

1- Connecting using password

```
aalaaseif@aalaaseif:~$ ssh ansible@172.17.0.2
ansible@172.17.0.2's password:
Welcome to Ubuntu 22.04.2 LTS (GNU/Linux 6.2.0-31-generic x86_64)

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

This system has been minimized by removing packages and content that are
not required on a system that users do not log into.

To restore this content, you can run the 'unminimize' command.
Last login: Thu Sep 14 19:40:08 2023 from 172.17.0.1
ansible@f479b4df0e51:~$
```

2- Generating ssh key pair

```
ansible@f479b4df0e51:~$ ssh-keygen -t rsa
Generating public/private rsa key pair.
Enter file in which to save the key (/home/ansible/.ssh/id_rsa):
Created directory '/home/ansible/.ssh'.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/ansible/.ssh/id_rsa
Your public key has been saved in /home/ansible/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:rqrhZts0j44AdIi1DMWKhsSj7E4H+7kyyENDi5Vf074 ansible@f479b4df0e51
The key's randomart image is:
+---[RSA 3072]-----+
|ooo                |
|.Bo.               |
|B++.  .            |
|*+.  +  .          |
|+ + + o S .        |
|. = + . o o        |
|B = .  o .         |
|oOoO  . .          |
|. +X=*.. E.        |
+----[SHA256]-----+
```

3- Copying to my container

```
aalaaseif@aalaaseif:~/.ssh$ ssh-copy-id -i id_ed25519 ansible@172.17.0.2
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "id_ed25519.pub"
/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 promp
ed now it is to install the new keys
ansible@172.17.0.2's password:
```

Number of key(s) added: 1

Now try logging into the machine, with: "ssh 'ansible@172.17.0.2'"
and check to make sure that only the key(s) you wanted were added.

```
aalaaseif@aalaaseif:~/.ssh$
```

```
aalaaseif@aalaaseif:~$ ssh ansible@172.17.0.2
ansible@172.17.0.2's password:
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To restore this content, you can run the 'unminimize' command.
Last login: Thu Sep 14 19:40:08 2023 from 172.17.0.1
ansible@f479b4df0e51:~$ ls
ansible@f479b4df0e51:~$ ls -a
.  .. .bash_history .bash_logout .bashrc .cache .profile .ssh
ansible@f479b4df0e51:~$ cd .ssh
ansible@f479b4df0e51:~/.ssh$ ls
authorized_keys id_rsa id_rsa.pub
ansible@f479b4df0e51:~/.ssh$ cat authorized_keys
ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIEojHYJdAR5rSroZAYFtKnRHI/KiMtziW79FoICPZWcc alaa.seif3112@gmail.com
ansible@f479b4df0e51:~/.ssh$
```

```
inventory ×
1 [web_servers]
2 172.17.0.2 ansible_become_pass=123
```

```
ansible.cfg ×
1 [defaults]
2 inventory = ./inventory
3 private_key_file = ~/.ssh/id_ed25519
4 remote_user = ansible
5
6 [privilege_escalation]
7 become = true
8 ask_pass = true
9 become_method = sudo
10 become_user = root
```

```
aalaaseif@aalaaseif:~/ansible-labs/day1$ ansible web_servers -i ./inventory --private-key ~/.ssh/mykey -u ansible -m ping
172.17.0.2 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}
aalaaseif@aalaaseif:~/ansible-labs/day1$
```

Adding the user's host to sudoers

```
ansible@f479b4df0e51: /
aalaaseif@aalaaseif:~/ansible-labs/day1$ sudo docker exec -it host1 bash
root@f479b4df0e51:/# sudo whoami
bash: sudo: command not found
root@f479b4df0e51:/# whoami
root
root@f479b4df0e51:/# su ansible
ansible@f479b4df0e51:/# apt install sudo
E: Could not open lock file /var/lib/dpkg/lock-frontent - open (13: Permission denied)
E: Unable to acquire the dpkg frontend lock (/var/lib/dpkg/lock-frontent), are you root?
ansible@f479b4df0e51:/# sudo apt install sudo
bash: sudo: command not found
ansible@f479b4df0e51:/# exit
exit
root@f479b4df0e51:/# apt install sudo -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  sudo
0 upgraded, 1 newly installed, 0 to remove and 12 not upgraded.
Need to get 821 kB of archives.
After this operation, 2568 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 sudo amd64 1.9.9-1ubuntu2.4 [821 kB]
Fetched 821 kB in 9s (88.8 kB/s)
debconf: delaying package configuration, since apt-utils is not installed
Selecting previously unselected package sudo.
(Reading database ... 12959 files and directories currently installed.)
Preparing to unpack .../sudo_1.9.9-1ubuntu2.4_amd64.deb ...
Unpacking sudo (1.9.9-1ubuntu2.4) ...
Setting up sudo (1.9.9-1ubuntu2.4) ...
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...
root@f479b4df0e51:/# usermod -aG sudo ansible
root@f479b4df0e51:/# su ansible
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ansible@f479b4df0e51:/# sudo apt update -y
[sudo] password for ansible:
```

So, when we are connecting and run a command is executed successfully

```
aalaaseif@aalaaseif:~/ansible-labs/day2$ ansible web_servers -i ./inventory --private
-key ~/.ssh/id_ed25519 -u ansible -m command -a "whoami"
BECOME password:
172.17.0.2 | CHANGED | rc=0 >>
root
```

and

```
aalaaseif@aalaaseif:~/ansible-labs/day1$ ansible web_servers -m command -a "whoami"
172.17.0.2 | CHANGED | rc=0 >>
root
aalaaseif@aalaaseif:~/ansible-labs/day1$
```