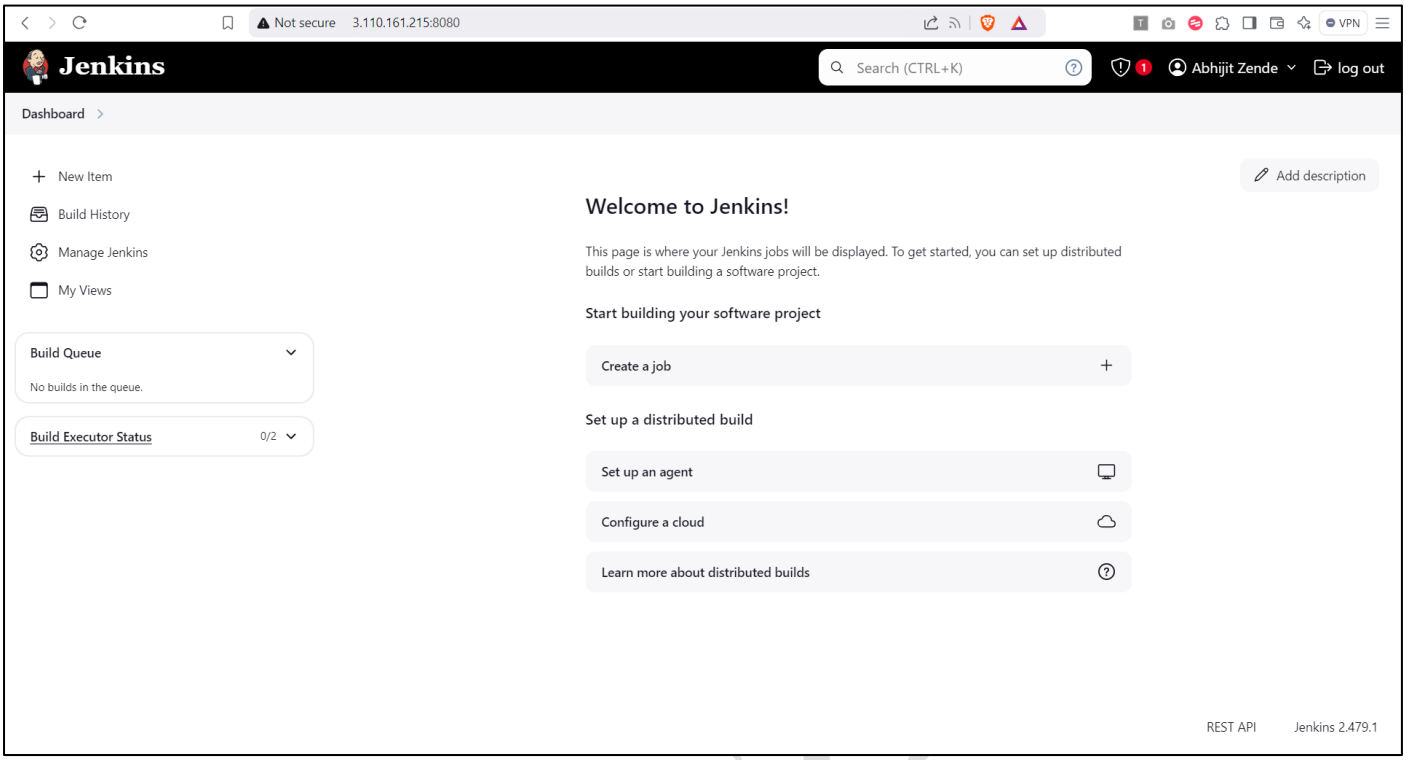
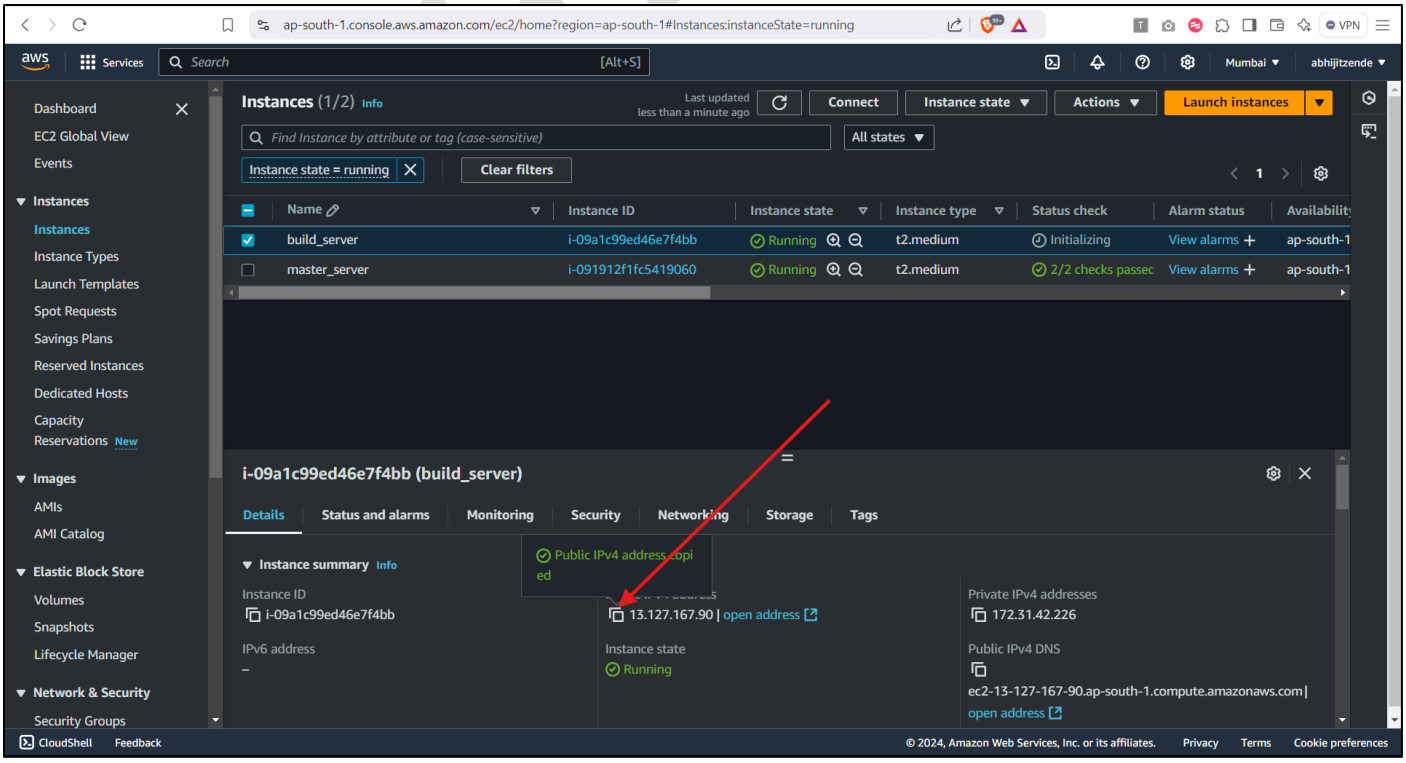

Not secure 3.110.161.215:8080/login?from=%2F
Getting Started
Unlock Jenkins
To ensure Jenkins is securely set up by the administrator, a password has been written to the log (not sure where to find it?) and this file on the server:
/var/lib/jenkins/secrets/initialAdminPassword
Please copy the password from either location and paste it below.
Administrator password
Continue

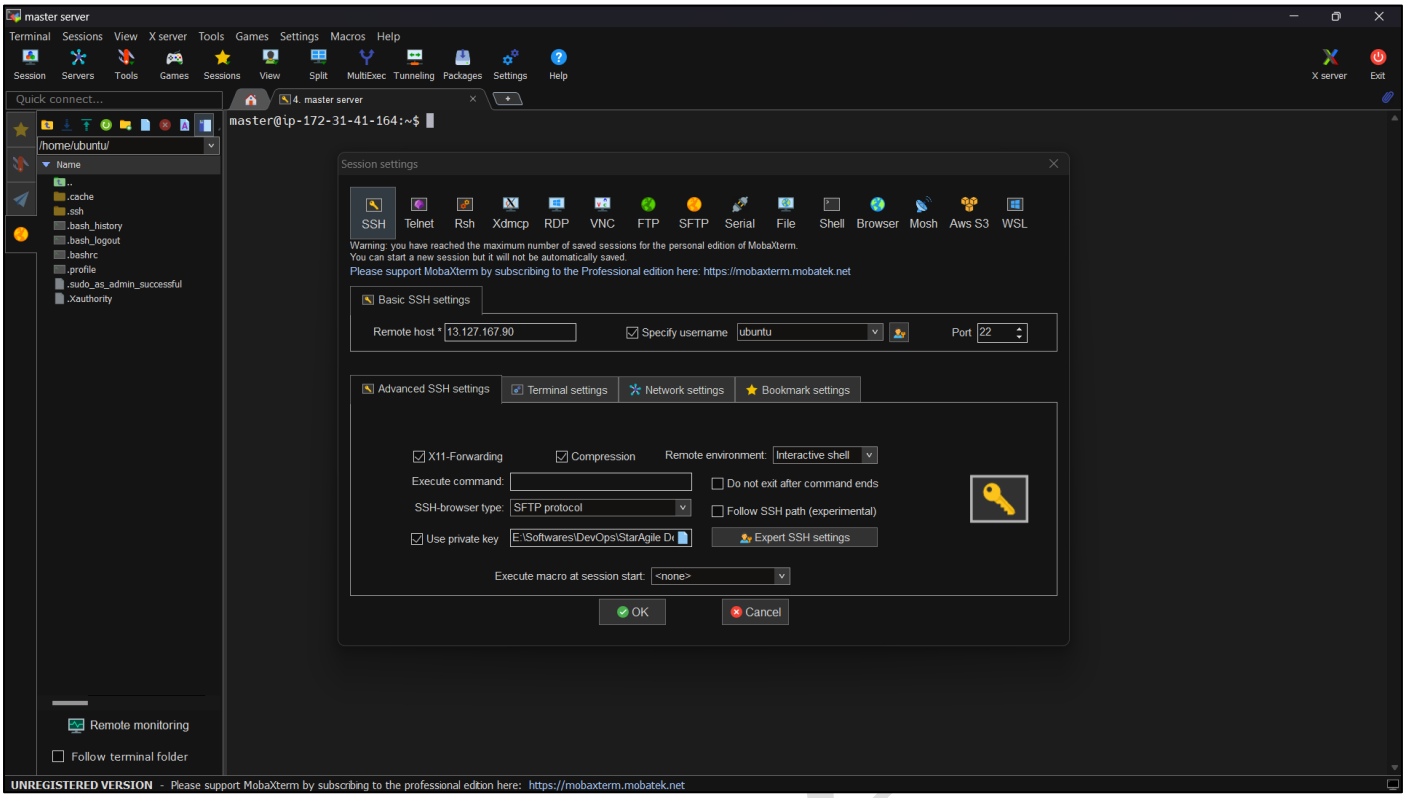

Not secure 3.110.161.215:8080
Getting Started
Customize Jenkins
Plugins extend Jenkins with additional features to support many different needs.
Install suggested plugins
Install plugins the Jenkins community finds most useful.
Select plugins to install
Select and install plugins most suitable for your needs.
Jenkins 2.479.1


Not secure 3.110.161.215:8080
Getting Started
Create First Admin User
Username
admin
Password
Confirm password
Full name
Abhijit Zende
E-mail address
abhijitzende75@gmail.com
Jenkins 2.479.1
Skip and continue as admin
Save and Continue


Not secure 3.110.161.215:8080
Getting Started
Instance Configuration
Jenkins URL:
http://3.110.161.215:8080/
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 2.479.1
Not now
Save and Finish


Not secure 3.110.161.215:8080
Jenkins
Search (CTRL+K)
Abhijit Zende
log out
Dashboard
New Item
Build History
Manage Jenkins
My Views
Build Queue
No builds in the queue.
Build Executor Status 0/2
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
Create a job
Set up a distributed build
Set up an agent
Configure a cloud
Learn more about distributed builds
REST API
Jenkins 2.479.1


ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#Instances:instanceState=running
Services
Search [Alt+S]
Mumbai
abhijitzende
Dashboard
EC2 Global View
Events
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations New
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Network & Security
Security Groups
Instances (1/2) Info
Last updated less than a minute ago
Connect
Instance state
Actions
Launch instances
Find Instance by attribute or tag (case-sensitive)
All states
Instance state = running
Clear filters
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
build_server
i-09a1c99ed46e7f4bb
Running
t2.medium
Initializing
View alarms
master_server
i-091912f1fc5419060
Running
t2.medium
2/2 checks passed
View alarms
i-09a1c99ed46e7f4bb (build_server)
Details
Status and alarms
Monitoring
Security
Networking
Storage
Tags
Instance summary Info
Public IPv4 address copied
Instance ID
i-09a1c99ed46e7f4bb
13.127.167.90 | open address
Private IPv4 addresses
172.31.42.226
IPv6 address
Instance state
Running
Public IPv4 DNS
ec2-13-127-167-90.ap-south-1.compute.amazonaws.com | open address
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences


master server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
4. master server
master@ip-172-31-41-164:~$
/home/ubuntu/
Name
.cache
.ssh
.bash_history
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.Xauthority
Session settings
SSH Telnet Rsh Xdmcp RDP VNC FTP SFTP Serial File Shell Browser Mosh Aws S3 WSL
Warning: you have reached the maximum number of saved sessions for the personal edition of MobaXterm.
You can start a new session but it will not be automatically saved.
Please support MobaXterm by subscribing to the Professional edition here: https://mobaxterm.mobatek.net
Basic SSH settings
Remote host * 13.127.167.90
Specify username ubuntu
Port 22
Advanced SSH settings
Terminal settings
Network settings
Bookmark settings
X11-Forwarding
Compression
Remote environment: Interactive shell
Execute command:
Do not exit after command ends
SSH-browser type: SFTP protocol
Follow SSH path (experimental)
Use private key
E:\Softwares\DevOps\StarAgile D
Expert SSH settings
Execute macro at session start: <none>
OK
Cancel
Remote monitoring
Follow terminal folder
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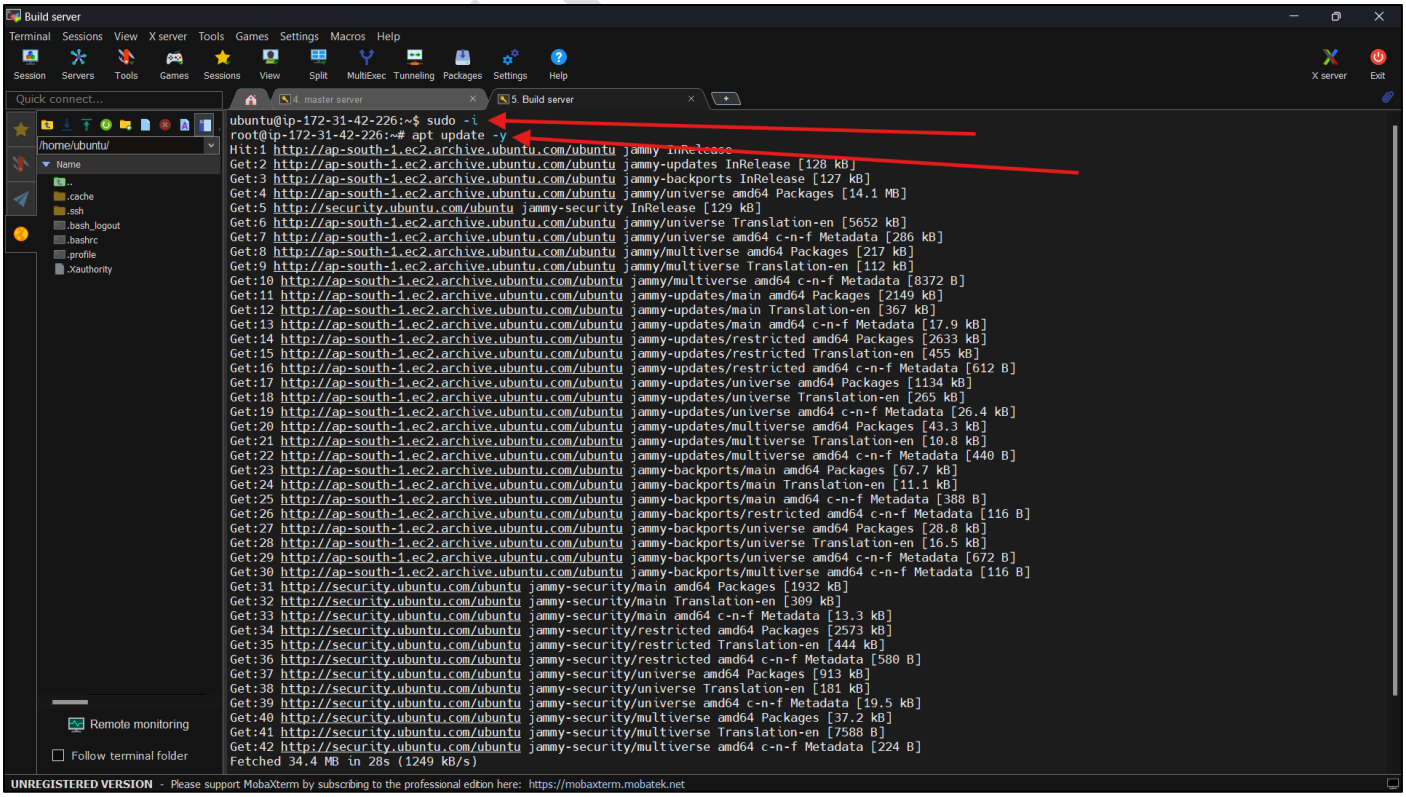
Build server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
4. master server
5. Build server
ubuntu@ip-172-31-42-226:~$ sudo -i
root@ip-172-31-42-226:~# apt update -y
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [128 kB]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [127 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]
Get:5 http://security.ubuntu.com/ubuntu jammy-security InRelease [129 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/universe Translation-en [5652 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 c-n-f Metadata [286 kB]
Get:8 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [217 kB]
Get:9 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse Translation-en [112 kB]
Get:10 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 c-n-f Metadata [8372 B]
Get:11 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [2149 kB]
Get:12 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [367 kB]
Get:13 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata [17.9 kB]
Get:14 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [2633 kB]
Get:15 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [455 kB]
Get:16 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 c-n-f Metadata [612 B]
Get:17 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1134 kB]
Get:18 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [265 kB]
Get:19 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [26.4 kB]
Get:20 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [43.3 kB]
Get:21 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [10.8 kB]
Get:22 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [440 B]
Get:23 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [67.7 kB]
Get:24 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [11.1 kB]
Get:25 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [388 B]
Get:26 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:27 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [28.8 kB]
Get:28 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [16.5 kB]
Get:29 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [672 B]
Get:30 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/multiverse amd64 c-n-f Metadata [116 B]
Get:31 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [1932 kB]
Get:32 http://security.ubuntu.com/ubuntu jammy-security/main Translation-en [309 kB]
Get:33 http://security.ubuntu.com/ubuntu jammy-security/main amd64 c-n-f Metadata [13.3 kB]
Get:34 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [2573 kB]
Get:35 http://security.ubuntu.com/ubuntu jammy-security/restricted Translation-en [444 kB]
Get:36 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 c-n-f Metadata [580 B]
Get:37 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [913 kB]
Get:38 http://security.ubuntu.com/ubuntu jammy-security/universe Translation-en [181 kB]
Get:39 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 c-n-f Metadata [19.5 kB]
Get:40 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [37.2 kB]
Get:41 http://security.ubuntu.com/ubuntu jammy-security/multiverse Translation-en [7588 B]
Get:42 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 c-n-f Metadata [224 B]
Fetched 34.4 MB in 28s (1249 kB/s)
Remote monitoring
Follow terminal folder
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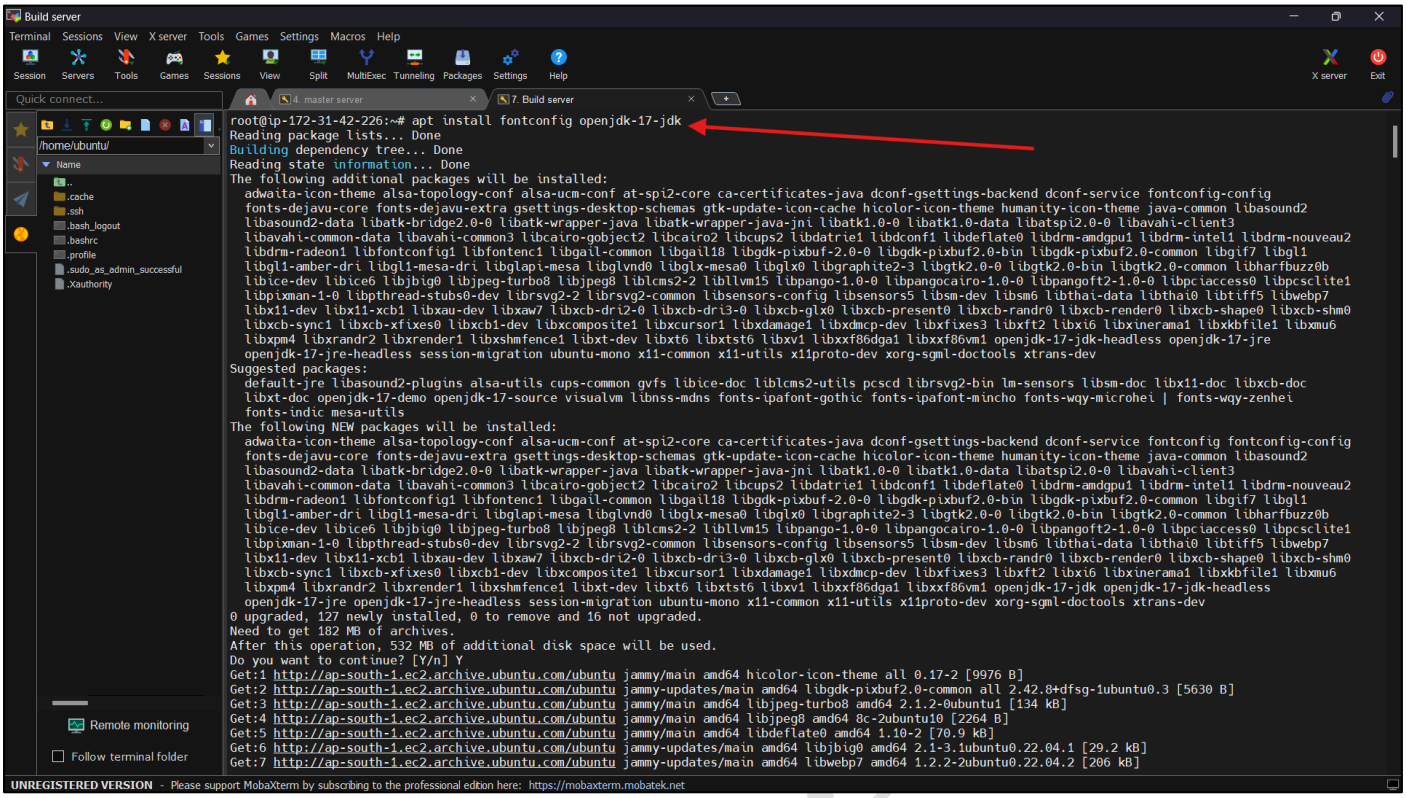
Build server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
4. master server
7. Build server
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.Xauthority
Remote monitoring
Follow terminal folder
root@ip-172-31-42-226:~# apt install fontconfig openjdk-17-jdk
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
adwaita-icon-theme alsa-topology-conf alsa-ucm-conf at-spi2-core ca-certificates-java dconf-gsettings-backend dconf-service fontconfig-config
fonts-dejavu-core fonts-dejavu-extra gsettings-desktop-schemas gtk-update-icon-cache hicolor-icon-theme humanity-icon-theme java-common libasound2
libasound2-data libatk-bridge2.0-0 libatk-wrapper-java libatk-wrapper-java-jni libatk1.0-0 libatk1.0-data libatspi2.0-0 libavahi-client3
libavahi-common-data libavahi-common3 libcairo-gobject2 libcairo2 libcups2 libdatrie1 libdconf1 libdeflate0 libdrm-amdgpu1 libdrm-intel1 libdrm-nouveau2
libdrm-radeon1 libfontconfig1 libfontenc1 libgail-common libgail18 libgdk-pixbuf-2.0-0 libgdk-pixbuf2.0-bin libgdk-pixbuf2.0-common libgif7 libgl1
libgl1-amber-dri libgl1-mesa-dri libglapi-mesa libglvnd0 libglx-mesa0 libglx0 libgraphite2-3 libgtk2.0-0 libgtk2.0-bin libgtk2.0-common libharfbuzz0b
libice-dev libice6 libjbig0 libjpeg-turbo8 libjpeg8 liblcms2-2 libllvm15 libpango-1.0-0 libpangocairo-1.0-0 libpangoft2-1.0-0 libpciaccess0 libpcsclite1
libpixman-1-0 libpthread-stubs0-dev librsvg2-2 librsvg2-common libsensors-config libsensors5 libsm-dev libsm6 libthai-data libthai0 libtiff5 libwebp7
libx11-dev libx11-xcb1 libxau-dev libxaw7 libxcb-dri2-0 libxcb-dri3-0 libxcb-glx0 libxcb-present0 libxcb-randr0 libxcb-render0 libxcb-shape0 libxcb-shm0
libxcb-sync1 libxcb-xfixes0 libxcb1-dev libxcomposite1 libxcursor1 libxdamage1 libxdmcp-dev libxfixes3 libxft2 libxi6 libxinerama1 libxkbfile1 libxmu6
libxpm4 libxrandr2 libxrender1 libxshmfence1 libxt-dev libxt6 libxtst6 libxv1 libxxf86dga1 libxxf86vm1 openjdk-17-jdk-headless openjdk-17-jre
openjdk-17-jre-headless session-migration ubuntu-mono x11-common x11-utils x11proto-dev xorg-sgml-doctools xtrans-dev
Suggested packages:
default-jre libasound2-plugins alsa-utils cups-common gvfs libice-doc liblcms2-utils pcscd librsvg2-bin lm-sensors libsm-doc libx11-doc libxcb-doc
libxt-doc openjdk-17-demo openjdk-17-source visualvm libnss-mdns fonts-ipafont-gothic fonts-ipafont-mincho fonts-wqy-microhei | fonts-wqy-zenhei
fonts-indic mesa-utils
The following NEW packages will be installed:
adwaita-icon-theme alsa-topology-conf alsa-ucm-conf at-spi2-core ca-certificates-java dconf-gsettings-backend dconf-service fontconfig fontconfig-config
fonts-dejavu-core fonts-dejavu-extra gsettings-desktop-schemas gtk-update-icon-cache hicolor-icon-theme humanity-icon-theme java-common libasound2
libasound2-data libatk-bridge2.0-0 libatk-wrapper-java libatk-wrapper-java-jni libatk1.0-0 libatk1.0-data libatspi2.0-0 libavahi-client3
libavahi-common-data libavahi-common3 libcairo-gobject2 libcairo2 libcups2 libdatrie1 libdconf1 libdeflate0 libdrm-amdgpu1 libdrm-intel1 libdrm-nouveau2
libdrm-radeon1 libfontconfig1 libfontenc1 libgail-common libgail18 libgdk-pixbuf-2.0-0 libgdk-pixbuf2.0-bin libgdk-pixbuf2.0-common libgif7 libgl1
libgl1-amber-dri libgl1-mesa-dri libglapi-mesa libglvnd0 libglx-mesa0 libglx0 libgraphite2-3 libgtk2.0-0 libgtk2.0-bin libgtk2.0-common libharfbuzz0b
libice-dev libice6 libjbig0 libjpeg-turbo8 libjpeg8 liblcms2-2 libllvm15 libpango-1.0-0 libpangocairo-1.0-0 libpangoft2-1.0-0 libpciaccess0 libpcsclite1
libpixman-1-0 libpthread-stubs0-dev librsvg2-2 librsvg2-common libsensors-config libsensors5 libsm-dev libsm6 libthai-data libthai0 libtiff5 libwebp7
libx11-dev libx11-xcb1 libxau-dev libxaw7 libxcb-dri2-0 libxcb-dri3-0 libxcb-glx0 libxcb-present0 libxcb-randr0 libxcb-render0 libxcb-shape0 libxcb-shm0
libxcb-sync1 libxcb-xfixes0 libxcb1-dev libxcomposite1 libxcursor1 libxdamage1 libxdmcp-dev libxfixes3 libxft2 libxi6 libxinerama1 libxkbfile1 libxmu6
libxpm4 libxrandr2 libxrender1 libxshmfence1 libxt-dev libxt6 libxtst6 libxv1 libxxf86dga1 libxxf86vm1 openjdk-17-jdk openjdk-17-jdk-headless
openjdk-17-jre openjdk-17-jre-headless session-migration ubuntu-mono x11-common x11-utils x11proto-dev xorg-sgml-doctools xtrans-dev
0 upgraded, 127 newly installed, 0 to remove and 16 not upgraded.
Need to get 182 MB of archives.
After this operation, 532 MB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 hicolor-icon-theme all 0.17-2 [9976 B]
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libgdk-pixbuf2.0-common all 2.42.8+dfsg-1ubuntu0.3 [5630 B]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libjpeg-turbo8 amd64 2.1.2-0ubuntu1 [134 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libjpeg8 amd64 8c-2ubuntu10 [2264 B]
Get:5 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libdeflate0 amd64 1.10-2 [70.9 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libjbig0 amd64 2.1-3.1ubuntu0.22.04.1 [29.2 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libwebp7 amd64 1.2.2-2ubuntu0.22.04.2 [206 kB]
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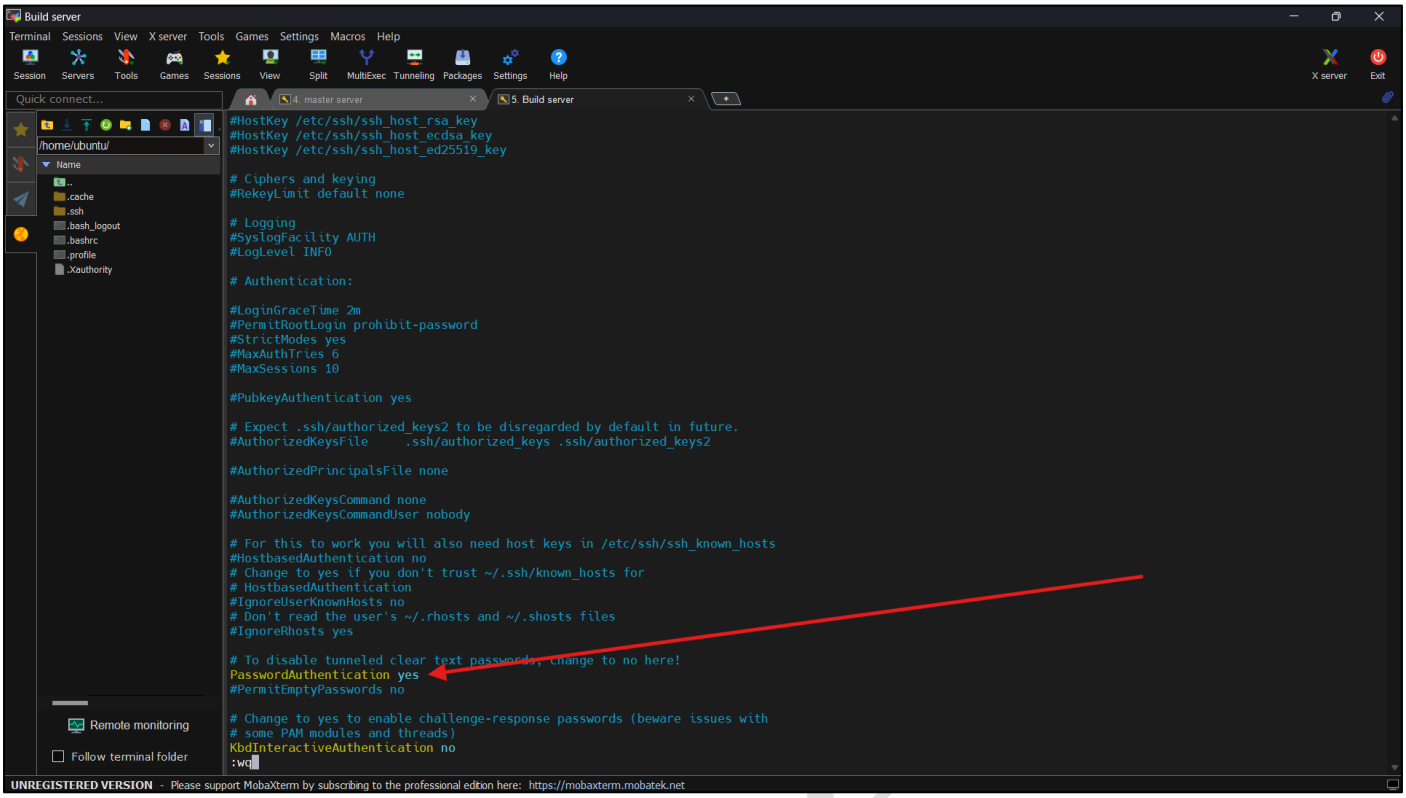
Build server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
4. master server
5. Build server
/home/ubuntu/
Name
.cache
.ssh
root@ip-172-31-42-226:~# useradd slaveuser -s /bin/bash -m -d /home/slaveuser
root@ip-172-31-42-226:~# passwd slaveuser
New password:
Retype new password:
passwd: password updated successfully
root@ip-172-31-42-226:~# vi /etc/ssh/sshd_config
root@ip-172-31-42-226:~# service ssh reload
root@ip-172-31-42-226:~# visudo


Build server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
4. master server
5. Build server
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority
#HostKey /etc/ssh/ssh_host_rsa_key
#HostKey /etc/ssh/ssh_host_ecdsa_key
#HostKey /etc/ssh/ssh_host_ed25519_key
Ciphers and keying
#RekeyLimit default none
Logging
#SyslogFacility AUTH
#LogLevel INFO
Authentication:
#LoginGraceTime 2m
#PermitRootLogin prohibit-password
#StrictModes yes
#MaxAuthTries 6
#MaxSessions 10
#PubkeyAuthentication yes
Expect .ssh/authorized_keys2 to be disregarded by default in future.
#AuthorizedKeysFile .ssh/authorized_keys .ssh/authorized_keys2
#AuthorizedPrincipalsFile none
#AuthorizedKeysCommand none
#AuthorizedKeysCommandUser nobody
For this to work you will also need host keys in /etc/ssh/ssh_known_hosts
#HostbasedAuthentication no
Change to yes if you don't trust ~/.ssh/known_hosts for
HostbasedAuthentication
#IgnoreUserKnownHosts no
Don't read the user's ~/.rhosts and ~/.shosts files
#IgnoreRhosts yes
To disable tunneled clear text passwords, change to no here!
PasswordAuthentication yes
#PermitEmptyPasswords no
Change to yes to enable challenge-response passwords (beware issues with
some PAM modules and threads)
KbdInteractiveAuthentication no
:wq
Remote monitoring
Follow terminal folder
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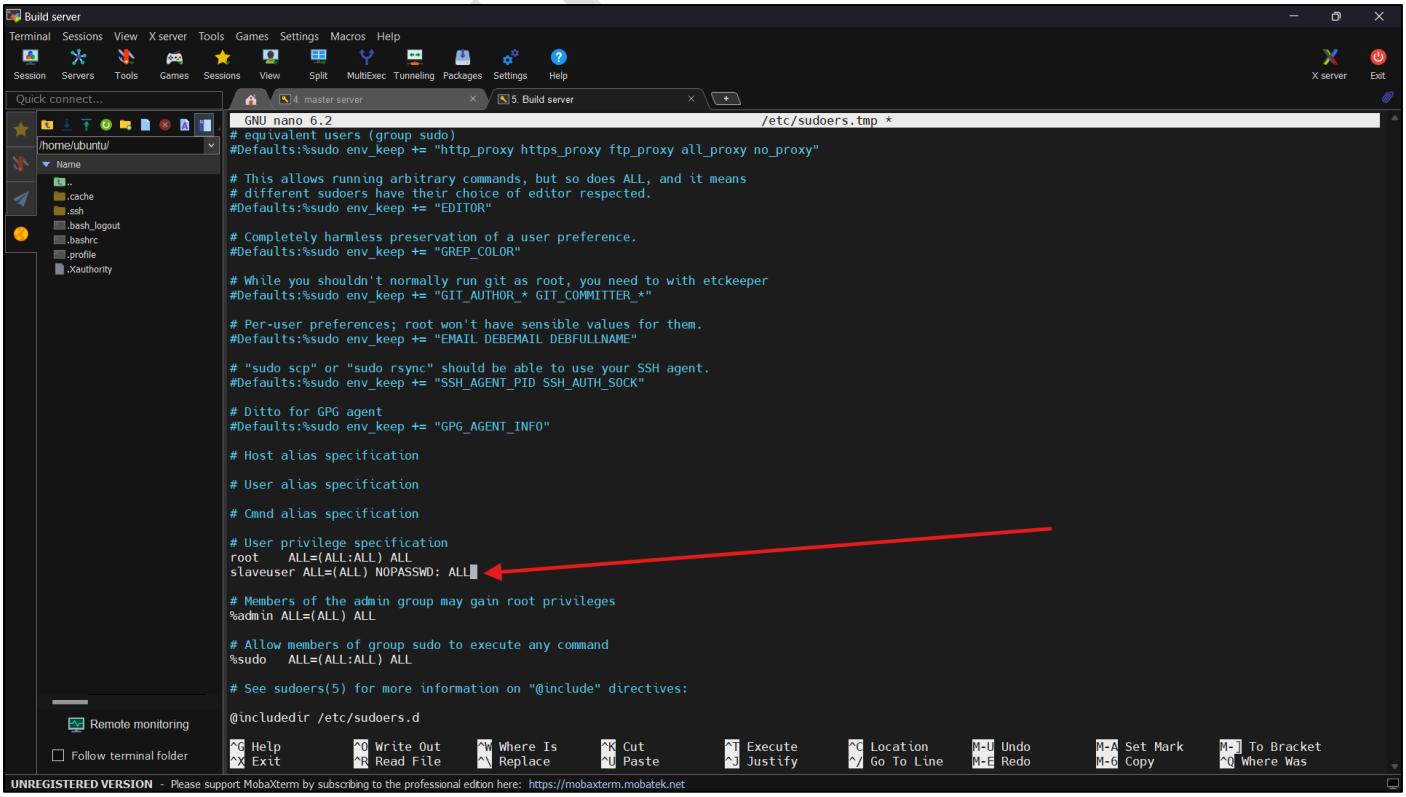
Build server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
4. master server
5. Build server
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority
GNU nano 6.2 /etc/sudoers.tmp *
equivalent users (group sudo)
#Defaults:%sudo env_keep += "http_proxy https_proxy ftp_proxy all_proxy no_proxy"
This allows running arbitrary commands, but so does ALL, and it means
different sudoers have their choice of editor respected.
#Defaults:%sudo env_keep += "EDITOR"
Completely harmless preservation of a user preference.
#Defaults:%sudo env_keep += "GREP_COLOR"
While you shouldn't normally run git as root, you need to with etckeeper
#Defaults:%sudo env_keep += "GIT_AUTHOR_* GIT_COMMITTER_*"
Per-user preferences; root won't have sensible values for them.
#Defaults:%sudo env_keep += "EMAIL DEBEMAIL DEBFULLNAME"
"sudo scp" or "sudo rsync" should be able to use your SSH agent.
#Defaults:%sudo env_keep += "SSH_AGENT_PID SSH_AUTH_SOCK"
Ditto for GPG agent
#Defaults:%sudo env_keep += "GPG_AGENT_INFO"
Host alias specification
User alias specification
Cmnd alias specification
User privilege specification
root ALL=(ALL:ALL) ALL
slaveuser ALL=(ALL) NOPASSWD: ALL
Members of the admin group may gain root privileges
%admin ALL=(ALL) ALL
Allow members of group sudo to execute any command
%sudo ALL=(ALL:ALL) ALL
See sudoers(5) for more information on "@include" directives:
@includedir /etc/sudoers.d
^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location M-U Undo M-A Set Mark M-] To Bracket
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^/ Go To Line M-E Redo M-6 Copy ^Q Where Was
Remote monitoring
Follow terminal folder
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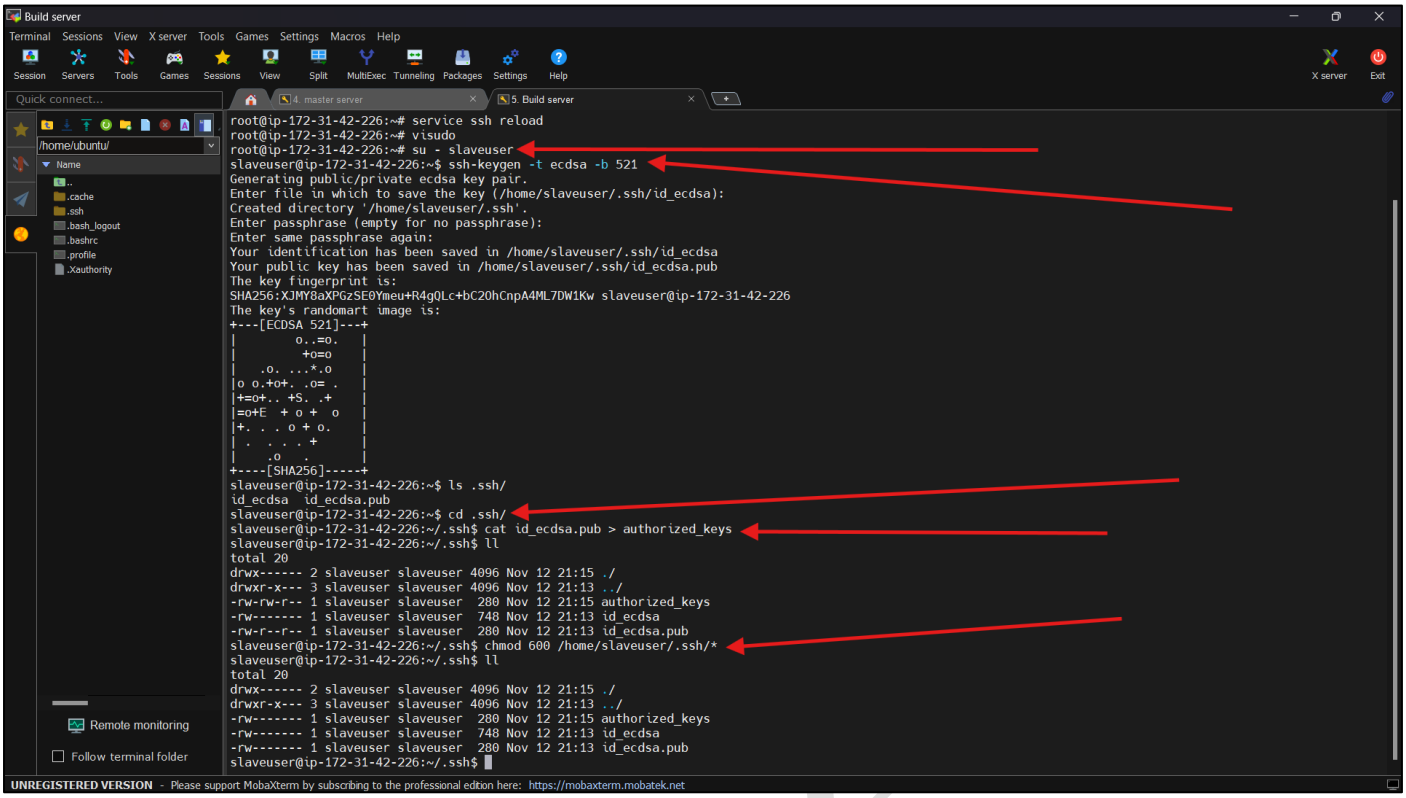
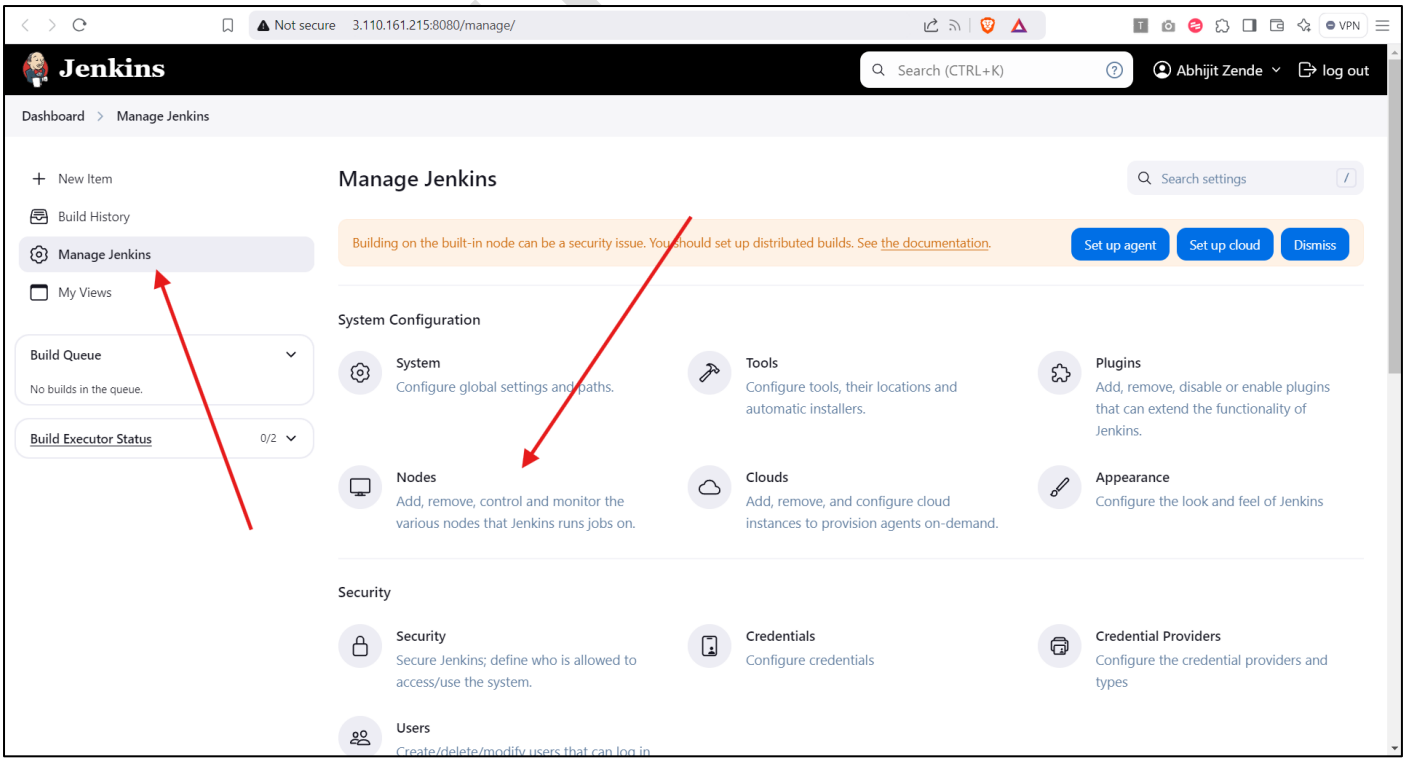
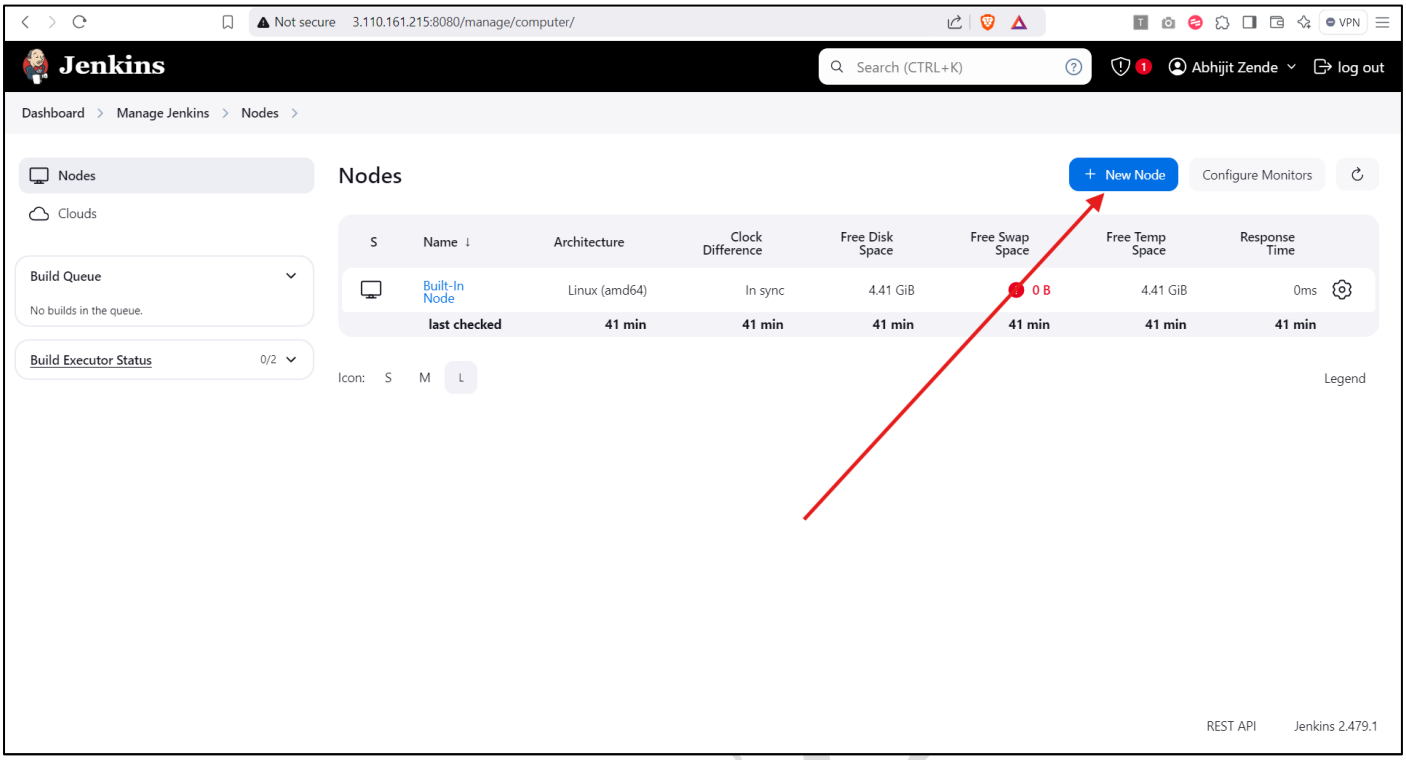
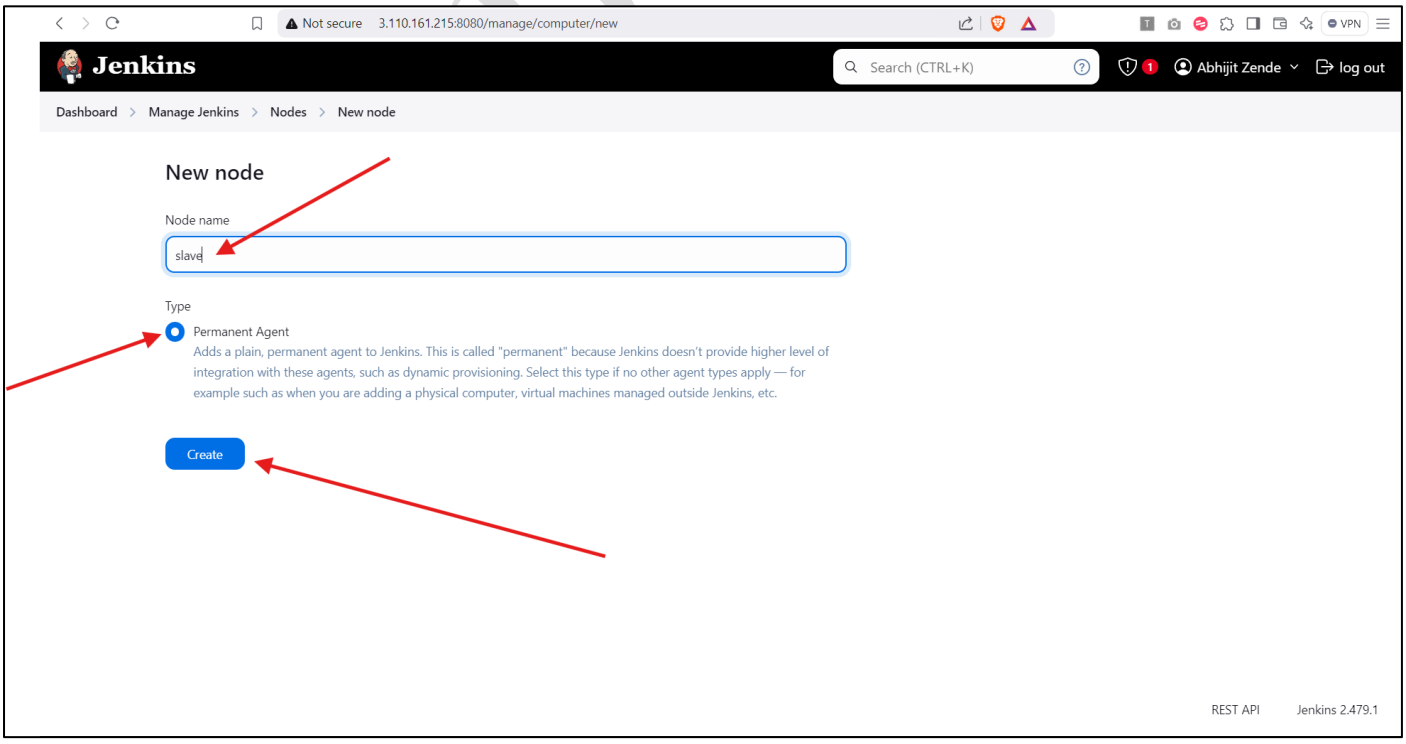
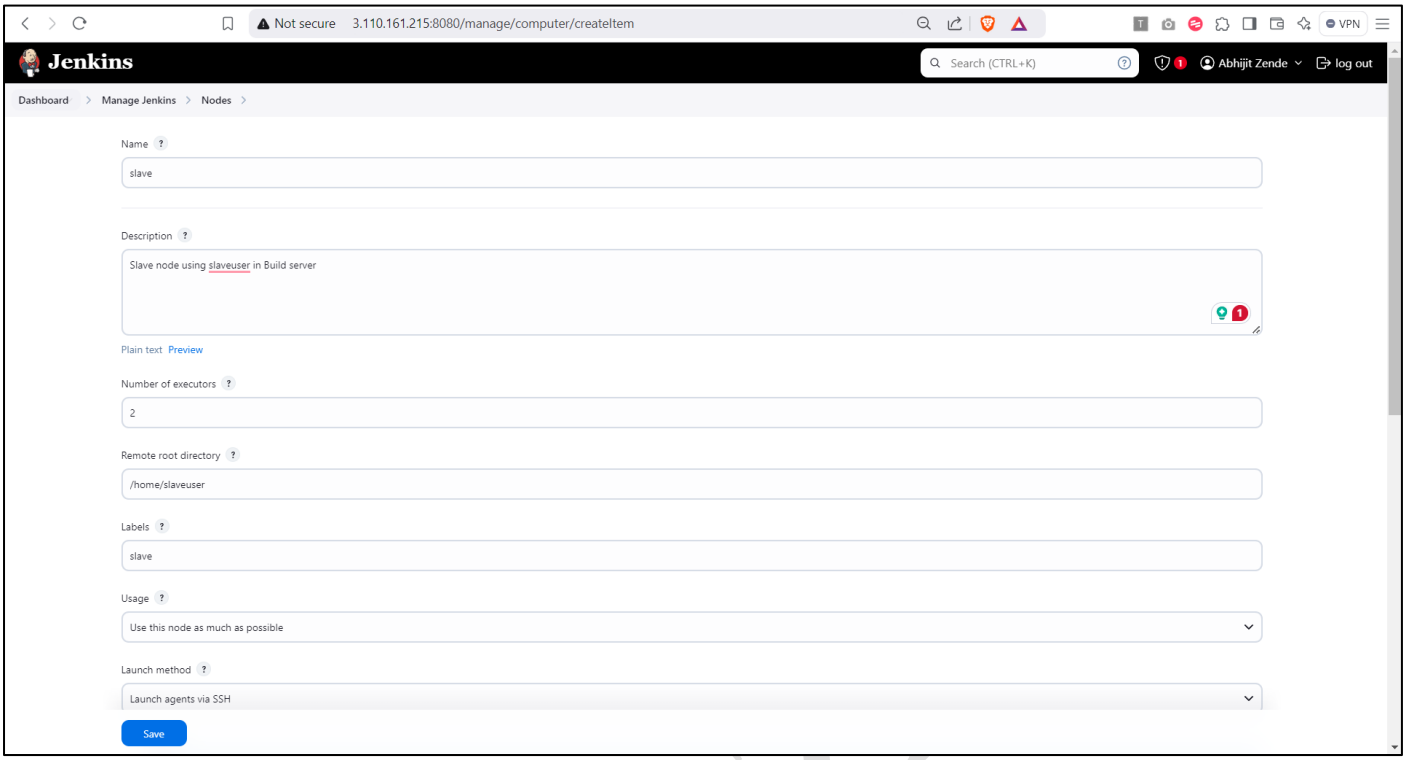
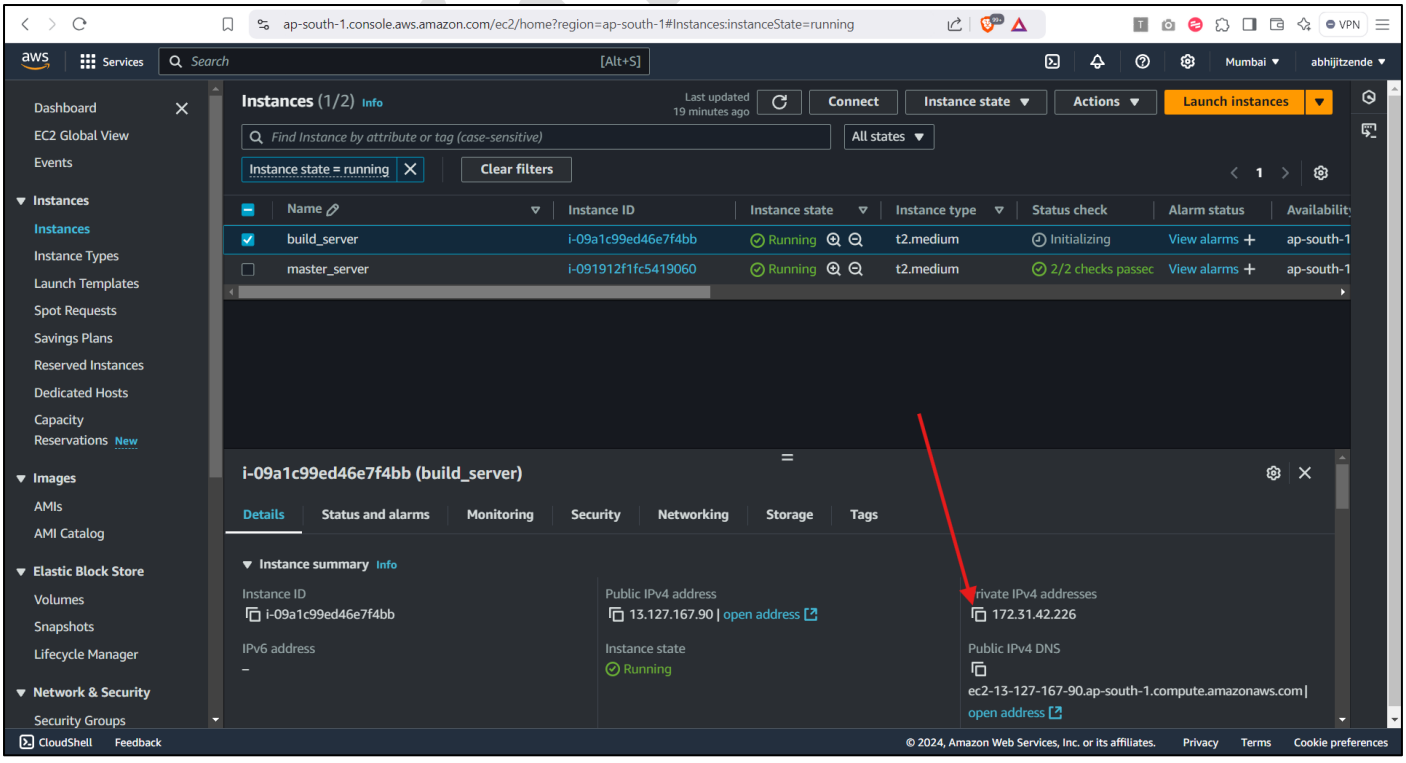

Build server
root@ip-172-31-42-226:~# service ssh reload
root@ip-172-31-42-226:~# visudo
root@ip-172-31-42-226:~# su - slaveuser
slaveuser@ip-172-31-42-226:~$ ssh-keygen -t ecdsa -b 521
Generating public/private ecdsa key pair.
Enter file in which to save the key (/home/slaveuser/.ssh/id_ecdsa):
Created directory '/home/slaveuser/.ssh'.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/slaveuser/.ssh/id_ecdsa
Your public key has been saved in /home/slaveuser/.ssh/id_ecdsa.pub
The key fingerprint is:
SHA256:XJMY8aXPGzSE0Ymeu+R4gQLc+bC2OhCnpA4ML7DW1Kw slaveuser@ip-172-31-42-226
The key's randomart image is:
+---[ECDSA 521]---+
| o..=o. |
| +o=o |
| .o. ...*.o |
|o o.+o+. .o= . |
|+=o+.. +S. .+ |
|=o+E + o + o |
|+. . . o + o. |
| . . . . + |
| .o . |
+----[SHA256]-----+
slaveuser@ip-172-31-42-226:~$ ls .ssh/
id_ecdsa id_ecdsa.pub
slaveuser@ip-172-31-42-226:~$ cd .ssh/
slaveuser@ip-172-31-42-226:~/.ssh$ cat id_ecdsa.pub > authorized_keys
slaveuser@ip-172-31-42-226:~/.ssh$ ll
total 20
drwx------ 2 slaveuser slaveuser 4096 Nov 12 21:15 ./
drwxr-x--- 3 slaveuser slaveuser 4096 Nov 12 21:13 ../
-rw-rw-r-- 1 slaveuser slaveuser 280 Nov 12 21:15 authorized_keys
-rw------- 1 slaveuser slaveuser 748 Nov 12 21:13 id_ecdsa
-rw-r--r-- 1 slaveuser slaveuser 280 Nov 12 21:13 id_ecdsa.pub
slaveuser@ip-172-31-42-226:~/.ssh$ chmod 600 /home/slaveuser/.ssh/*
slaveuser@ip-172-31-42-226:~/.ssh$ ll
total 20
drwx------ 2 slaveuser slaveuser 4096 Nov 12 21:15 ./
drwxr-x--- 3 slaveuser slaveuser 4096 Nov 12 21:13 ../
-rw------- 1 slaveuser slaveuser 280 Nov 12 21:15 authorized_keys
-rw------- 1 slaveuser slaveuser 748 Nov 12 21:13 id_ecdsa
-rw------- 1 slaveuser slaveuser 280 Nov 12 21:13 id_ecdsa.pub
slaveuser@ip-172-31-42-226:~/.ssh$
Remote monitoring
Follow terminal folder
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net

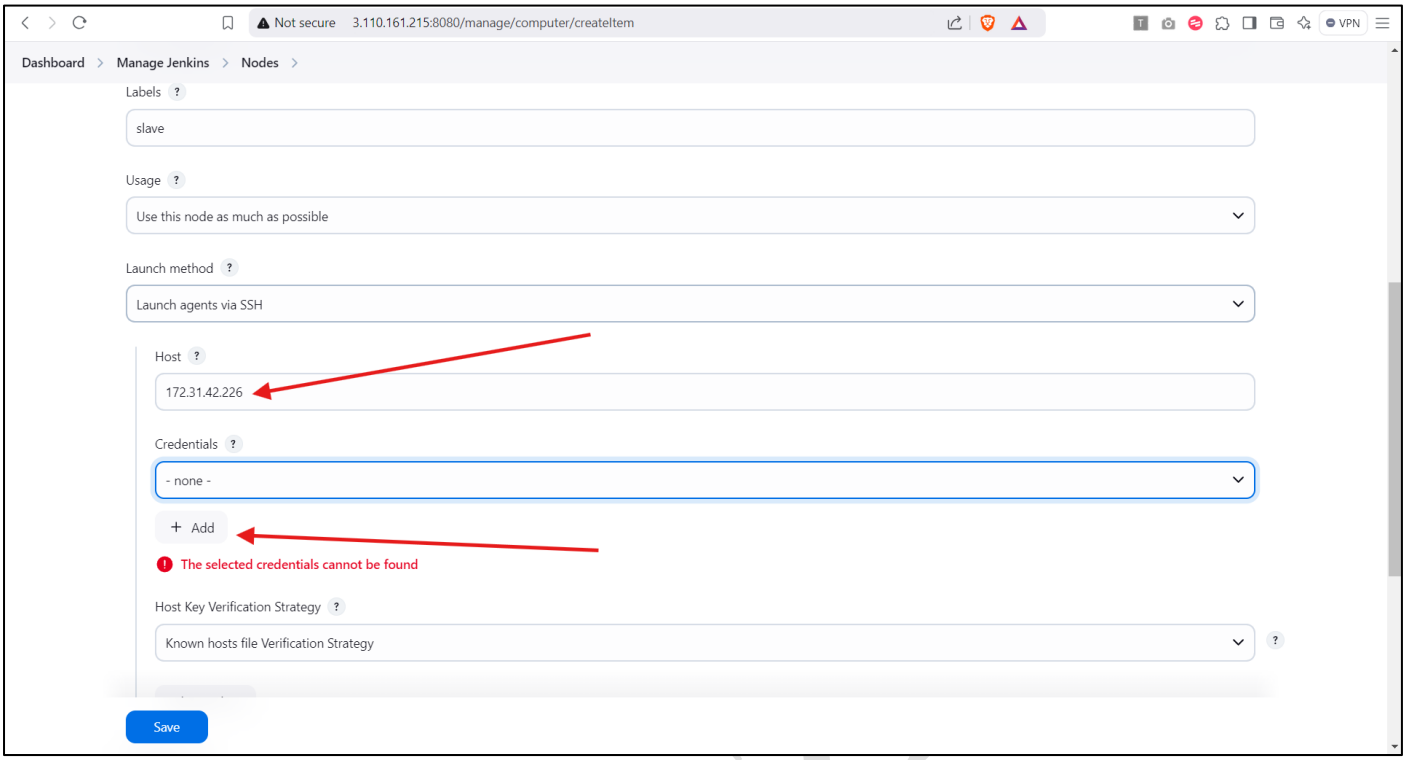

Not secure 3.110.161.215:8080/manage/
Jenkins
Search (CTRL+K)
Abhijit Zende
log out
Dashboard > Manage Jenkins
New Item
Build History
Manage Jenkins
My Views
Build Queue
No builds in the queue.
Build Executor Status 0/2
Manage Jenkins
Search settings
Building on the built-in node can be a security issue. You should set up distributed builds. See the documentation.
Set up agent
Set up cloud
Dismiss
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.
Credentials
Configure credentials
Credential Providers
Configure the credential providers and types
Users

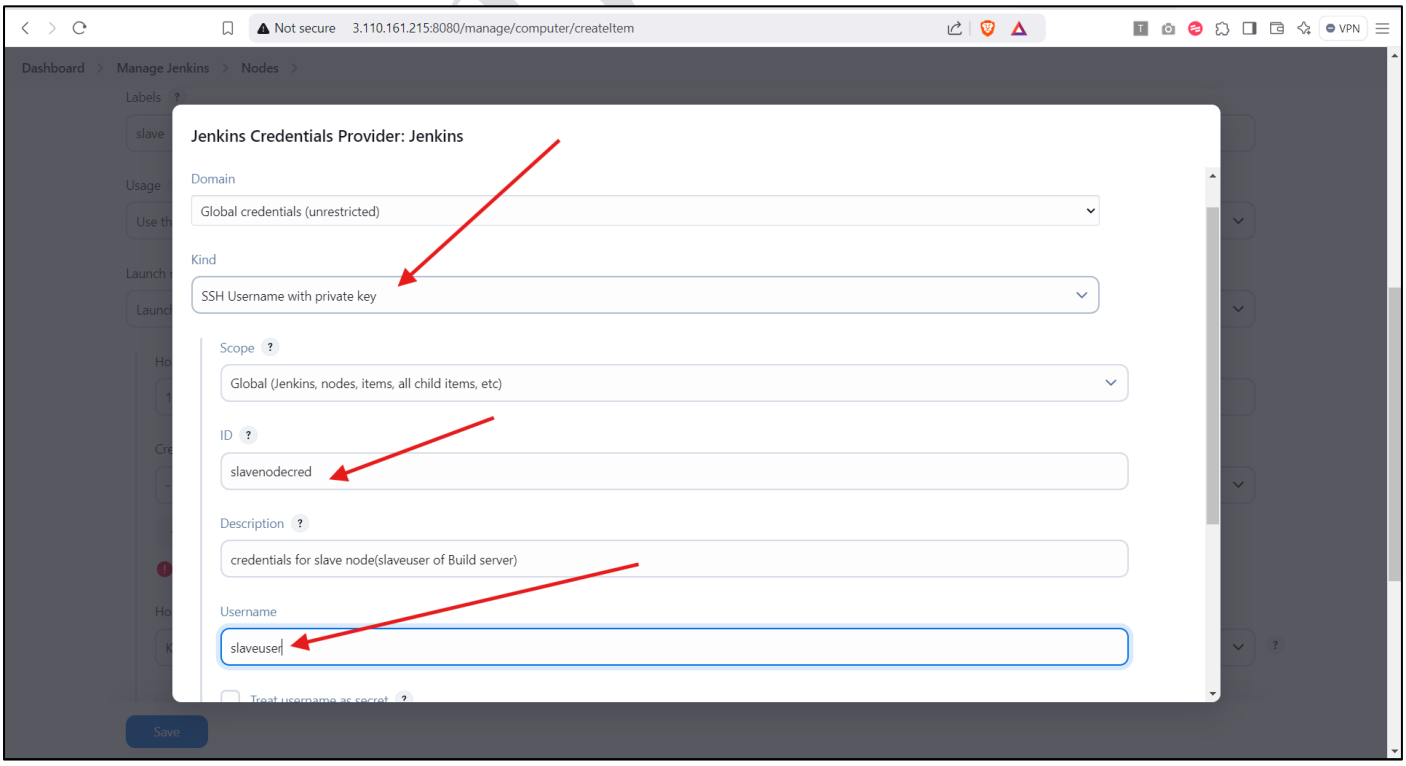

Not secure 3.110.161.215:8080/manage/computer/
Jenkins
Search (CTRL+K)
Abhijit Zende
log out
Dashboard > Manage Jenkins > Nodes >
Nodes
Clouds
Build Queue
No builds in the queue.
Build Executor Status 0/2
Nodes
New Node
Configure Monitors
S
Name
Architecture
Clock Difference
Free Disk Space
Free Swap Space
Free Temp Space
Response Time
Built-In Node
Linux (amd64)
In sync
4.41 GiB
0 B
4.41 GiB
0ms
last checked
41 min
Icon: S M L
Legend
REST API
Jenkins 2.479.1

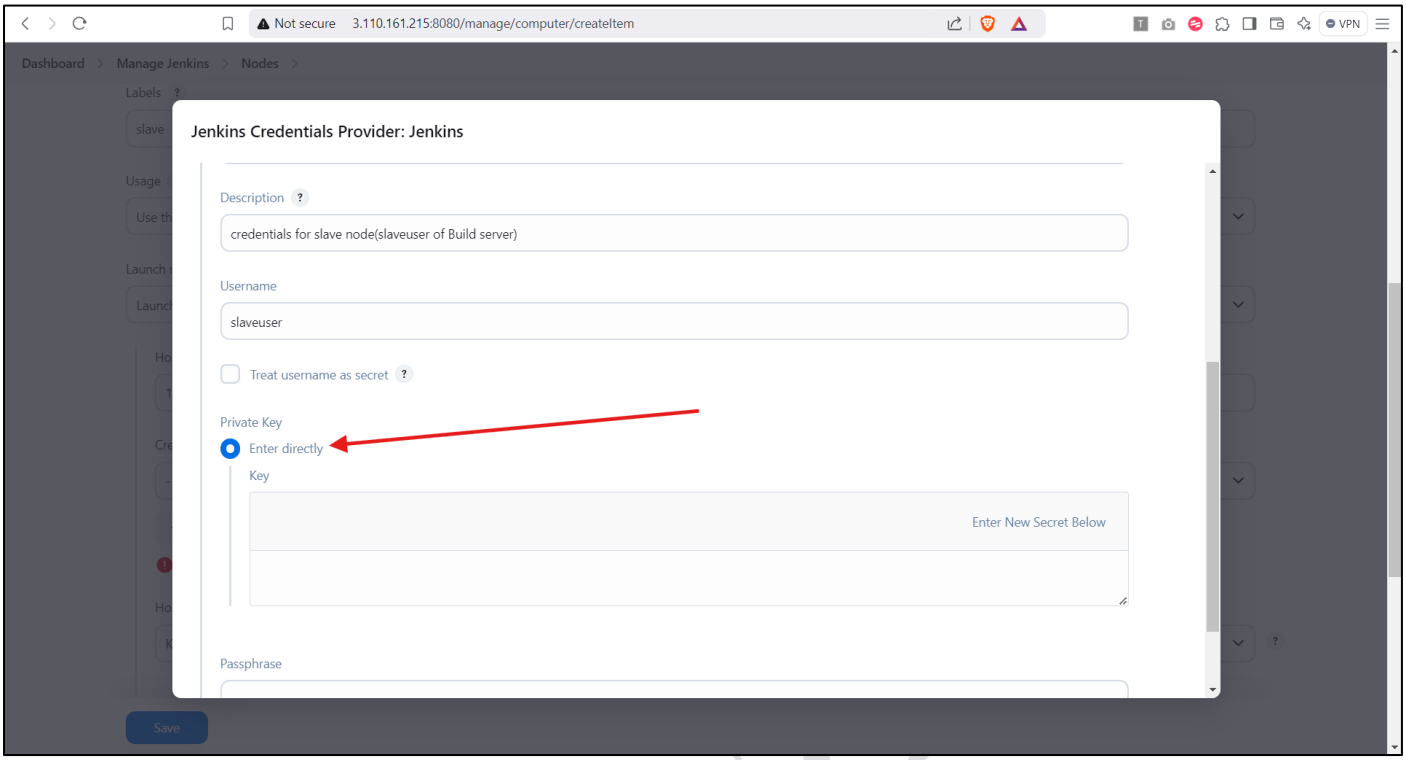

Not secure 3.110.161.215:8080/manage/computer/new
Jenkins
Search (CTRL+K)
Abhijit Zende
log out
Dashboard > Manage Jenkins > Nodes > New node
New node
Node name
slave
Type
Permanent Agent
Adds a plain, permanent agent to Jenkins. This is called "permanent" because Jenkins doesn't provide higher level 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
REST API
Jenkins 2.479.1

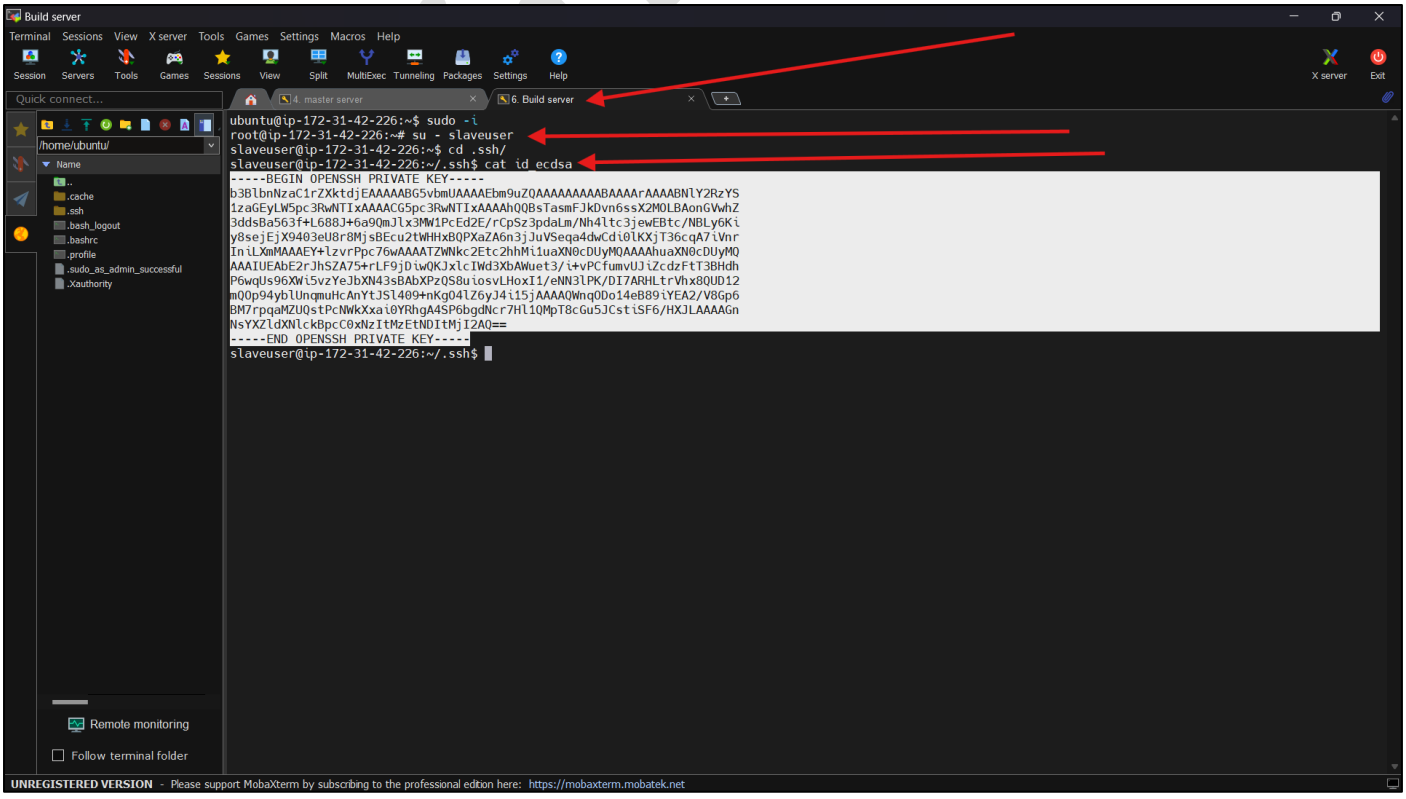

Not secure 3.110.161.215:8080/manage/computer/createItem
Jenkins
Search (CTRL+K)
Abhijit Zende
log out
Dashboard > Manage Jenkins > Nodes >
Name
slave
Description
Slave node using slaveuser in Build server
Plain text Preview
Number of executors
2
Remote root directory
/home/slaveuser
Labels
slave
Usage
Use this node as much as possible
Launch method
Launch agents via SSH
Save


ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#Instances:instanceState=running
Services
Search [Alt+S]
Mumbai
abhijitzende
Dashboard
EC2 Global View
Events
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations New
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Network & Security
Security Groups
Instances (1/2) Info
Last updated 19 minutes ago
Connect
Instance state
Actions
Launch instances
Find Instance by attribute or tag (case-sensitive)
All states
Instance state = running
Clear filters
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
build_server
i-09a1c99ed46e7f4bb
Running
t2.medium
Initializing
View alarms
master_server
i-091912f1fc5419060
Running
t2.medium
2/2 checks passed
View alarms
i-09a1c99ed46e7f4bb (build_server)
Details
Status and alarms
Monitoring
Security
Networking
Storage
Tags
Instance summary Info
Instance ID
i-09a1c99ed46e7f4bb
Public IPv4 address
13.127.167.90 | open address
Private IPv4 addresses
172.31.42.226
IPv6 address
Instance state
Running
Public IPv4 DNS
ec2-13-127-167-90.ap-south-1.compute.amazonaws.com | open address
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences


Not secure 3.110.161.215:8080/manage/computer/createItem
Dashboard > Manage Jenkins > Nodes >
Labels
slave
Usage
Use this node as much as possible
Launch method
Launch agents via SSH
Host
172.31.42.226
Credentials
- none -
+ Add
The selected credentials cannot be found
Host Key Verification Strategy
Known hosts file Verification Strategy
Save


Not secure 3.110.161.215:8080/manage/computer/createItem
Dashboard > Manage Jenkins > Nodes >
Jenkins Credentials Provider: Jenkins
Domain
Global credentials (unrestricted)
Kind
SSH Username with private key
Scope
Global (Jenkins, nodes, items, all child items, etc)
ID
slavenodecred
Description
credentials for slave node(slaveuser of Build server)
Username
slaveuser
Save


Not secure 3.110.161.215:8080/manage/computer/createItem
Dashboard > Manage Jenkins > Nodes >
Jenkins Credentials Provider: Jenkins
Description
credentials for slave node(slaveuser of Build server)
Username
slaveuser
Treat username as secret
Private Key
Enter directly
Key
Enter New Secret Below
Passphrase
Save


Build server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
4. master server
6. Build server
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.Xauthority
ubuntu@ip-172-31-42-226:~$ sudo -i
root@ip-172-31-42-226:~# su - slaveuser
slaveuser@ip-172-31-42-226:~$ cd .ssh/
slaveuser@ip-172-31-42-226:~/.ssh$ cat id_ecdsa
-----BEGIN OPENSSH PRIVATE KEY-----
b3BlbnNzaC1rZXktdjEAAAAABG5vbmUAAAAEbm9uZQAAAAAAAAABAAAArAAAABNlY2RzYS
1zaGEyLW5pc3RwNTIxAAAACG5pc3RwNTIxAAAAhQQBsTasmFJkDvn6ssX2MOLBAonGVwhZ
3ddsBa563f+L688J+6a9QmJlx3MW1PcEd2E/rCpSz3pdaLm/Nh4ltc3jewEBtc/NBLy6Ki
y8sejEjX9403eU8r8MjsBEcu2tWHHxBQPXaZA6n3jJuVSeqa4dwCdi0lKXjT36cqA7iVnr
InilXmMAAAEY+lzvrPpc76wAAAATZWNkc2Etc2hhMi1uaXN0cDUyMQAAAAhuaXN0cDUyMQ
AAAIUEAbE2rJhSZA75+rLF9jDiwQKJxlcIWd3XbAWuet3/i+vPCfumvUJiZcdzFtT3BHdh
P6wqUs96XWi5vzYeJbXN43sBAbXPzQS8uiosvLHoxI1/eNN3lPK/DI7ARHLtrVhx8QUD12
mQOp94yblUnqmuHcAnYtJSl409+nKgO4lZ6yJ4i15jAAAAQWnqODo14eB89iYEA2/V8Gp6
BM7rpqaMZUQstPcNWkXxai0YRhgA4SP6bgdNcr7Hl1QMpT8cGu5JCstiSF6/HXJLAAAAGn
NsYXZldXNlckBpcC0xNzItMzEtNDItMjI2AQ==
-----END OPENSSH PRIVATE KEY-----
slaveuser@ip-172-31-42-226:~/.ssh$
Remote monitoring
Follow terminal folder
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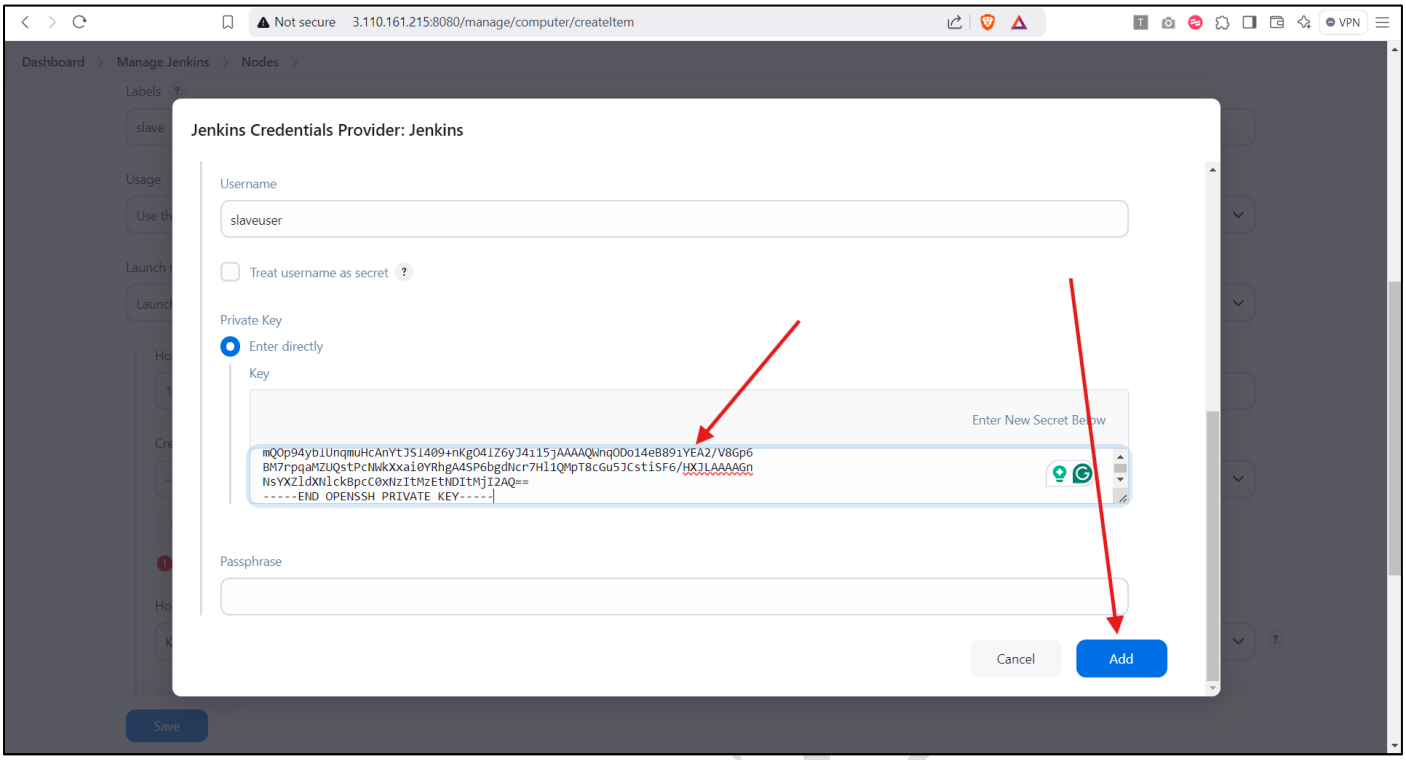
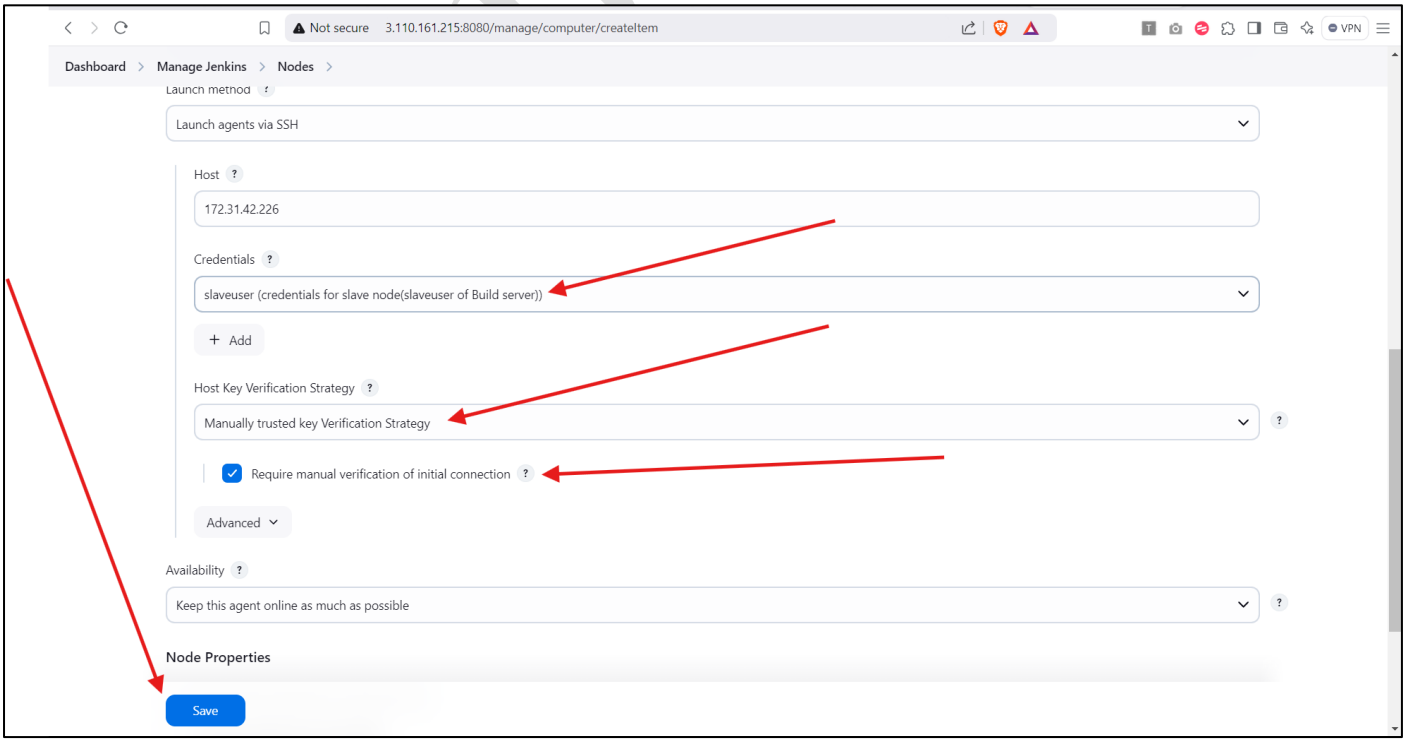
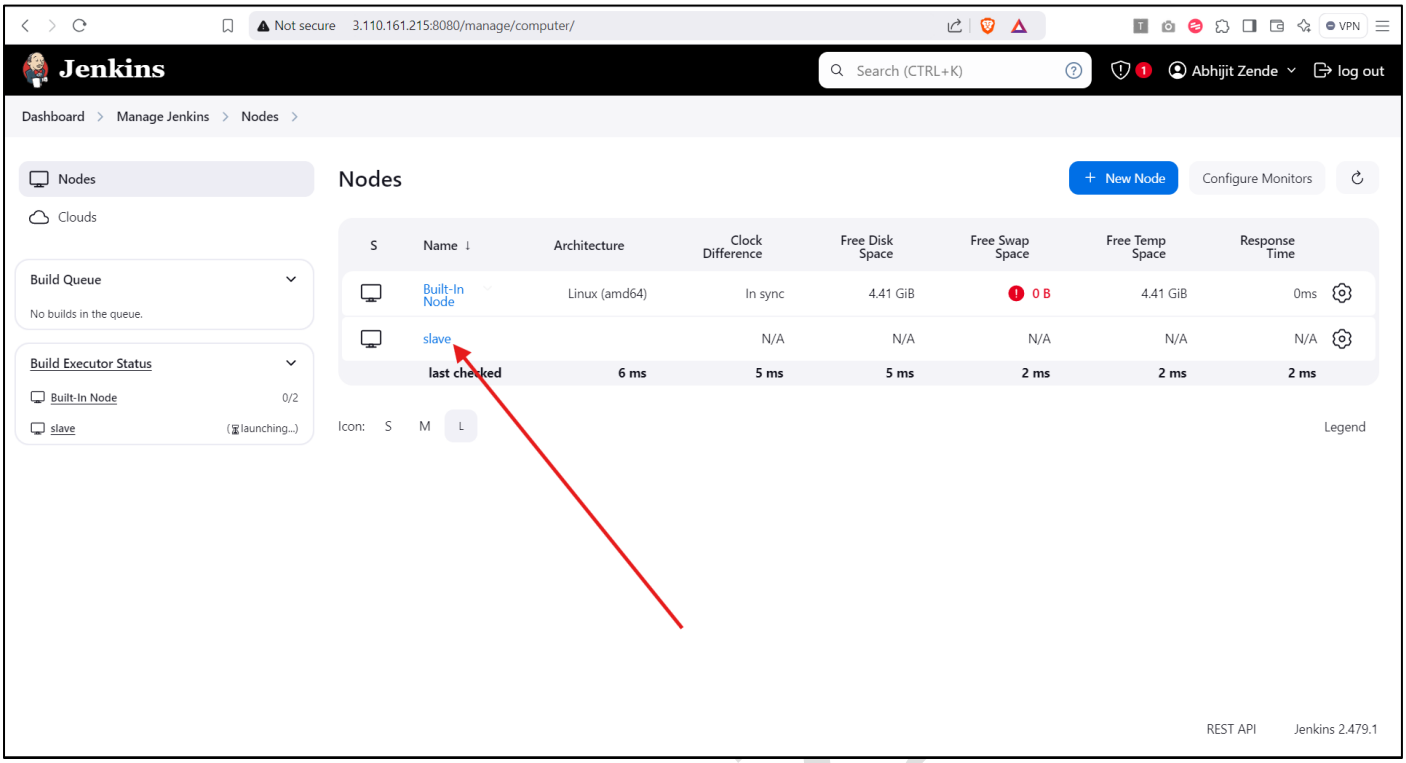
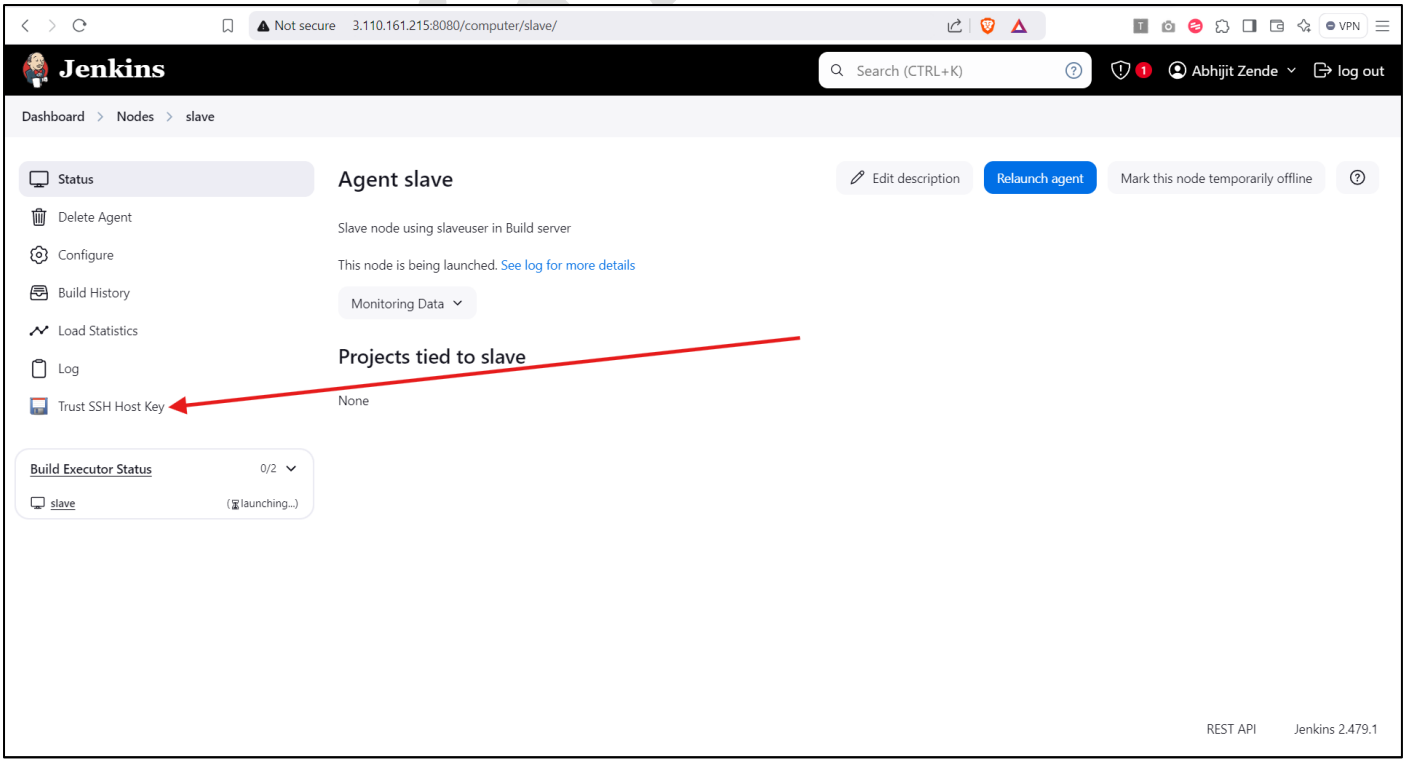
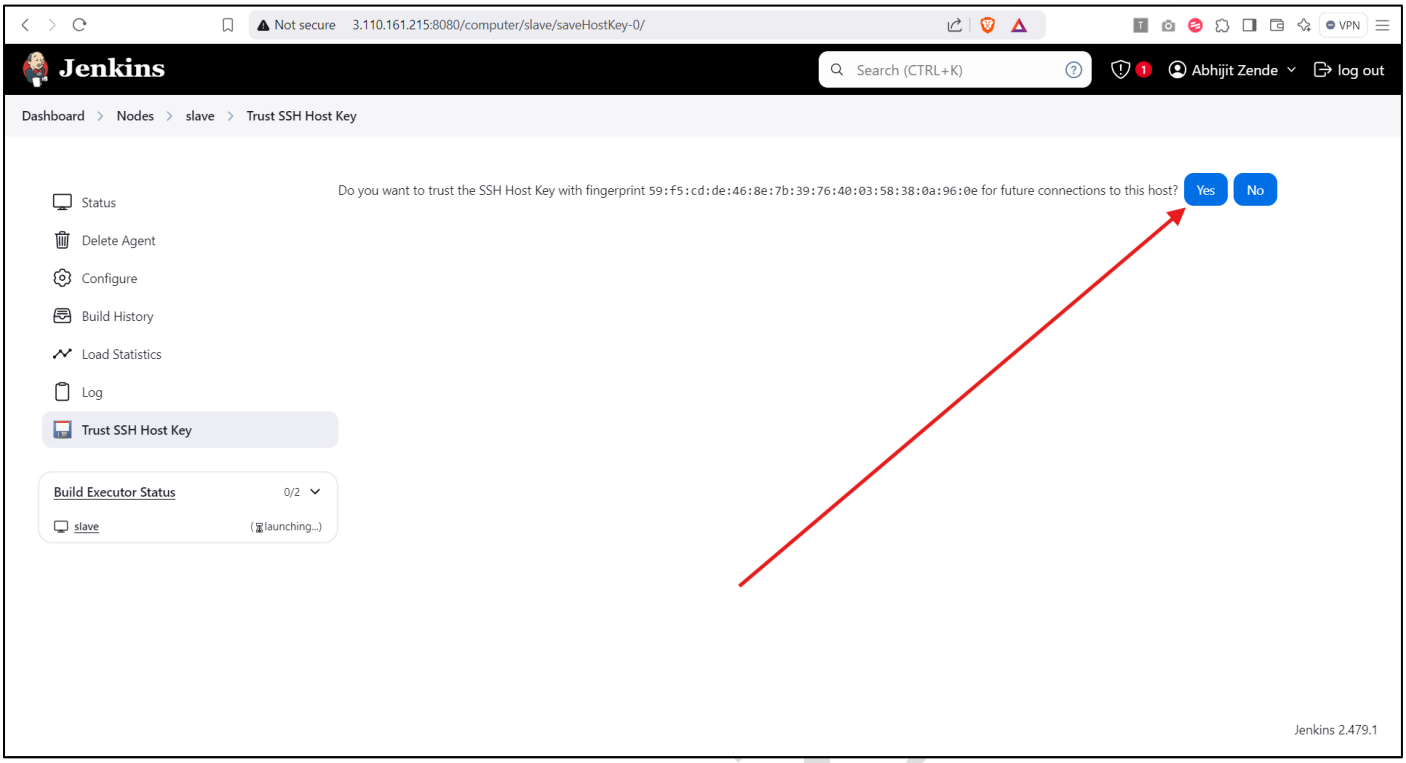
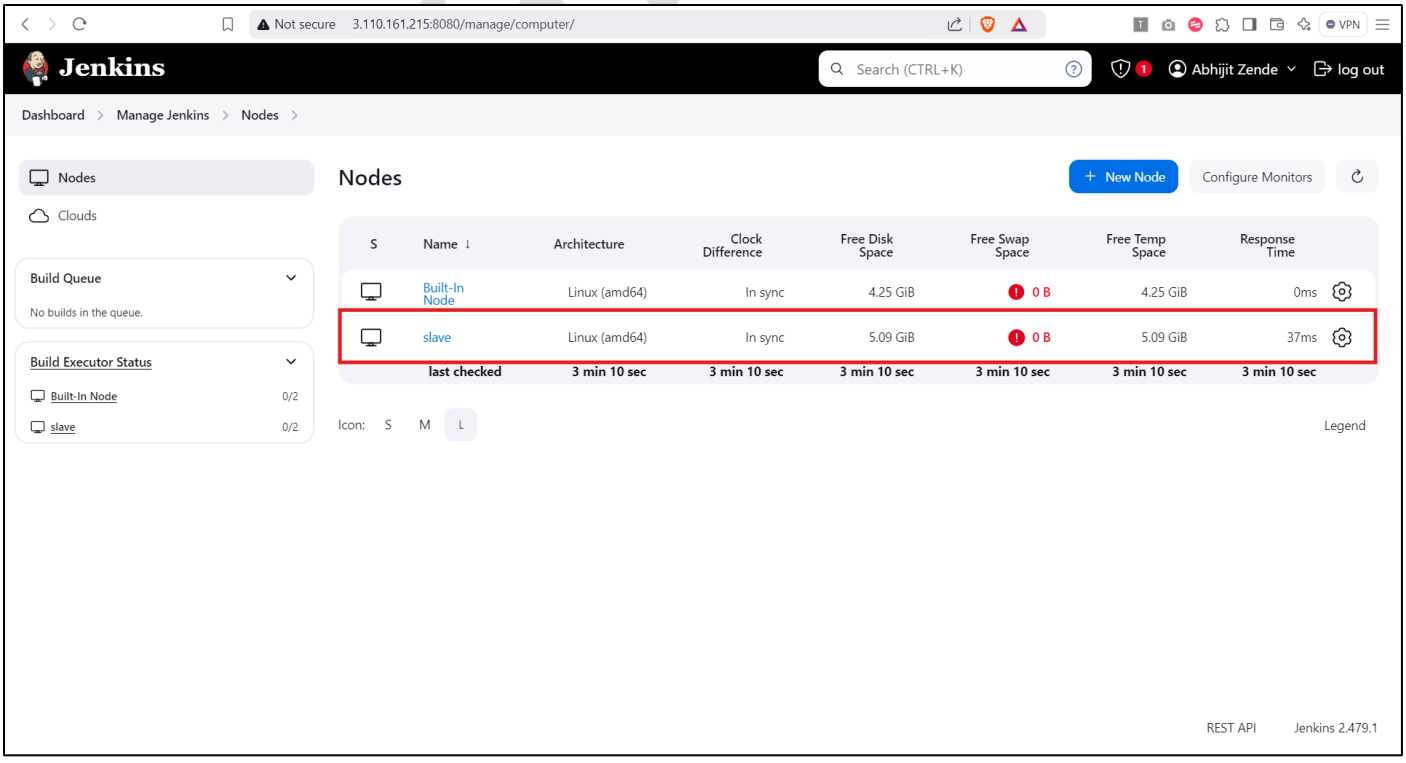

Not secure 3.110.161.215:8080/manage/computer/createItem
Dashboard > Manage Jenkins > Nodes >
Jenkins Credentials Provider: Jenkins
Username
slaveuser
Treat username as secret
Private Key
Enter directly
Key
Enter New Secret Below
mQOp94yblUnqmuHcAnYtJS1409+nKgO41Z6yJ4115jAAAAQWnqODo14eB89iYEA2/V8Gp6
BM7rpqaMZUQstPcNWkXxai0YRhgA4SP6bgdNcr7H11QMpT8cGu5JCstiSF6/HXJLAAAAGn
NsYXZldXNlckBpcC0xNzItMzEtNDItMjI2AQ==
-----END OPENSSH PRIVATE KEY-----
Passphrase
Cancel
Add
Save


Not secure 3.110.161.215:8080/manage/computer/createItem
Dashboard > Manage Jenkins > Nodes >
Launch method
Launch agents via SSH
Host
172.31.42.226
Credentials
slaveuser (credentials for slave node(slaveuser of Build server))
+ Add
Host Key Verification Strategy
Manually trusted key Verification Strategy
Require manual verification of initial connection
Advanced
Availability
Keep this agent online as much as possible
Node Properties
Save


Not secure 3.110.161.215:8080/manage/computer/
Jenkins
Search (CTRL+K)
Abhijit Zende
log out
Dashboard > Manage Jenkins > Nodes >
Nodes
Clouds
Build Queue
No builds in the queue.
Build Executor Status
Built-In Node 0/2
slave (launching...)
Nodes
New Node
Configure Monitors
S
Name
Architecture
Clock Difference
Free Disk Space
Free Swap Space
Free Temp Space
Response Time
Built-In Node
Linux (amd64)
In sync
4.41 GiB
0 B
4.41 GiB
0ms
slave
N/A
N/A
N/A
N/A
N/A
last checked
6 ms
5 ms
5 ms
2 ms
2 ms
2 ms
Icon: S M L
Legend
REST API
Jenkins 2.479.1


Not secure 3.110.161.215:8080/computer/slave/
Jenkins
Search (CTRL+K)
Abhijit Zende
log out
Dashboard > Nodes > slave
Status
Delete Agent
Configure
Build History
Load Statistics
Log
Trust SSH Host Key
Build Executor Status 0/2
slave (launching...)
Agent slave
Edit description
Relaunch agent
Mark this node temporarily offline
Slave node using slaveuser in Build server
This node is being launched. See log for more details
Monitoring Data
Projects tied to slave
None
REST API
Jenkins 2.479.1


Not secure 3.110.161.215:8080/computer/slave/saveHostKey-0/
Jenkins
Search (CTRL+K)
Abhijit Zende
log out
Dashboard > Nodes > slave > Trust SSH Host Key
Status
Delete Agent
Configure
Build History
Load Statistics
Log
Trust SSH Host Key
Build Executor Status 0/2
slave (launching...)
Do you want to trust the SSH Host Key with fingerprint 59:f5:cd:de:46:8e:7b:39:76:40:03:58:38:0a:96:0e for future connections to this host?
Yes
No
Jenkins 2.479.1


Not secure 3.110.161.215:8080/manage/computer/
Jenkins
Search (CTRL+K)
Abhijit Zende
log out
Dashboard > Manage Jenkins > Nodes >
Nodes
Clouds
Build Queue
No builds in the queue.
Build Executor Status
Built-In Node 0/2
slave 0/2
Nodes
New Node
Configure Monitors
S
Name
Architecture
Clock Difference
Free Disk Space
Free Swap Space
Free Temp Space
Response Time
Built-In Node Linux (amd64) In sync 4.25 GiB 0 B 4.25 GiB 0ms
slave Linux (amd64) In sync 5.09 GiB 0 B 5.09 GiB 37ms
last checked 3 min 10 sec 3 min 10 sec 3 min 10 sec 3 min 10 sec 3 min 10 sec 3 min 10 sec
Icon: S M L
Legend
REST API
Jenkins 2.479.1

Step 2: Install all required build tools on build server:

1. Install all mentioned below tools:
    a. JDK
        i. Already installed for Jenkins
    b. Maven
        i. Install Maven using cmd ``
    c. Docker
        i. Install Docker using command `sudo apt install docker.io`
        ii. Add docker user to slaveuser group using command `sudo usermod -aG docker slaveuser `
        iii. Add Jenkins user to docker group using cmd `sudo usermod -aG docker jenkins`
    d. Ansible
        i. For more detailed installation guide you can follow the documentation: https://github.com/SA-AWS-DevOps-July24/Training_Documents/blob/main/Ansible/Ansible_Installation_Configs_Practise.txt
        ii. Install ansible using below commands:

```
sudo apt install software-properties-common -y
sudo add-apt-repository --yes --update ppa:ansible/ansible
sudo apt update -y
sudo apt install ansible -y
```

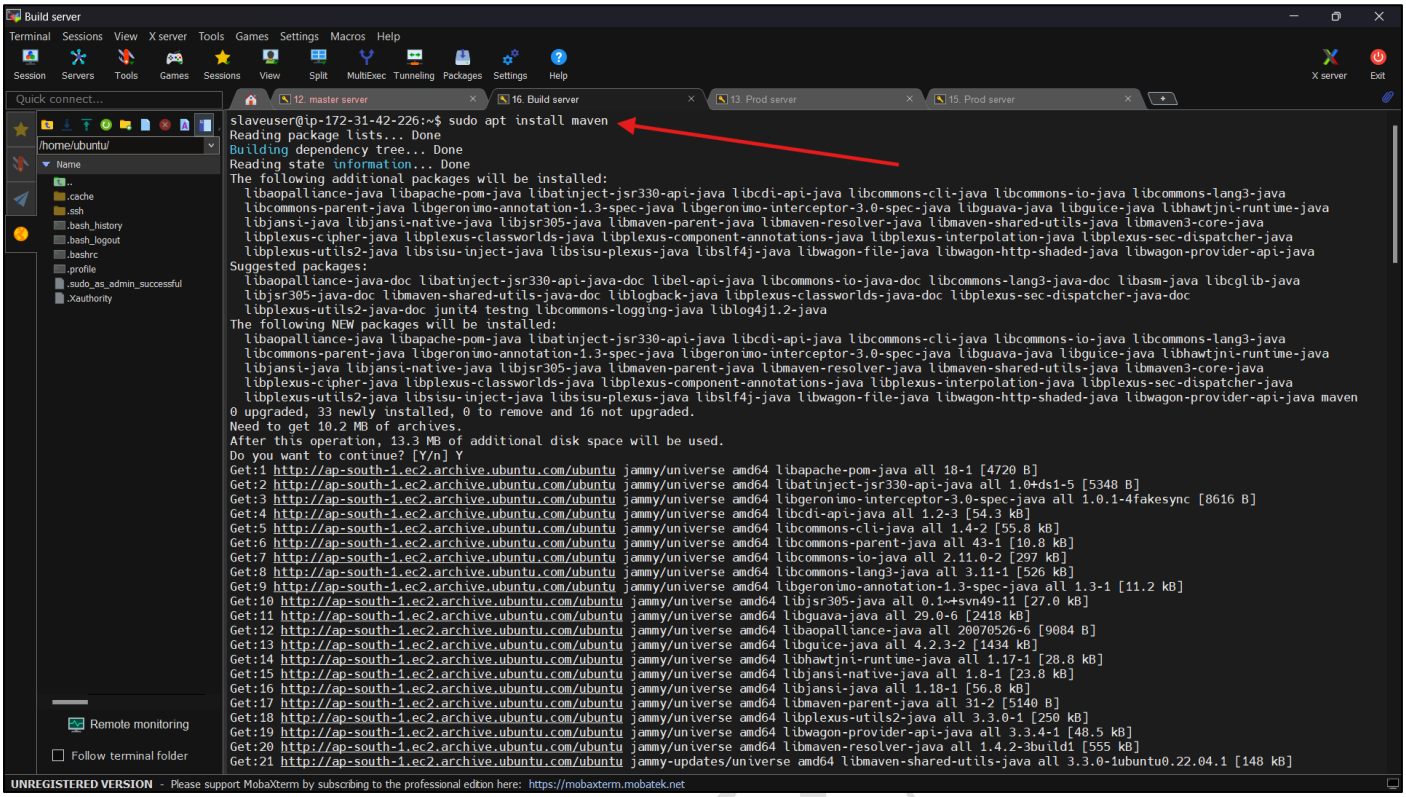


Fig. 2.01: Install maven

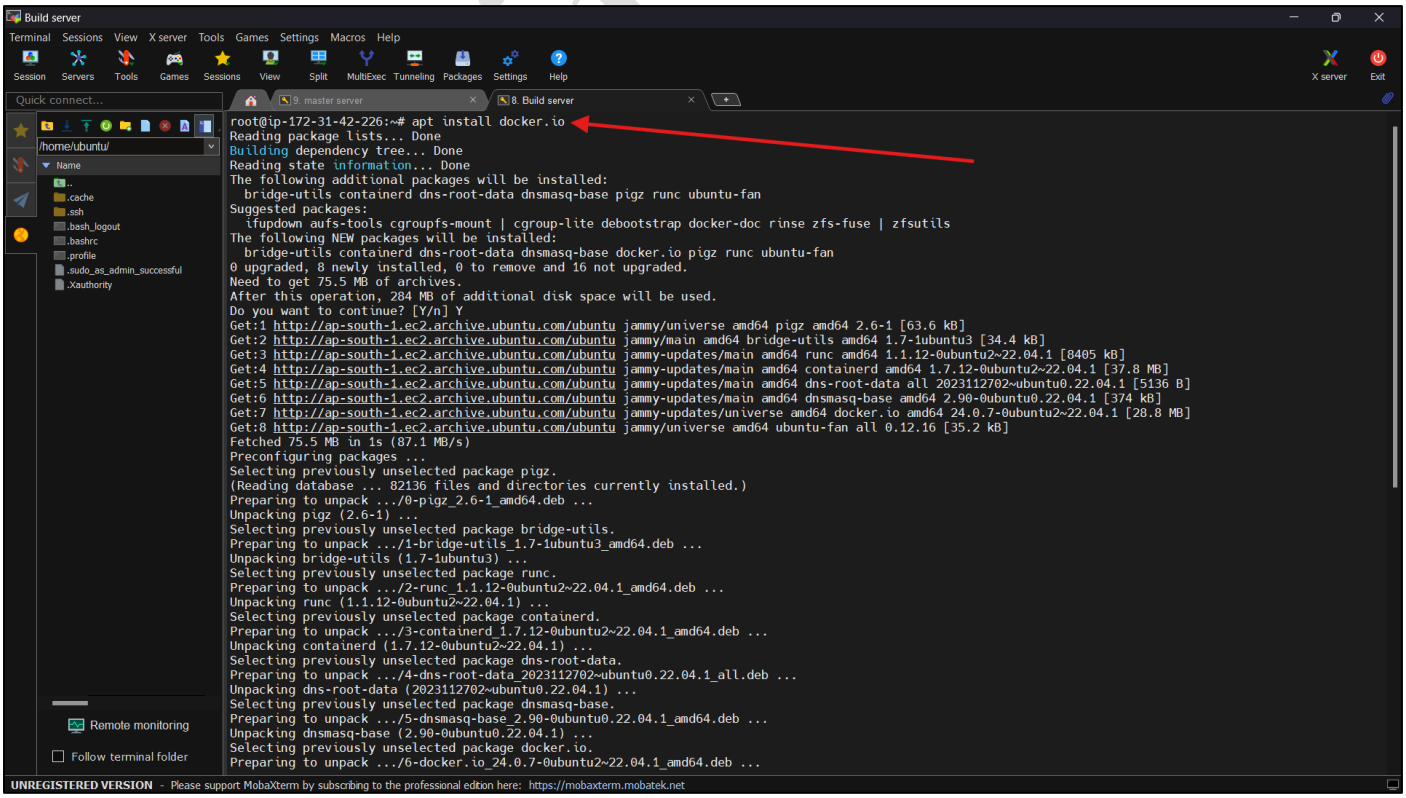


Fig. 2.01: Install Docker

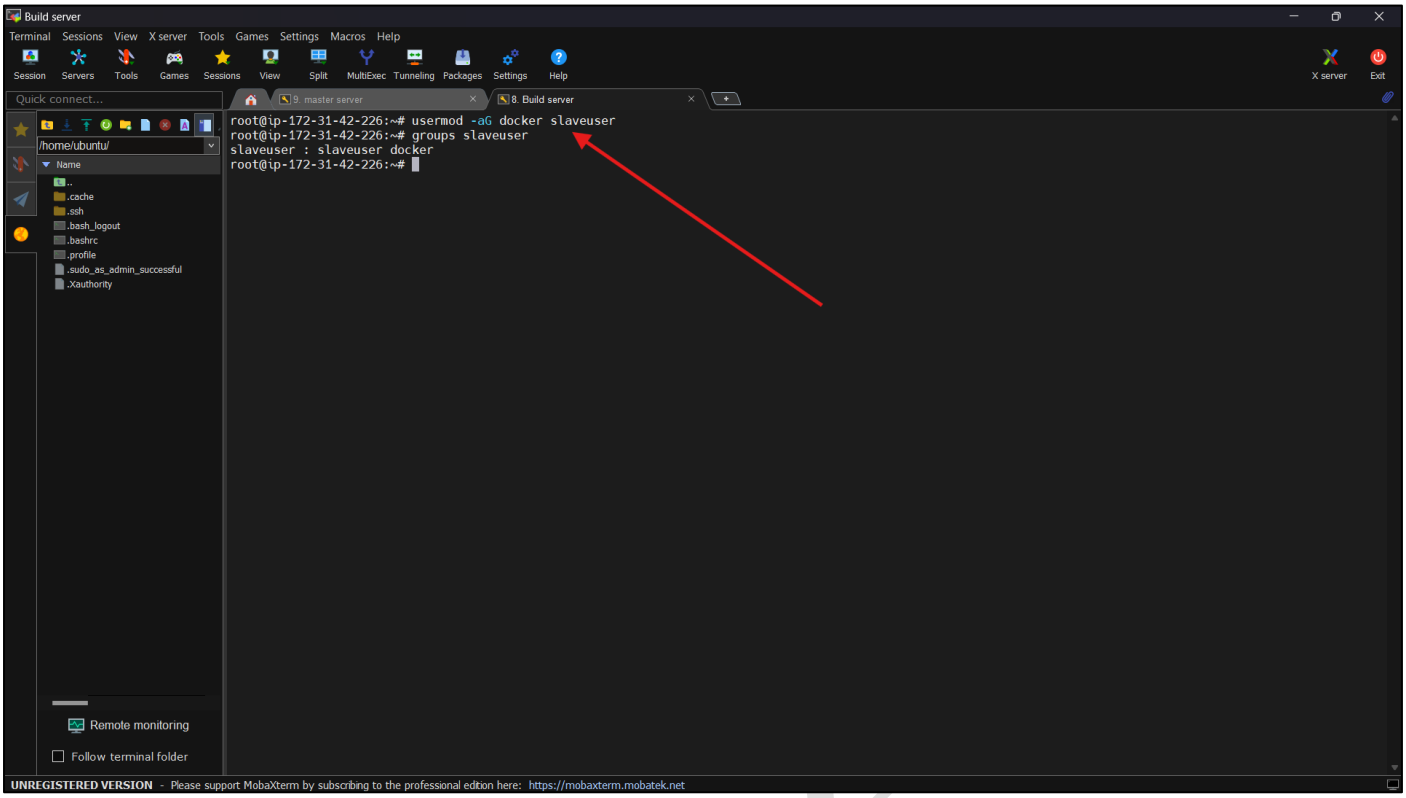


Fig. 2.02: Add docker to slaveuser group

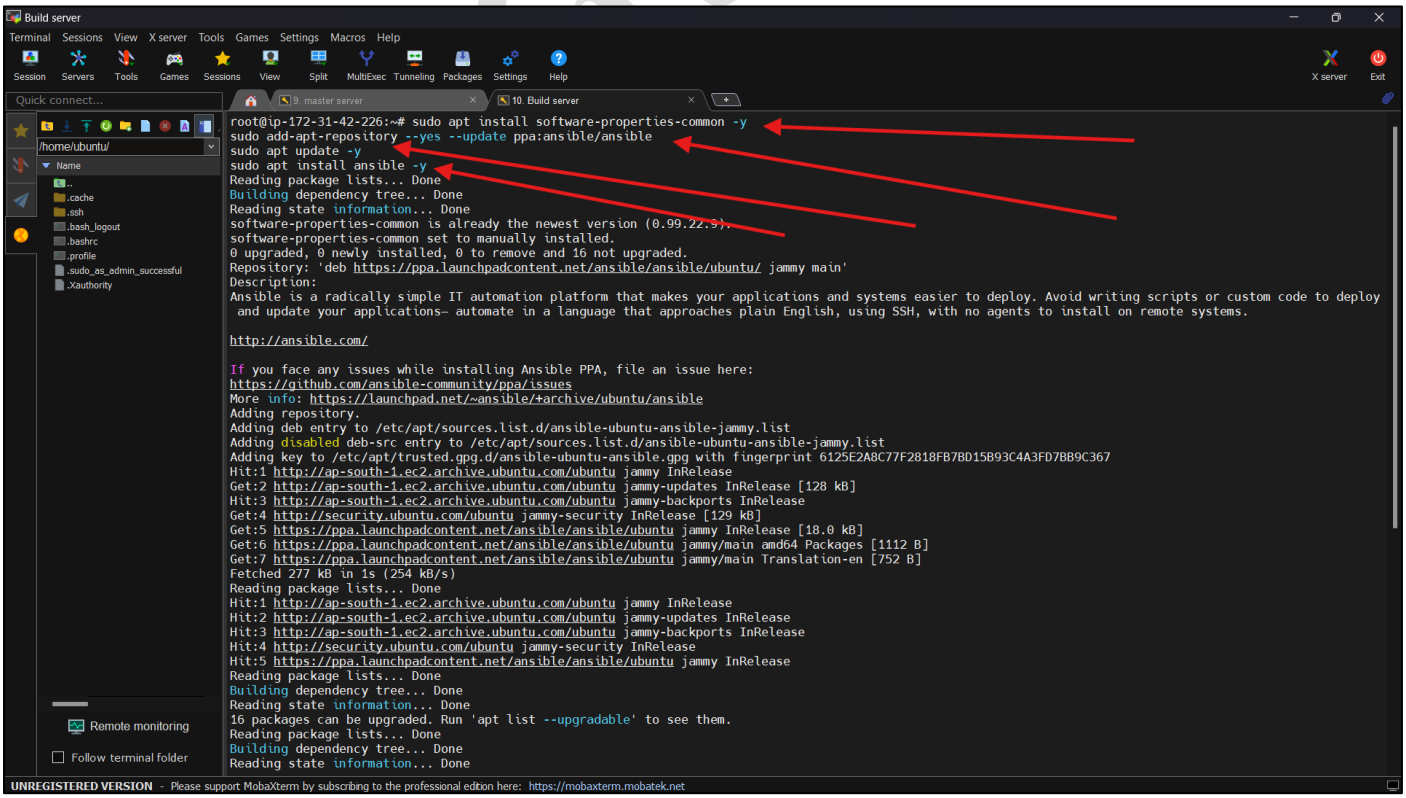


Fig. 2.03: Install ansible

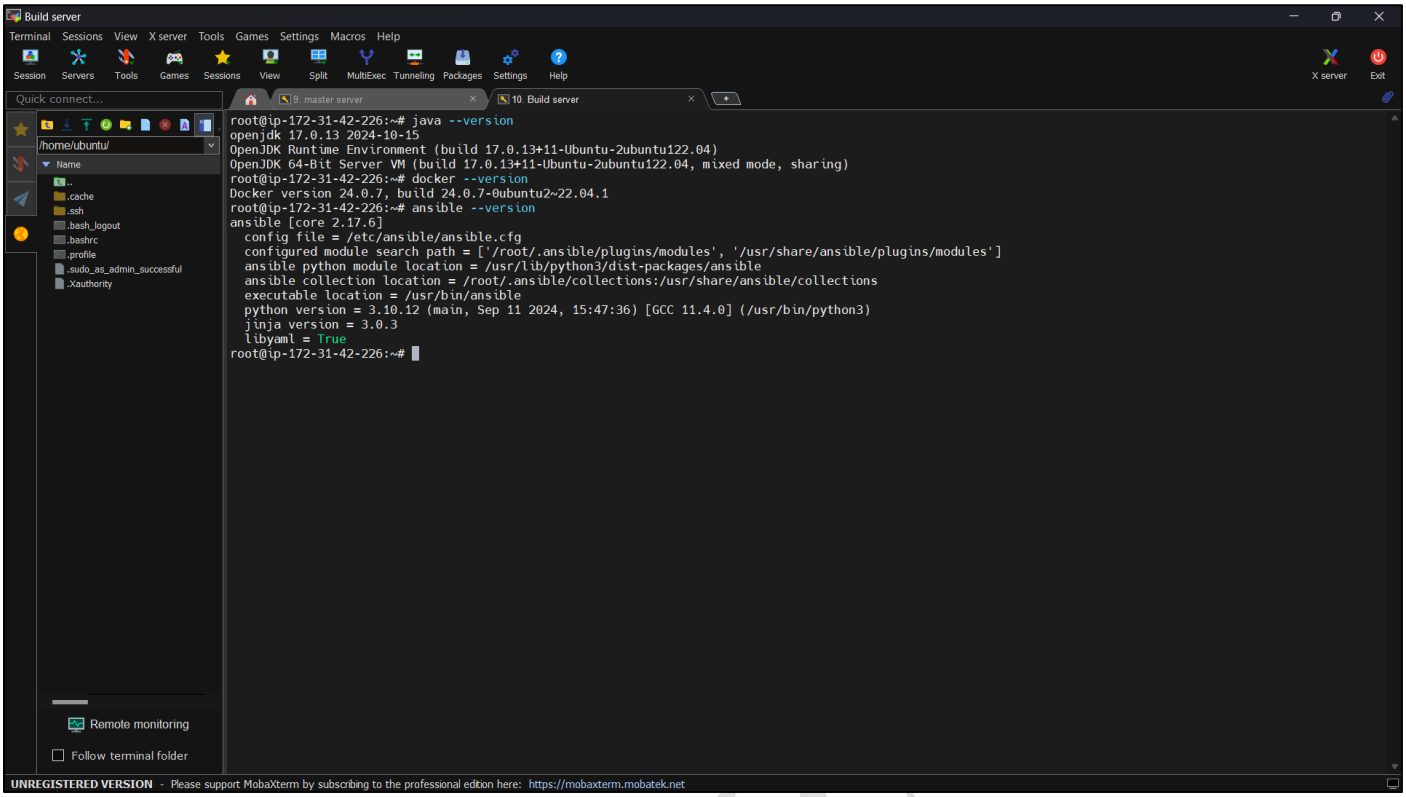


Fig. 2.04: Installed tool list

Step 3: Configure Prod server with Ansible controller present in build server:

1. SSH into the **prod** server
2. Create a new user for e.g. '**ansibleadmin**'. Set the password for that user using commands:

```
sudo -i
useradd ansibleadmin -s /bin/bash -m -d /home/ansibleadmin
passwd ansibleadmin
```

3. Enable Password Authentication for that user

```
vi /etc/ssh/sshd_config
```

4. Reload SSH service using command: `sudo service ssh reload`
5. As a root user edit the file using cmd:

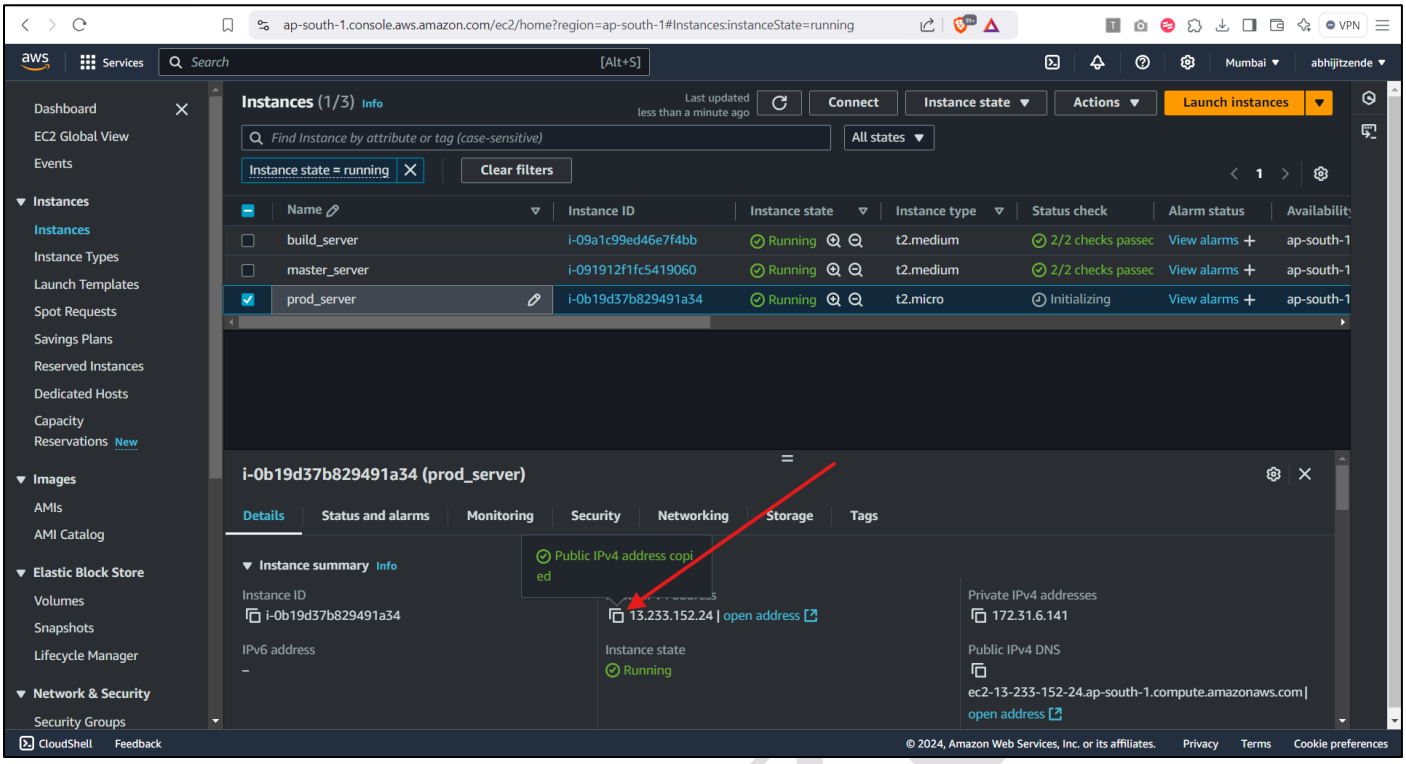
```
visudo
ansibleadmin ALL=(ALL) NOPASSWD: ALL
```

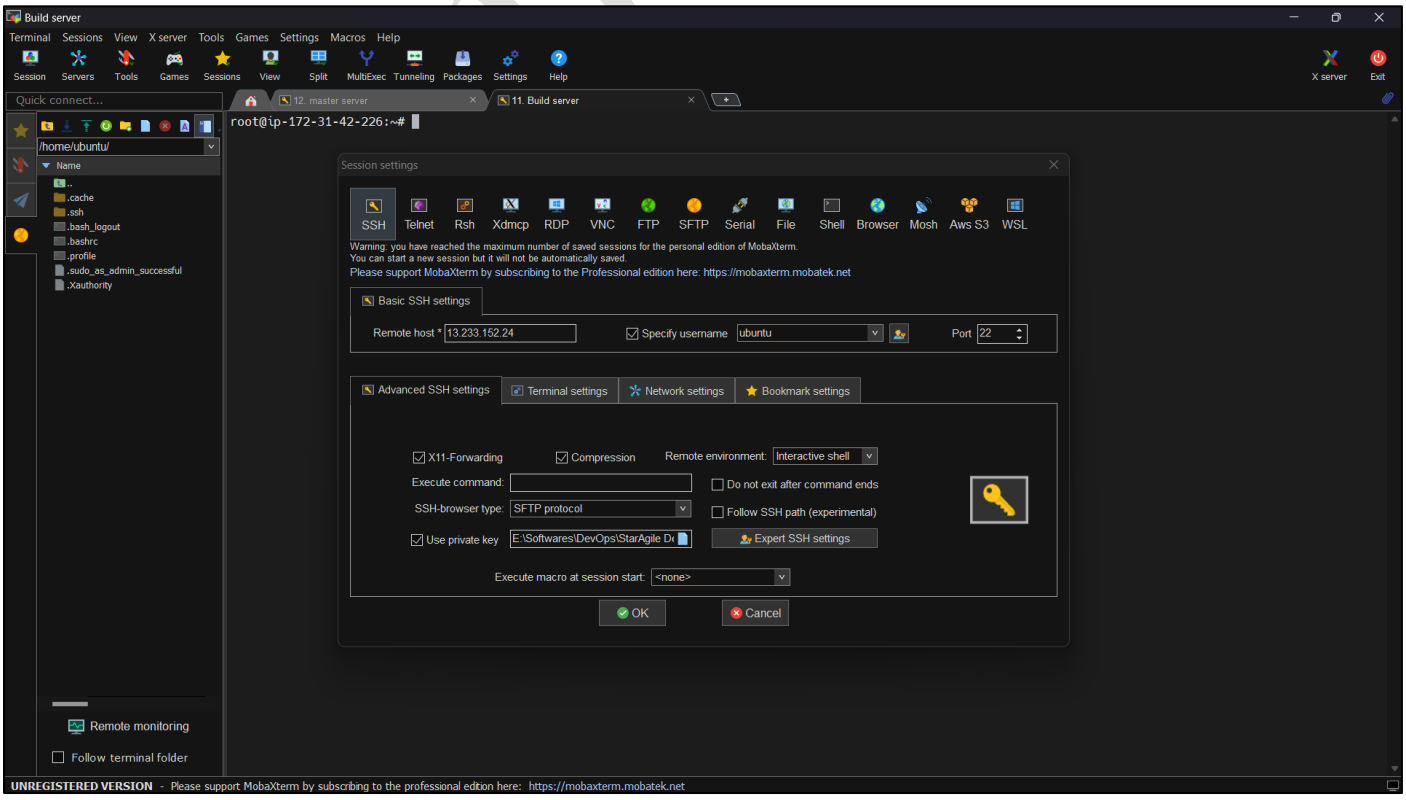
6. Login to the newly created user using command: `su - ansibleadmin`
7. Create a new directory '.ssh' for ssh access for Ansible controller using command: `mkdir .ssh`
8. Change directory to '.ssh' usinf cmd: `cd .ssh`
9. Create '**authorized_keys**' file in the pwd using cmd:

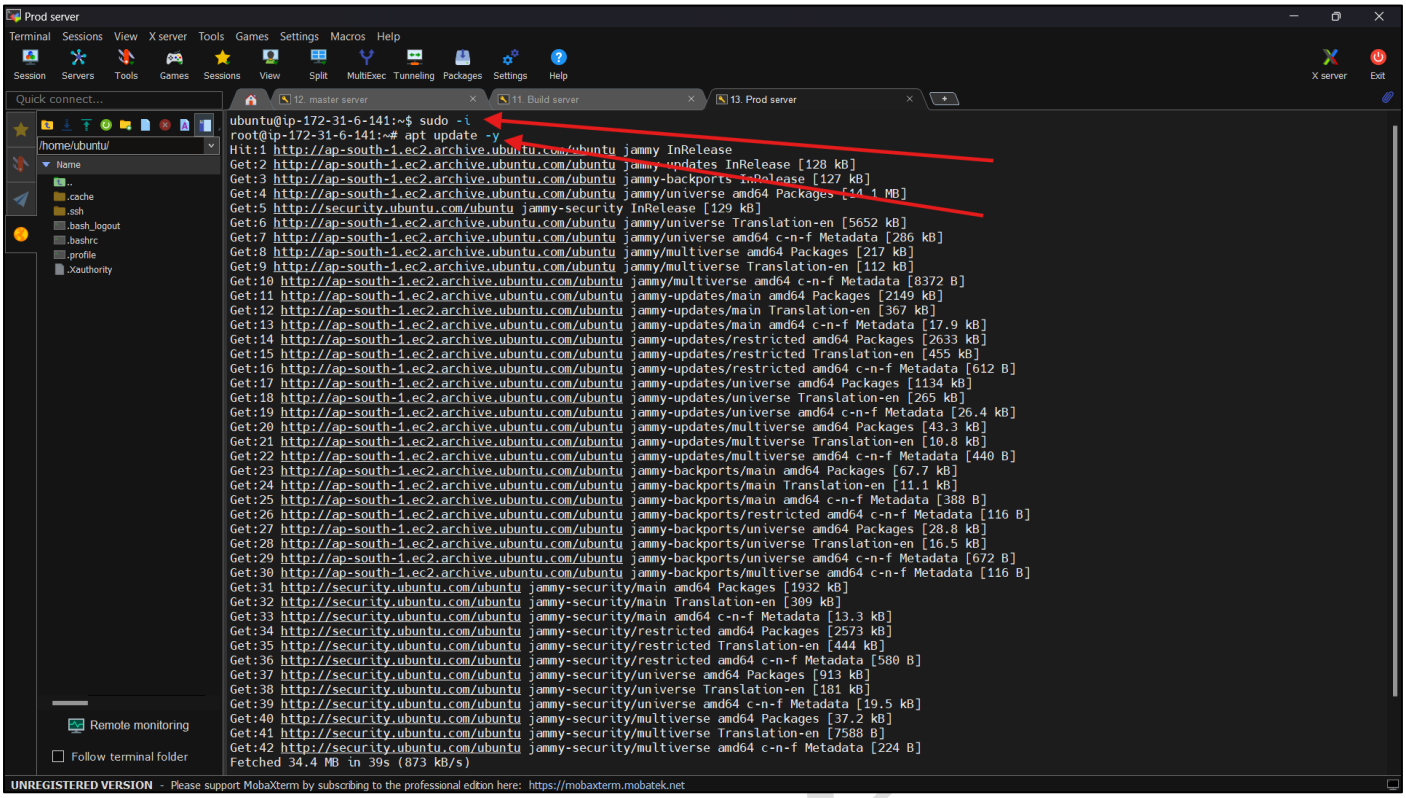
`vi authorized_keys`

10. Paste the '**id_ecdsa.pub**' of the **'slaveuser'** user into the **authorized_keys** of **ansibleadmin** user in the **prod** server
11. Change the permission of the authorized_keys using cmd:
    ```
    chmod 600 /home/ansibleadmin/.ssh/*
    ```
12. Change the owner of '**/etc/ansible/hosts**' using cmd: `chown -R slaveuser:slaveuser /etc/ansible`

13. Inside **slaveuser** in **Build** server update the '**etc/ansible/hosts'** file with below content:
    ```
    [prod]
    prodserver1 ansible_ssh_host=<Private_IP_of_prod_s>
    ansible_ssh_user=ansibleadmin
    ```
14. Check the connection using cmd: `ansible prod -m ping`


ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#Instances:instanceState=running
Services
Search
[Alt+S]
Mumbai
abhijitzende
Dashboard
EC2 Global View
Events
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations New
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Network & Security
Security Groups
Instances (1/3) Info
Last updated less than a minute ago
Connect
Instance state
Actions
Launch instances
Find Instance by attribute or tag (case-sensitive)
All states
Instance state = running
Clear filters
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
build_server
i-09a1c99ed46e7f4bb
Running
t2.medium
2/2 checks passec
View alarms
master_server
i-091912f1fc5419060
Running
t2.medium
2/2 checks passec
View alarms
prod_server
i-0b19d37b829491a34
Running
t2.micro
Initializing
View alarms
i-0b19d37b829491a34 (prod_server)
Details
Status and alarms
Monitoring
Security
Networking
Storage
Tags
Instance summary Info
Public IPv4 address copied
Instance ID
i-0b19d37b829491a34
13.233.152.24 | open address
Private IPv4 addresses
172.31.6.141
IPv6 address
Instance state
Running
Public IPv4 DNS
ec2-13-233-152-24.ap-south-1.compute.amazonaws.com | open address
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences


Build server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
12. master server
11. Build server
root@ip-172-31-42-226:~#
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.Xauthority
Session settings
SSH Telnet Rsh Xdmcp RDP VNC FTP SFTP Serial File Shell Browser Mosh Aws S3 WSL
Warning: you have reached the maximum number of saved sessions for the personal edition of MobaXterm.
You can start a new session but it will not be automatically saved.
Please support MobaXterm by subscribing to the Professional edition here: https://mobaxterm.mobatek.net
Basic SSH settings
Remote host * 13.233.152.24
Specify username ubuntu
Port 22
Advanced SSH settings
Terminal settings
Network settings
Bookmark settings
X11-Forwarding
Compression
Remote environment: Interactive shell
Execute command:
Do not exit after command ends
SSH-browser type: SFTP protocol
Follow SSH path (experimental)
Use private key E:\Softwares\DevOps\StarAgile De
Expert SSH settings
Execute macro at session start: <none>
OK
Cancel
Remote monitoring
Follow terminal folder
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net


Prod server
ubuntu@ip-172-31-6-141:~$ sudo -i
root@ip-172-31-6-141:~# apt update -y
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [128 kB]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [127 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]
Get:5 http://security.ubuntu.com/ubuntu jammy-security InRelease [129 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/universe Translation-en [5652 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 c-n-f Metadata [286 kB]
Get:8 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [217 kB]
Get:9 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse Translation-en [112 kB]
Get:10 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 c-n-f Metadata [8372 B]
Get:11 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [2149 kB]
Get:12 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [367 kB]
Get:13 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata [17.9 kB]
Get:14 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [2633 kB]
Get:15 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [455 kB]
Get:16 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 c-n-f Metadata [612 B]
Get:17 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1134 kB]
Get:18 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [265 kB]
Get:19 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [26.4 kB]
Get:20 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [43.3 kB]
Get:21 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [10.8 kB]
Get:22 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [440 B]
Get:23 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [67.7 kB]
Get:24 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [11.1 kB]
Get:25 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [388 B]
Get:26 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:27 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [28.8 kB]
Get:28 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [16.5 kB]
Get:29 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [672 B]
Get:30 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/multiverse amd64 c-n-f Metadata [116 B]
Get:31 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [1932 kB]
Get:32 http://security.ubuntu.com/ubuntu jammy-security/main Translation-en [309 kB]
Get:33 http://security.ubuntu.com/ubuntu jammy-security/main amd64 c-n-f Metadata [13.3 kB]
Get:34 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [2573 kB]
Get:35 http://security.ubuntu.com/ubuntu jammy-security/restricted Translation-en [444 kB]
Get:36 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 c-n-f Metadata [580 B]
Get:37 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [913 kB]
Get:38 http://security.ubuntu.com/ubuntu jammy-security/universe Translation-en [181 kB]
Get:39 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 c-n-f Metadata [19.5 kB]
Get:40 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [37.2 kB]
Get:41 http://security.ubuntu.com/ubuntu jammy-security/multiverse Translation-en [7588 B]
Get:42 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 c-n-f Metadata [224 B]
Fetched 34.4 MB in 39s (873 kB/s)
Remote monitoring
Follow terminal folder
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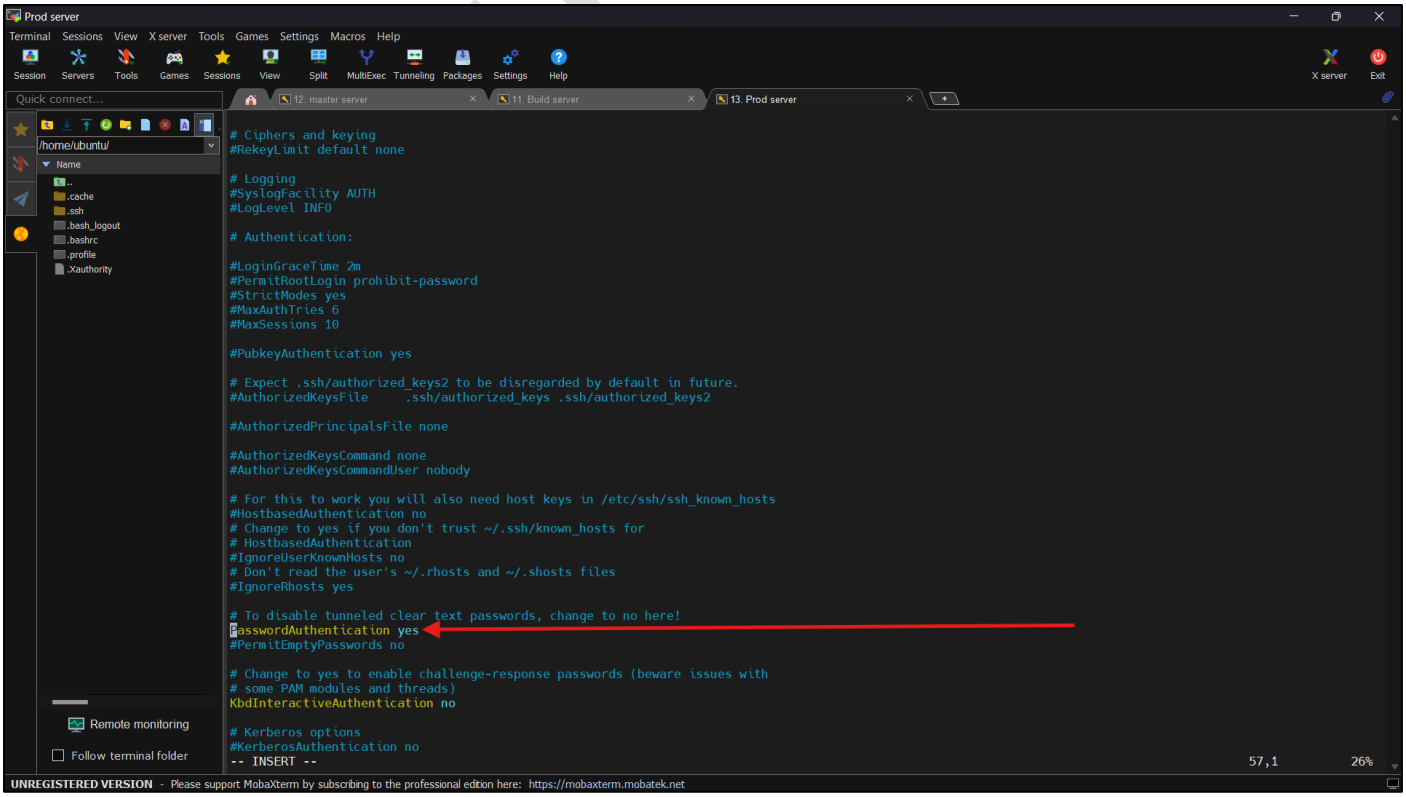
Prod server
Ciphers and keying
#RekeyLimit default none
Logging
#SyslogFacility AUTH
#LogLevel INFO
Authentication:
#LoginGraceTime 2m
#PermitRootLogin prohibit-password
#StrictModes yes
#MaxAuthTries 6
#MaxSessions 10
#PubkeyAuthentication yes
Expect .ssh/authorized_keys2 to be disregarded by default in future.
#AuthorizedKeysFile .ssh/authorized_keys .ssh/authorized_keys2
#AuthorizedPrincipalsFile none
#AuthorizedKeysCommand none
#AuthorizedKeysCommandUser nobody
For this to work you will also need host keys in /etc/ssh/ssh_known_hosts
#HostbasedAuthentication no
Change to yes if you don't trust ~/.ssh/known_hosts for
HostbasedAuthentication
#IgnoreUserKnownHosts no
Don't read the user's ~/.rhosts and ~/.shosts files
#IgnoreRhosts yes
To disable tunneled clear text passwords, change to no here!
PasswordAuthentication yes
#PermitEmptyPasswords no
Change to yes to enable challenge-response passwords (beware issues with
some PAM modules and threads)
KbdInteractiveAuthentication no
Kerberos options
#KerberosAuthentication no
-- INSERT --
57,1 26%
Remote monitoring
Follow terminal folder
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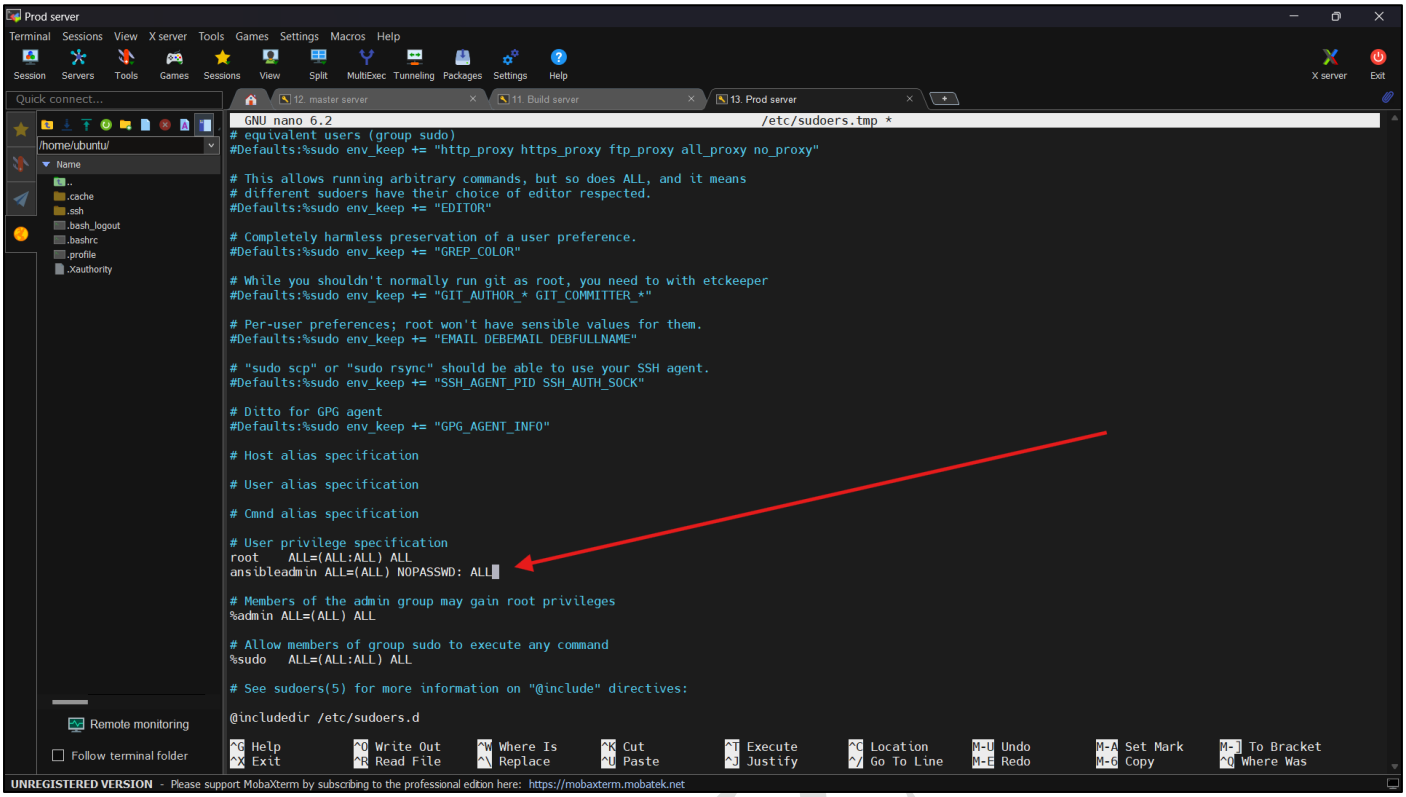
Prod server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
12. master server
11. Build server
13. Prod server
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority
Remote monitoring
Follow terminal folder
GNU nano 6.2 /etc/sudoers.tmp *
equivalent users (group sudo)
#Defaults:%sudo env_keep += "http_proxy https_proxy ftp_proxy all_proxy no_proxy"
This allows running arbitrary commands, but so does ALL, and it means
different sudoers have their choice of editor respected.
#Defaults:%sudo env_keep += "EDITOR"
Completely harmless preservation of a user preference.
#Defaults:%sudo env_keep += "GREP_COLOR"
While you shouldn't normally run git as root, you need to with etckeeper
#Defaults:%sudo env_keep += "GIT_AUTHOR_* GIT_COMMITTER_*"
Per-user preferences; root won't have sensible values for them.
#Defaults:%sudo env_keep += "EMAIL DEBEMAIL DEBFULLNAME"
"sudo scp" or "sudo rsync" should be able to use your SSH agent.
#Defaults:%sudo env_keep += "SSH_AGENT_PID SSH_AUTH_SOCK"
Ditto for GPG agent
#Defaults:%sudo env_keep += "GPG_AGENT_INFO"
Host alias specification
User alias specification
Cmnd alias specification
User privilege specification
root ALL=(ALL:ALL) ALL
ansibleadmin ALL=(ALL) NOPASSWD: ALL
Members of the admin group may gain root privileges
%admin ALL=(ALL) ALL
Allow members of group sudo to execute any command
%sudo ALL=(ALL:ALL) ALL
See sudoers(5) for more information on "@include" directives:
@includedir /etc/sudoers.d
^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location M-U Undo M-A Set Mark M-] To Bracket
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^/ Go To Line M-E Redo M-6 Copy ^Q Where Was
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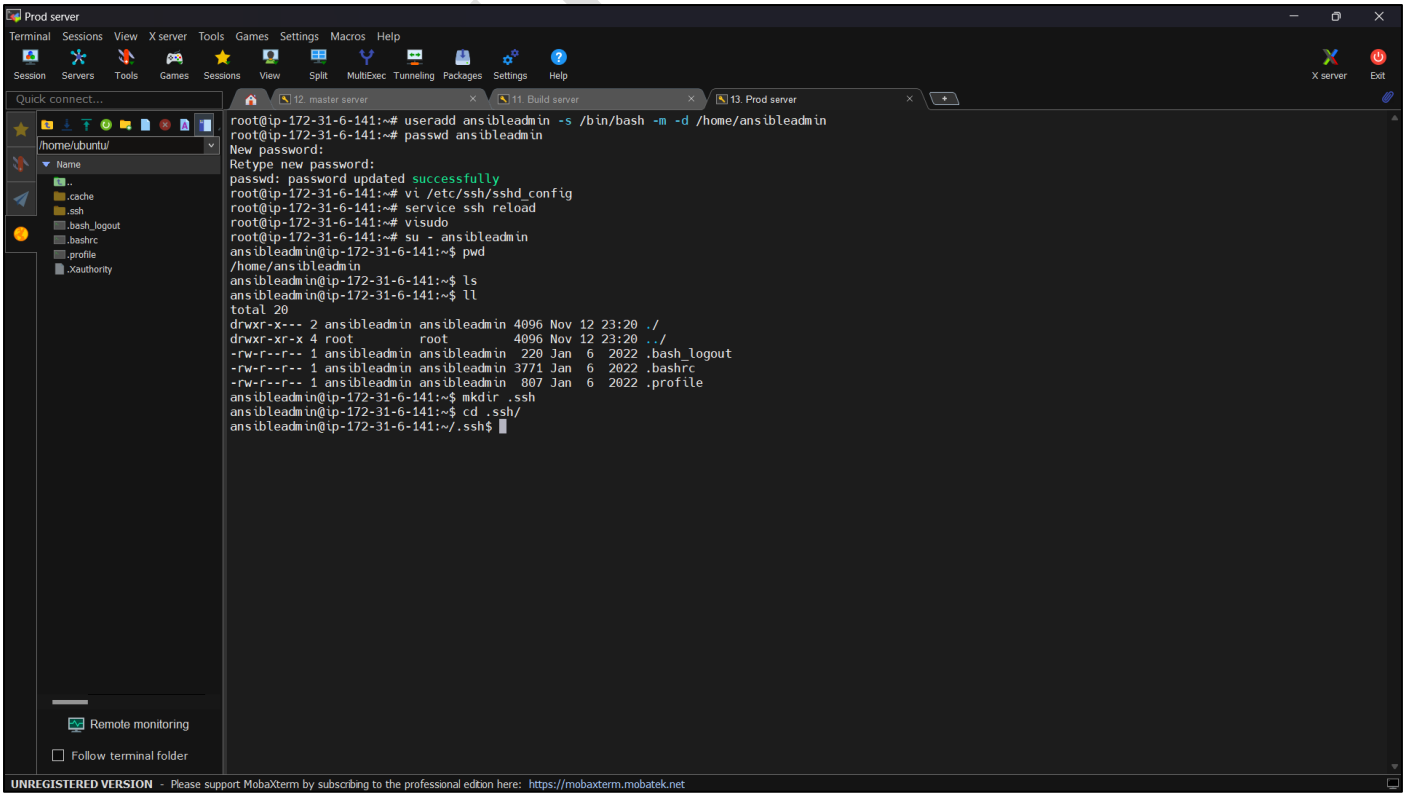
Prod server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
12. master server
11. Build server
13. Prod server
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority
Remote monitoring
Follow terminal folder
root@ip-172-31-6-141:~# useradd ansibleadmin -s /bin/bash -m -d /home/ansibleadmin
root@ip-172-31-6-141:~# passwd ansibleadmin
New password:
Retype new password:
passwd: password updated successfully
root@ip-172-31-6-141:~# vi /etc/ssh/sshd_config
root@ip-172-31-6-141:~# service ssh reload
root@ip-172-31-6-141:~# visudo
root@ip-172-31-6-141:~# su - ansibleadmin
ansibleadmin@ip-172-31-6-141:~$ pwd
/home/ansibleadmin
ansibleadmin@ip-172-31-6-141:~$ ls
ansibleadmin@ip-172-31-6-141:~$ ll
total 20
drwxr-x--- 2 ansibleadmin ansibleadmin 4096 Nov 12 23:20 ./
drwxr-xr-x 4 root root 4096 Nov 12 23:20 ../
-rw-r--r-- 1 ansibleadmin ansibleadmin 220 Jan 6 2022 .bash_logout
-rw-r--r-- 1 ansibleadmin ansibleadmin 3771 Jan 6 2022 .bashrc
-rw-r--r-- 1 ansibleadmin ansibleadmin 807 Jan 6 2022 .profile
ansibleadmin@ip-172-31-6-141:~$ mkdir .ssh
ansibleadmin@ip-172-31-6-141:~$ cd .ssh/
ansibleadmin@ip-172-31-6-141:~/.ssh$
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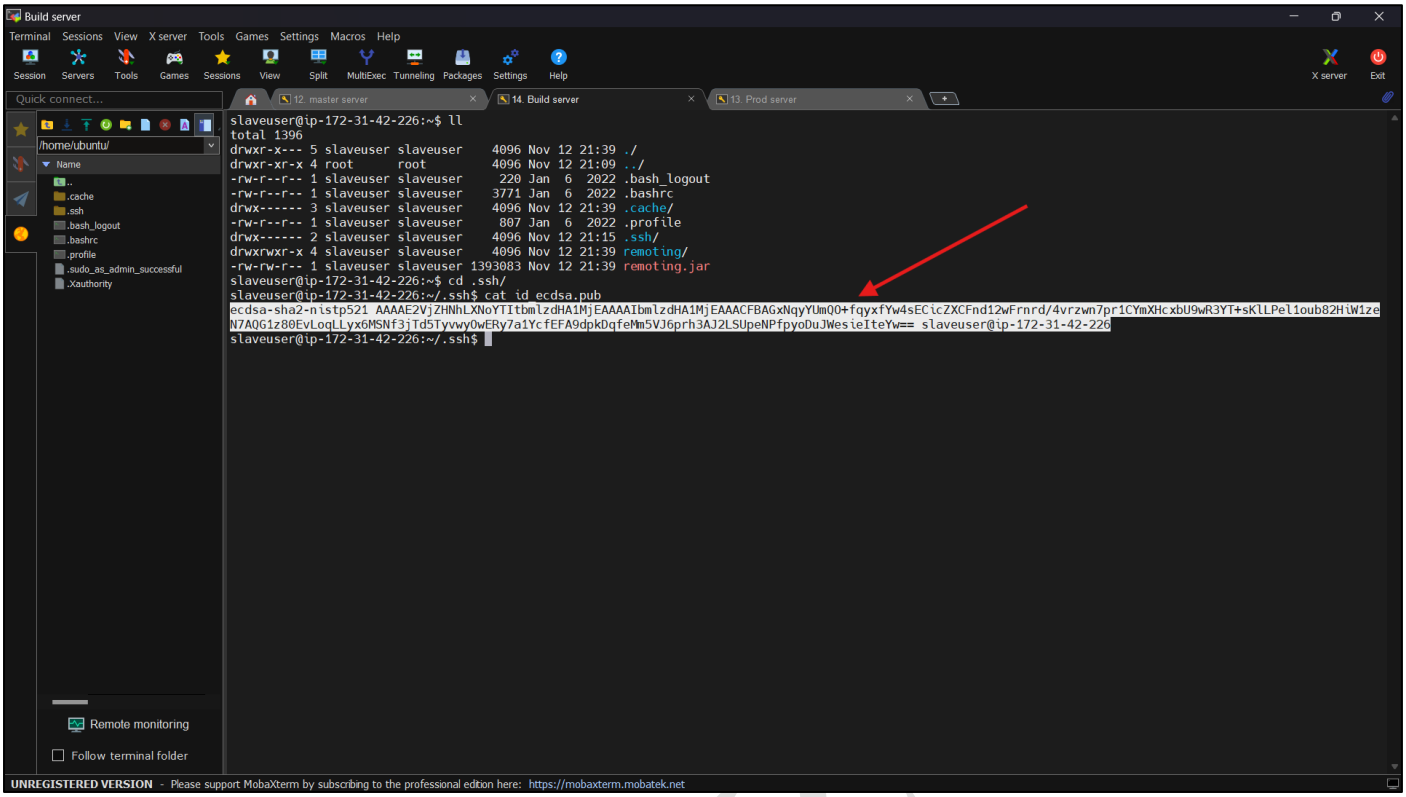
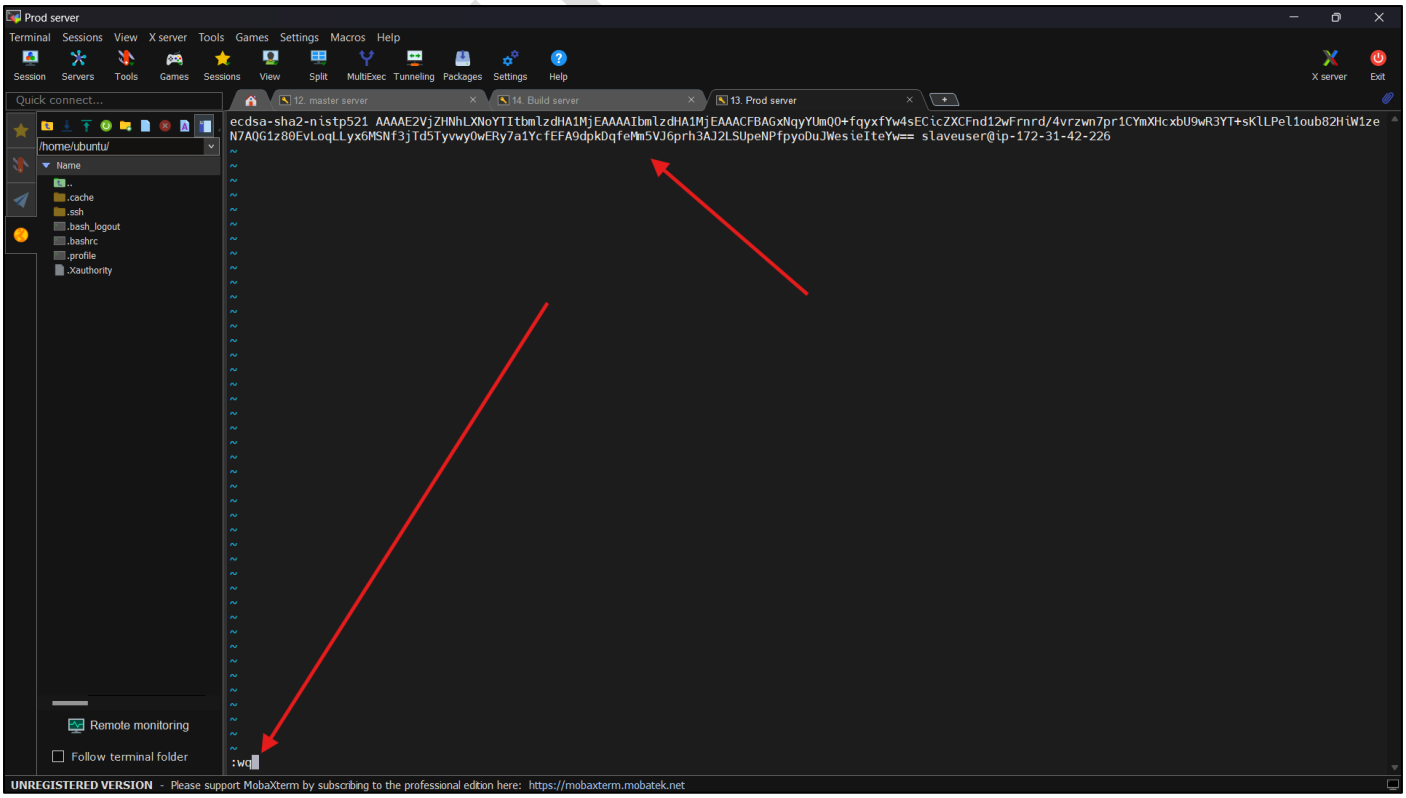

Build server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
12. master server
14. Build server
13. Prod server
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.Xauthority
slaveuser@ip-172-31-42-226:~$ ll
total 1396
drwxr-x--- 5 slaveuser slaveuser 4096 Nov 12 21:39 ./
drwxr-xr-x 4 root root 4096 Nov 12 21:09 ../
-rw-r--r-- 1 slaveuser slaveuser 220 Jan 6 2022 .bash_logout
-rw-r--r-- 1 slaveuser slaveuser 3771 Jan 6 2022 .bashrc
drwx------ 3 slaveuser slaveuser 4096 Nov 12 21:39 .cache/
-rw-r--r-- 1 slaveuser slaveuser 807 Jan 6 2022 .profile
drwx------ 2 slaveuser slaveuser 4096 Nov 12 21:15 .ssh/
drwxrwxr-x 4 slaveuser slaveuser 4096 Nov 12 21:39 remoting/
-rw-rw-r-- 1 slaveuser slaveuser 1393083 Nov 12 21:39 remoting.jar
slaveuser@ip-172-31-42-226:~$ cd .ssh/
slaveuser@ip-172-31-42-226:~/.ssh$ cat id_ecdsa.pub
ecdsa-sha2-nistp521 AAAAE2VjZHNhLXNoYTItbmlzdHA1MjEAAAAIbmlzdHA1MjEAAACFBAGxNqyYUmQ0+fqyxfYw4sECicZXCFnd12wFrnrd/4vrzwn7pr1CYmXHcxbU9wR3YT+sKllPel1oub82HiW1ze
N7AQG1z80EvLoqLLyx6MSNf3jTd5TyvwyOwERy7a1YcfEFA9dpkDqfeMm5VJ6prh3AJ2LSUpeNPfpyoDuJWesieIteYw== slaveuser@ip-172-31-42-226
slaveuser@ip-172-31-42-226:~/.ssh$
Remote monitoring
Follow terminal folder
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net


Prod server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
12. master server
14. Build server
13. Prod server
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority
ecdsa-sha2-nistp521 AAAAE2VjZHNhLXNoYTItbmlzdHA1MjEAAAAIbmlzdHA1MjEAAACFBAGxNqyYUmQ0+fqyxfYw4sECicZXCFnd12wFrnrd/4vrzwn7pr1CYmXHcxbU9wR3YT+sKllPel1oub82HiW1ze
N7AQG1z80EvLoqLLyx6MSNf3jTd5TyvwyOwERy7a1YcfEFA9dpkDqfeMm5VJ6prh3AJ2LSUpeNPfpyoDuJWesieIteYw== slaveuser@ip-172-31-42-226
:wq
Remote monitoring
Follow terminal folder
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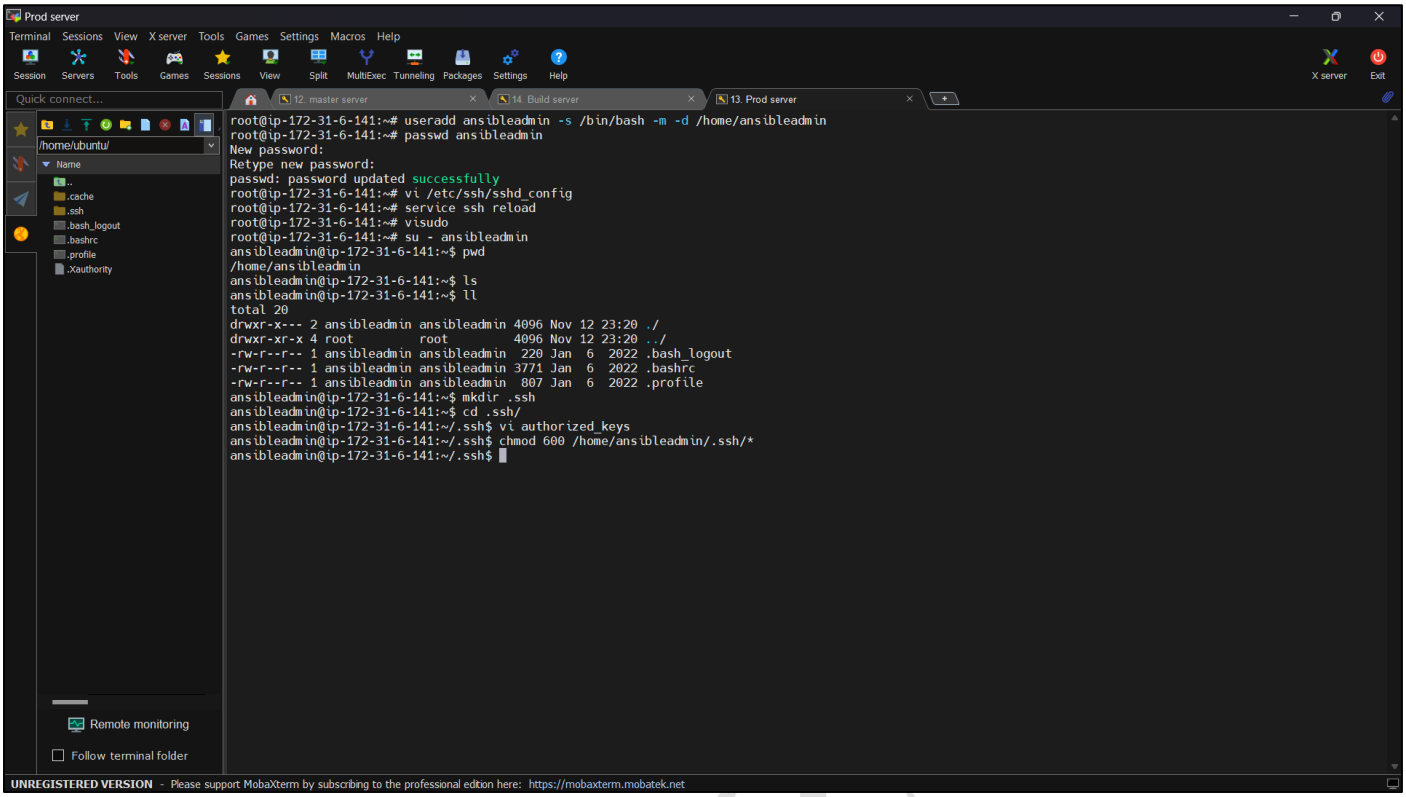
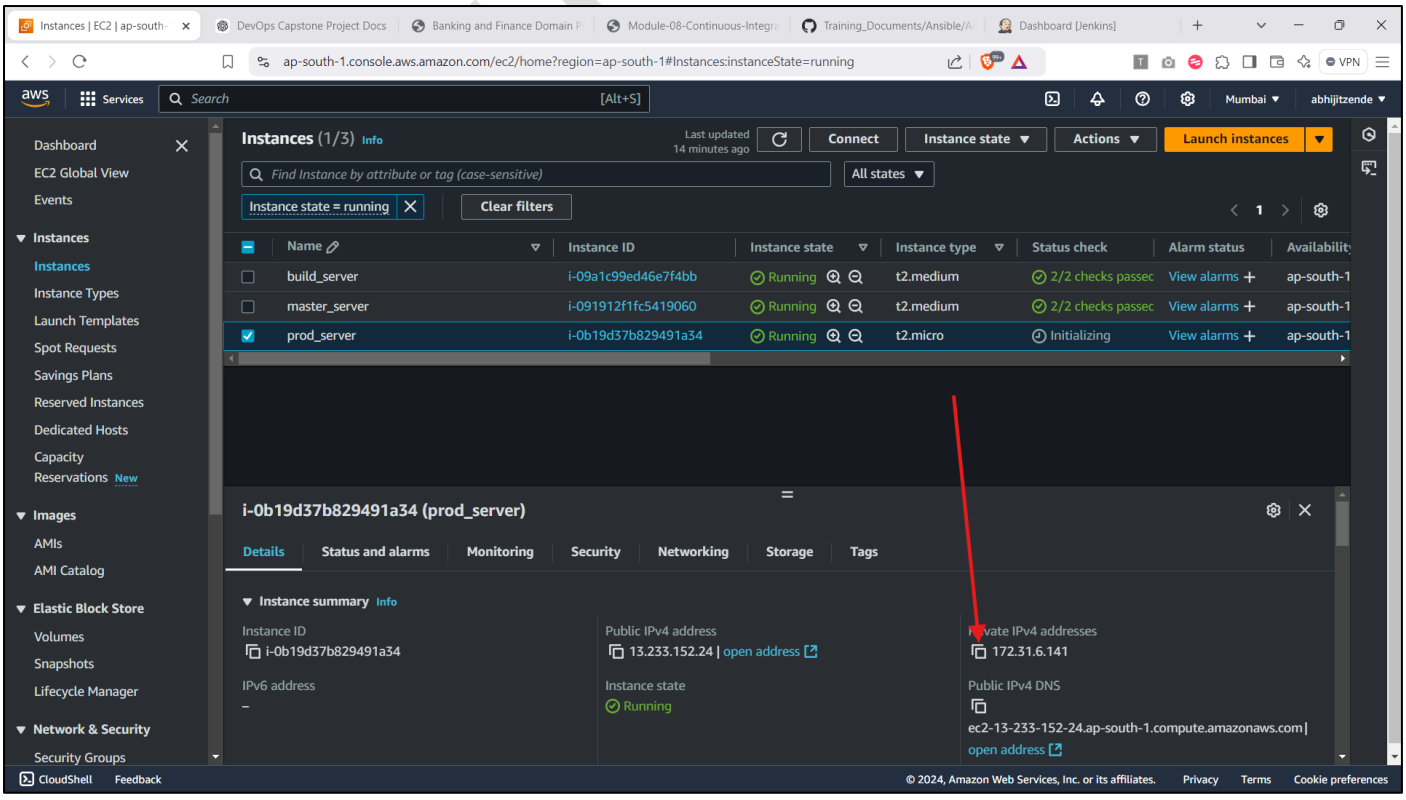
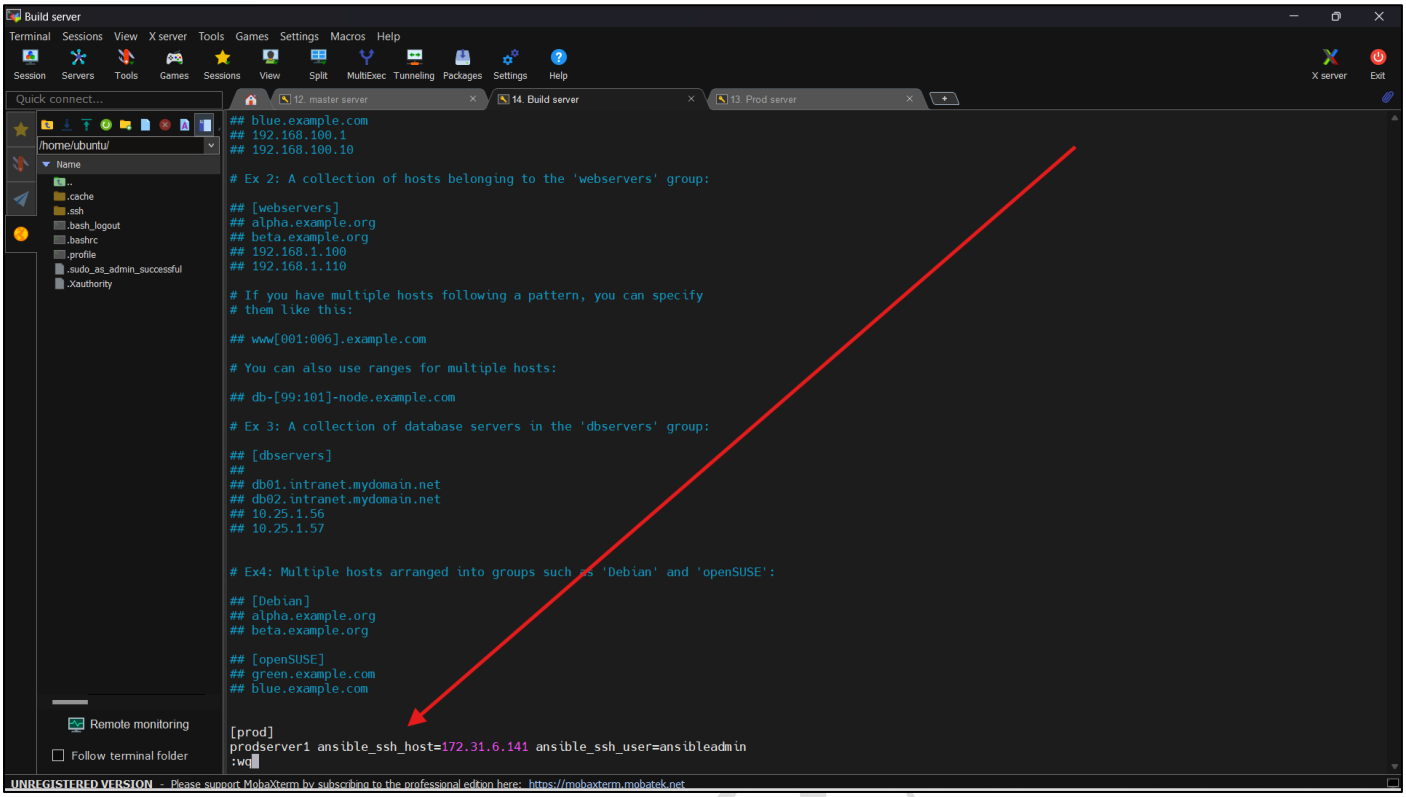

Prod server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
12. master server
14. Build server
13. Prod server
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority
root@ip-172-31-6-141:~# useradd ansibleadmin -s /bin/bash -m -d /home/ansibleadmin
root@ip-172-31-6-141:~# passwd ansibleadmin
New password:
Retype new password:
passwd: password updated successfully
root@ip-172-31-6-141:~# vi /etc/ssh/sshd_config
root@ip-172-31-6-141:~# service ssh reload
root@ip-172-31-6-141:~# visudo
root@ip-172-31-6-141:~# su - ansibleadmin
ansibleadmin@ip-172-31-6-141:~$ pwd
/home/ansibleadmin
ansibleadmin@ip-172-31-6-141:~$ ls
ansibleadmin@ip-172-31-6-141:~$ ll
total 20
drwxr-x--- 2 ansibleadmin ansibleadmin 4096 Nov 12 23:20 ./
drwxr-xr-x 4 root root 4096 Nov 12 23:20 ../
-rw-r--r-- 1 ansibleadmin ansibleadmin 220 Jan 6 2022 .bash_logout
-rw-r--r-- 1 ansibleadmin ansibleadmin 3771 Jan 6 2022 .bashrc
-rw-r--r-- 1 ansibleadmin ansibleadmin 807 Jan 6 2022 .profile
ansibleadmin@ip-172-31-6-141:~$ mkdir .ssh
ansibleadmin@ip-172-31-6-141:~$ cd .ssh/
ansibleadmin@ip-172-31-6-141:~/.ssh$ vi authorized_keys
ansibleadmin@ip-172-31-6-141:~/.ssh$ chmod 600 /home/ansibleadmin/.ssh/*
ansibleadmin@ip-172-31-6-141:~/.ssh$
Remote monitoring
Follow terminal folder
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net


Instances | EC2 | ap-south-
ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#Instances:instanceState=running
aws
Services
Search
[Alt+S]
Mumbai
abhijitzende
Dashboard
EC2 Global View
Events
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations New
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Network & Security
Security Groups
Instances (1/3) Info
Last updated 14 minutes ago
Connect
Instance state
Actions
Launch instances
Find Instance by attribute or tag (case-sensitive)
All states
Instance state = running
Clear filters
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
build_server i-09a1c99ed46e7f4bb Running t2.medium 2/2 checks passec View alarms ap-south-1
master_server i-091912f1fc5419060 Running t2.medium 2/2 checks passec View alarms ap-south-1
prod_server i-0b19d37b829491a34 Running t2.micro Initializing View alarms ap-south-1
i-0b19d37b829491a34 (prod_server)
Details
Status and alarms
Monitoring
Security
Networking
Storage
Tags
Instance summary Info
Instance ID
i-0b19d37b829491a34
IPv6 address
-
Public IPv4 address
13.233.152.24 | open address
Instance state
Running
Private IPv4 addresses
172.31.6.141
Public IPv4 DNS
ec2-13-233-152-24.ap-south-1.compute.amazonaws.com | open address
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences


Build server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
12. master server
14. Build server
13. Prod server
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.Xauthority
blue.example.com
192.168.100.1
192.168.100.10
Ex 2: A collection of hosts belonging to the 'webservers' group:
[webservers]
alpha.example.org
beta.example.org
192.168.1.100
192.168.1.110
If you have multiple hosts following a pattern, you can specify
them like this:
www[001:006].example.com
You can also use ranges for multiple hosts:
db-[99:101]-node.example.com
Ex 3: A collection of database servers in the 'dbservers' group:
[dbservers]
##
db01.intranet.mydomain.net
db02.intranet.mydomain.net
10.25.1.56
10.25.1.57
Ex4: Multiple hosts arranged into groups such as 'Debian' and 'openSUSE':
[Debian]
alpha.example.org
beta.example.org
[openSUSE]
green.example.com
blue.example.com
[prod]
prodserver1 ansible_ssh_host=172.31.6.141 ansible_ssh_user=ansibleadmin
:wq
Remote monitoring
Follow terminal folder
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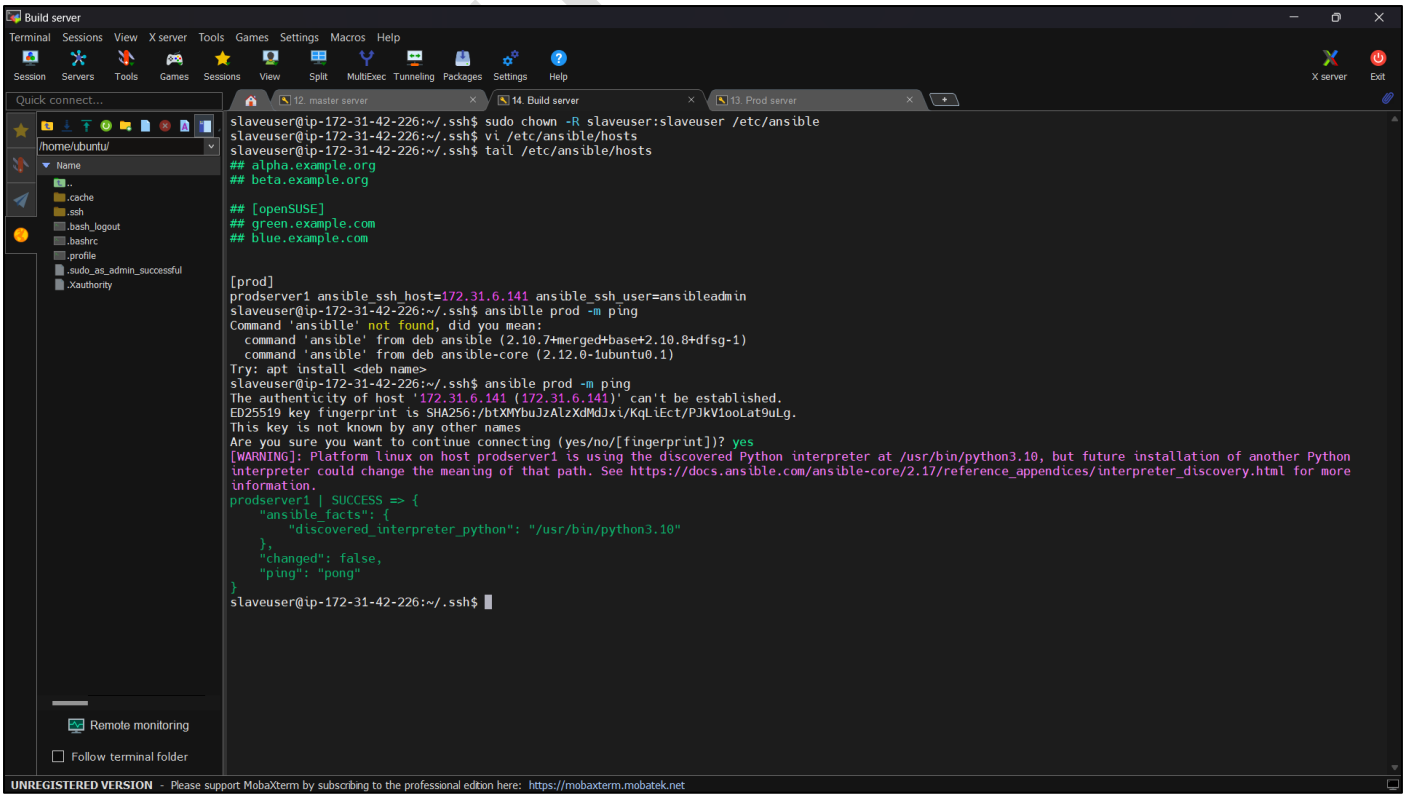
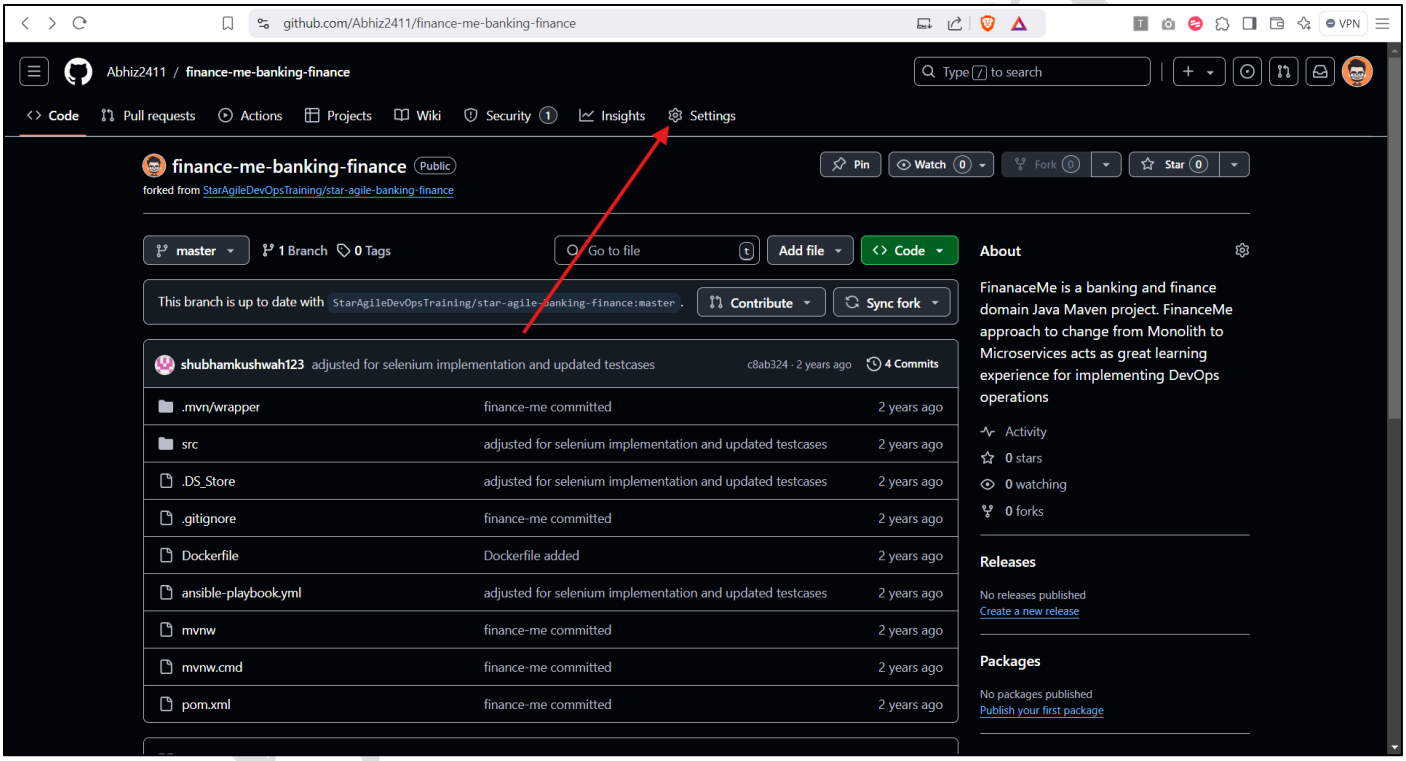
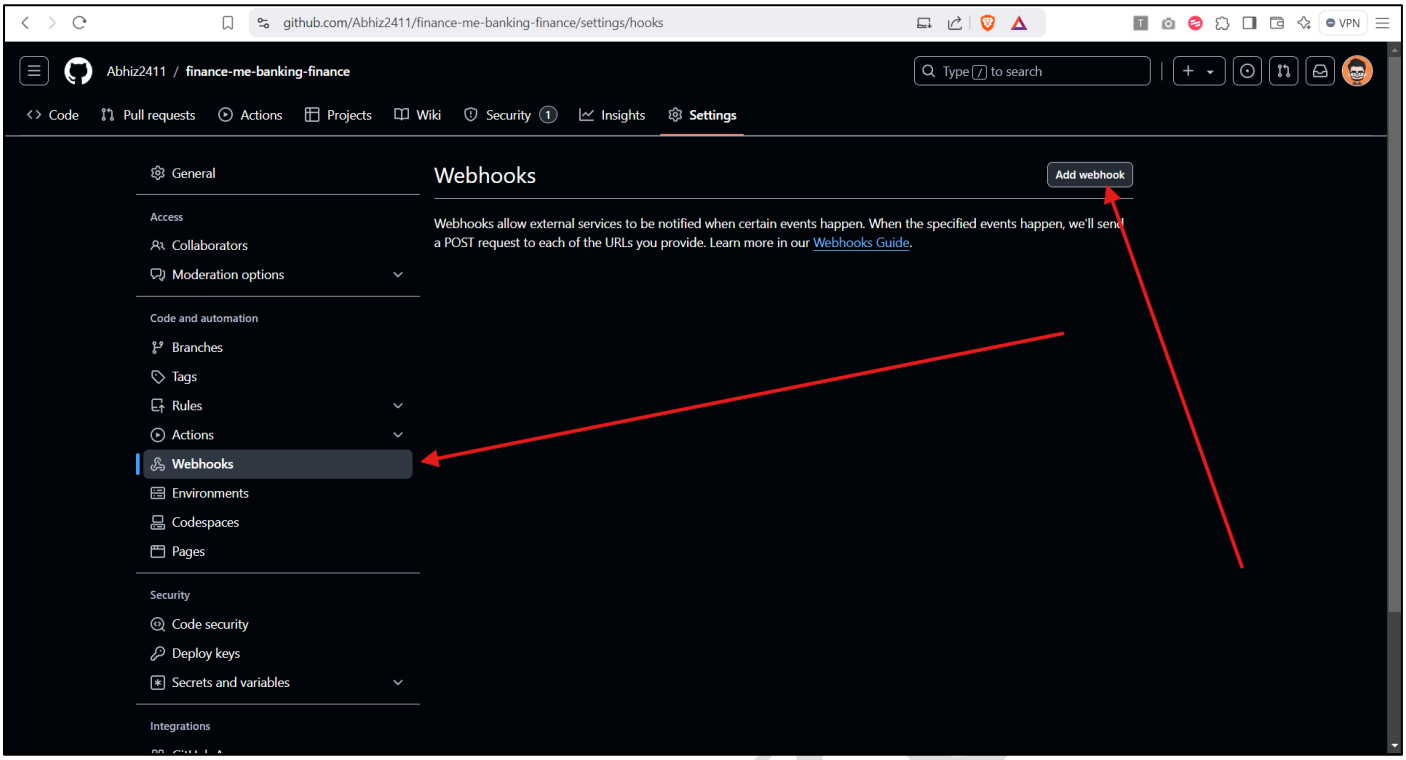
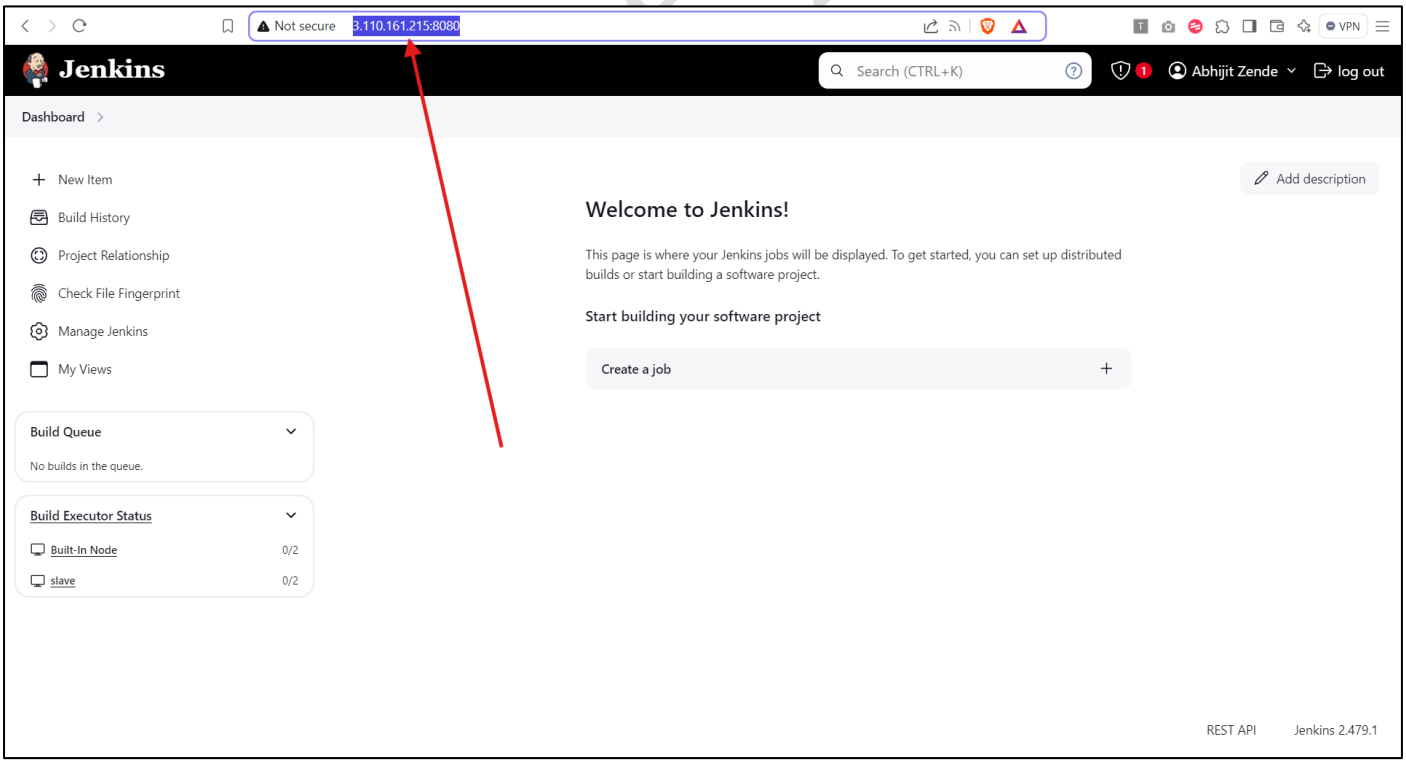

Build server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
12. master server
14. Build server
13. Prod server
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.Xauthority
slaveuser@ip-172-31-42-226:~/.ssh$ sudo chown -R slaveuser:slaveuser /etc/ansible
slaveuser@ip-172-31-42-226:~/.ssh$ vi /etc/ansible/hosts
slaveuser@ip-172-31-42-226:~/.ssh$ tail /etc/ansible/hosts
alpha.example.org
beta.example.org
[openSUSE]
green.example.com
blue.example.com
[prod]
prodserver1 ansible_ssh_host=172.31.6.141 ansible_ssh_user=ansibleadmin
slaveuser@ip-172-31-42-226:~/.ssh$ ansiblle prod -m ping
Command 'ansiblle' not found, did you mean:
command 'ansible' from deb ansible (2.10.7+merged+base+2.10.8+dfsg-1)
command 'ansible' from deb ansible-core (2.12.0-1ubuntu0.1)
Try: apt install <deb name>
slaveuser@ip-172-31-42-226:~/.ssh$ ansible prod -m ping
The authenticity of host '172.31.6.141 (172.31.6.141)' can't be established.
ED25519 key fingerprint is SHA256:/btXMYbuJzAlzXdMdJxi/KqLiEct/PJkV1ooLat9uLg.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
[WARNING]: Platform linux on host prodserver1 is using the discovered Python interpreter at /usr/bin/python3.10, but future installation of another Python interpreter could change the meaning of that path. See https://docs.ansible.com/ansible-core/2.17/reference_appendices/interpreter_discovery.html for more information.
prodserver1 | SUCCESS => {
"ansible_facts": {
"discovered_interpreter_python": "/usr/bin/python3.10"
},
"changed": false,
"ping": "pong"
}
slaveuser@ip-172-31-42-226:~/.ssh$
Remote monitoring
Follow terminal folder
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net

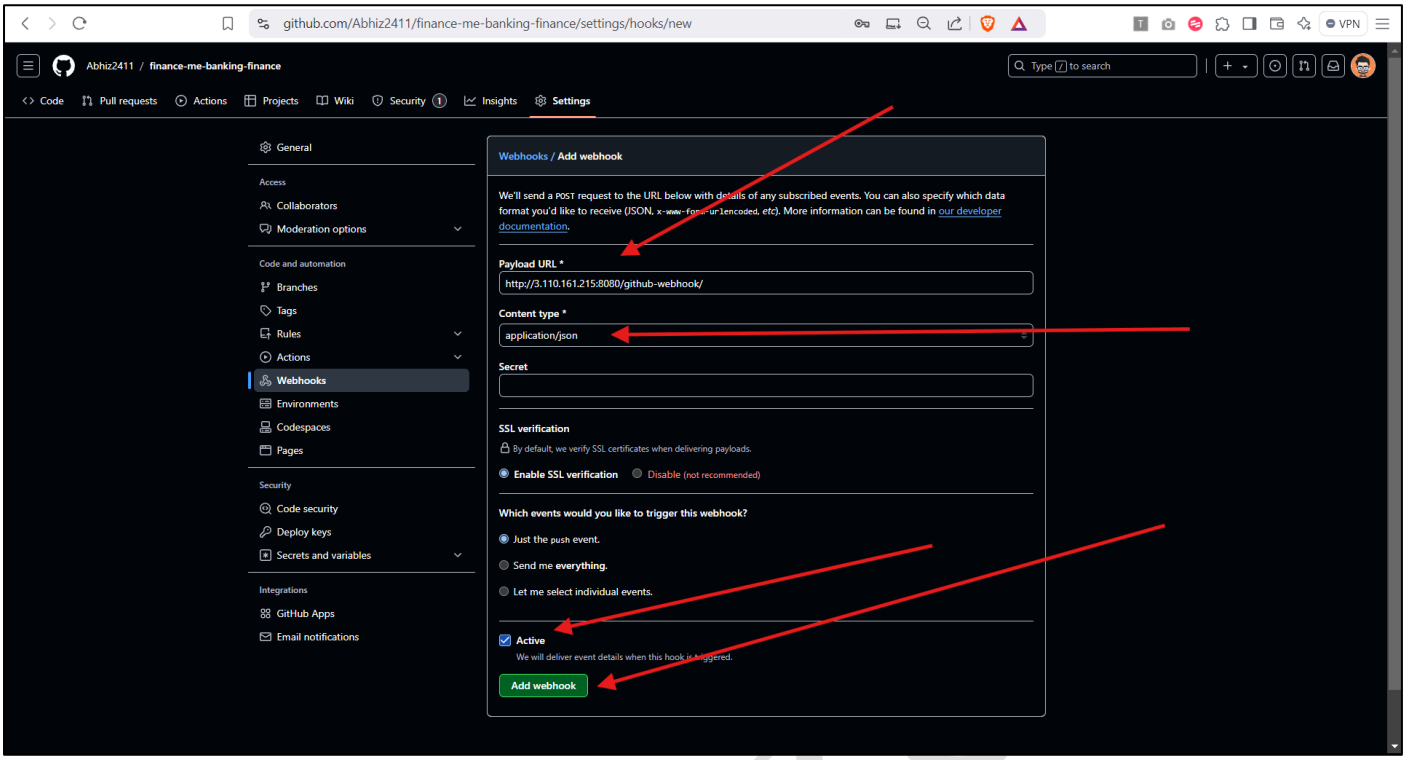
Step 4: Setup GitHub webhook with Ansible:

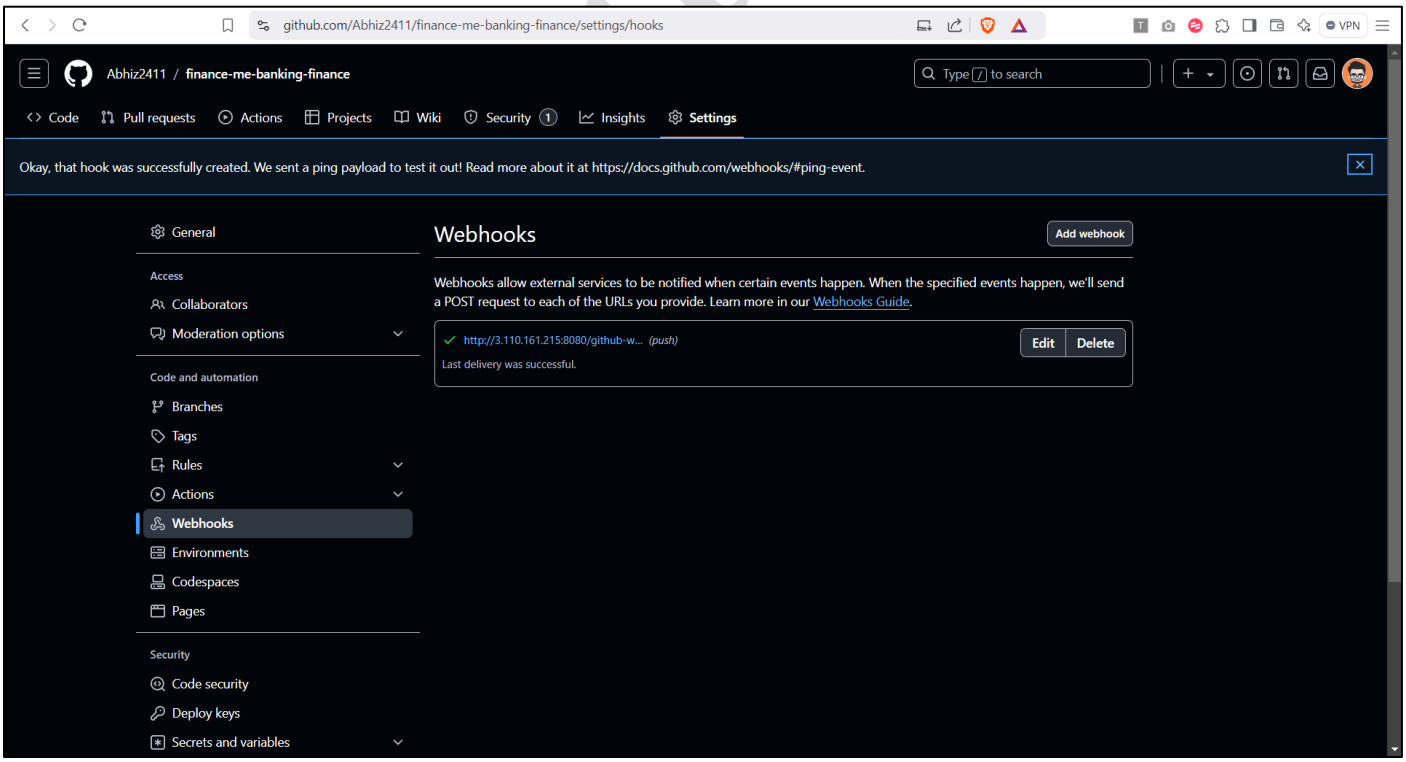
1. Open the Github repository in the browser
2. Go to **Settings** of the repository
3. Click on **Webhook** option on left pane and click on **Add webhook**
4. Fill in the required info
5. For more detailed guide follow the documentation: https://github.com/Abhiz2411/Jenkins-Jedi-CICD/blob/Main/Module-04-Continuous-Integration-using-Jenkins-Abhijit_Zende_GitHub_DevOps_Notes.pdf




github.com/Abhiz2411/finance-me-banking-finance/settings/hooks
Abhiz2411 / finance-me-banking-finance
Type / to search
Code
Pull requests
Actions
Projects
Wiki
Security 1
Insights
Settings
General
Access
Collaborators
Moderation options
Code and automation
Branches
Tags
Rules
Actions
Webhooks
Environments
Codespaces
Pages
Security
Code security
Deploy keys
Secrets and variables
Integrations
Webhooks
Add webhook
Webhooks allow external services to be notified when certain events happen. When the specified events happen, we'll send a POST request to each of the URLs you provide. Learn more in our Webhooks Guide.

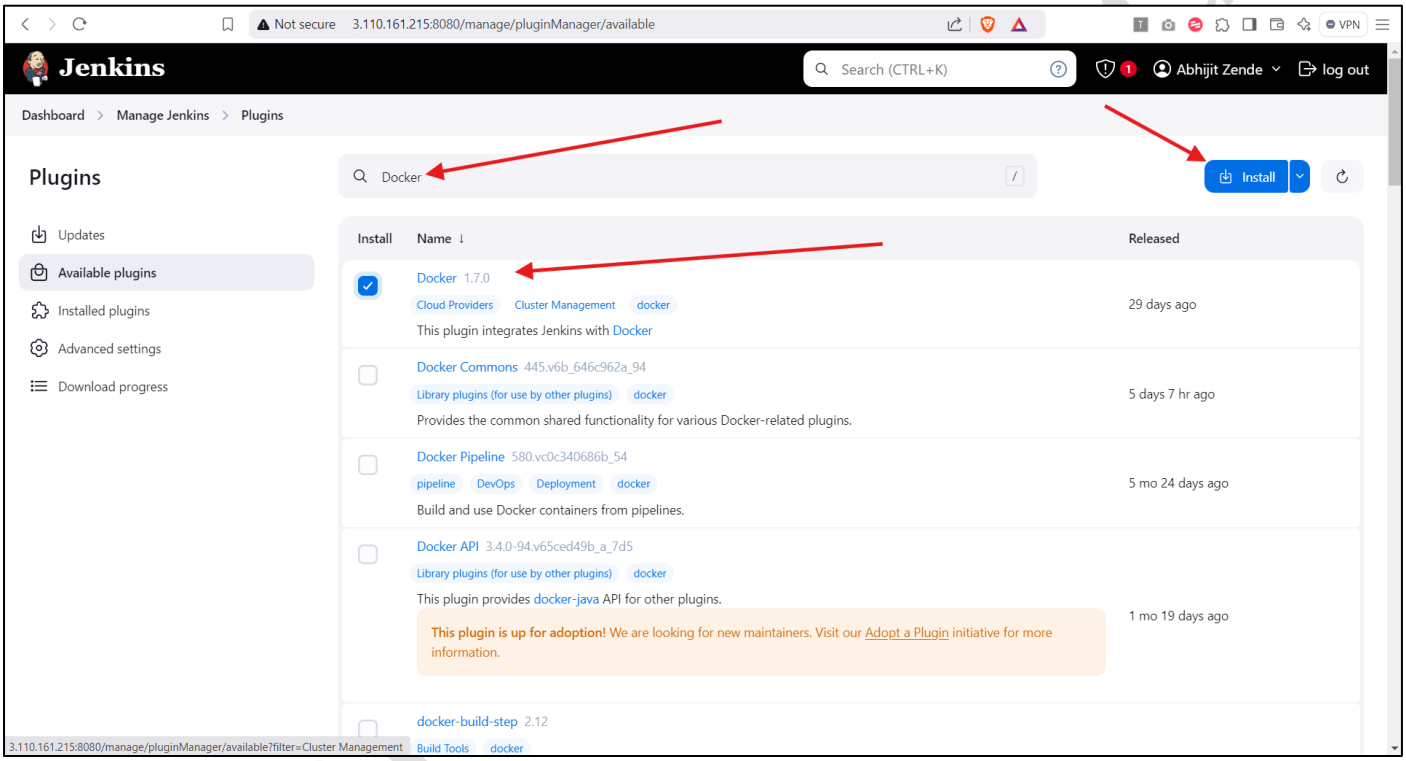

Not secure 3.110.161.215:8080
Jenkins
Search (CTRL+K)
Abhijit Zende
log out
Dashboard
New Item
Build History
Project Relationship
Check File Fingerprint
Manage Jenkins
My Views
Build Queue
No builds in the queue.
Build Executor Status
Built-In Node 0/2
slave 0/2
Add description
Welcome to Jenkins!
This 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
Create a job
REST API
Jenkins 2.479.1

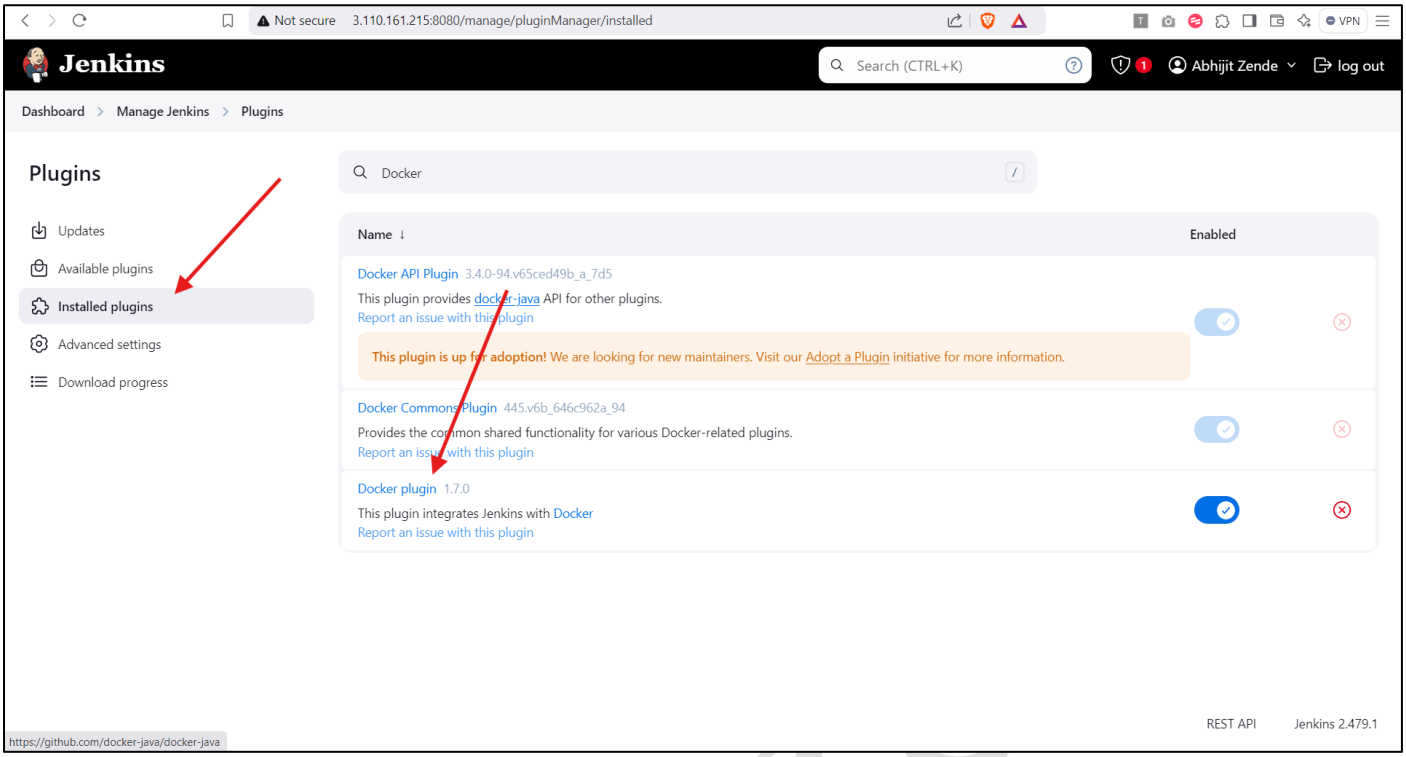

github.com/Abhiz2411/finance-me-banking-finance/settings/hooks/new
Abhiz2411 / finance-me-banking-finance
Code
Pull requests
Actions
Projects
Wiki
Security 1
Insights
Settings
General
Access
Collaborators
Moderation options
Code and automation
Branches
Tags
Rules
Actions
Webhooks
Environments
Codespaces
Pages
Security
Code security
Deploy keys
Secrets and variables
Integrations
GitHub Apps
Email notifications
Webhooks / Add webhook
We'll send a POST request to the URL below with details of any subscribed events. You can also specify which data format you'd like to receive (JSON, x-www-form-urlencoded, etc). More information can be found in our developer documentation.
Payload URL *
http://3.110.161.215:8080/github-webhook/
Content type *
application/json
Secret
SSL verification
By default, we verify SSL certificates when delivering payloads.
Enable SSL verification
Disable (not recommended)
Which events would you like to trigger this webhook?
Just the push event.
Send me everything.
Let me select individual events.
Active
We will deliver event details when this hook is triggered.
Add webhook

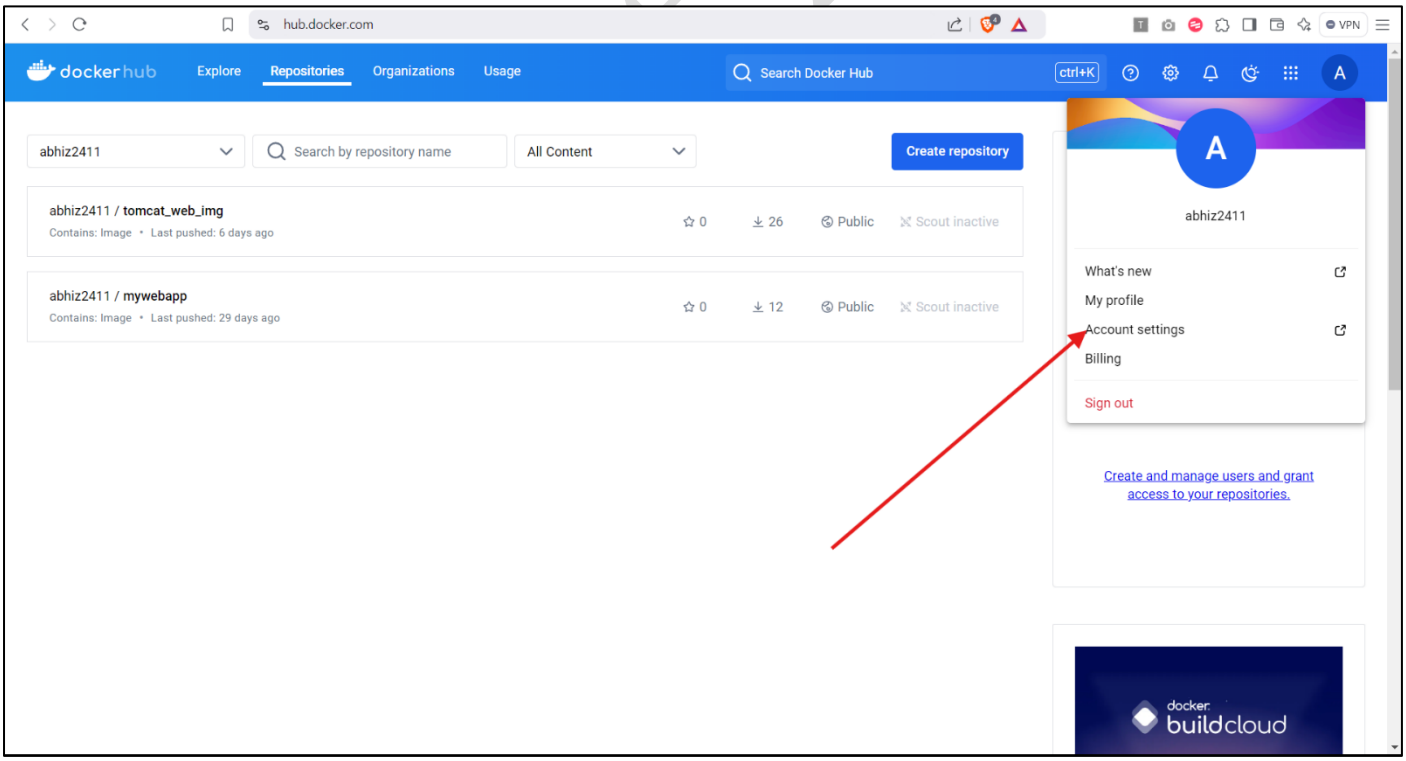

github.com/Abhiz2411/finance-me-banking-finance/settings/hooks
Abhiz2411 / finance-me-banking-finance
Code
Pull requests
Actions
Projects
Wiki
Security 1
Insights
Settings
Okay, that hook was successfully created. We sent a ping payload to test it out! Read more about it at https://docs.github.com/webhooks/#ping-event.
General
Access
Collaborators
Moderation options
Code and automation
Branches
Tags
Rules
Actions
Webhooks
Environments
Codespaces
Pages
Security
Code security
Deploy keys
Secrets and variables
Webhooks
Add webhook
Webhooks allow external services to be notified when certain events happen. When the specified events happen, we'll send a POST request to each of the URLs you provide. Learn more in our Webhooks Guide.
http://3.110.161.215:8080/github-w... (push)
Last delivery was successful.
Edit
Delete

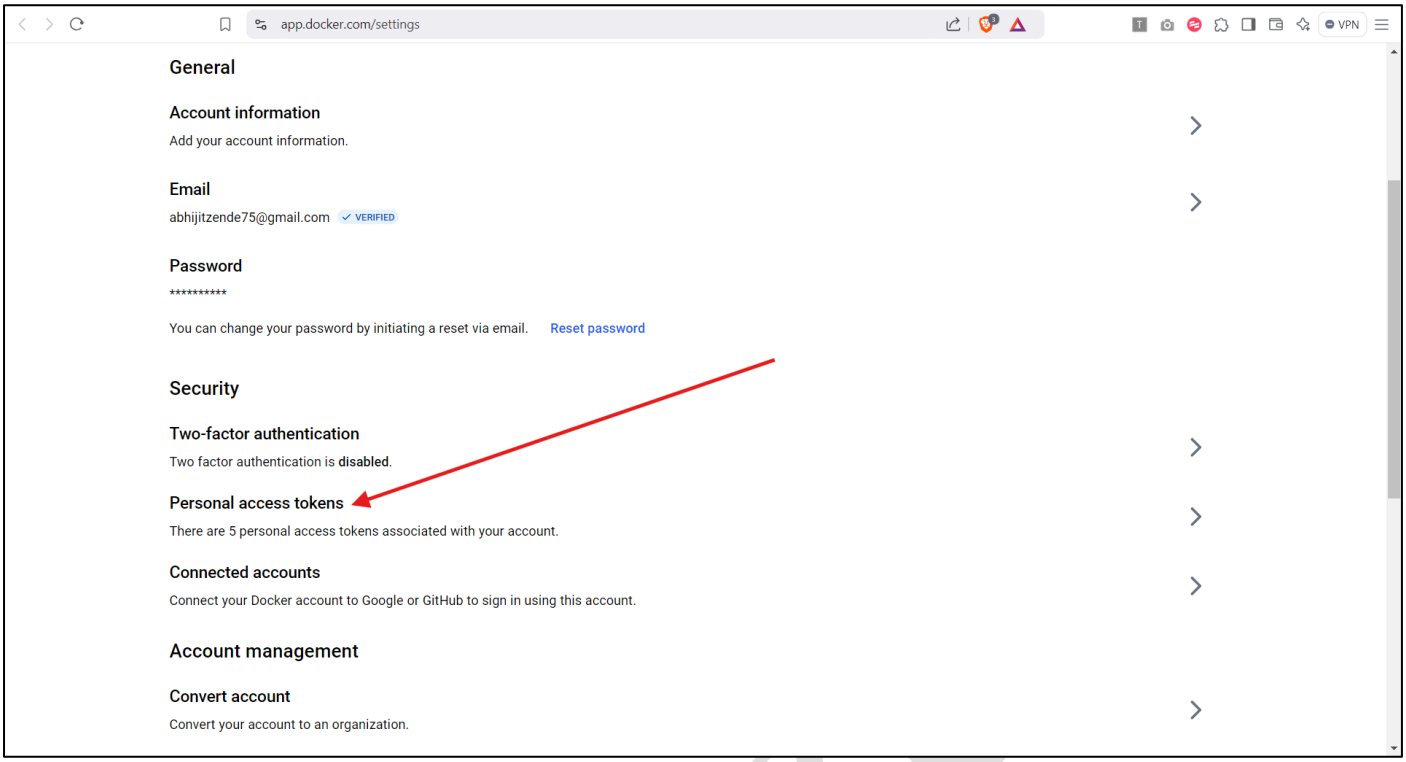
Step 5: Install Docker plugin and setup DockerHub credentials:

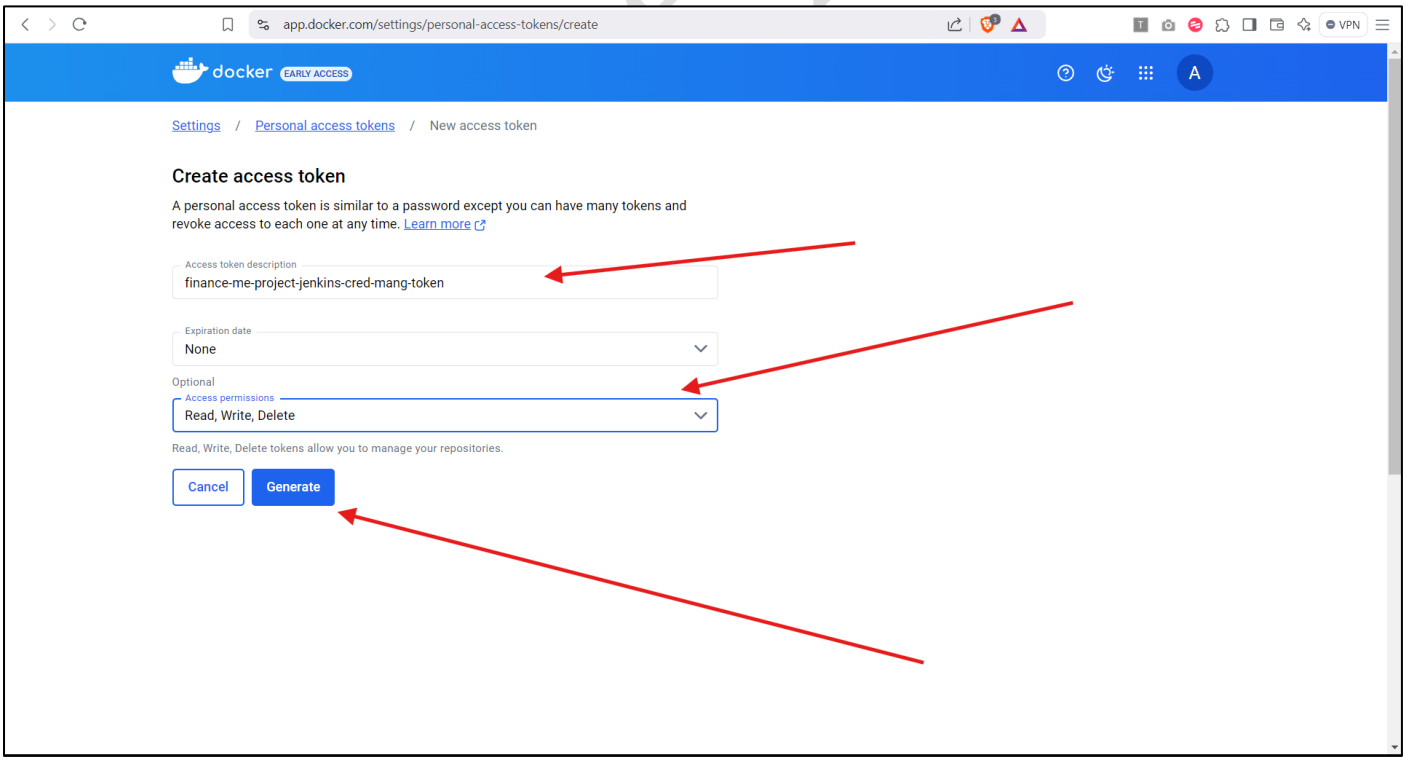
1. Install Docker plugin in Jenkins
2. Create a **Access token** from your **DockerHub** account and save it in the Jenkins Global Credentials manager
3. This will be used to login and push image to DockerHub from build server

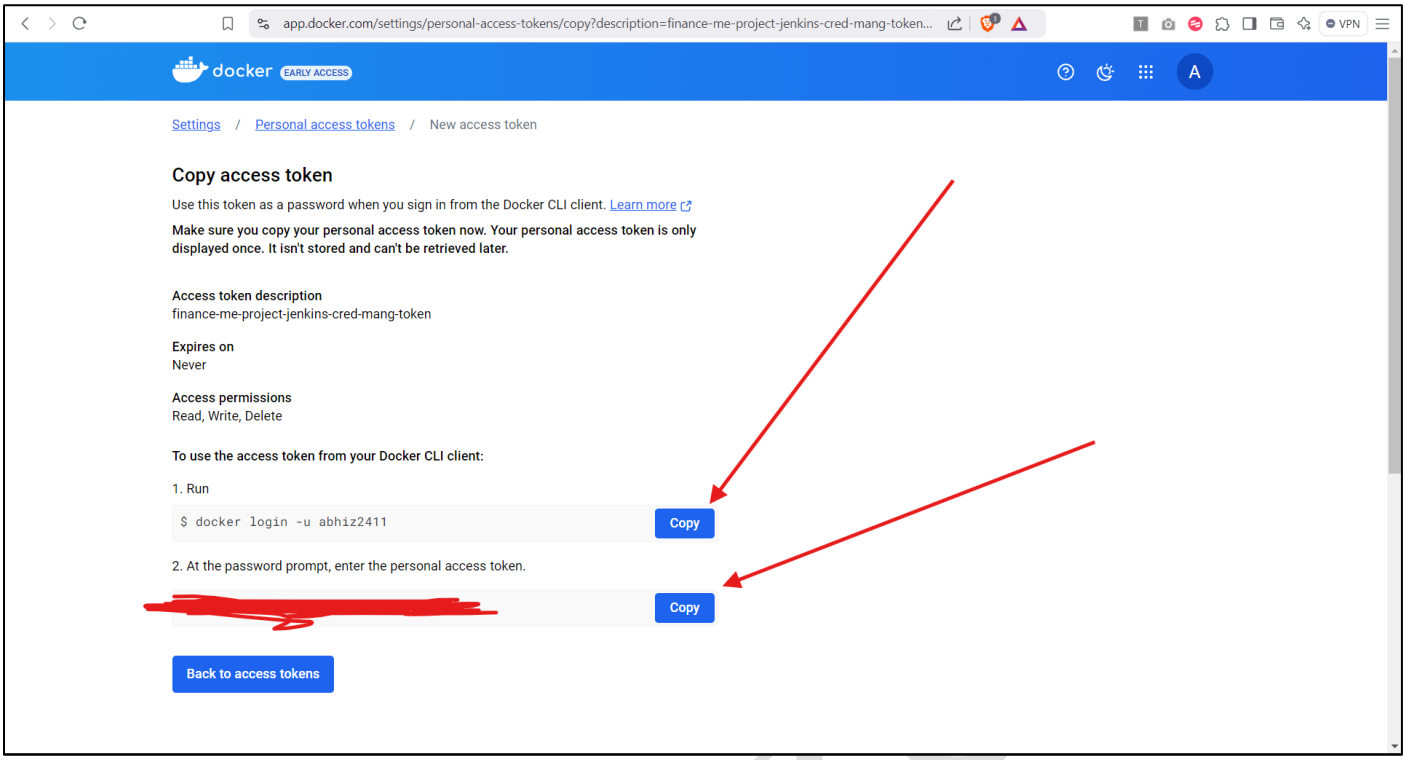


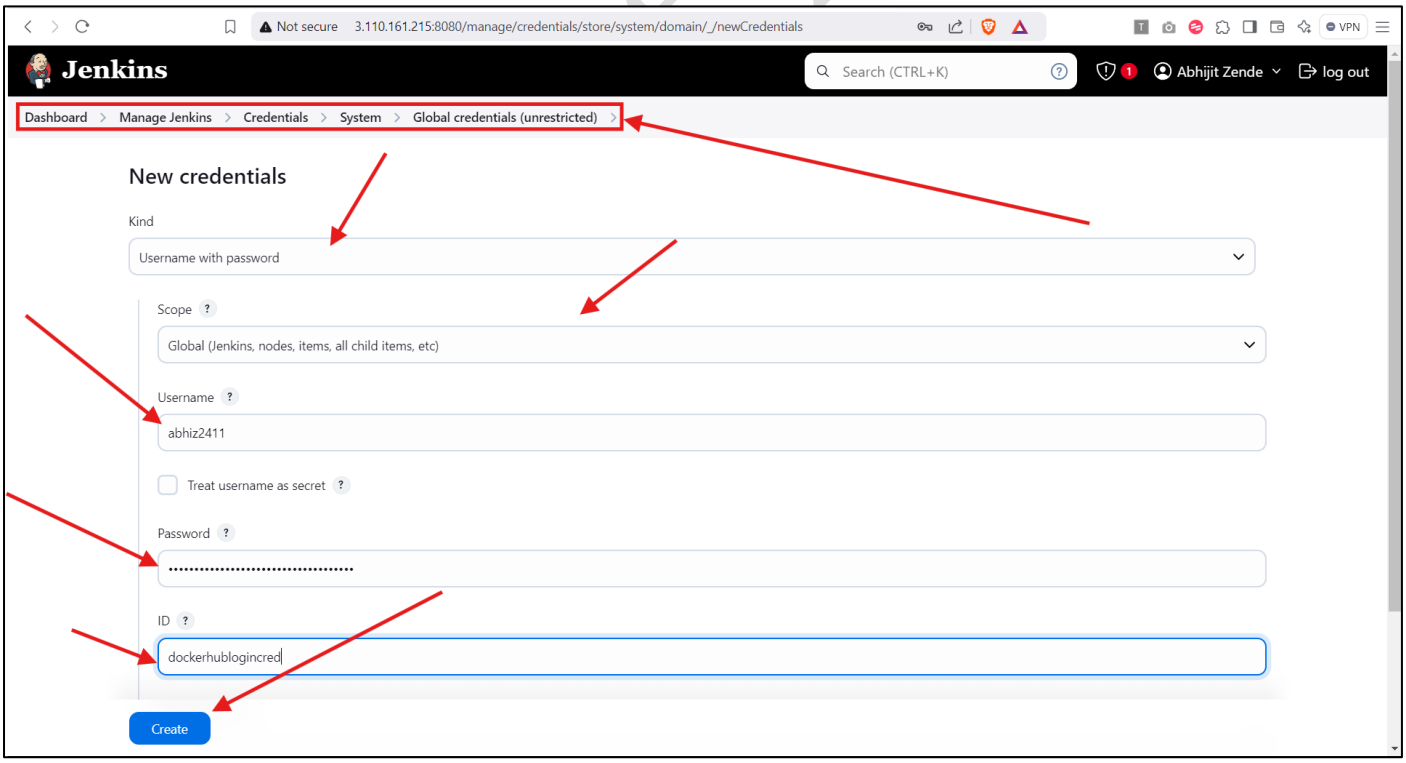

Not secure 3.110.161.215:8080/manage/pluginManager/installed
Jenkins
Search (CTRL+K)
Abhijit Zende
log out
Dashboard > Manage Jenkins > Plugins
Plugins
Updates
Available plugins
Installed plugins
Advanced settings
Download progress
Docker
Name
Enabled
Docker API Plugin 3.4.0-94.v65ced49b_a_7d5
This plugin provides docker-java API for other plugins.
Report an issue with this plugin
This plugin is up for adoption! We are looking for new maintainers. Visit our Adopt a Plugin initiative for more information.
Docker Commons Plugin 445.v6b_646c962a_94
Provides the common shared functionality for various Docker-related plugins.
Report an issue with this plugin
Docker plugin 1.7.0
This plugin integrates Jenkins with Docker
Report an issue with this plugin
REST API
Jenkins 2.479.1
https://github.com/docker-java/docker-java


hub.docker.com
dockerhub
Explore
Repositories
Organizations
Usage
Search Docker Hub
ctrl+K
abhiz2411
Search by repository name
All Content
Create repository
abhiz2411 / tomcat_web_img
Contains: Image • Last pushed: 6 days ago
0
26
Public
Scout inactive
abhiz2411 / mywebapp
Contains: Image • Last pushed: 29 days ago
0
12
Public
Scout inactive
A
abhiz2411
What's new
My profile
Account settings
Billing
Sign out
Create and manage users and grant access to your repositories.
docker buildcloud


app.docker.com/settings
General
Account information
Add your account information.
Email
abhijitzende75@gmail.com
VERIFIED
Password
****
You can change your password by initiating a reset via email.
Reset password
Security
Two-factor authentication
Two factor authentication is disabled.
Personal access tokens
There are 5 personal access tokens associated with your account.
Connected accounts
Connect your Docker account to Google or GitHub to sign in using this account.
Account management
Convert account
Convert your account to an organization.

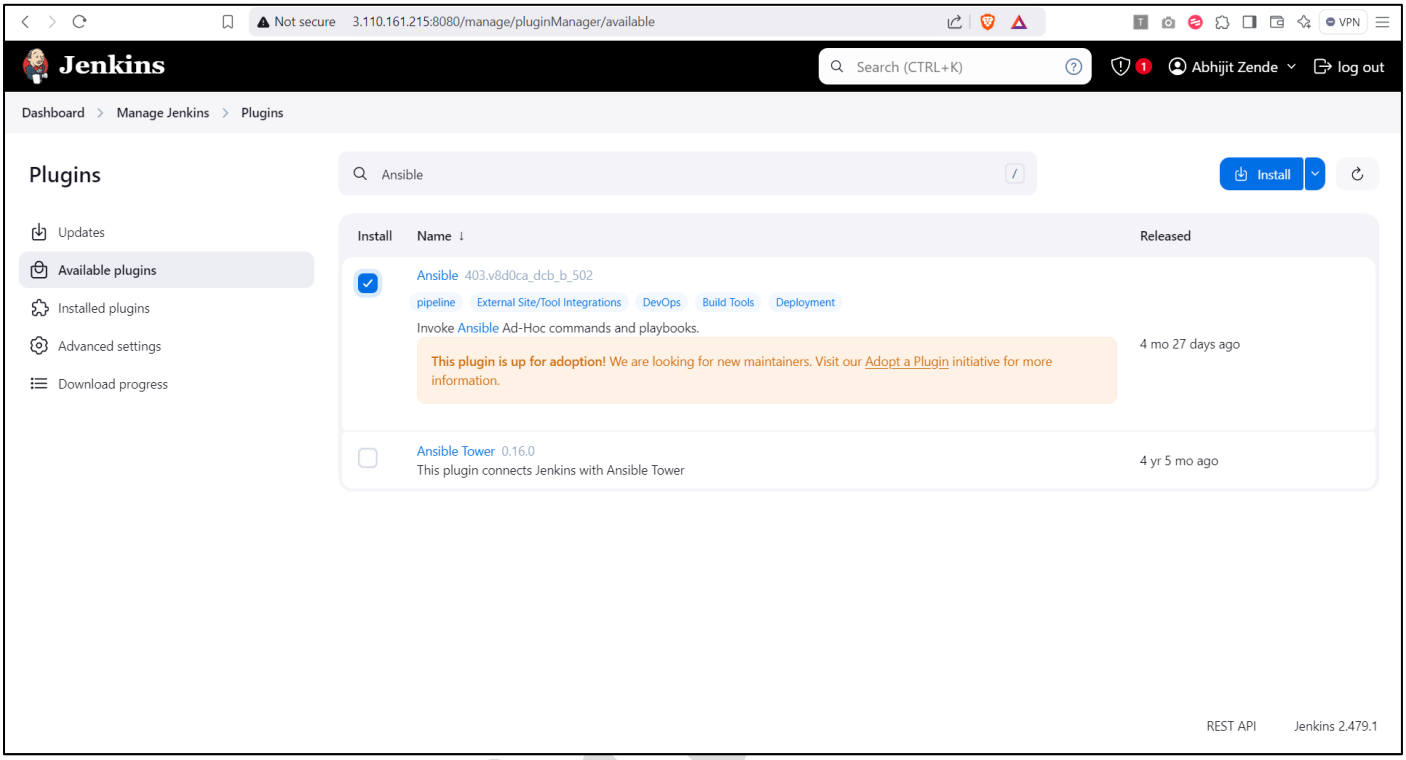

app.docker.com/settings/personal-access-tokens/create
docker
EARLY ACCESS
Settings / Personal access tokens / New access token
Create access token
A personal access token is similar to a password except you can have many tokens and revoke access to each one at any time.
Learn more
Access token description
finance-me-project-jenkins-cred-mang-token
Expiration date
None
Optional
Access permissions
Read, Write, Delete
Read, Write, Delete tokens allow you to manage your repositories.
Cancel
Generate

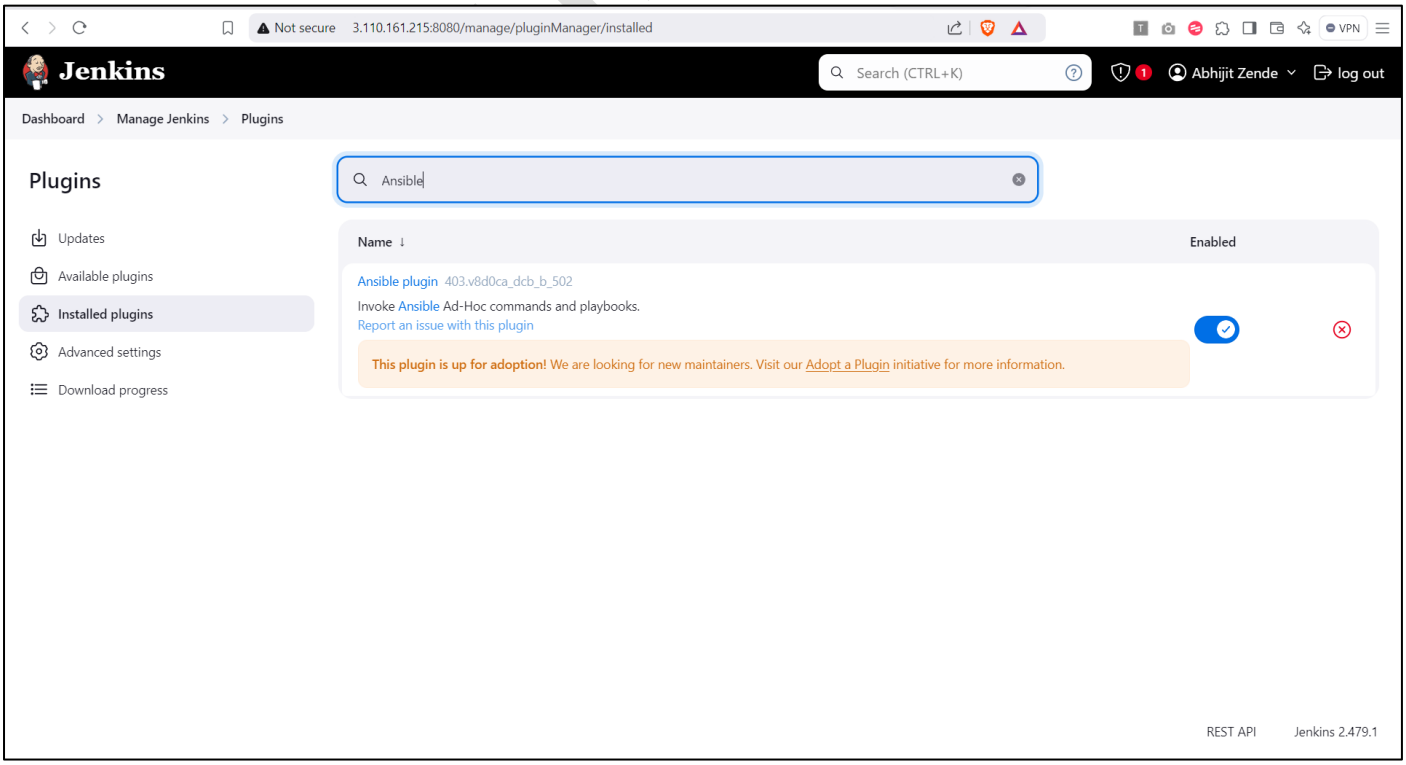

app.docker.com/settings/personal-access-tokens/copy?description=finance-me-project-jenkins-cred-mang-token...
docker EARLY ACCESS
Settings / Personal access tokens / New access token
Copy access token
Use this token as a password when you sign in from the Docker CLI client. Learn more
Make sure you copy your personal access token now. Your personal access token is only displayed once. It isn't stored and can't be retrieved later.
Access token description
finance-me-project-jenkins-cred-mang-token
Expires on
Never
Access permissions
Read, Write, Delete
To use the access token from your Docker CLI client:
1. Run
$ docker login -u abhiz2411
Copy
2. At the password prompt, enter the personal access token.
Copy
Back to access tokens

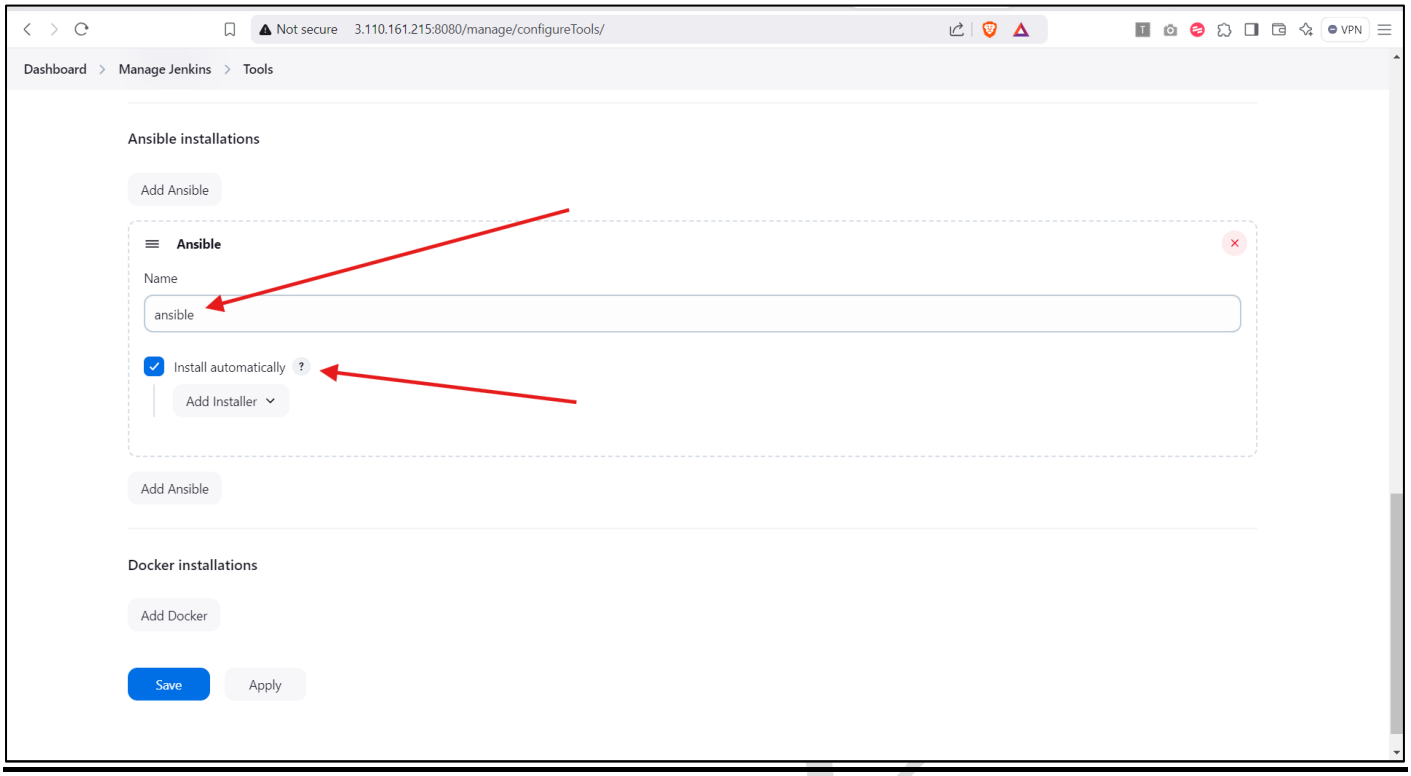

Not secure 3.110.161.215:8080/manage/credentials/store/system/domain/_/newCredentials
Jenkins
Search (CTRL+K)
Abhijit Zende
log out
Dashboard > Manage Jenkins > Credentials > System > Global credentials (unrestricted) >
New credentials
Kind
Username with password
Scope
Global (Jenkins, nodes, items, all child items, etc)
Username
abhiz2411
Treat username as secret
Password
ID
dockerhublogincred
Create

Step 6 - Install and configure Ansible plugin in Jenkins:

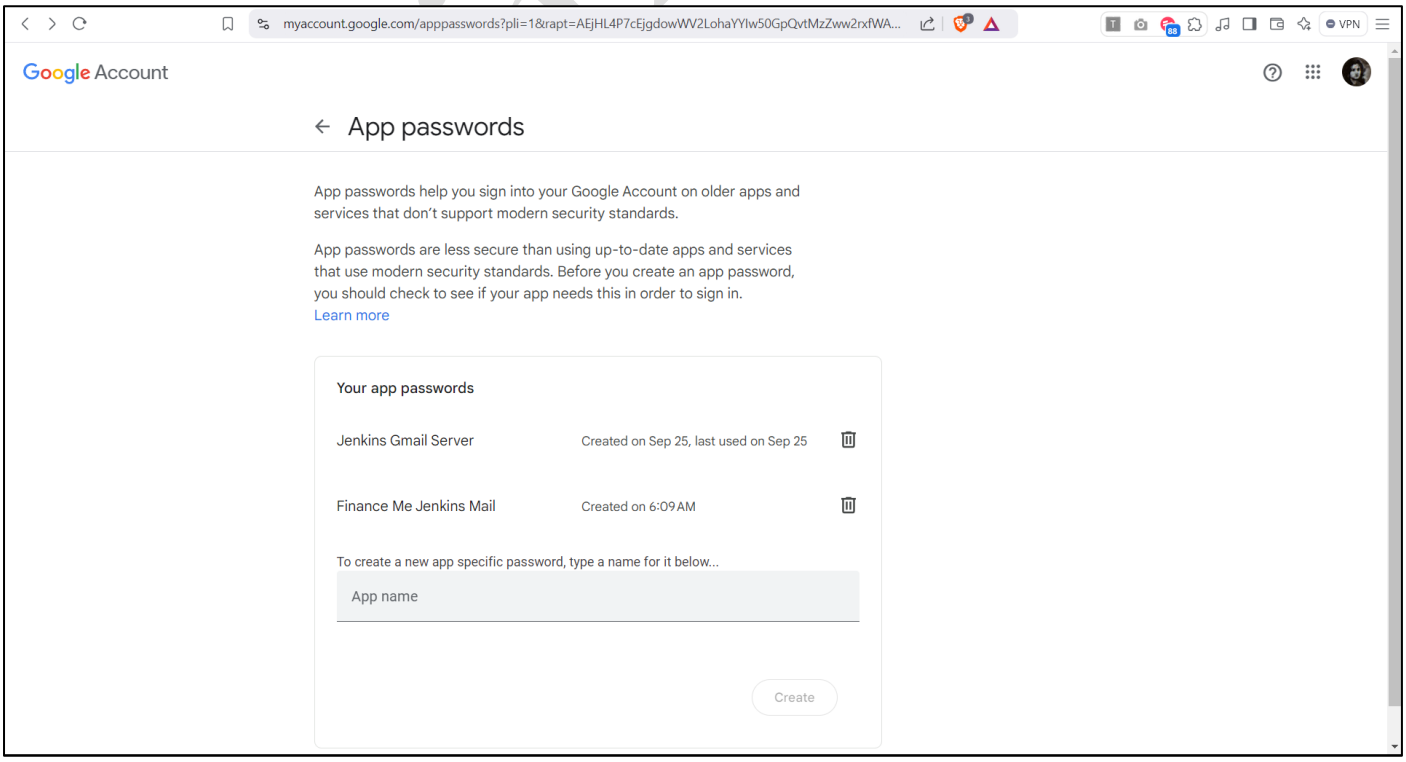
1. Install Ansible plugin from available plugins section in Jenkins
2. Set **'Install automatically'** option true in the manage tools for ansible as it will use the ansible installed the machine for further operations

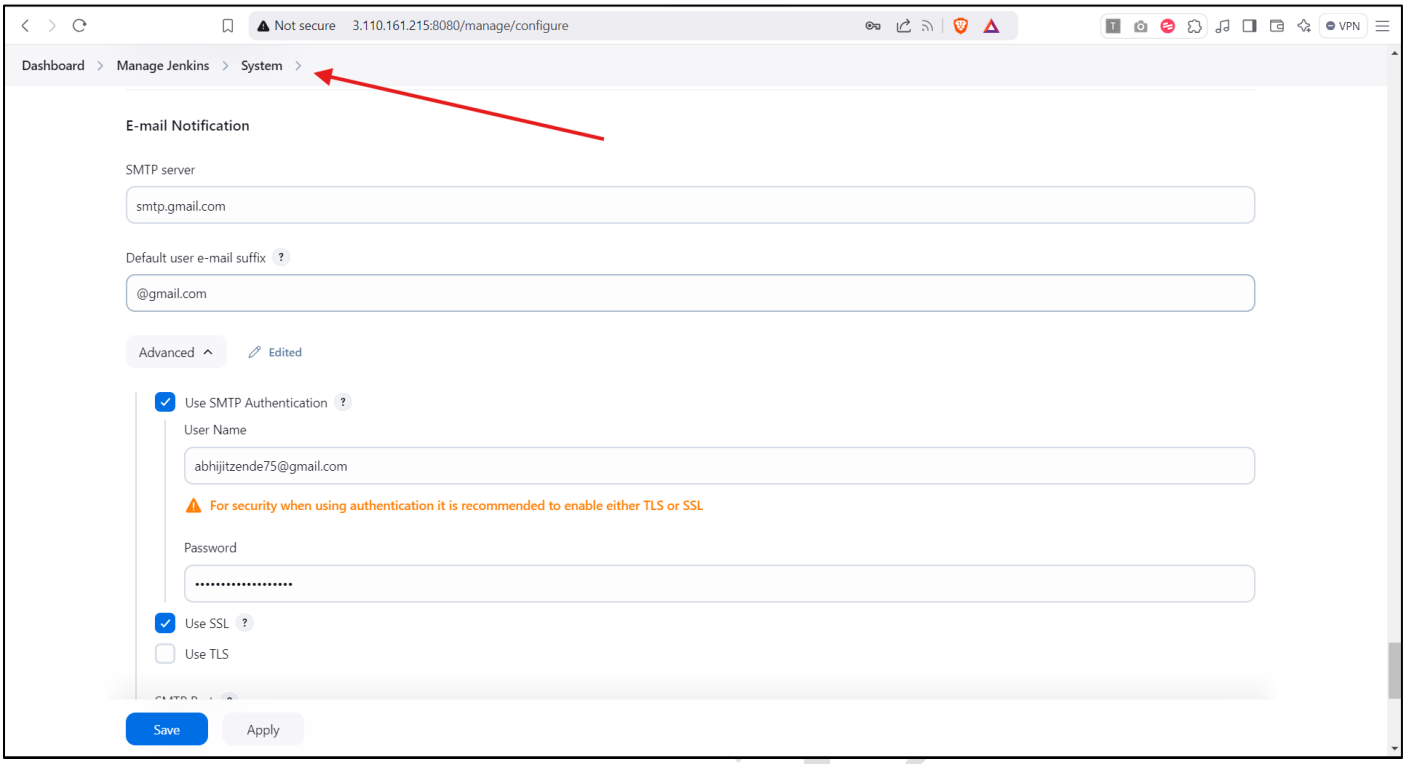


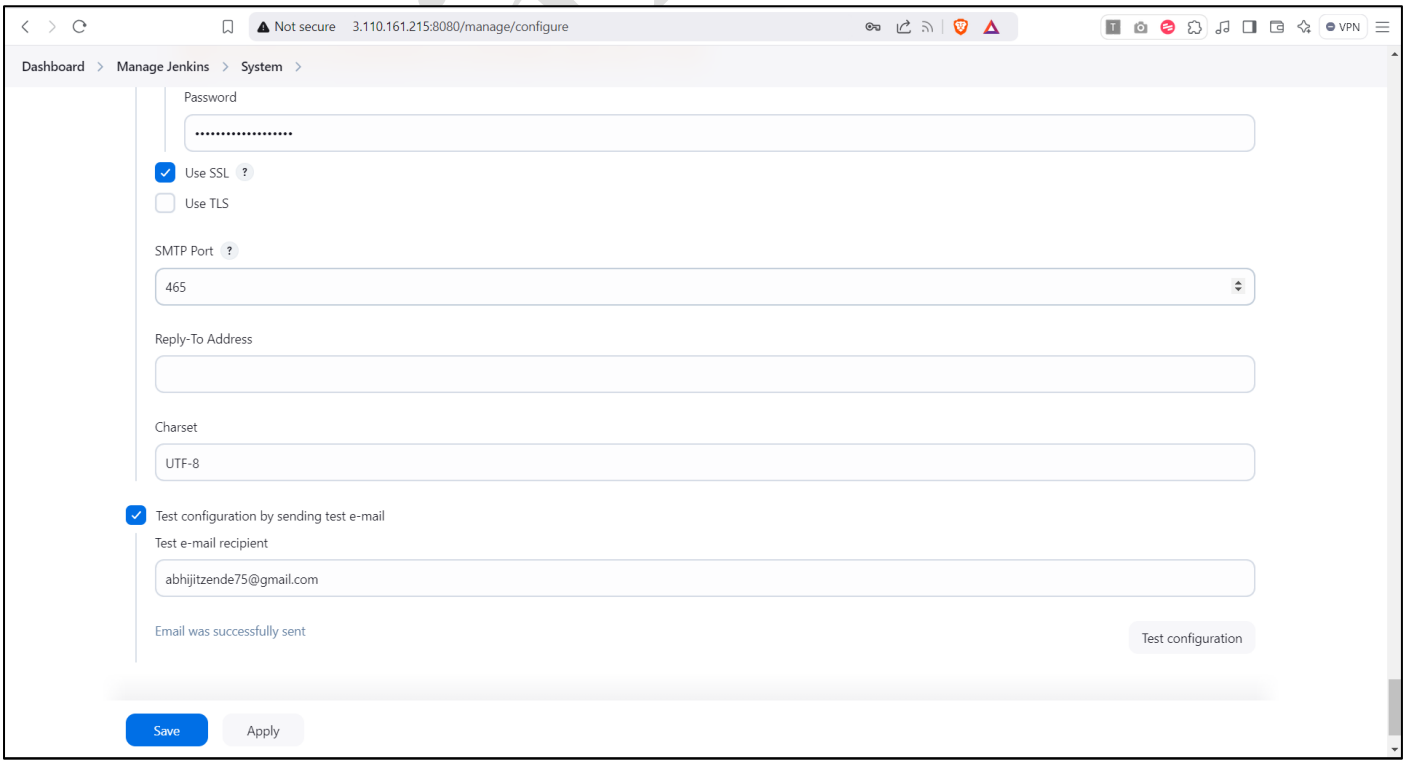




Step 7 – Setup Gmail SMTP server on Jenkins:

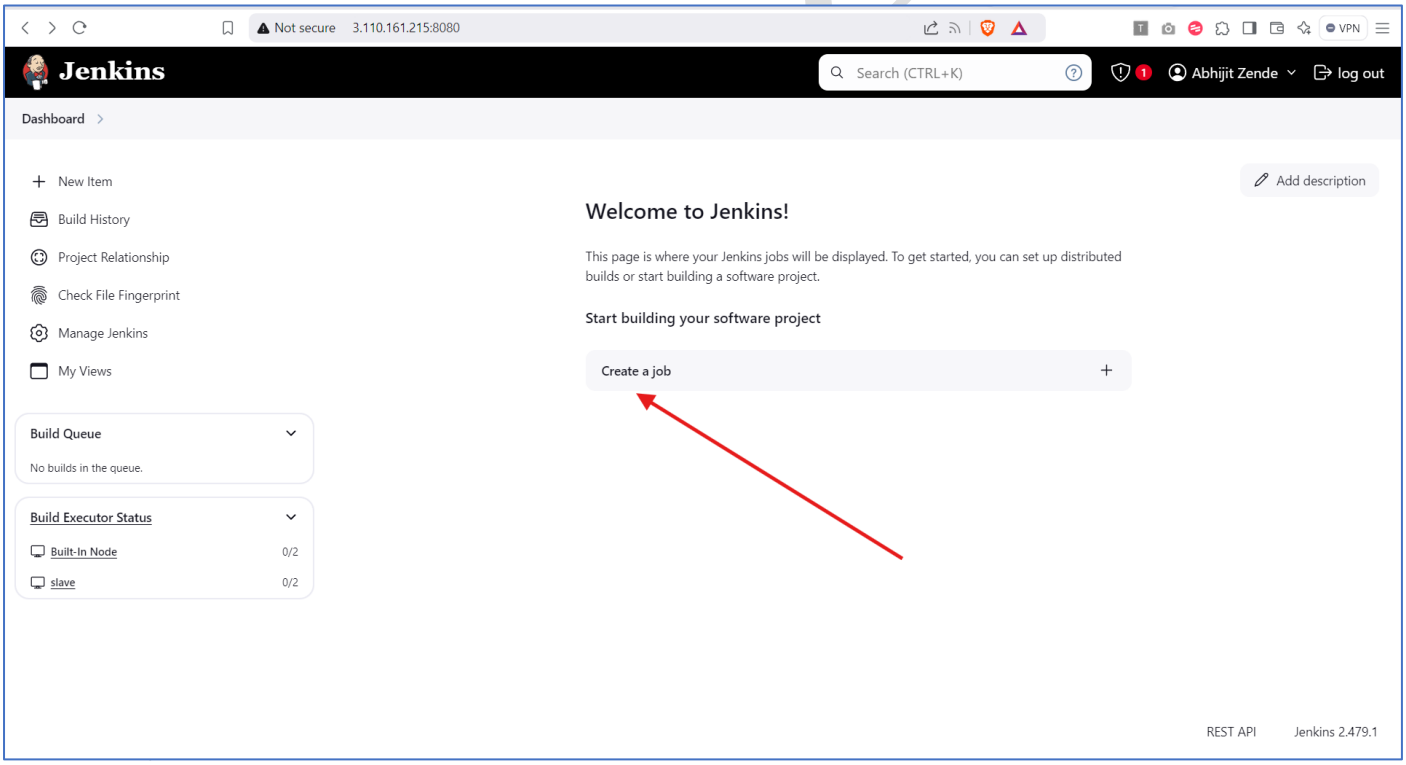


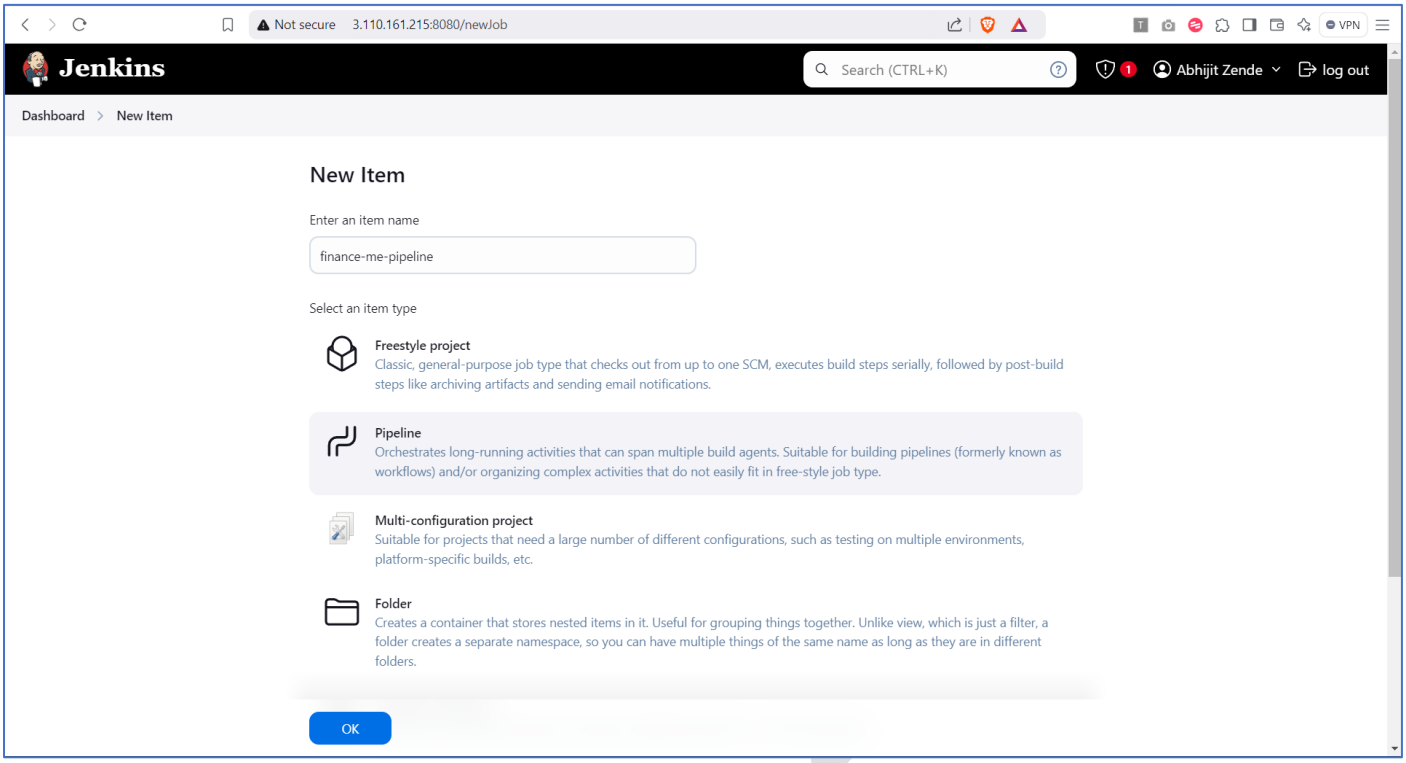

Not secure 3.110.161.215:8080/manage/configure
Dashboard > Manage Jenkins > System >
E-mail Notification
SMTP server
smtp.gmail.com
Default user e-mail suffix
@gmail.com
Advanced
Edited
Use SMTP Authentication
User Name
abhijitzende75@gmail.com
For security when using authentication it is recommended to enable either TLS or SSL
Password
Use SSL
Use TLS
Save
Apply

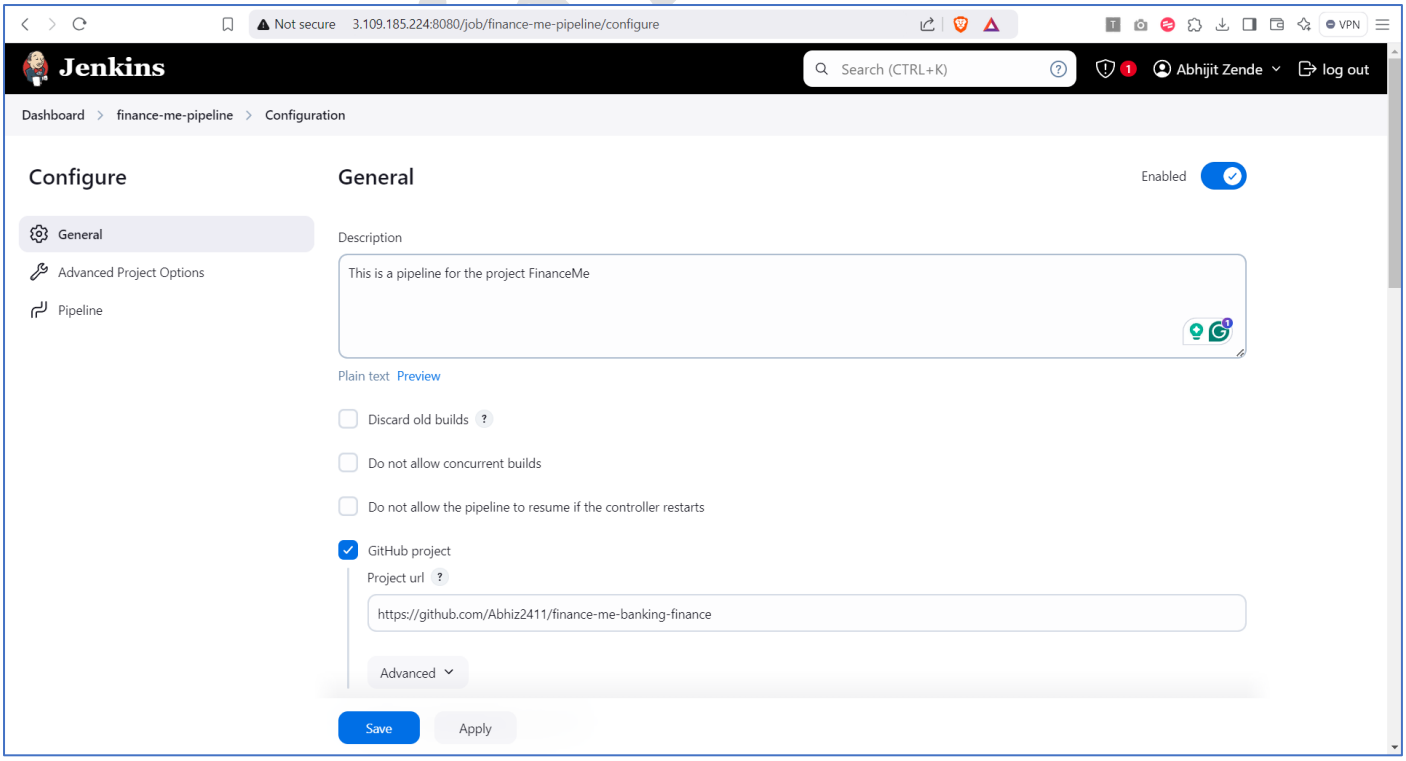

Not secure 3.110.161.215:8080/manage/configure
Dashboard > Manage Jenkins > System >
Password
Use SSL
Use TLS
SMTP Port
465
Reply-To Address
Charset
UTF-8
Test configuration by sending test e-mail
Test e-mail recipient
abhijitzende75@gmail.com
Email was successfully sent
Test configuration
Save
Apply

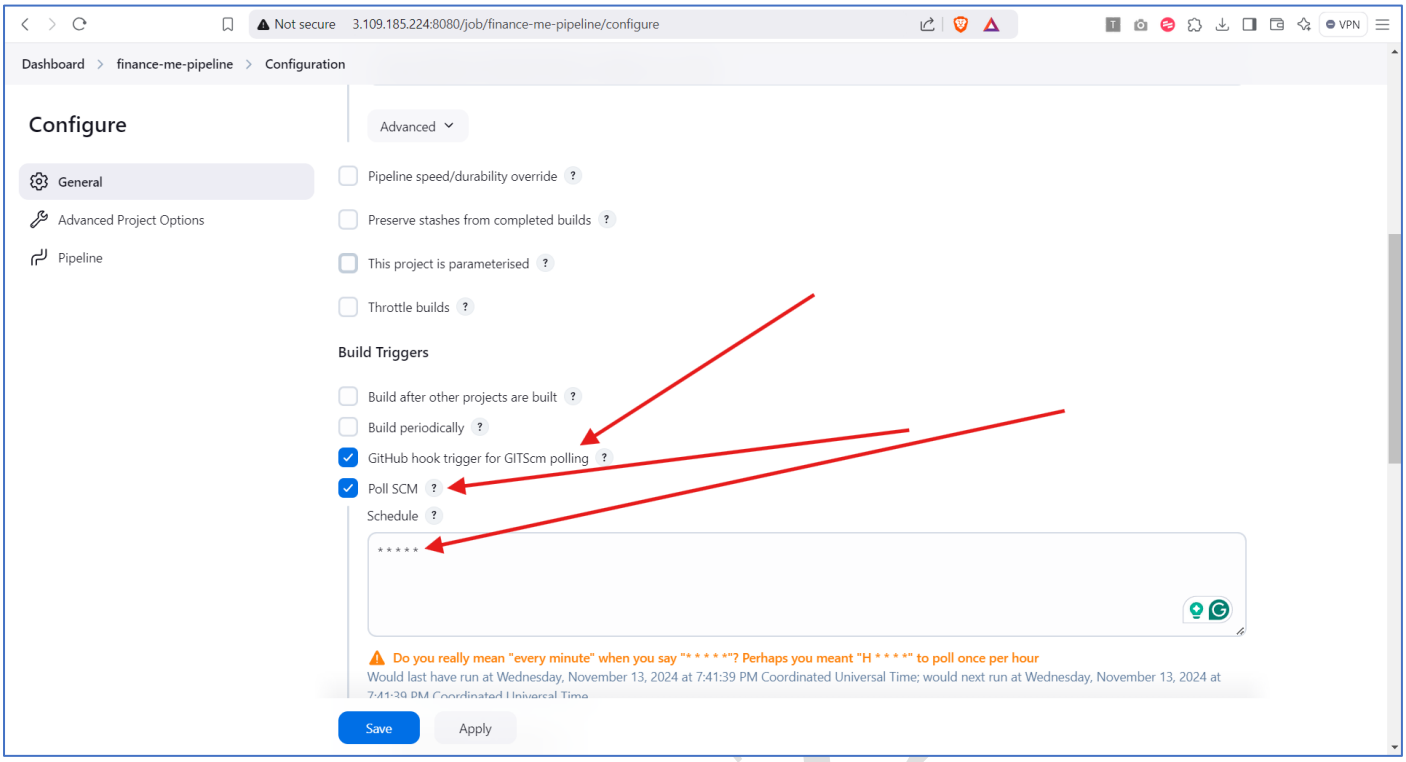
Step 8: Create a pipeline project and write the groovy script for the CI/CD:

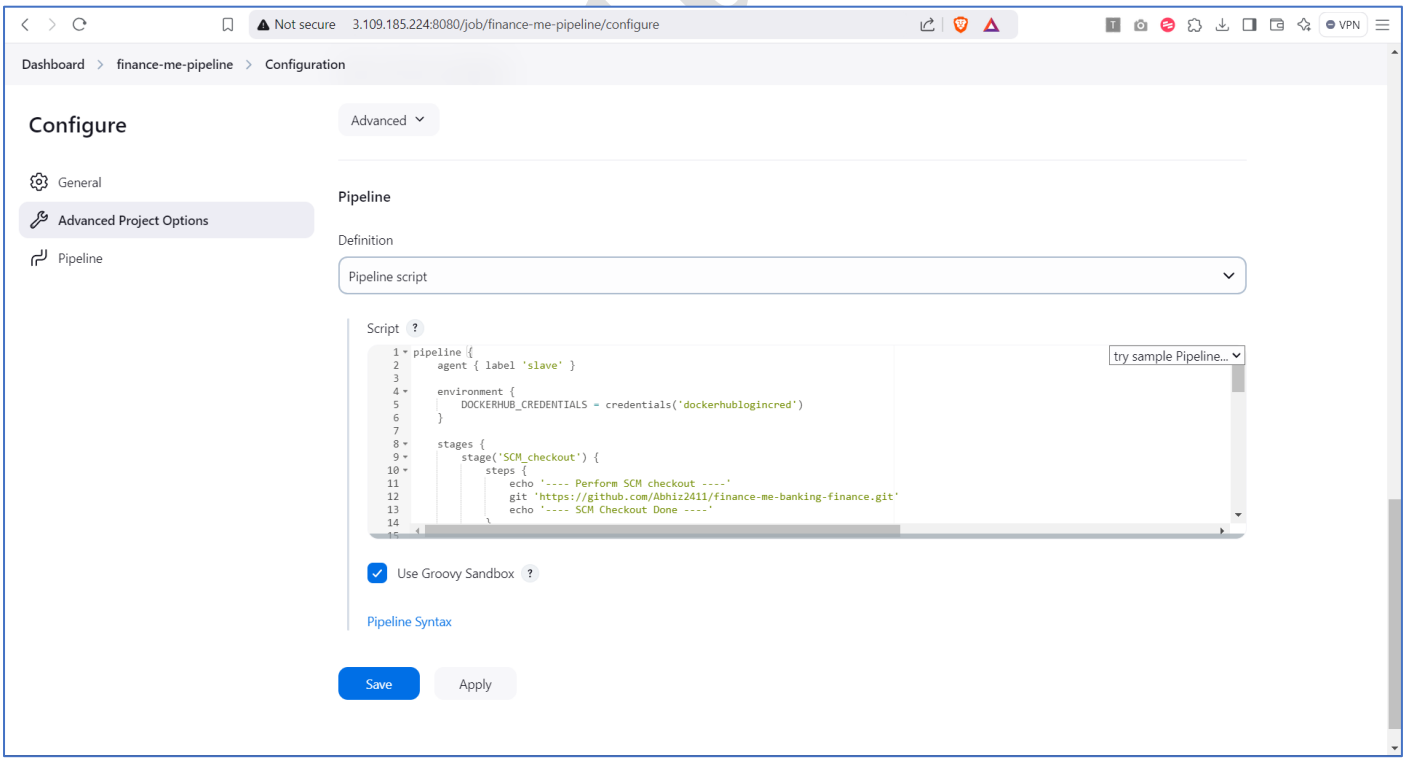
1. Create a pipeline project
2. Write a groovy script to perform below tasks:
    a. SCM checkout
    b. Application build
    c. Build Docker image
    d. Login to Docker
    e. Push the image to DockerHub
    f. Deploy the application on the **Prod** server using Ansible plugin
    g. Get **mail notification** after success/failure of the pipeline
    h. Enable **GitHub Poll SCM** for complete CI/CD process

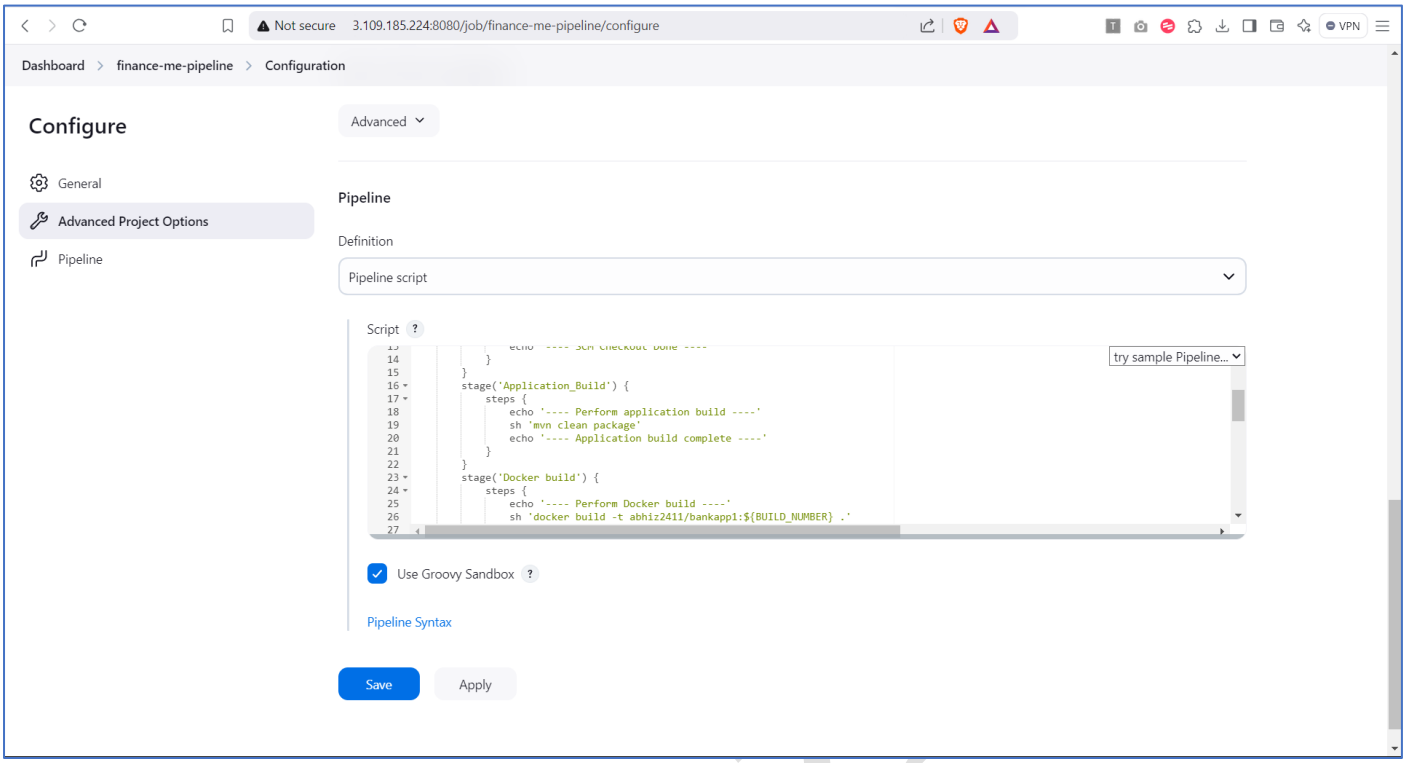


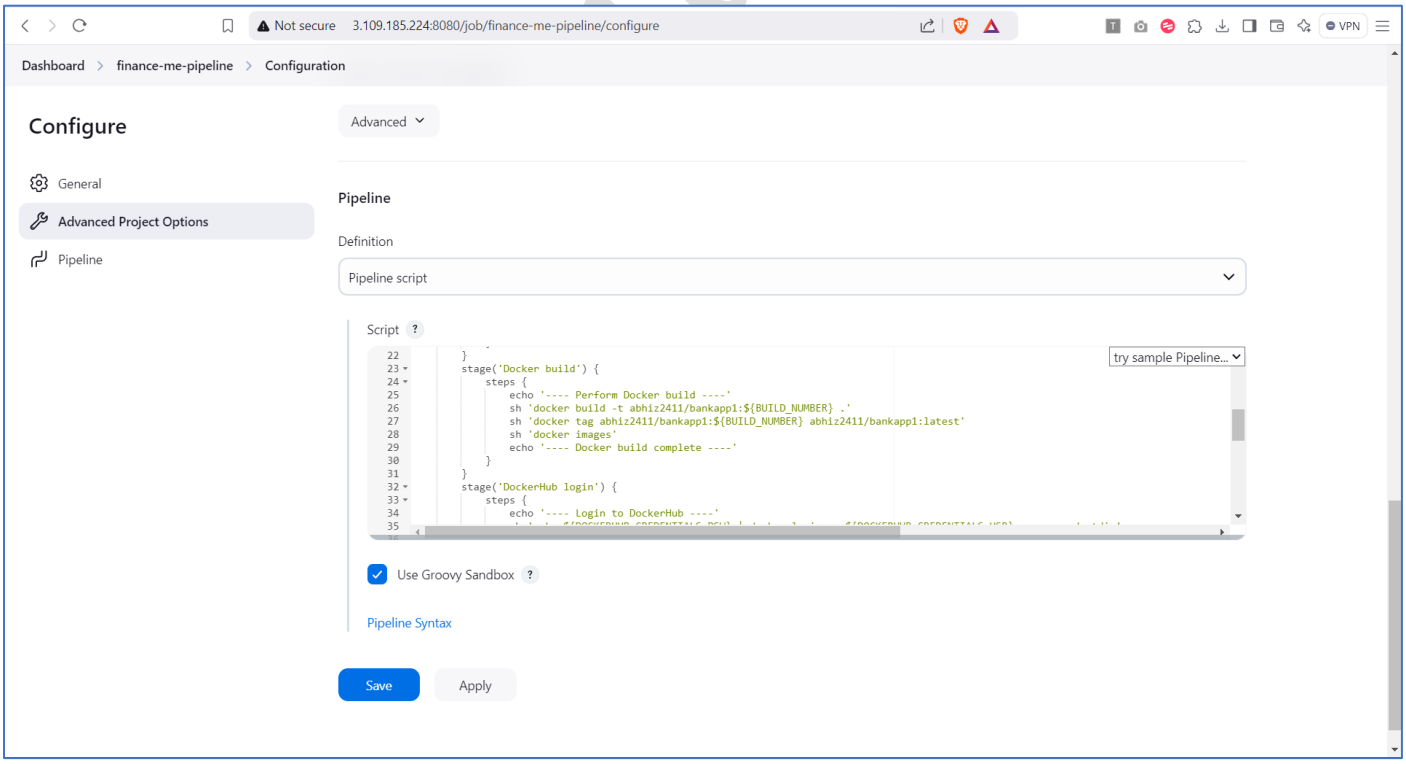

Not secure 3.110.161.215:8080/newJob
Jenkins
Search (CTRL+K)
Abhijit Zende
log out
Dashboard
New Item
New Item
Enter an item name
finance-me-pipeline
Select an item type
Freestyle project
Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.
Pipeline
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.
Multi-configuration project
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.
Folder
Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different folders.
OK

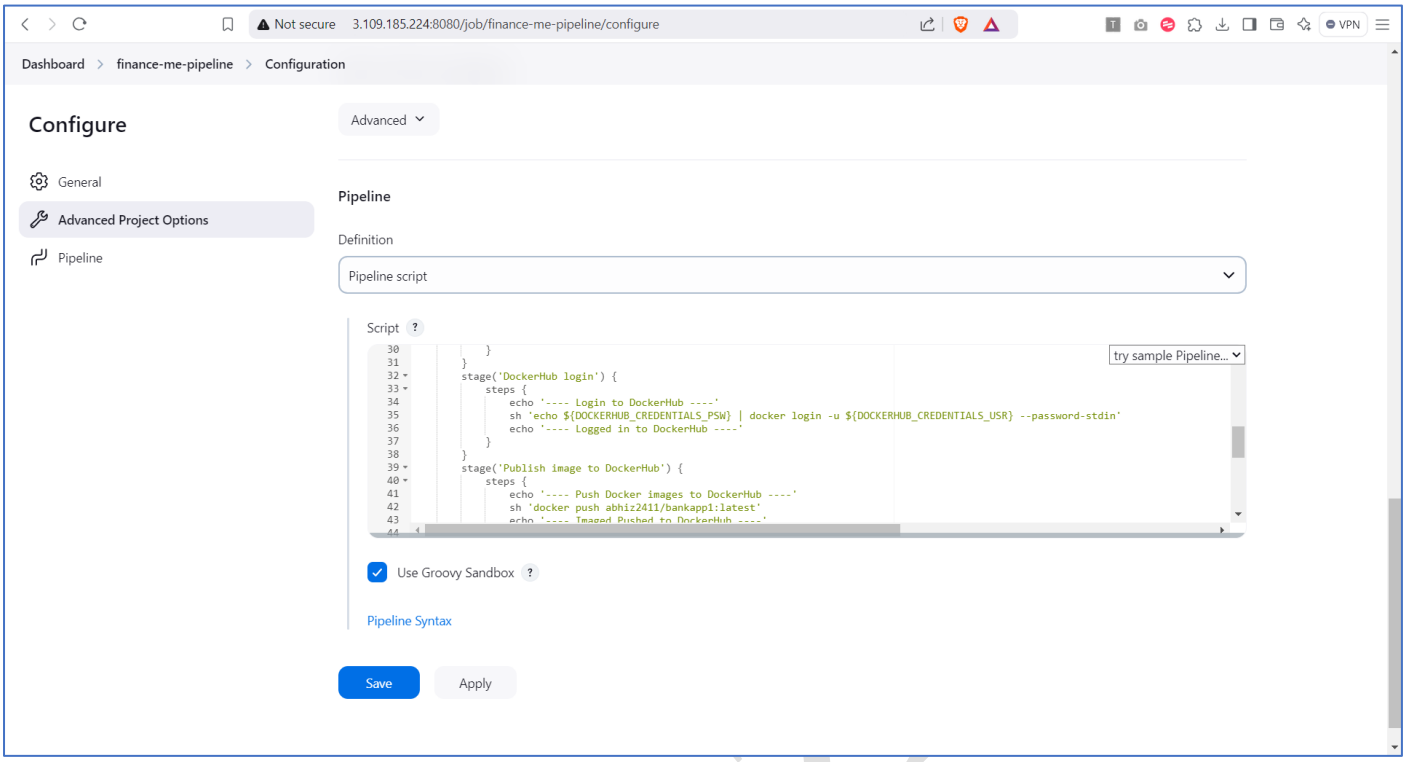

Not secure 3.109.185.224:8080/job/finance-me-pipeline/configure
Jenkins
Search (CTRL+K)
Abhijit Zende
log out
Dashboard
finance-me-pipeline
Configuration
Configure
General
Advanced Project Options
Pipeline
General
Enabled
Description
This is a pipeline for the project FinanceMe
Plain text Preview
Discard old builds
Do not allow concurrent builds
Do not allow the pipeline to resume if the controller restarts
GitHub project
Project url
https://github.com/Abhiz2411/finance-me-banking-finance
Advanced
Save
Apply

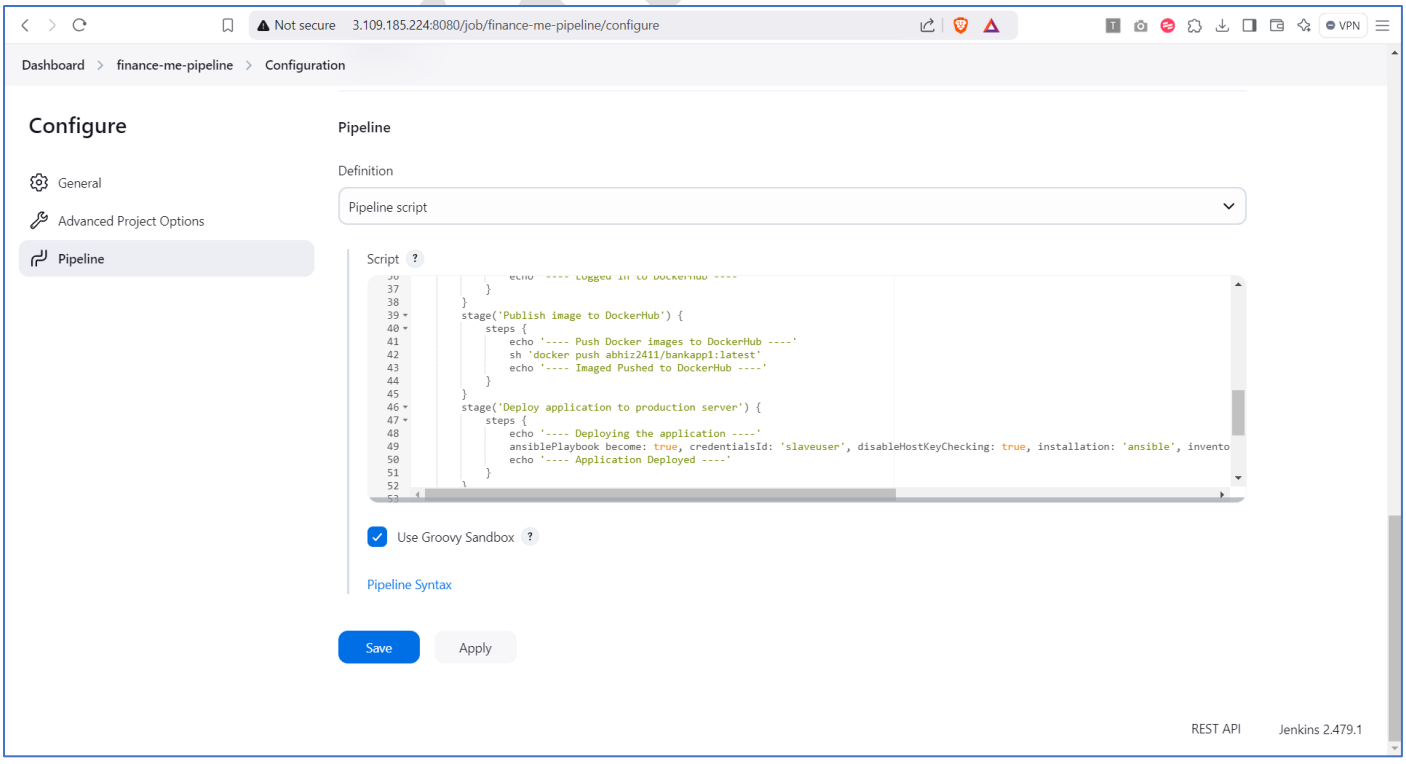

Not secure 3.109.185.224:8080/job/finance-me-pipeline/configure
Dashboard > finance-me-pipeline > Configuration
Configure
General
Advanced Project Options
Pipeline
Advanced
Pipeline speed/durability override
Preserve stashes from completed builds
This project is parameterised
Throttle builds
Build Triggers
Build after other projects are built
Build periodically
GitHub hook trigger for GITScm polling
Poll SCM
Schedule
* * * * *
Do you really mean "every minute" when you say "* * * * *"? Perhaps you meant "H * * * *" to poll once per hour
Would last have run at Wednesday, November 13, 2024 at 7:41:39 PM Coordinated Universal Time; would next run at Wednesday, November 13, 2024 at
Save
Apply

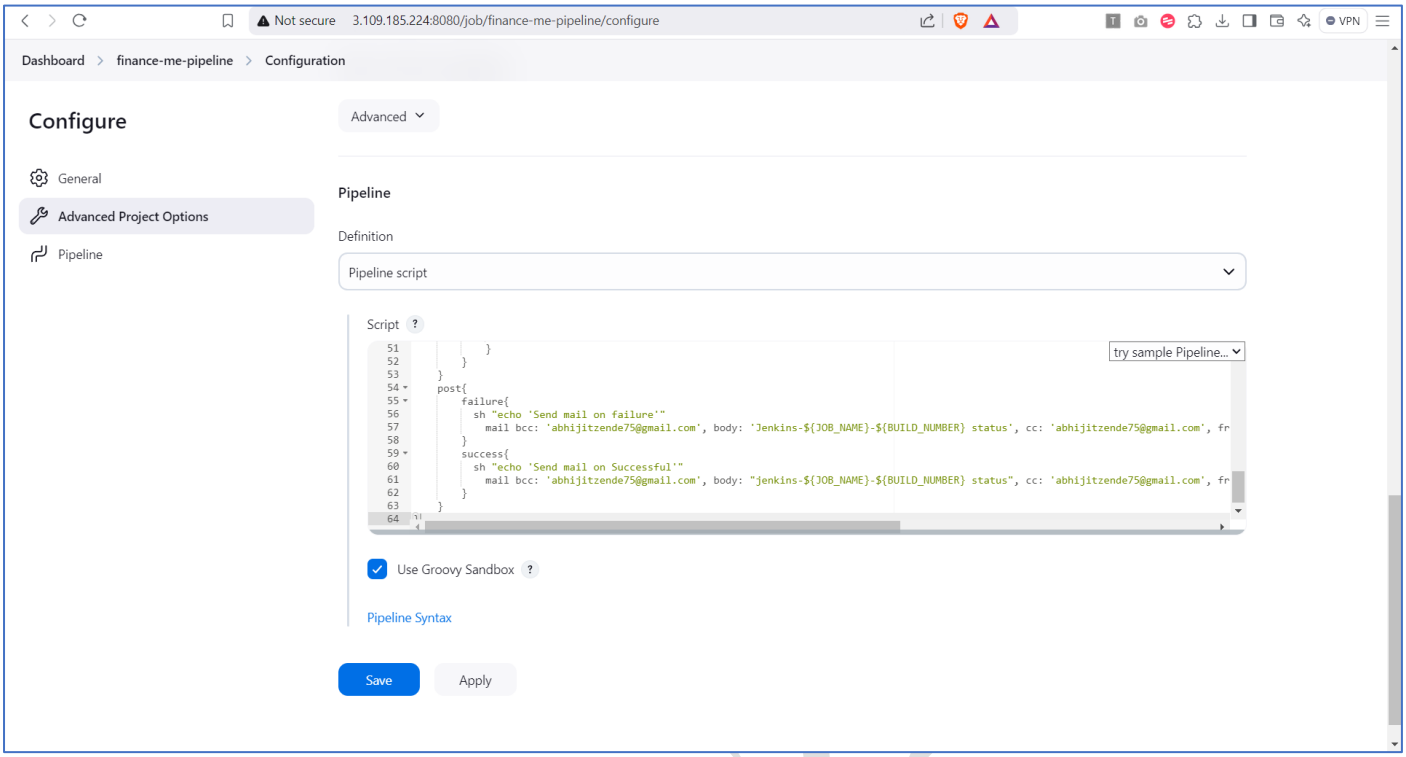

Not secure 3.109.185.224:8080/job/finance-me-pipeline/configure
Dashboard > finance-me-pipeline > Configuration
Configure
General
Advanced Project Options
Pipeline
Advanced
Pipeline
Definition
Pipeline script
Script
try sample Pipeline...
pipeline {
agent { label 'slave' }
environment {
DOCKERHUB_CREDENTIALS = credentials('dockerhublogincred')
}
stages {
stage('SCM_checkout') {
steps {
echo '---- Perform SCM checkout ----'
git 'https://github.com/Abhiz2411/finance-me-banking-finance.git'
echo '---- SCM Checkout Done ----'
Use Groovy Sandbox
Pipeline Syntax
Save
Apply

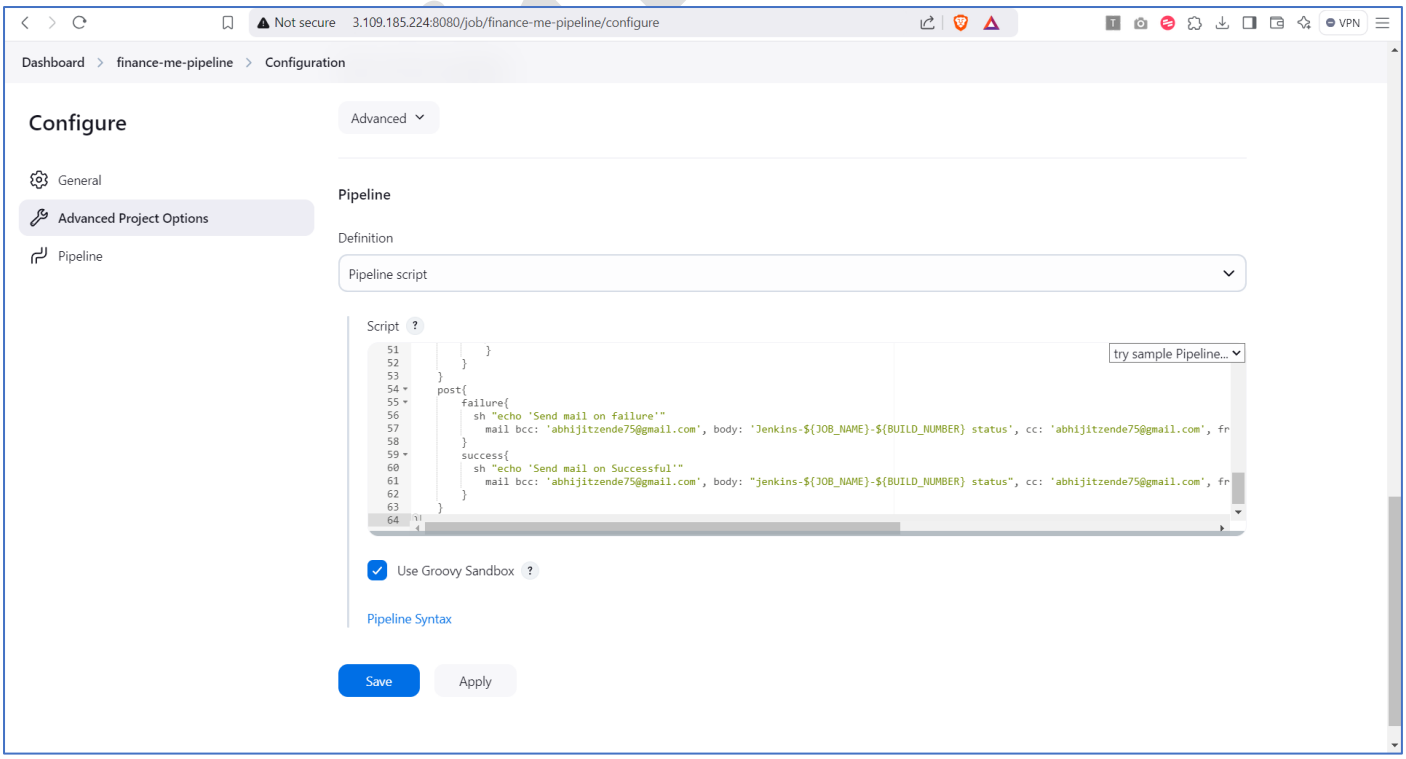

Not secure 3.109.185.224:8080/job/finance-me-pipeline/configure
Dashboard > finance-me-pipeline > Configuration
Configure
General
Advanced Project Options
Pipeline
Advanced
Pipeline
Definition
Pipeline script
Script
try sample Pipeline...
stage('Application_Build') {
steps {
echo '---- Perform application build ----'
sh 'mvn clean package'
echo '---- Application build complete ----'
}
}
stage('Docker build') {
steps {
echo '---- Perform Docker build ----'
sh 'docker build -t abhiz2411/bankapp1:${BUILD_NUMBER} .'
Use Groovy Sandbox
Pipeline Syntax
Save
Apply

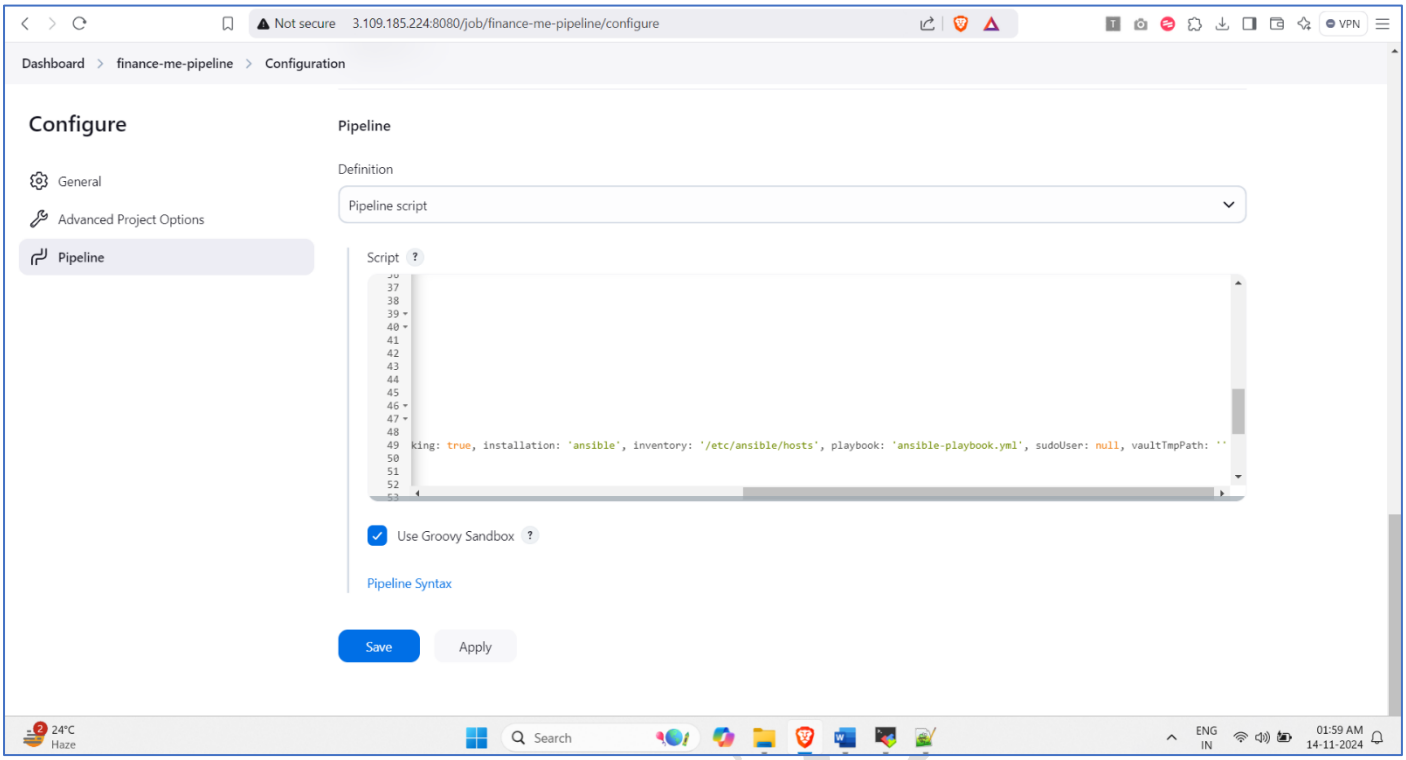

Not secure 3.109.185.224:8080/job/finance-me-pipeline/configure
Dashboard > finance-me-pipeline > Configuration
Configure
General
Advanced Project Options
Pipeline
Advanced
Pipeline
Definition
Pipeline script
Script
try sample Pipeline...
stage('Docker build') {
steps {
echo '---- Perform Docker build ----'
sh 'docker build -t abhiz2411/bankapp1:${BUILD_NUMBER} .'
sh 'docker tag abhiz2411/bankapp1:${BUILD_NUMBER} abhiz2411/bankapp1:latest'
sh 'docker images'
echo '---- Docker build complete ----'
}
}
stage('DockerHub login') {
steps {
echo '---- Login to DockerHub ----'
Use Groovy Sandbox
Pipeline Syntax
Save
Apply

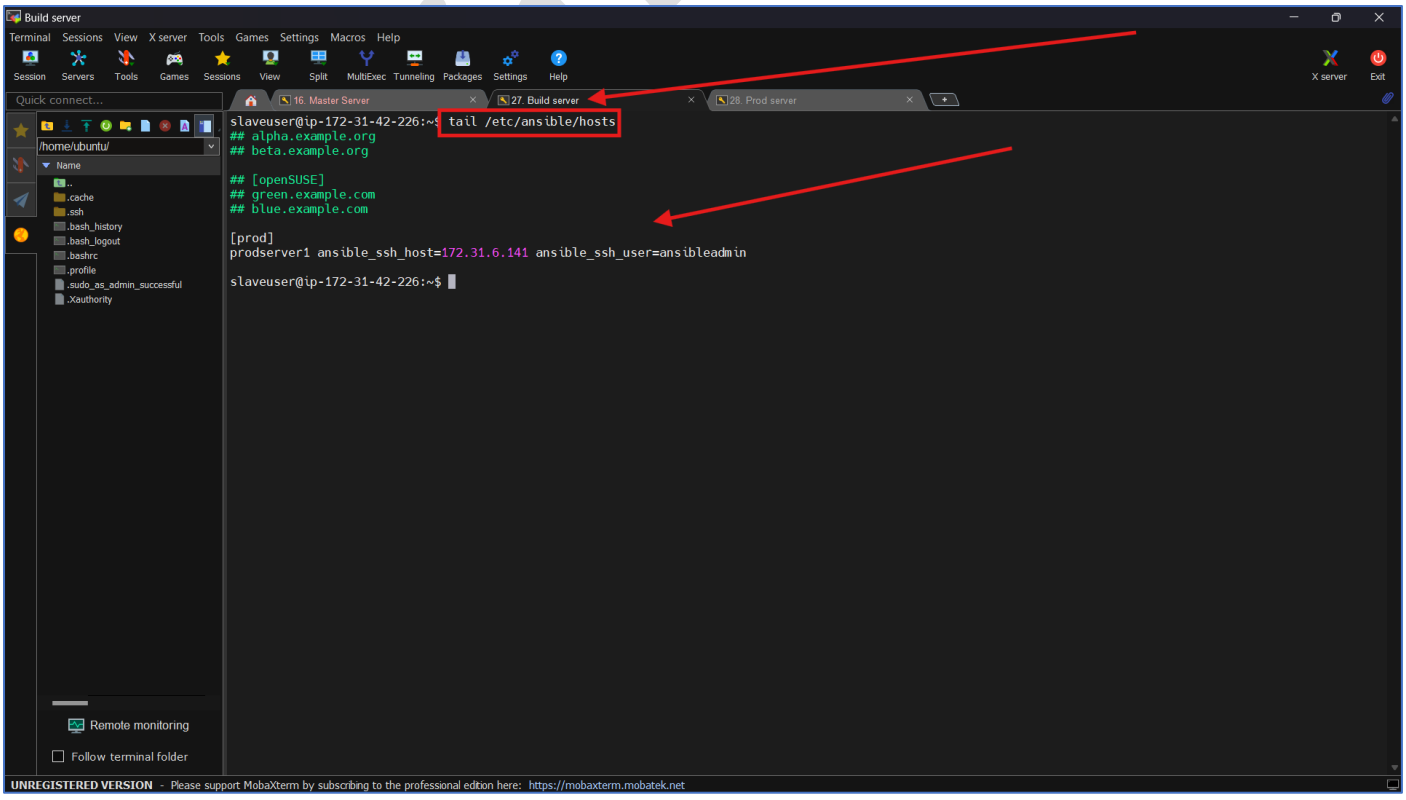

Not secure 3.109.185.224:8080/job/finance-me-pipeline/configure
Dashboard > finance-me-pipeline > Configuration
Configure
General
Advanced Project Options
Pipeline
Advanced
Pipeline
Definition
Pipeline script
Script
try sample Pipeline...
}
}
stage('DockerHub login') {
steps {
echo '---- Login to DockerHub ----'
sh 'echo ${DOCKERHUB_CREDENTIALS_PSW} | docker login -u ${DOCKERHUB_CREDENTIALS_USR} --password-stdin'
echo '---- Logged in to DockerHub ----'
}
}
stage('Publish image to DockerHub') {
steps {
echo '---- Push Docker images to DockerHub ----'
sh 'docker push abhiz2411/bankapp1:latest'
Use Groovy Sandbox
Pipeline Syntax
Save
Apply

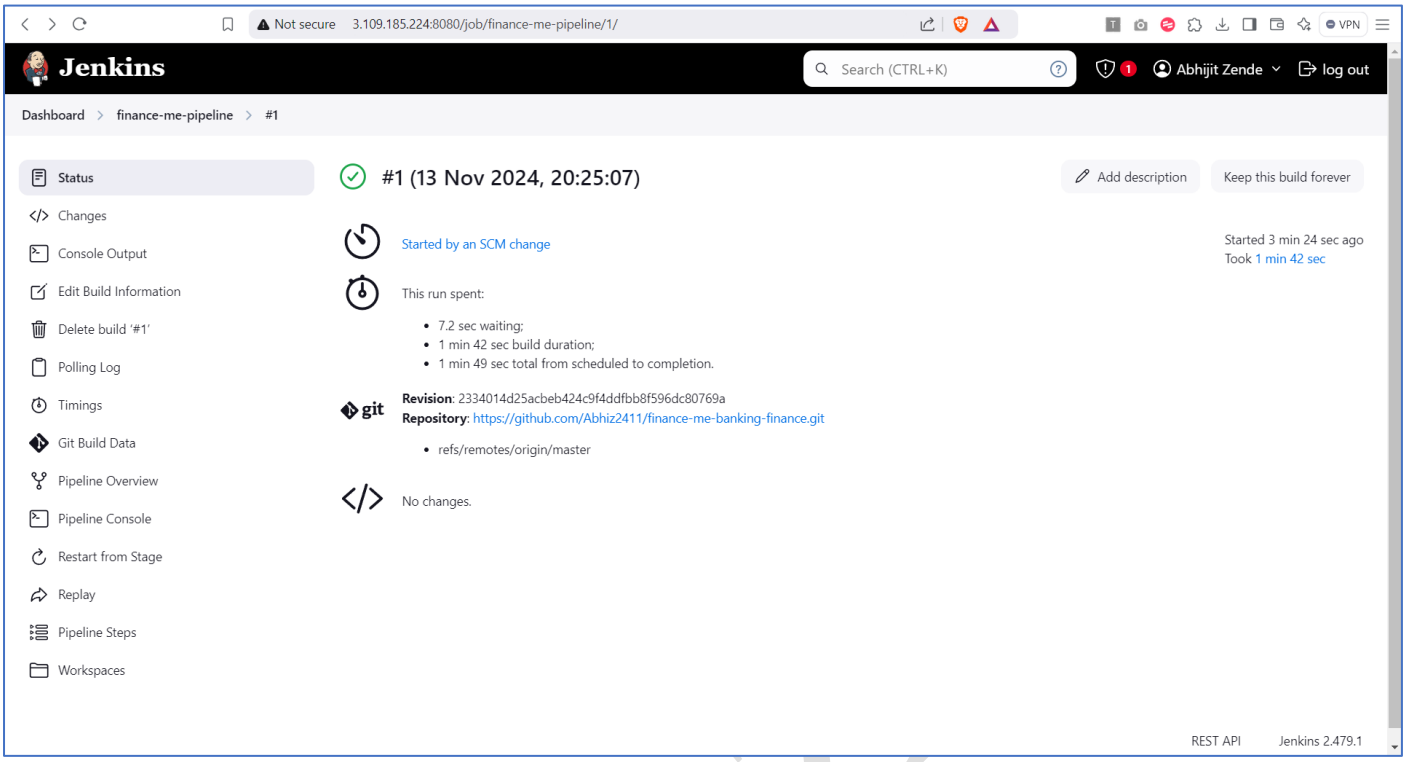

Not secure 3.109.185.224:8080/job/finance-me-pipeline/configure
Dashboard > finance-me-pipeline > Configuration
Configure
General
Advanced Project Options
Pipeline
Pipeline
Definition
Pipeline script
Script
}
}
stage('Publish image to DockerHub') {
steps {
echo '---- Push Docker images to DockerHub ----'
sh 'docker push abhiz2411/bankapp1:latest'
echo '---- Imaged Pushed to DockerHub ----'
}
}
stage('Deploy application to production server') {
steps {
echo '---- Deploying the application ----'
ansiblePlaybook become: true, credentialsId: 'slaveuser', disableHostKeyChecking: true, installation: 'ansible', invento
echo '---- Application Deployed ----'
}
Use Groovy Sandbox
Pipeline Syntax
Save
Apply
REST API
Jenkins 2.479.1

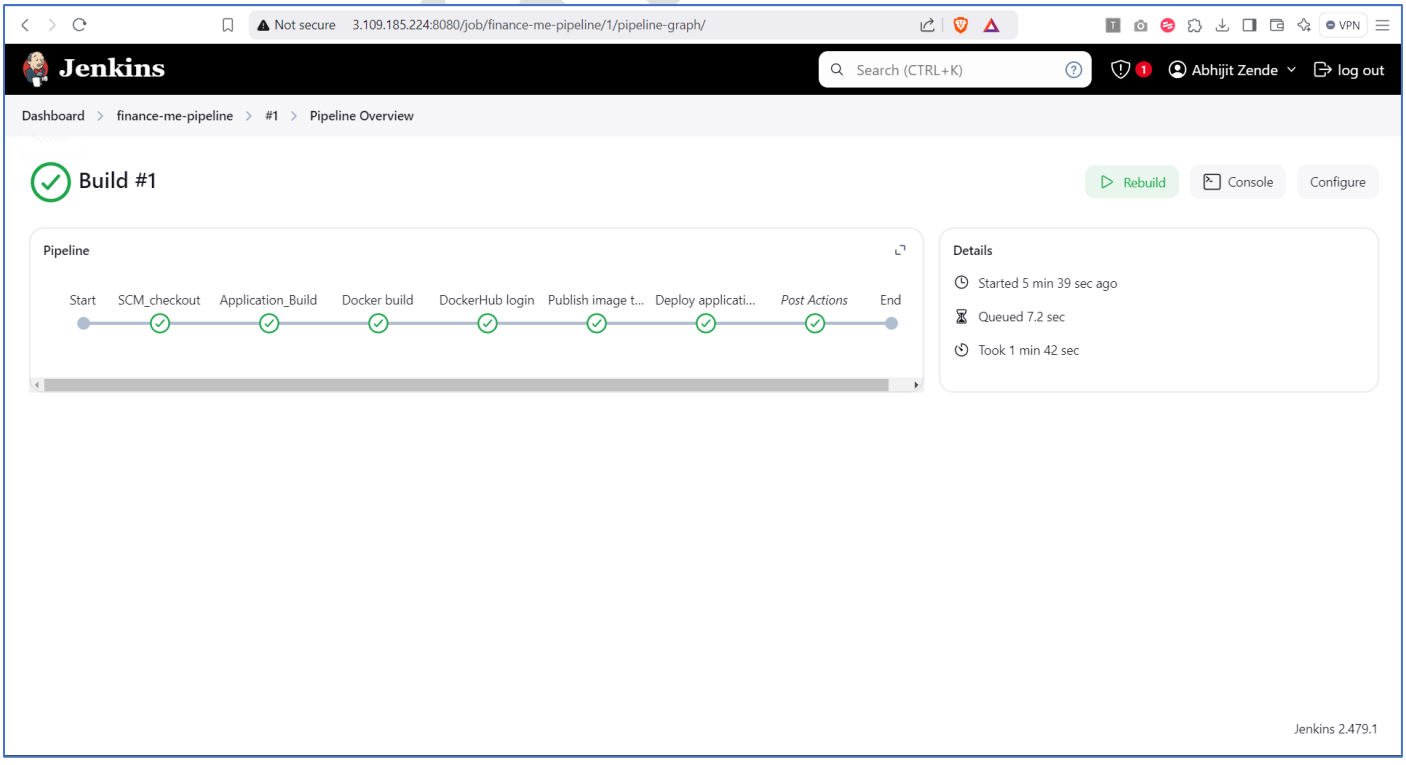

Not secure 3.109.185.224:8080/job/finance-me-pipeline/configure
Dashboard > finance-me-pipeline > Configuration
Configure
General
Advanced Project Options
Pipeline
Advanced
Pipeline
Definition
Pipeline script
Script
try sample Pipeline...
}
}
}
post{
failure{
sh "echo 'Send mail on failure'"
mail bcc: 'abhijitzende75@gmail.com', body: 'Jenkins-${JOB_NAME}-${BUILD_NUMBER} status', cc: 'abhijitzende75@gmail.com', fr
}
success{
sh "echo 'Send mail on Successful'"
mail bcc: 'abhijitzende75@gmail.com', body: "jenkins-${JOB_NAME}-${BUILD_NUMBER} status", cc: 'abhijitzende75@gmail.com', fr
}
}
Use Groovy Sandbox
Pipeline Syntax
Save
Apply

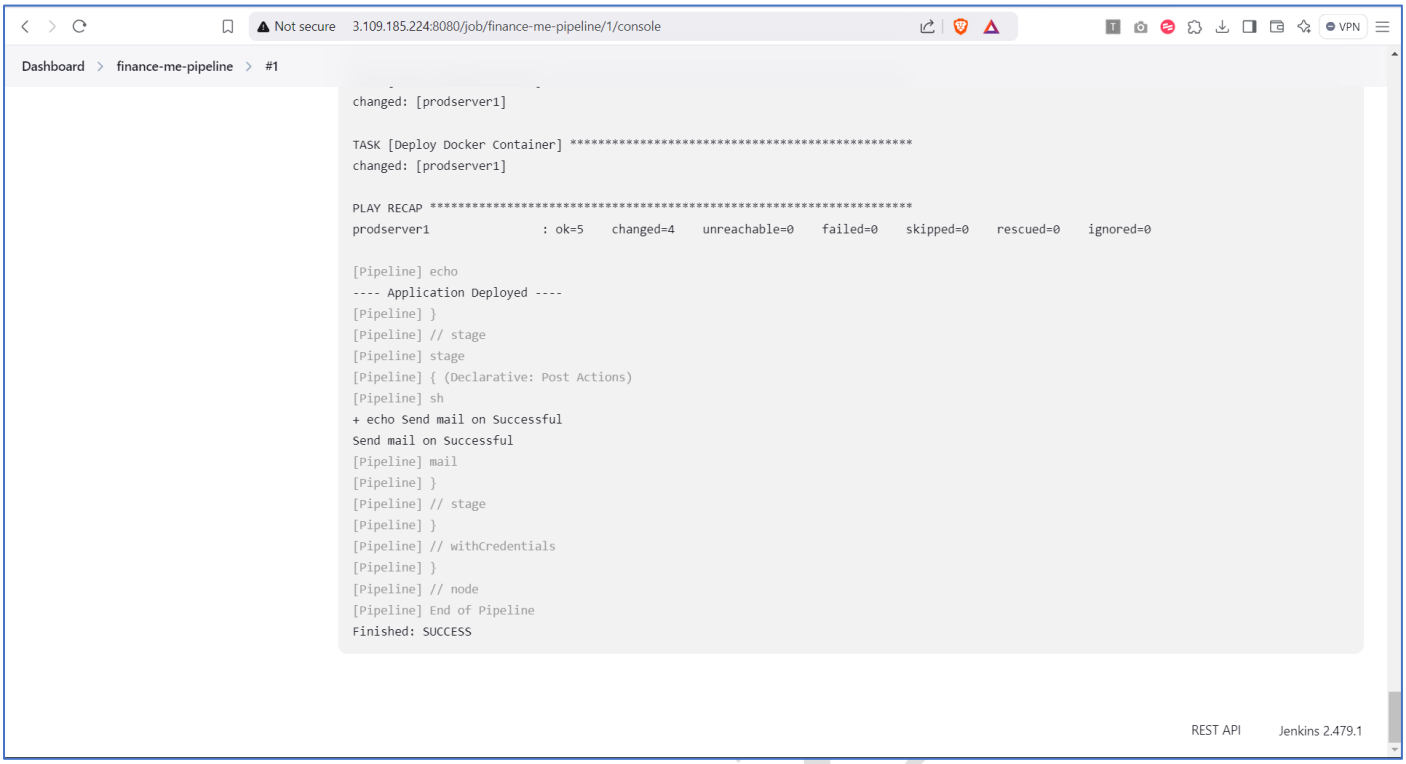

Not secure 3.109.185.224:8080/job/finance-me-pipeline/configure
Dashboard > finance-me-pipeline > Configuration
Configure
General
Advanced Project Options
Pipeline
Advanced
Pipeline
Definition
Pipeline script
Script
try sample Pipeline...
}
}
}
post{
failure{
sh "echo 'Send mail on failure'"
mail bcc: 'abhijitzende75@gmail.com', body: 'Jenkins-${JOB_NAME}-${BUILD_NUMBER} status', cc: 'abhijitzende75@gmail.com', fr
}
success{
sh "echo 'Send mail on Successful'"
mail bcc: 'abhijitzende75@gmail.com', body: "jenkins-${JOB_NAME}-${BUILD_NUMBER} status", cc: 'abhijitzende75@gmail.com', fr
}
}
Use Groovy Sandbox
Pipeline Syntax
Save
Apply

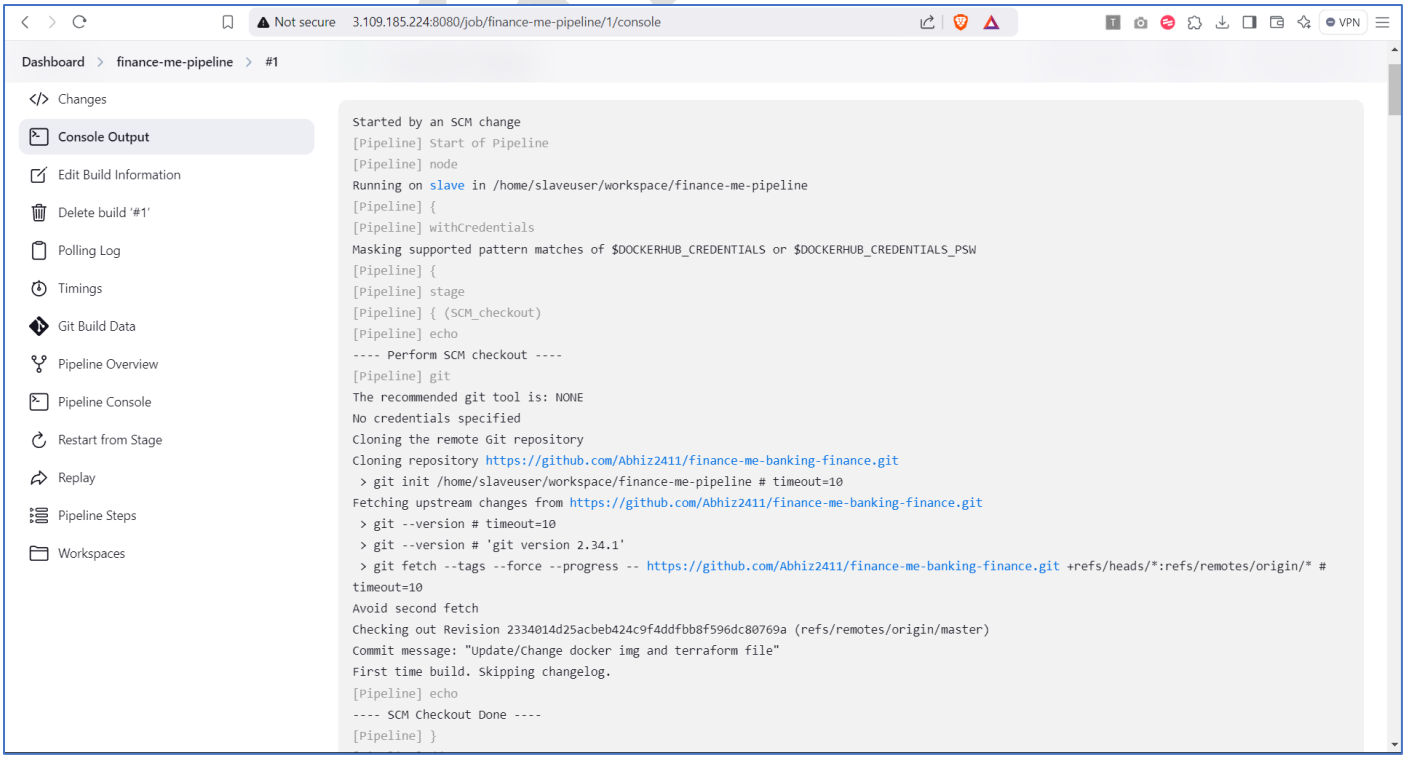

Not secure 3.109.185.224:8080/job/finance-me-pipeline/configure
Dashboard > finance-me-pipeline > Configuration
Configure
General
Advanced Project Options
Pipeline
Pipeline
Definition
Pipeline script
Script
king: true, installation: 'ansible', inventory: '/etc/ansible/hosts', playbook: 'ansible-playbook.yml', sudoUser: null, vaultTmpPath: ''
Use Groovy Sandbox
Pipeline Syntax
Save
Apply

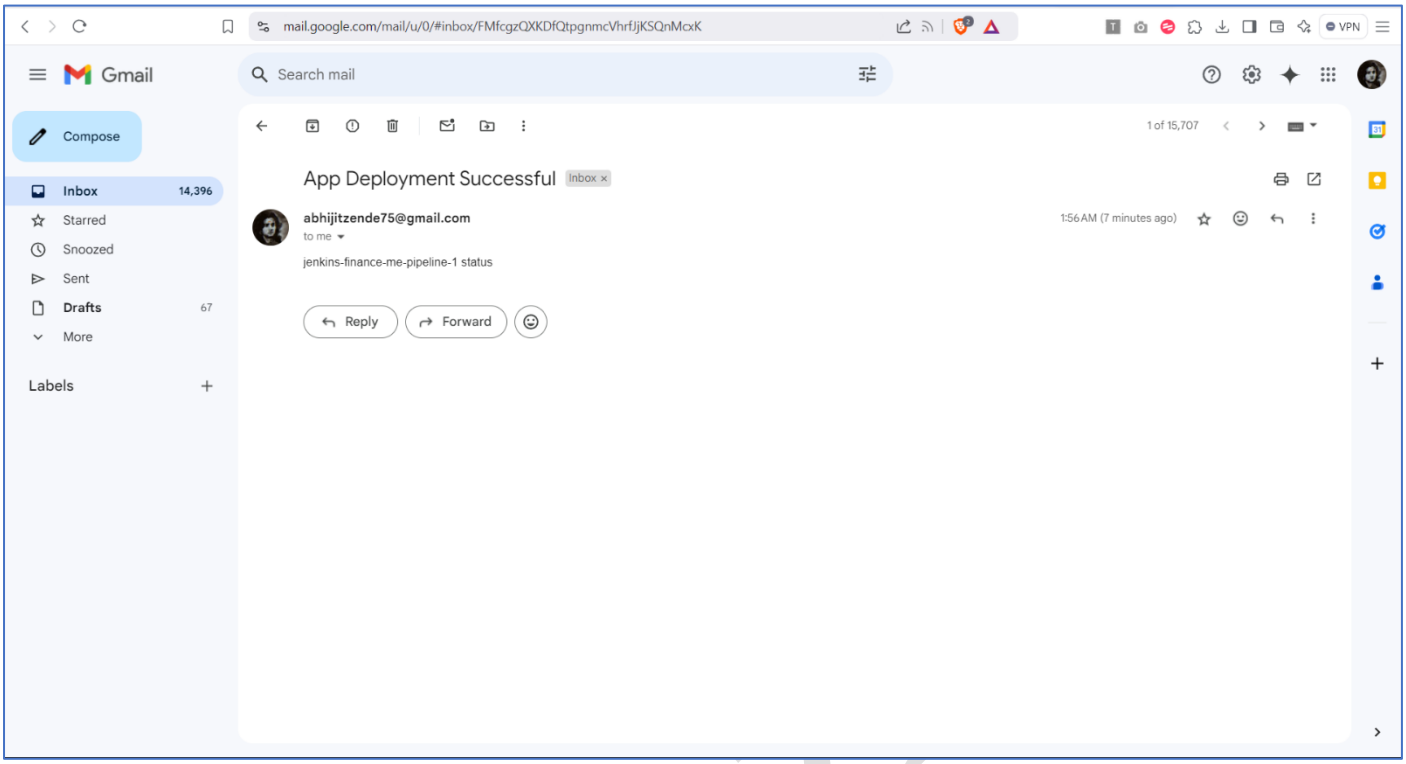

Build server
Terminal Sessions View X server Tools Games Settings Macros Help
16. Master Server
27. Build server
28. Prod server
slaveuser@ip-172-31-42-226:~$ tail /etc/ansible/hosts
alpha.example.org
beta.example.org
[openSUSE]
green.example.com
blue.example.com
[prod]
prodserver1 ansible_ssh_host=172.31.6.141 ansible_ssh_user=ansibleadmin
slaveuser@ip-172-31-42-226:~$
Remote monitoring
Follow terminal folder
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net

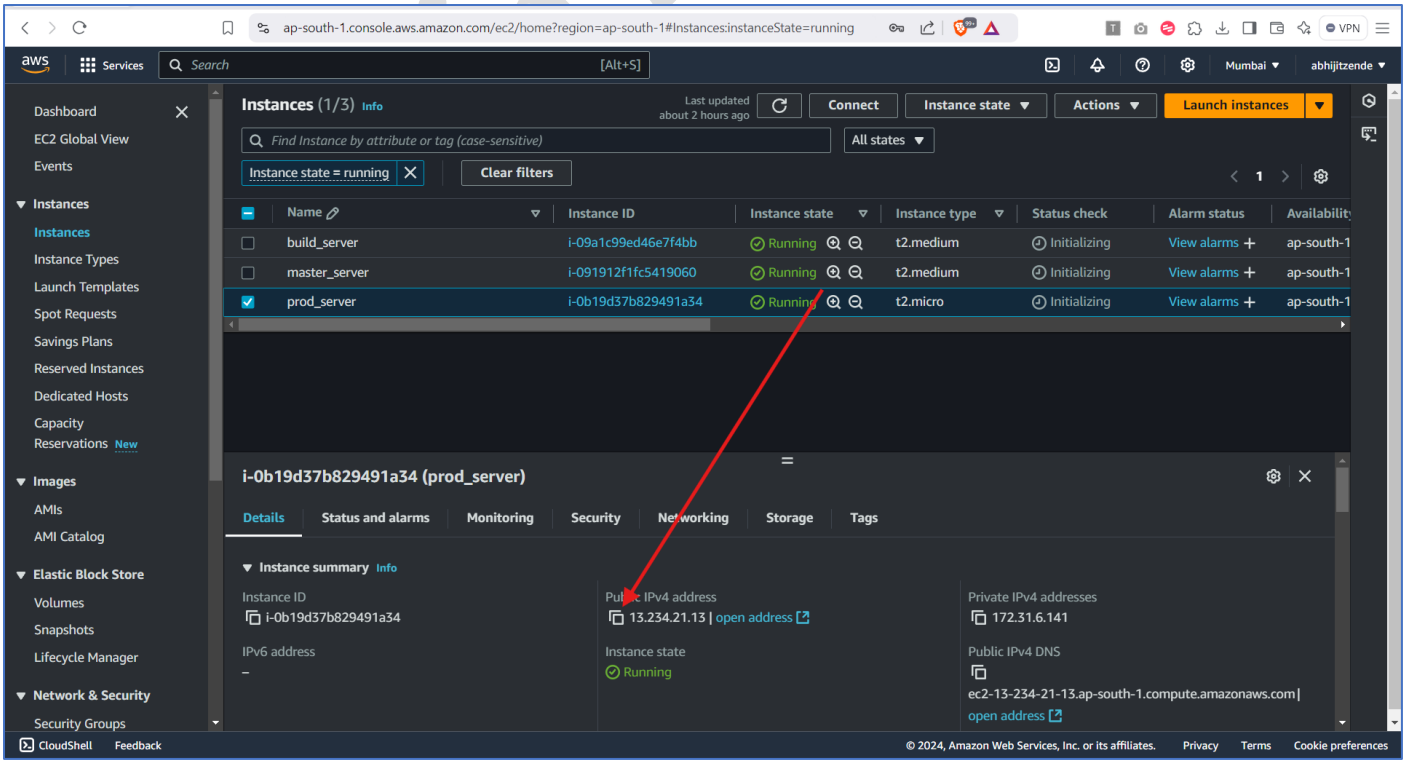

Not secure 3.109.185.224:8080/job/finance-me-pipeline/1/
Jenkins
Search (CTRL+K)
Abhijit Zende
log out
Dashboard > finance-me-pipeline > #1
Status
Changes
Console Output
Edit Build Information
Delete build '#1'
Polling Log
Timings
Git Build Data
Pipeline Overview
Pipeline Console
Restart from Stage
Replay
Pipeline Steps
Workspaces
#1 (13 Nov 2024, 20:25:07)
Add description
Keep this build forever
Started by an SCM change
Started 3 min 24 sec ago
Took 1 min 42 sec
This run spent:
7.2 sec waiting;
1 min 42 sec build duration;
1 min 49 sec total from scheduled to completion.
Revision: 2334014d25acbeb424c9f4ddfbb8f596dc80769a
Repository: https://github.com/Abhiz2411/finance-me-banking-finance.git
refs/remotes/origin/master
No changes.
REST API
Jenkins 2.479.1

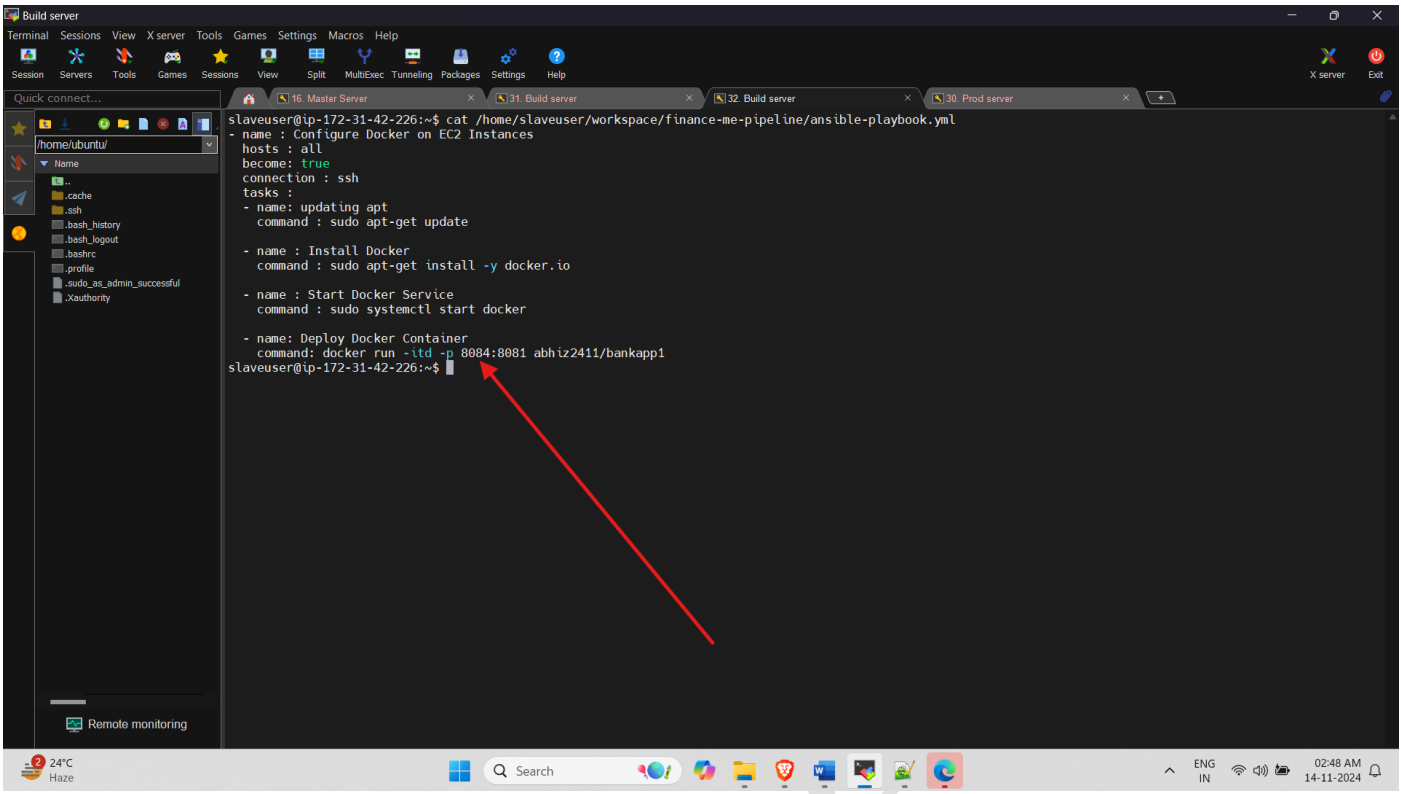

Not secure 3.109.185.224:8080/job/finance-me-pipeline/1/pipeline-graph/
Jenkins
Search (CTRL+K)
Abhijit Zende
log out
Dashboard > finance-me-pipeline > #1 > Pipeline Overview
Build #1
Rebuild
Console
Configure
Pipeline
Start
SCM_checkout
Application_Build
Docker build
DockerHub login
Publish image t...
Deploy applicati...
Post Actions
End
Details
Started 5 min 39 sec ago
Queued 7.2 sec
Took 1 min 42 sec
Jenkins 2.479.1

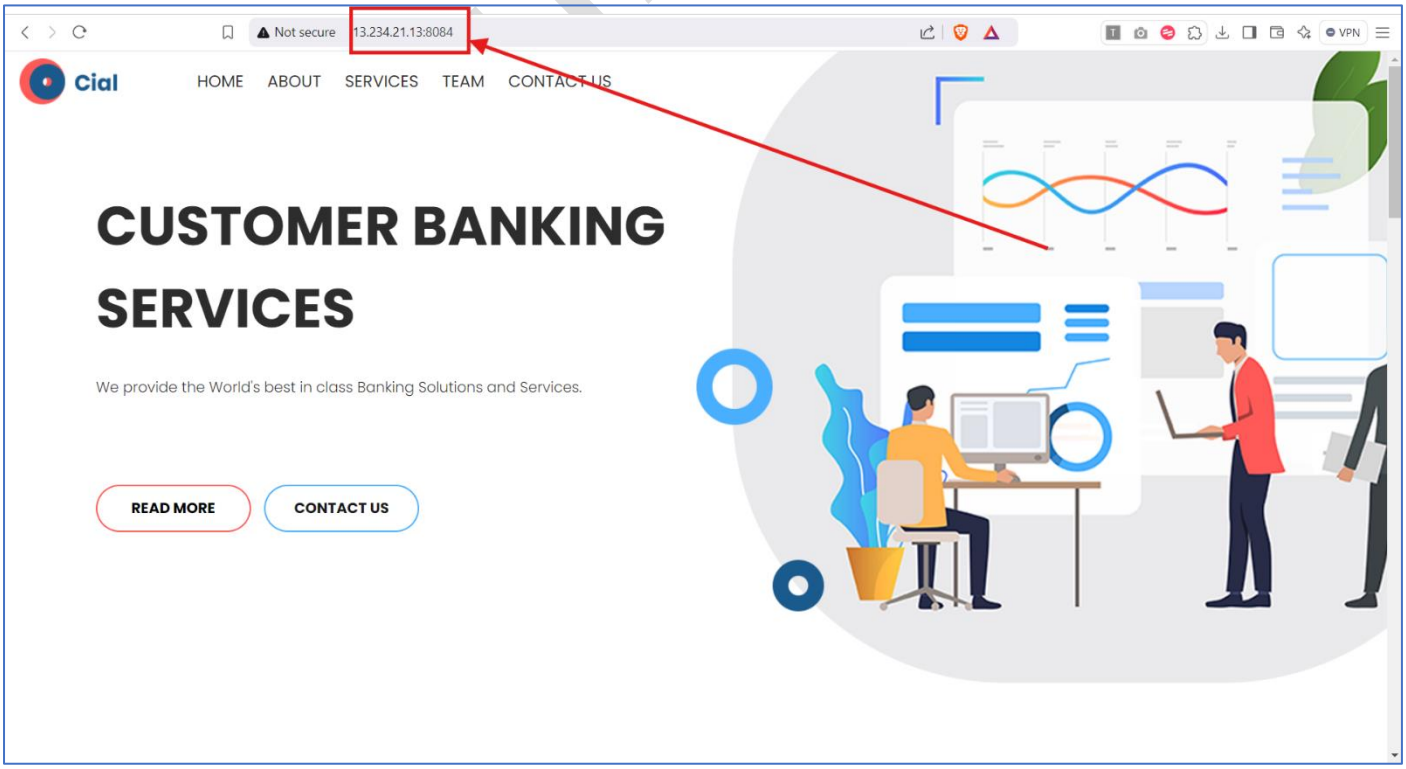

Not secure 3.109.185.224:8080/job/finance-me-pipeline/1/console
Dashboard > finance-me-pipeline > #1
changed: [prodserver1]
TASK [Deploy Docker Container] ***
changed: [prodserver1]
PLAY RECAP ***
prodserver1 : ok=5 changed=4 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0
[Pipeline] echo
---- Application Deployed ----
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Declarative: Post Actions)
[Pipeline] sh
+ echo Send mail on Successful
Send mail on Successful
[Pipeline] mail
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withCredentials
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
REST API
Jenkins 2.479.1


Not secure 3.109.185.224:8080/job/finance-me-pipeline/1/console
Dashboard > finance-me-pipeline > #1
Changes
Console Output
Edit Build Information
Delete build '#1'
Polling Log
Timings
Git Build Data
Pipeline Overview
Pipeline Console
Restart from Stage
Replay
Pipeline Steps
Workspaces
Started by an SCM change
[Pipeline] Start of Pipeline
[Pipeline] node
Running on slave in /home/slaveuser/workspace/finance-me-pipeline
[Pipeline] {
[Pipeline] withCredentials
Masking supported pattern matches of $DOCKERHUB_CREDENTIALS or $DOCKERHUB_CREDENTIALS_PSW
[Pipeline] {
[Pipeline] stage
[Pipeline] { (SCM_checkout)
[Pipeline] echo
---- Perform SCM checkout ----
[Pipeline] git
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/Abhiz2411/finance-me-banking-finance.git
> git init /home/slaveuser/workspace/finance-me-pipeline # timeout=10
Fetching upstream changes from https://github.com/Abhiz2411/finance-me-banking-finance.git
> git --version # timeout=10
> git --version # 'git version 2.34.1'
> git fetch --tags --force --progress -- https://github.com/Abhiz2411/finance-me-banking-finance.git +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
Checking out Revision 2334014d25acbeb424c9f4ddfbb8f596dc80769a (refs/remotes/origin/master)
Commit message: "Update/Change docker img and terraform file"
First time build. Skipping changelog.
[Pipeline] echo
---- SCM Checkout Done ----
[Pipeline] }


mail.google.com/mail/u/0/#inbox/FMfcgzQXKDfQtpgnmcVhrfJjKSQnMcxK
Gmail
Search mail
Compose
Inbox 14,396
Starred
Snoozed
Sent
Drafts 67
More
Labels
1 of 15,707
App Deployment Successful
Inbox
abhijitzende75@gmail.com
to me
1:56 AM (7 minutes ago)
jenkins-finance-me-pipeline-1 status
Reply
Forward


ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#Instances:instanceState=running
Services
Search
[Alt+S]
Mumbai
abhijitzende
Dashboard
EC2 Global View
Events
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations New
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Network & Security
Security Groups
Instances (1/3) Info
Last updated about 2 hours ago
Connect
Instance state
Actions
Launch instances
Find Instance by attribute or tag (case-sensitive)
All states
Instance state = running
Clear filters
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
build_server
i-09a1c99ed46e7f4bb
Running
t2.medium
Initializing
View alarms
master_server
i-091912f1fc5419060
Running
t2.medium
Initializing
View alarms
prod_server
i-0b19d37b829491a34
Running
t2.micro
Initializing
View alarms
i-0b19d37b829491a34 (prod_server)
Details
Status and alarms
Monitoring
Security
Networking
Storage
Tags
Instance summary Info
Instance ID
i-0b19d37b829491a34
IPv6 address
Instance state
Running
Public IPv4 address
13.234.21.13 | open address
Private IPv4 addresses
172.31.6.141
Public IPv4 DNS
ec2-13-234-21-13.ap-south-1.compute.amazonaws.com | open address
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences


Build server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
16. Master Server
31. Build server
32. Build server
30. Prod server
/home/ubuntu/
Name
.cache
.ssh
.bash_history
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.Xauthority
Remote monitoring
slaveuser@ip-172-31-42-226:~$ cat /home/slaveuser/workspace/finance-me-pipeline/ansible-playbook.yml
- name : Configure Docker on EC2 Instances
hosts : all
become: true
connection : ssh
tasks :
- name: updating apt
command : sudo apt-get update
- name : Install Docker
command : sudo apt-get install -y docker.io
- name : Start Docker Service
command : sudo systemctl start docker
- name: Deploy Docker Container
command: docker run -itd -p 8084:8081 abhiz2411/bankapp1
slaveuser@ip-172-31-42-226:~$
24°C
Haze
Search
ENG
IN
02:48 AM
14-11-2024

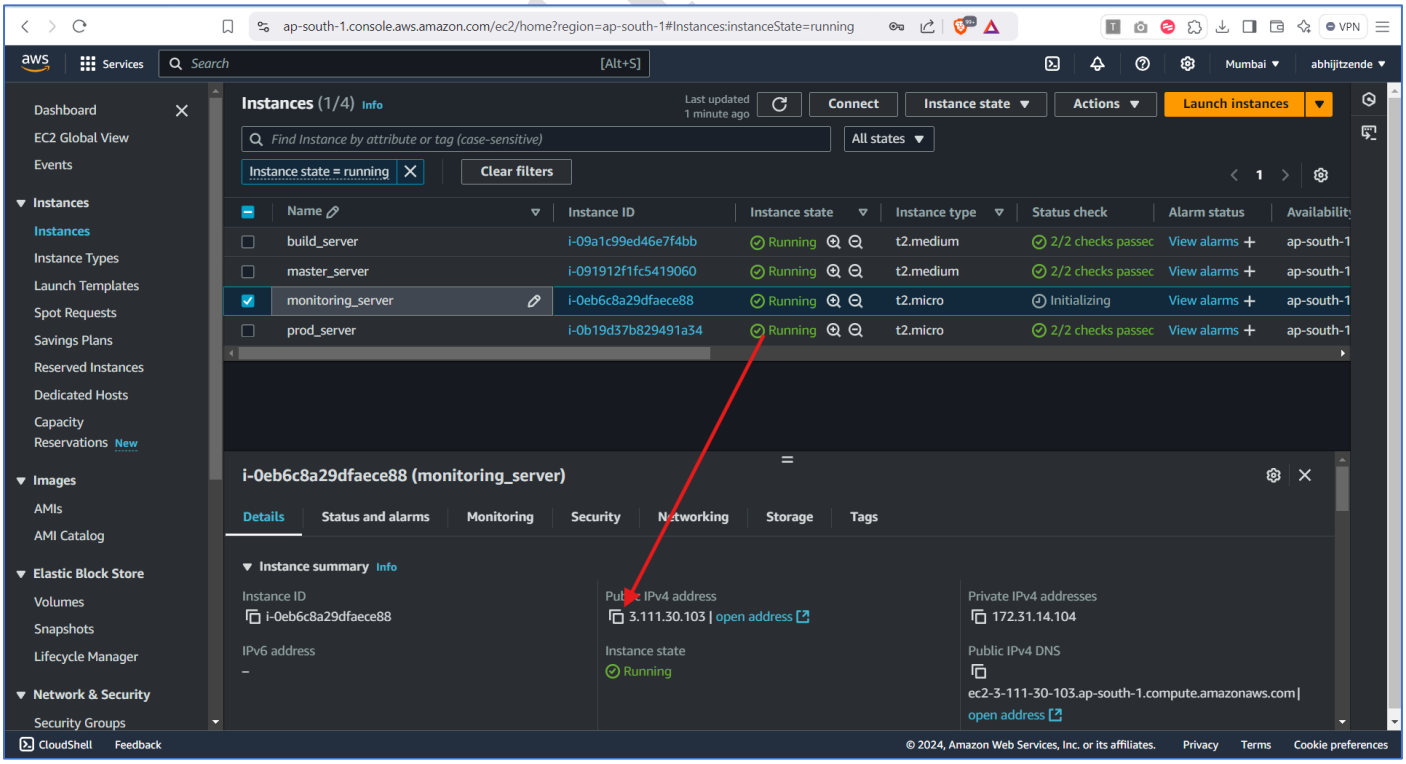

Not secure
13.234.21.13:8084
VPN
Cial
HOME
ABOUT
SERVICES
TEAM
CONTACT US
CUSTOMER BANKING
SERVICES
We provide the World's best in class Banking Solutions and Services.
READ MORE
CONTACT US

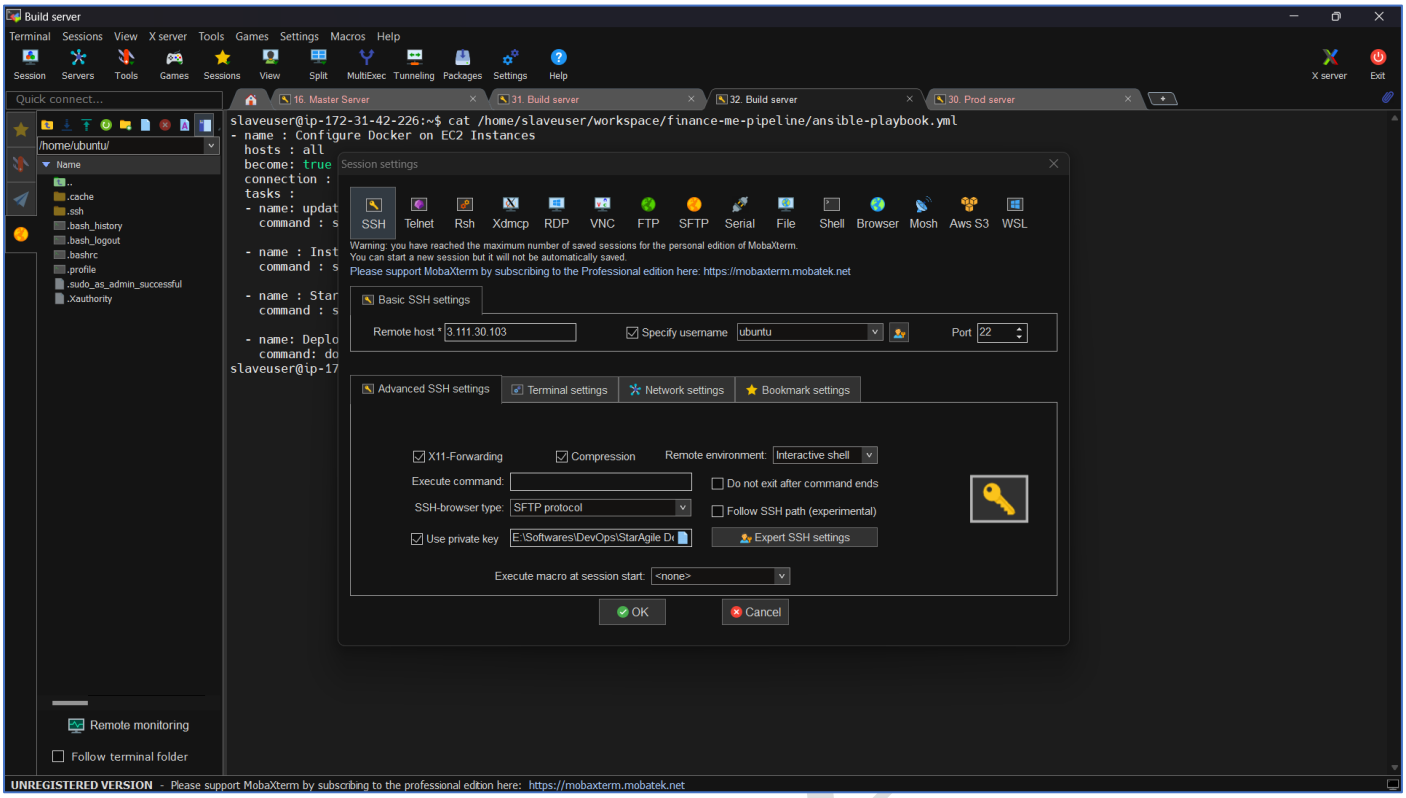
Phase 3 - Continuous monitoring:

Steps:

Step 1: Install Prometheus on Monitoring server:

1. SSH into the monitoring server
2. Download the Prometheus installation tar file from the official repository Pre-compiled Binary download link using command
   ```
   wget https://github.com/prometheus/prometheus/releases/download/v3.0.0-rc.1/prometheus-3.0.0-rc.1.linux-amd64.tar.gz
   ```
3. Extract the tar file using command: `tar -zxvf prometheus-3.0.0-rc.1.linux-amd64.tar.gz `
4. Make Prometheus system service by creating **Prometheus.service** file in **'/etc/systemd/system'**
5. Restart shell deamon ` sudo systemctl daemon-reload`
6. Enable Prometheus on startup ` systemctl enable prometheus`
7. Open the Prometheus server on **<public_IP>:9090**




Build server
slaveuser@ip-172-31-42-226:~$ cat /home/slaveuser/workspace/finance-me-pipeline/ansible-playbook.yml
- name : Configure Docker on EC2 Instances
Session settings
SSH
Telnet
Rsh
Xdmcp
RDP
VNC
FTP
SFTP
Serial
File
Shell
Browser
Mosh
Aws S3
WSL
Basic SSH settings
Remote host * 3.111.30.103
Specify username
ubuntu
Port 22
Advanced SSH settings
Terminal settings
Network settings
Bookmark settings
X11-Forwarding
Compression
Remote environment: Interactive shell
Execute command:
Do not exit after command ends
SSH-browser type: SFTP protocol
Follow SSH path (experimental)
Use private key
Expert SSH settings
Execute macro at session start: <none>
OK
Cancel
Remote monitoring
Follow terminal folder
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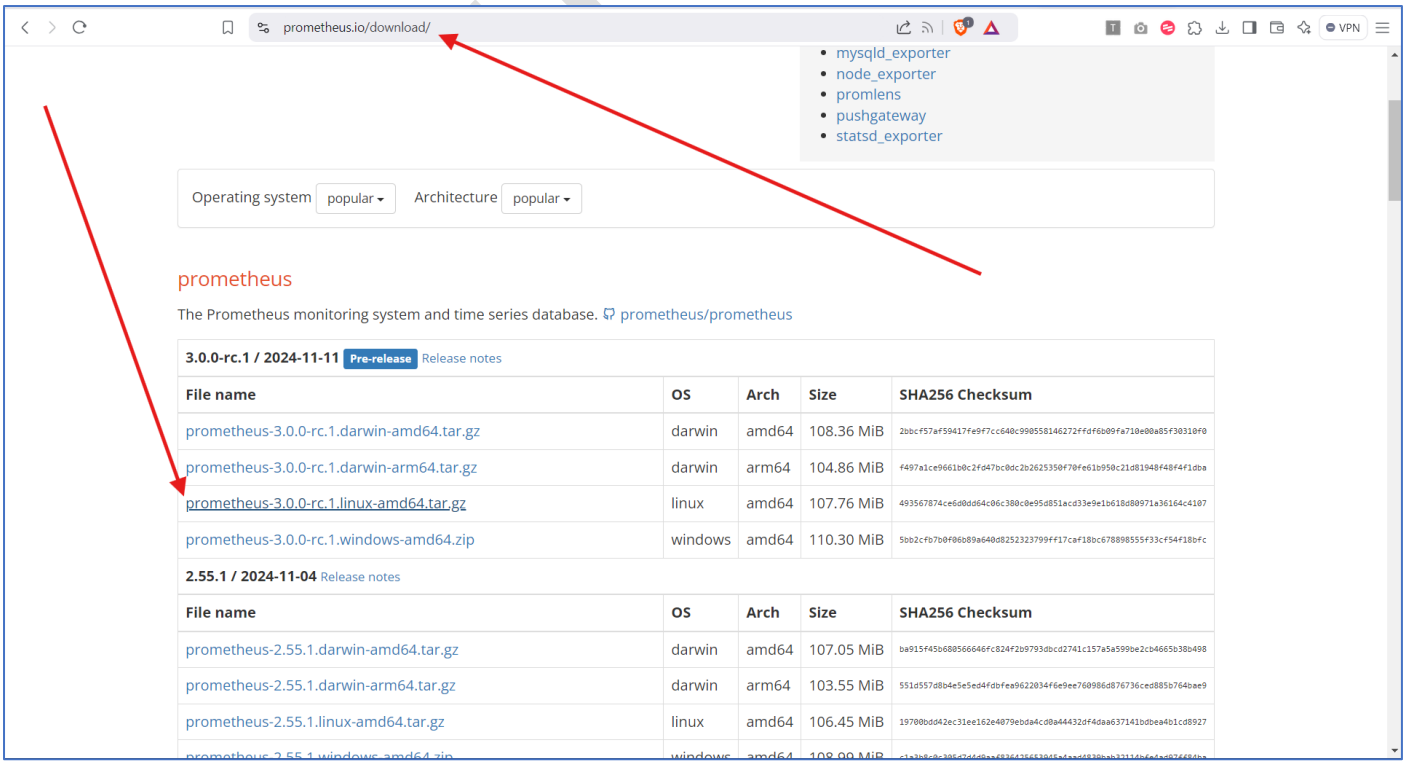
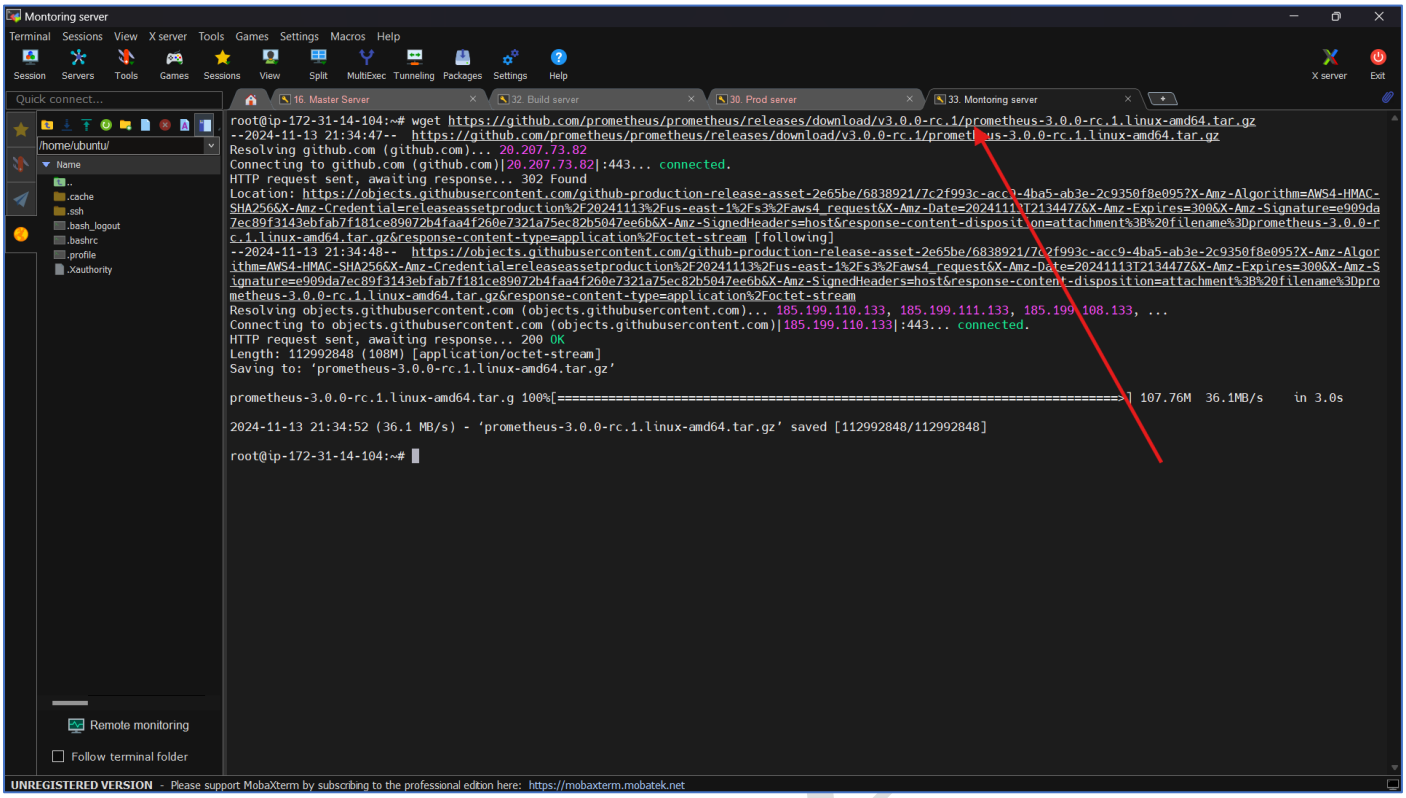
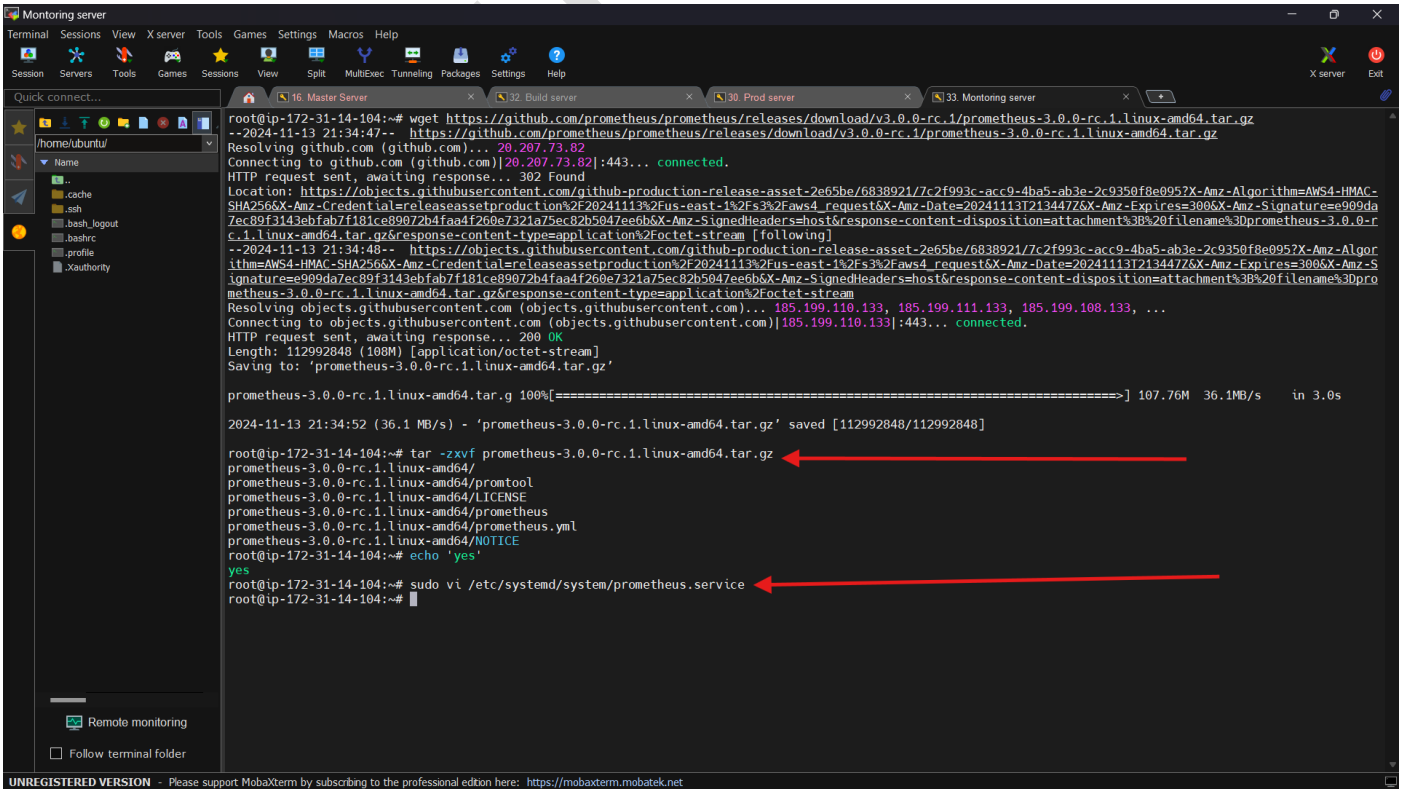

prometheus.io/download/
mysqld_exporter
node_exporter
promlens
pushgateway
statsd_exporter
Operating system popular
Architecture popular
prometheus
The Prometheus monitoring system and time series database. prometheus/prometheus
3.0.0-rc.1 / 2024-11-11 Pre-release Release notes
File name OS Arch Size SHA256 Checksum
prometheus-3.0.0-rc.1.darwin-amd64.tar.gz darwin amd64 108.36 MiB
prometheus-3.0.0-rc.1.darwin-arm64.tar.gz darwin arm64 104.86 MiB
prometheus-3.0.0-rc.1.linux-amd64.tar.gz linux amd64 107.76 MiB
prometheus-3.0.0-rc.1.windows-amd64.zip windows amd64 110.30 MiB
2.55.1 / 2024-11-04 Release notes
File name OS Arch Size SHA256 Checksum
prometheus-2.55.1.darwin-amd64.tar.gz darwin amd64 107.05 MiB
prometheus-2.55.1.darwin-arm64.tar.gz darwin arm64 103.55 MiB
prometheus-2.55.1.linux-amd64.tar.gz linux amd64 106.45 MiB


Monitoring server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
16. Master Server
32. Build server
30. Prod server
33. Monitoring server
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority
Remote monitoring
Follow terminal folder
root@ip-172-31-14-104:~# wget https://github.com/prometheus/prometheus/releases/download/v3.0.0-rc.1/prometheus-3.0.0-rc.1.linux-amd64.tar.gz
--2024-11-13 21:34:47-- https://github.com/prometheus/prometheus/releases/download/v3.0.0-rc.1/prometheus-3.0.0-rc.1.linux-amd64.tar.gz
Resolving github.com (github.com)... 20.207.73.82
Connecting to github.com (github.com)|20.207.73.82|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://objects.githubusercontent.com/github-production-release-asset-2e65be/6838921/7c2f993c-acc9-4ba5-ab3e-2c9350f8e095?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20241113%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20241113T213447Z&X-Amz-Expires=300&X-Amz-Signature=e909da7ec89f3143ebfab7f181ce89072b4faa4f260e7321a75ec82b5047ee6b&X-Amz-SignedHeaders=host&response-content-disposition=attachment%3B%20filename%3Dprometheus-3.0.0-rc.1.linux-amd64.tar.gz&response-content-type=application%2Foctet-stream [following]
--2024-11-13 21:34:48-- https://objects.githubusercontent.com/github-production-release-asset-2e65be/6838921/7c2f993c-acc9-4ba5-ab3e-2c9350f8e095?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20241113%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20241113T213447Z&X-Amz-Expires=300&X-Amz-Signature=e909da7ec89f3143ebfab7f181ce89072b4faa4f260e7321a75ec82b5047ee6b&X-Amz-SignedHeaders=host&response-content-disposition=attachment%3B%20filename%3Dprometheus-3.0.0-rc.1.linux-amd64.tar.gz&response-content-type=application%2Foctet-stream
Resolving objects.githubusercontent.com (objects.githubusercontent.com)... 185.199.110.133, 185.199.111.133, 185.199.108.133, ...
Connecting to objects.githubusercontent.com (objects.githubusercontent.com)|185.199.110.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 112992848 (108M) [application/octet-stream]
Saving to: 'prometheus-3.0.0-rc.1.linux-amd64.tar.gz'
prometheus-3.0.0-rc.1.linux-amd64.tar.g 100%[=>] 107.76M 36.1MB/s in 3.0s
2024-11-13 21:34:52 (36.1 MB/s) - 'prometheus-3.0.0-rc.1.linux-amd64.tar.gz' saved [112992848/112992848]
root@ip-172-31-14-104:~#
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net


Monitoring server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
16. Master Server
32. Build server
30. Prod server
33. Monitoring server
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.Xauthority
Remote monitoring
Follow terminal folder
root@ip-172-31-14-104:~# wget https://github.com/prometheus/prometheus/releases/download/v3.0.0-rc.1/prometheus-3.0.0-rc.1.linux-amd64.tar.gz
--2024-11-13 21:34:47-- https://github.com/prometheus/prometheus/releases/download/v3.0.0-rc.1/prometheus-3.0.0-rc.1.linux-amd64.tar.gz
Resolving github.com (github.com)... 20.207.73.82
Connecting to github.com (github.com)|20.207.73.82|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://objects.githubusercontent.com/github-production-release-asset-2e65be/6838921/7c2f993c-acc9-4ba5-ab3e-2c9350f8e095?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20241113%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20241113T213447Z&X-Amz-Expires=300&X-Amz-Signature=e909da7ec89f3143ebfab7f181ce89072b4faa4f260e7321a75ec82b5047ee6b&X-Amz-SignedHeaders=host&response-content-disposition=attachment%3B%20filename%3Dprometheus-3.0.0-rc.1.linux-amd64.tar.gz&response-content-type=application%2Foctet-stream [following]
--2024-11-13 21:34:48-- https://objects.githubusercontent.com/github-production-release-asset-2e65be/6838921/7c2f993c-acc9-4ba5-ab3e-2c9350f8e095?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20241113%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20241113T213447Z&X-Amz-Expires=300&X-Amz-Signature=e909da7ec89f3143ebfab7f181ce89072b4faa4f260e7321a75ec82b5047ee6b&X-Amz-SignedHeaders=host&response-content-disposition=attachment%3B%20filename%3Dprometheus-3.0.0-rc.1.linux-amd64.tar.gz&response-content-type=application%2Foctet-stream
Resolving objects.githubusercontent.com (objects.githubusercontent.com)... 185.199.110.133, 185.199.111.133, 185.199.108.133, ...
Connecting to objects.githubusercontent.com (objects.githubusercontent.com)|185.199.110.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 112992848 (108M) [application/octet-stream]
Saving to: 'prometheus-3.0.0-rc.1.linux-amd64.tar.gz'
prometheus-3.0.0-rc.1.linux-amd64.tar.g 100%[=>] 107.76M 36.1MB/s in 3.0s
2024-11-13 21:34:52 (36.1 MB/s) - 'prometheus-3.0.0-rc.1.linux-amd64.tar.gz' saved [112992848/112992848]
root@ip-172-31-14-104:~# tar -zxvf prometheus-3.0.0-rc.1.linux-amd64.tar.gz
prometheus-3.0.0-rc.1.linux-amd64/
prometheus-3.0.0-rc.1.linux-amd64/promtool
prometheus-3.0.0-rc.1.linux-amd64/LICENSE
prometheus-3.0.0-rc.1.linux-amd64/prometheus
prometheus-3.0.0-rc.1.linux-amd64/prometheus.yml
prometheus-3.0.0-rc.1.linux-amd64/NOTICE
root@ip-172-31-14-104:~# echo 'yes'
yes
root@ip-172-31-14-104:~# sudo vi /etc/systemd/system/prometheus.service
root@ip-172-31-14-104:~#
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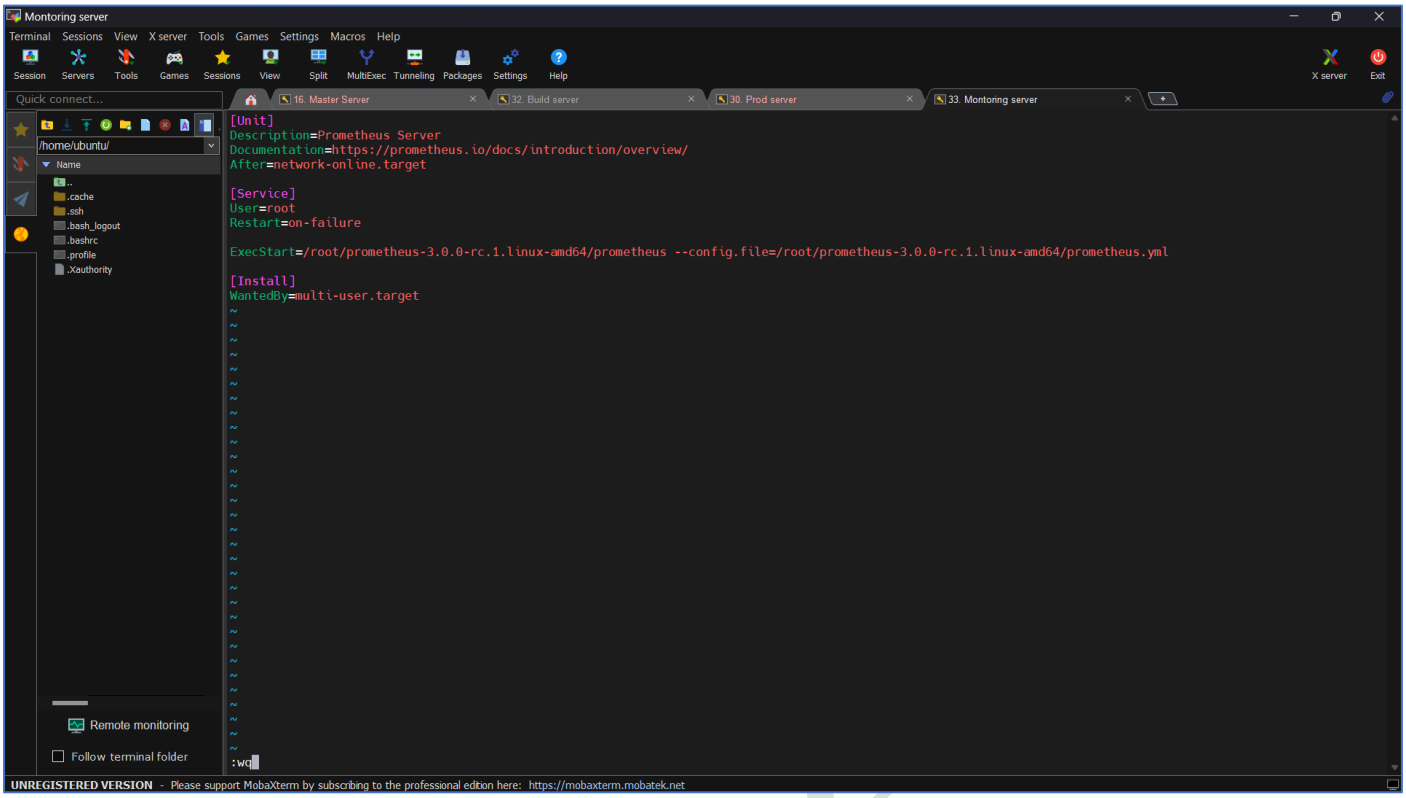
Monitoring server
Terminal Sessions View X server Tools Games Settings Macros Help
16. Master Server
32. Build server
30. Prod server
33. Monitoring server
[Unit]
Description=Prometheus Server
Documentation=https://prometheus.io/docs/introduction/overview/
After=network-online.target
[Service]
User=root
Restart=on-failure
ExecStart=/root/prometheus-3.0.0-rc.1.linux-amd64/prometheus --config.file=/root/prometheus-3.0.0-rc.1.linux-amd64/prometheus.yml
[Install]
WantedBy=multi-user.target
:wq
Remote monitoring
Follow terminal folder
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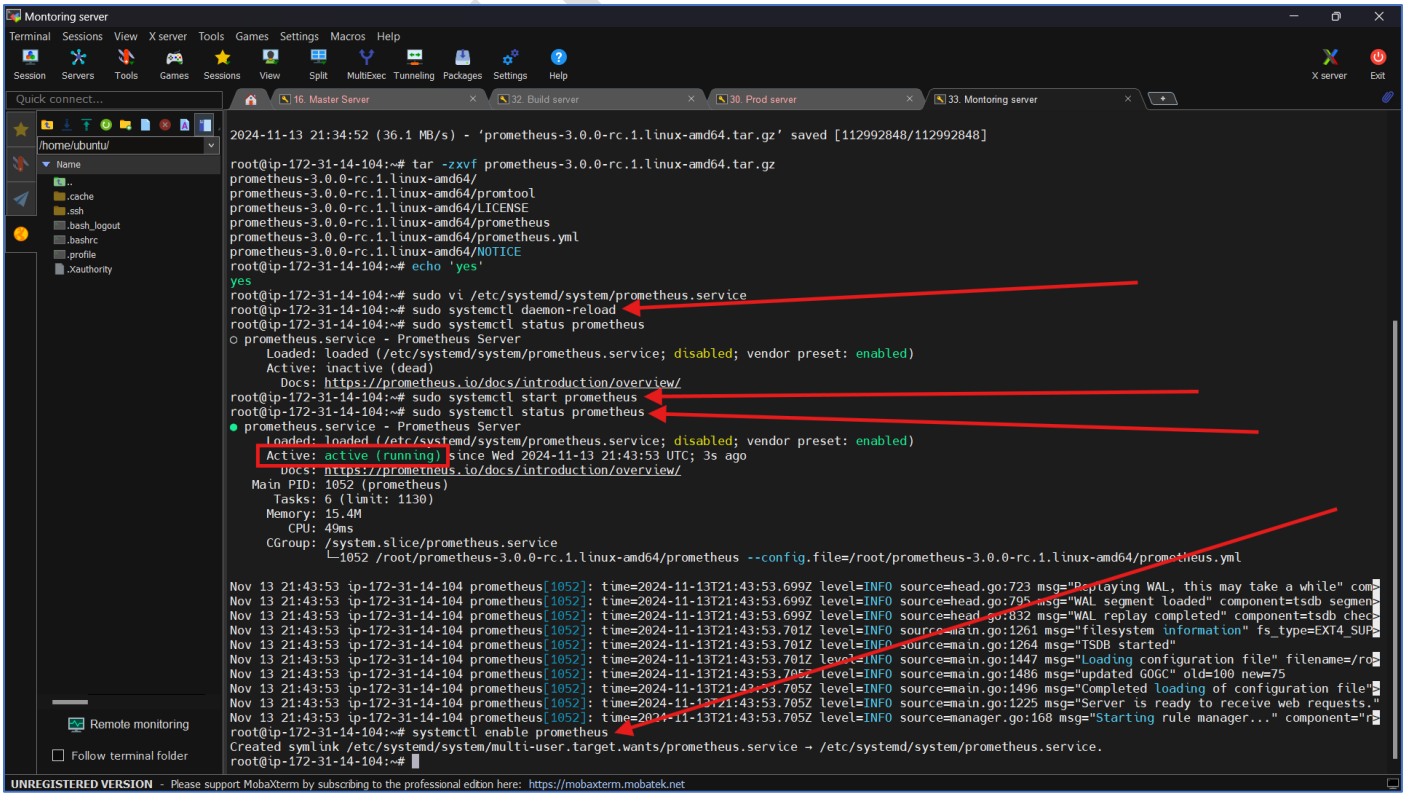
Monitoring server
2024-11-13 21:34:52 (36.1 MB/s) - 'prometheus-3.0.0-rc.1.linux-amd64.tar.gz' saved [112992848/112992848]
root@ip-172-31-14-104:~# tar -zxvf prometheus-3.0.0-rc.1.linux-amd64.tar.gz
prometheus-3.0.0-rc.1.linux-amd64/
prometheus-3.0.0-rc.1.linux-amd64/promtool
prometheus-3.0.0-rc.1.linux-amd64/LICENSE
prometheus-3.0.0-rc.1.linux-amd64/prometheus
prometheus-3.0.0-rc.1.linux-amd64/prometheus.yml
prometheus-3.0.0-rc.1.linux-amd64/NOTICE
root@ip-172-31-14-104:~# echo 'yes'
yes
root@ip-172-31-14-104:~# sudo vi /etc/systemd/system/prometheus.service
root@ip-172-31-14-104:~# sudo systemctl daemon-reload
root@ip-172-31-14-104:~# sudo systemctl status prometheus
○ prometheus.service - Prometheus Server
Loaded: loaded (/etc/systemd/system/prometheus.service; disabled; vendor preset: enabled)
Active: inactive (dead)
Docs: https://prometheus.io/docs/introduction/overview/
root@ip-172-31-14-104:~# sudo systemctl start prometheus
root@ip-172-31-14-104:~# sudo systemctl status prometheus
● prometheus.service - Prometheus Server
Loaded: loaded (/etc/systemd/system/prometheus.service; disabled; vendor preset: enabled)
Active: active (running) since Wed 2024-11-13 21:43:53 UTC; 3s ago
Docs: https://prometheus.io/docs/introduction/overview/
Main PID: 1052 (prometheus)
Tasks: 6 (limit: 1130)
Memory: 15.4M
CPU: 49ms
CGroup: /system.slice/prometheus.service
└─1052 /root/prometheus-3.0.0-rc.1.linux-amd64/prometheus --config.file=/root/prometheus-3.0.0-rc.1.linux-amd64/prometheus.yml
Nov 13 21:43:53 ip-172-31-14-104 prometheus[1052]: time=2024-11-13T21:43:53.699Z level=INFO source=head.go:723 msg="Replaying WAL, this may take a while" com
Nov 13 21:43:53 ip-172-31-14-104 prometheus[1052]: time=2024-11-13T21:43:53.699Z level=INFO source=head.go:795 msg="WAL segment loaded" component=tsdb segmen
Nov 13 21:43:53 ip-172-31-14-104 prometheus[1052]: time=2024-11-13T21:43:53.699Z level=INFO source=head.go:832 msg="WAL replay completed" component=tsdb chec
Nov 13 21:43:53 ip-172-31-14-104 prometheus[1052]: time=2024-11-13T21:43:53.701Z level=INFO source=main.go:1261 msg="filesystem information" fs_type=EXT4_SUP
Nov 13 21:43:53 ip-172-31-14-104 prometheus[1052]: time=2024-11-13T21:43:53.701Z level=INFO source=main.go:1264 msg="TSDB started"
Nov 13 21:43:53 ip-172-31-14-104 prometheus[1052]: time=2024-11-13T21:43:53.701Z level=INFO source=main.go:1447 msg="Loading configuration file" filename=/ro
Nov 13 21:43:53 ip-172-31-14-104 prometheus[1052]: time=2024-11-13T21:43:53.705Z level=INFO source=main.go:1486 msg="updated GOGC" old=100 new=75
Nov 13 21:43:53 ip-172-31-14-104 prometheus[1052]: time=2024-11-13T21:43:53.705Z level=INFO source=main.go:1496 msg="Completed loading of configuration file"
Nov 13 21:43:53 ip-172-31-14-104 prometheus[1052]: time=2024-11-13T21:43:53.705Z level=INFO source=main.go:1225 msg="Server is ready to receive web requests."
Nov 13 21:43:53 ip-172-31-14-104 prometheus[1052]: time=2024-11-13T21:43:53.705Z level=INFO source=manager.go:168 msg="Starting rule manager..." component="r
root@ip-172-31-14-104:~# systemctl enable prometheus
Created symlink /etc/systemd/system/multi-user.target.wants/prometheus.service → /etc/systemd/system/prometheus.service.
root@ip-172-31-14-104:~#
Remote monitoring
Follow terminal folder
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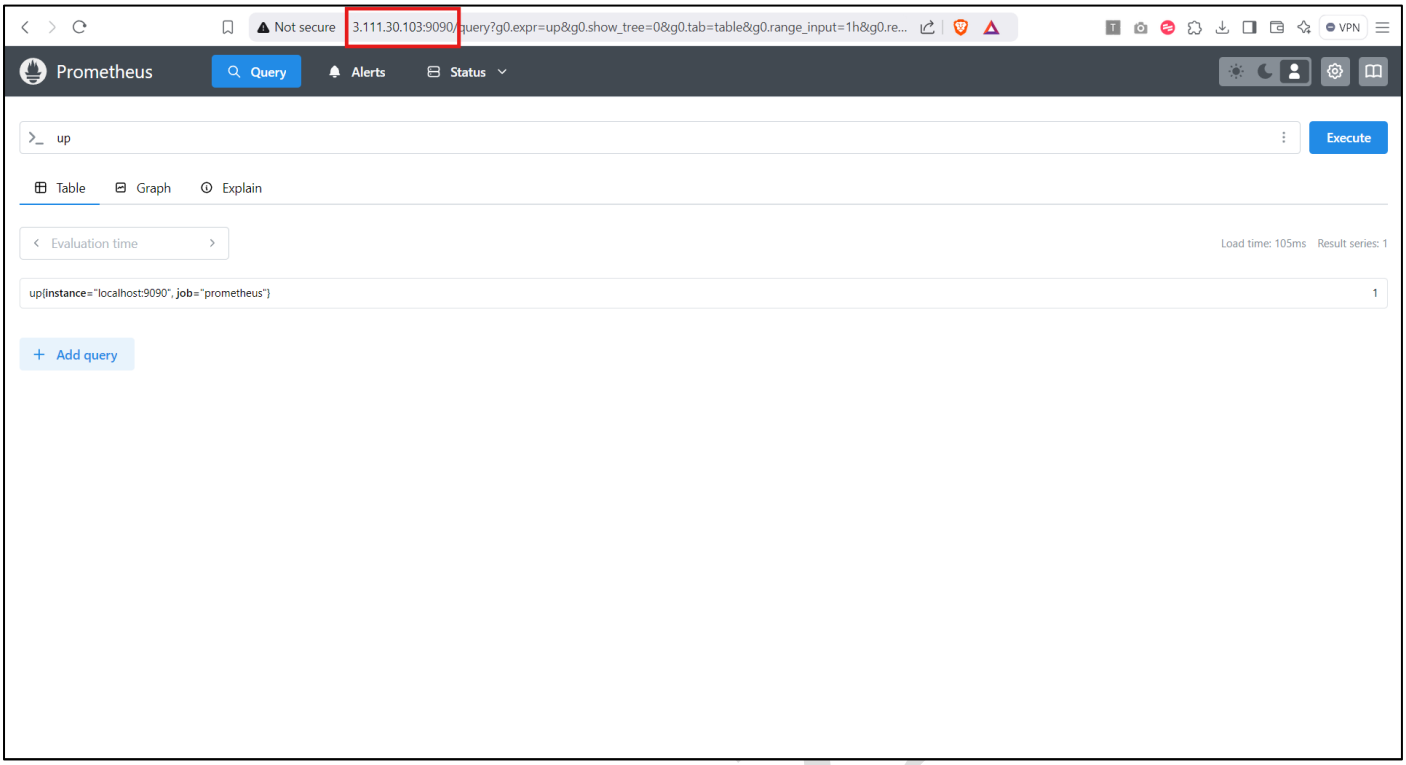
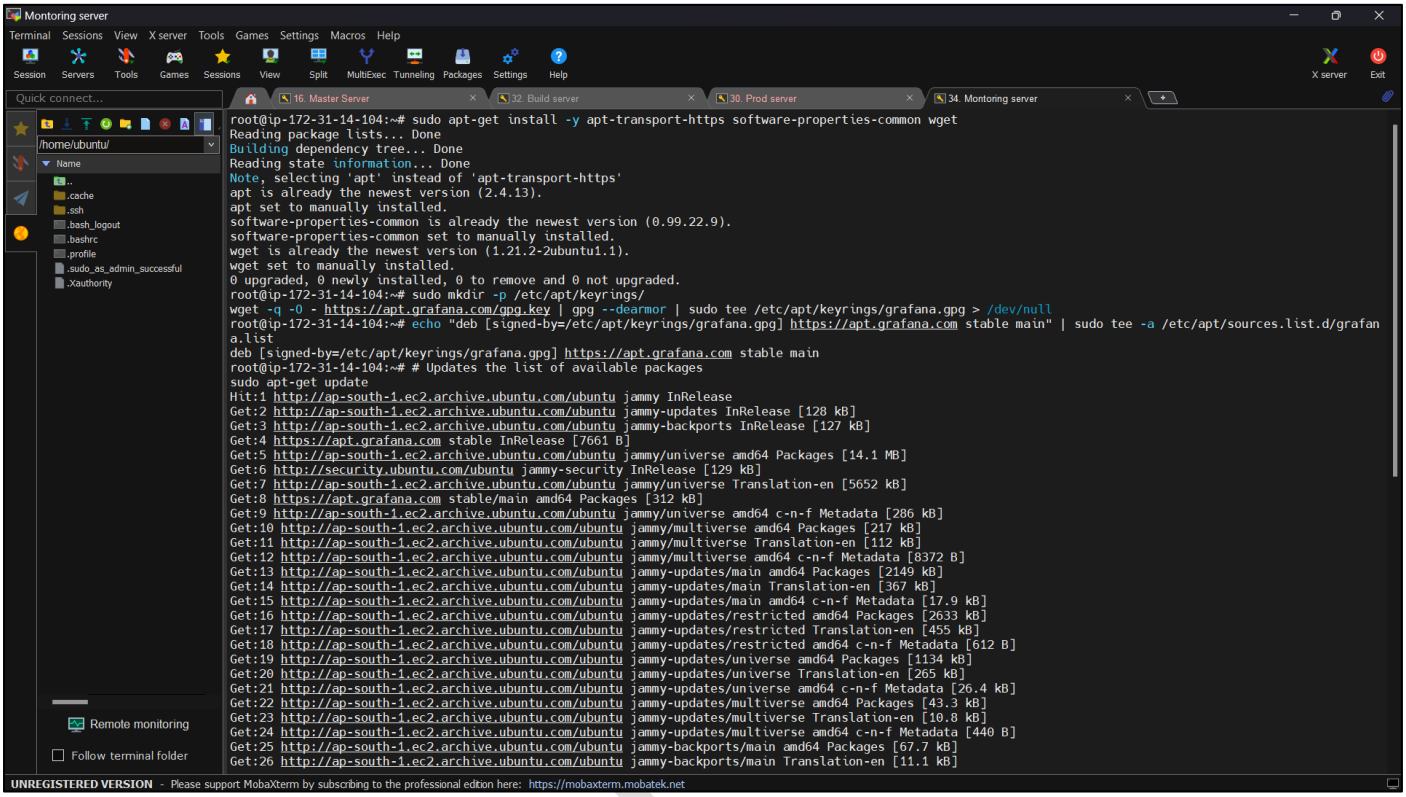
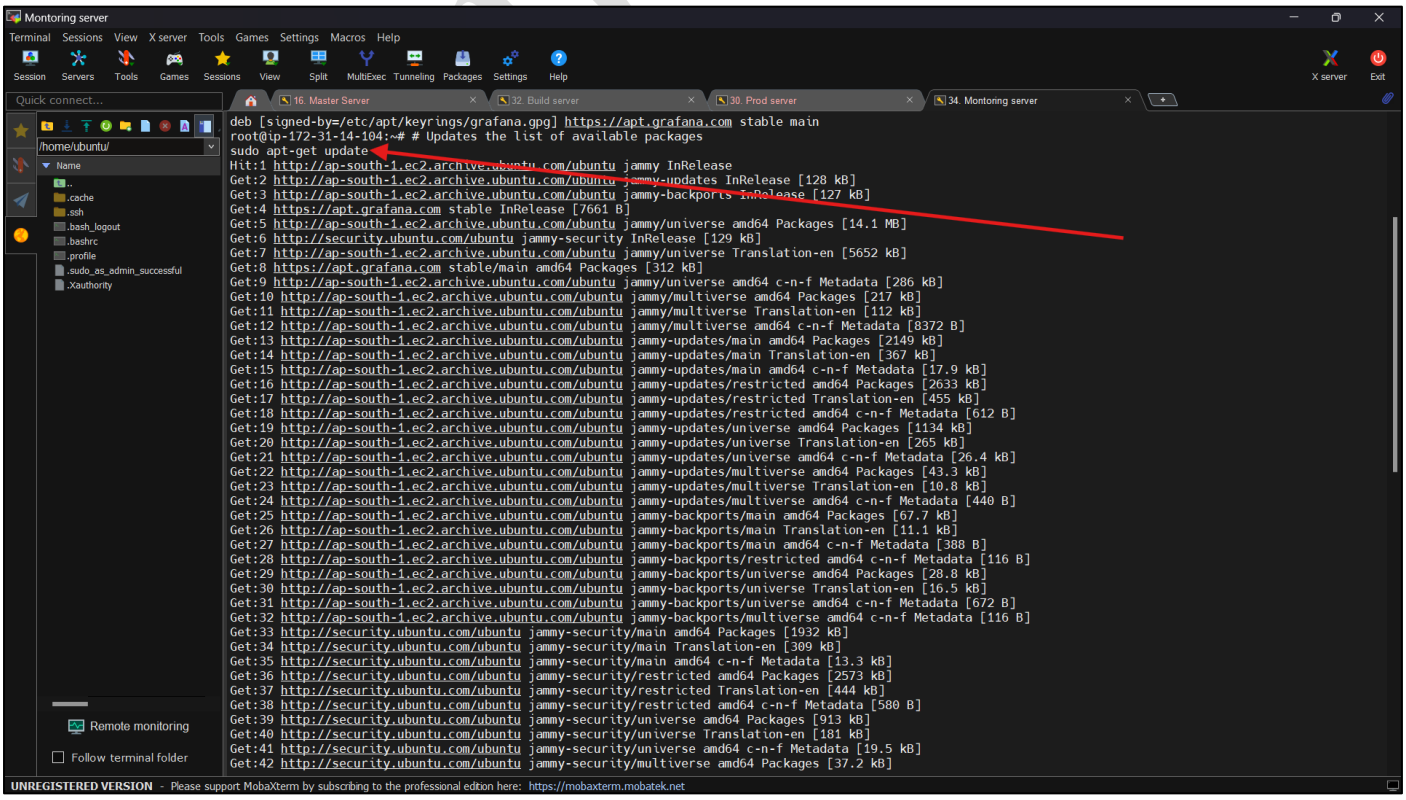


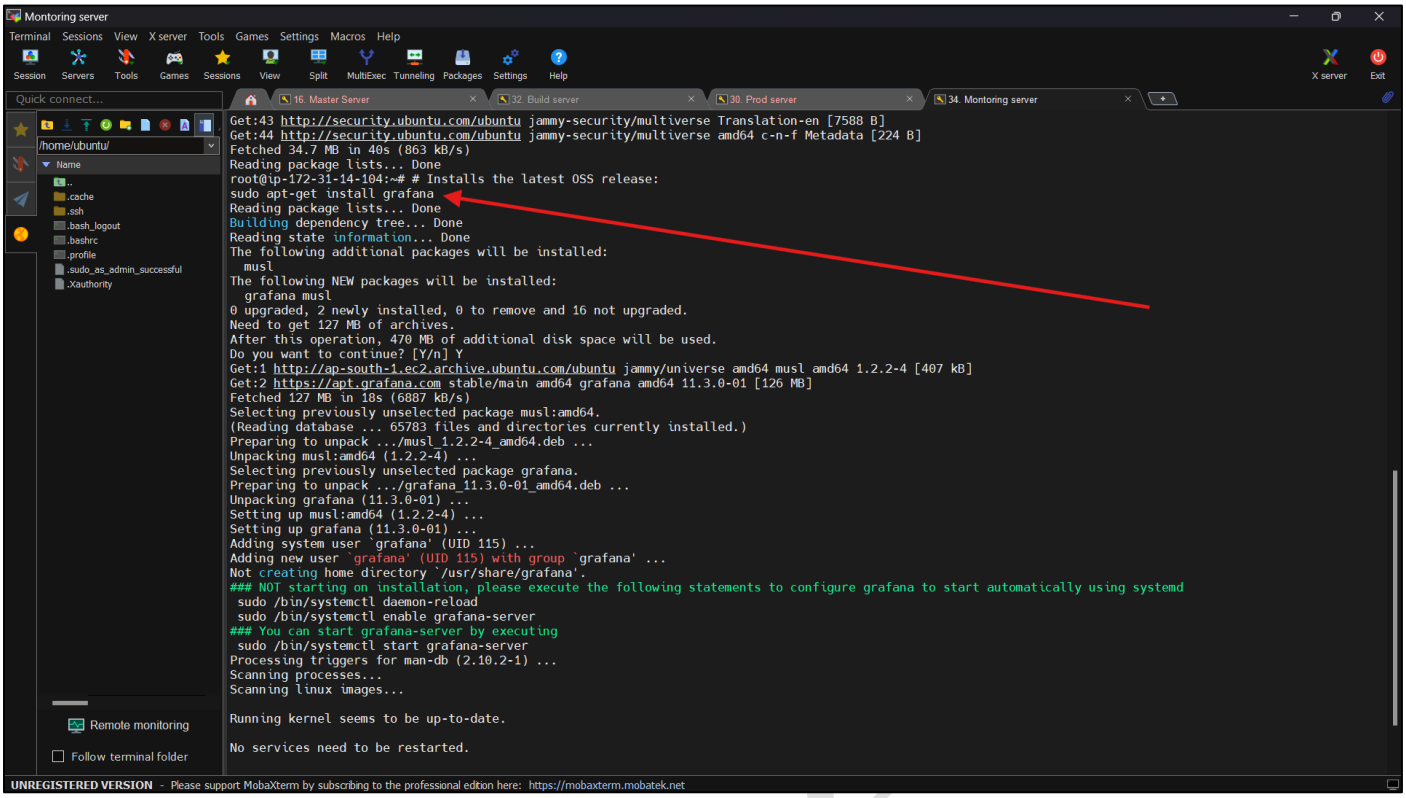
Step 2: Install Grafana on Monitoring server:

1. Follow the official guide at: https://grafana.com/docs/grafana/latest/setup-grafana/installation/debian/
2. Install the prerequisite packages ` sudo apt-get install -y apt-transport-https software-properties-common wget`
3. Import the GPG key ` sudo mkdir -p /etc/apt/keyrings/
   wget -q -O - https://apt.grafana.com/gpg.key | gpg --dearmor | sudo tee /etc/apt/keyrings/grafana.gpg > /dev/null`
4. To add a repository for stable releases, run the following command:
   ```
   echo "deb [signed-by=/etc/apt/keyrings/grafana.gpg] https://apt.grafana.com stable main" | sudo tee -a /etc/apt/sources.list.d/grafana.list
   ```
5. Run the following command to update the list of available packages:
   `sudo apt-get update`
6. To install Grafana OSS, run the following command:
   `sudo apt-get install grafana`
7. Enable Grafana service `systemctl enable grafana-server.service `

8. Open Grafana server on **<IP_Address>:3000**
9. Default Username: **admin** Default Password: **admin.** Use this to Login
10. Set new password






Montoring server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
16. Master Server
32. Build server
30. Prod server
34. Montoring server
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.Xauthority
Remote monitoring
Follow terminal folder
Get:43 http://security.ubuntu.com/ubuntu jammy-security/multiverse Translation-en [7588 B]
Get:44 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 c-n-f Metadata [224 B]
Fetched 34.7 MB in 40s (863 kB/s)
Reading package lists... Done
root@ip-172-31-14-104:~# # Installs the latest OSS release:
sudo apt-get install grafana
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
musl
The following NEW packages will be installed:
grafana musl
0 upgraded, 2 newly installed, 0 to remove and 16 not upgraded.
Need to get 127 MB of archives.
After this operation, 470 MB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 musl amd64 1.2.2-4 [407 kB]
Get:2 https://apt.grafana.com stable/main amd64 grafana amd64 11.3.0-01 [126 MB]
Fetched 127 MB in 18s (6887 kB/s)
Selecting previously unselected package musl:amd64.
(Reading database ... 65783 files and directories currently installed.)
Preparing to unpack .../musl_1.2.2-4_amd64.deb ...
Unpacking musl:amd64 (1.2.2-4) ...
Selecting previously unselected package grafana.
Preparing to unpack .../grafana_11.3.0-01_amd64.deb ...
Unpacking grafana (11.3.0-01) ...
Setting up musl:amd64 (1.2.2-4) ...
Setting up grafana (11.3.0-01) ...
Adding system user `grafana' (UID 115) ...
Adding new user `grafana' (UID 115) with group `grafana' ...
Not creating home directory `/usr/share/grafana'.
NOT starting on installation, please execute the following statements to configure grafana to start automatically using systemd
sudo /bin/systemctl daemon-reload
sudo /bin/systemctl enable grafana-server
You can start grafana-server by executing
sudo /bin/systemctl start grafana-server
Processing triggers for man-db (2.10.2-1) ...
Scanning processes...
Scanning linux images...
Running kernel seems to be up-to-date.
No services need to be restarted.
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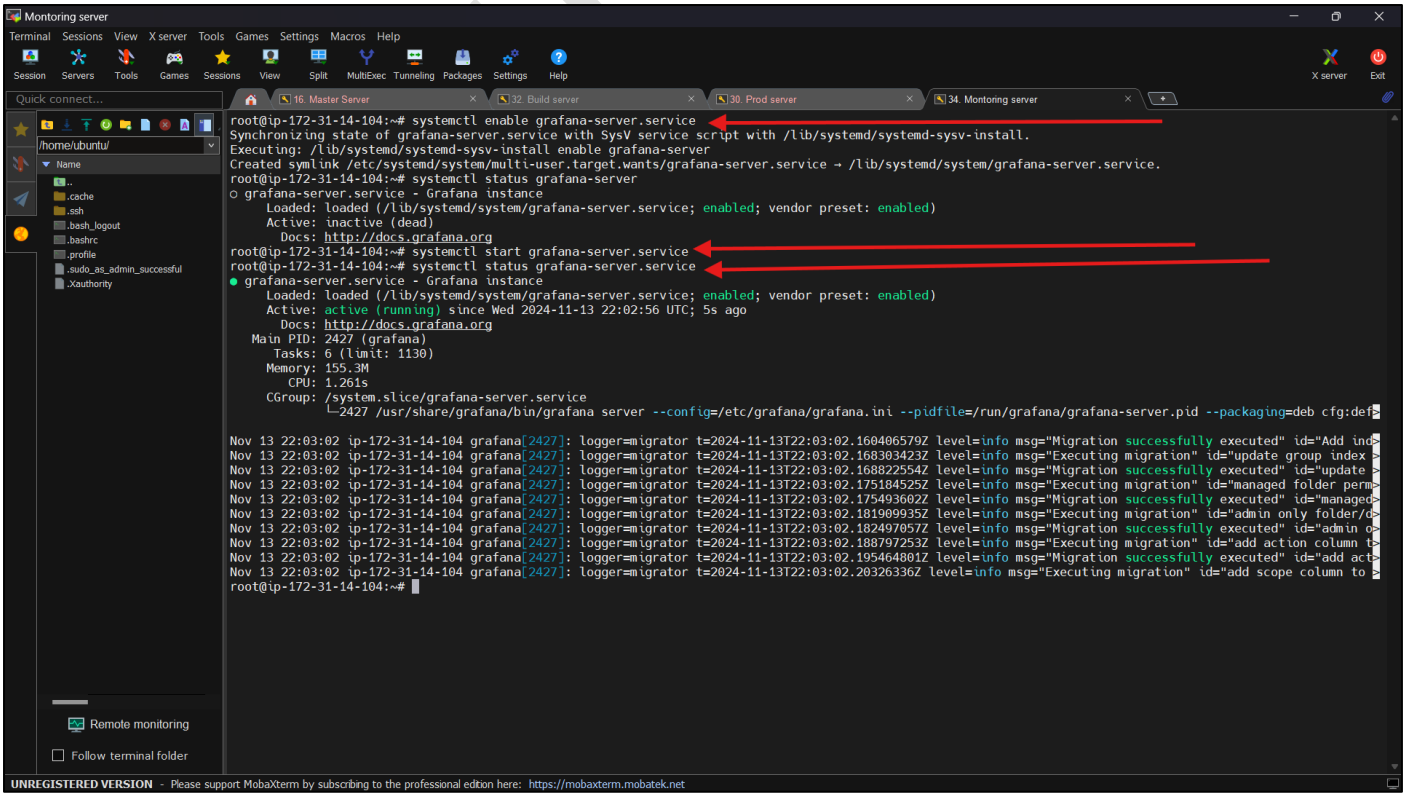
Montoring server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
16. Master Server
32. Build server
30. Prod server
34. Montoring server
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.Xauthority
Remote monitoring
Follow terminal folder
root@ip-172-31-14-104:~# systemctl enable grafana-server.service
Synchronizing state of grafana-server.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable grafana-server
Created symlink /etc/systemd/system/multi-user.target.wants/grafana-server.service → /lib/systemd/system/grafana-server.service.
root@ip-172-31-14-104:~# systemctl status grafana-server
○ grafana-server.service - Grafana instance
Loaded: loaded (/lib/systemd/system/grafana-server.service; enabled; vendor preset: enabled)
Active: inactive (dead)
Docs: http://docs.grafana.org
root@ip-172-31-14-104:~# systemctl start grafana-server.service
root@ip-172-31-14-104:~# systemctl status grafana-server.service
● grafana-server.service - Grafana instance
Loaded: loaded (/lib/systemd/system/grafana-server.service; enabled; vendor preset: enabled)
Active: active (running) since Wed 2024-11-13 22:02:56 UTC; 5s ago
Docs: http://docs.grafana.org
Main PID: 2427 (grafana)
Tasks: 6 (limit: 1130)
Memory: 155.3M
CPU: 1.261s
CGroup: /system.slice/grafana-server.service
└─2427 /usr/share/grafana/bin/grafana server --config=/etc/grafana/grafana.ini --pidfile=/run/grafana/grafana-server.pid --packaging=deb cfg:def
Nov 13 22:03:02 ip-172-31-14-104 grafana[2427]: logger=migrator t=2024-11-13T22:03:02.160406579Z level=info msg="Migration successfully executed" id="Add ind
Nov 13 22:03:02 ip-172-31-14-104 grafana[2427]: logger=migrator t=2024-11-13T22:03:02.168303423Z level=info msg="Executing migration" id="update group index
Nov 13 22:03:02 ip-172-31-14-104 grafana[2427]: logger=migrator t=2024-11-13T22:03:02.168822554Z level=info msg="Migration successfully executed" id="update
Nov 13 22:03:02 ip-172-31-14-104 grafana[2427]: logger=migrator t=2024-11-13T22:03:02.175184525Z level=info msg="Executing migration" id="managed folder perm
Nov 13 22:03:02 ip-172-31-14-104 grafana[2427]: logger=migrator t=2024-11-13T22:03:02.175493602Z level=info msg="Migration successfully executed" id="managed
Nov 13 22:03:02 ip-172-31-14-104 grafana[2427]: logger=migrator t=2024-11-13T22:03:02.181909935Z level=info msg="Executing migration" id="admin only folder/d
Nov 13 22:03:02 ip-172-31-14-104 grafana[2427]: logger=migrator t=2024-11-13T22:03:02.182497057Z level=info msg="Migration successfully executed" id="admin o
Nov 13 22:03:02 ip-172-31-14-104 grafana[2427]: logger=migrator t=2024-11-13T22:03:02.188797253Z level=info msg="Executing migration" id="add action column t
Nov 13 22:03:02 ip-172-31-14-104 grafana[2427]: logger=migrator t=2024-11-13T22:03:02.195464801Z level=info msg="Migration successfully executed" id="add act
Nov 13 22:03:02 ip-172-31-14-104 grafana[2427]: logger=migrator t=2024-11-13T22:03:02.20326336Z level=info msg="Executing migration" id="add scope column to
root@ip-172-31-14-104:~#
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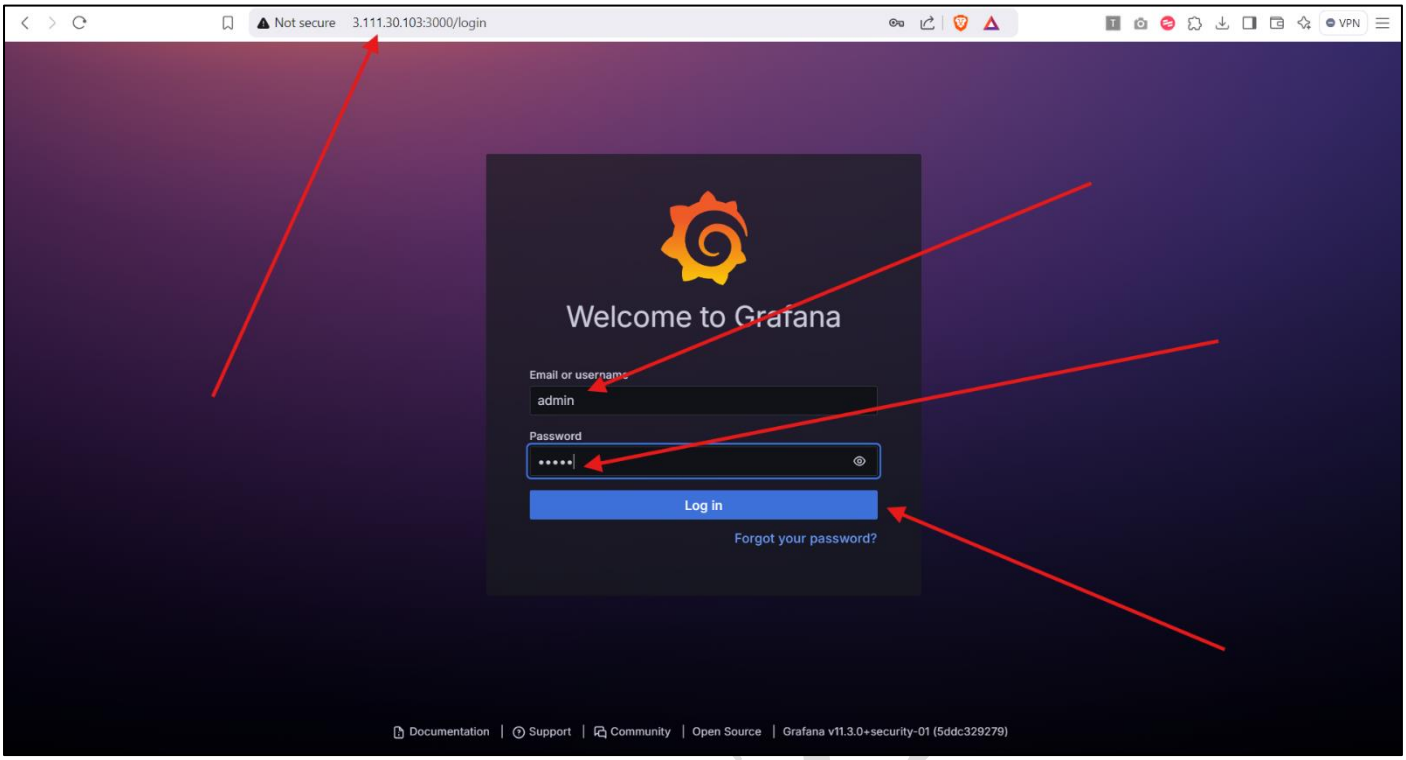
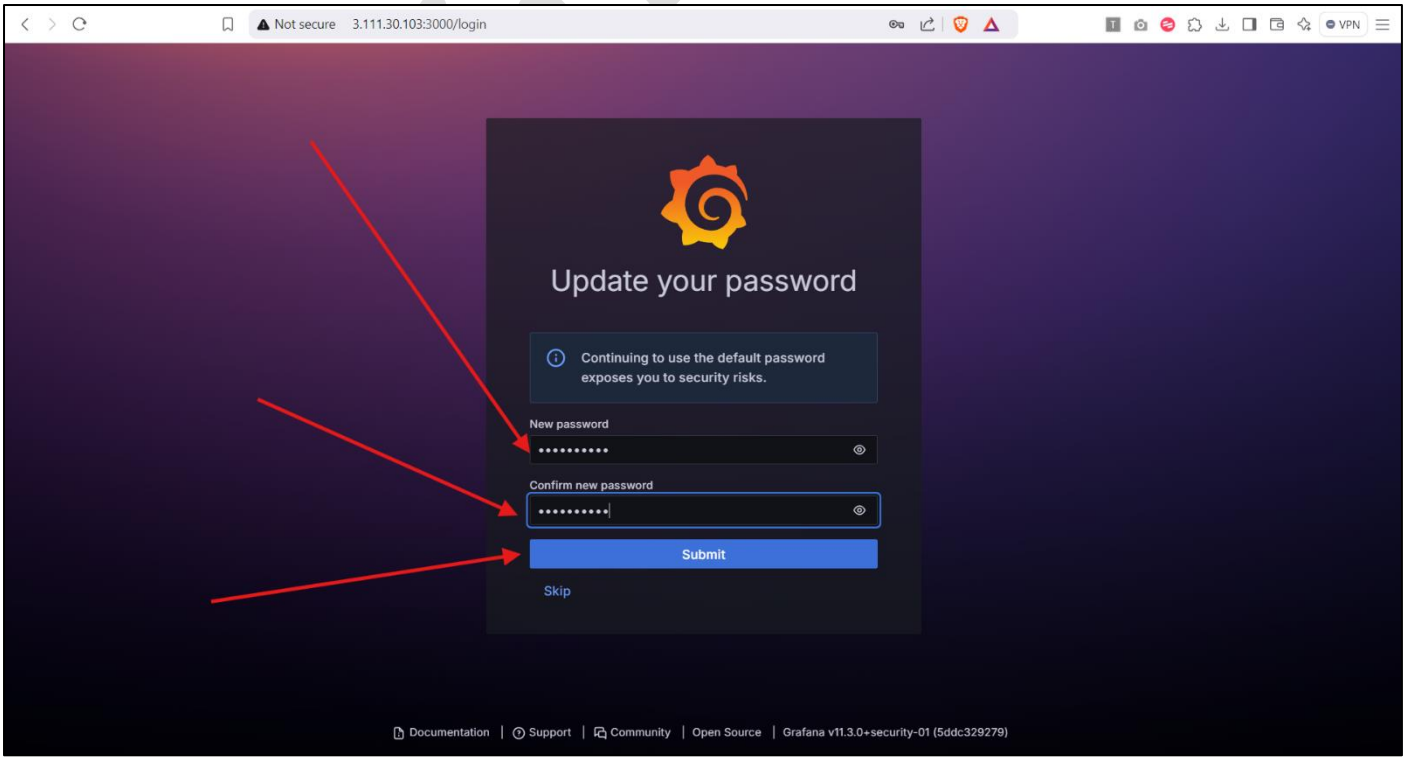
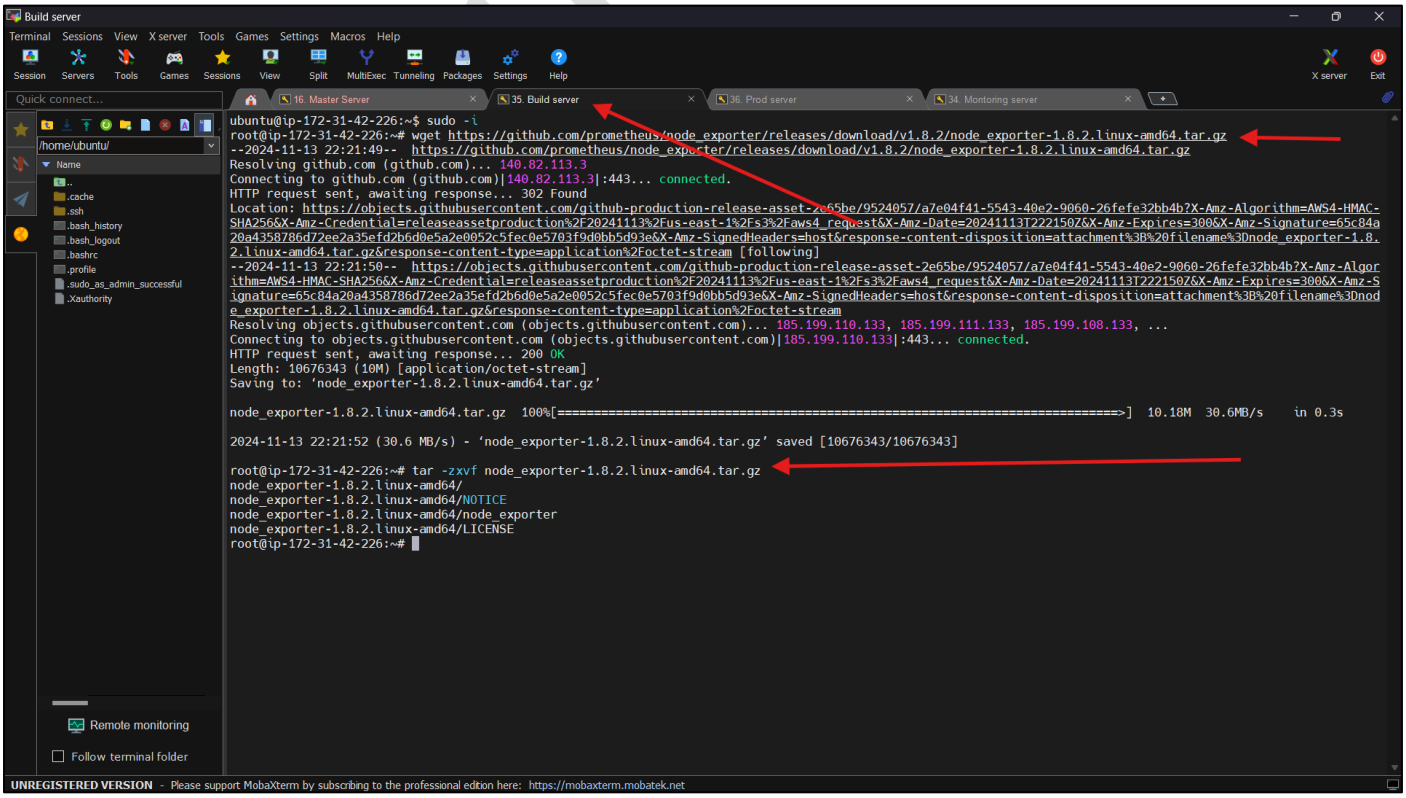
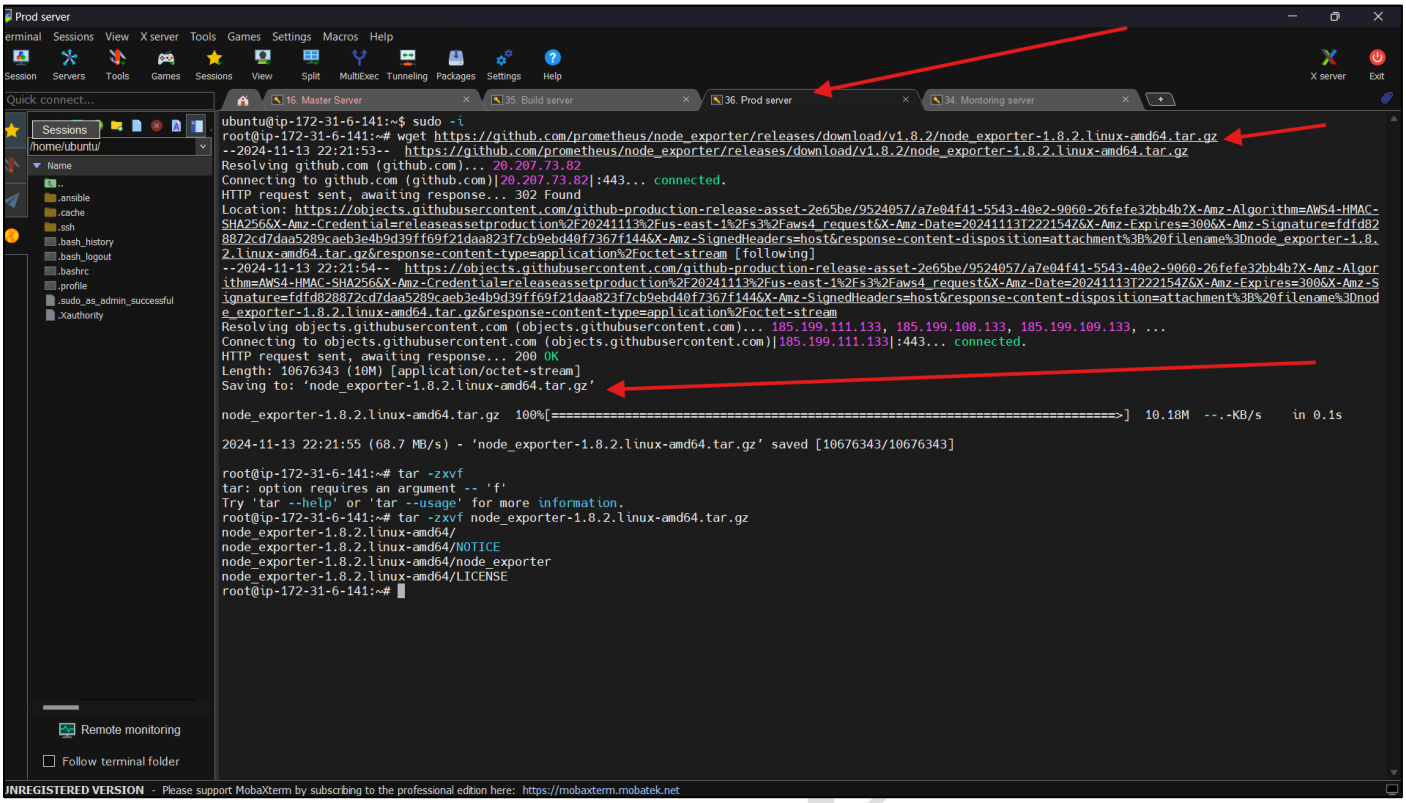

Not secure
3.111.30.103:3000/login
VPN
Welcome to Grafana
Email or username
admin
Password
Log in
Forgot your password?
Documentation
Support
Community
Open Source
Grafana v11.3.0+security-01 (5ddc329279)

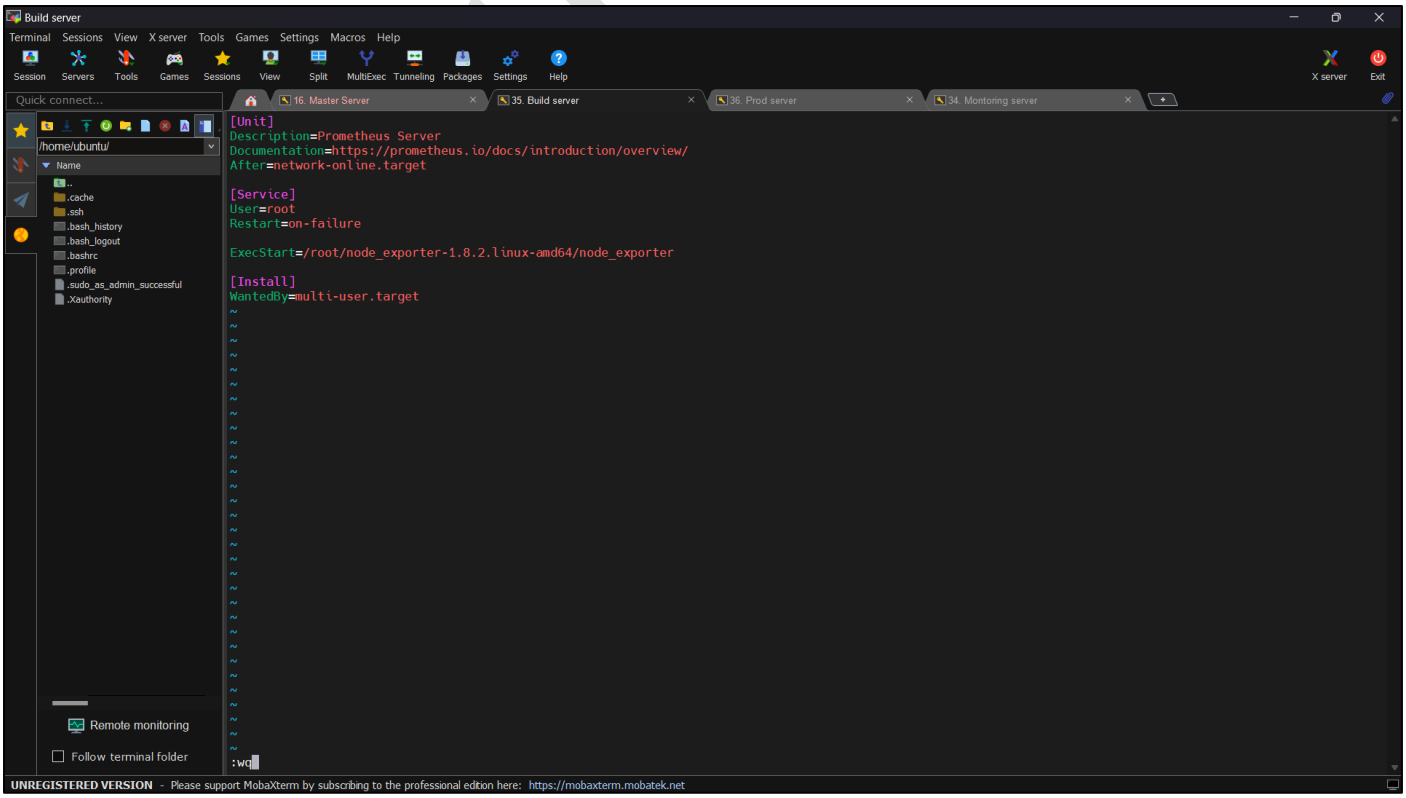

Not secure
3.111.30.103:3000/login
VPN
Update your password
Continuing to use the default password exposes you to security risks.
New password
Confirm new password
Submit
Skip
Documentation
Support
Community
Open Source
Grafana v11.3.0+security-01 (5ddc329279)

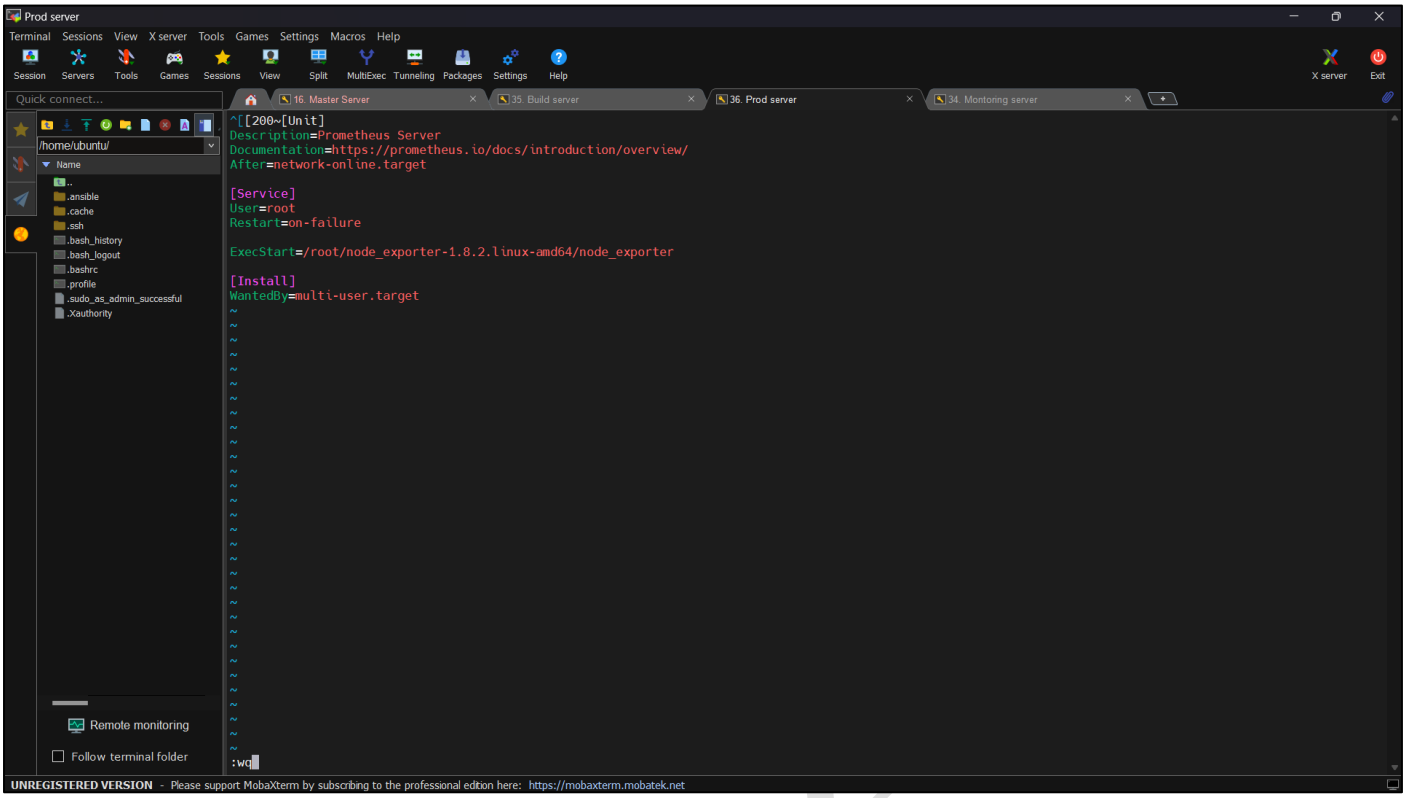
Step 3: Install Node exporter on both Build and Prod server:

1. SSH into both the instances
2. Download the pre-compile tar file from official repository https://github.com/prometheus/node_exporter/releases/download/v1.8.2/node_exporter-1.8.2.linux-amd64.tar.gz using command:
   `wget https://github.com/prometheus/node_exporter/releases/download/v1.8.2/node_exporter-1.8.2.linux-amd64.tar.gz `
3. Extract the tar file using command:
   `tar -zxvf node_exporter-1.8.2.linux-amd64.tar.gz `
4. Make Node exporter as a system service
5. Reload system daemon
6. Start the Node exporter service
7. Enable Node exporter service
8. Add both the servers(**Build** & **Prod**) as targets inside the **prometheus.yml** file in the Monitoring server
9. Restart Prometheus server
10. Check if both the servers are sending metrics or metrics are pulled by node exporter and being collected in **Prometheus** server




Prod server
ubuntu@ip-172-31-6-141:~$ sudo -i
root@ip-172-31-6-141:~# wget https://github.com/prometheus/node_exporter/releases/download/v1.8.2/node_exporter-1.8.2.linux-amd64.tar.gz
--2024-11-13 22:21:53-- https://github.com/prometheus/node_exporter/releases/download/v1.8.2/node_exporter-1.8.2.linux-amd64.tar.gz
Resolving github.com (github.com)... 20.207.73.82
Connecting to github.com (github.com)|20.207.73.82|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://objects.githubusercontent.com/github-production-release-asset-2e65be/9524057/a7e04f41-5543-40e2-9060-26fefe32bb4b?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20241113%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20241113T222154Z&X-Amz-Expires=300&X-Amz-Signature=fdfd828872cd7daa5289caeb3e4b9d39ff69f21daa823f7cb9ebd40f7367f144&X-Amz-SignedHeaders=host&response-content-disposition=attachment%3B%20filename%3Dnode_exporter-1.8.2.linux-amd64.tar.gz&response-content-type=application%2Foctet-stream [following]
--2024-11-13 22:21:54-- https://objects.githubusercontent.com/github-production-release-asset-2e65be/9524057/a7e04f41-5543-40e2-9060-26fefe32bb4b?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20241113%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20241113T222154Z&X-Amz-Expires=300&X-Amz-Signature=fdfd828872cd7daa5289caeb3e4b9d39ff69f21daa823f7cb9ebd40f7367f144&X-Amz-SignedHeaders=host&response-content-disposition=attachment%3B%20filename%3Dnode_exporter-1.8.2.linux-amd64.tar.gz&response-content-type=application%2Foctet-stream
Resolving objects.githubusercontent.com (objects.githubusercontent.com)... 185.199.111.133, 185.199.108.133, 185.199.109.133, ...
Connecting to objects.githubusercontent.com (objects.githubusercontent.com)|185.199.111.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 10676343 (10M) [application/octet-stream]
Saving to: 'node_exporter-1.8.2.linux-amd64.tar.gz'
node_exporter-1.8.2.linux-amd64.tar.gz 100%[=>] 10.18M --.-KB/s in 0.1s
2024-11-13 22:21:55 (68.7 MB/s) - 'node_exporter-1.8.2.linux-amd64.tar.gz' saved [10676343/10676343]
root@ip-172-31-6-141:~# tar -zxvf
tar: option requires an argument -- 'f'
Try 'tar --help' or 'tar --usage' for more information.
root@ip-172-31-6-141:~# tar -zxvf node_exporter-1.8.2.linux-amd64.tar.gz
node_exporter-1.8.2.linux-amd64/
node_exporter-1.8.2.linux-amd64/NOTICE
node_exporter-1.8.2.linux-amd64/node_exporter
node_exporter-1.8.2.linux-amd64/LICENSE
root@ip-172-31-6-141:~#
Remote monitoring
Follow terminal folder
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net


Build server
[Unit]
Description=Prometheus Server
Documentation=https://prometheus.io/docs/introduction/overview/
After=network-online.target
[Service]
User=root
Restart=on-failure
ExecStart=/root/node_exporter-1.8.2.linux-amd64/node_exporter
[Install]
WantedBy=multi-user.target
:wq
Remote monitoring
Follow terminal folder
UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: https://mobaxterm.mobatek.net


Prod server
Terminal Sessions View X server Tools Games Settings Macros Help
16. Master Server
35. Build server
36. Prod server
34. Monitoring server
/home/ubuntu/
[200~[Unit]
Description=Prometheus Server
Documentation=https://prometheus.io/docs/introduction/overview/
After=network-online.target
[Service]
User=root
Restart=on-failure
ExecStart=/root/node_exporter-1.8.2.linux-amd64/node_exporter
[Install]
WantedBy=multi-user.target
:wq
Remote monitoring
Follow terminal folder
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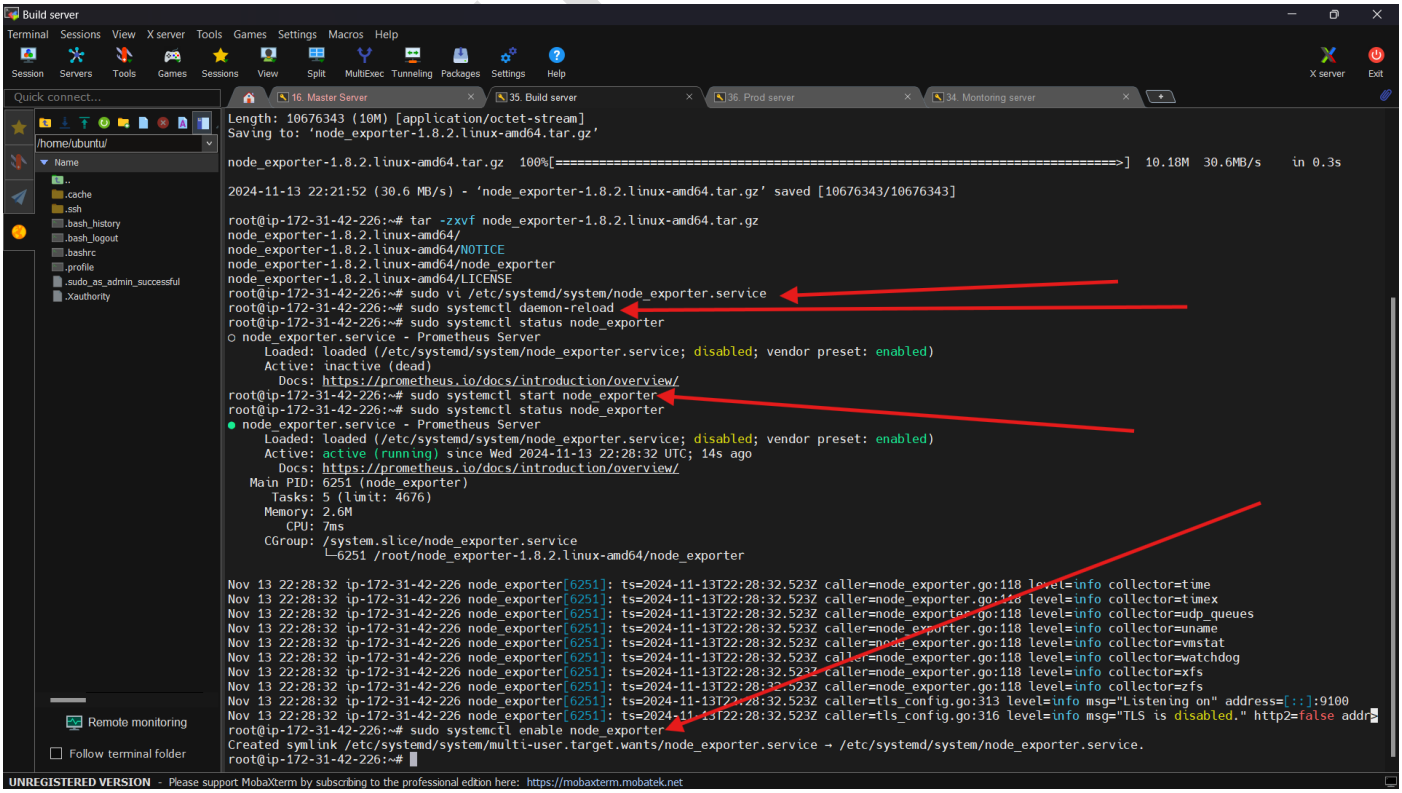
Build server
Length: 10676343 (10M) [application/octet-stream]
Saving to: 'node_exporter-1.8.2.linux-amd64.tar.gz'
node_exporter-1.8.2.linux-amd64.tar.gz 100%[=>] 10.18M 30.6MB/s in 0.3s
2024-11-13 22:21:52 (30.6 MB/s) - 'node_exporter-1.8.2.linux-amd64.tar.gz' saved [10676343/10676343]
root@ip-172-31-42-226:~# tar -zxvf node_exporter-1.8.2.linux-amd64.tar.gz
node_exporter-1.8.2.linux-amd64/
node_exporter-1.8.2.linux-amd64/NOTICE
node_exporter-1.8.2.linux-amd64/node_exporter
node_exporter-1.8.2.linux-amd64/LICENSE
root@ip-172-31-42-226:~# sudo vi /etc/systemd/system/node_exporter.service
root@ip-172-31-42-226:~# sudo systemctl daemon-reload
root@ip-172-31-42-226:~# sudo systemctl status node_exporter
○ node_exporter.service - Prometheus Server
Loaded: loaded (/etc/systemd/system/node_exporter.service; disabled; vendor preset: enabled)
Active: inactive (dead)
Docs: https://prometheus.io/docs/introduction/overview/
root@ip-172-31-42-226:~# sudo systemctl start node_exporter
root@ip-172-31-42-226:~# sudo systemctl status node_exporter
● node_exporter.service - Prometheus Server
Loaded: loaded (/etc/systemd/system/node_exporter.service; disabled; vendor preset: enabled)
Active: active (running) since Wed 2024-11-13 22:28:32 UTC; 14s ago
Docs: https://prometheus.io/docs/introduction/overview/
Main PID: 6251 (node_exporter)
Tasks: 5 (limit: 4676)
Memory: 2.6M
CPU: 7ms
CGroup: /system.slice/node_exporter.service
└─6251 /root/node_exporter-1.8.2.linux-amd64/node_exporter
Nov 13 22:28:32 ip-172-31-42-226 node_exporter[6251]: ts=2024-11-13T22:28:32.523Z caller=node_exporter.go:118 level=info collector=time
Nov 13 22:28:32 ip-172-31-42-226 node_exporter[6251]: ts=2024-11-13T22:28:32.523Z caller=node_exporter.go:118 level=info collector=timex
Nov 13 22:28:32 ip-172-31-42-226 node_exporter[6251]: ts=2024-11-13T22:28:32.523Z caller=node_exporter.go:118 level=info collector=udp_queues
Nov 13 22:28:32 ip-172-31-42-226 node_exporter[6251]: ts=2024-11-13T22:28:32.523Z caller=node_exporter.go:118 level=info collector=uname
Nov 13 22:28:32 ip-172-31-42-226 node_exporter[6251]: ts=2024-11-13T22:28:32.523Z caller=node_exporter.go:118 level=info collector=vmstat
Nov 13 22:28:32 ip-172-31-42-226 node_exporter[6251]: ts=2024-11-13T22:28:32.523Z caller=node_exporter.go:118 level=info collector=watchdog
Nov 13 22:28:32 ip-172-31-42-226 node_exporter[6251]: ts=2024-11-13T22:28:32.523Z caller=node_exporter.go:118 level=info collector=xfs
Nov 13 22:28:32 ip-172-31-42-226 node_exporter[6251]: ts=2024-11-13T22:28:32.523Z caller=node_exporter.go:118 level=info collector=zfs
Nov 13 22:28:32 ip-172-31-42-226 node_exporter[6251]: ts=2024-11-13T22:28:32.523Z caller=tls_config.go:313 level=info msg="Listening on" address=[::]:9100
Nov 13 22:28:32 ip-172-31-42-226 node_exporter[6251]: ts=2024-11-13T22:28:32.523Z caller=tls_config.go:316 level=info msg="TLS is disabled." http2=false addr
root@ip-172-31-42-226:~# sudo systemctl enable node_exporter
Created symlink /etc/systemd/system/multi-user.target.wants/node_exporter.service → /etc/systemd/system/node_exporter.service.
root@ip-172-31-42-226:~#
Remote monitoring
Follow terminal folder
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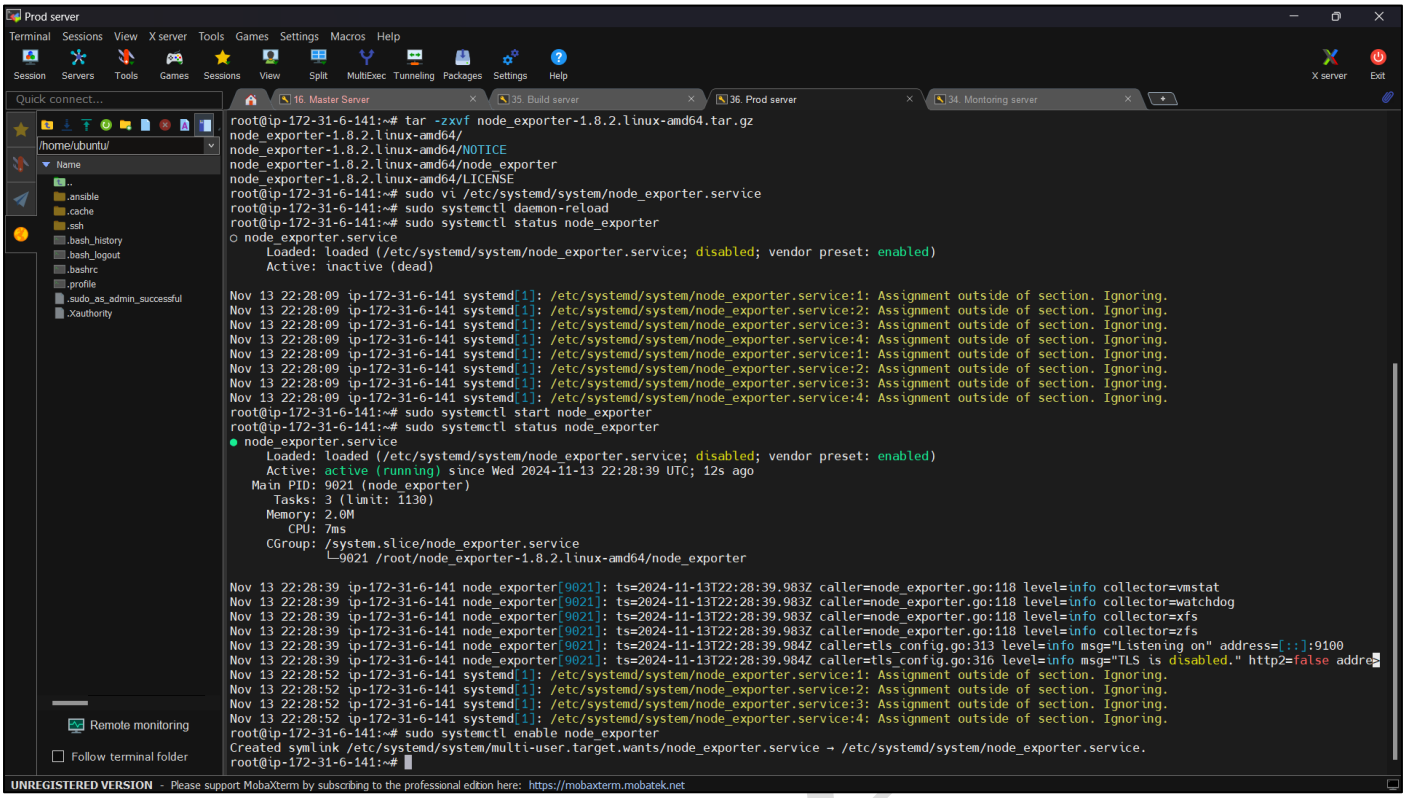
Prod server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
16. Master Server
35. Build server
36. Prod server
34. Montoring server
/home/ubuntu/
Name
.ansible
.cache
.ssh
.bash_history
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.Xauthority
Remote monitoring
Follow terminal folder
root@ip-172-31-6-141:~# tar -zxvf node_exporter-1.8.2.linux-amd64.tar.gz
node_exporter-1.8.2.linux-amd64/
node_exporter-1.8.2.linux-amd64/NOTICE
node_exporter-1.8.2.linux-amd64/node_exporter
node_exporter-1.8.2.linux-amd64/LICENSE
root@ip-172-31-6-141:~# sudo vi /etc/systemd/system/node_exporter.service
root@ip-172-31-6-141:~# sudo systemctl daemon-reload
root@ip-172-31-6-141:~# sudo systemctl status node_exporter
○ node_exporter.service
Loaded: loaded (/etc/systemd/system/node_exporter.service; disabled; vendor preset: enabled)
Active: inactive (dead)
Nov 13 22:28:09 ip-172-31-6-141 systemd[1]: /etc/systemd/system/node_exporter.service:1: Assignment outside of section. Ignoring.
Nov 13 22:28:09 ip-172-31-6-141 systemd[1]: /etc/systemd/system/node_exporter.service:2: Assignment outside of section. Ignoring.
Nov 13 22:28:09 ip-172-31-6-141 systemd[1]: /etc/systemd/system/node_exporter.service:3: Assignment outside of section. Ignoring.
Nov 13 22:28:09 ip-172-31-6-141 systemd[1]: /etc/systemd/system/node_exporter.service:4: Assignment outside of section. Ignoring.
Nov 13 22:28:09 ip-172-31-6-141 systemd[1]: /etc/systemd/system/node_exporter.service:1: Assignment outside of section. Ignoring.
Nov 13 22:28:09 ip-172-31-6-141 systemd[1]: /etc/systemd/system/node_exporter.service:2: Assignment outside of section. Ignoring.
Nov 13 22:28:09 ip-172-31-6-141 systemd[1]: /etc/systemd/system/node_exporter.service:3: Assignment outside of section. Ignoring.
Nov 13 22:28:09 ip-172-31-6-141 systemd[1]: /etc/systemd/system/node_exporter.service:4: Assignment outside of section. Ignoring.
root@ip-172-31-6-141:~# sudo systemctl start node_exporter
root@ip-172-31-6-141:~# sudo systemctl status node_exporter
● node_exporter.service
Loaded: loaded (/etc/systemd/system/node_exporter.service; disabled; vendor preset: enabled)
Active: active (running) since Wed 2024-11-13 22:28:39 UTC; 12s ago
Main PID: 9021 (node_exporter)
Tasks: 3 (limit: 1130)
Memory: 2.0M
CPU: 7ms
CGroup: /system.slice/node_exporter.service
└─9021 /root/node_exporter-1.8.2.linux-amd64/node_exporter
Nov 13 22:28:39 ip-172-31-6-141 node_exporter[9021]: ts=2024-11-13T22:28:39.983Z caller=node_exporter.go:118 level=info collector=vmstat
Nov 13 22:28:39 ip-172-31-6-141 node_exporter[9021]: ts=2024-11-13T22:28:39.983Z caller=node_exporter.go:118 level=info collector=watchdog
Nov 13 22:28:39 ip-172-31-6-141 node_exporter[9021]: ts=2024-11-13T22:28:39.983Z caller=node_exporter.go:118 level=info collector=xfs
Nov 13 22:28:39 ip-172-31-6-141 node_exporter[9021]: ts=2024-11-13T22:28:39.983Z caller=node_exporter.go:118 level=info collector=zfs
Nov 13 22:28:39 ip-172-31-6-141 node_exporter[9021]: ts=2024-11-13T22:28:39.984Z caller=tls_config.go:313 level=info msg="Listening on" address=[::]:9100
Nov 13 22:28:39 ip-172-31-6-141 node_exporter[9021]: ts=2024-11-13T22:28:39.984Z caller=tls_config.go:316 level=info msg="TLS is disabled." http2=false addre
Nov 13 22:28:52 ip-172-31-6-141 systemd[1]: /etc/systemd/system/node_exporter.service:1: Assignment outside of section. Ignoring.
Nov 13 22:28:52 ip-172-31-6-141 systemd[1]: /etc/systemd/system/node_exporter.service:2: Assignment outside of section. Ignoring.
Nov 13 22:28:52 ip-172-31-6-141 systemd[1]: /etc/systemd/system/node_exporter.service:3: Assignment outside of section. Ignoring.
Nov 13 22:28:52 ip-172-31-6-141 systemd[1]: /etc/systemd/system/node_exporter.service:4: Assignment outside of section. Ignoring.
root@ip-172-31-6-141:~# sudo systemctl enable node_exporter
Created symlink /etc/systemd/system/multi-user.target.wants/node_exporter.service → /etc/systemd/system/node_exporter.service.
root@ip-172-31-6-141:~#
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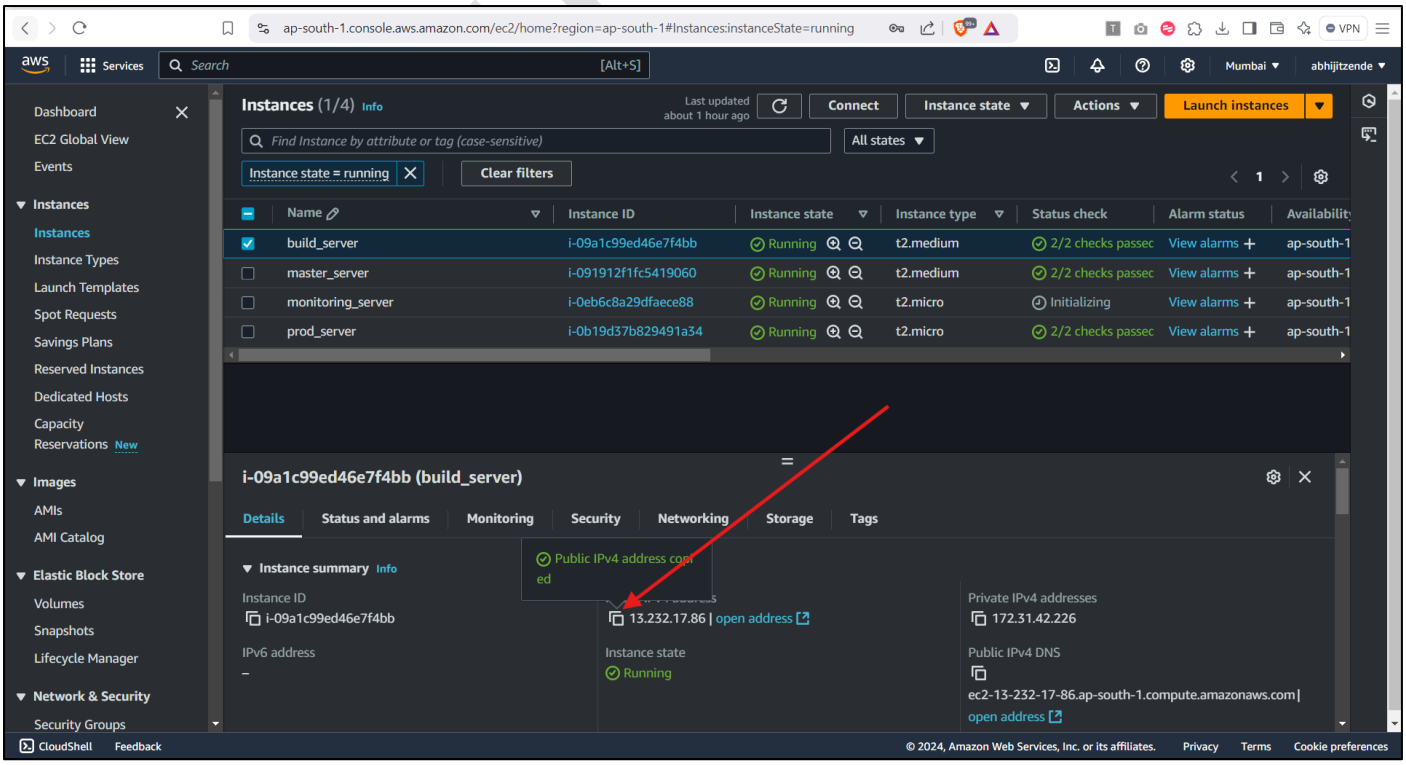
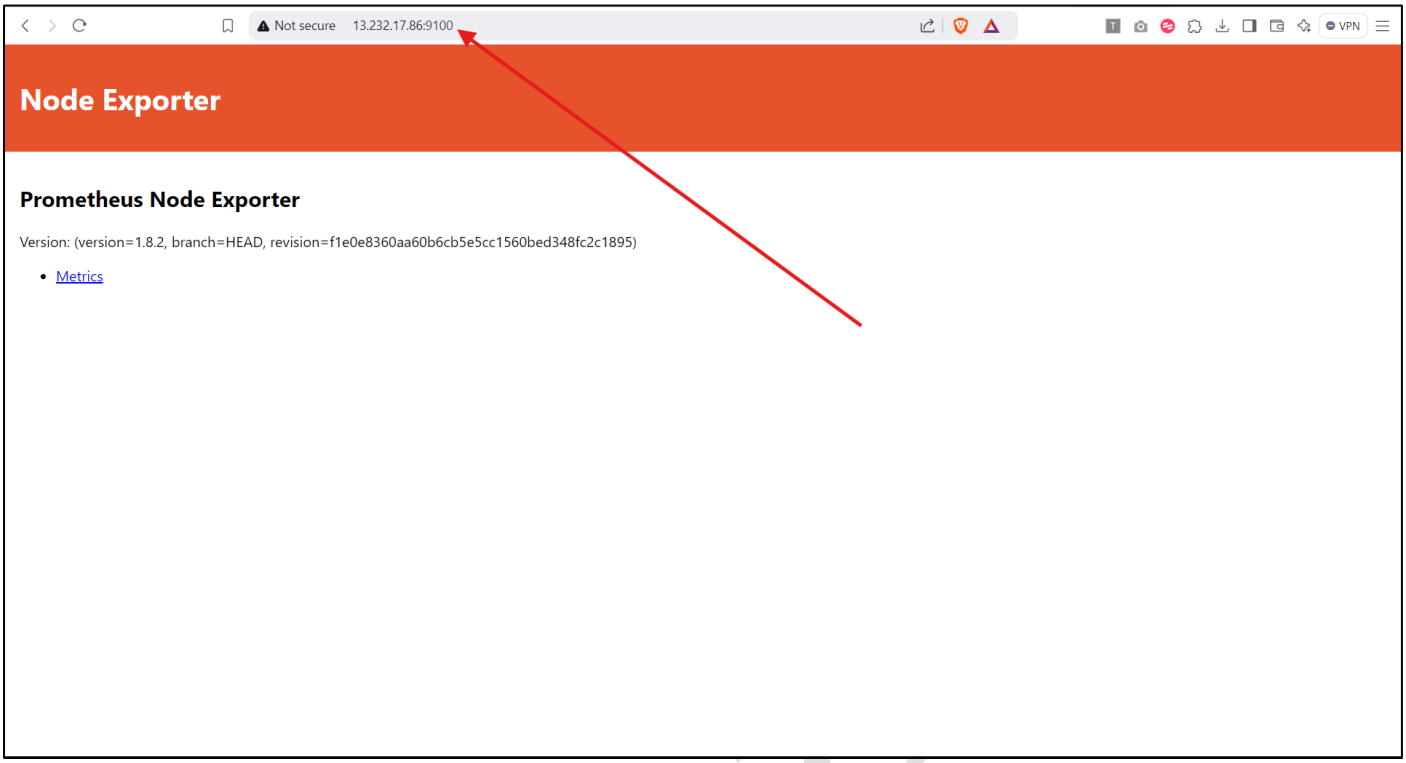
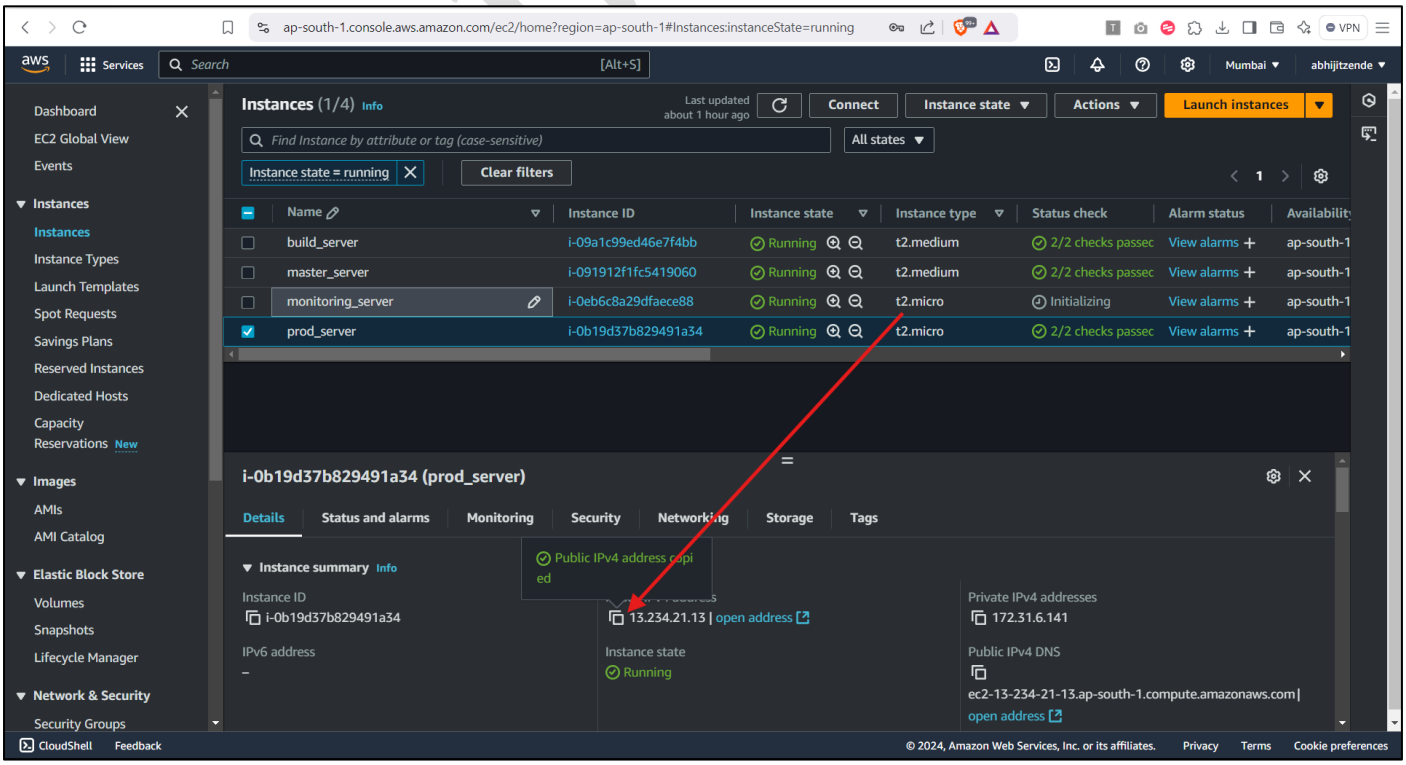
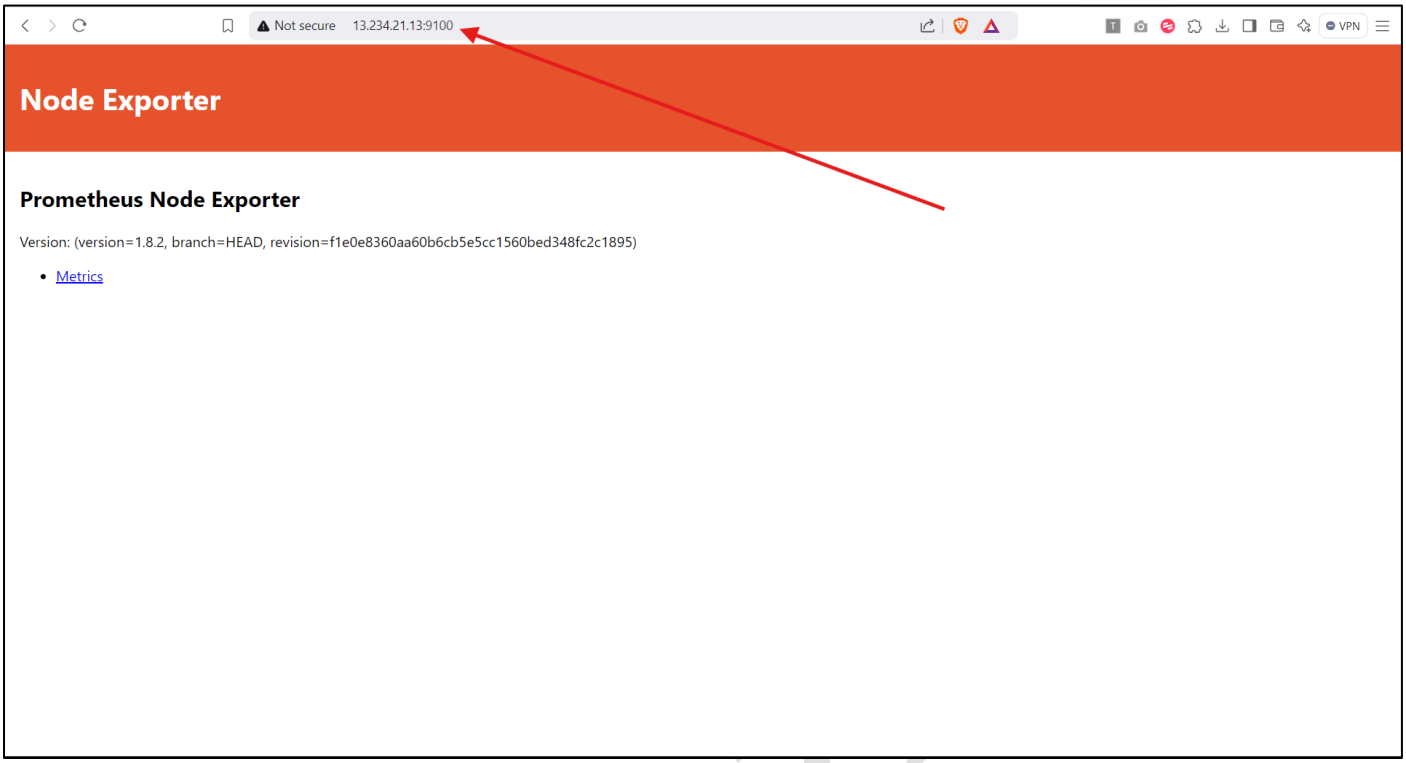
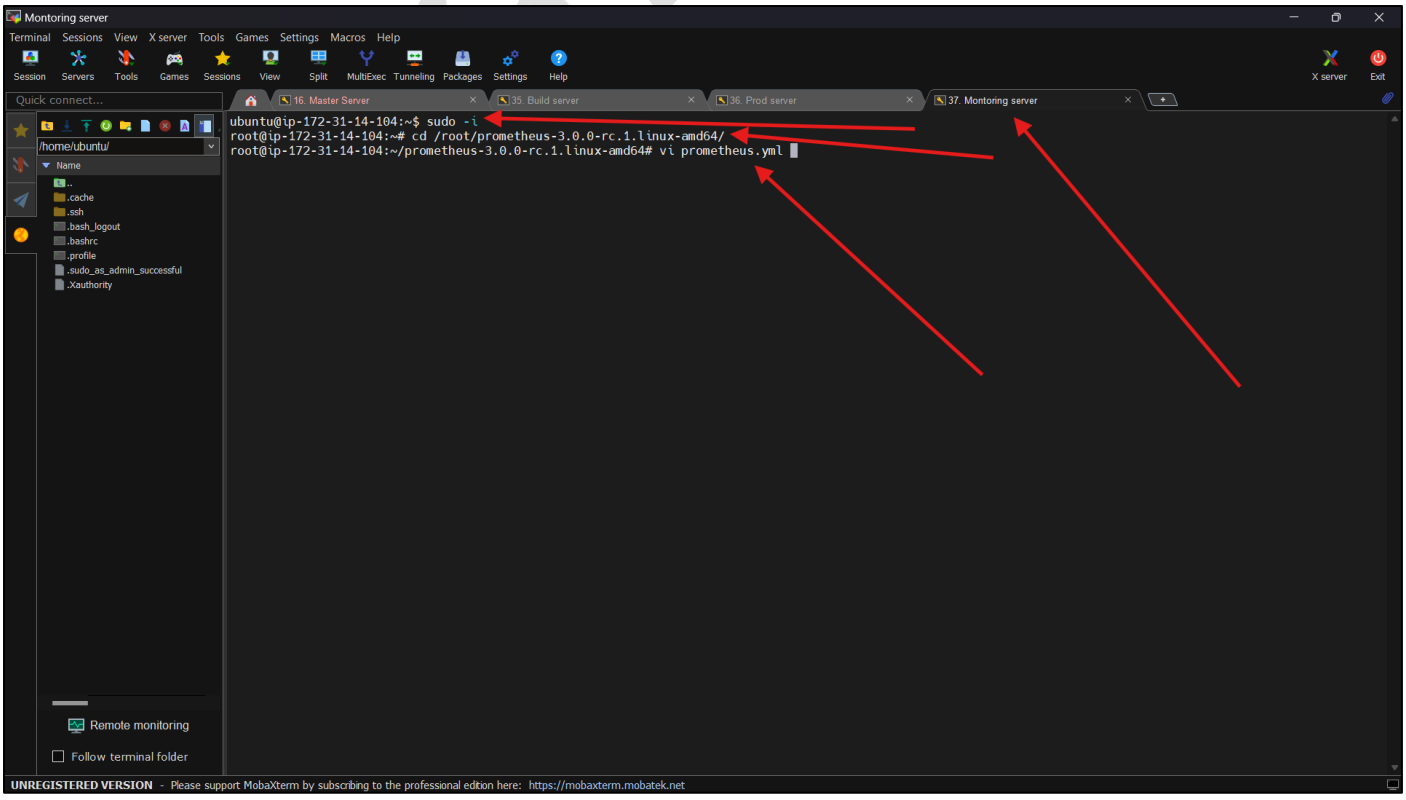

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#Instances:instanceState=running
aws Services Search [Alt+S]
Mumbai abhijitzende
Dashboard
EC2 Global View
Events
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations New
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Network & Security
Security Groups
Instances (1/4) Info
Last updated about 1 hour ago
Connect
Instance state
Actions
Launch instances
Find Instance by attribute or tag (case-sensitive)
All states
Instance state = running
Clear filters
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
build_server i-09a1c99ed46e7f4bb Running t2.medium 2/2 checks passec View alarms ap-south-1
master_server i-091912f1fc5419060 Running t2.medium 2/2 checks passec View alarms ap-south-1
monitoring_server i-0eb6c8a29dfaece88 Running t2.micro Initializing View alarms ap-south-1
prod_server i-0b19d37b829491a34 Running t2.micro 2/2 checks passec View alarms ap-south-1
i-09a1c99ed46e7f4bb (build_server)
Details
Status and alarms
Monitoring
Security
Networking
Storage
Tags
Instance summary Info
Public IPv4 address
Instance ID
i-09a1c99ed46e7f4bb
13.232.17.86 | open address
Private IPv4 addresses
172.31.42.226
IPv6 address
Instance state
Running
Public IPv4 DNS
ec2-13-232-17-86.ap-south-1.compute.amazonaws.com | open address
CloudShell Feedback
© 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences


Not secure 13.232.17.86:9100
Node Exporter
Prometheus Node Exporter
Version: (version=1.8.2, branch=HEAD, revision=f1e0e8360aa60b6cb5e5cc1560bed348fc2c1895)
Metrics


ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#Instances:instanceState=running
Instances (1/4) Info
Connect
Instance state
Actions
Launch instances
Instance state = running
Clear filters
build_server i-09a1c99ed46e7f4bb Running t2.medium 2/2 checks passec
master_server i-091912f1fc5419060 Running t2.medium 2/2 checks passec
monitoring_server i-0eb6c8a29dfaece88 Running t2.micro Initializing
prod_server i-0b19d37b829491a34 Running t2.micro 2/2 checks passec
i-0b19d37b829491a34 (prod_server)
Details
Status and alarms
Monitoring
Security
Networking
Storage
Tags
Instance summary Info
Instance ID
i-0b19d37b829491a34
13.234.21.13 | open address
172.31.6.141
Instance state
Running
ec2-13-234-21-13.ap-south-1.compute.amazonaws.com
open address


Not secure 13.234.21.13:9100
Node Exporter
Prometheus Node Exporter
Version: (version=1.8.2, branch=HEAD, revision=f1e0e8360aa60b6cb5e5cc1560bed348fc2c1895)
Metrics


Monitoring server
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
X server Exit
Quick connect...
16. Master Server
35. Build server
36. Prod server
37. Monitoring server
/home/ubuntu/
Name
.cache
.ssh
.bash_logout
.bashrc
.profile
.sudo_as_admin_successful
.Xauthority
ubuntu@ip-172-31-14-104:~$ sudo -i
root@ip-172-31-14-104:~# cd /root/prometheus-3.0.0-rc.1.linux-amd64/
root@ip-172-31-14-104:~/prometheus-3.0.0-rc.1.linux-amd64# vi prometheus.yml
Remote monitoring
Follow terminal folder
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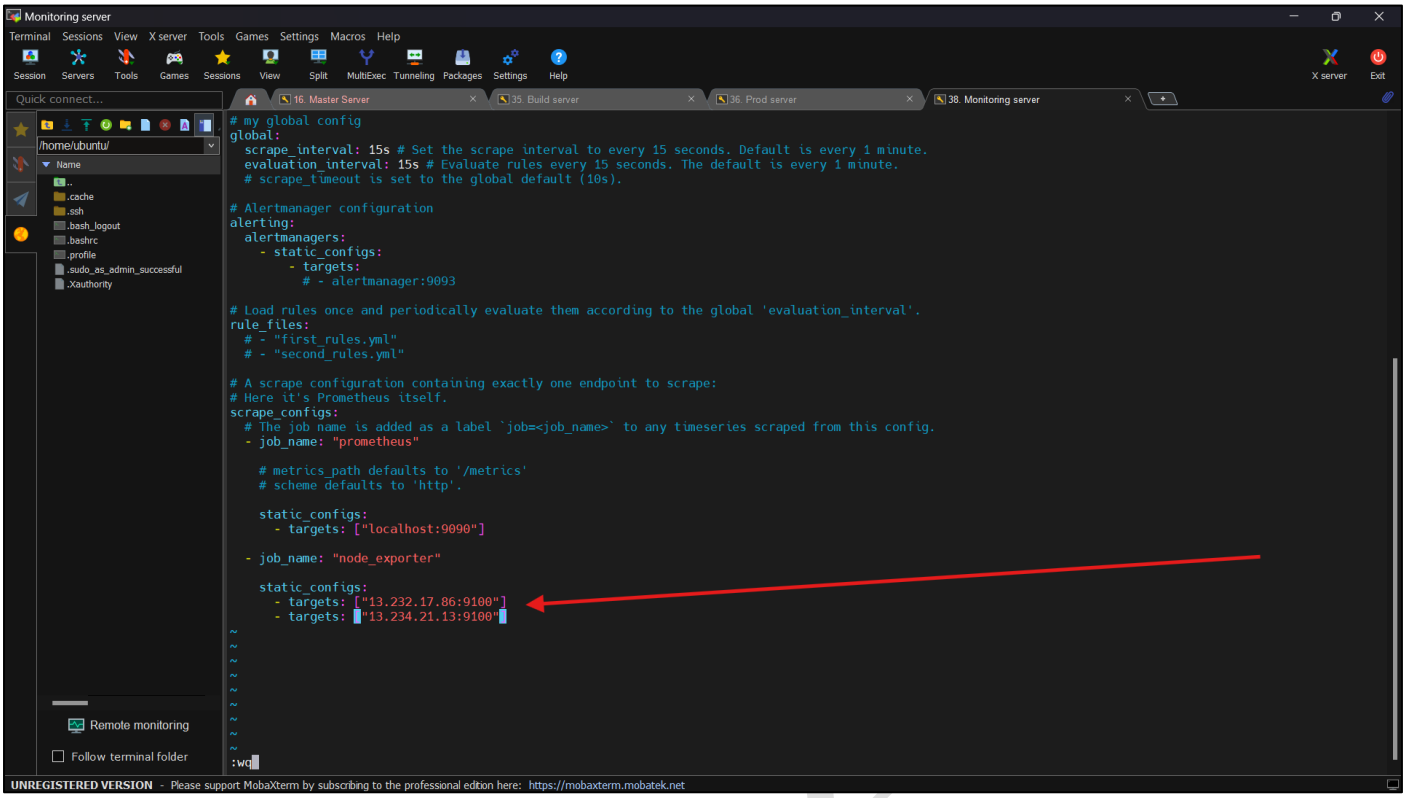
Monitoring server
Terminal Sessions View X server Tools Games Settings Macros Help
16. Master Server
35. Build server
36. Prod server
38. Monitoring server
/home/ubuntu/
my global config
global:
scrape_interval: 15s # Set the scrape interval to every 15 seconds. Default is every 1 minute.
evaluation_interval: 15s # Evaluate rules every 15 seconds. The default is every 1 minute.
scrape_timeout is set to the global default (10s).
Alertmanager configuration
alerting:
alertmanagers:
- static_configs:
- targets:
- alertmanager:9093
Load rules once and periodically evaluate them according to the global 'evaluation_interval'.
rule_files:
- "first_rules.yml"
- "second_rules.yml"
A scrape configuration containing exactly one endpoint to scrape:
Here it's Prometheus itself.
scrape_configs:
The job name is added as a label `job=<job_name>` to any timeseries scraped from this config.
- job_name: "prometheus"
metrics_path defaults to '/metrics'
scheme defaults to 'http'.
static_configs:
- targets: ["localhost:9090"]
- job_name: "node_exporter"
static_configs:
- targets: ["13.232.17.86:9100"]
- targets: ["13.234.21.13:9100"]
:wq
Remote monitoring
Follow terminal folder
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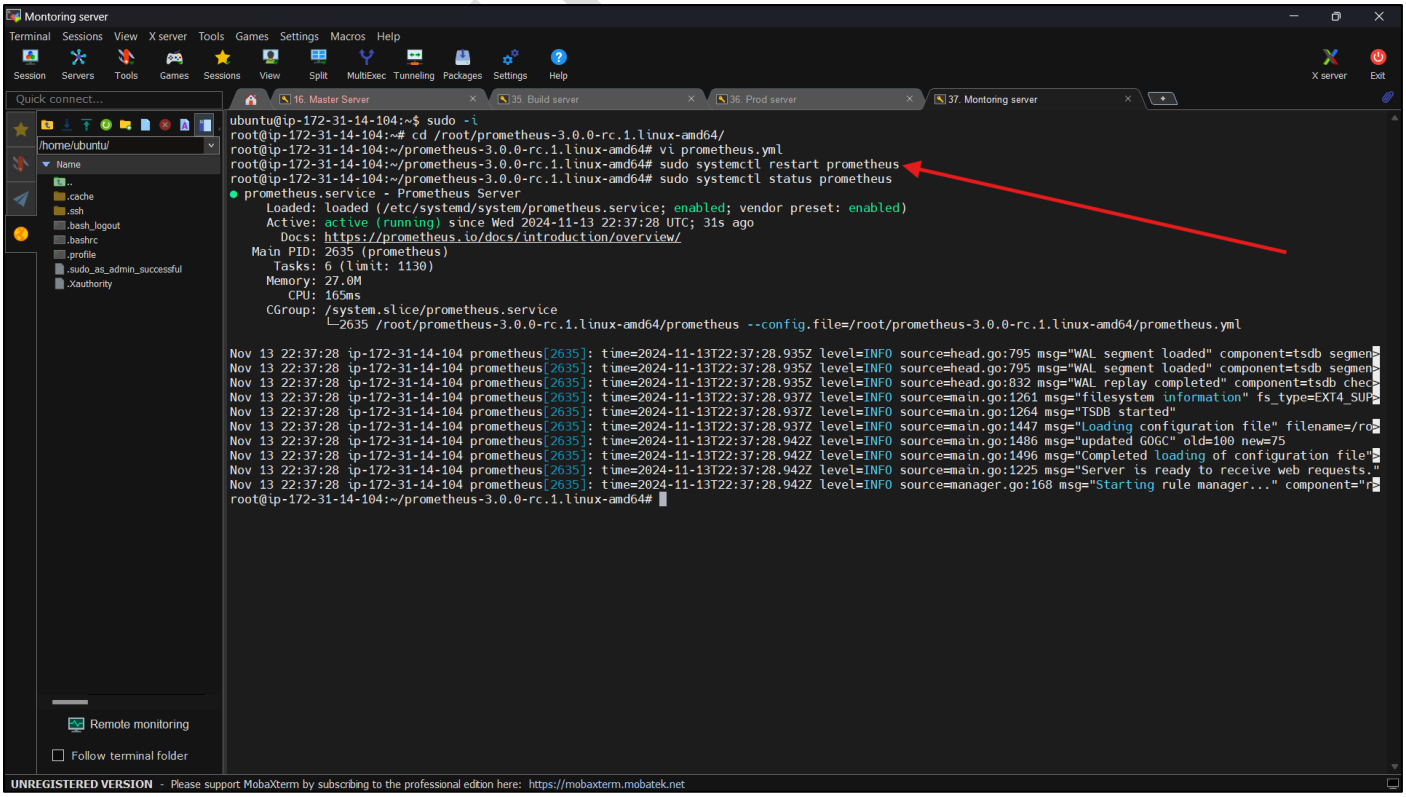
Monitoring server
Terminal Sessions View X server Tools Games Settings Macros Help
16. Master Server
35. Build server
36. Prod server
37. Monitoring server
/home/ubuntu/
ubuntu@ip-172-31-14-104:~$ sudo -i
root@ip-172-31-14-104:~# cd /root/prometheus-3.0.0-rc.1.linux-amd64/
root@ip-172-31-14-104:~/prometheus-3.0.0-rc.1.linux-amd64# vi prometheus.yml
root@ip-172-31-14-104:~/prometheus-3.0.0-rc.1.linux-amd64# sudo systemctl restart prometheus
root@ip-172-31-14-104:~/prometheus-3.0.0-rc.1.linux-amd64# sudo systemctl status prometheus
● prometheus.service - Prometheus Server
Loaded: loaded (/etc/systemd/system/prometheus.service; enabled; vendor preset: enabled)
Active: active (running) since Wed 2024-11-13 22:37:28 UTC; 31s ago
Docs: https://prometheus.io/docs/introduction/overview/
Main PID: 2635 (prometheus)
Tasks: 6 (limit: 1130)
Memory: 27.0M
CPU: 165ms
CGroup: /system.slice/prometheus.service
└─2635 /root/prometheus-3.0.0-rc.1.linux-amd64/prometheus --config.file=/root/prometheus-3.0.0-rc.1.linux-amd64/prometheus.yml
Nov 13 22:37:28 ip-172-31-14-104 prometheus[2635]: time=2024-11-13T22:37:28.935Z level=INFO source=head.go:795 msg="WAL segment loaded" component=tsdb segmen
Nov 13 22:37:28 ip-172-31-14-104 prometheus[2635]: time=2024-11-13T22:37:28.935Z level=INFO source=head.go:795 msg="WAL segment loaded" component=tsdb segmen
Nov 13 22:37:28 ip-172-31-14-104 prometheus[2635]: time=2024-11-13T22:37:28.935Z level=INFO source=head.go:832 msg="WAL replay completed" component=tsdb chec
Nov 13 22:37:28 ip-172-31-14-104 prometheus[2635]: time=2024-11-13T22:37:28.937Z level=INFO source=main.go:1261 msg="filesystem information" fs_type=EXT4_SUP
Nov 13 22:37:28 ip-172-31-14-104 prometheus[2635]: time=2024-11-13T22:37:28.937Z level=INFO source=main.go:1264 msg="TSDB started"
Nov 13 22:37:28 ip-172-31-14-104 prometheus[2635]: time=2024-11-13T22:37:28.937Z level=INFO source=main.go:1447 msg="Loading configuration file" filename=/ro
Nov 13 22:37:28 ip-172-31-14-104 prometheus[2635]: time=2024-11-13T22:37:28.942Z level=INFO source=main.go:1486 msg="updated GOGC" old=100 new=75
Nov 13 22:37:28 ip-172-31-14-104 prometheus[2635]: time=2024-11-13T22:37:28.942Z level=INFO source=main.go:1496 msg="Completed loading of configuration file"
Nov 13 22:37:28 ip-172-31-14-104 prometheus[2635]: time=2024-11-13T22:37:28.942Z level=INFO source=main.go:1225 msg="Server is ready to receive web requests."
Nov 13 22:37:28 ip-172-31-14-104 prometheus[2635]: time=2024-11-13T22:37:28.942Z level=INFO source=manager.go:168 msg="Starting rule manager..." component="r
root@ip-172-31-14-104:~/prometheus-3.0.0-rc.1.linux-amd64#
Remote monitoring
Follow terminal folder
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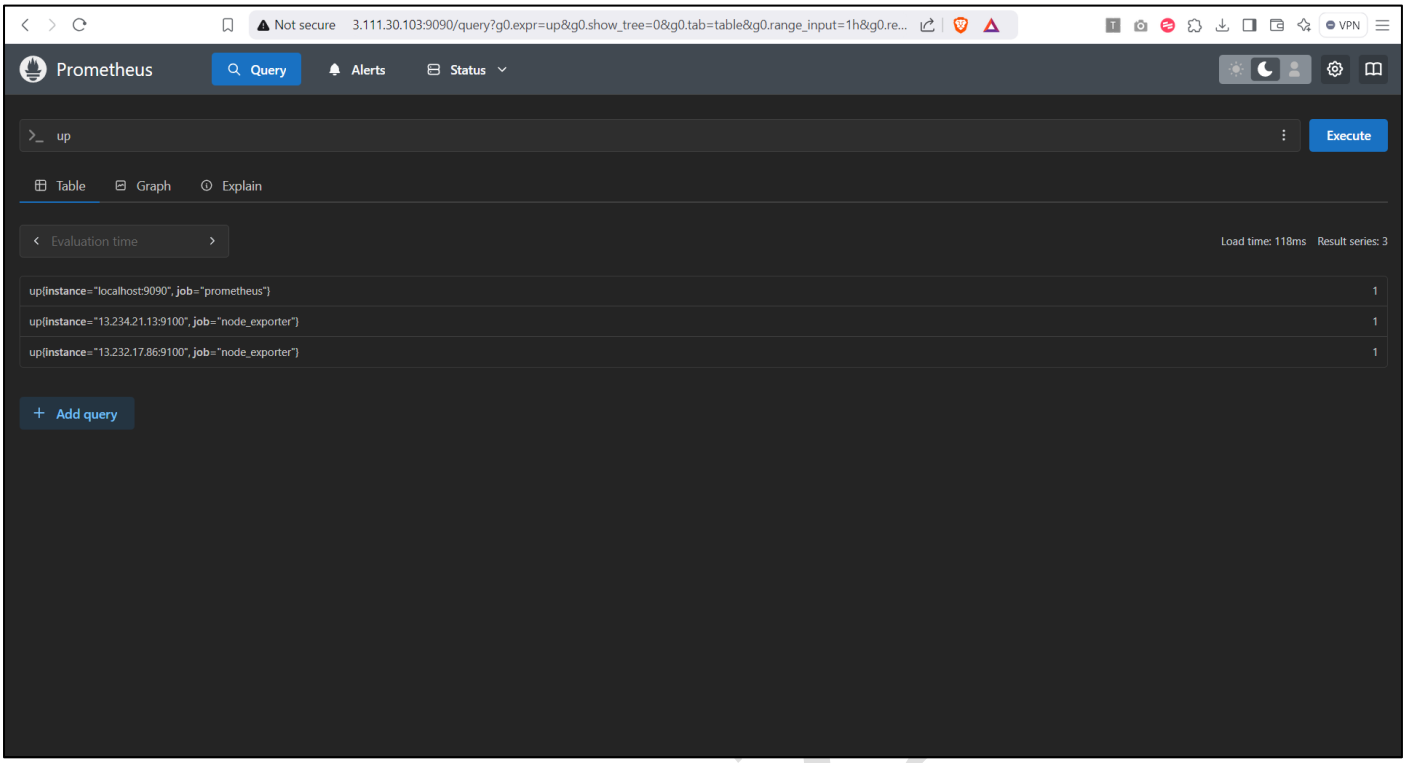
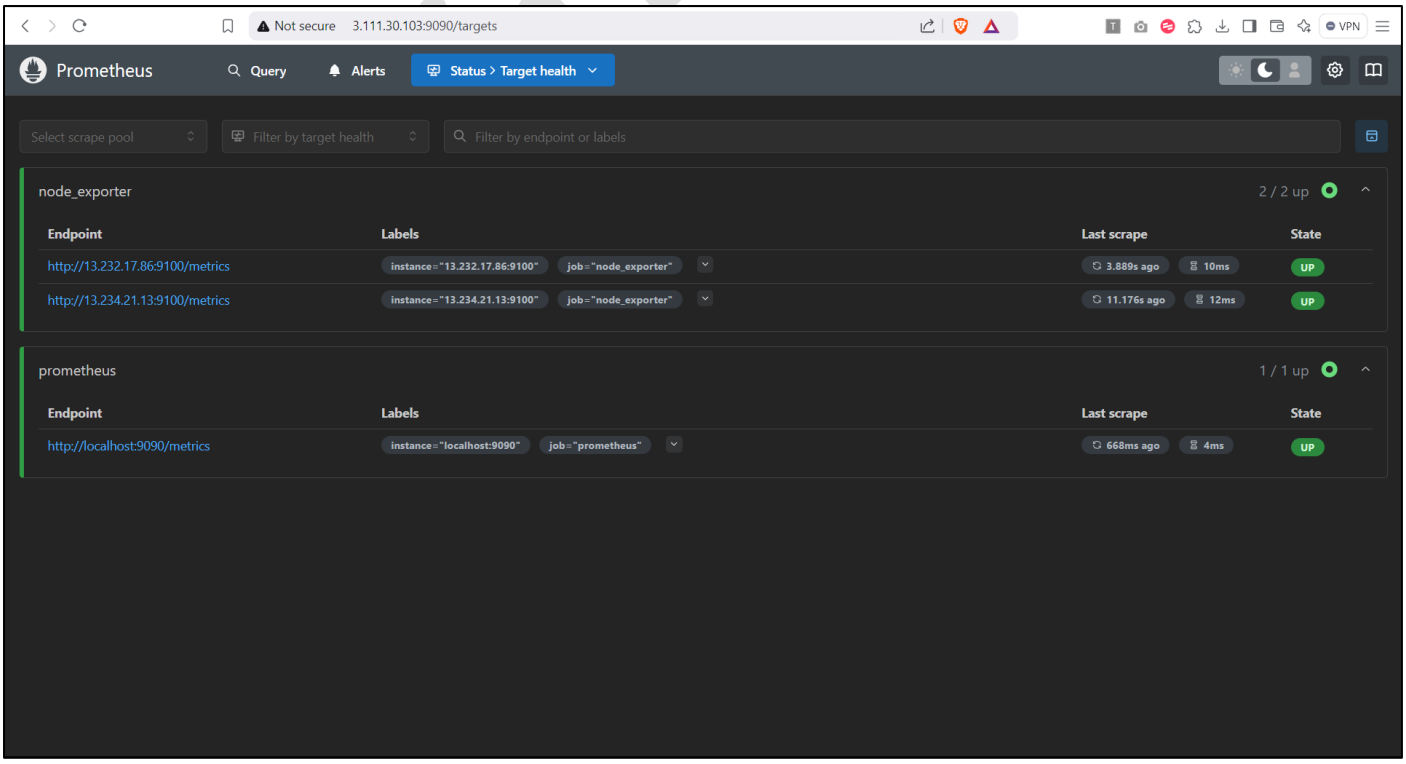
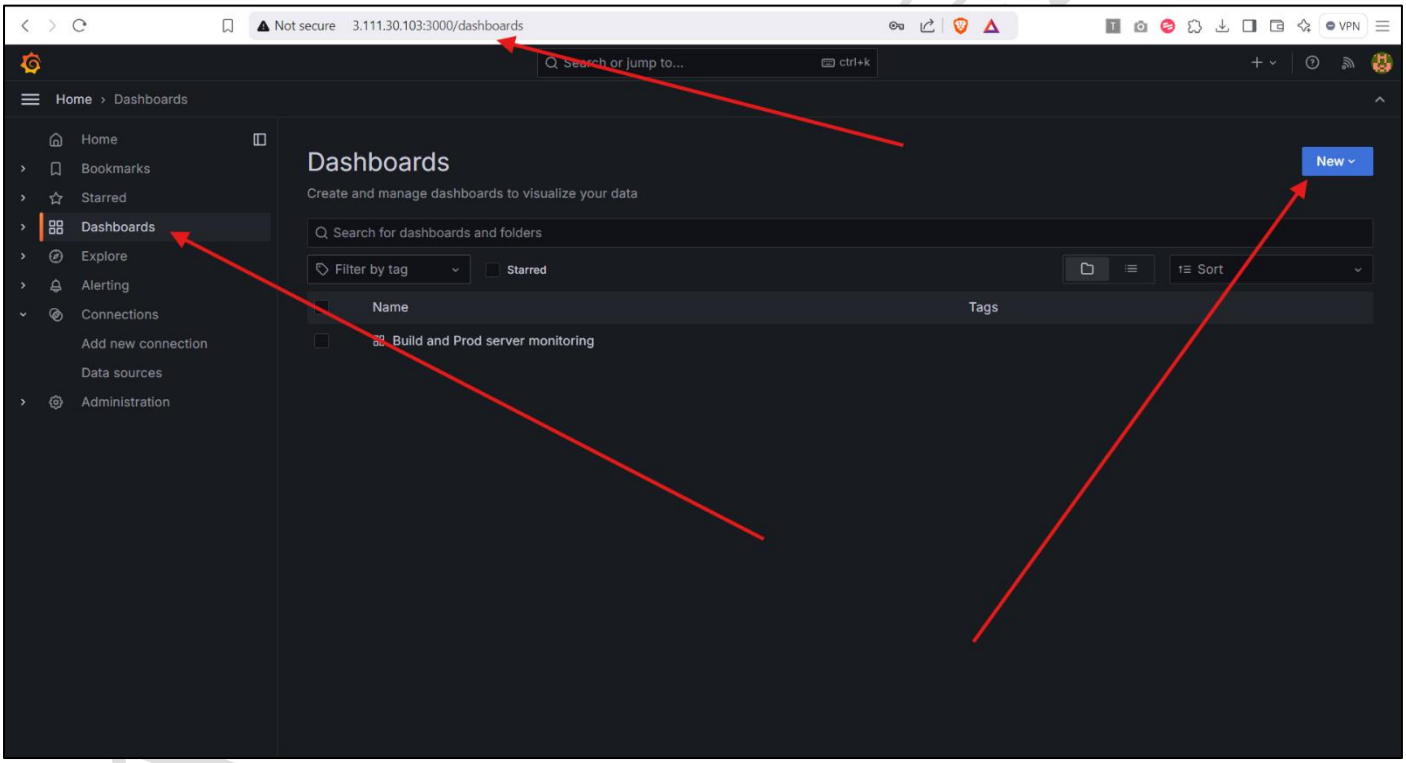
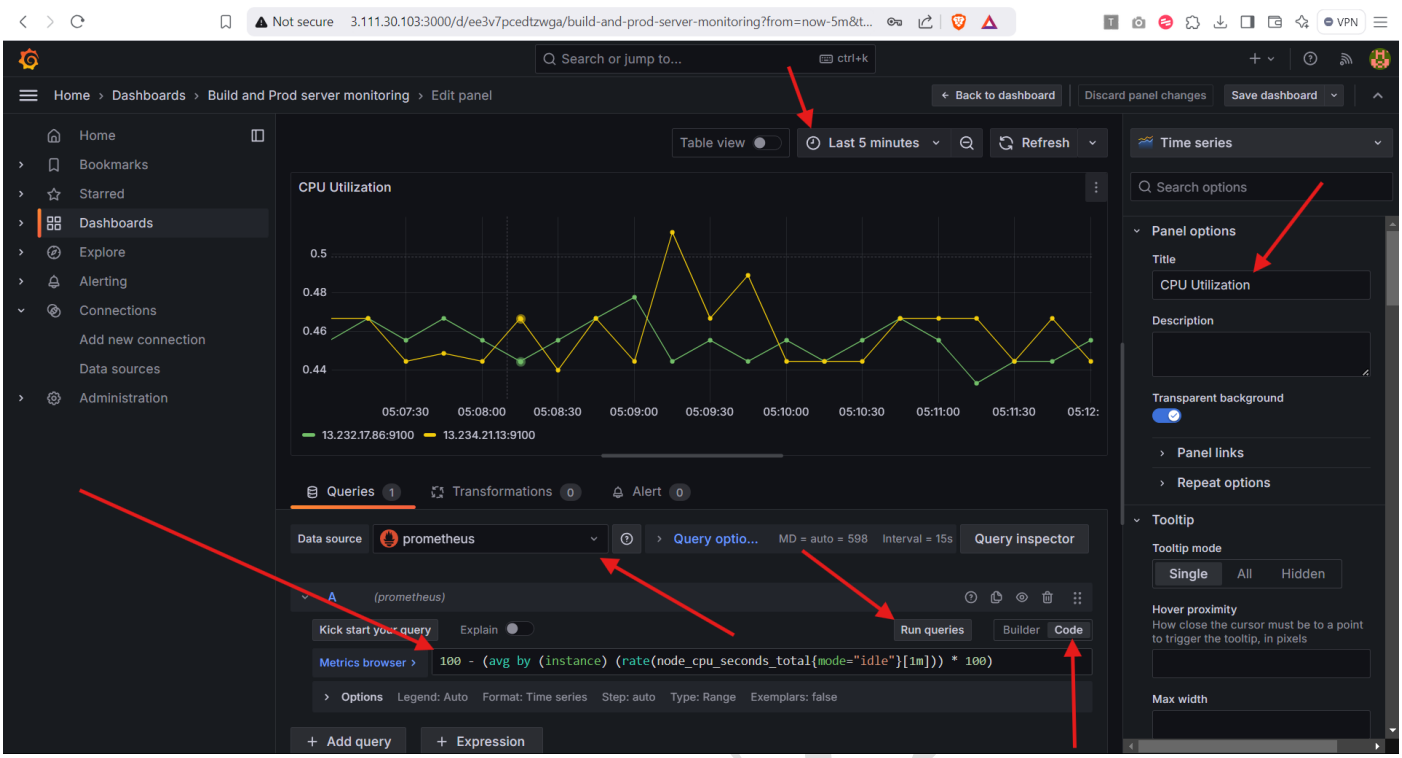

Not secure 3.111.30.103:9090/query?g0.expr=up&g0.show_tree=0&g0.tab=table&g0.range_input=1h&g0.re...
VPN
Prometheus
Query
Alerts
Status
up
Execute
Table
Graph
Explain
Evaluation time
Load time: 118ms
Result series: 3
up{instance="localhost:9090", job="prometheus"} 1
up{instance="13.234.21.13:9100", job="node_exporter"} 1
up{instance="13.232.17.86:9100", job="node_exporter"} 1
Add query

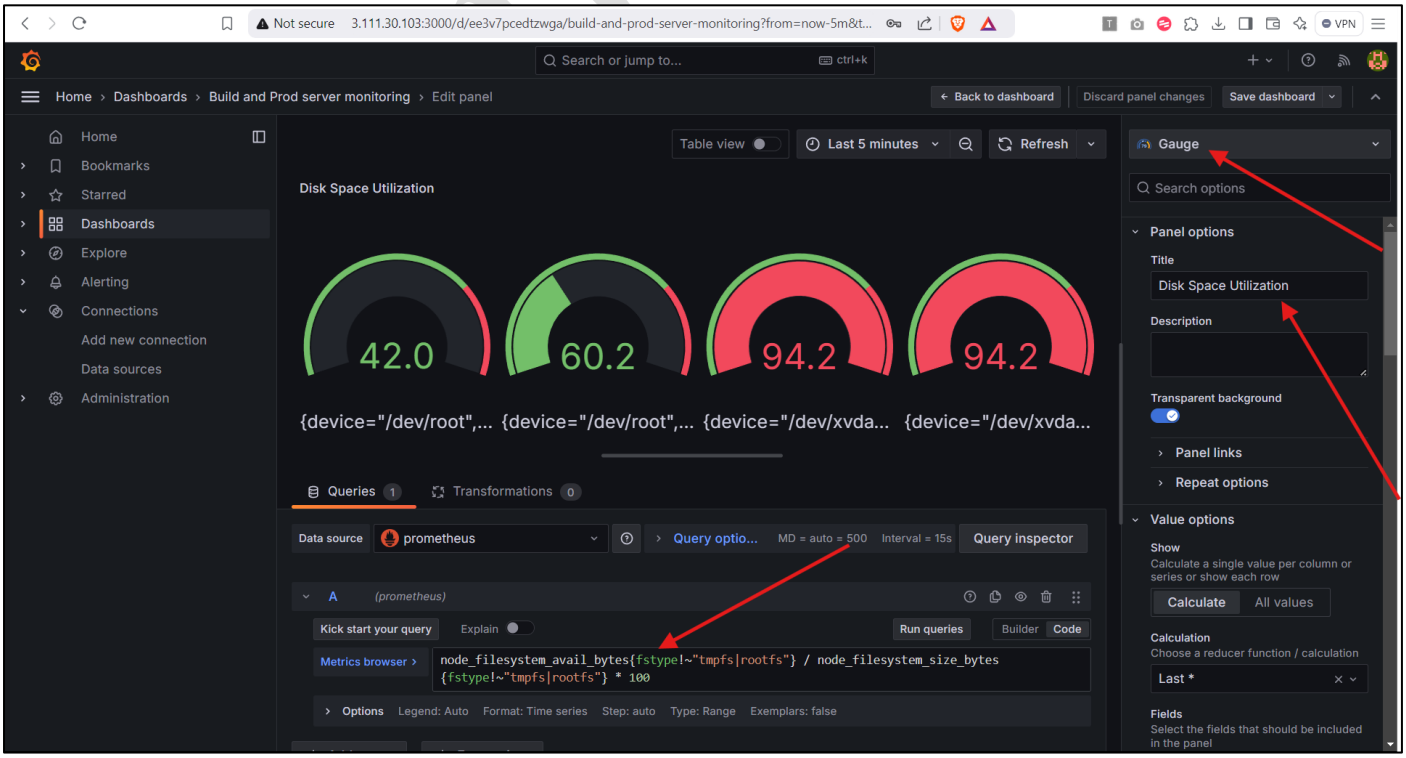

Not secure 3.111.30.103:9090/targets
VPN
Prometheus
Query
Alerts
Status > Target health
Select scrape pool
Filter by target health
Filter by endpoint or labels
node_exporter
2 / 2 up
Endpoint
Labels
Last scrape
State
http://13.232.17.86:9100/metrics
instance="13.232.17.86:9100"
job="node_exporter"
3.889s ago
10ms
UP
http://13.234.21.13:9100/metrics
instance="13.234.21.13:9100"
job="node_exporter"
11.176s ago
12ms
UP
prometheus
1 / 1 up
Endpoint
Labels
Last scrape
State
http://localhost:9090/metrics
instance="localhost:9090"
job="prometheus"
668ms ago
4ms
UP

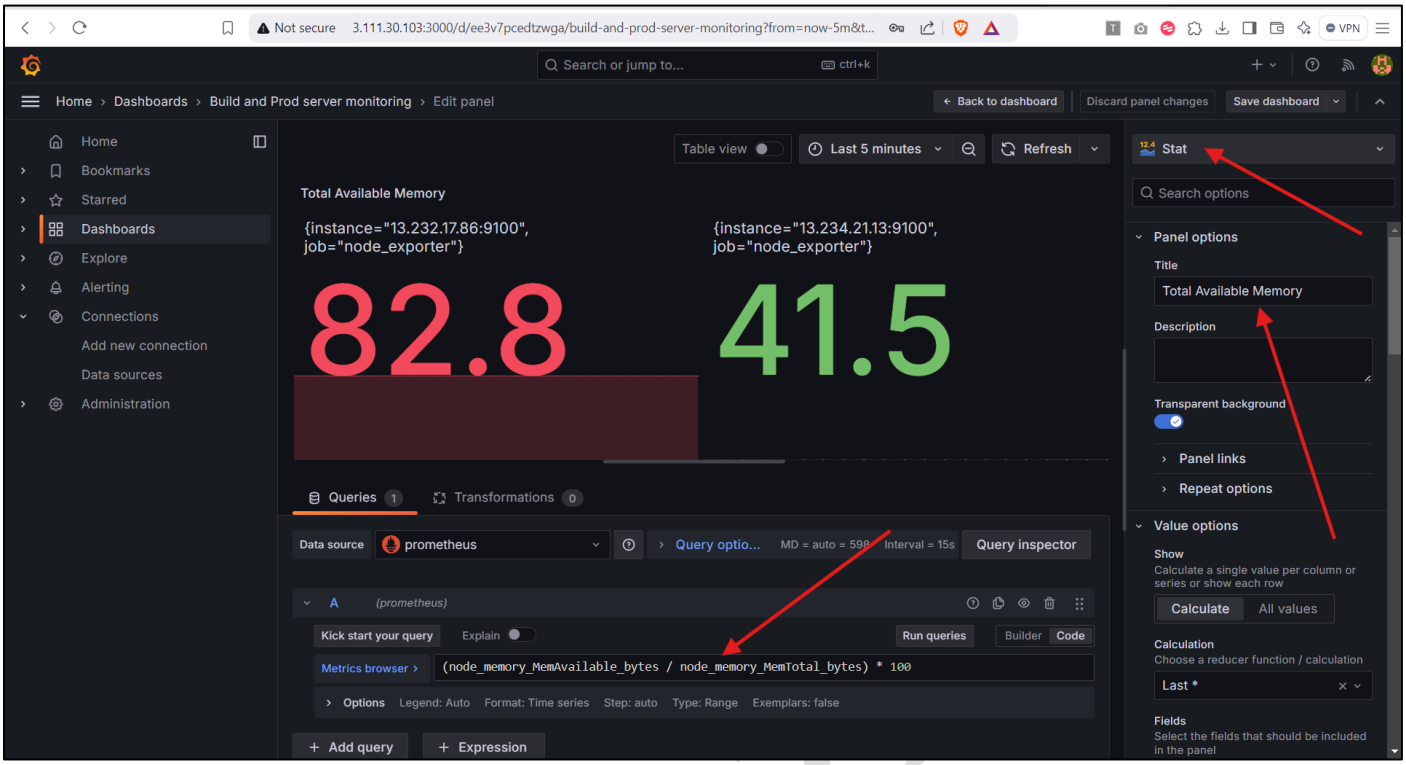
Step 4: Monitor by visualizing metrics data fetched from Prometheus & Node exporter into Grafana dashboard:

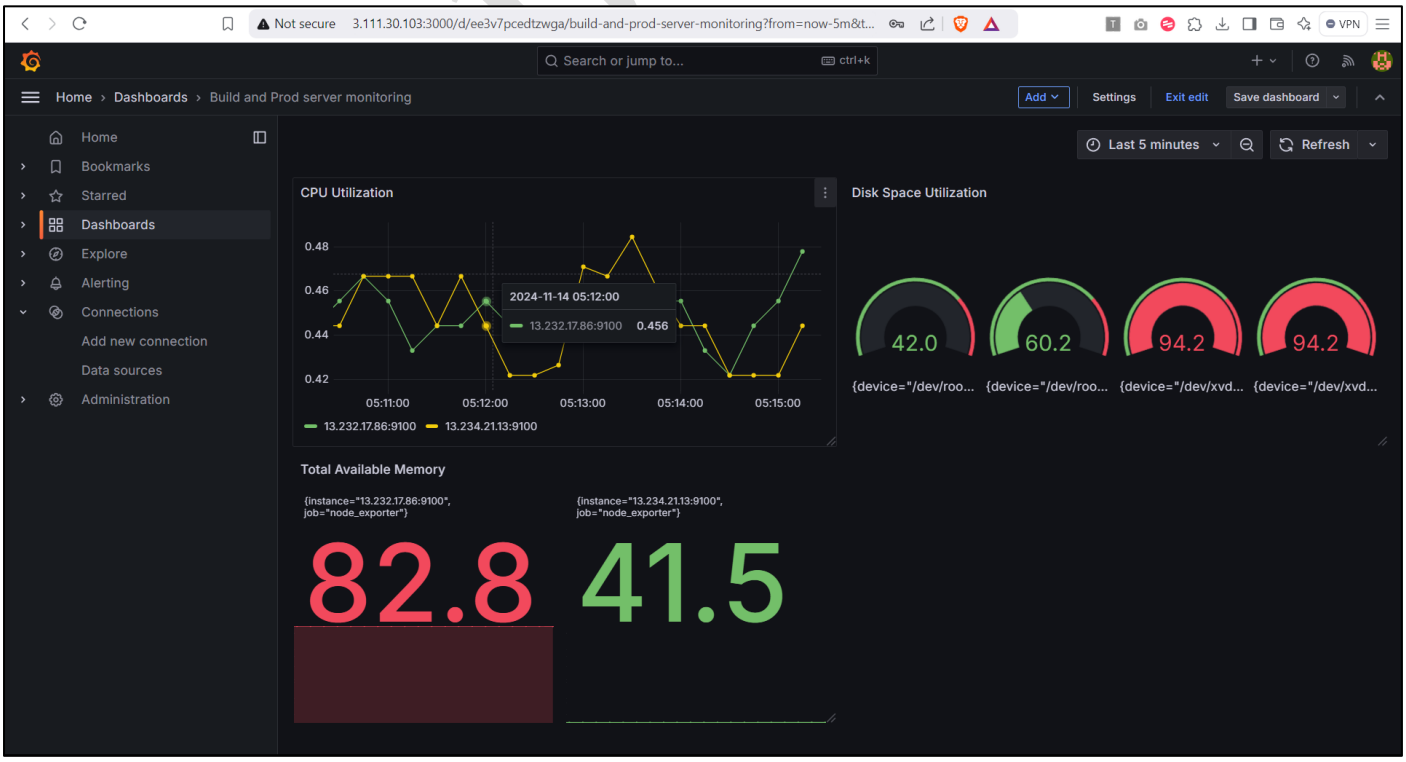
1. Add **Prometheus** as **Data Source** in Grafana
2. Create a New **Dashboard**
3. Configure **Panels** for **metrics:**
    a. Panel 1: **CPU Utilization**
    b. Panel 2: **Disk Space Utilization**
    c. Panel 3: **Total Available Memory**




Not secure 3.111.30.103:3000/d/ee3v7pcedtzwga/build-and-prod-server-monitoring?from=now-5m&t...
Search or jump to... ctrl+k
Home › Dashboards › Build and Prod server monitoring › Edit panel
Back to dashboard
Discard panel changes
Save dashboard
Home
Bookmarks
Starred
Dashboards
Explore
Alerting
Connections
Add new connection
Data sources
Administration
Table view
Last 5 minutes
Refresh
Time series
CPU Utilization
0.5
0.48
0.46
0.44
05:07:30
05:08:00
05:08:30
05:09:00
05:09:30
05:10:00
05:10:30
05:11:00
05:11:30
13.232.17.86:9100
13.234.21.13:9100
Search options
Panel options
Title
CPU Utilization
Description
Transparent background
Panel links
Repeat options
Tooltip
Tooltip mode
Single
All
Hidden
Hover proximity
How close the cursor must be to a point to trigger the tooltip, in pixels
Max width
Queries 1
Transformations 0
Alert 0
Data source
prometheus
Query optio...
MD = auto = 598
Interval = 15s
Query inspector
A
(prometheus)
Kick start your query
Explain
Run queries
Builder
Code
Metrics browser
100 - (avg by (instance) (rate(node_cpu_seconds_total{mode="idle"}[1m])) * 100)
Options
Legend: Auto
Format: Time series
Step: auto
Type: Range
Exemplars: false
Add query
Expression


Not secure 3.111.30.103:3000/d/ee3v7pcedtzwga/build-and-prod-server-monitoring?from=now-5m&t...
Search or jump to... ctrl+k
Home › Dashboards › Build and Prod server monitoring › Edit panel
Back to dashboard
Discard panel changes
Save dashboard
Home
Bookmarks
Starred
Dashboards
Explore
Alerting
Connections
Add new connection
Data sources
Administration
Table view
Last 5 minutes
Refresh
Gauge
Disk Space Utilization
42.0
60.2
94.2
94.2
{device="/dev/root",...
{device="/dev/root",...
{device="/dev/xvda...
{device="/dev/xvda...
Search options
Panel options
Title
Disk Space Utilization
Description
Transparent background
Panel links
Repeat options
Value options
Show
Calculate a single value per column or series or show each row
Calculate
All values
Calculation
Choose a reducer function / calculation
Last *
Fields
Select the fields that should be included in the panel
Queries 1
Transformations 0
Data source
prometheus
Query optio...
MD = auto = 500
Interval = 15s
Query inspector
A
(prometheus)
Kick start your query
Explain
Run queries
Builder
Code
Metrics browser
node_filesystem_avail_bytes{fstype!~"tmpfs|rootfs"} / node_filesystem_size_bytes {fstype!~"tmpfs|rootfs"} * 100
Options
Legend: Auto
Format: Time series
Step: auto
Type: Range
Exemplars: false


Not secure 3.111.30.103:3000/d/ee3v7pcedtzwga/build-and-prod-server-monitoring?from=now-5m&t...
Search or jump to... ctrl+k
Home › Dashboards › Build and Prod server monitoring › Edit panel
Back to dashboard
Discard panel changes
Save dashboard
Home
Bookmarks
Starred
Dashboards
Explore
Alerting
Connections
Add new connection
Data sources
Administration
Table view
Last 5 minutes
Refresh
Stat
Total Available Memory
{instance="13.232.17.86:9100", job="node_exporter"}
{instance="13.234.21.13:9100", job="node_exporter"}
82.8
41.5
Search options
Panel options
Title
Total Available Memory
Description
Transparent background
Panel links
Repeat options
Value options
Show
Calculate a single value per column or series or show each row
Calculate
All values
Calculation
Choose a reducer function / calculation
Last *
Fields
Select the fields that should be included in the panel
Queries 1
Transformations 0
Data source
prometheus
Query optio...
MD = auto = 598
Interval = 15s
Query inspector
A (prometheus)
Kick start your query
Explain
Run queries
Builder
Code
Metrics browser ›
(node_memory_MemAvailable_bytes / node_memory_MemTotal_bytes) * 100
Options
Legend: Auto
Format: Time series
Step: auto
Type: Range
Exemplars: false
+ Add query
+ Expression


Not secure 3.111.30.103:3000/d/ee3v7pcedtzwga/build-and-prod-server-monitoring?from=now-5m&t...
Search or jump to... ctrl+k
Home › Dashboards › Build and Prod server monitoring
Add
Settings
Exit edit
Save dashboard
Home
Bookmarks
Starred
Dashboards
Explore
Alerting
Connections
Add new connection
Data sources
Administration
Last 5 minutes
Refresh
CPU Utilization
0.48
0.46
0.44
0.42
2024-11-14 05:12:00
13.232.17.86:9100 0.456
05:11:00
05:12:00
05:13:00
05:14:00
05:15:00
13.232.17.86:9100
13.234.21.13:9100
Disk Space Utilization
42.0
60.2
94.2
94.2
{device="/dev/roo...
{device="/dev/roo...
{device="/dev/xvd...
{device="/dev/xvd...
Total Available Memory
{instance="13.232.17.86:9100", job="node_exporter"}
{instance="13.234.21.13:9100", job="node_exporter"}
82.8
41.5

References:

1. **Complete Code reference(Terraform + Jenkins Pipeline Groovy script + Ansible playbook + Grafana Dashboard) https://github.com/Abhiz2411/finance-me-banking-finance**