

← Batch11-DailyNotes

SCAN BELOW CODE TO ACCESS THIS DOCUMENT 



Batch10-DailyNotes

<https://github.com/issuesaws/mygitpractice> [Open this link in browser and copy animals.txt]

Python	Programming Python	2010	Lutz, Mark
Snail	SSH, The Secure Shell	2005	Barrett, Daniel
alpaca	Intermediate Perl	2012	Schwartz, Randal
robin	MySQL High Availability	2014	Bell, Charles
horse	Linux in a Nutshell	2009	Siever, Ellen
donkey	Cisco IOS in a Nutshell	2005	Boney, James
oryx	Writing Word Macros	1999	Roman, Steven

To create AWS Account refer below URL 

<https://k21academy.com/microsoft-azure/create-free-microsoft-azure-trial-account/>

Installing chocolatey 

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Search Google for Windows

≡

Y

How install Chocolatey on Windows?

<https://chocolatey.org/install> ::

Installing Chocolatey

Chocolatey is software management automation for Windows that wraps ...

[Setup / Install](#) · [How Chocolatey Works](#) · [Getting Started](#) · [Courses](#)

<https://community.chocolatey.org/packages> ::

<https://chocolatey.org/install>

```
Please inspect https://community.chocolatey.org/install.ps1 prior to running any of the scripts below.
```

* Administrator: Windows PowerShell

```
PS C:\WINDOWS\system32> Get-ExecutionPolicy
Restricted
PS C:\WINDOWS\system32> Set-ExecutionPolicy AllSigned

Execution Policy Change
The execution policy helps protect you from scripts that you do not trust. Changing the execution policy may expose your computer to the security risks described in the about_Execution_Policies help topic at https://go.microsoft.com/fwlink/?LinkID=135170. Do you want to change the execution policy?
[Y] Yes [A] Yes to All [N] No [L] No to All [S] Suspend [?] Help (default is "N"): A
PS C:\WINDOWS\system32>
```

```
* Administrator: Windows PowerShell
```

```
PS C:\WINDOWS\system32> Get-ExecutionPolicy
Restricted

Expand-Archive
The archive file 'C:\Users\dell\AppData\Local\Temp\chocolatey\chocoInstall\chocolatey.zip' expansion is in progress.
[oooooooooooooooooooooooooooooooooooo]

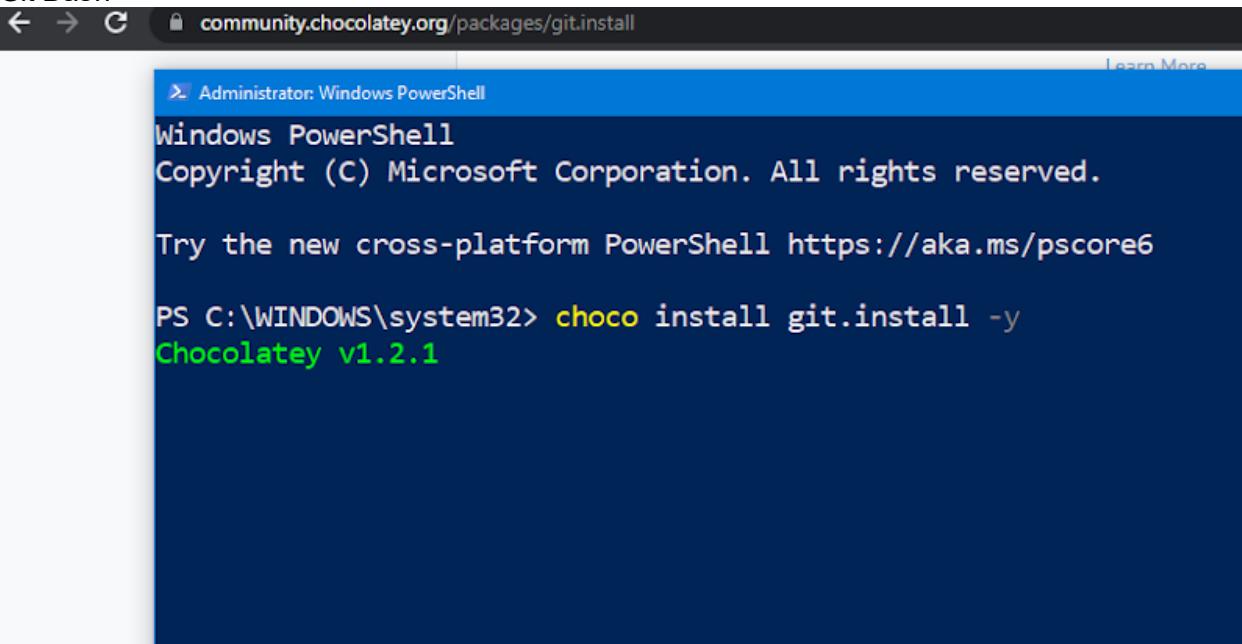
[Y] Yes [A] Yes to All [N] No [L] No to All [S] Suspend [?] Help (default is "N"): A
PS C:\WINDOWS\system32> Set-ExecutionPolicy Bypass -Scope Process -Force; [System.Net.ServicePointManager]::SecurityProtocol = [System.Net.ServicePointManager]::SecurityProtocol -bor 3072; iex ((New-Object System.Net.WebClient).DownloadString('https://community.chocolatey.org/install.ps1'))
Forcing web requests to allow TLS v1.2 (Required for requests to Chocolatey.org)
Getting latest version of the Chocolatey package for download.
Not using proxy.
Getting Chocolatey from https://community.chocolatey.org/api/v2/package/chocolatey/1.2.1.
Downloading https://community.chocolatey.org/api/v2/package/chocolatey/1.2.1 to C:\Users\dell\AppData\Local\Temp\chocoInstall\chocolatey.zip
Not using proxy.
Extracting C:\Users\dell\AppData\Local\Temp\chocolatey\chocoInstall\chocolatey.zip to C:\Users\dell\AppData\Local\Temp\chocoInstall
```

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```
PS C:\WINDOWS\system32> choco -v  
1.2.1  
PS C:\WINDOWS\system32>  
  
SUMMARY
```

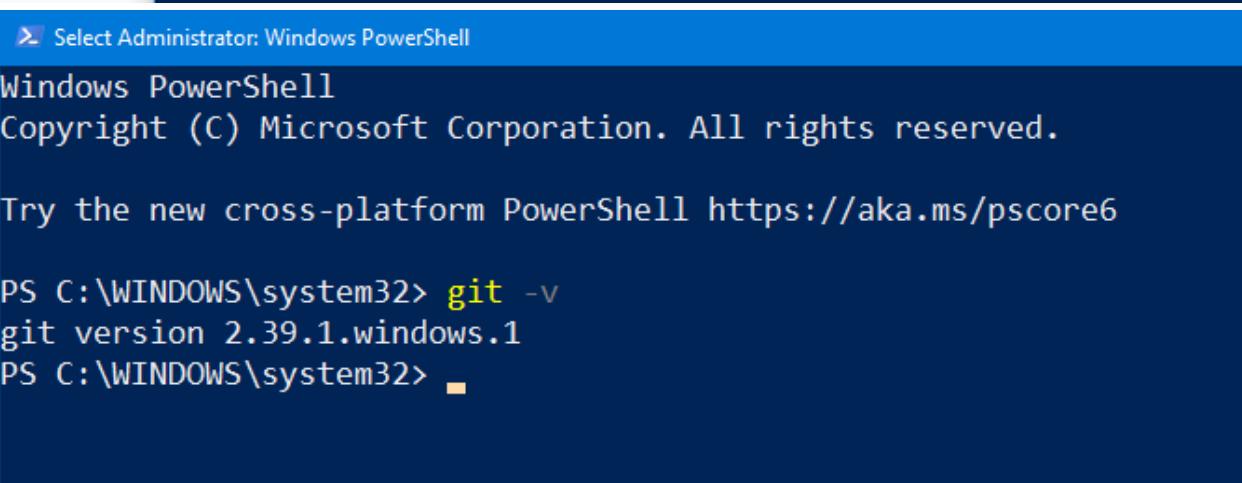
Pre-requisite softwares

Chocolatey
MobaXterm
Git Bash



community.chocolatey.org/packages/git.install

```
Administrator: Windows PowerShell  
Windows PowerShell  
Copyright (C) Microsoft Corporation. All rights reserved.  
  
Try the new cross-platform PowerShell https://aka.ms/pscore6  
  
PS C:\WINDOWS\system32> choco install git.install -y  
Chocolatey v1.2.1
```



```
Select Administrator: Windows PowerShell  
Windows PowerShell  
Copyright (C) Microsoft Corporation. All rights reserved.  
  
Try the new cross-platform PowerShell https://aka.ms/pscore6  
  
PS C:\WINDOWS\system32> git -v  
git version 2.39.1.windows.1  
PS C:\WINDOWS\system32> ■
```

VSCode
BeyondCompare
Notepadplusplus
WinScp

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[\(Choco install \)](https://docs.google.com/document/d/1InLiZ6tPjMB2z4Hzem9JfF1WEExsQNSkmVDdAdnZQXlY/edit)

<https://infrastructuremap.microsoft.com/explore>

<https://aws.amazon.com/compliance/data-center/data-centers/>

<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/tracking-free-tier-usage.html> [Free tier usage]

https://aws.amazon.com/free/?all-free-tier.sort-by=item.additionalFields.SortRank&all-free-tier.sort-order=asc&awsf.Free%20Tier%20Types=*all&awsf.Free%20Tier%20Categories=*all

<https://openvim.com/> [PLEASE PRACTICE]

=====

AWS FREE TIER ACCOUNT CREATION STEP BY STEP :

<https://k21academy.com/amazon-web-services/aws-solutions-architect/create-aws-free-tier-account/>

AZURE FREE TIER ACCOUNT CREATION STEP BY STEP:

<https://k21academy.com/microsoft-azure/create-free-microsoft-azure-trial-account/>

Application server/ Database Server / Webserver :

=====

https://dev.to/k_penguin_sato/web-serverapplication-serverdatabase-server-d4k

<https://phoenixnap.com/blog/web-server-vs-application-server>

OSI MODEL :

<https://www.geeksforgeeks.org/layers-of-osi-model/>

Linux commands cheat sheet :

<https://www.interviewbit.com/linux-commands-cheat-sheet/>

<https://www.guru99.com/linux-commands-cheat-sheet.html>

Microsoft outlook account creation Steps :

<https://account.microsoft.com/account?lang=en-hk>

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```
172.31.93.125
ubuntu@ip-172-31-93-125:~$ lsb_release -a
No LSB modules are available.
Distributor ID: Ubuntu
Description:      Ubuntu 20.04.5 LTS
Release:         20.04
Codename:        focal
ubuntu@ip-172-31-93-125:~$
```

By using pem key from azure portal

```
MINGW64:/c/Users/tgram/Downloads
tgram@DESKTOP-SEH0HPL MINGW64 ~/Downloads
$ ssh -i /c/Users/tgram/Downloads/batch8.pemkey.pem withpemkeyuser@20.193.238.223

withpemkeyuser@myfirstvmwithpemkey:~%
System load: 0.0          Processes:      99
Usage of /: 5.2% of 28.89GB  Users logged in: 0
Memory usage: 58%          IPv4 address for eth0: 10.2.0.5
Swap usage: 0%           

* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s just raised the bar for easy, resilient and secure K8s cluster deployment.
  https://ubuntu.com/engage/secure-kubernetes-at-the-edge

0 updates can be applied immediately.

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/*copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

withpemkeyuser@myfirstvmwithpemkey:~$
```

=====

ubuntu@ip-172-31-49-206:~\$ sudo passwd awsuser

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```
ubuntu@ip-172-31-49-206:~$ sudo useradd azureuser
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/passwd |grep azuresuser
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/passwd |grep azureuser
azureuser:x:1003:1003::/home/azureuser:/bin/sh
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/shadow |grep azureuser
azureuser!:19411:0:99999:7:::
ubuntu@ip-172-31-49-206:~$ passwd azureuser
passwd: You may not view or modify password information for azureuser.
ubuntu@ip-172-31-49-206:~$ sudo passwd azureuser
New password:
Retype new password:
passwd: password updated successfully
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/shadow |grep azureuser
azureuser:$y$9T$Ve0YLhUdgI9XKfJyNssgz/$IVGI45LB1k41VVIxflDo.cu2xHX.Re1SCLp.5cu1TOD:19411:0
:99999:7:::
ubuntu@ip-172-31-49-206:~$
=====
ubuntu@ip-172-31-49-206:~$ sudo useradd devopsuser
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/passwd |grep devopsuser
devopsuser:x:1001:1001::/home/devopsuser:/bin/sh
ubuntu@ip-172-31-49-206:~$ passwd devopsuser
passwd: You may not view or modify password information for devopsuser.
ubuntu@ip-172-31-49-206:~$ sudo passwd devopsuser
New password:
Retype new password:
passwd: password updated successfully
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/shadow |grep devopsuser
devopsuser:$y$9T$PTMJtWKZ4eKZDwby2uHWN1$HSI.wz9mnL3g3V001sjWr5W5m7EHCYzx09pRNUT0
8K3:19411:0:99999:7:::
ubuntu@ip-172-31-49-206:~$ sudo useradd awsuser
ubuntu@ip-172-31-49-206:~$ sudo passwd awsuser
New password:
Retype new password:
passwd: password updated successfully
ubuntu@ip-172-31-49-206:~$ sudo useradd azureuser
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/passwd |grep azuresuser
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/passwd |grep azureuser
azureuser:x:1003:1003::/home/azureuser:/bin/sh
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/shadow |grep azureuser
azureuser!:19411:0:99999:7:::
ubuntu@ip-172-31-49-206:~$ passwd azureuser
passwd: You may not view or modify password information for azureuser.
ubuntu@ip-172-31-49-206:~$ sudo passwd azureuser
New password:
Retype new password:
passwd: password updated successfully
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/shadow |grep azureuser
azureuser:$y$9T$Ve0YLhUdgI9XKfJyNssgz/$IVGI45LB1k41VVIxflDo.cu2xHX.Re1SCLp.5cu1TOD:19411:0
:99999:7:::
ubuntu@ip-172-31-49-206:~$ sudo adduser pythonuser
Adding user `pythonuser' ...
Adding new group `pythonuser' (1004) ...
Adding new user `pythonuser' (1004) with group `pythonuser' ...
Creating home directory `/home/pythonuser' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for pythonuser
```

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Work Phone []:

Home Phone []:

Other []:

Is the information correct? [Y/n] Y

```
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/passwd |grep pythonuser
```

```
pythonuser:x:1004:1004:,:/home/pythonuser:/bin/bash
```

```
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/shadow |grep pythonuser
```

```
pythonuser:$y$9T$r38SYtt/Op7X6.uRpzv9i0$aP/Rk0QWzBL6xQ5gu/9vSO2yx1vzwYCkubPL7xDHnq6:19
```

```
411:0:99999:7::
```

```
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/group |grep pythonuser
```

```
pythonuser:x:1004:
```

```
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/group
```

```
root:x:0:
```

```
daemon:x:1:
```

```
bin:x:2:
```

```
sys:x:3:
```

```
adm:x:4:syslog,ubuntu
```

```
tty:x:5:
```

```
disk:x:6:
```

```
lp:x:7:
```

```
mail:x:8:
```

```
news:x:9:
```

```
uucp:x:10:
```

```
man:x:12:
```

```
proxy:x:13:
```

```
kmem:x:15:
```

```
dialout:x:20:ubuntu
```

```
fax:x:21:
```

```
voice:x:22:
```

```
cdrom:x:24:ubuntu
```

```
floppy:x:25:ubuntu
```

```
tape:x:26:
```

```
sudo:x:27:ubuntu
```

```
audio:x:29:ubuntu
```

```
dip:x:30:ubuntu
```

```
www-data:x:33:
```

```
backup:x:34:
```

```
operator:x:37:
```

```
list:x:38:
```

```
irc:x:39:
```

```
src:x:40:
```

```
gnats:x:41:
```

```
shadow:x:42:
```

```
utmp:x:43:
```

```
video:x:44:ubuntu
```

```
sasl:x:45:
```

```
plugdev:x:46:ubuntu
```

```
staff:x:50:
```

```
games:x:60:
```

```
users:x:100:
```

```
nogroup:x:65534:
```

```
systemd-journal:x:101:
```

```
systemd-network:x:102:
```

```
systemd-resolve:x:103:
```

```
crontab:x:104:
```

```
messagebus:x:105:
```

```
systemd-timesync:x:106:
```

```
input:x:107:
```

```
sgx:x:108:
```

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```
ls: x: 112:  
uidd:x:113:  
tcpdump:x:114:  
_ssh:x:115:  
landscape:x:116:  
fwupd-refresh:x:117:  
admin:x:118:  
netdev:x:119:ubuntu  
lxd:x:120:ubuntu  
_chrony:x:121:  
ubuntu:x:1000:  
devopsuser:x:1001:  
awsuser:x:1002:  
azureuser:x:1003:  
pythonuser:x:1004:  
ubuntu@ip-172-31-49-206:~$ sudo groupadd batch10  
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/group |grep batch10  
batch10:x:1005:  
ubuntu@ip-172-31-49-206:~$ sudo usermod -a -G batch10 devopsuser  
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/group |grep batch10  
batch10:x:1005:devopsuser  
ubuntu@ip-172-31-49-206:~$ sudo usermod -a -G batch10 awsuser  
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/group |grep batch10  
batch10:x:1005:devopsuser,awsuser  
ubuntu@ip-172-31-49-206:~$ sudo usermod -a -G batch10 azureuser  
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/group |grep batch10  
batch10:x:1005:devopsuser,awsuser,azureuser  
ubuntu@ip-172-31-49-206:~$ sudo usermod -a -G batch10 pythonuser  
ubuntu@ip-172-31-49-206:~$ sudo cat /etc/group |grep batch10  
batch10:x:1005:devopsuser,awsuser,azureuser,pythonuser  
ubuntu@ip-172-31-49-206:~$
```

```
sudo usermod -a -G batch10 devopsuser  
sudo usermod -a -G batch10 awsuser  
sudo usermod -a -G batch10 azureuser
```

```
-----  
- rw- rw- r-- 1 ubuntu ubuntu 0 Feb 23 07:12 1.txt  
- --x --x -wx
```

```
chmod 113 1.txt
```

```
u = x = 1  
g = x = 1  
o = w+x = 3
```

```
=====  
ubuntu@ip-172-31-49-206:~$ ls  
ubuntu@ip-172-31-49-206:~$ touch 1.txt  
ubuntu@ip-172-31-49-206:~$ ls -l  
total 0  
-rw-rw-r-- 1 ubuntu ubuntu 0 Feb 23 07:12 1.txt  
ubuntu@ip-172-31-49-206:~$ chmod 113 1.txt  
ubuntu@ip-172-31-49-206:~$ ls -l  
total 0  
---x--x-wx 1 ubuntu ubuntu 0 Feb 23 07:12 1.txt
```

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```
-rwx--x-wx 1 ubuntu ubuntu 0 Feb 25 07:12 1.txt
ubuntu@ip-172-31-49-206:~$
```

=====

Assessment :

1. Launching an EC2/VM in azure and aws. Connect using ssh through Powershell/Git Bash/Terminal.
2. Install required softwares using chocolatey.

Gltbash
Winscp
Notepadplusplus
Vscode
Putty
MobaXterm
BeyondCompare

3. Create a Security Group/NSG in AWS/Azure and assign 22,80 and 443 ports.
4. Create a keypair in AWS.
5. Create users using adduser/useradd and assign passwords and group creation and add the existing user to the group.
6. Find the location of users,passwords and groups.
7. Upload files into a remote repository using SFTP from a local machine.
8. File permissions and file ownerships concept.
9. Import key pair/ Ssh keypair concepts on AWS/Azure cloud.
10. cp and mv rm and rmdir and wc and processetc commands usage.
11. Files and folders navigation and try to work on relative and absolute path usage.
12. vi editor usage.
13. sudoers file concept and switch user concept.
14. Try to create a shell file with some commands and execute it.
15. Try to practice openvim.com

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```
Adding new group `sshuser' (1001) ...
Adding new user `sshuser' (1001) with group `sshuser' ...
Creating home directory `/home/sshuser' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for sshuser
Enter the new value, or press ENTER for the default
  Full Name []:
  Room Number []:
  Work Phone []:
  Home Phone []:
  Other []
Is the information correct? [Y/n] Y
ubuntu@ip-172-31-52-75:~$ sudo cat /etc/passwd |grep sshuser
sshuser:x:1001:1001:,:/home/sshuser:/bin/bash
ubuntu@ip-172-31-52-75:~$ su sshuser
Password:
sshuser@ip-172-31-52-75:/home/ubuntu$ pwd
/home/ubuntu
sshuser@ip-172-31-52-75:/home/ubuntu$ cd ~
sshuser@ip-172-31-52-75:~$ pwd
/home/sshuser
sshuser@ip-172-31-52-75:~$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/sshuser/.ssh/id_rsa):
Created directory '/home/sshuser/.ssh'.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/sshuser/.ssh/id_rsa
Your public key has been saved in /home/sshuser/.ssh/id_rsa.pub
The key fingerprint is:
```

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```
ubuntu@ip-172-31-52-75:~$ sudo cat /etc/passwd |grep sshuser
sshuser:x:1001:1001:,:/home/sshuser:/bin/bash
ubuntu@ip-172-31-52-75:~$ su sshuser
Password:
sshuser@ip-172-31-52-75:/home/ubuntu$ pwd
/home/ubuntu
sshuser@ip-172-31-52-75:/home/ubuntu$ cd ~
sshuser@ip-172-31-52-75:~/$ pwd
/home/sshuser
sshuser@ip-172-31-52-75:~/$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/sshuser/.ssh/id_rsa):
Created directory '/home/sshuser/.ssh'.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/sshuser/.ssh/id_rsa
Your public key has been saved in /home/sshuser/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:K8xvJyHrNju2og6Nh8rmmIVixZbzFPk/nEAYMKhfL34 sshuser@ip-172-31-52-75
The key's randomart image is:
----[RSA 3072]----+
 .o..
 . . +
 . + .
 . . o +
 . B ooS
 =+ =oo =..
 *+. o+o.*
 ** o Eoo o
 *+o. *+*.o
----[SHA256]----+
sshuser@ip-172-31-52-75:~$
```

Remote2 😊

=====

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```
Adding new group `sshuser' (1001) ...
Adding new user `sshuser' (1001) with group `sshuser' ...
Creating home directory `/home/sshuser' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for sshuser
Enter the new value, or press ENTER for the default
    Full Name []:
    Room Number []:
    Work Phone []:
    Home Phone []:
    Other []
Is the information correct? [Y/n] Y
ubuntu@ip-172-31-12-189:~$ sudo cat /etc/passwd |grep sshuser
sshuser:x:1001:1001:,:/home/sshuser:/bin/bash
ubuntu@ip-172-31-12-189:~$ |
```

```
ubuntu@ip-172-31-12-189:~$ sudo vi /etc/sudoers
```

```
ubuntu@ip-172-31-12-189:~$
```

Confirmation 

```
ubuntu@ip-172-31-12-189:~$ sudo cat /etc/sudoers |grep sshuser
sshuser  ALL=(ALL:ALL)  ALL
ubuntu@ip-172-31-12-189:~$ |
```

By default here it is NO make it to YES

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```

#passwordAuthentication no
#PermitEmptyPasswords no

# Change to yes to enable challenge-response pas
# some PAM modules and threads)
KbdInteractiveAuthentication no

# Kerberos options
#KerberosAuthentication no
# Don't read the user's ~/.rhosts a
#IgnoreRhosts yes

# To disable tunneled clear text pa
PasswordAuthentication yes
#PermitEmptyPasswords no

# Change to yes to enable challenge
# some PAM modules and threads)
KbdInteractiveAuthentication no

# Kerberos options
#KerberosAuthentication no
#KerberosOrLocalPasswd yes

```

```

ubuntu@ip-172-31-12-189: ~
ubuntu@ip-172-31-12-189:~$ sudo cat /etc/sudoers |grep sshuser
sshuser ALL=(ALL:ALL) ALL
ubuntu@ip-172-31-12-189:~$ sudo vi /etc/ssh/sshd_config
ubuntu@ip-172-31-12-189:~$ sudo service sshd restart
ubuntu@ip-172-31-12-189:~$ |

```

```

sshuser@ip-172-31-52-75: ~
sshuser@ip-172-31-52-75:~$ ssh-copy-id sshuser@172.31.12.189
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/home/sshuser/.ssh/id_rsa.pub"
The authenticity of host '172.31.12.189 (172.31.12.189)' can't be established.
ED25519 key fingerprint is SHA256:TJSOVvqj7ExjZSF41UIBFTJvAlzyOpZUD0P0geAe+QA.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any that are already installed
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted now it is to install the new keys
sshuser@172.31.12.189's password:

Number of key(s) added: 1

Now try logging into the machine, with: "ssh 'sshuser@172.31.12.189'"
and check to make sure that only the key(s) you wanted were added.

sshuser@ip-172-31-52-75:~$ 

```

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```
* Documentation: https://help.ubuntu.com
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/advantage
```

System information as of Tue Feb 28 07:19:20 UTC 2023

```
System load: 0.0732421875    Processes: 101
Usage of /: 20.1% of 7.57GB  Users logged in: 1
Memory usage: 20%           IPv4 address for eth0: 172.31.12.189
Swap usage: 0%
```

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See <https://ubuntu.com/esm> or run: sudo pro status

The list of available updates is more than a week old.

To check for new updates run: sudo apt update

```
sshuser@ip-172-31-12-189:~$
```



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```
connection to 172.31.12.189 closed.  
sshuser@ip-172-31-52-75:~$ ssh 172.31.12.189  
Welcome to Ubuntu 22.04.1 LTS (GNU/Linux 5.15.0-1028-aws x86_64)  
  
 * Documentation: https://help.ubuntu.com  
 * Management: https://landscape.canonical.com  
 * Support: https://ubuntu.com/advantage  
  
System information as of Tue Feb 28 07:20:30 UTC 2023  
  
System load: 0.0205078125      Processes:          101  
Usage of /: 20.1% of 7.57GB    Users logged in:     1  
Memory usage: 20%              IPv4 address for eth0: 172.31.12.189  
Swap usage: 0%  
  
Expanded Security Maintenance for Applications is not enabled.  
0 updates can be applied immediately.  
  
Enable ESM Apps to receive additional future security updates.  
See https://ubuntu.com/esm or run: sudo pro status  
  
The list of available updates is more than a week old.  
To check for new updates run: sudo apt update  
  
Last login: Tue Feb 28 07:20:07 2023 from 172.31.52.75  
sshuser@ip-172-31-12-189:~$
```

User data - optional info

Enter user data in the field.

```
#!/bin/bash  
sudo apt-get update  
sudo apt install openjdk-11-jdk -y  
java -version  
sudo apt-cache search tomcat  
sudo apt install tomcat9 tomcat9-admin -y  
ss -ltn  
sudo ufw allow from any to any port 8080 proto tcp
```

← Batch11-DailyNotes

Refer document: https://linuxhint.com/install_apache_tomcat_server_ubuntu_2204/

```
root@ip-172-31-52-1:~# history
1 cat /etc/os-release
2 sudo apt update
3 sudo apt install openjdk-11-jdk
4 sudo apt-cache search tomcat
5 sudo apt install tomcat9 tomcat9-admin
6 sudo ufw allow from any to any port 8080 proto tcp
7 hostname -i
8 history
```

```
sudo vim /etc/tomcat9/tomcat-users.xml
```

```
put Diwaliwishes.jpg /var/lib/tomcat9/webapps/ROOT/
=====
```

```
ubuntu@ip-172-31-88-2:~$ history
1 clear
2 sudo apt-get update
3 sudo apt install openjdk-11-jdk
4 java -version
5 sudo apt-cache search tomcat
6 sudo apt install tomcat9 tomcat9-admin
7 ss -ltn
8 sudo ufw allow from any to any port 8080 proto tcp
9 cd /var/lib/tomcat9/webapps/ROOT/
10 pwd
11 ls
12 exit
13 clear
14 sudo chmod 777 /var/lib/tomcat9/webapps/ROOT/
15 sudo ls /var/lib/tomcat9/webapps/ROOT/
16 sudo cat /etc/environment
17 history
ubuntu@ip-172-31-88-2:~$
```

```
#!/bin/bash
sudo apt-get update
sudo apt install openjdk-11-jdk -y
java -version
sudo apt-cache search tomcat
sudo apt install tomcat9 tomcat9-admin -y
ss -ltn
sudo ufw allow from any to any port 8080 proto tcp
```

← Batch11-DailyNotes

```
logout
Connection to ec2-3-82-241-247.compute-1.amazonaws.com closed.
PS C:\Users\tgram\Downloads> sftp -i "Remote1.pem" ubuntu@ec2-3-82-241-247.compute-1.amazonaws.com
Connected to ec2-3-82-241-247.compute-1.amazonaws.com.
sftp> put Diwaliwishes.jpg /var/lib/tomcat9/webapps/ROOT/
Uploading Diwaliwishes.jpg to /var/lib/tomcat9/webapps/ROOT/Diwaliwishes.jpg
remote open("/var/lib/tomcat9/webapps/ROOT/Diwaliwishes.jpg"): Permission denied
sftp> put Diwaliwishes.jpg /var/lib/tomcat9/webapps/ROOT/
Uploading Diwaliwishes.jpg to /var/lib/tomcat9/webapps/ROOT/Diwaliwishes.jpg
Diwaliwishes.jpg
sftp> bye
PS C:\Users\tgram\Downloads> ■
```

DEB and RPM :

https://directdevops.blog/2020/07/28/linux-classroom-series-28-jul-2020/#google_vignette [RPM -]
<https://directdevops.blog/2020/07/29/linux-classroom-series-29-jul-2020/> [APT - YUM]

How to set java path in windows 

<https://www.javatpoint.com/how-to-set-path-in-java>

<https://www.java.com/en/download/help/path.html>

<https://www.geeksforgeeks.org/how-to-set-java-path-in-windows-and-linux/>

Download and install java using tar

Download tar file from below location :

=> <https://jdk.java.net/18/> => Click on Archive

Archive

=> <https://jdk.java.net/archive/>

https://download.java.net/java/GA/jdk18.0.2.1/db379da656dc47308e138f21b33976fa/1/GPL/openjdk-18.0.2.1_linux-x64_bin.tar.gz

← Batch11-DailyNotes

```
root@ip-172-31-90-59:~# wget https://download.java.net/java/GA/jdk18.0.2.1/db379da056dc47308e138f21b33976fa/1/GPL/openjdk-18.0.2.1_linux-x64_bin.tar.gz
--2022-09-06 09:34:13-- https://download.java.net/java/GA/jdk18.0.2.1/db379da656dc47308e138f21b33976fa/1/GPL/openjdk-18.0.2.1_linux-x64_bin.tar.gz
Resolving download.java.net (download.java.net)... 23.62.160.87
Connecting to download.java.net (download.java.net)|23.62.160.87|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 188255745 (180M) [application/x-gzip]
Saving to: 'openjdk-18.0.2.1_linux-x64_bin.tar.gz'

openjdk-18.0.2.1_lin 100%[=====] 179.53M 175MB/s in 1.0s

2022-09-06 09:34:14 (175 MB/s) - 'openjdk-18.0.2.1_linux-x64_bin.tar.gz' saved [188255745/188255745]

root@ip-172-31-90-59:~# |
```

ls

```
root@ip-172-31-90-59:~# ls
openjdk-18.0.2.1_linux-x64_bin.tar.gz snap
root@ip-172-31-90-59:~# |
```

=> tar zxvf openjdk-18.0.2.1_linux-x64_bin.tar.gz

```
root@ip-172-31-90-59:~# ls
openjdk-18.0.2.1_linux-x64_bin.tar.gz snap
root@ip-172-31-90-59:~# tar zxvf openjdk-18.0.2.1_linux-x64_bin.tar.gz
jdk-18.0.2.1/bin/jar
jdk-18.0.2.1/bin/jarsigner
jdk-18.0.2.1/bin/java
jdk-18.0.2.1/bin/javac
jdk-18.0.2.1/bin/javadoc
jdk-18.0.2.1/bin/javap
jdk-18.0.2.1/bin/jcmd
jdk-18.0.2.1/bin/jconsole
jdk-18.0.2.1/bin/jdb
jdk-18.0.2.1/bin/jdeprscan
jdk-18.0.2.1/bin/jdeps
jdk-18.0.2.1/bin/jfr
jdk-18.0.2.1/bin/jhsdb
jdk-18.0.2.1/bin/jimage
jdk-18.0.2.1/bin/jinfo
jdk-18.0.2.1/bin/jlink
jdk-18.0.2.1/bin/jmap
jdk-18.0.2.1/bin/jmod
jdk-18.0.2.1/bin/jpackage
jdk-18.0.2.1/bin/jps
```

← Batch11-DailyNotes

```
jdk-18.0.2.1/jre/lib/amd64/jvm
jdk-18.0.2.1/lib/libsaproc.so
jdk-18.0.2.1/lib/libssctp.so
jdk-18.0.2.1/lib/libsplashscreen.so
jdk-18.0.2.1/lib/libsyslookup.so
jdk-18.0.2.1/lib/libverify.so
jdk-18.0.2.1/lib/libzip.so
jdk-18.0.2.1/lib/modules
jdk-18.0.2.1/lib/psfont.properties.ja
jdk-18.0.2.1/lib/psfontj2d.properties
jdk-18.0.2.1/lib/security/blocked.certs
jdk-18.0.2.1/lib/security/cacerts
jdk-18.0.2.1/lib/security/default.policy
jdk-18.0.2.1/lib/security/public_suffix_list.dat
jdk-18.0.2.1/lib/server/classes.jsa
jdk-18.0.2.1/lib/server/classes_nocoops.jsa
jdk-18.0.2.1/lib/server/libjsig.so
jdk-18.0.2.1/lib/server/libjvm.so
jdk-18.0.2.1/lib/src.zip
jdk-18.0.2.1/lib/tzdb.dat
jdk-18.0.2.1/release
root@ip-172-31-90-59:~# |
```

```
=> ls
=> cd jdk-18.0.2.1/
=> ls
=> cd bin/
```

← Batch11-DailyNotes

```
root@ip-172-31-90-59:~# cd jdk-18.0.2.1/
root@ip-172-31-90-59:~/jdk-18.0.2.1# ls
bin  conf  include  jmods  legal  lib  release
root@ip-172-31-90-59:~/jdk-18.0.2.1# cd bin/
root@ip-172-31-90-59:~/jdk-18.0.2.1/bin# ls
jar      javap     jdeps    jlink    jrunscript  jwebserver
jarsigner  jcmd     jfr     jmap     jshell    keytool
java      jconsole  jhsdb   jmod     jstack    rmiregistry
javac      jdb      jimage  jpackage  jstat    serialver
javadoc   jdeprscan jinfo   jps     jstard
root@ip-172-31-90-59:~/jdk-18.0.2.1/bin# pwd
/root/jdk-18.0.2.1/bin
```

=> pwd

Copy the path

=> /root/jdk-18.0.2.1/bin

```
name=Ram
$PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/sr
JAVA_HOME=/root/jdk-18.0.2.1
PATH=$PATH:$JAVA_HOME/bin
```

Go to below file location

Vi /etc/environment

```
root@ip-172-31-90-59:~/jdk-18.0.2.1/bin# vi /etc/environment |
```

=> JAVA_HOME=/home/ubuntu/jdk-18.0.2.1

=> PATH=\$PATH:\$JAVA_HOME/bin

```
ubuntu@ip-172-31-28-55:~$ cat /etc/environment
PATH="/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/snap/bin"
```

JAVA_HOME=/home/ubuntu/jdk-18.0.2.1

PATH=\$PATH:\$JAVA_HOME/bin

ubuntu@ip-172-31-28-55:~\$ |

```
ubuntu@ip-172-31-28-55:~$ java -version
```

openjdk version "18.0.2.1" 2022-08-18

OpenJDK Runtime Environment (build 18.0.2.1+1-1)

OpenJDK 64-Bit Server VM (build 18.0.2.1+1-1, mixed mode, sharing)

ubuntu@ip-172-31-28-55:~\$ cat /etc/environment

```
PATH="/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/snap/bin"
```

JAVA_HOME=/home/ubuntu/jdk-18.0.2.1

PATH=\$PATH:\$JAVA_HOME/bin

ubuntu@ip-172-31-28-55:~\$ |

ubuntu@ip-172-31-95-182:~/jdk-18.0.2.1/bin\$

sudo cat /etc/environment

```
PATH="/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:
```

ubuntu@ip-172-31-95-182:~/jdk-18.0.2.1/bin\$ echo \$PATH

```
/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/snap/
```

ubuntu@ip-172-31-95-182:~/jdk-18.0.2.1/bin\$ name=209

ubuntu@ip-172-31-95-182:~/jdk-18.0.2.1/bin\$ echo \$name

209

← Batch11-DailyNotes

Robin	MySQL High Availability	2014	Bell, Charles
horse	Linux in a Nutshell	2009	Siever, Ellen
donkey	Cisco IOS in a Nutshell	2005	Boney, James
oryx	Writing Word Macros	1999	Roman, Steven

python	Programming Python	2010	Lutz, Mark
snail	SSH, The Secure Shell	2005	Barrett, Daniel
alpaca	Intermediate Perl	2012	Schwartz, Randal
robin	MySQL High Availability	2014	Bell, Charles
horse	Linux in a Nutshell	2009	Siever, Ellen
donkey	Cisco IOS in a Nutshell	2005	Boney, James
oryx	Writing Word Macros	1999	Roman, Steven

```
joipuser@ip-172-31-55-77:~$ sudo adduser joipuser
Adding user `joipuser' ...
Adding new group `joipuser' (1001) ...
Adding new user `joipuser' (1001) with group `joipuser' ...
Creating home directory `/home/joipuser' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for joipuser
Enter the new value, or press ENTER for the default
  Full Name []:
  Room Number []:
  Work Phone []:
  Home Phone []:
  Other []:
Is the information correct? [Y/n] Y
ubuntu@ip-172-31-55-77:~$ sudo cat /etc/passwd |grep joipuser
joipuser:x:1001:1001:,:/home/joipuser:/bin/bash
ubuntu@ip-172-31-55-77:~$ su joipuser
Password:
joipuser@ip-172-31-55-77:/home/ubuntu$ pwd
/home/ubuntu
joipuser@ip-172-31-55-77:/home/ubuntu$ cd ~
joipuser@ip-172-31-55-77:~$ pwd
/home/joipuser
joipuser@ip-172-31-55-77:~$ sudo apt-get update
[sudo] password for joipuser:
joipuser is not in the sudoers file. This incident will be reported.
joipuser@ip-172-31-55-77:~$ |
```

=====

Docker Installation 

← Batch11-DailyNotes

<https://get.docker.com/>

<https://docs.docker.com/engine/install/ubuntu/#install-docker-engine> (Use this documentation)
<https://docs.docker.com/engine/install/linux-postinstall/> (To add user to group)

Connect to your Machine and execute below steps

```
$ sudo apt-get update
$ curl -fsSL https://get.docker.com -o get-docker.sh

$ sudo sh get-docker.sh

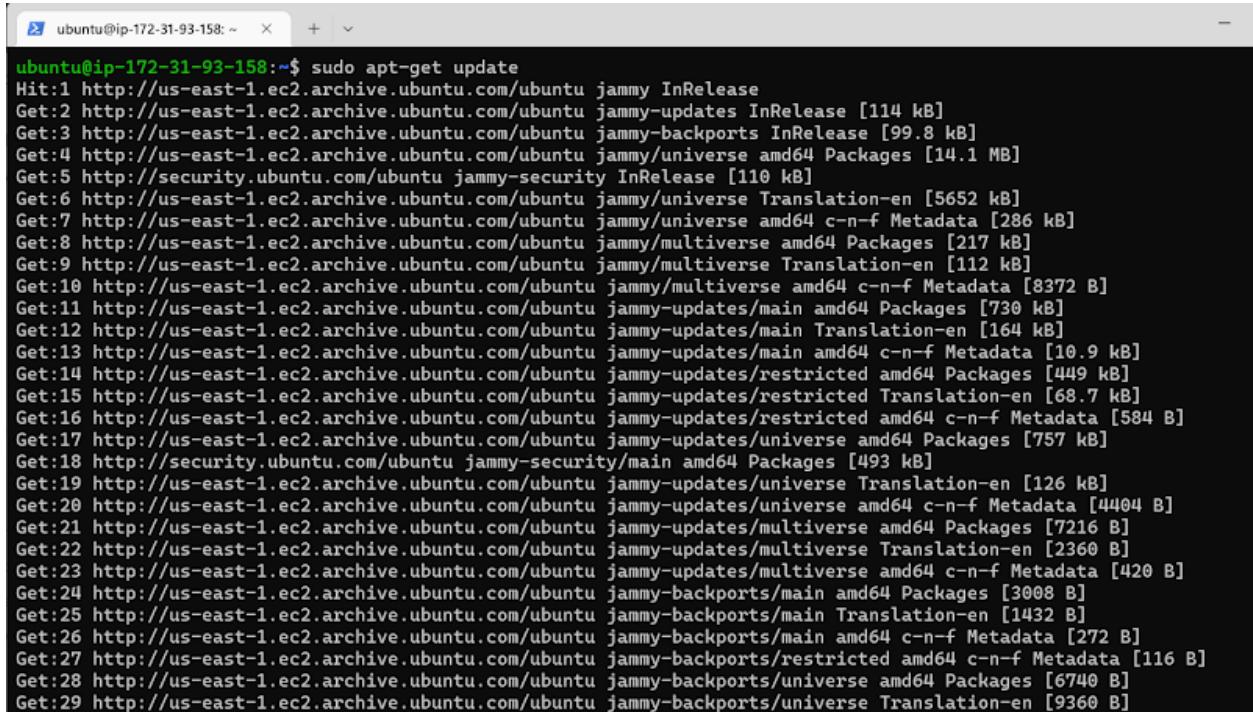
$ sudo usermod -aG docker ubuntu

# After successful installation please re-login into your machine

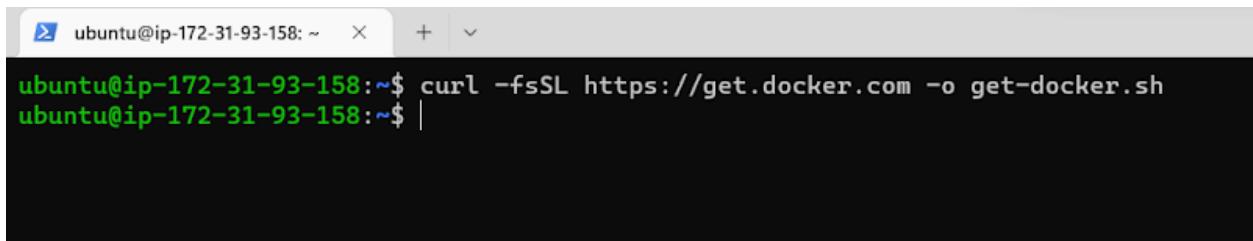
# After re-login try to get docker info

$ docker --version

$ docker info
```



```
ubuntu@ip-172-31-93-158:~$ sudo apt-get update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [114 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [99.8 kB]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]
Get:5 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe Translation-en [5652 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 c-n-f Metadata [286 kB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [217 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse Translation-en [112 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 c-n-f Metadata [8372 B]
Get:11 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [730 kB]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [164 kB]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata [10.9 kB]
Get:14 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [449 kB]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [68.7 kB]
Get:16 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 c-n-f Metadata [584 B]
Get:17 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [757 kB]
Get:18 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [493 kB]
Get:19 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [126 kB]
Get:20 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [4404 B]
Get:21 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [7216 B]
Get:22 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [2360 B]
Get:23 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [420 B]
Get:24 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [3008 B]
Get:25 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [1432 B]
Get:26 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [272 B]
Get:27 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:28 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [6740 B]
Get:29 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [9360 B]
```



```
ubuntu@ip-172-31-93-158:~$ curl -fsSL https://get.docker.com -o get-docker.sh
ubuntu@ip-172-31-93-158:~$ |
```

← Batch11-DailyNotes

```
+ sh -c apt-get update -qq >/dev/null
+ sh -c DEBIAN_FRONTEND=noninteractive apt-get install -y -qq apt-transport-https ca-certificates curl >/dev/null
+ sh -c mkdir -p /etc/apt/keyrings && chmod -R 0755 /etc/apt/keyrings
+ sh -c curl -fsSL "https://download.docker.com/linux/ubuntu/gpg" | gpg --dearmor --yes -o /etc/apt/keyrings/docker.gpg
+ sh -c chmod a+r /etc/apt/keyrings/docker.gpg
+ sh -c echo "deb [arch=amd64 signed-by=/etc/apt/keyrings/docker.gpg] https://download.docker.com/linux/ubuntu jammy
r.list
+ sh -c apt-get update -qq >/dev/null
|
```

```
ubuntu@ip-172-31-93-158: ~ + -
```

Server: Docker Engine – Community
 Engine:
 Version: 20.10.21
 API version: 1.41 (minimum version 1.12)
 Go version: go1.18.7
 Git commit: 3056208
 Built: Tue Oct 25 17:59:49 2022
 OS/Arch: linux/amd64
 Experimental: false
 containerd:
 Version: 1.6.10
 GitCommit: 770bd0108c32f3fb5c73ae1264f7e503fe7b2661
 runc:
 Version: 1.1.4
 GitCommit: v1.1.4-0-g5fd4c4d
 docker-init:
 Version: 0.19.0
 GitCommit: de40ad0

To run Docker as a non-privileged user, consider setting up the Docker daemon in rootless mode for your user:

```
dockerd-rootless-setuptool.sh install
```

Visit <https://docs.docker.com/go/rootless/> to learn about rootless mode.

To run the Docker daemon as a fully privileged service, but granting non-root users access, refer to <https://docs.docker.com/go/daemon-access/>

WARNING: Access to the remote API on a privileged Docker daemon is equivalent to root access on the host. Refer to the 'Docker daemon attack surface' documentation for details: <https://docs.docker.com/go/attack-surface/>

```
ubuntu@ip-172-31-93-158:~$ |
```

```
=====  

ubuntu@ip-172-31-93-158:~$ sudo usermod -aG docker ubuntu  

ubuntu@ip-172-31-93-158:~$ |
```

Now re login into machine get docker info

← Batch11-DailyNotes

```
ubuntu@ip-172-31-93-158:~$ docker --version
Docker version 20.10.21, build baedaf
ubuntu@ip-172-31-93-158:~$ |
```

```
ubuntu@ip-172-31-93-158:~ x + v
ubuntu@ip-172-31-93-158:~$ exit
logout
Connection to ec2-44-202-110-83.compute-1.amazonaws.com closed.
PS C:\Users\tgram\Downloads> ssh -i "Remote1.pem" ubuntu@ec2-44-202-110-83.compute-1.amazonaws.com
Welcome to Ubuntu 22.04.1 LTS (GNU/Linux 5.15.0-1019-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

 System information as of Fri Nov 25 09:32:51 UTC 2022

System load:  0.01806640625  Processes:          103
Usage of /:   28.7% of 7.57GB  Users logged in:    0
Memory usage: 26%            IPv4 address for docker0: 172.17.0.1
Swap usage:   0%             IPv4 address for eth0:   172.31.93.158

89 updates can be applied immediately.
55 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Last login: Fri Nov 25 09:23:32 2022 from 183.82.107.240
ubuntu@ip-172-31-93-158:~$ |
```

Now try to get docker info

← Batch11-DailyNotes

```

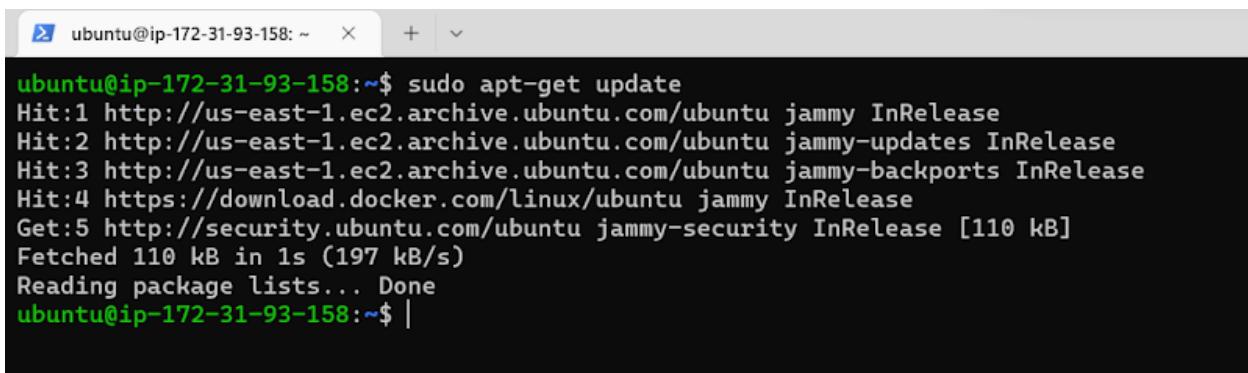
Context: default
Debug Mode: false
Plugins:
  app: Docker App (Docker Inc., v0.9.1-beta3)
  buildx: Docker Buildx (Docker Inc., v0.9.1-docker)
  compose: Docker Compose (Docker Inc., v2.12.2)
  scan: Docker Scan (Docker Inc., v0.21.0)

Server:
Containers: 0
Running: 0
Paused: 0
Stopped: 0
Images: 0
Server Version: 20.10.21
Storage Driver: overlay2
  Backing Filesystem: extfs
  Supports d_type: true
  Native Overlay Diff: true
  userxattr: false
Logging Driver: json-file
Cgroup Driver: systemd
Cgroup Version: 2
Plugins:
  Volume: local
  Network: bridge host ipvlan macvlan null overlay
    Log: awslogs fluentd gcplogs gelf journalctl json-file local logentries splunk syslog
Swarm: inactive
Runtimes: io.containerd.runc.v2 io.containerd.runtime.v1.linux runc
Default Runtime: runc
Init Binary: docker-init
containerd version: 770bd0108c32f3fb5c73ae1264f7e503fe7b2661
runc version: v1.1.4-0-g5fd4c4d
init version: de40ad0
Security Options:
  apparmor
  seccomp
    Profile: default

```

JENKINS INSTALLATION ON UBUNTU 20.04

=> Connect your machine and execute below steps 🍏



```

ubuntu@ip-172-31-93-158:~$ sudo apt-get update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:4 https://download.docker.com/linux/ubuntu jammy InRelease
Get:5 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Fetched 110 kB in 1s (197 kB/s)
Reading package lists... Done
ubuntu@ip-172-31-93-158:~$ |

```

← Batch11-DailyNotes

```
Command: java not found, but can be installed with:
sudo apt install default-jre          # version 2:1.11-72build2, or
sudo apt install openjdk-11-jre-headless # version 11.0.17+8-1ubuntu2~22.04
sudo apt install openjdk-18-jre-headless # version 18~36ea-1
sudo apt install openjdk-8-jre-headless  # version 8u312-b07-0ubuntu1
sudo apt install openjdk-17-jre-headless # version 17.0.3+7-0ubuntu0.22.04.1
```

=> Search for java in your machine

=> sudo apt-cache search jdk

```
ubuntu@ip-172-31-93-158:~$ sudo apt-cache search jdk
default-jdk - Standard Java or Java compatible Development Kit
default-jdk-doc - Standard Java or Java compatible Development Kit (documentation)
default-jdk-headless - Standard Java or Java compatible Development Kit (headless)
default-jre - Standard Java or Java compatible Runtime
default-jre-headless - Standard Java or Java compatible Runtime (headless)
openjdk-11-dbg - Java runtime based on OpenJDK (debugging symbols)
openjdk-11-doc - OpenJDK Development Kit (JDK) documentation
openjdk-11-jdk - OpenJDK Development Kit (JDK)
openjdk-11-jdk-headless - OpenJDK Development Kit (JDK) (headless)
openjdk-11-jre - OpenJDK Java runtime, using Hotspot JIT
openjdk-11-jre-headless - OpenJDK Java runtime, using Hotspot JIT (headless)
openjdk-11-source - OpenJDK Development Kit (JDK) source files
crypto-policies - unify the crypto policies used by different applications and libraries
fakeroot-ng - Gives a fake root environment
golang-github-jdkato-prose-dev - Golang library for text processing
golang-github-jdkato-syllables-dev - Go syllable counter
japitools - Java API compatibility testing tools
jattach - JVM Dynamic Attach utility all in one jmap jstack jcmand jinfo
java3ds-fileloader - Java3D 3DS File Loader
jtreg - Regression Test Harness for the OpenJDK platform
jtreg6 - Regression Test Harness for the OpenJDK platform
libanimal-sniffer-java - JDK/API verification tools
libanimal-sniffer-java-doc - Documentation for Animal Sniffer
libassertj-core-java - Fluent assertions for Java
libbackport9-java - Collection of backports and utilities for apps and libraries
libcava-java - Libraries and tools for blockchain and decentralized software
libcolt-free-java - scalable scientific and technical computing in Java
libcolt-free-java-doc - scalable scientific and technical computing in Java (doc)
libcommons-collections3-java - Apache Commons Collections - Extended Collections API for Java
libcommons-collections4-java - Apache Commons Collections - Extended Collections API for Java
libcommons-collections4-java-doc - Documentation for Commons Collections 4
libcommons-lang-java - Commons Lang - an extension of the java.lang package
libcommons-lang-java-doc - Documentation for Commons Lang - an extension of the java.lang package
libcommons-math-java - Java lightweight mathematics and statistics components
libcommons-math-java-doc - Java lightweight mathematics and statistics components - documentation
libcommons-math3-java - Java lightweight mathematics and statistics components
libcommons-math3-java-doc - Java lightweight mathematics and statistics components - documentation
libeclipse-collections-java - Eclipse Collections - comprehensive collections library for Java
libgkl-java - Java library to manipulate SAM and BAM files
```

Here search for openjdk-11

=> sudo apt-cache search jdk | grep openjdk-11-jdk

```
ubuntu@ip-172-31-93-158:~$ sudo apt-cache search jdk | grep openjdk-11-jdk
openjdk-11-jdk - OpenJDK Development Kit (JDK)
openjdk-11-jdk-headless - OpenJDK Development Kit (JDK) (headless)
ubuntu@ip-172-31-93-158:~$ |
```

Now install openjdk-11-jdk

=> sudo apt install openjdk-11-jdk -y

← Batch11-DailyNotes

```
The following additional packages will be installed:
alsa-topology-conf alsamixer-conf at-spi2-core ca-certificates-java dconf-gsettings-backend dconf-service fontconfig-config fonts-dejavu-extra gsettings-desktop-schemas java-common libasound2 libasound2-data libatk-bridge2.0-0 libatk-wrapper-java libatk1.0-0 libatk1.0-0-data libatspi2.0-0 libavahi-client3 libavahi-common-data libavahi-common3 libcups2 libdconf1 libdrm-amdgpu libdrm-nouveau2 libdrm-radeon1 libfontconfig1 libfontenc1 libgif7 libgl1 libgl1-amber-dri libgl1-mesa-dri libglapi-mesa libglvnp libgraphite2-3 libharfbuzz0b libice-dev libice6 libjpeg-turbo8 libjpeg8 liblcms2-2 liblvm13 libpciaccess0 libpccsclite1 libpthrb libssensors-config libssensors5 libsm-dev libsm6 libvulkan1 libwayland-client0 libx11-dev libx11-xcb1 libxau-dev libxaw7 libxcb-dm libxcb-glx0 libxcb-present0 libxcb-randr0 libxcb-shape0 libxcb-shm0 libxcb-sync1 libxcb-xfixes0 libxcb1-dev libxcompositel libxext libxf2t libxi6 libxinerama1 libxkbfile1 libxmu6 libxpm4 libxrandr2 libxrender1 libxshmfence1 libxt-dev libxt6 libxtst6 libxvi1 libxvln1 mesa-vulkan-drivers openjdk-11-jdk-headless openjdk-11-jre openjdk-11-jre-headless session-migration x11-common x11-utils x11proto-xorg-sgml-doctools xtrans-dev
Suggested packages:
default-jre libasound2-plugins alsamixer-conf libice-doc liblcms2-utils pcscd lm-sensors libsm-doc libx11-doc libxcb-doc openjdk-11-demo openjdk-11-source visualvm libnss-mdns fonts-ipafont-gothic fonts-ipafont-mincho fonts-wqy-microhei | fonts-wqy-mesabi fonts-wqy-microhei
The following NEW packages will be installed:
alsa-topology-conf alsamixer-conf at-spi2-core ca-certificates-java dconf-gsettings-backend dconf-service fontconfig-config fonts-dejavu-extra gsettings-desktop-schemas java-common libasound2 libasound2-data libatk-bridge2.0-0 libatk-wrapper-java libatk1.0-0 libatk1.0-0-data libatspi2.0-0 libavahi-client3 libavahi-common-data libavahi-common3 libcups2 libdconf1 libdrm-amdgpu libdrm-nouveau2 libdrm-radeon1 libfontconfig1 libfontenc1 libgif7 libgl1 libgl1-amber-dri libgl1-mesa-dri libglapi-mesa libglvnp libgraphite2-3 libharfbuzz0b libice-dev libice6 libjpeg-turbo8 libjpeg8 liblcms2-2 liblvm13 libpciaccess0 libpccsclite1 libpthrb libssensors-config libssensors5 libsm-dev libsm6 libvulkan1 libwayland-client0 libx11-dev libx11-xcb1 libxau-dev libxaw7 libxcb-dm libxcb-glx0 libxcb-present0 libxcb-randr0 libxcb-shape0 libxcb-shm0 libxcb-sync1 libxcb-xfixes0 libxcb1-dev libxcompositel libxext libxf2t libxi6 libxinerama1 libxkbfile1 libxmu6 libxpm4 libxrandr2 libxrender1 libxshmfence1 libxt-dev libxt6 libxtst6 libxvi1 libxvln1 mesa-vulkan-drivers openjdk-11-jdk openjdk-11-jre openjdk-11-jre-headless session-migration x11-common x11-utils x11proto-xorg-sgml-doctools xtrans-dev
0 upgraded, 98 newly installed, 0 to remove and 86 not upgraded.
Need to get 306 MB of archives.
After this operation, 597 MB of additional disk space will be used.
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 alsamixer-conf all 1.2.5.1-2 [15.5 kB]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libasound2-data all 1.2.6.1-1ubuntul [19.1 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libasound2 amd64 1.2.6.1-1ubuntul [390 kB]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 alsamixer-conf all 1.2.6.3-1ubuntul.1 [41.1 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libx11 amd64 2:1.8-build1 [32.6 kB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libatspi2.0-0 amd64 2:44.0-3 [89.9 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 x11-common all 1:7.7+23ubuntul2 [23.4 kB]
```

```
=> java -version
```

```
=> cd /  
=> cd usr/  
=> cd lib/  
=> cd jvm/  
=> cd /usr/lib/jvm/
```

```
ubuntu@ip-172-31-93-158:~/usr/share$ cd ..
ubuntu@ip-172-31-93-158:~/usr$ ls
bin games include lib lib32 lib64 libexec libx32 local sbin share src
ubuntu@ip-172-31-93-158:~/usr$ cd lib
lib/ lib32/ lib64/ libexec/ libx32/
ubuntu@ip-172-31-93-158:~/usr$ cd lib/jvm/
ubuntu@ip-172-31-93-158:~/usr/lib/jvm$ ls
java-1.11.0-openjdk-amd64 java-11-openjdk-amd64 openjdk-11
ubuntu@ip-172-31-93-158:~/usr/lib/jvm$ cd java-11-openjdk-amd64/
ubuntu@ip-172-31-93-158:~/usr/lib/jvm/java-11-openjdk-amd64$ ls
bin conf docs include jmodss legal lib man release
ubuntu@ip-172-31-93-158:~/usr/lib/jvm/java-11-openjdk-amd64$ pwd
/usr/lib/jvm/java-11-openjdk-amd64
ubuntu@ip-172-31-93-158:~/usr/lib/jvm/java-11-openjdk-amd64$ cd bin/
ubuntu@ip-172-31-93-158:~/usr/lib/jvm/java-11-openjdk-amd64/bin$ ls
jatoc jarsigner javac javap jconsole jdeprscan jfr jimage jjs jmap jps jshell jstat keytool rmic rmiregistry unpack200
jar java javadoc jcmd jdb jdeps jhsdb jimage jlink jmod jrunscript jstack jstated pack200 rmid serialver
ubuntu@ip-172-31-93-158:~/usr/lib/jvm/java-11-openjdk-amd64/bin$ pwd
/usr/lib/jvm/java-11-openjdk-amd64/bin
ubuntu@ip-172-31-93-158:~/usr/lib/jvm/java-11-openjdk-amd64/bin$ |
```

← Batch11-DailyNotes

```
bin  cert  docs  include  jmod  legal  lib  man  release
ubuntu@ip-172-31-93-158:/usr/lib/jvm/java-11-openjdk-amd64$ pwd
/usr/lib/jvm/java-11-openjdk-amd64
ubuntu@ip-172-31-93-158:/usr/lib/jvm/java-11-openjdk-amd64$ cd bin/
ubuntu@ip-172-31-93-158:/usr/lib/jvm/java-11-openjdk-amd64/bin$ ls
jaotc  jarsigner  javac  javap  jconsole  jdeprscan  jfr  jimage  jjs
jar  java  javadoc  jcml  jdb  jdeps  jhsdb  jinfo  jli
ubuntu@ip-172-31-93-158:/usr/lib/jvm/java-11-openjdk-amd64/bin$ pwd
/usr/lib/jvm/java-11-openjdk-amd64/bin
ubuntu@ip-172-31-93-158:/usr/lib/jvm/java-11-openjdk-amd64/bin$ |
```

Set path for java

Go to /etc/

=> sudo vi /etc/environment

=> Add below path in the file

```
JAVA_HOME=/usr/lib/jvm/java-11-openjdk-amd64
PATH=$PATH:$JAVA_PATH/bin
```

```
JAVA_HOME=/usr/lib/jvm/java-11-openjdk-amd64
PATH=$PATH:$JAVA_PATH/bin
```

The screenshot shows a terminal window with the following content:

```
ubuntu@ip-172-31-93-158: ~ + 
PATH="/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/snap/bin"
JAVA_HOME=/usr/lib/jvm/java-11-openjdk-amd64
PATH=$PATH:$JAVA_PATH/bin|
```

The terminal window has a light gray background and a dark gray header bar. The command `PATH` is set to a standard system path, and `JAVA_HOME` is explicitly set to the Java 11 directory. The final line shows the command being run.

=> Save the file and set the path by executing below command

=> source /etc/environment

The screenshot shows a terminal window with the following content:

```
ubuntu@ip-172-31-93-158: ~ + 
ubuntu@ip-172-31-93-158:~$ sudo vi /etc/environment
ubuntu@ip-172-31-93-158:~$ source /etc/environment
ubuntu@ip-172-31-93-158:~$ |
```

The terminal window has a light gray background and a dark gray header bar. The user runs `sudo vi /etc/environment` to edit the file, then `source /etc/environment` to apply the changes. The final line shows the command being run.

=> whereis java

=> java --version

← Batch11-DailyNotes

```
ubuntu@ip-172-31-93-158:~$ java --version
openjdk 11.0.17 2022-10-18
OpenJDK Runtime Environment (build 11.0.17+8-post-Ubuntu-1ubuntu22.04)
OpenJDK 64-Bit Server VM (build 11.0.17+8-post-Ubuntu-1ubuntu22.04, mixed mode, sharing)
ubuntu@ip-172-31-93-158:~$ |
```

Now install Maven

<https://linuxize.com/post/how-to-install-apache-maven-on-ubuntu-18-04/>

=> sudo apt update

```
ubuntu@ip-172-31-93-158:~$ sudo apt update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [114 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [99.8 kB]
Hit:4 https://download.docker.com/linux/ubuntu jammy InRelease
Get:5 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Fetched 324 kB in 0s (665 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
86 packages can be upgraded. Run 'apt list --upgradable' to see them.
ubuntu@ip-172-31-93-158:~$ |
```

=> sudo apt install maven -y

```
ubuntu@ip-172-31-93-158:~$ sudo apt install maven -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
libapalliance-java libapache-pom-java libatinject-jsr330-api-java libcdi-api-java libcommons-cli-java libcommons-j
libcommons-parent-java libgeronimo-annotation-1.3-spec-java libgeronimo-interceptor-3.0-spec-java libguava-java lib
libjansi-java libjansi-native-java libjsr305-java libmaven-parent-java libmaven-resolver-java libmaven-shared-util
libplexus-cipher-java libplexus-classworlds-java libplexus-component-annotations-java libplexus-interpolation-java
libplexus-utils2-java libsisu-inject-java libsisu-plexus-java libslf4j-java libwagon-file-java libwagon-http-shaded
Suggested packages:
libapalliance-java-doc libatinject-jsr330-api-java-doc libel-api-java libcommons-io-java-doc libcommons-lang3-java
libjsr305-java-doc libmaven-shared-utils-java-doc liblogback-java libplexus-classworlds-java-doc libplexus-sec-disp
libplexus-utils2-java-doc junit4 testng libcommons-logging-java liblog4j1.2-java
The following NEW packages will be installed:
libapalliance-java libapache-pom-java libatinject-jsr330-api-java libcdi-api-java libcommons-cli-java libcommons-j
libcommons-parent-java libgeronimo-annotation-1.3-spec-java libgeronimo-interceptor-3.0-spec-java libguava-java lib
libjansi-java libjansi-native-java libjsr305-java libmaven-parent-java libmaven-resolver-java libmaven-shared-util
libplexus-cipher-java libplexus-classworlds-java libplexus-component-annotations-java libplexus-interpolation-java
libplexus-utils2-java libsisu-inject-java libsisu-plexus-java libslf4j-java libwagon-file-java libwagon-http-shaded
maven
Selecting previously unselected package maven.
Preparing to unpack .../32-maven_3.6.3-5_all.deb ...
Unpacking maven (3.6.3-5) ...
Setting up libslf4j-java (1.7.32-1) ...
Setting up libplexus-utils2-java (3.3.0-1) ...
Setting up libplexus-classworlds-java (2.6.0-1) ...
Setting up libjsr305-java (0.1~+svn49-11) ...
Setting up libapalliance-java (20070526-6) ...
Setting up libcommons-cli-java (1.4-2) ...
Setting up libplexus-component-annotations-java (2.1.0-1) ...
Setting up libplexus-cipher-java (1.8-2) ...
Setting up libgeronimo-annotation-1.3-spec-java (1.3-1) ...
Setting up libgeronimo-interceptor-3.0-spec-java (1.0.1-4fakesync) ...
Setting up libapache-pom-java (18-1) ...
Setting up libatinject-jsr330-api-java (1.0+ds1-5) ...
Setting up libplexus-interpolation-java (1.26-1) ...
Setting up libplexus-sec-dispatcher-java (1.4-4) ...
Setting up libwagon-http-shaded-java (3.3.4-1) ...
Setting up libcdi-api-java (1.2-3) ...
```

← Batch11-DailyNotes

=> mvn -v

```
ubuntu@ip-172-31-93-158:~ $ mvn -v
Apache Maven 3.6.3
Maven home: /usr/share/maven
Java version: 11.0.17, vendor: Ubuntu, runtime: /usr/lib/jvm/java-11-openjdk-amd64
Default locale: en, platform encoding: UTF-8
OS name: "linux", version: "5.15.0-1019-aws", arch: "amd64", family: "unix"
ubuntu@ip-172-31-93-158:~$ |
```

Now install jenkins

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

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

The screenshot shows the Jenkins documentation for installing Jenkins on Debian/Ubuntu. It includes a sidebar with links like User Documentation Home, User Handbook (with sections for Docker, Kubernetes, Linux, macOS, WAR files, Windows, Other Systems, Offline Installations, Initial Settings, Using Jenkins, and Pipeline), and a main content area for "Debian/Ubuntu". The main content area discusses the Long Term Support release and provides a terminal command to add the Jenkins GPG key and update the package list:

```
curl -fsSL https://pkg.jenkins.io/debian-stable/jenkins.io.key | sudo tee \
/usr/share/keyrings/jenkins-keyring.asc > /dev/null
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
sudo apt-get update
sudo apt-get install jenkins
```

=> curl -fsSL https://pkg.jenkins.io/debian-stable/jenkins.io.key | sudo tee \
/usr/share/keyrings/jenkins-keyring.asc > /dev/null

```
ubuntu@ip-172-31-93-158:~ $ curl -fsSL https://pkg.jenkins.io/debian-stable/jenkins.io.key | sudo tee \
/usr/share/keyrings/jenkins-keyring.asc > /dev/null
ubuntu@ip-172-31-93-158:~$ |
```

← Batch11-DailyNotes

```
ubuntu@ip-172-31-93-158:~$ 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
ubuntu@ip-172-31-93-158:~$ |
```

=> sudo apt update

```
ubuntu@ip-172-31-93-158:~$ curl -fsSL https://pkg.jenkins.io/debian-stable/jenkins.io.key | sudo tee \
/usr/share/keyrings/jenkins-keyring.asc > /dev/null
ubuntu@ip-172-31-93-158:~$ 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
ubuntu@ip-172-31-93-158:~$ sudo apt update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [114 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [99.8 kB]
Hit:4 https://download.docker.com/linux/ubuntu jammy InRelease
Ign:5 https://pkg.jenkins.io/debian-stable binary/ InRelease
Get:6 https://pkg.jenkins.io/debian-stable binary/ Release [2044 B]
Get:7 https://pkg.jenkins.io/debian-stable binary/ Release.gpg [833 B]
Hit:8 http://security.ubuntu.com/ubuntu jammy-security InRelease
Get:9 https://pkg.jenkins.io/debian-stable binary/ Packages [23.6 kB]
Fetched 240 kB in 0s (484 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
86 packages can be upgraded. Run 'apt list --upgradable' to see them.
ubuntu@ip-172-31-93-158:~$ |
```

=> sudo apt-get install jenkins

```
ubuntu@ip-172-31-93-158:~$ sudo apt-get install jenkins -y
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 86 not upgraded.
Need to get 93.0 MB of archives.
After this operation, 94.4 MB of additional disk space will be used.
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 net-tools amd64 1.60+git20181103.0eebece-1ubuntu5
Get:2 https://pkg.jenkins.io/debian-stable binary/ jenkins 2.361.4 [92.8 MB]
Fetched 93.0 MB in 7s (13.6 MB/s)
Selecting previously unselected package net-tools.
(Reading database ... 67284 files and directories currently installed.)
Preparing to unpack .../net-tools_1.60+git20181103.0eebece-1ubuntu5_amd64.deb ...
Unpacking net-tools (1.60+git20181103.0eebece-1ubuntu5) ...
Selecting previously unselected package jenkins.
Preparing to unpack .../jenkins_2.361.4_all.deb ...
Unpacking jenkins (2.361.4) ...
Setting up net-tools (1.60+git20181103.0eebece-1ubuntu5) ...
Setting up jenkins (2.361.4) ...
Created symlink /etc/systemd/system/multi-user.target.wants/jenkins.service → /lib/systemd/system/jenkins.service.
```

=> sudo service jenkins status

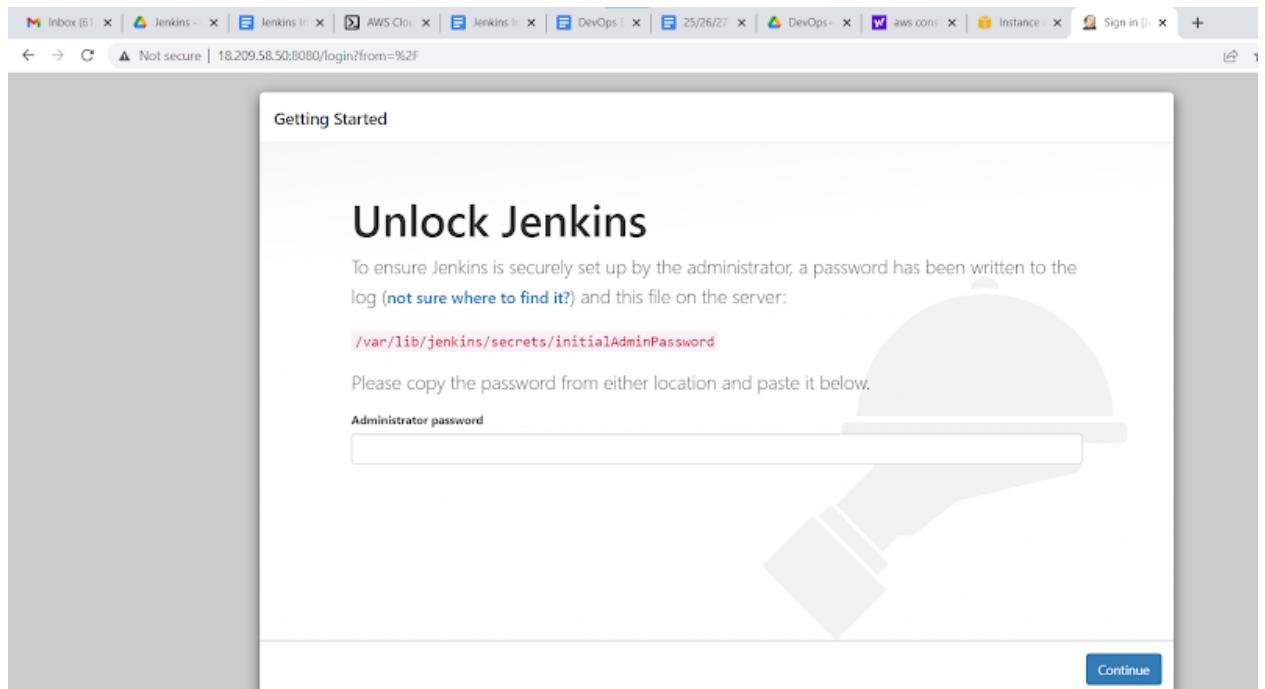
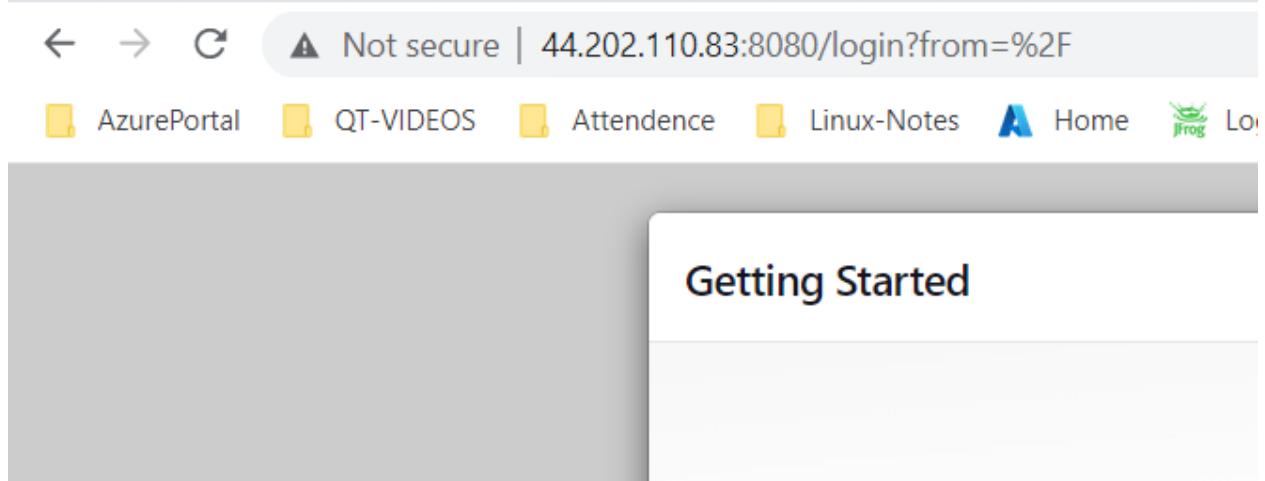
← Batch11-DailyNotes

```
Active: active (running) since Fri 2022-11-25 10:44:26 UTC; 21s ago
Main PID: 7740 (java)
  Tasks: 44 (limit: 1143)
 Memory: 302.3M
   CPU: 42.477s
 CGroup: /system.slice/jenkins.service
         └─7740 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=/var/cache/jenkins/war

Nov 25 10:43:55 ip-172-31-93-158 jenkins[7740]: This may also be found at: /var/lib/jenkins/secrets/initialAdminPassw
Nov 25 10:43:55 ip-172-31-93-158 jenkins[7740]: ****
Nov 25 10:44:26 ip-172-31-93-158 jenkins[7740]: 2022-11-25 10:44:26.745+0000 [id=29]           INFO      jenkins.
Nov 25 10:44:26 ip-172-31-93-158 jenkins[7740]: 2022-11-25 10:44:26.770+0000 [id=22]           INFO      hudson.l
Nov 25 10:44:26 ip-172-31-93-158 systemd[1]: Started Jenkins Continuous Integration Server.
Nov 25 10:44:26 ip-172-31-93-158 jenkins[7740]: 2022-11-25 10:44:26.887+0000 [id=44]           INFO      h.m.Downloa
Nov 25 10:44:26 ip-172-31-93-158 jenkins[7740]: 2022-11-25 10:44:26.889+0000 [id=44]           INFO      hudson.u
Nov 25 10:44:26 ip-172-31-93-158 jenkins[7740]: 2022-11-25 10:44:26.893+0000 [id=44]           INFO      hudson.u
lines 1-20/20 (END)
```

=> Now Go to AWS Console/Azure Portal and copy Public IP address of jenkins installed machine and paste it in browser

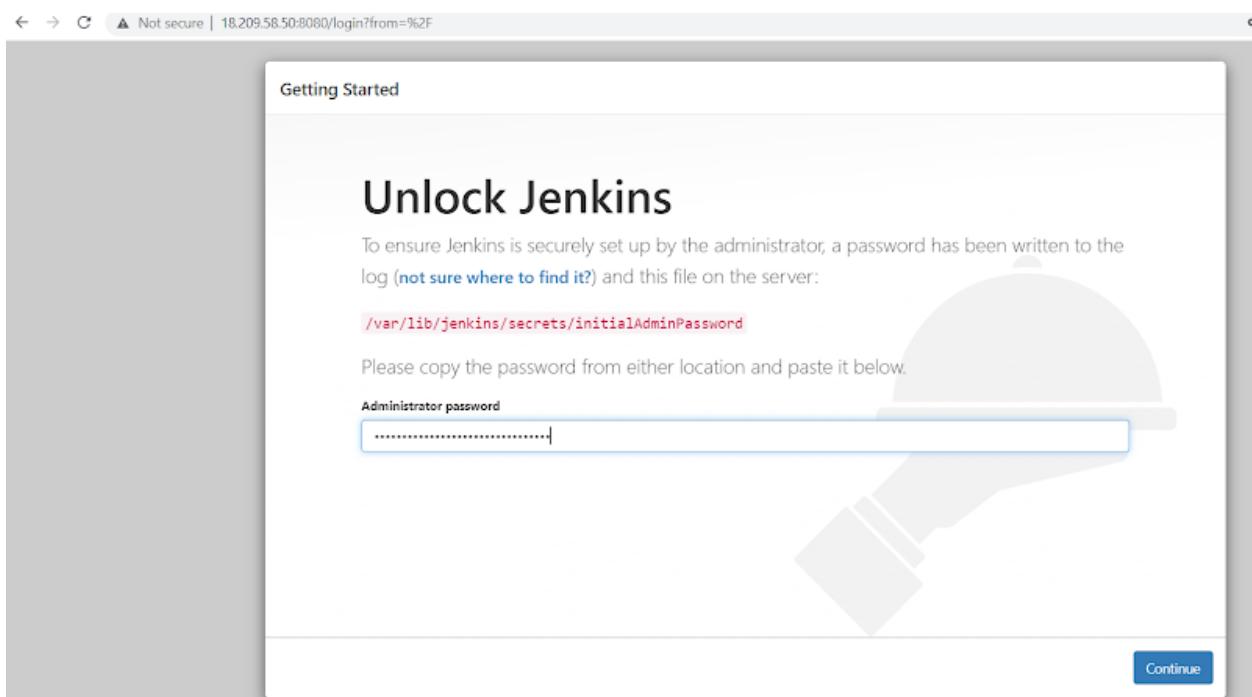
You can check jenkins dashboard from browser by using <http://PublicIP:PortNumber>



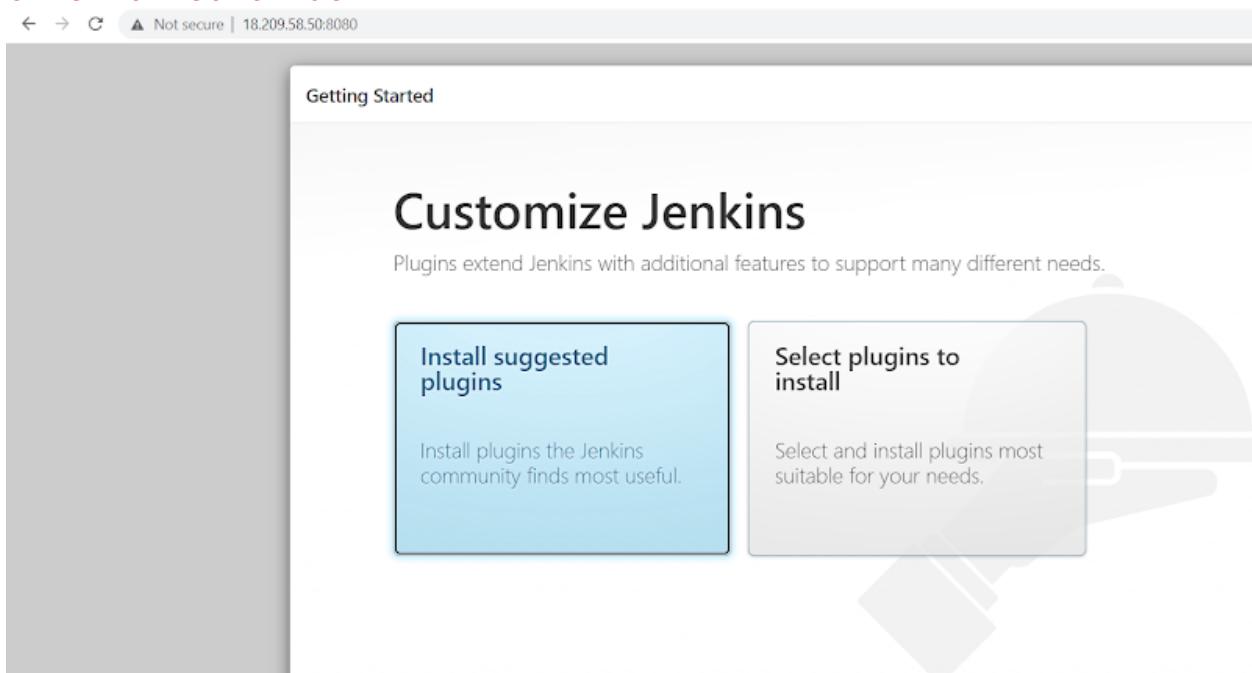
← Batch11-DailyNotes

```
ubuntu@ip-172-31-93-158:~ $ sudo cat /var/lib/jenkins/secrets/initialAdminPassword  
e4346159cebf4ee491a2624dd0fdfc56  
ubuntu@ip-172-31-93-158:~$ |
```

Copy the above security key and paste it in the jenkins home page then you will able to login inside the jenkins server



Click on continue



← Batch11-DailyNotes

The screenshot shows the Jenkins 'Getting Started' page. At the top, there's a table with several checked items:

✓ Folders	✓ OWASP Markup Formatter	✓ Build Timeout	✓ Credentials Binding
✓ Timestamper	✓ Workspace Cleanup	✓ Ant	✗ Gradle
✗ Pipeline	✗ GitHub Branch Source	✗ Pipeline: GitHub Groovy Libraries	✗ Pipeline: Stage View
✗ Git	✗ SSH Build Agents	✗ Matrix Authorization Strategy	✗ PAM Authentication
✗ LDAP	✗ Email Extension	✗ Mailer	

On the right side, a scrollable list of Jenkins API endpoints is displayed:

- jenkins
- ** SnakeYAML API
- ** Jackson 2 API
- ** Plugin Utilities API
- ** Font Awesome API
- ** Popper.js 2 API
- ** Bootstrap 5 API
- ** JQuery3 API
- ** ECharts API
- ** Display URL API
- ** Pipeline: Supporting APIs
- ** Checks API
- ** JUnit
- ** Matrix Project
- ** Resource Disposer
- Workspace Cleanup
- Ant
- ** Durable Task
- ** Pipeline: Nodes and Processes
- ** Oracle Java SE Development Kit Installer
- ** Command Agent Launcher
- ** bouncycastle API
- ** - required dependency

Jenkins 2.346.2

The screenshot shows the 'Create First Admin User' form. It has four input fields: 'Username', 'Password', 'Confirm password', and 'Full name'. Below the form are two buttons: 'Skip and continue as admin' and 'Save and Continue'.

Username:

Password:

Confirm password:

Full name:

Jenkins 2.346.2

Skip and continue as admin

Save and Continue

Batch11-DailyNotes

Username: Admin

Password:

Confirm password:

Full name: admin

E-mail address: admin@abc.com

Jenkins 2.346.2 Skip and continue as admin Save and Continue

SAVE and Continue.

Getting Started

Instance Configuration

Jenkins URL: http://18.209.58.50:8080/

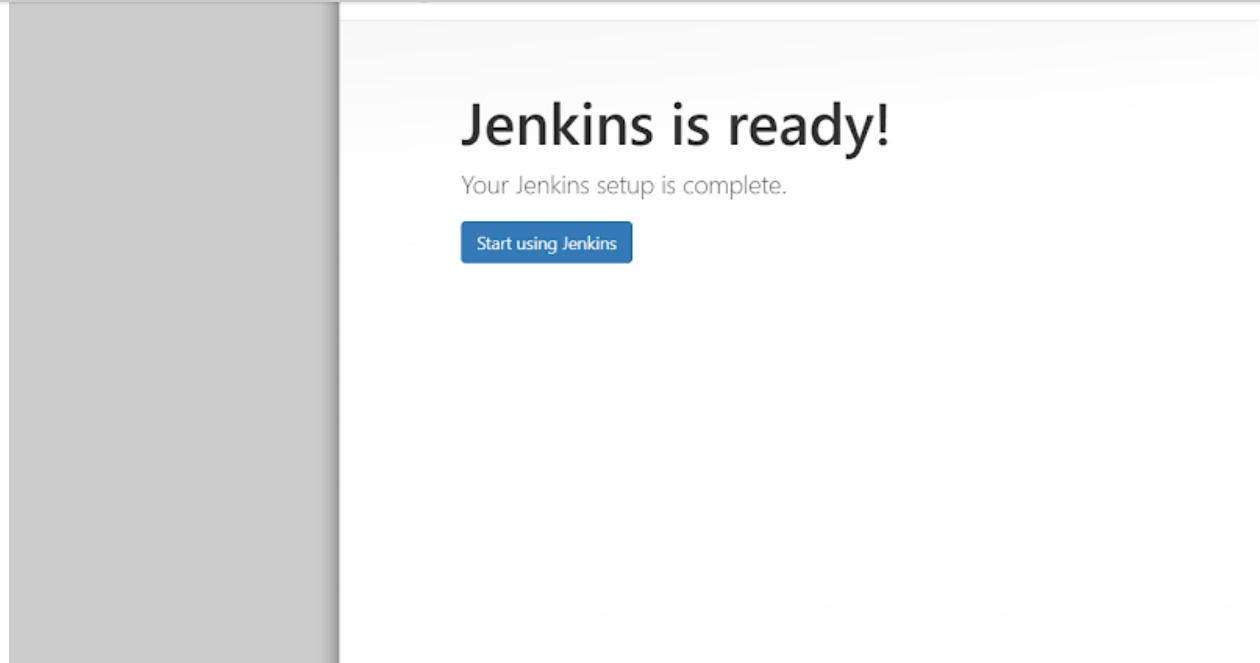
The Jenkins URL is used to provide the root URL for absolute links to various Jenkins resources. That means this value is required for proper operation of many Jenkins features including email notifications, PR status updates, and the BUILD_URL environment variable provided to build steps.

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 2.346.2 Not now Save and Finish

Click on Start Using Jenkins

← Batch11-DailyNotes

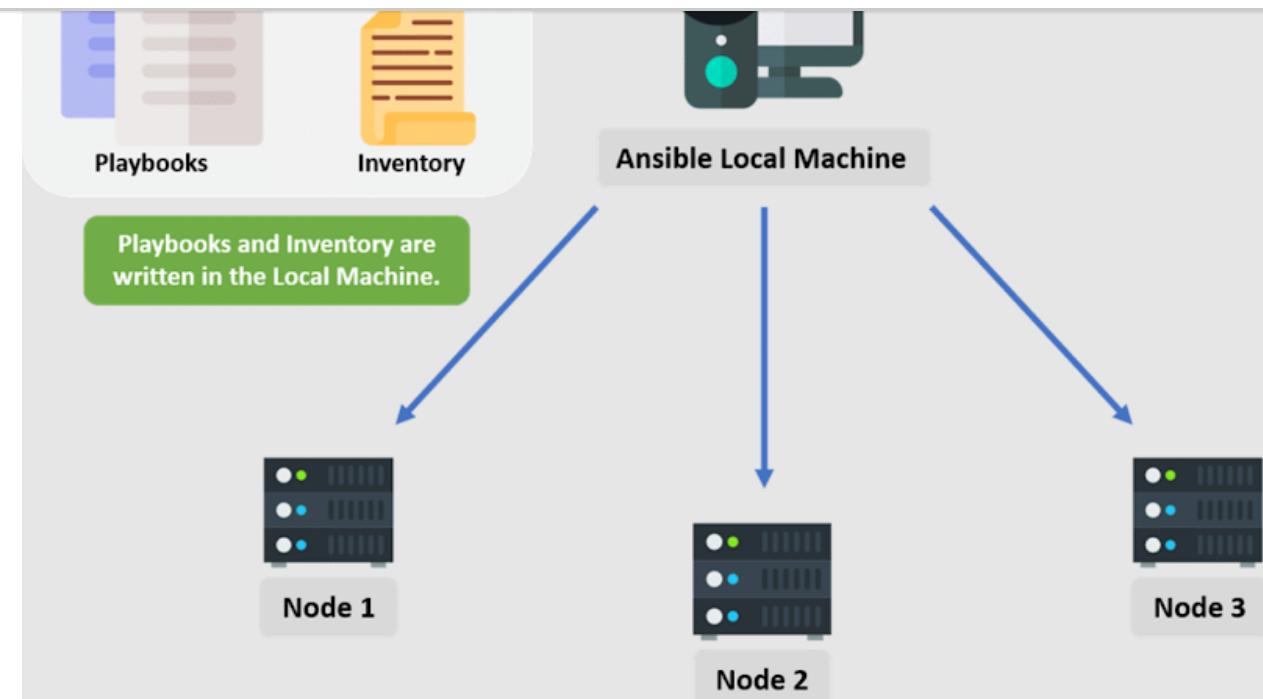


The screenshot shows the Jenkins dashboard at the URL 18.209.58.50:8080. The title bar says "Jenkins". The dashboard includes a sidebar with links like "Dashboard", "New Item", "People", "Build History", "Manage Jenkins", "My Views", and "New View". A "Build Queue" section shows "No builds in the queue.". A "Build Executor Status" section shows "1 Idle" and "2 Idle". The main content area features a "Welcome to Jenkins!" message, a "Start building your software project" button, and sections for "Set up a distributed build", "Set up an agent", and "Configure a cloud". A footer link at the bottom left points to 18.209.58.50:8080/configureClouds.

ANSIBLE INSTALLATION

=====

Batch11-DailyNotes



Step1:create 2 Machines

- >> 1 Machine as Master
- >> 2 nd one is My Nodes

Step2: Login to both Machines using terminal or putty

:

Step3:create user in both(Master & Nodes) machines

```
# sudo adduser ansible
```

Step4: Optional step for changing the name to my machines

```
# sudo hostnamectl set-hostname ansible-master
# sudo init 6 (sudo Reboot )
```

```
ubuntu@ip-172-31-62-216:~$ sudo adduser ansible
Adding user 'ansible' ...
Adding new group 'ansible' (1001) ...
Adding new user 'ansible' (1001) with group 'ansible' ...
Creating home directory '/home/ansible' ...
Copying files from '/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for ansible
Enter the new value, or press ENTER for the default
  Full Name []:
  Room Number []:
  Work Phone []:
  Home Phone []:
  Other []:
Is the information correct? [Y/n] y
ubuntu@ip-172-31-62-216:~$ hostnamectl set-hostname ansible-master
==== AUTHENTICATING FOR org.freedesktop.hostname1.set-static-hostname ====
Authentication is required to set the statically configured local hostname, as well as the pretty hostname.
Authenticating as: Ubuntu (ubuntu)
Password:
ubuntu@ip-172-31-62-216:~$ sudo hostnamectl set-hostname ansible-master
ubuntu@ip-172-31-62-216:~$ init 6
```

← Batch11-DailyNotes

Now you can see the master hostname changed

```
Connection to ec2-100-26-230-120.compute-1.amazonaws.com closed.
PS C:\Users\tgram\Downloads> ssh -i "Remotel.pem" ubuntu@ec2-100-26-230-120.compute-1.amazonaws.com
Welcome to Ubuntu 22.04.1 LTS (GNU/Linux 5.15.0-1028-aws x86_64)

 * Documentation: https://help.ubuntu.com
 * Management: https://landscape.canonical.com
 * Support: https://ubuntu.com/advantage

 System information as of Sat Mar 4 17:03:50 UTC 2023

 System load: 0.2138671875   Processes:          101
 Usage of /: 20.0% of 7.57GB  Users logged in:      0
 Memory usage: 19%           IPv4 address for eth0: 172.31.62.216
 Swap usage:  0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

Last login: Sat Mar 4 16:56:03 2023 from 183.83.39.202
ubuntu@ansible-master:~$ |
```

Login into node and do the same

```
# sudo hostnamectl set-hostname ansible-node
# init 6 (Reboot)
ubuntu@ip-172-31-92-139:~$ sudo adduser ansible
Adding user 'ansible' ...
Adding new group 'ansible' (1001) ...
Adding new user 'ansible' (1001) with group 'ansible' ...
Creating home directory '/home/ansible' ...
Copying files from '/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for ansible
Enter the new value, or press ENTER for the default
    Full Name []:
    Room Number []:
    Work Phone []:
    Home Phone []:
    Other []:
Is the information correct? [y/n] y
ubuntu@ip-172-31-92-139:~$ sudo hostnamectl set-hostname ansible-node
ubuntu@ip-172-31-92-139:~$ sudo init 6
ubuntu@ip-172-31-92-139:~$ Connection to ec2-44-204-172-194.compute-1.amazonaws.com closed by remote host.
Connection to ec2-44-204-172-194.compute-1.amazonaws.com closed.
PS C:\Users\tgram\Downloads> |
```

Now you can see the change in node name below

← Batch11-DailyNotes

```

Management: https://landscape.canonical.com
* Support: https://ubuntu.com/advantage

System information as of Sat Mar 4 17:05:12 UTC 2023

System load: 0.4013671875 Processes: 101
Usage of /: 20.1% of 7.57GB Users logged in: 0
Memory usage: 19% IPv4 address for eth0: 172.31.92.139
Swap usage: 0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

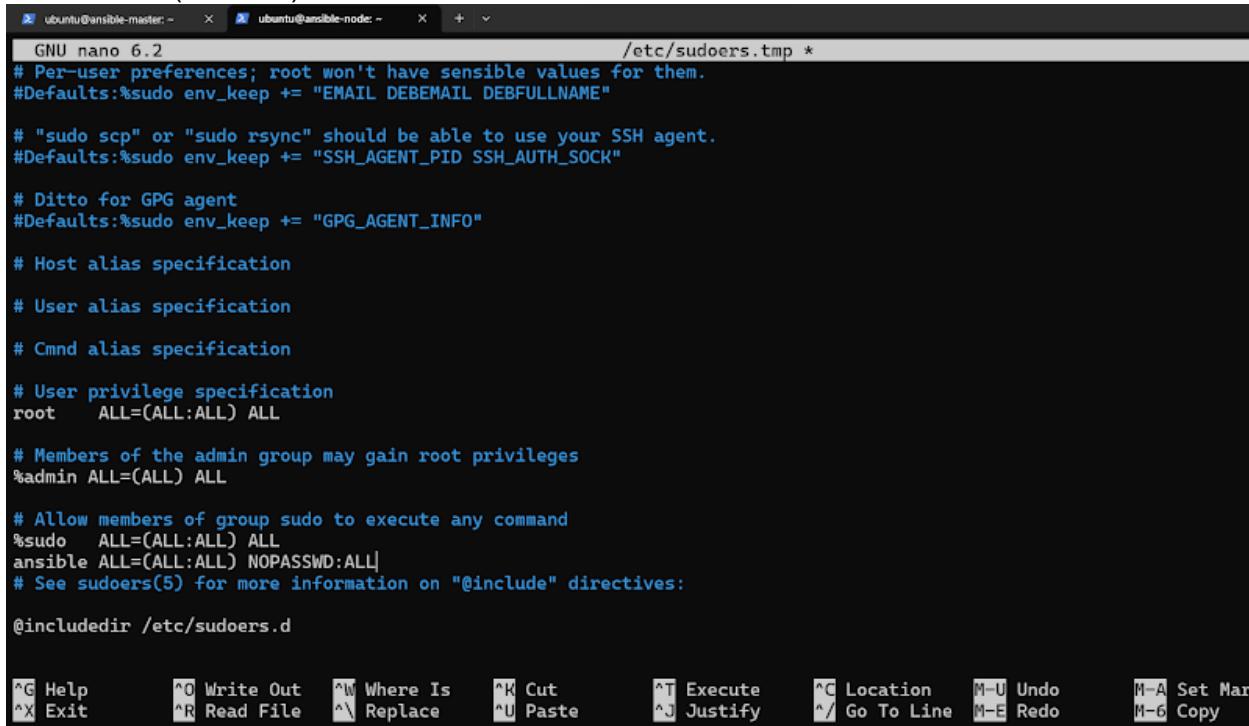
The list of available updates is more than a week old.
To check for new updates run: sudo apt update

Last login: Sat Mar 4 16:56:43 2023 from 183.83.39.202
ubuntu@ansible-node:~$ |

```

Now do visudo and sshd step in both VM's

```
# sudo visudo
ansible ALL=(ALL:ALL) NOPASSWD:ALL
```



```

ubuntu@ansible-master:~$ nano /etc/sudoers.tmp
/etc/sudoers.tmp *
# 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

# 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
ansible ALL=(ALL:ALL) NOPASSWD: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 Mar
^X Exit      ^R Read File  ^V Replace   ^U Paste     ^J Justify   ^/ Go To Line M-E Redo  M-6 Copy

```

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```
# User privilege specification
root    ALL=(ALL:ALL) 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
ansible ALL=(ALL:ALL) NOPASSWD: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

>> Need to provide the SSH authentication on both machines be using below

```
# sudo vi /etc/ssh/sshd_config
# Change PasswordAuthentication to yes
# HostbasedAuthentication
#IgnoreUserKnownHosts no
# Don't read the user's ~/.rhosts and ~/.shosts files
#IgnoreRhosts yes

# To disable tunneled clear text passwords, comment out this line.
PasswordAuthentication yes
#PermitEmptyPasswords no

# Change to yes to enable challenge-response authentication (bogus)
# some PAM modules and threads)
KbdInteractiveAuthentication no

# Kerberos options
#KerberosAuthentication no
#KerberosOrLocalPasswd yes
#KerberosTicketCleanup yes
#KerberosGetAFSToken no

# GSSAPI options
#GSSAPIAuthentication no
#GSSAPICleanupCredentials yes
#GSSAPTStrictAcceptorCheck yes

# sudo systemctl restart sshd
```

← Batch11-DailyNotes

```
ubuntu@ansible-master:~$ sudo service sshd restart
ubuntu@ansible-master:~$ |
```

Step5: Create a Key using SSH-Keygen

Step6: copy the Key from Master to node machine

```
# ssh-copy-id ansible@Node IP
```

```
ubuntu@ansible-master:~$ ssh-keygen
Generating public/private rsa key pair.

Enter file in which to save the key (/home/ubuntu/.ssh/id_rsa): Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/ubuntu/.ssh/id_rsa
Your public key has been saved in /home/ubuntu/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:f6BqUTIQLsKCx+Xz+Q5ecG/uIZTpwxMuuBlqbeWucOA ubuntu@ansible-master
The key's randomart image is:
+---[RSA 3072]---+
| .. |
|o .. |
|=o .. |
|.* . oo.
|..o . **S .
|.. . + X.o o .
| E+.B O.= ..
| ooB *.B ..
|o +.+++.o
+---[SHA256]---+
ubuntu@ansible-master:~$ ssh-copy-id ansible@172.31.92.139
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/home/ubuntu/.ssh/id_rsa.pub"
The authenticity of host '172.31.92.139 (172.31.92.139)' can't be established.
ED25519 key fingerprint is SHA256:S4be1ty0ScDOW10Q1vcckL7Uxxx2wVbm7u691c0J5TE0.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
ubuntu@ansible-master:~$ ssh-copy-id ansible@172.31.92.139
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/home/ubuntu/.ssh/id_rsa.pub"
The authenticity of host '172.31.92.139 (172.31.92.139)' can't be established.
ED25519 key fingerprint is SHA256:S4be1ty0ScDOW10Q1vcckL7Uxxx2wVbm7u691c0J5TE0.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any that are already installed
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted now it is to install the new keys
ansible@172.31.92.139's password:

Number of key(s) added: 1

Now try logging into the machine, with: "ssh 'ansible@172.31.92.139'"
and check to make sure that only the key(s) you wanted were added.

ubuntu@ansible-master:~$ |
```

Step7: Need to install the ansible on master machine.

```
$ sudo apt update
```

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```
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe Translation-en [5652 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 c-n-f Metadata [286 kB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [217 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse Translation-en [112 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 c-n-f Metadata [8372 B]
Get:11 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [939 kB]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [203 kB]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata [13.6 kB]
Get:14 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [680 kB]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [106 kB]
Get:16 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 c-n-f Metadata [584 B]
Get:17 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [877 kB]
Get:18 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [172 kB]
Get:19 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [17.9 kB]
Get:20 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [9696 B]
Get:21 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [3260 B]
Get:22 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [444 B]
Get:23 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [40.7 kB]
Get:24 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [9800 B]
Get:25 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [392 B]
Get:26 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:27 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [19.5 kB]
Get:28 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [14.0 kB]
```

\$ sudo apt install software-properties-common

```
ubuntu@ansible-master:~$ sudo apt install software-properties-common
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  python3-software-properties
The following packages will be upgraded:
  python3-software-properties software-properties-common
2 upgraded, 0 newly installed, 0 to remove and 36 not upgraded.
Need to get 42.9 kB of archives.
After this operation, 0 B of additional disk space will be used.
Do you want to continue? [Y/n] y|
```

\$ sudo add-apt-repository --yes --update ppa:ansible/ansible

```
ubuntu@ansible-master:~$ sudo add-apt-repository --yes --update ppa:ansible/ansible
Repository: 'deb https://ppa.launchpadcontent.net/ansible/ansible/ubuntu/ jammy main'
Description:
Ansible is a radically simple IT automation platform that makes your applications and systems easier to deploy. Avoid writing scripts or custom code to deploy and update your applications- automate in a language that approaches plain English, using SSH, with no agents to install on remote systems.

http://ansible.com/

If you face any issues while installing Ansible PPA, file an issue here:
https://github.com/ansible-community/ppa/issues
More info: https://launchpad.net/~ansible/+archive/ubuntu/ansible
Adding repository.
Adding deb entry to /etc/apt/sources.list.d/ansible-ubuntu-ansible-jammy.list
Adding disabled deb-src entry to /etc/apt/sources.list.d/ansible-ubuntu-ansible-jammy.list
Adding key to /etc/apt/trusted.gpg.d/ansible-ubuntu-ansible.gpg with fingerprint 6125E2A8C77F2818FB7BD15B93C4A3FD7BB9C367
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu jammy-security InRelease
Get:5 https://ppa.launchpadcontent.net/ansible/ansible/ubuntu jammy InRelease [18.0 kB]
Get:6 https://ppa.launchpadcontent.net/ansible/ansible/ubuntu jammy/main amd64 Packages [1152 B]
Get:7 https://ppa.launchpadcontent.net/ansible/ansible/ubuntu jammy/main Translation-en [756 B]
Fetched 20.0 kB in 1s (14.8 kB/s)
Reading package lists... Done
```

\$ sudo apt install ansible

← Batch11-DailyNotes

```
Reading state information... Done
The following additional packages will be installed:
  ansible-core python3-jmespath python3-kerberos python3-nacl python3-ntlm-auth python3-
  python3-requests-kerberos python3-requests-ntlm python3-resolvelib python3-winrm python
Suggested packages:
  python-nacl-doc python3-gssapi python3-invoke
The following NEW packages will be installed:
  ansible ansible-core python3-jmespath python3-kerberos python3-nacl python3-ntlm-auth
  python3-paramiko python3-requests-kerberos python3-requests-ntlm python3-resolvelib py
  python3-xmltodict sshpass
0 upgraded, 14 newly installed, 0 to remove and 36 not upgraded.
Need to get 16.9 MB of archives.
After this operation, 216 MB of additional disk space will be used.
Do you want to continue? [Y/n] y|
```

```
ubuntu@ansible-master:~$ sudo su ansible
ansible@ansible-master:/home/ubuntu$ ls -la
ls: cannot open directory '.': Permission denied
ansible@ansible-master:/home/ubuntu$ ansible --version
ansible [core 2.14.3]
  config file = /etc/ansible/ansible.cfg
  configured module search path = ['~/home/ansible/.ansible/plugins/modules', '/usr/share/ansible/plugins/modules']
  ansible python module location = /usr/lib/python3/dist-packages/ansible
  ansible collection location = /home/ansible/.ansible/collections:/usr/share/ansible/collections
  executable location = /usr/bin/ansible
  python version = 3.10.6 (main, Nov 14 2022, 16:10:14) [GCC 11.3.0] (/usr/bin/python3)
  jinja version = 3.0.3
  libyaml = True
```

Step8: Once ansible is installed we need provide the inventory file

Login to the node machine with the ansible user

By using

```
# ssh ansible@nodeip
```

```
ansible@ansible-master:/home/ubuntu$ ssh ansible@172.31.92.139
The authenticity of host '172.31.92.139 (172.31.92.139)' can't be established.
ED25519 key fingerprint is SHA256:S4be1tyOScDOWl0Q1vckL7Uxxx2wVbm7u691c0J5TE0.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
```

← Batch11-DailyNotes

```
* Support: https://ubuntu.com/advantage

System information as of Sat Mar 4 17:27:28 UTC 2023

System load: 0.0          Processes: 103
Usage of /: 22.5% of 7.57GB  Users logged in: 1
Memory usage: 23%          IPv4 address for eth0: 172.31.92.139
Swap usage: 0%
```

* Introducing Expanded Security Maintenance for Applications.
 Receive updates to over 25,000 software packages with your
 Ubuntu Pro subscription. Free for personal use.

<https://ubuntu.com/aws/pro>

Expanded Security Maintenance for Applications is not enabled.

36 updates can be applied immediately.
 18 of these updates are standard security updates.
 To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
 See <https://ubuntu.com/esm> or run: sudo pro status

ansible@ansible-node:~\$ |

```
ansible@ansible-master:/etc/ansible$ cat hosts
172.31.92.139
# This is the default ansible 'hosts' file.
#
# It should live in /etc/ansible/hosts
#
# - Comments begin with the '#' character
# - Blank lines are ignored
# - Groups of hosts are delimited by [header] elements
# - You can enter hostnames or ip addresses
# - A hostname/ip can be a member of multiple groups

# Ex 1: Ungrouped hosts, specify before any group headers:
```

Default is cd /etc/ansible/

>> hosts file will be present

step9: To connect to my remote machine Need to change the hosts file by using

vi hosts

node IP

save the file

Step10: run the below command
 ansible -i /etc/ansible/hosts -m ping all

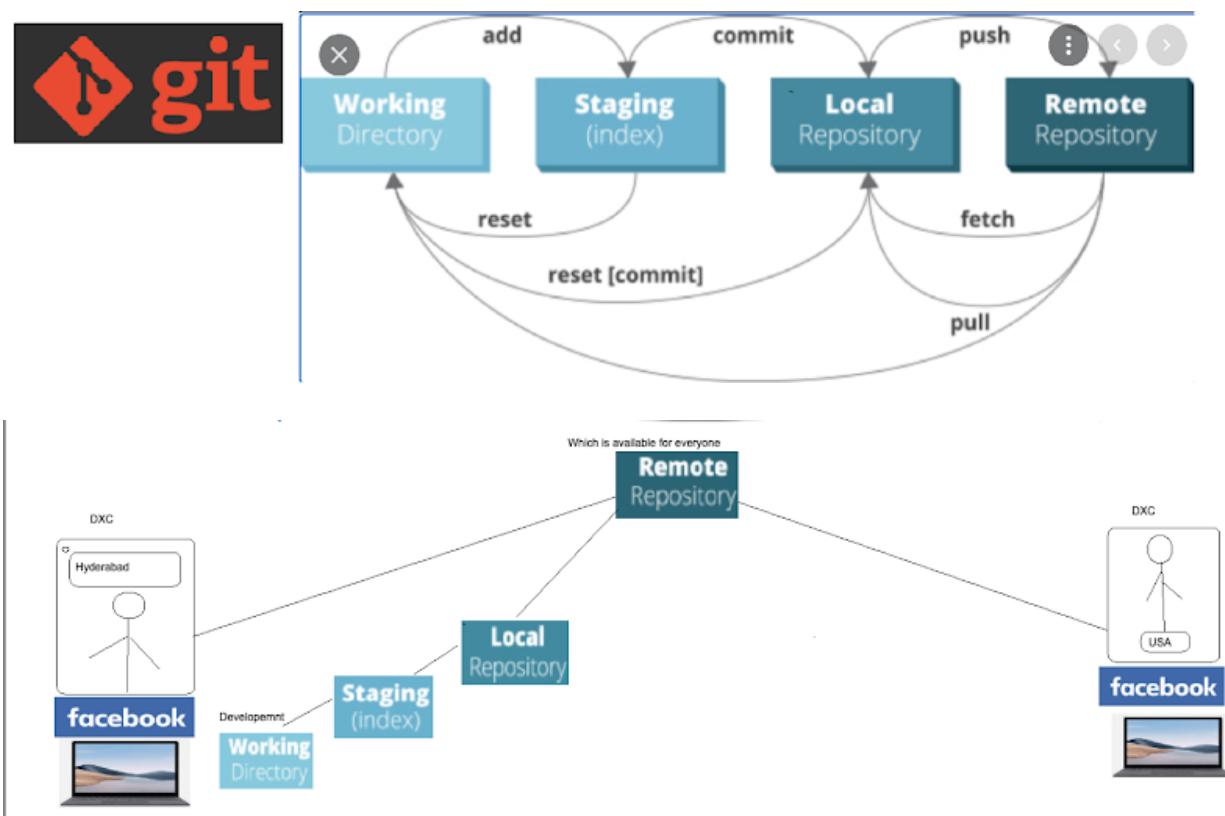
← Batch11-DailyNotes

```

        "discovered_interpreter_python": "/usr/bin/python3"
    },
    "changed": false,
    "ping": "pong"
}
ansible@ansible-master:/$ |

```

Git installation :



<https://www.qentelli.com/thought-leadership/insights/devops-tools>

<https://www.freecodecamp.org/news/git-cheat-sheet/>

← Batch11-DailyNotes

The image shows a screenshot of a web browser displaying the GitHub sign-up page. At the top left, there is a large, stylized globe with glowing blue and purple dots representing data points. To the left of the globe, the text "Where the world builds software" is displayed in a large, bold, white font. Below this, a smaller text block reads: "Millions of developers and companies build, ship, and maintain their software on GitHub—the largest and most advanced development platform in the world." On the right side of the globe, there is a small circular icon featuring a person's face.

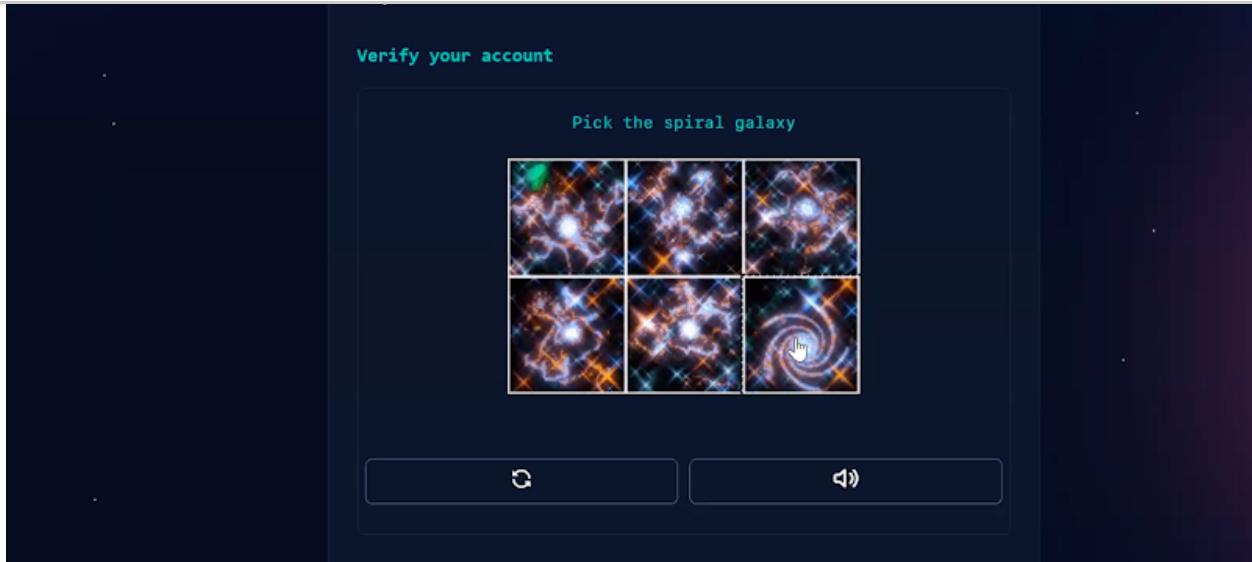
The main content area shows the GitHub sign-up form. It includes fields for "Email address" and "Sign up for GitHub". The "Email address" field contains "satyajeet0606@gmail.com". The "Sign up for GitHub" button is green with white text. Below the form, a message says "Welcome to GitHub! Let's begin the adventure".

Underneath the welcome message, there are fields for "Enter your email" (with the value "satyajeet0606@gmail.com") and "Create a password" (with the value "*****"). A "Continue" button is located next to the password field. A warning message "Password may be compromised" is displayed, stating "Password is in a list of passwords commonly used on other websites".

At the bottom of the sign-up form, there is a note about agreeing to the Terms of Service and Privacy Statement, followed by a checkbox for accepting the terms.

The lower portion of the screenshot shows the continuation of the sign-up process. It asks if the user wants to receive product updates via email, with "y" selected. It also displays a CAPTCHA challenge with the text "Please solve this puzzle to verify that you are human" and a "Start puzzle" button. Navigation icons for back, forward, and search are visible at the bottom of the browser window.

← Batch11-DailyNotes



github.com/signup?ref_cta=Sign+up&ref_loc=header+logged+out&ref_page=%2F&source=header-home

Type "y" for yes or "n" for no
✓ y

Verify your account

✓

Create account

github.com/account_verifications?recommend_plan=true

You're almost done!
We sent a launch code to Satyajeet0606@gmail.com

→ Enter code

Didn't get your email? [Resend](#) the code or update your email address.

← Batch11-DailyNotes

The screenshot shows the GitHub 'Welcome to GitHub' page. On the left, there's a dark sidebar with the GitHub logo and a message: "We are glad you're here." On the right, there's a light sidebar with the title "working with you?" and a sub-section "Are you a student or teacher?". It includes six input boxes for project size ("Just me", "2 - 5", "5 - 10", "10 - 20", "20 - 50", "50+"), two buttons for "Student" and "Teacher", and a blue "Continue" button.

This screenshot continues from the previous one, showing the "Free" benefits section and the "Get additional student benefits" section. The "Free" section lists: Unlimited public/private repositories, 2,000 Actions minutes/month (free for public repositories), 500MB of Packages storage (free for public repositories), and Community support. The "GitHub Pro" section lists: Protect your branches (with a lock icon), Draft pull requests, Pages and Wikis, 3,000 CI/CD minutes/month (free for public repositories), 2GB of Packages storage (free for public repositories), and Web-based support.

The screenshot shows the GitHub homepage. At the top, there's a navigation bar with links for Pull requests, Issues, Marketplace, and Explore. Below the navigation, there are several promotional cards: "Create your first project" (with a "Create repository" button), "Learn Git and GitHub without any code!" (with "Read the guide" and "Start a project" buttons), "All activity" (with a "Introduce yourself" section and a code editor showing a README.md file), and "Universe schedule is now live" (with a "Save your seat for free" button). The main dashboard also includes sections for Recent activity and a GitHub Universe schedule.

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Join GitHub Create your account

Username *

Avishek0077



Email address *

lonlygodofmisfortune@gmail.com



Password *



Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter.

[Learn more.](#)[← → C https://github.com/join](https://github.com/join)[Apps](#) [Gmail](#) [YouTube](#) [Maps](#)

Email preferences

 Send me occasional product updates, announcements, and offers.

Verify your account

2 done

[Create account](#)[← → C https://github.com/account_verifications?recommend_plan=false](https://github.com/account_verifications?recommend_plan=false)[Apps](#) [Gmail](#) [YouTube](#) [Maps](#)

You're almost done!
We sent a launch code to lonlygodofmisfortune@gmail.com

→ [Enter code](#)

Didn't get your email? [Resend the code](#) or update your email address.

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This is my first git repo

dxcsession

Initial commit

README.md

Clone
HTTPS SSH GitHub CLI
<https://github.com/issuesaws/dxcsession>

Use Git or checkout with SVN using the web URL.

Open with GitHub Desktop

Download ZIP

And now create a new repository in remote repo and clone it into local

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? Import a repository.

Owner * Repository name *

issuesaws / mygitpractice

Great repository names are short and memorable. Need inspiration? How about `sturdy-octo-lamp`?

Description (optional)

This is the first time git practice

Public Anyone on the internet can see this repository. You choose who can commit.

Private You choose who can see and commit to this repository.

Initialize this repository with:

Skip this step if you're importing an existing repository.

Add a README file This is where you can write a long description for your project. Learn more.

Add .gitignore

Choose which files not to track from a list of templates. Learn more.

.gitignore template: None

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Anyone can see the repository and edit this repository. You choose who can commit.

 **Private**
You choose who can see and commit to this repository.

Initialize this repository with:
Skip this step if you're importing an existing repository.

Add a README file
This is where you can write a long description for your project. [Learn more](#).

Add .gitignore
Choose which files not to track from a list of templates. [Learn more](#).
.gitignore template: **None**

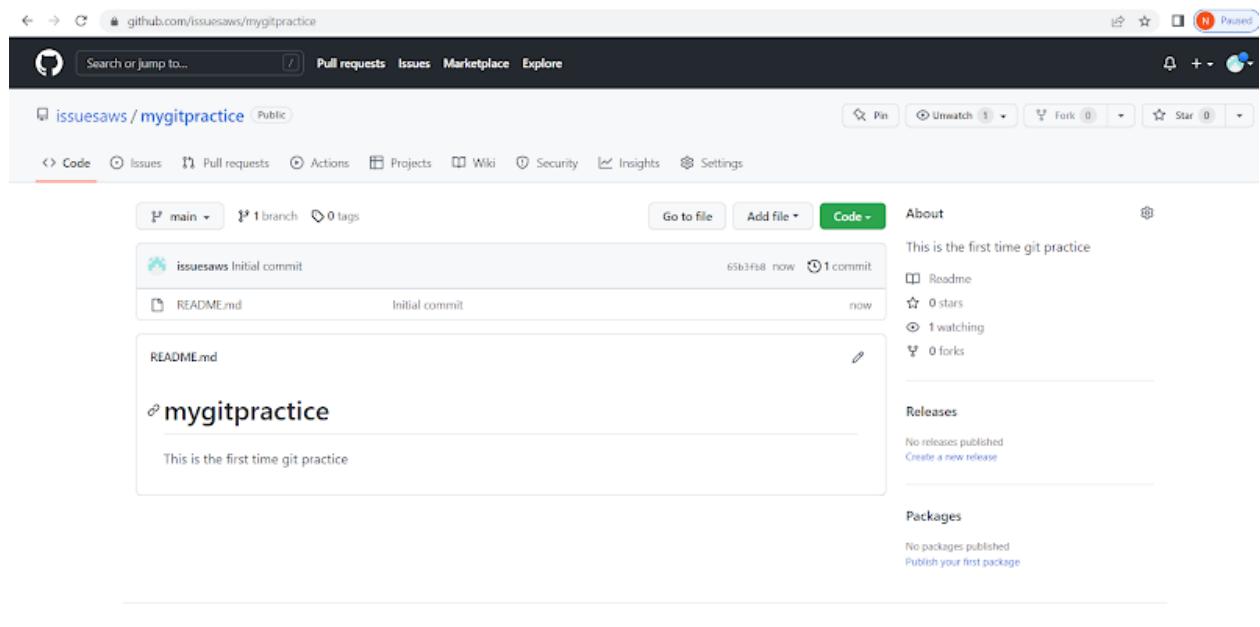
Choose a license
A license tells others what they can and can't do with your code. [Learn more](#).
License: **None**

This will set **main** as the default branch. Change the default name in your settings.

ⓘ You are creating a public repository in your personal account.

Create repository

Click on Create repository



issuesaws / mygitpractice Public

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

main · 1 branch · 0 tags

Go to file Add file Code About

issuesaws Initial commit 65b3f88 now 1 commit

README.md Initial commit now

README.md

mygitpractice

This is the first time git practice

About

Readme 0 stars 1 watching 0 forks

Releases

No releases published Create a new release

Packages

No packages published Publish your first package

Click on Code drop down and select URL and clone into local

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The screenshot shows a GitHub repository page for the repository 'issuesaws/mygitpractice'. The repository has 1 branch and 0 tags. It contains a single file, README.md, which has an initial commit message: 'Initial commit'. The repository has 0 stars, 1 watching, and 0 forks. There are no releases or packages published.

```

MINGW64:/c/Users/Chukky/Downloads/mygitpractice
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~
$ cd Downloads/
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads
$ git clone https://github.com/issuesaws/mygitpractice.git
Cloning into 'mygitpractice'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (3/3), done.

Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads
$ cd mygitpractice/
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
$ ls
README.md

Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
$ 
```

Now create 3 files, make some changes and push into the remote repository.

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```
echo "This is my practice file 1" > 1.txt  
echo "This is my practice file 2" > 2.txt  
echo "This is my practice file 3" > 3.txt
```

```
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)  
$ git status  
On branch main  
Your branch is up to date with 'origin/main'.  
  
nothing to commit, working tree clean  
  
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)  
$ echo "This is a sample text" > 1.txt  
  
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)  
$ ls  
1.txt README.md  
  
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)  
$ echo "This is a sample text in file 2" > 2.txt  
  
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)  
$ echo "This is a sample text in file 3" > 3.txt  
  
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)  
$ ls  
1.txt 2.txt 3.txt README.md  
  
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)  
$ |
```

```
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)  
$ git status  
On branch main  
Your branch is up to date with 'origin/main'.  
  
Untracked files:  
(use "git add <file>..." to include in what will be committed)  
 1.txt  
 2.txt  
 3.txt  
  
nothing added to commit but untracked files present (use "git add" to track)  
  
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)  
$ git add .  
warning: in the working copy of '1.txt', LF will be replaced by CRLF the next time Git touches it  
warning: in the working copy of '2.txt', LF will be replaced by CRLF the next time Git touches it  
warning: in the working copy of '3.txt', LF will be replaced by CRLF the next time Git touches it  
  
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)  
$ git status  
On branch main  
Your branch is up to date with 'origin/main'.  
  
Changes to be committed:  
(use "git restore --staged <file>..." to unstage)  
  new file: 1.txt  
  new file: 2.txt  
  new file: 3.txt  
  
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
```

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```
git commit -m "Added changes"
Author identity unknown

*** Please tell me who you are.

Run

git config --global user.email "you@example.com"
git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.

fatal: unable to auto-detect email address (got 'Narsimha reddy@DESKTOP-HDR80M5.(none)')

Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
$ |
```

```
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
$ git config --global user.email "issuesaws@gmail.com"

Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
$ git config --global user.name "issuesaws"

Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
$ |
```

```
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   1.txt
    new file:   2.txt
    new file:   3.txt
```

```
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
$ git commit -m"Added changes"
[main lae145c] Added changes
 3 files changed, 3 insertions(+)
 create mode 100644 1.txt
 create mode 100644 2.txt
 create mode 100644 3.txt
```

```
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
$
```

Now if you try to push your changes into remote repository from local it will ask you to sign in from browser like below

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The screenshot shows the GitHub sign-in page. The URL is https://github.com/login?source=mobilebasic. The page has a header "GitHub" and "Sign in". Below the header are two buttons: "Browser/Device" (selected) and "Token". A large blue button "Sign in with your browser" is prominent. Below it is a grey button "Sign in with a code". At the bottom, there's a link "Don't have an account? [Sign Up](#)". To the right of the sign-in form is a terminal window with the following text:

```
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
(use "git restore --staged <file>..." to unstage)
  new file: 1.txt
  new file: 2.txt
  new file: 3.txt

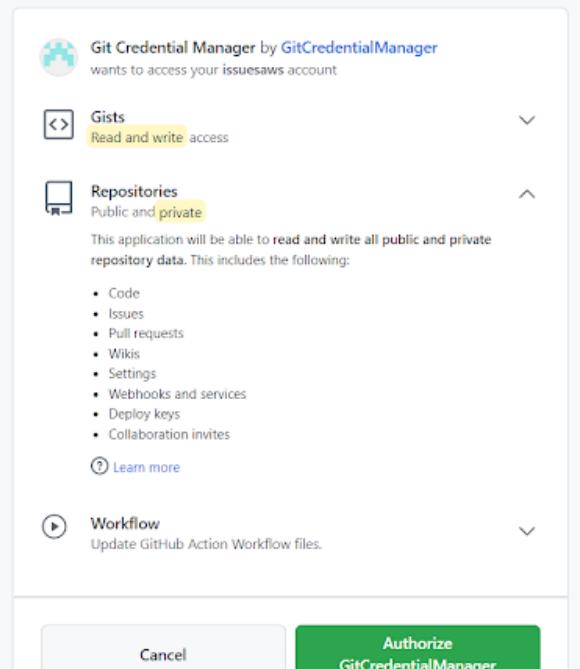
Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
$ git commit -m"Added changes"
[main 1ae145c] Added changes
 3 files changed, 3 insertions(+)
 create mode 100644 1.txt
 create mode 100644 2.txt
 create mode 100644 3.txt

Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
$ git push
```

If you click on sign in

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Authorize Git Credential Manager



If you click on Authorize GitCredentialManager you will see below window
But your changes in local will push to remote repo

← → ⌂ ⓘ localhost:56733/?code=43a3024cd49b28ecf2ad&state=de0efe751d9149eb8b9026ba267b3285

This site can't be reached

localhost refused to connect.

Try:

- Checking the connection
- Checking the proxy and the firewall

ERR_CONNECTION_REFUSED

[Reload](#)

See below image

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```
3 files changed, 3 insertions(+)
create mode 100644 1.txt
create mode 100644 2.txt
create mode 100644 3.txt

Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
$ git push
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (5/5), 420 bytes | 420.00 KiB/s, done.
Total 5 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/issuesaws/mygitpractice.git
  65b3fb8..1ae145c main -> main

Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
$ |

Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
$ git push
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (5/5), 420 bytes | 420.00 KiB/s, done.
Total 5 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/issuesaws/mygitpractice.git
  65b3fb8..1ae145c main -> main

Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

Narsimha reddy@DESKTOP-HDR80M5 MINGW64 ~/Downloads/mygitpractice (main)
$
```

**Earlier before pushing code into remote repo if you observe your remote repo its empty,
But after pushing all files were uploaded**

Earlier repo:

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The screenshot shows a GitHub repository page for 'issuesaws / mygitpractice'. The repository is public. At the top, there are navigation links: Pull requests, Issues, Marketplace, and Explore. Below the header, there are tabs for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. The 'Code' tab is selected. It displays a main branch with 1 branch and 0 tags. A commit titled 'issuesaws Initial commit' was made 36 minutes ago by user 'issuesaws' with 1 commit. The commit message is 'Initial commit'. Below the commit, there is a file named 'README.md' with the content 'mygitpractice' and the note 'This is the first time git practice'. There is also a link to edit the file.

After refreshing the page you will see all the files

The screenshot shows the same GitHub repository page for 'issuesaws / mygitpractice' after refreshing. The repository is still public. The main branch now has 1 branch and 0 tags. A commit titled 'issuesaws Added changes' was made 10 minutes ago by user 'issuesaws' with 2 commits. The commit message is 'Added changes'. The log shows three new files: '1.txt', '2.txt', and '3.txt', each added 10 minutes ago. The 'README.md' file remains the same. On the right side of the page, there are sections for 'About', 'Releases', and 'Packages'. The 'About' section contains the note 'This is the fi', a 'Readme' link, and stats for 0 stars, 1 watcher, and 0 forks. The 'Releases' section says 'No releases put Create a new re'. The 'Packages' section says 'No packages pu Publish your fir'.

Assessment :

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2. Install required softwares using chocolatey.

Gltbash
Winscp
Notepadplusplus
Vscode
Putty
MobaXterm
BeyondCompare

3. Create a Security Group/NSG in AWS/Azure and assign 22,80 and 443 ports.

4. Create a keypair in AWS.

5. Create users using adduser/useradd/deleteuser/deletegroup/removeuserfrom group and assign passwords and group creation and add the existing user to the group.

6. Find the location of users,passwords and groups.

7. Upload files into a remote repository using SFTP from a local machine.

8. Hands-on file permissions and change ownerships.

9. Import key pair/ Ssh keypair concepts on AWS/Azure cloud.

10. cp and mv rm and rmdir and wc /Head/Cut/Sort/Grep/Uniq and processetc commands usage.

11. Files and folders navigation and try to work on relative and absolute path usage.

12. vi editor usage and openvim.com practice.

13. Establish connection between 2 remote machines using ssh manual procedure

14. Try to create a shell file with some commands and execute/run it.

15. Create 50 files using a single command.

16. Create a VM/EC2 and install apache2/Tomcat web server on ubuntu/CentOS and access it through the internet.

17. Upload files into a remote machine from a local machine by using sftp.

18. Upload any image inside the web app path and access it through the web.

19. Add users and groups to the sudoers file, Enable password based authentication Passwordless method.

20. Download and Install java using tar file and set environment variable for java.

21. Generate ssh and Connect 2 linux machines using ssh-copy-id.

22. Install a web server on ubuntu and centOS during VM/EC2 creation using Custom data & User data.

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hub account (<https://www.ktexperts.com/how-to-create-docker-hub-account/>).

25. Practice <https://openvim.com/>

26. Create an outlook email account.

27. Try to install Mysql on ubuntu.

NOTE : Below are the mandatory tasks that should be performed by every participant.

1. Create a VM/EC2 and install apache2 and Tomcat web server on ubuntu/CentOS and access it through the internet.
2. Upload any image inside the web app path and access it through the web.
3. Add users and groups to the sudoers file, Enable password based authentication method.
4. Download and Install java using tar file and set environment variable for java.
5. Generate ssh and Connect 2 linux machines using ssh-copy-id.
6. Create,Delete users,passwords and groups and verify whether users,passwords and groups are created or not by its file location. (Ubuntu and Centos)
7. Hands-on file permissions and change ownerships.

<https://directdevops.blog/books-for-quick-reference-by-khaja/>

<https://directdevops.blog/2023/02/15/linux-refresher/>

<https://directdevops.blog/2023/02/18/become-efficient-at-linux-command-line-part-1/>

<https://directdevops.blog/2023/02/23/become-efficient-with-linux-command-line-part-2/>