



**Submitted to:-**

**Engr. Muhammad Shoaib**

**Engr. Waqas Saleem**

**Submitted by:-**

**Hafsa Khalid**

**Reg no:-**

**2023-BSE-021**

**Section:-**

**5 A**

**Cloud Computing**

**LAB 01**

- **Download VMWare Workstation.**

Downloads › Utilities › Download VMWare Workstation Pro



## VMWare Workstation Pro

File name: VMware-workstation-full-17.6.4-24832109.exe File size: 405.7 MB



### Select server for download

VMWare Workstation Pro 17.6.4 is available from our servers in the following locations:

Your download is starting now...

Get notified when a new version is released



(closest to you)

TechPowerUp US-3  
Server load: 41%



TechPowerUp SG  
Server load: 20%



TechPowerUp NL  
Server load: 0%



TechPowerUp DE  
Server load: 5%



TechPowerUp UK-1  
Server load: 3%

### Recent download history



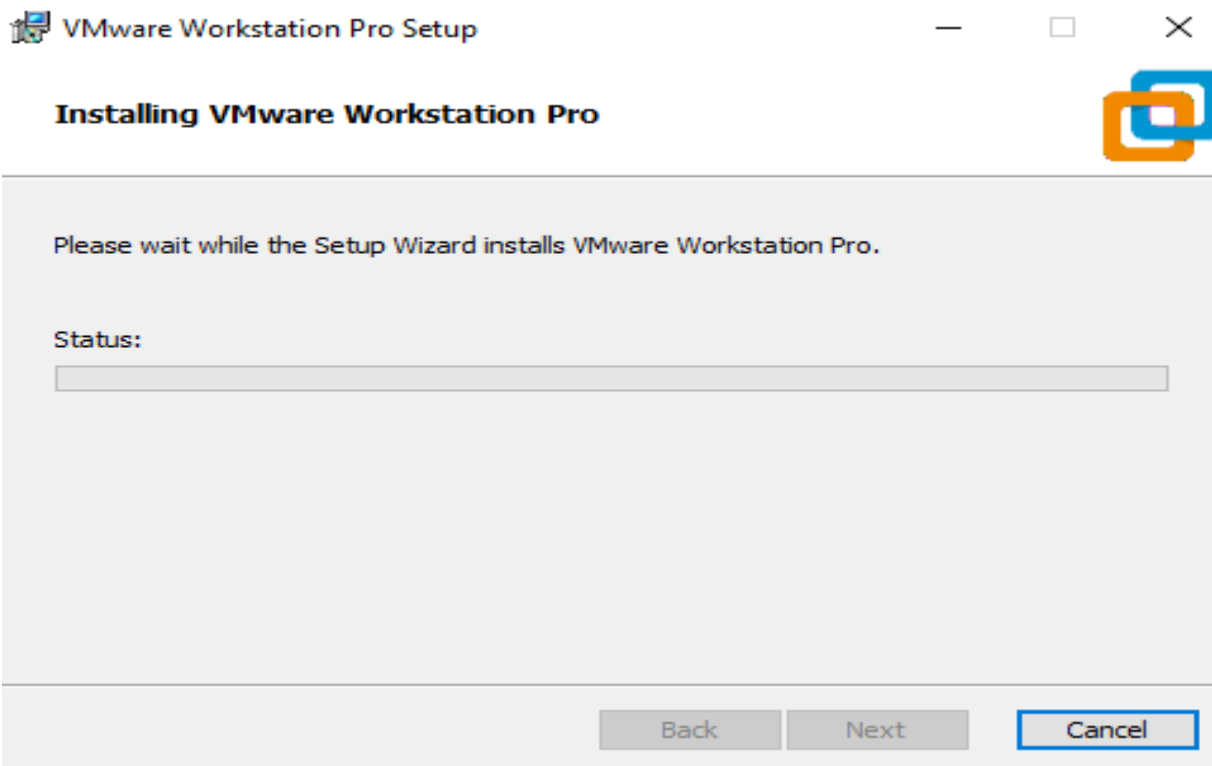
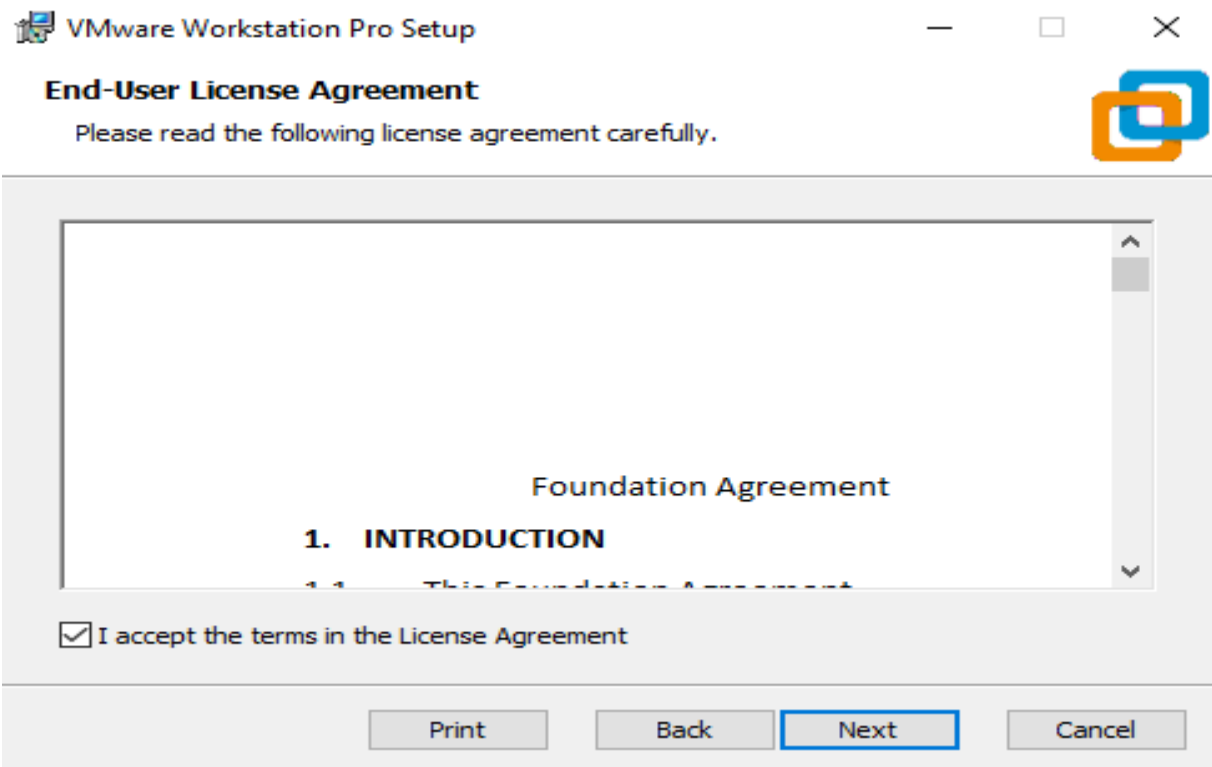
VMware-workstation-  
full-17.6.4-24832109 (1).exe  
406 MB • Done

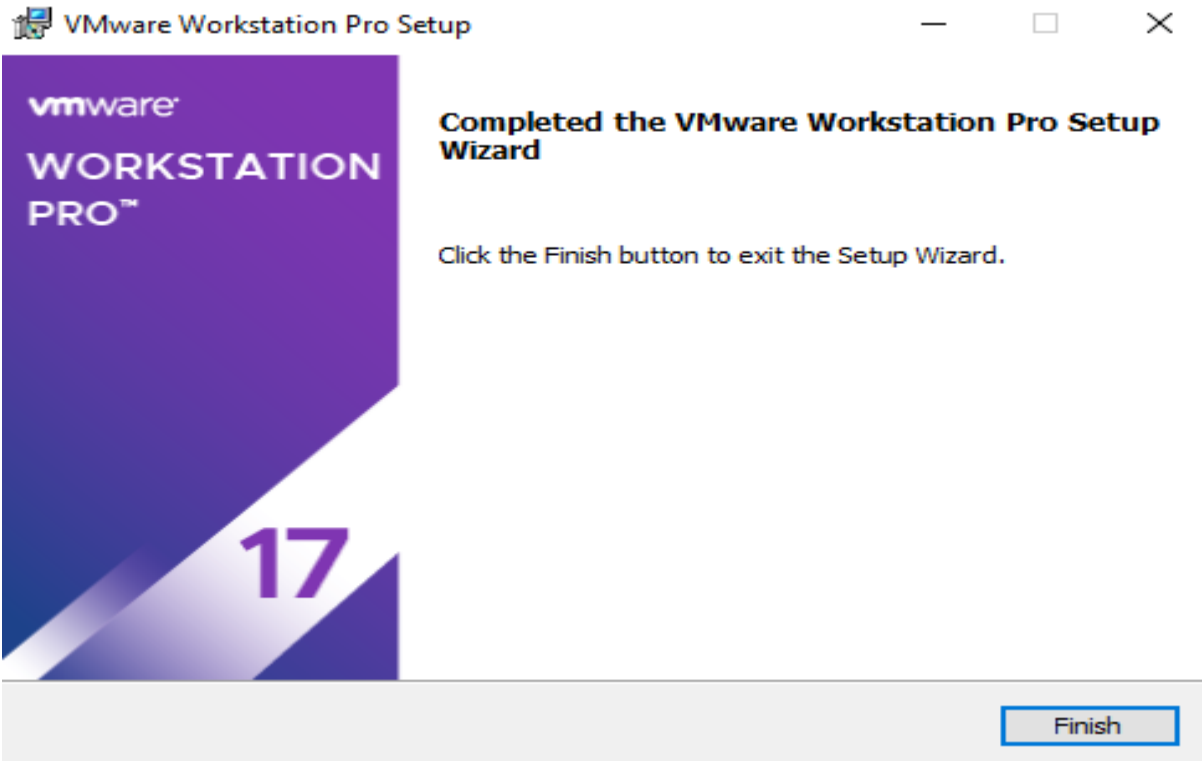


vmware®

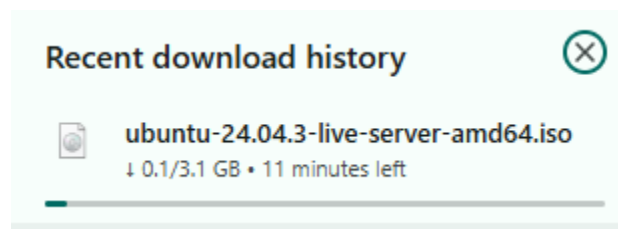
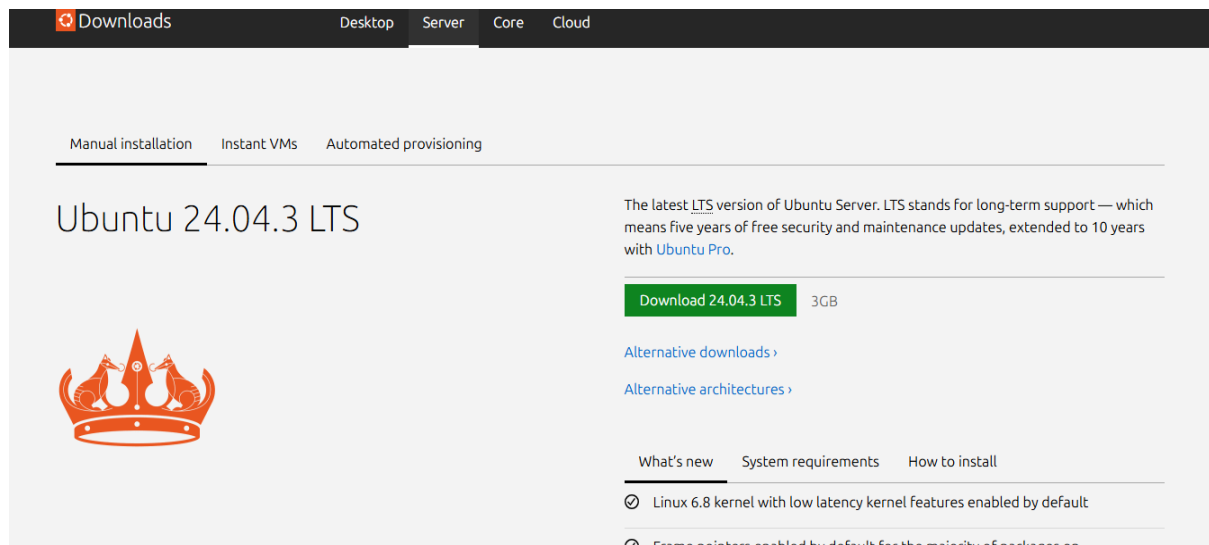
WORKSTATION  
PRO™

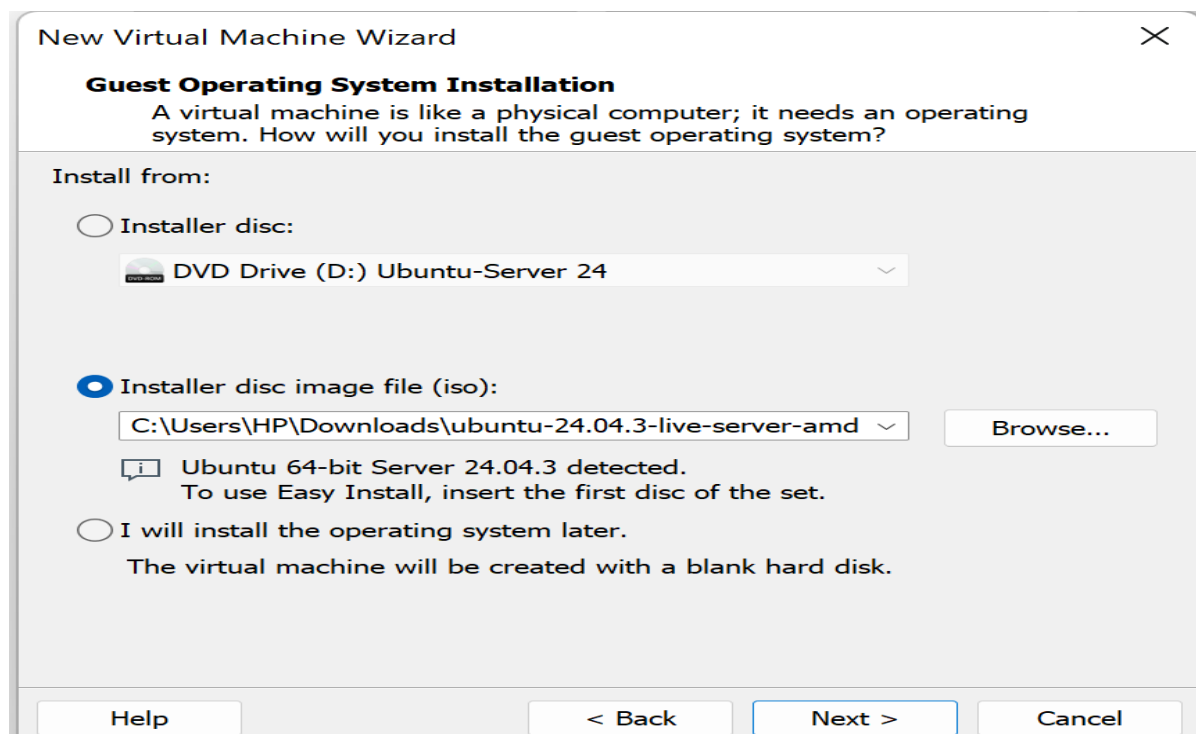
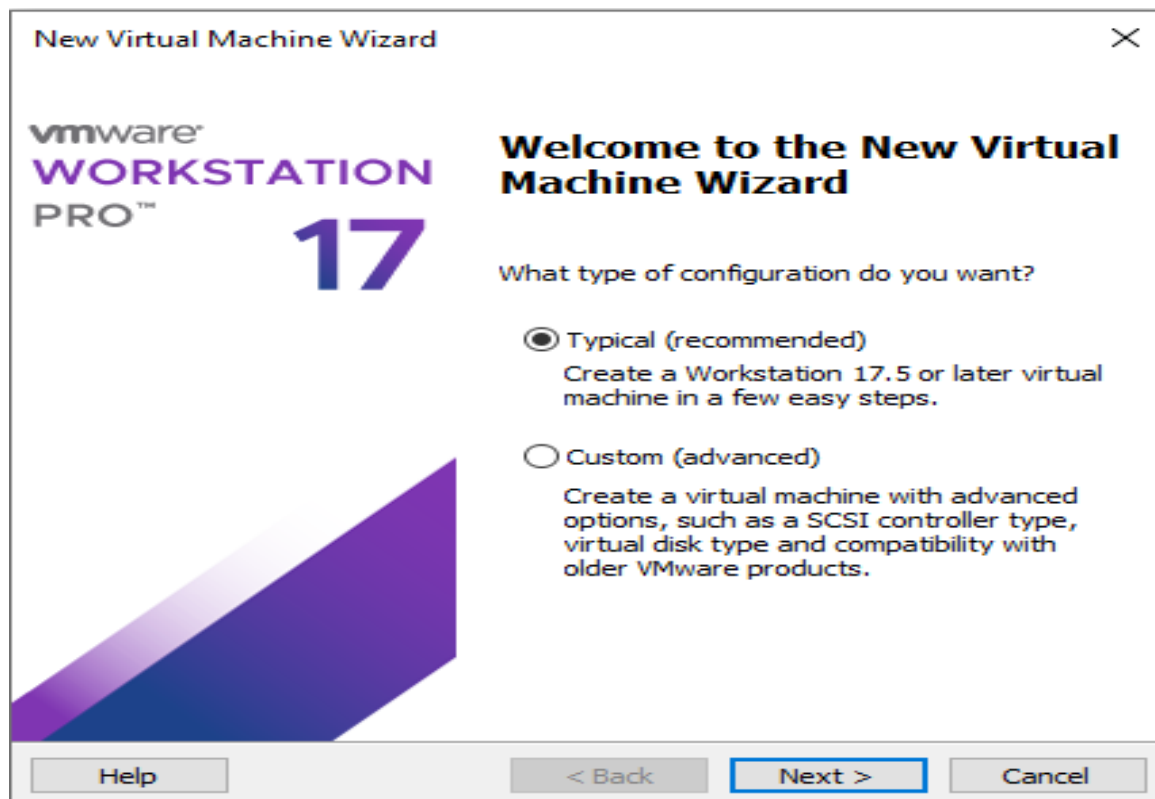
17



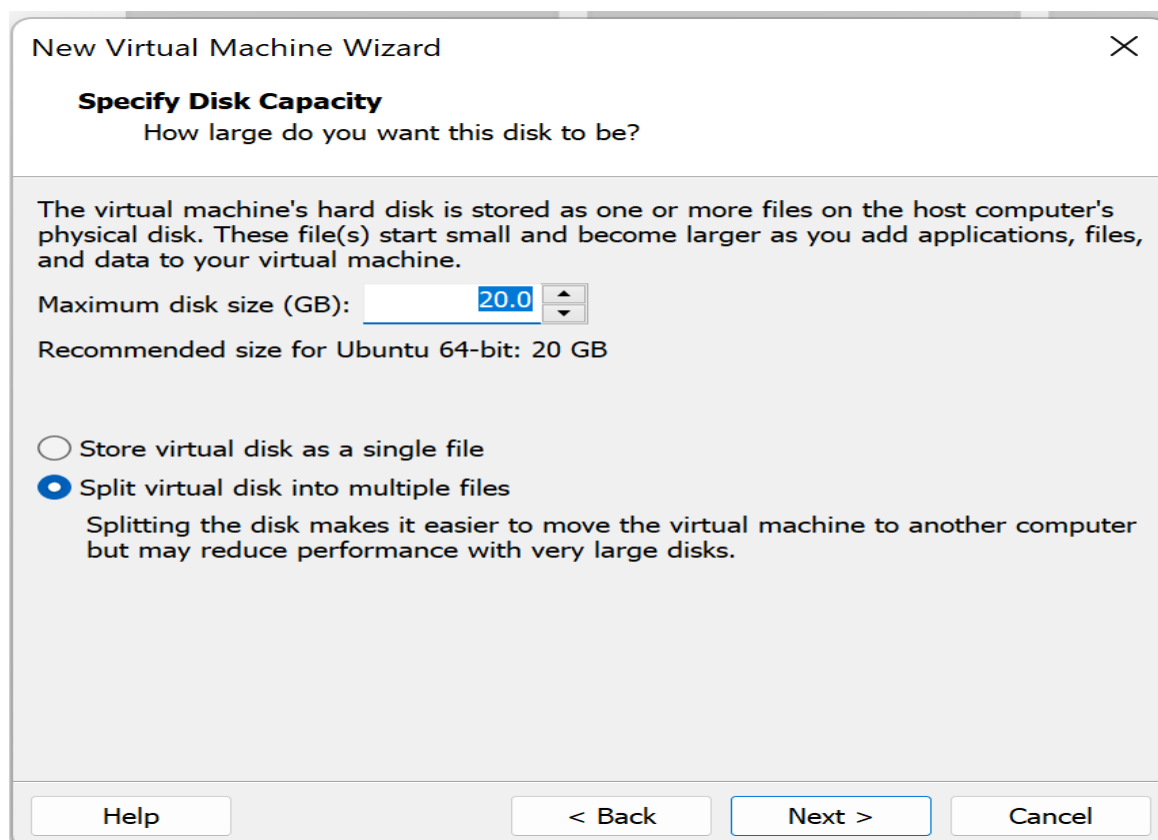
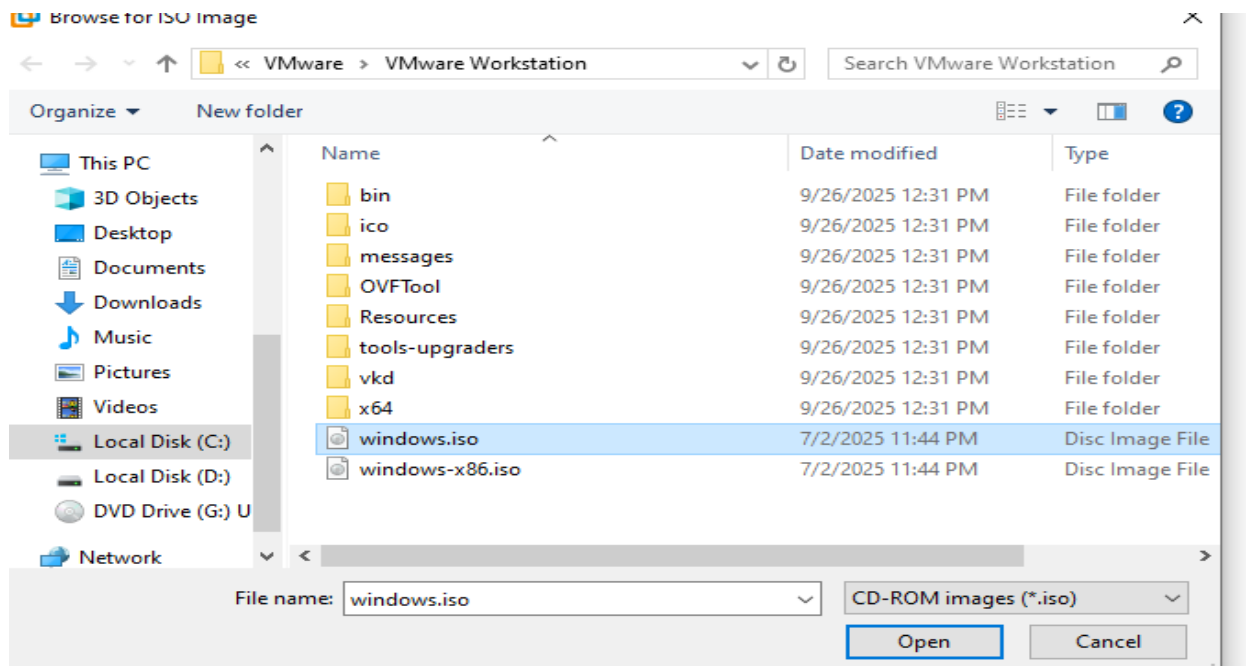


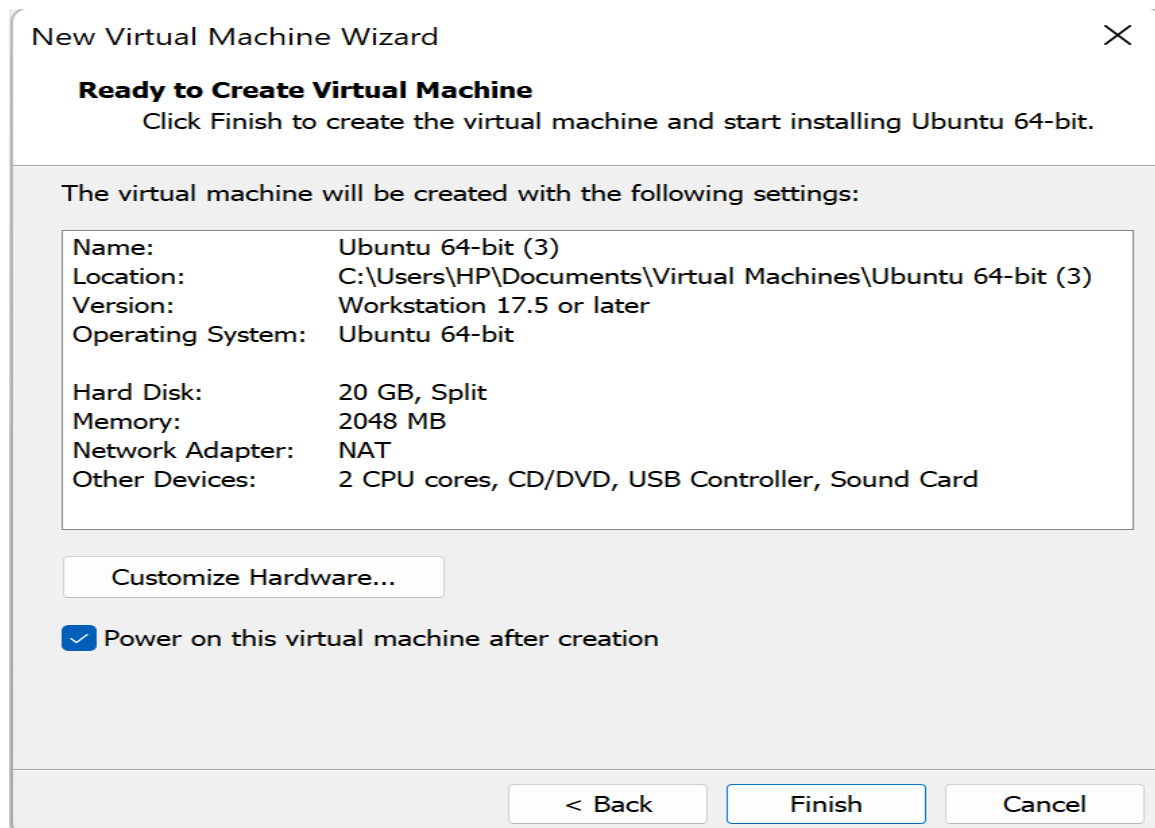
- **Download Ubuntu Server.**





- Browse the iso file.





- Create a new virtual machine on VMWare.



```

[ OK ] Finished finalrd.service - Create ...untime dir for shutdown pivot root.
[ OK ] Finished plymouth-read-write.servi...Plymouth To Write Out Runtime Data.
Mounting proc-sys-fs-binfmt_misc.mo...cutable File Formats File System...
[ OK ] Finished ufw.service - Uncomplicated firewall.
[ OK ] Mounted proc-sys-fs-binfmt_misc.mo...xecutable File Formats File System.
[ OK ] Finished systemd-binfmt.service - Set Up Additional Binary Formats.
[ OK ] Finished systemd-tmpfiles-setup.se...ate Volatile Files and Directories.
Starting systemd-journal-catalog-u...ervice - Rebuild Journal Catalog...
Starting systemd-resolved.service - Network Name Resolution...
Starting systemd-timesyncd.service - Network Time Synchronization...
Starting systemd-update-utmp.servi...ord System Boot/Shutdown in UTMP...
[ OK ] Started vgauth.service - Authentic... virtual machines hosted on VMware.
[ OK ] Started open-vm-tools.service - Se... virtual machines hosted on VMware.
Starting cloud-init-local.service ...-init: Local Stage (pre-network)...
[ OK ] Finished systemd-udev-trigger.service - Coldplug All udev Devices.
[ OK ] Finished systemd-journal-catalog-u...service - Rebuild Journal Catalog.
[ OK ] Started systemd-ask-password-conso...equests to Console Directory Watch.
[ OK ] Reached target cryptsetup.target - Local Encrypted Volumes.
[ OK ] Finished systemd-update-utmp.servi...ecord System Boot/Shutdown in UTMP.
[ OK ] Started systemd-timesyncd.service - Network Time Synchronization.
[ OK ] Reached target time-set.target - System Time Set.
[ OK ] Started systemd-resolved.service - Network Name Resolution.
[ OK ] Reached target nss-lookup.target - Host and Network Name Lookups.
[ OK ] Finished snapd.apparmor.service - ...ofiles managed internally by snapd.
_

```

```

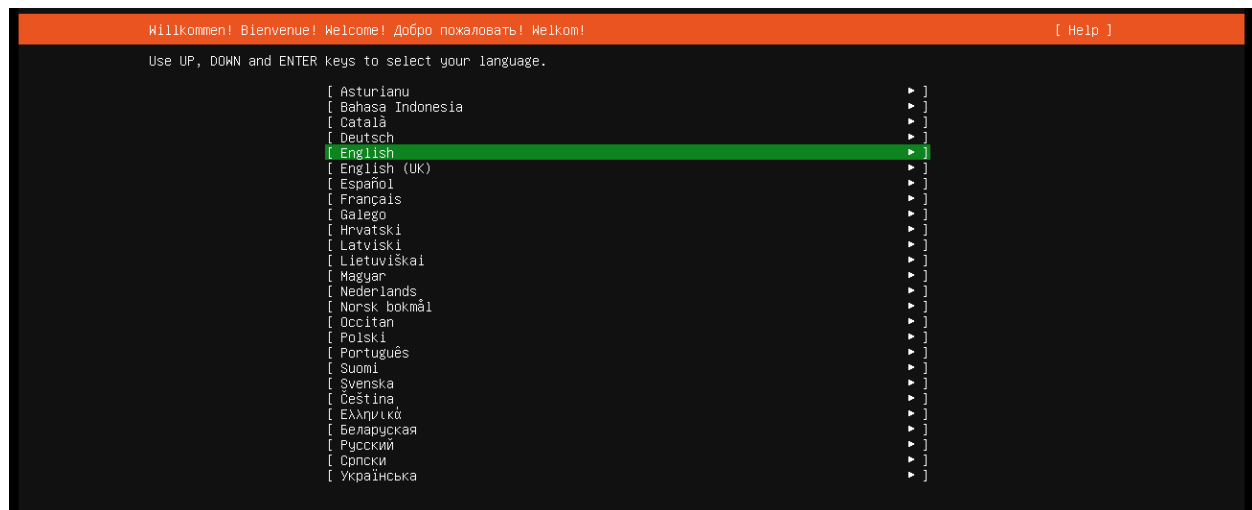
Starting systemd-timedated.service - Time & Date Service...

Ubuntu 24.04.3 LTS ubuntu-server tty1

connecting...
waiting for cloud-init... |_

```

## ● Choose your language





- Choose the correct keyboard layout

The screenshot shows the 'Keyboard configuration' screen from the Ubuntu Server installer. The title bar is orange with 'Keyboard configuration' on the left and '[ Help ]' on the right. The main area is dark gray with white text. It prompts the user to select a keyboard layout. The 'Layout' dropdown is set to '[ English (UK) ]' and the 'Variant' dropdown is set to '[ English (UK) - English (UK, extended, Windows) ]'. Below these are two buttons: '[ Identify keyboard ]' and a green button labeled '[ Done ]'. At the bottom, there is a '[ Back ]' button.

Keyboard configuration [ Help ]

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

Layout: [ English (UK) ▼ ]

Variant: [ English (UK) - English (UK, extended, Windows) ▼ ]

[ Identify keyboard ]

[ Done ]

[ Back ]

- Choose your install

The screenshot shows the 'Choose the type of installation' screen from the Ubuntu Server installer. The title bar is orange with 'Choose the type of installation' on the left and '[ Help ]' on the right. The main area is dark gray with white text. It prompts the user to choose the base for the installation. There are two radio button options: '(X) Ubuntu Server' and '( ) Ubuntu Server (minimized)'. Below these are 'Additional options' with a checkbox for '[ ] Search for third-party drivers'. At the bottom, there is a green button labeled '[ Done ]' and a '[ Back ]' button.

Choose the type of installation [ Help ]

Choose the base for the installation.

(X) 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 ]

[ Back ]

- **Networking**

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	192.168.109.132/24		
00:0c:29:0d:d3:ab / Intel Corporation / 82545EM Gigabit Ethernet Controller (Copper) (PRO/1000 MT Single Port Adapter)			
[ Create bond ► ]			

[ Done ]

[ Back ]

Proxy configuration

[ Help ]

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

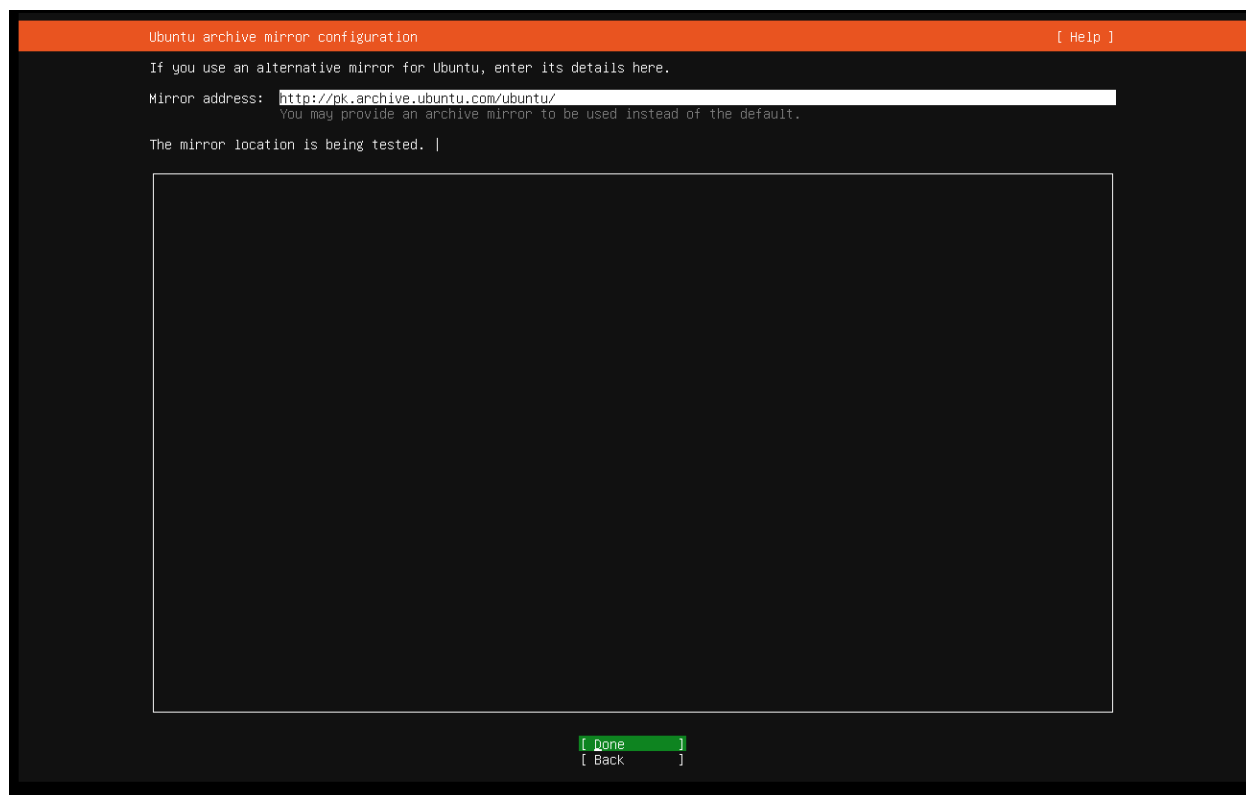
Proxy address:

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

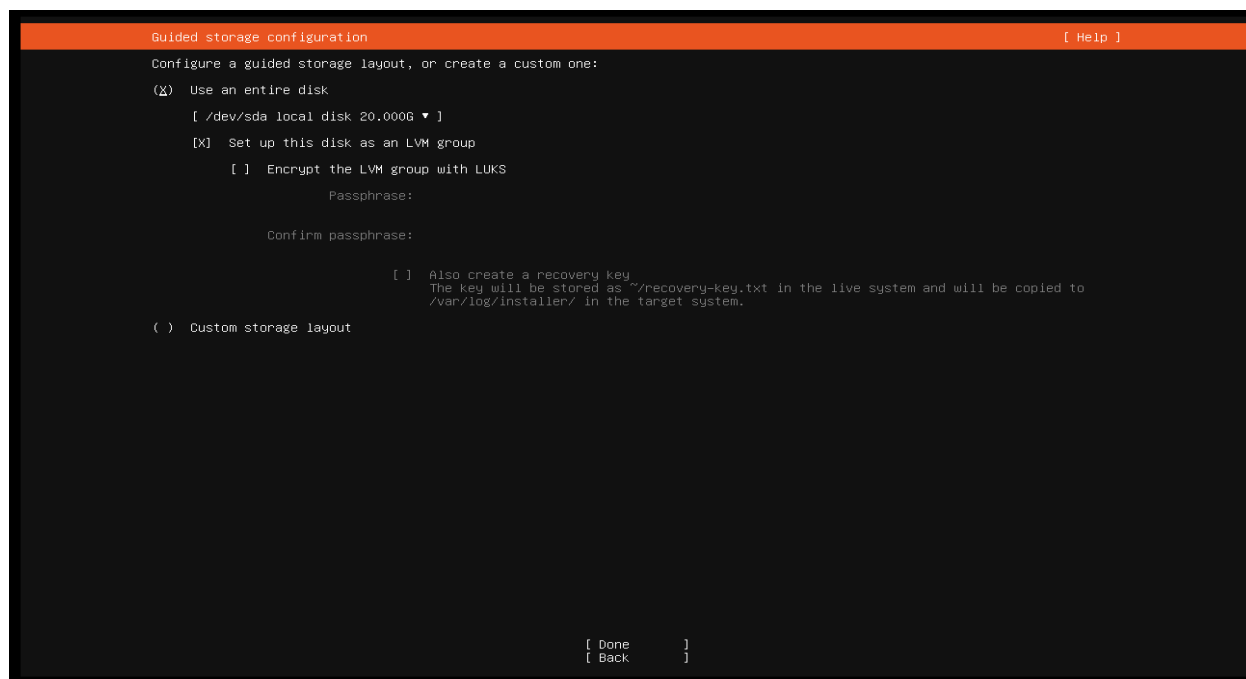
The proxy information should be given in the standard form of "http://[[user][:pass]@]host[:port]/".

[ Done ]

[ Back ]



- **Configure storage**



- Confirm changes

Storage configuration

[ Help ]

FILE SYSTEM SUMMARY

MOUNT POINT	SIZE	TYPE	DEVICE TYPE	
[ /	10.000G	new ext4	new LVM logical volume	► ]
[ /boot	1.771G	new ext4	new partition of local disk	► ]

AVAILABLE DEVICES

DEVICE	TYPE	SIZE	
[ ubuntu-vg (new)	LVM volume group	18.222G	► ]
free space		8.222G	► ]

[ Create software RAID (md) ► ]  
[ Create volume group (LVM) ► ]

USED DEVICES

DEVICE	TYPE	SIZE	
[ ubuntu-vg (new)	LVM volume group	18.222G	► ]
ubuntu-lv	new, to be formatted as ext4, mounted at /	10.000G	► ]

		TYPE	SIZE	
[ /dev/sda		local disk	20.000G	► ]
partition 1	new, BIOS grub spacer		1.000M	► ]
partition 2	new, to be formatted as ext4, mounted at /boot		1.771G	► ]
partition 3	new, PV of LVM volume group ubuntu-vg		18.225G	► ]

[ Done ]  
[ Reset ]  
[ Back ]

- Set up a Profile

Profile configuration

[ Help ]

Enter the username and password you will use to log in to the system. You can configure SSH access on a later screen, but a password is still needed for sudo.

Your name: hafsa

Your servers name: hafsa021  
The name it uses when it talks to other computers.

Pick a username: hafsa021

Choose a password: \*\*\*\*\*

Confirm your password: \*\*\*\*\*

[ Done ]

- Get the ip address through ip addr command.

```
hafsa021@hafsa021:~$ 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:29:2a:d1:a3 brd ff:ff:ff:ff:ff:ff
    altname enp2s1
    inet 192.168.109.130/24 metric 100 brd 192.168.109.255 scope global dynamic ens33
        valid_lft 1720sec preferred_lft 1720sec
    inet6 fe80::20c:29ff:fe2a:d1a3/64 scope link
        valid_lft forever preferred_lft forever
```

- ssh command on Window's Command Prompt.

```
C:\Users\HP>ssh hafsa021@192.168.109.130
hafsa021@192.168.109.130'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 Sat Sep 27 06:56:07 PM UTC 2025

System load:  0.27           Processes:            245
Usage of /:   45.1% of 9.75GB Users logged in:      1
Memory usage: 13%           IPv4 address for ens33: 192.168.109.130
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

Failed to connect to https://changelogs.ubuntu.com/meta-release-lts. Check your Internet connection or proxy settings

Last login: Sat Sep 27 06:20:24 2025 from 127.0.0.1
hafsa021@hafsa021:~$
```