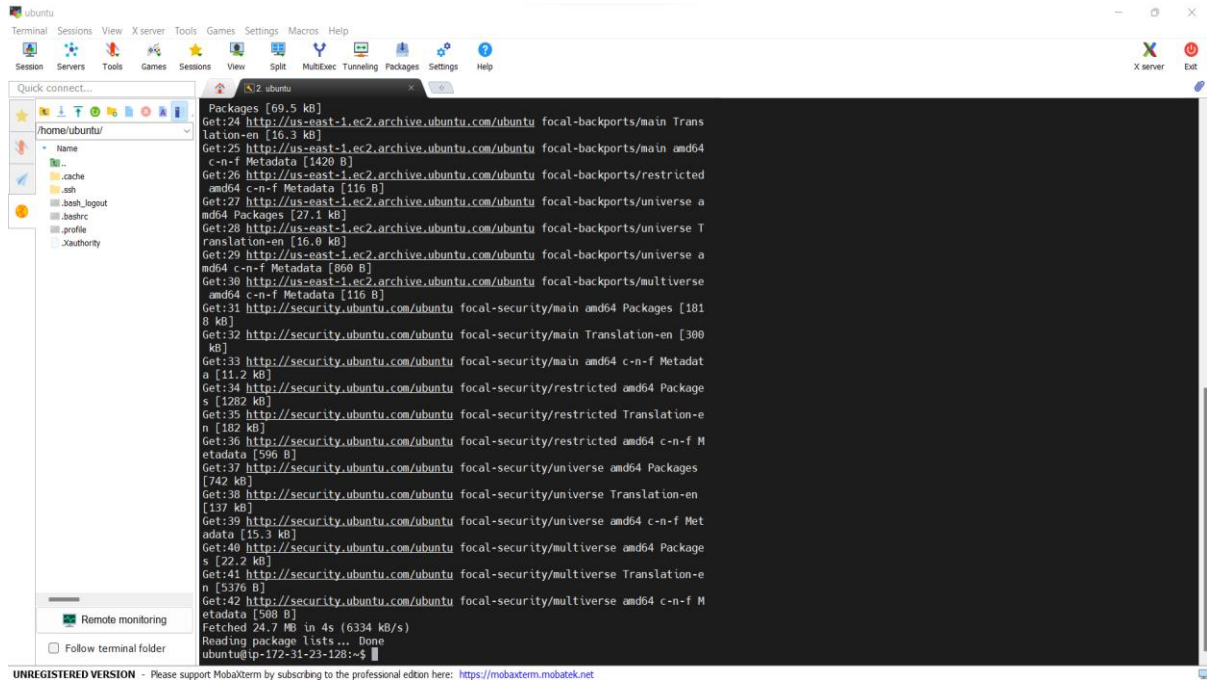


# COMMANDS (DAY-3)

1. Command to get update the docker:

**\$ sudo apt-get update**



```
ubuntu
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help

Quick connect...
/home/ubuntu/
Name
...
.cache
.ssh
.bash_logout
.bashrc
.profile
.xauthority

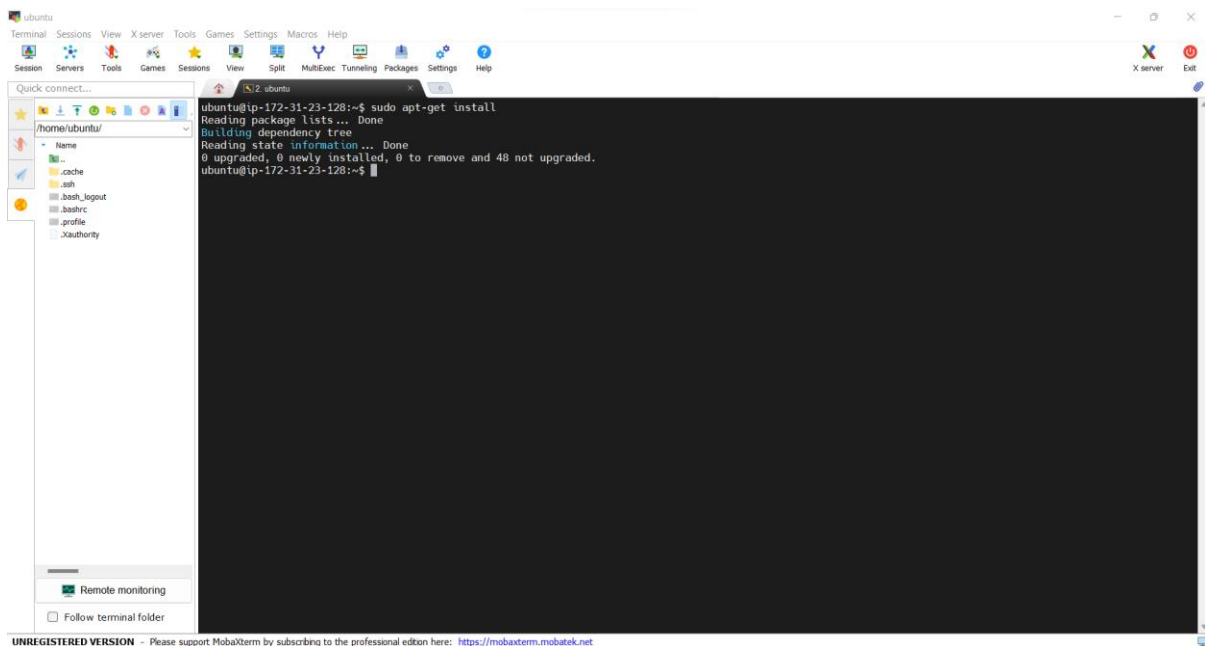
Remote monitoring
Follow terminal folder

Packages [69.5 kB]
Get:24 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-backports/main Translation-en [16.3 kB]
Get:25 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-backports/main amd64 c-n-f Metadata [1420 B]
Get:26 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-backports/restricted amd64 c-n-f Metadata [116 B]
Get:27 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-backports/universe amd64 Packages [27.1 kB]
Get:28 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-backports/universe Translation-en [16.0 kB]
Get:29 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-backports/universe amd64 c-n-f Metadata [860 B]
Get:30 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-backports/multiverse amd64 c-n-f Metadata [116 B]
Get:31 http://security.ubuntu.com/ubuntu focal-security/main amd64 Packages [181 B]
Get:32 http://security.ubuntu.com/ubuntu focal-security/main Translation-en [300 kB]
Get:33 http://security.ubuntu.com/ubuntu focal-security/main amd64 c-n-f Metadata [11.2 kB]
Get:34 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 Packages [1282 kB]
Get:35 http://security.ubuntu.com/ubuntu focal-security/restricted Translation-en [182 kB]
Get:36 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 c-n-f Metadata [596 B]
Get:37 http://security.ubuntu.com/ubuntu focal-security/universe amd64 Packages [742 kB]
Get:38 http://security.ubuntu.com/ubuntu focal-security/universe Translation-en [137 kB]
Get:39 http://security.ubuntu.com/ubuntu focal-security/universe amd64 c-n-f Metadata [15.3 kB]
Get:40 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 Packages [22.2 kB]
Get:41 http://security.ubuntu.com/ubuntu focal-security/multiverse Translation-en [5376 B]
Get:42 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 c-n-f Metadata [588 B]
Fetched 24.7 MB in 4s (6334 kB/s)
Reading package lists... Done
ubuntu@ip-172-31-23-128:~$
```

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2. Command to get install docker:

**\$ sudo apt-get install**



```
ubuntu
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help

Quick connect...
/home/ubuntu/
Name
...
.cache
.ssh
.bash_logout
.bashrc
.profile
.xauthority

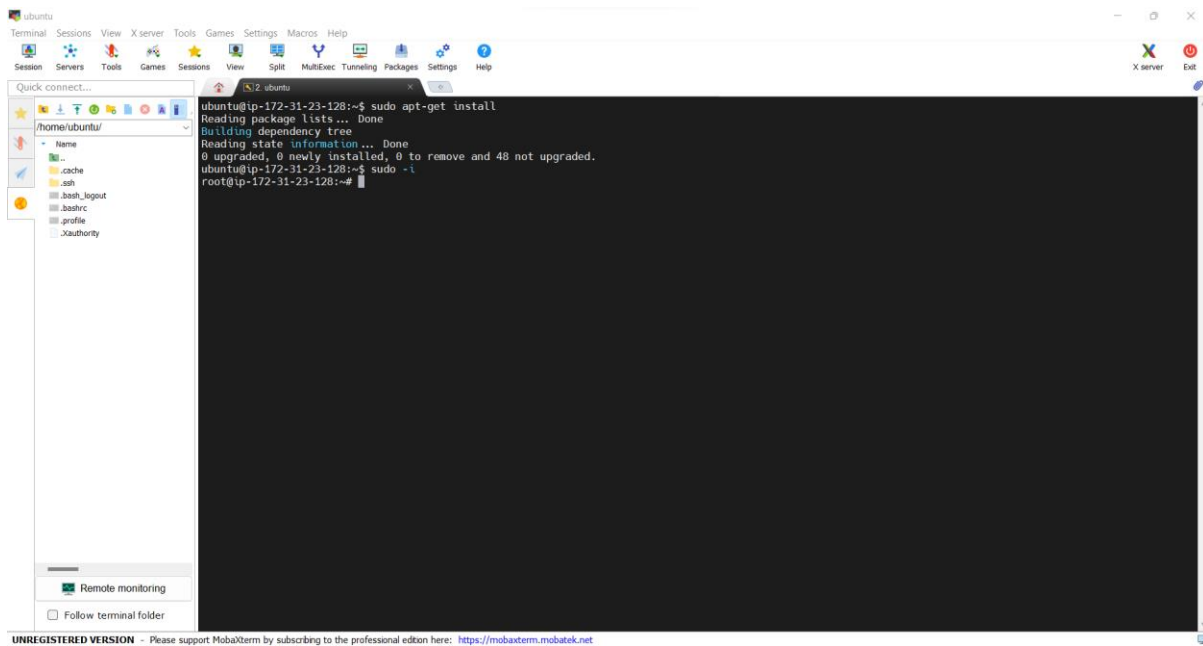
Remote monitoring
Follow terminal folder

ubuntu@ip-172-31-23-128:~$ sudo apt-get install
Reading package lists... Done
Building dependency tree
Reading state information... Done
0 upgraded, 0 newly installed, 0 to remove and 48 not upgraded.
ubuntu@ip-172-31-23-128:~$
```

UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: <https://mobaxterm.mobatek.net>

3. To add user firstly we need to get inside the root user:

**\$ sudo -i**



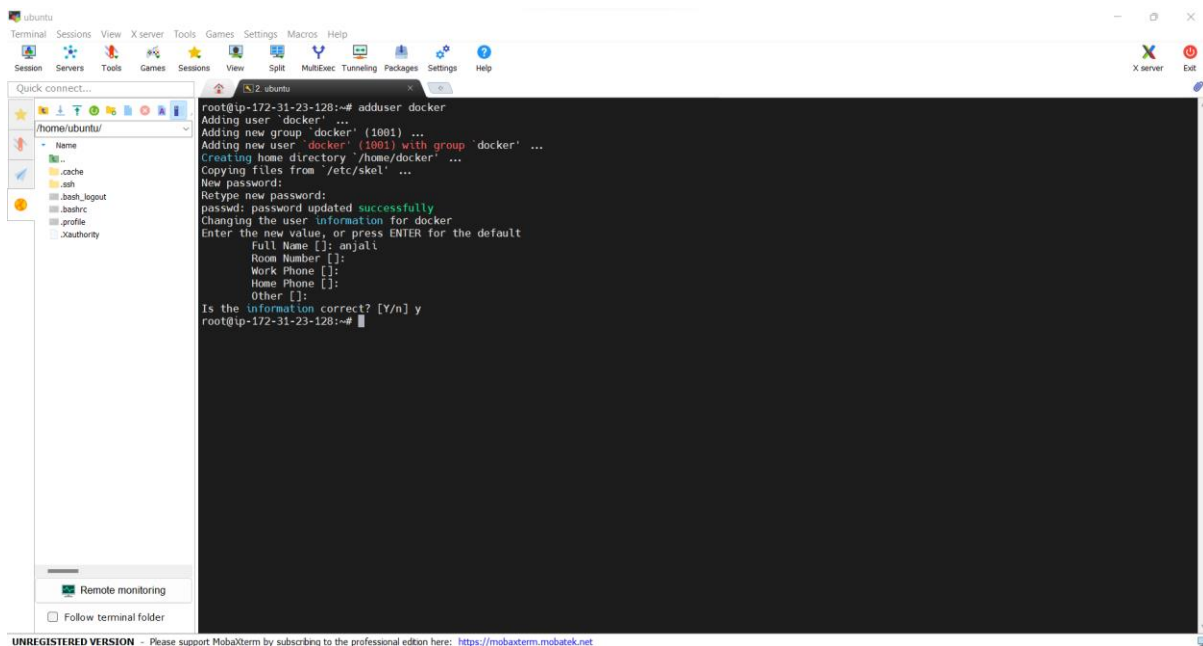
The screenshot shows a terminal window with the following commands and output:

```
ubuntu@ip-172-31-23-128:~$ sudo apt-get install
Reading package lists... Done
Building dependency tree
Reading state information... Done
0 upgraded, 0 newly installed, 0 to remove and 48 not upgraded.
ubuntu@ip-172-31-23-128:~$ sudo -i
root@ip-172-31-23-128:~#
```

The terminal window is titled 'ubuntu' and has a menu bar with 'Terminal', 'Sessions', 'View', 'X server', 'Tools', 'Games', 'Settings', 'Macros', and 'Help'. The left sidebar shows a file explorer with 'Quick connect...' and a list of files: 'Name', 'home/ubuntu', 'cache', 'ssh', 'bash\_logout', 'bashrc', 'profile', and 'xauthority'. The bottom status bar says 'UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: <https://mobaxterm.mobatek.net>'.

4. Now we need to add user:

**# adduser docker**



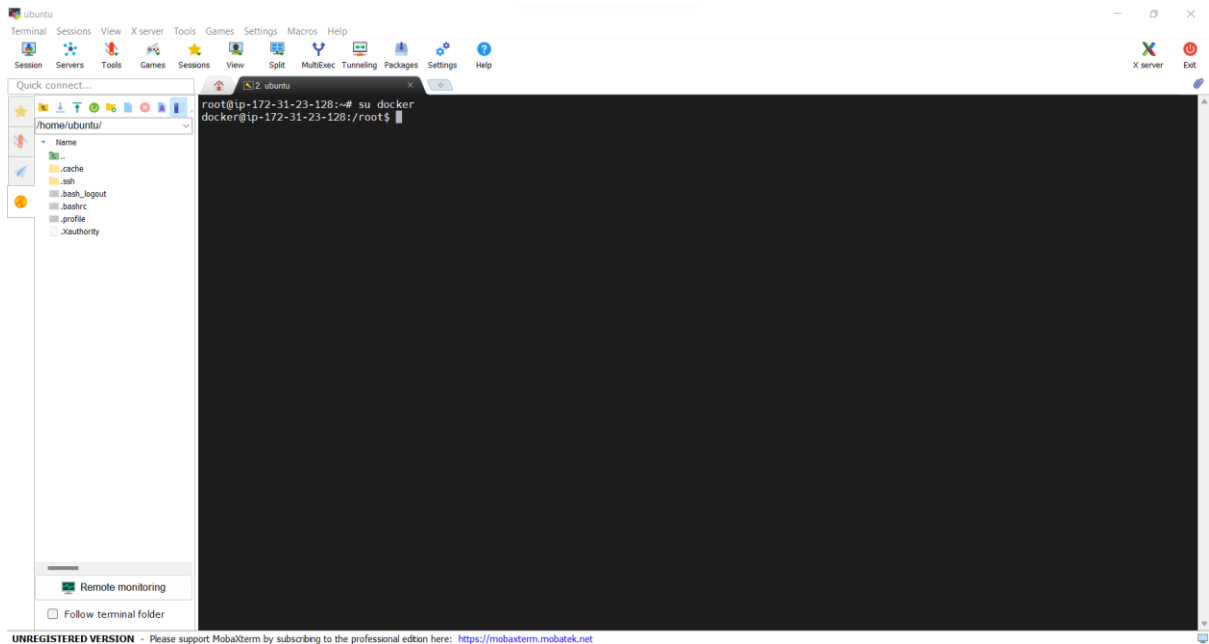
The screenshot shows a terminal window with the following commands and output:

```
root@ip-172-31-23-128:~# adduser docker
Adding user 'docker' ...
Adding new group 'docker' (1001) ...
Adding new user 'docker' (1001) with group 'docker' ...
Creating home directory '/home/docker' ...
Copying files from '/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for docker
Enter the new value, or press ENTER for the default
  Full Name []: anjali
  Room Number []:
  Work Phone []:
  Home Phone []:
  Other []:
Is the information correct? [Y/n] y
root@ip-172-31-23-128:~#
```

The terminal window is titled 'ubuntu' and has a menu bar with 'Terminal', 'Sessions', 'View', 'X server', 'Tools', 'Games', 'Settings', 'Macros', and 'Help'. The left sidebar shows a file explorer with 'Quick connect...' and a list of files: 'Name', 'home/ubuntu', 'cache', 'ssh', 'bash\_logout', 'bashrc', 'profile', and 'xauthority'. The bottom status bar says 'UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: <https://mobaxterm.mobatek.net>'.

5. Now to get out from the root user:

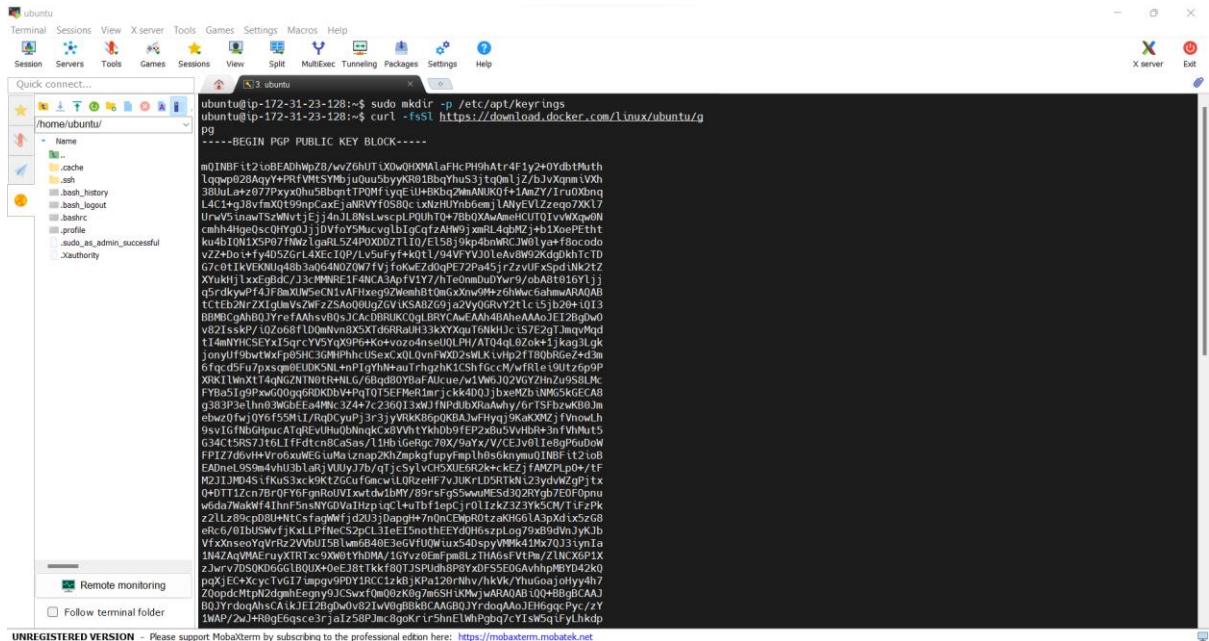
**# su docker**



6. To make official Gpg key we use, command:

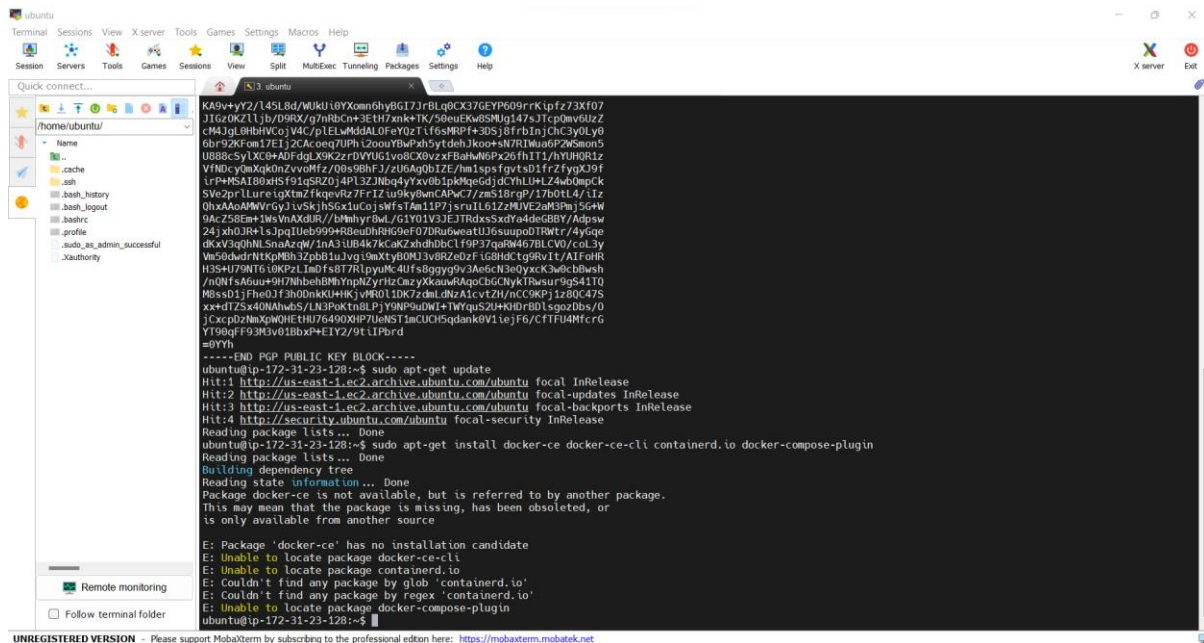
**\$ sudo mkdir -p /etc/apt/keyrings**

**\$ curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /etc/apt/keyrings/docker.gpg**



7. Now we need to get it update:

**\$ sudo apt-get update**

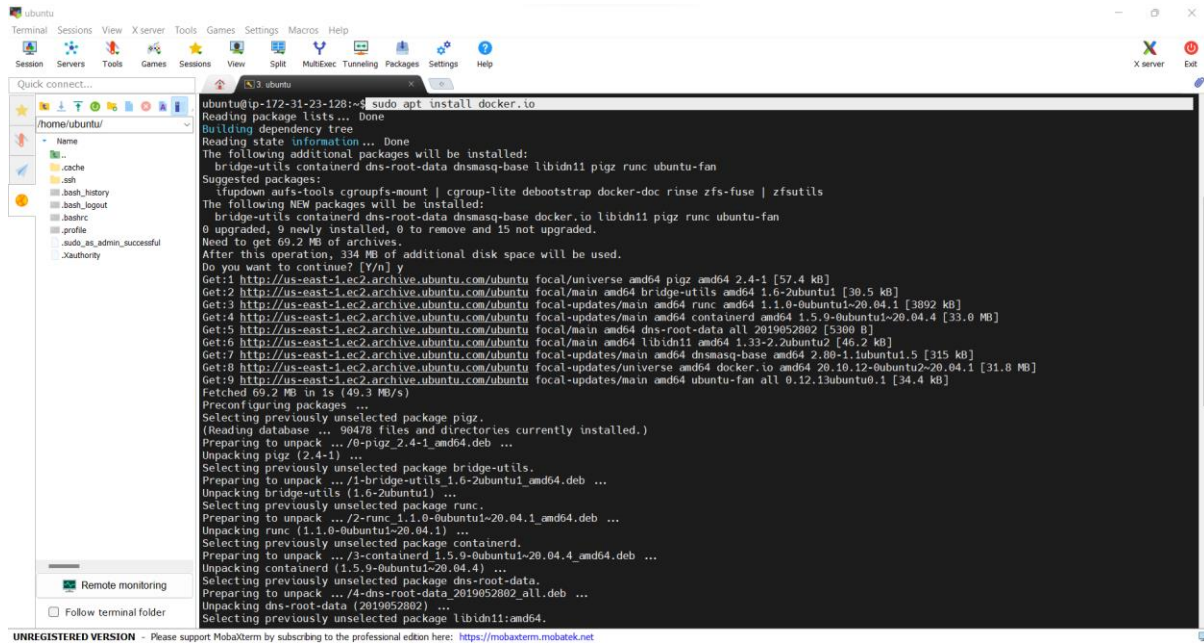


```
KA9v+yy2/L45L8d/WuKJi8YXom6hy8G17JrBLqCk37GEYP609rrKipfz73Xf07
J1Gz0K2L11b/D9RX/g7nRbCn+3ETH7xnk+TK/50euEKwBSMj147sJ1cp0mV6UzZ
cM4JgLOHbHVC0jV4C/pLELWd6AL0Fey0Z1f6sRRPf+30Sj8frBInjChc3y0Ly0
dhr92Kfom17E1jZCZceeq7UPu120ouYBwPzh5ytdelh3Xoe+sN7R1MuadP2Wsm05
U88cSy1XC0+ADFdgLX9KZzrDYUG1v08CX0vzxFBaHw6P26fhIT1j/hYUHQRIz
VfNdcYmXqk0nZv0Mfz/Q0s9BHF3/zU6Ag0bIZE/hm1spsfgvtS01frZfyqXJ9f
1rP4MSA188xH5f91qSRZ0j4PL3ZJNbq4Yxv0b1pkQgeGdjCvHlU+LZ4w0mpCk
Svzpr1LuregXtmZfkqevRZ7FF1Zu9kydWncAPwC7zm518rgP/17b0tL4/L1Z
QhZA0A0wMwrgy1uSkj5S0xducoj5Mf57a1117j5r01G12ZAJVE2aK8M3564W
9Ac258Ea+1W5VnAXdUR//bMahy8dL/G1Y01V3JE1TRdxSxdY04deGBBY/Adpaw
24jxh0JR+LsJpQIUb999H8EudH8IGeF07DRu6watuJ6suup0bTRwtr/4yGqe
dkxV3qHNL5naA2qM/1nA3UB4K7KcaKzhdd0bC1F9P37qa94678LCV0/col3y
W505dWfNkXpMh3Zp0d1nJvg10mXy0D013v0R2e0F1G0h4tgrWv1fA1FoIR
H3S+U79N16i0KPz1LmDfsBT7R1pyuKc4Uf88gy9v3A6eCN3e0yccK3w0cBwsh
/nQNFsA6uu+9H7Nhb0hBhYnpNzYrHzCmzyXkaurAqoCbGcNykTRwsur9g541TQ
M8sD1jFhe0Jf3h0DnK0HKKjvR01LDK7zdmLdHzA1cvtZH/nCC9KPj1z80C47S
xx+dI75x40MAhWb5/LN3P0xtn8LPjY9NP9uDWI+ThYq5ZUH0dR80LsgozDbs/0
jCxc0b2hNqXQHE1H76490XHP7J0eS1TmCUH5QdanK0V1teJf6/CTTU4MfcrG
YT90qF93M3v01BxbP+E1Y2/9tLIPrd
=0Yyh
-----END PGP PUBLIC KEY BLOCK-----
ubuntu@ip-172-31-23-128:~$ sudo apt-get update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal InRelease
Hit:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-updates InRelease
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu focal-security InRelease
Reading package lists... Done
ubuntu@ip-172-31-23-128:~$ sudo apt-get install docker-ce docker-ce-cli containerd.io docker-compose-plugin
Reading package lists... Done
Building dependency tree
Reading state information... Done
Package docker-ce is not available, but is referred to by another package.
This may mean that the package is missing, has been obsoleted, or
is only available from another source.

E: Package 'docker-ce' has no installation candidate
E: Unable to locate package docker-ce-cli
E: Unable to locate package containerd.io
E: Couldn't find any package by glob 'containerd.io'
E: Couldn't find any package by regex 'containerd.io'
E: Unable to locate package docker-compose-plugin
ubuntu@ip-172-31-23-128:~$
```

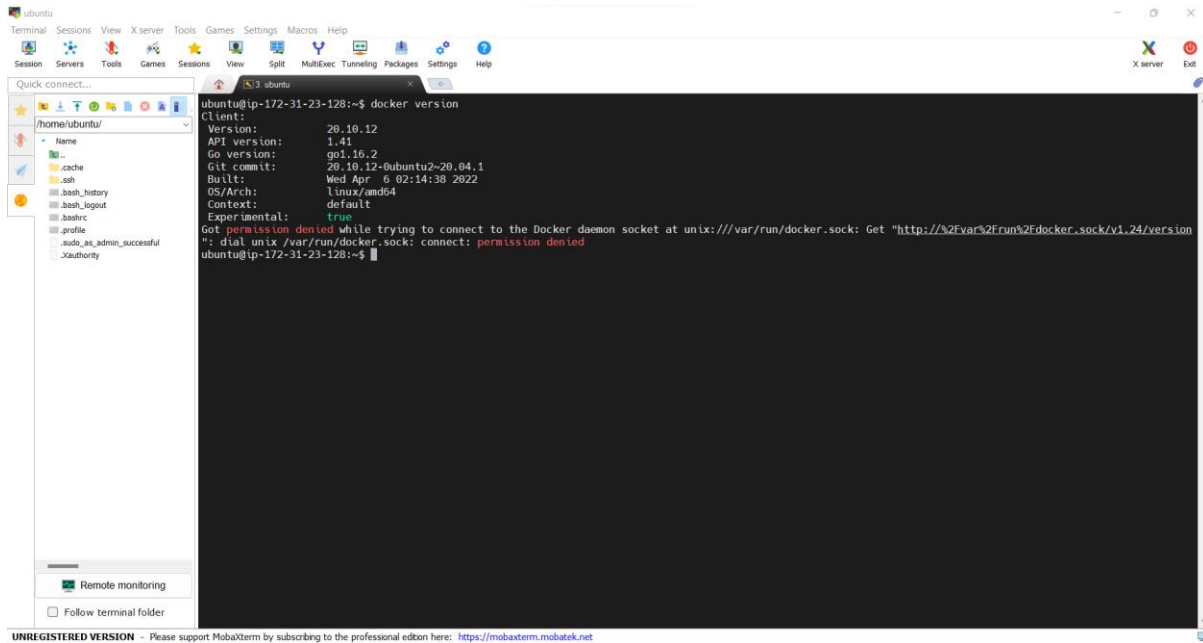
8. To get install :

**\$ sudo apt install docker.io**



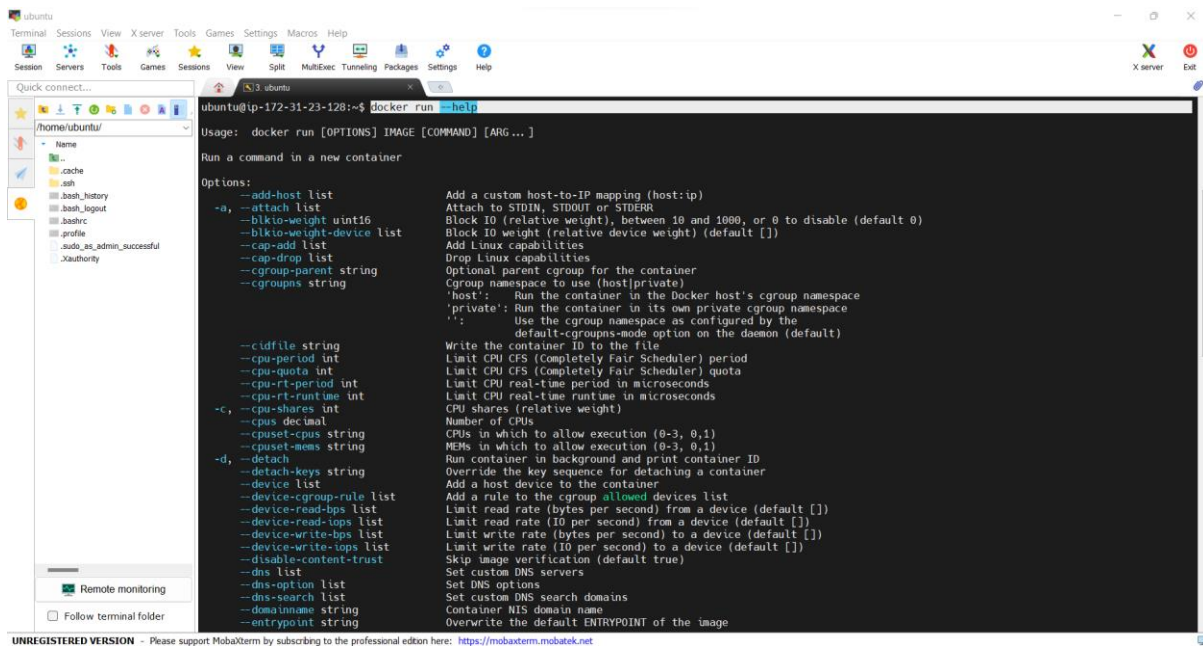
```
ubuntu@ip-172-31-23-128:~$ sudo apt install docker.io
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  bridge-utils containerd dns-root-data dnsmasq-base libidn1 pigz runc ubuntu-fan
Suggested packages:
  fireupdown aufs-tools cgroupfs-mount | cgroup-lite debotstrap docker-doc rinse zfs-fuse | zfsutils
The following NEW packages will be installed:
  bridge-utils containerd dns-root-data dnsmasq-base docker.io libidn1 pigz runc ubuntu-fan
0 upgraded, 9 newly installed, 0 to remove and 15 not upgraded.
Need to get 69.2 MB of archives.
After this operation, 334 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal/universe amd64 pigz amd64 2.4-1 [57.4 kB]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 bridge-utils amd64 1.6-2ubuntu1 [39.5 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 runc amd64 1.1.0-0ubuntu1-20.04.1 [3892 kB]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 containerd amd64 1.5.9-0ubuntu1-20.04.4 [33.0 MB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 dns-root-data all 2019052802 [5308 B]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal/main amd64 libidn1 amd64 1.33-2.2ubuntu2 [46.2 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 dnsmasq-base amd64 2.80-1.1ubuntu1.5 [315 kB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-updates/universe amd64 docker.io amd64 20.10.12-0ubuntu2-20.04.1 [31.8 MB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 ubuntu-fan all 0.12.13ubuntu0.1 [34.4 kB]
Fetched 69.2 MB in 1s (49.3 MB/s)
Preconfiguring packages ...
Selecting previously unselected package pigz.
(Reading database ... 99478 files and directories currently installed.)
Preparing to unpack .../0-pigz_2.4-1_amd64.deb ...
Unpacking pigz (2.4-1) ...
Selecting previously unselected package bridge-utils.
Preparing to unpack .../1-bridge-utils_1.6-2ubuntu1_amd64.deb ...
Unpacking bridge-utils (1.6-2ubuntu1) ...
Selecting previously unselected package runc.
Preparing to unpack .../2-runc_1.1.0-0ubuntu1-20.04.1_amd64.deb ...
Unpacking runc (1.1.0-0ubuntu1-20.04.1) ...
Selecting previously unselected package containerd.
Preparing to unpack .../3-containerd_1.5.9-0ubuntu1-20.04.4_amd64.deb ...
Unpacking containerd (1.5.9-0ubuntu1-20.04.4) ...
Selecting previously unselected package dns-root-data.
Preparing to unpack .../4-dns-root-data_2019052802_all.deb ...
Unpacking dns-root-data (2019052802) ...
Selecting previously unselected package libidn1:amd64.
Preparing to unpack .../5-libidn1_1.33-2.2ubuntu2_amd64.deb ...
Unpacking libidn1:amd64 (1.33-2.2ubuntu2) ...
Selecting previously unselected package dnsmasq-base.
Preparing to unpack .../6-dnsmasq-base_2.80-1.1ubuntu1.5_amd64.deb ...
Unpacking dnsmasq-base (2.80-1.1ubuntu1.5) ...
Selecting previously unselected package docker.io.
Preparing to unpack .../7-docker.io_20.10.12-0ubuntu2-20.04.1_amd64.deb ...
Unpacking docker.io (20.10.12-0ubuntu2-20.04.1) ...
Selecting previously unselected package ubuntu-fan.
Preparing to unpack .../8-ubuntu-fan_0.12.13ubuntu0.1_all.deb ...
Unpacking ubuntu-fan (0.12.13ubuntu0.1) ...
Setting up pigz (2.4-1) ...
Setting up bridge-utils (1.6-2ubuntu1) ...
Setting up runc (1.1.0-0ubuntu1-20.04.1) ...
Setting up containerd (1.5.9-0ubuntu1-20.04.4) ...
Setting up dns-root-data (2019052802) ...
Setting up libidn1:amd64 (1.33-2.2ubuntu2) ...
Setting up dnsmasq-base (2.80-1.1ubuntu1.5) ...
Setting up docker.io (20.10.12-0ubuntu2-20.04.1) ...
Setting up ubuntu-fan (0.12.13ubuntu0.1) ...
```

## 9. To get version of docker: \$ docker version



```
ubuntu@ip-172-31-23-128:~$ docker version
Client:
Version:      20.10.12
API version:  1.41
Go version:   go1.16.2
Git commit:   20.10.12-0ubuntu2~20.04.1
Built:        Wed Apr  6 02:14:38 2022
OS/Arch:      linux/amd64
Context:      default
Experimental: true
Get permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Get "http://$2Fvar$2Frun$2Fdocker.sock/v1.24/version": dial unix /var/run/docker.sock: connect: permission denied
ubuntu@ip-172-31-23-128:~$
```

## 10. To get help if we stuck somewhere: \$ docker run --help



```
ubuntu@ip-172-31-23-128:~$ docker run --help
Usage: docker run [OPTIONS] IMAGE [COMMAND] [ARG...]

Run a command in a new container

Options:
  -add-host list          Add a custom host-to-IP mapping (host:ip)
  -a, --attach list       Attach to STDIN, STDOUT or STDERR
  -blkio-weight uint16    Block IO (relative weight), between 10 and 1000, or 0 to disable (default 0)
  -blkio-weight-device list Block IO weight (relative device weight) (default [])
  --cap-add list          Add Linux capabilities
  --cap-drop list         Drop Linux capabilities
  --cgroup-parent string   Optional parent cgroup for the container
  --cgroupns string        Group namespace to use (host|private)
                          'host': Run the container in the Docker host's cgroup namespace
                          'private': Run the container in its own private cgroup namespace
                          '' : Use the cgroup namespace as configured by the
                              default-cgroups-mode option on the daemon (default)
  --cidfile string        Write the container ID to the file
  --cpu-period int        Limit CPU CFS (Completely Fair Scheduler) period
  --cpu-quota int         Limit CPU CFS (Completely Fair Scheduler) quota
  --cpu-rt-period int     Limit CPU real-time period in microseconds
  --cpu-rt-runtime int    Limit CPU real-time runtime in microseconds
  -c, --cpu-shares int    CPU shares (relative weight)
  --cpus decimal          Number of CPUs
  --cpuset-cpus string    CPUs in which to allow execution (0-3, 0,1)
  --cpuset-mems string    MEMs in which to allow execution (0-3, 0,1)
  -d, --detach             Run container in background and print container ID
  --detach-keys string    Override the key sequence for detaching a container
  --device list           Add a host device to the container
  --device-cgroup-rule list Add a rule to the cgroup allowed devices list
  --device-read-bps list  Limit read rate (bytes per second) from a device (default [])
  --device-read-ops list  Limit read rate (IO per second) from a device (default [])
  --device-write-bps list Limit write rate (bytes per second) to a device (default [])
  --device-write-ops list Limit write rate (IO per second) to a device (default [])
  --disable-content-trust Skip image verification (default true)
  --dns list              Set custom DNS servers
  --dns-option list       Set DNS options
  --dns-search list       Set custom DNS search domains
  --domainname string     Container NIS domain name
  --entrypoint string     Overwrite the default ENTRYPOINT of the image
```