

CLOUD COMPUTING

LAB 01

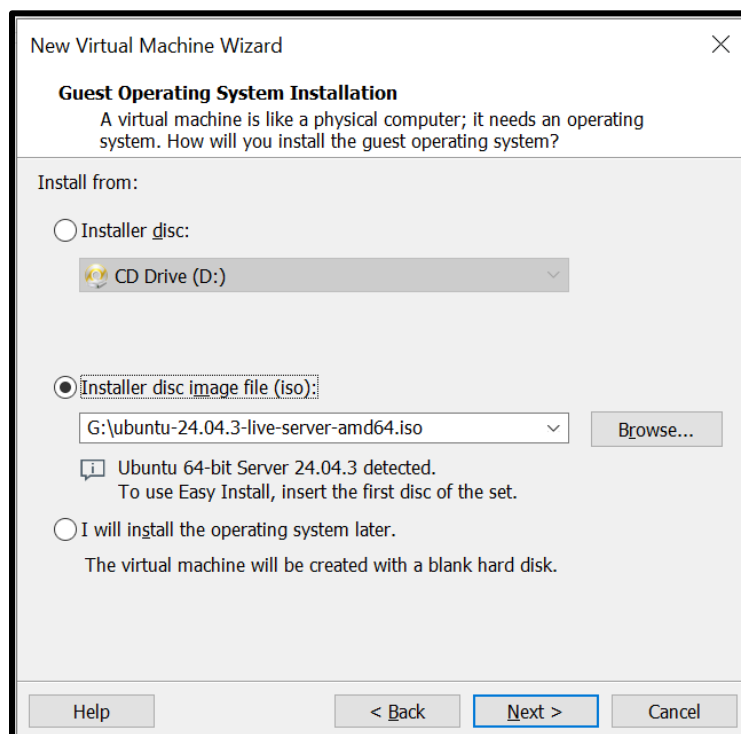
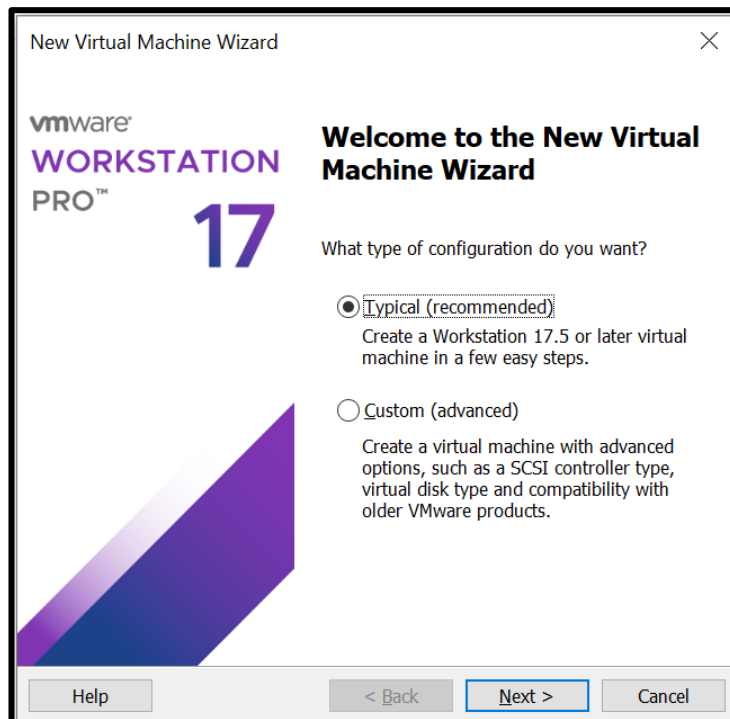
Name: Abiha Nadeem

Roll no: 2023-BSE-001

Submitted to: Engr. Muhammad Shoaib

A series of five parallel diagonal lines in a light blue color, extending from the bottom left towards the top right of the page, positioned to the right of the 'Submitted to' text.

- **Installation of the Ubuntu Live Server**



New Virtual Machine Wizard

Name the Virtual Machine
What name would you like to use for this virtual machine?

Virtual machine name:

Ubuntu 64-bit

Location:

E:\

Browse...

The default location can be changed at Edit > Preferences.

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Next >

Cancel

New Virtual Machine Wizard

Specify Disk Capacity
How large do you want this disk to be?

The virtual machine's hard disk is stored as one or more files on the host computer's physical disk. These file(s) start small and become larger as you add applications, files, and data to your virtual machine.

Maximum disk size (GB): 20.0

Recommended size for Ubuntu 64-bit: 20 GB

☐ Store virtual disk as a single file

☒ Split virtual disk into multiple files

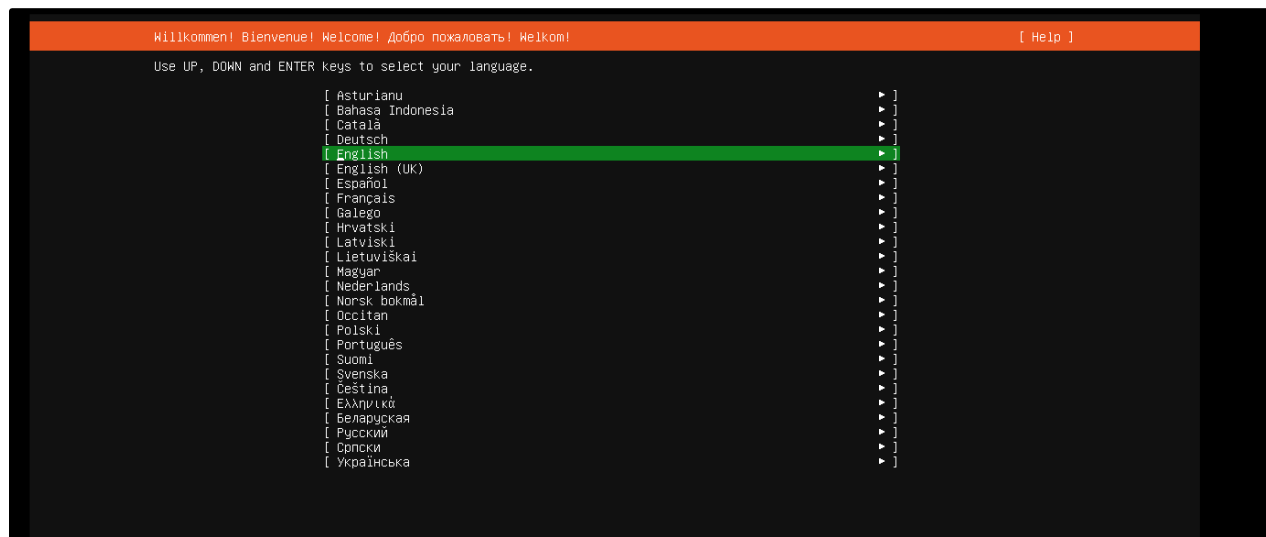
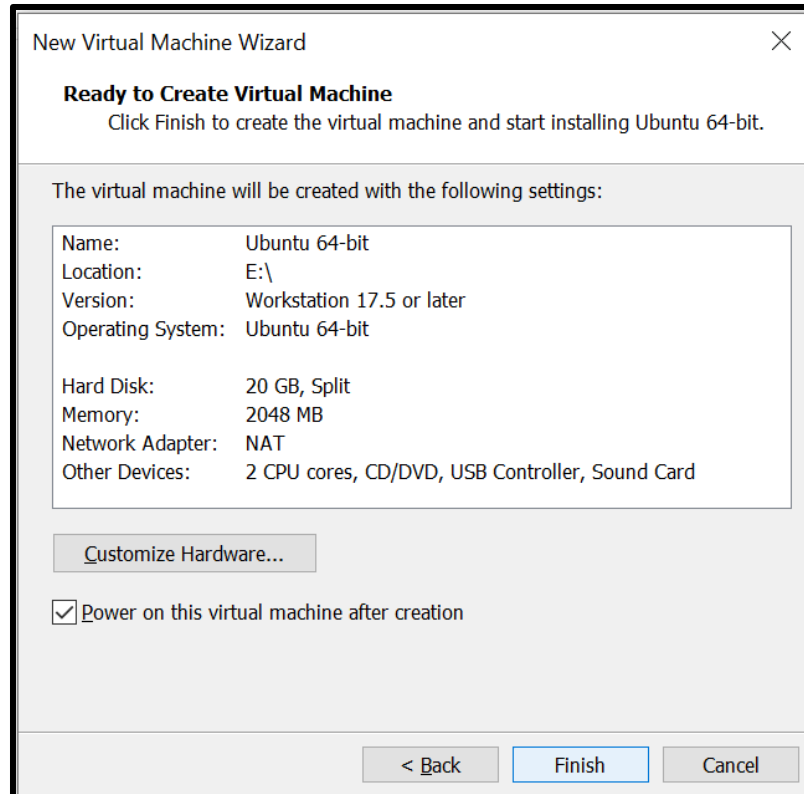
Splitting the disk makes it easier to move the virtual machine to another computer but may reduce performance with very large disks.

Help

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Cancel



Keyboard configuration

[Help]

Please select your keyboard layout below, or select "Identify keyboard" to detect your layout automatically.

Layout: [English (US) ▼]

Variant: [English (US) ▼]

[Identify keyboard]

[Done]

Choose the type of installation

[Help]

Choose the base for the installation.

☒ Ubuntu Server

The default install contains a curated set of packages that provide a comfortable experience for operating your server.

☐ Ubuntu Server (minimized)

This version has been customized to have a small runtime footprint in environments where humans are not expected to log in.

Additional options

☐ Search for third-party drivers

This software is subject to license terms included with its documentation. Some is proprietary. Third-party drivers should not be installed on systems that will be used for FIPS or the real-time kernel.

[Done]

Network configuration

[Help]

Configure at least one interface this server can use to talk to other machines, and which preferably provides sufficient access for updates.

NAME	TYPE	NOTES	
[ens33	eth	-	►]
DHCPv4	192.168.174.137/24		
00:0c:29:91:c6:dd / Intel Corporation / 82545EM Gigabit Ethernet Controller (Copper) (PRO/1000 MT Single Port Adapter)			

[Create bond ►]

[Done]

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Proxy configuration

[Help]

If this system requires a proxy to connect to the internet, enter its details here.

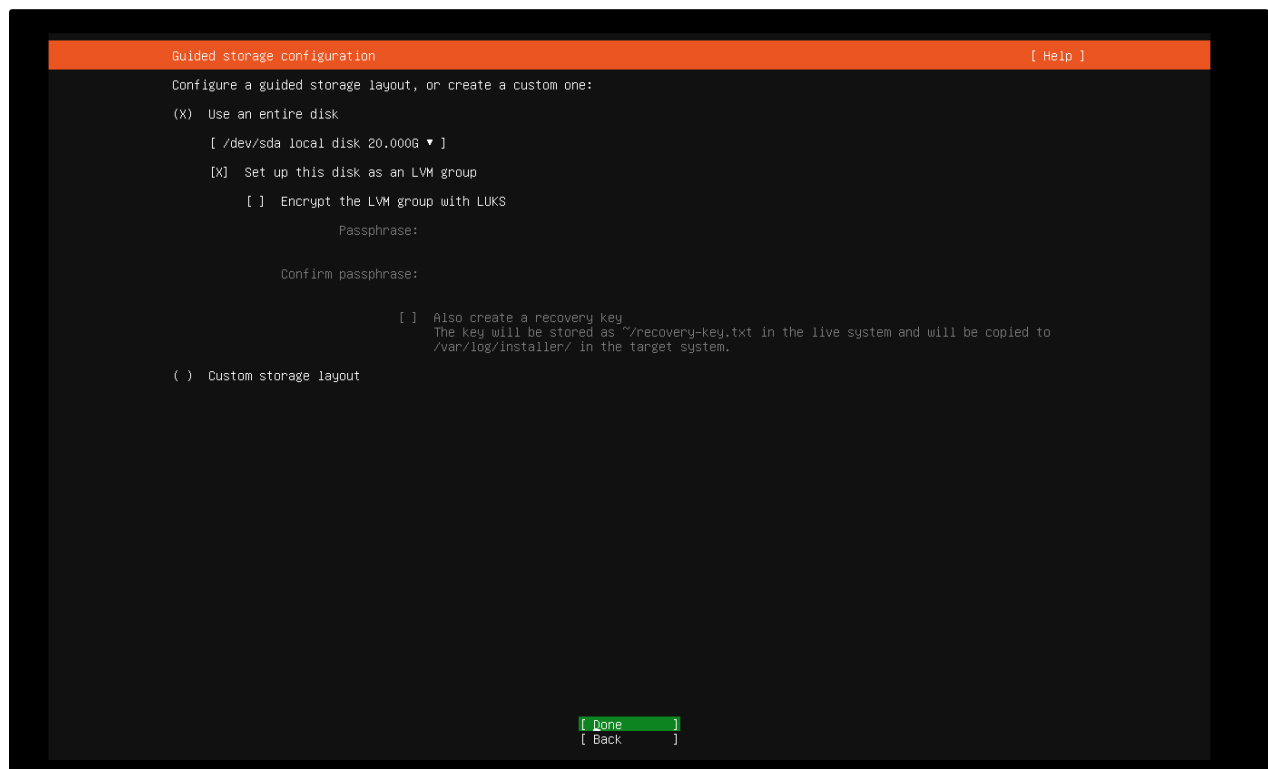
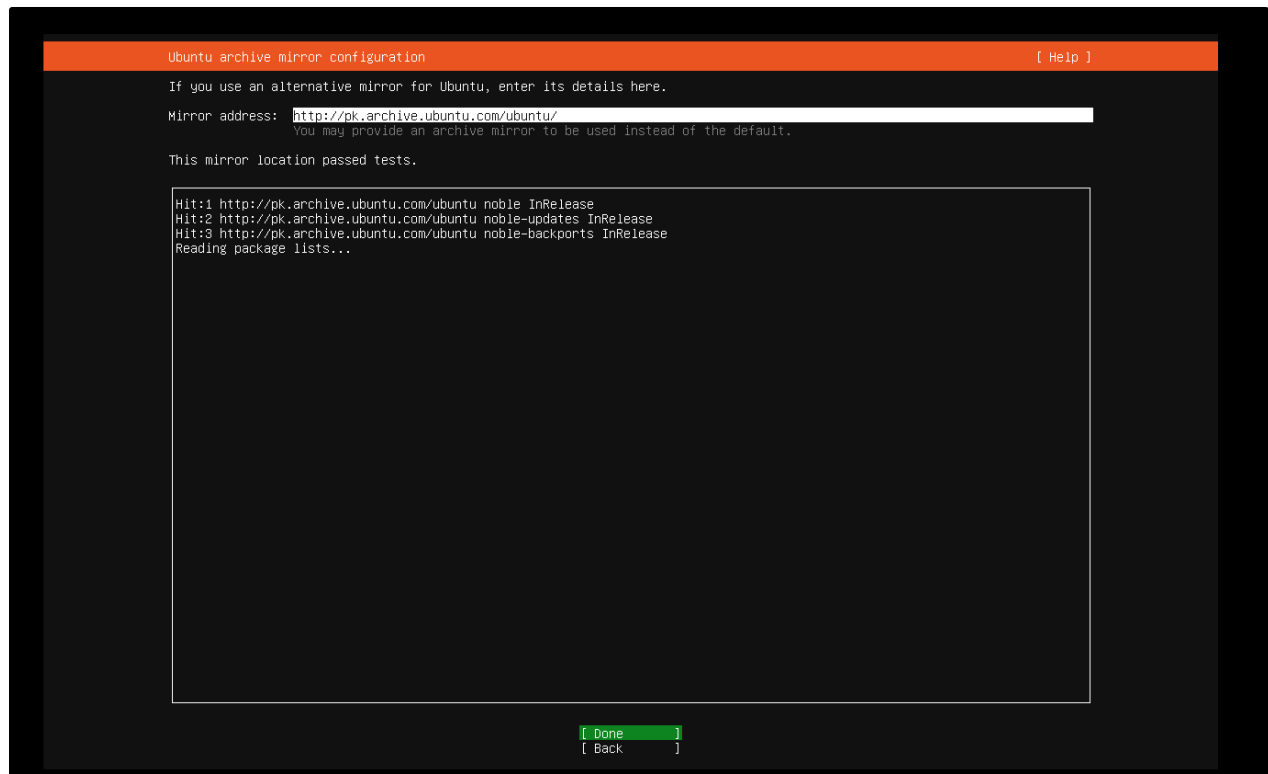
Proxy address:

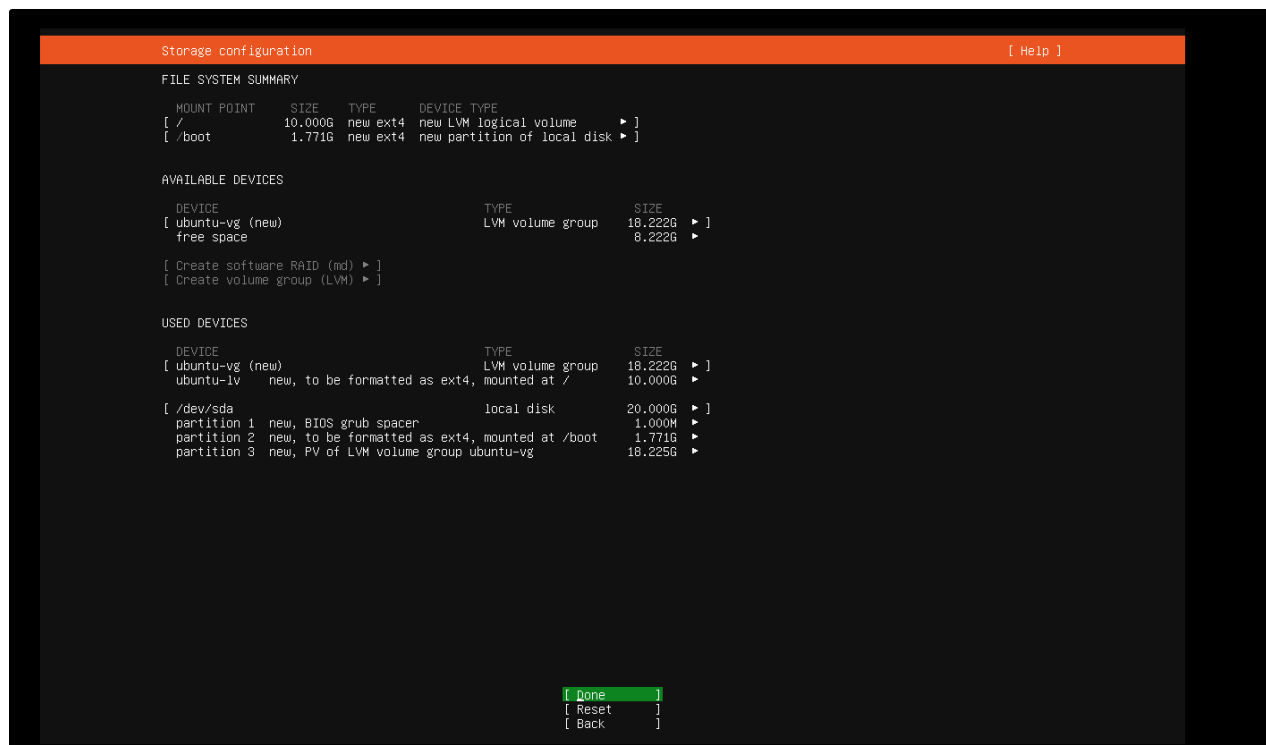
If you need to use a HTTP proxy to access the outside world, enter the proxy information here. Otherwise, leave this blank.

The proxy information should be given in the standard form of "http://[[user][:pass]@]host[:port]"/".

[Done]

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```
<14>Sep 26 18:46:39 cloud-init: 256 SHA256:TGBksc0EYaaPGTPTgsUeyVESbMgZ8x7e13UykD9Y7Wdw root@abihanadeem (ED25519)
<14>Sep 26 18:46:39 cloud-init: 3072 SHA256:0+RnGcDc/1n2SeHwQ7Hwuo4V5SLZHVJHyoIQ7UX3to root@abihanadeem (RSA)
<14>Sep 26 18:46:39 cloud-init: -----END SSH HOST KEY FINGERPRINTS-----
<14>Sep 26 18:46:39 cloud-init: #####
-----BEGIN SSH HOST KEY KEYS-----
ecdsa-sha2-nistp256 AAAAE2VjZHNhLXNoYy91dHBMZDhAYnTYAAAAIbmZDhAYnTYAAABBBFv1K86HGvXtpA5zNhq9k2ZD1YIE0D6IU0ozeKnzqWz1hIuhfSNHJZEpXg8m6+SNAGhxEC0mLEK7n/CR5Knt8=
root@abihanadeem
ssh-ed25519 AAAAC3NzaC1lZDIIINTE5AAAAIPdIHdt0qYaqR0S2Z9FUIXJdJNC2mwM5JnIkIec+ap9Z root@abihanadeem
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQGDSSynJWkKPr+LPP/W7a1qkpCuYUfvJq/1Ve2Vj+49p9b3erwzxvGrAJg0te0px0kv+q7HkmYNEJhHNQkKXx+c1XU4zuKp2VpWxhrcAKFKBz0/v5dx5UCQKhac1
ECcwJSX1TmTqKRoDcd4PnLW/Elxr19NECFVmgEA2AS1kVLt8AM7ba/T10/ed0DYm/dSLm9AJzRDB7AzTDNsrknaAb1Ip514n7qK/0YXE9KX7agew8dVQKfr1qebVdqa0q3taXfCC067fE/cLCPuCKSN7r21ox+M
PdLoHmIpanbuY/172ZT8E0TSYp7D19ckF7+sR7B4rq2aMEaoEuS9ybTLVJE4FV7AQueu0JJ/Sh21XVB3fJ2aH211mW1SqJKE2AjfUdeAipXpCNkJ1QxLVNCD+SS06r1hz4AfHS4vd7u19T4Y114yM6CuodHTasQs
F9Q8eUq0bZxF1JECbFBK/JJPQexrNGofa2IuI4e1J6tmVC4Kkc+JngZ10R7SLVgGHy0Ymb0= root@abihanadeem
-----END SSH HOST KEY KEYS-----
[ 33.806554] cloud-init[1315]: Cloud-init v. 25.1.4-0ubuntu0~24.04.1 finished at Fri, 26 Sep 2025 18:46:39 +0000. Datasource DataSourceNone. Up 33.78 seconds

abihanadeem login: abihanadeem01
Password:
Welcome to Ubuntu 24.04.3 LTS (GNU/Linux 6.8.0-71-generic x86_64)

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

System information as of Fri Sep 26 06:48:39 PM UTC 2025

System load: 0.28          Processes: 244
Usage of /: 40.6% of 9.75GB Users logged in: 0
Memory usage: 13%         IPv4 address for ens33: 192.168.174.141
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 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.

abihanadeem01@abihanadeem:~$
```



```
abihanadeem001@abihanadeem:~$ ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
        valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:0c:29:91:c6:dd brd ff:ff:ff:ff:ff:ff
    altname enp2s1
    inet 192.168.174.141/24 metric 100 brd 192.168.174.255 scope global dynamic ens33
        valid_lft 1519sec preferred_lft 1519sec
    inet6 fe80::20c:29ff:fe91:c6dd/64 scope link
        valid_lft forever preferred_lft forever
abihanadeem001@abihanadeem:~$ _
```

CA abihanadeem001@abihanadeem: ~

```
C:\Users\MOHSIN>ssh abihanadeem001@192.168.174.141
abihanadeem001@192.168.174.141's password:
Welcome to Ubuntu 24.04.3 LTS (GNU/Linux 6.8.0-71-generic x86_64)

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

System information as of Fri Sep 26 07:50:29 PM UTC 2025

System load:  0.0                Processes:    216
Usage of /:   45.3% of 9.75GB    Users logged in: 1
Memory usage: 13%               IPv4 address for ens33: 192.168.174.141
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

Last login: Fri Sep 26 18:58:20 2025 from 192.168.174.1
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

abihanadeem001@abihanadeem:~$
```

