How to Share a Folder Between a Windows Host and a Linux Guest in VirtualBox?

written by sysadmin | 2 July 2025

The previous article explained how a folder is shared between a Windows host and a Windows guest in VirtualBox. This article will explain how to share a folder between a Windows host and a Linux guest in VirtualBox.

Problem

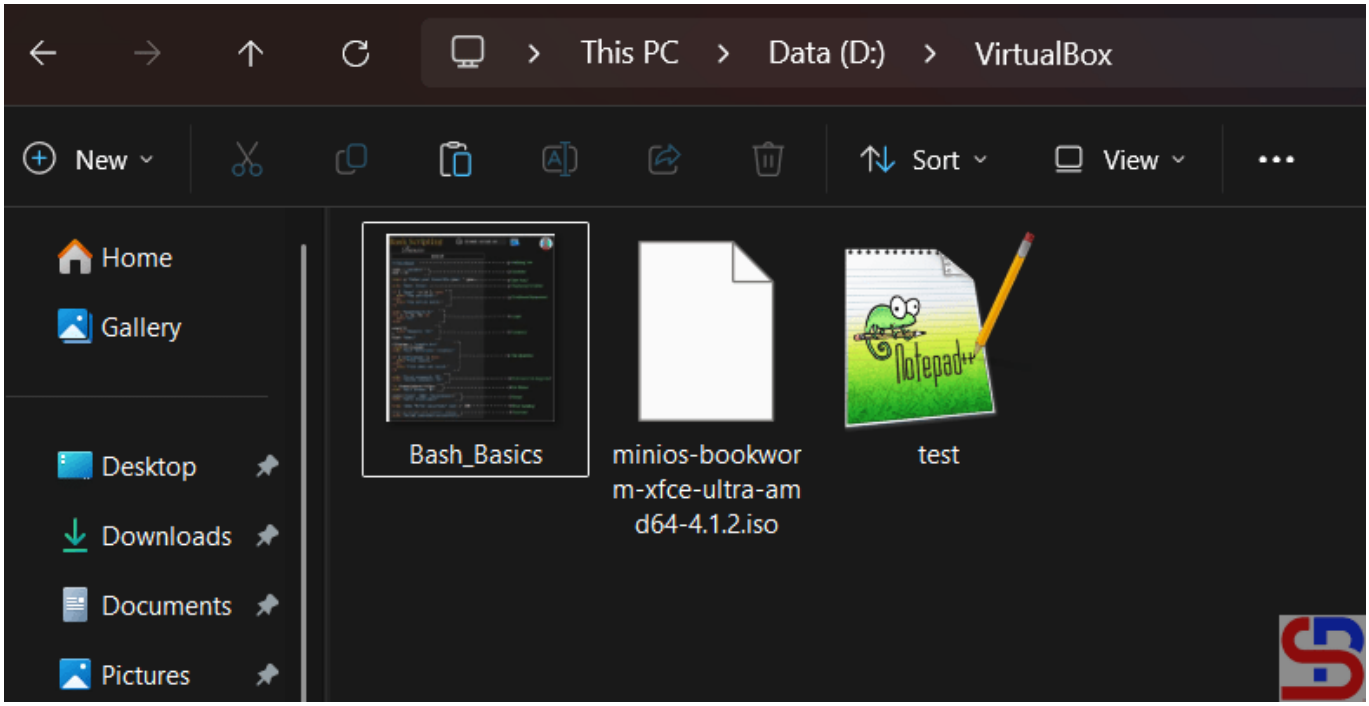
How to share a folder between a Windows host and a Linux guest in VirtualBox?

Solution

I use **VirtualBox version 7.1.4** in this article and below are the steps so that you can share a folder between a Windows host and a Windows guest in VirtualBox:

A. In the Host

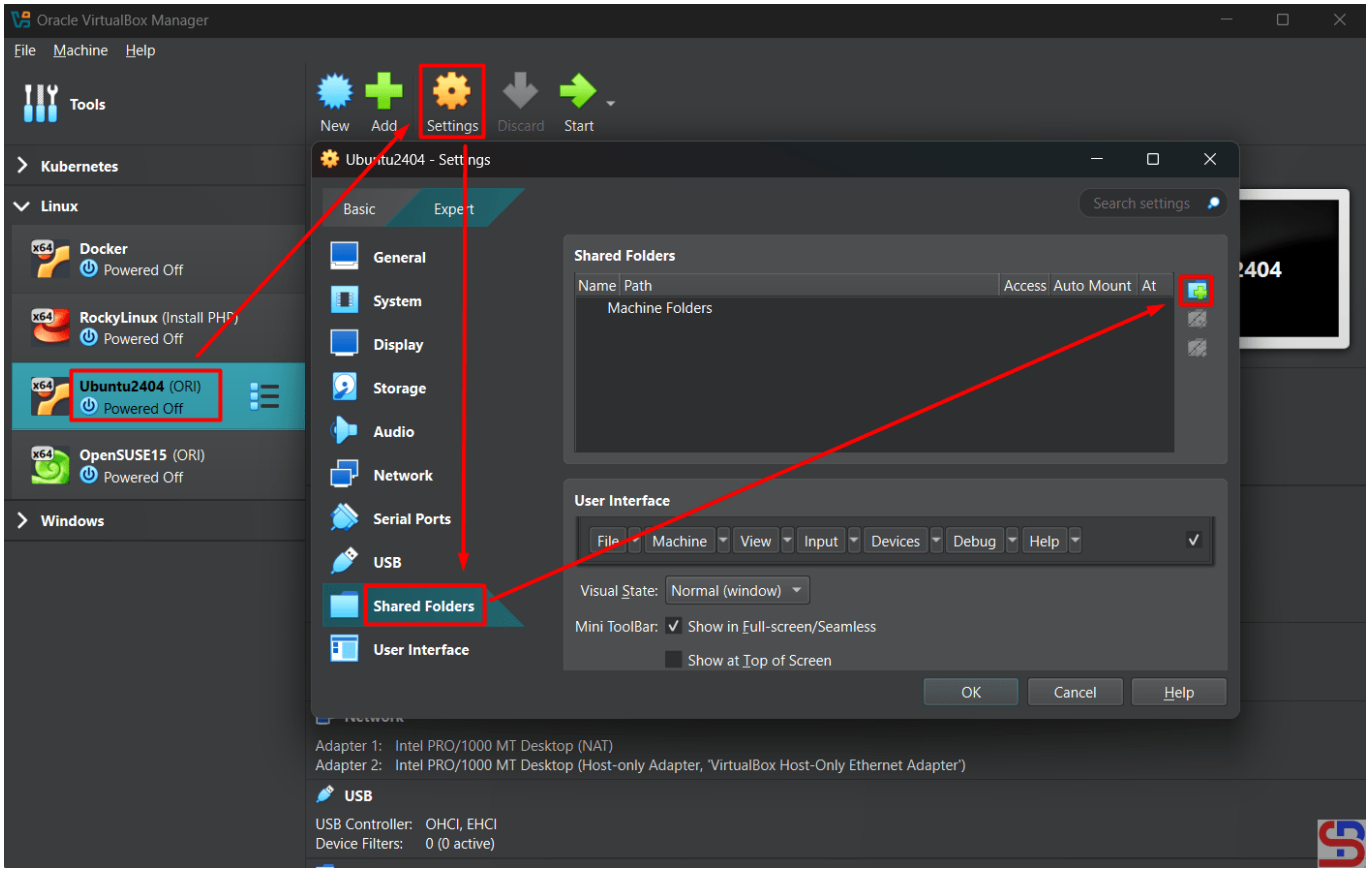
Create a folder on your host and I create a VirtualBox folder on drive D like in the image below:



The shared folder

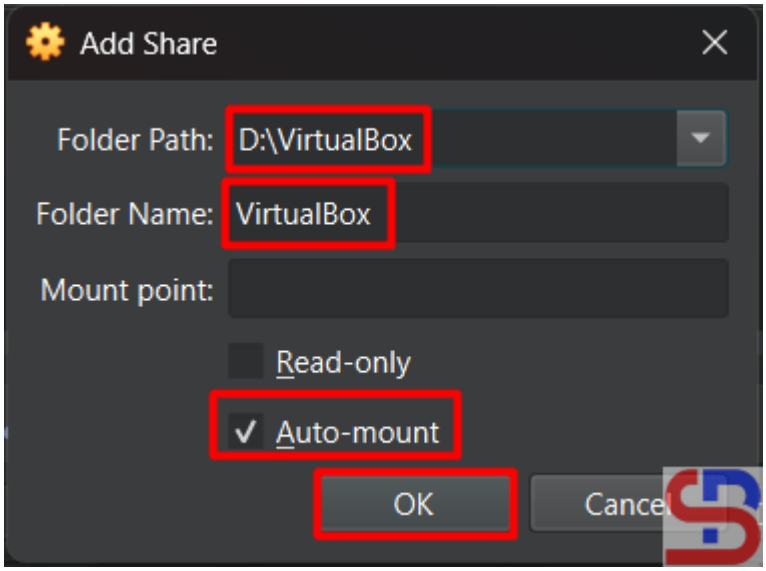
B. In the Guest

You don’t need to install a driver if you use Linux as a guest. You need to configure the shared folder in VirtualBox. Go to **Settings** – **Shared Folders** and click the icon like in the image below:



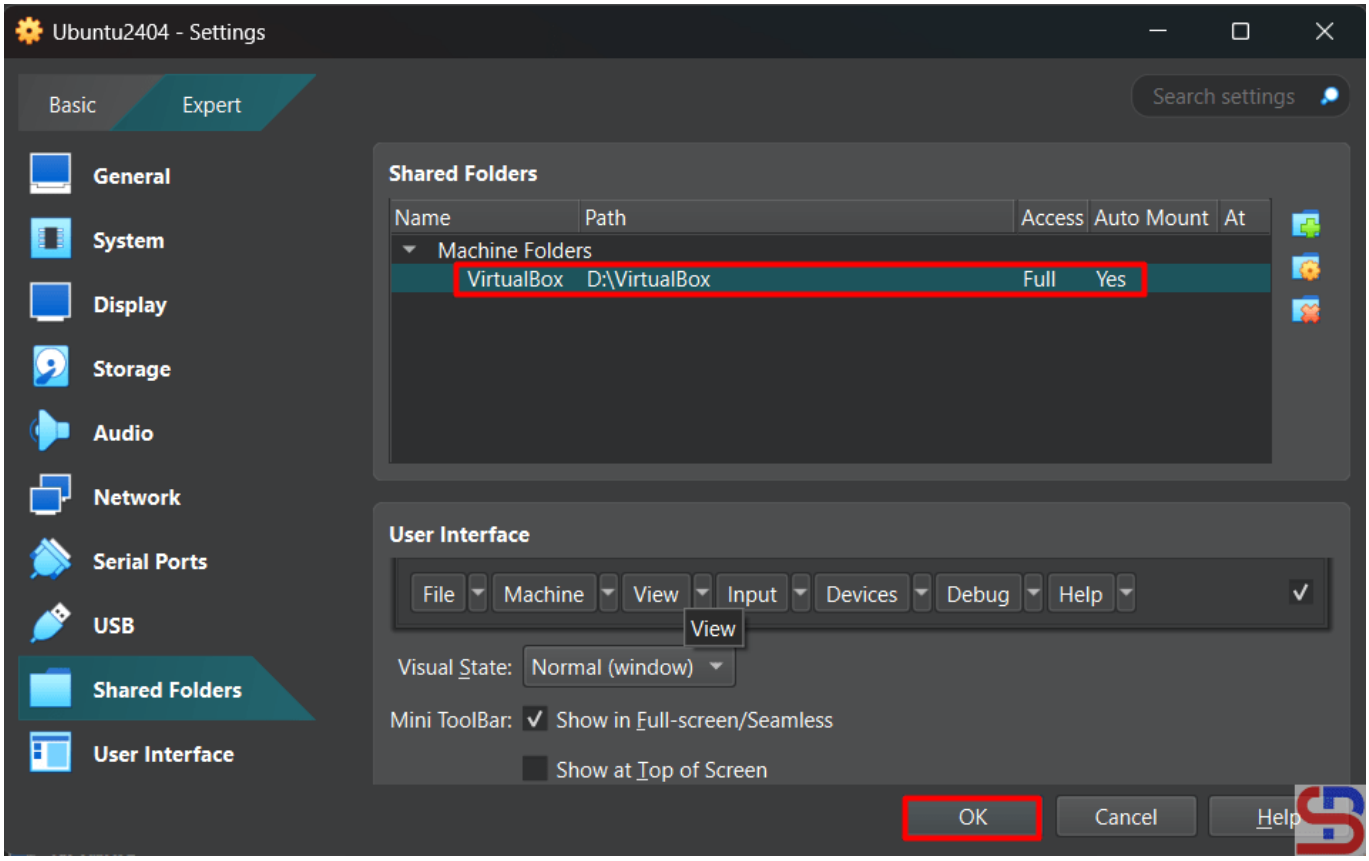
Click the icon in the Shared Folders section

Fill the columns like in the image below:



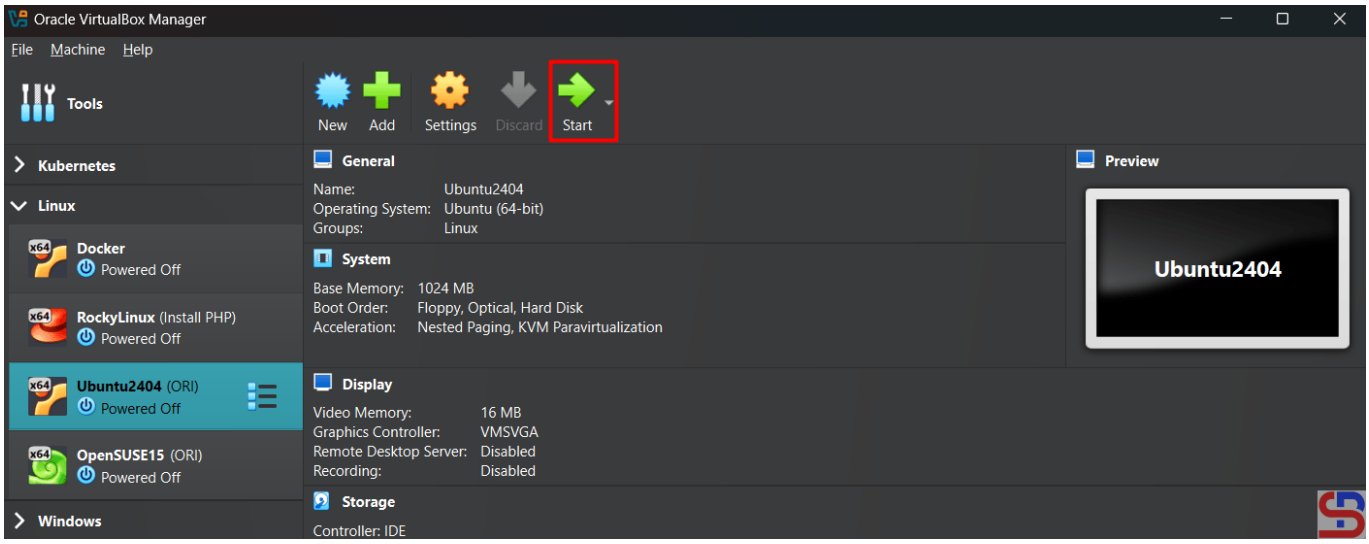
Settings the shared folders

Click the **OK** button and the shared folder will appear like in the image below:



The shared folder appears

Click the **OK** button. After that, turn on your virtual machine by clicking the **Start** button like in the image below:



Turn on the VM

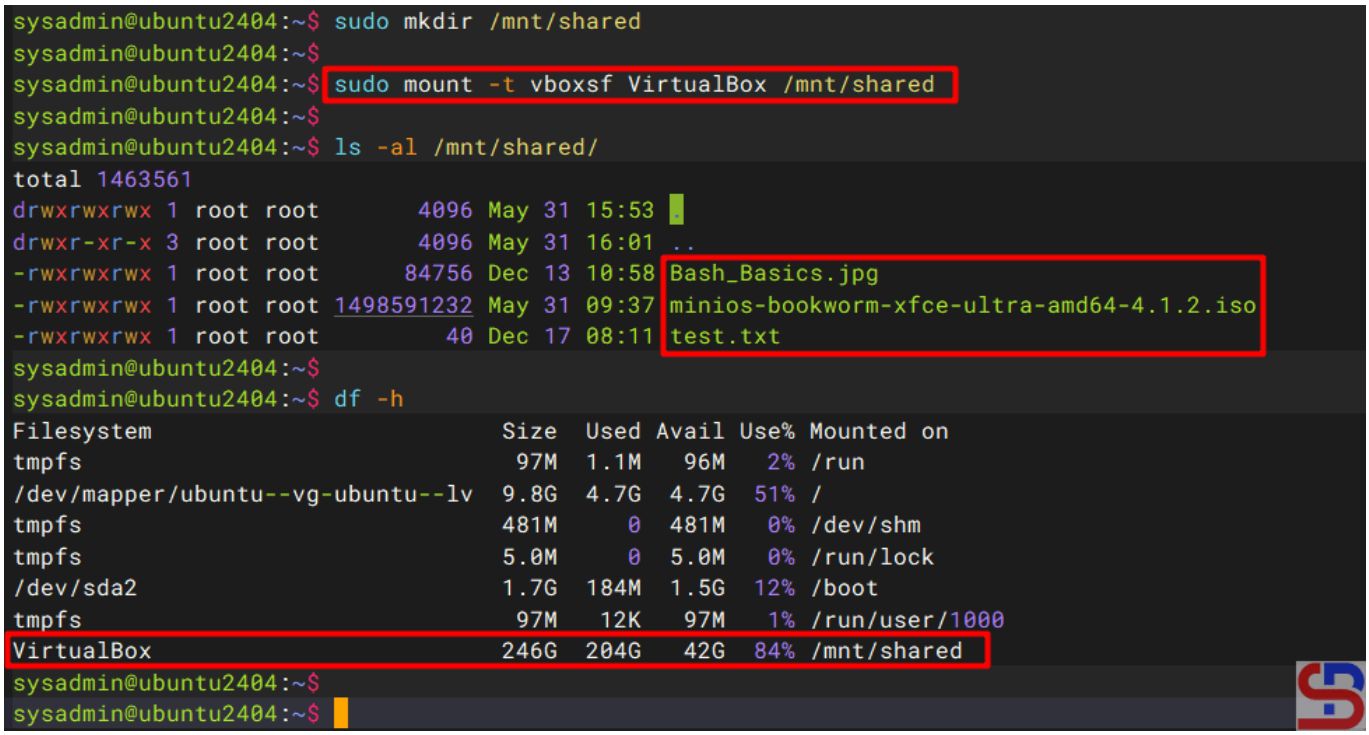
Make a folder in Linux and I created a folder /mnt/shared using the command below:

```
sudo mkdir /mnt/shared
```

Execute the below command to mount the shared folder with your folder:

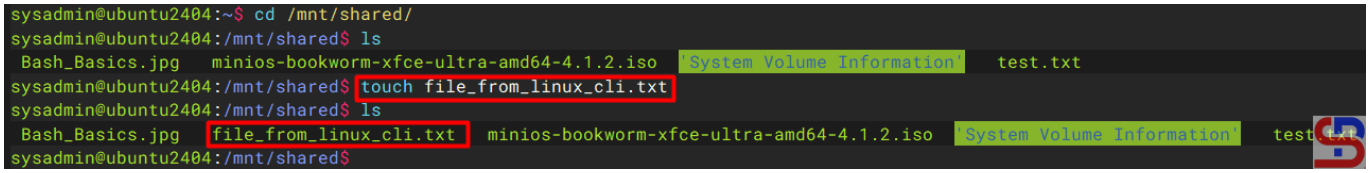
```
sudo mount -t vboxsf VirtualBox /mnt/shared
```

And you should be able to access the shared folder as shown in the image below:



Accessing the shared folder

You can add or remove the file in the shared folder like in the image below:



Create a new file in the shared folder

Note

If you restart the Linux on your virtual machine, you will lose your shared folder and you have to be recreated. To avoid that, then use the command below to configure the **/etc/fstab** file so that the shared folder is not lost when this virtual machine is restarted:

```
echo 'VirtualBox       /mnt/shared     vboxsf  rw 0 0' | sudo tee -a /etc/fstab
```

Any guest using any Linux distribution should be able to follow the above instructions.

References

docs.oracle.com
debugpoint.com

How to Share a Folder Between a Windows Host and a Windows Guest in VirtualBox?

written by sysadmin | 2 July 2025

VirtualBox has a feature where you can access the files on a folder in your host from your virtual machine. For example, your host is Windows and you want to send some files to your Windows virtual machine.

Problem

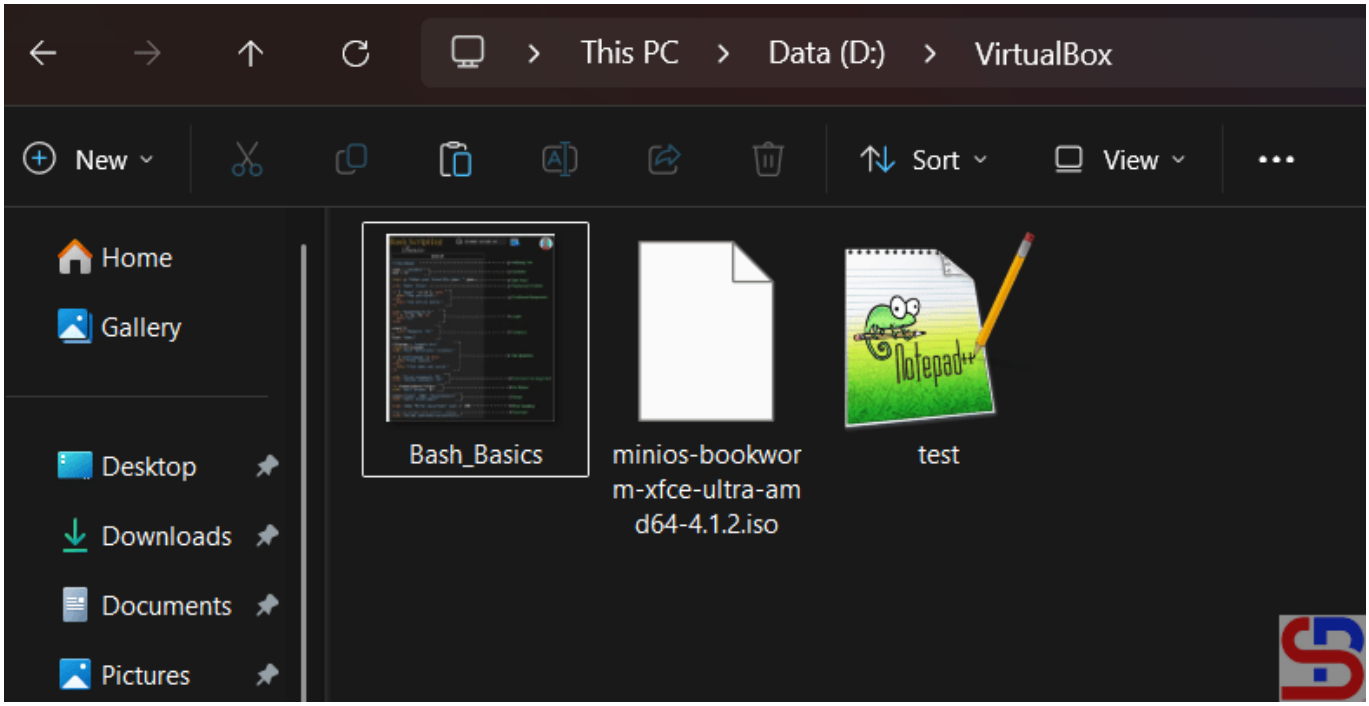
How to share a folder between a Windows host and a Windows guest in VirtualBox?

Solution

You can view or change the files from your host system from within the guest system using Oracle VM VirtualBox's shared folders capability. Shared folders physically reside on the host and are then shared with the guest, which uses a special file system driver in the Guest Additions to talk to the host. For Windows guests, shared folders are implemented as a pseudo-network redirector and the Guest Additions provide a virtual file system For Linux and Oracle Solaris guests. I use **VirtualBox version 7.1.4** in this article and below are the steps so that you can share a folder between a Windows host and a Windows guest in VirtualBox:

A. In the Host

Create a folder on your host and I create a VirtualBox folder on drive D like in the image below:

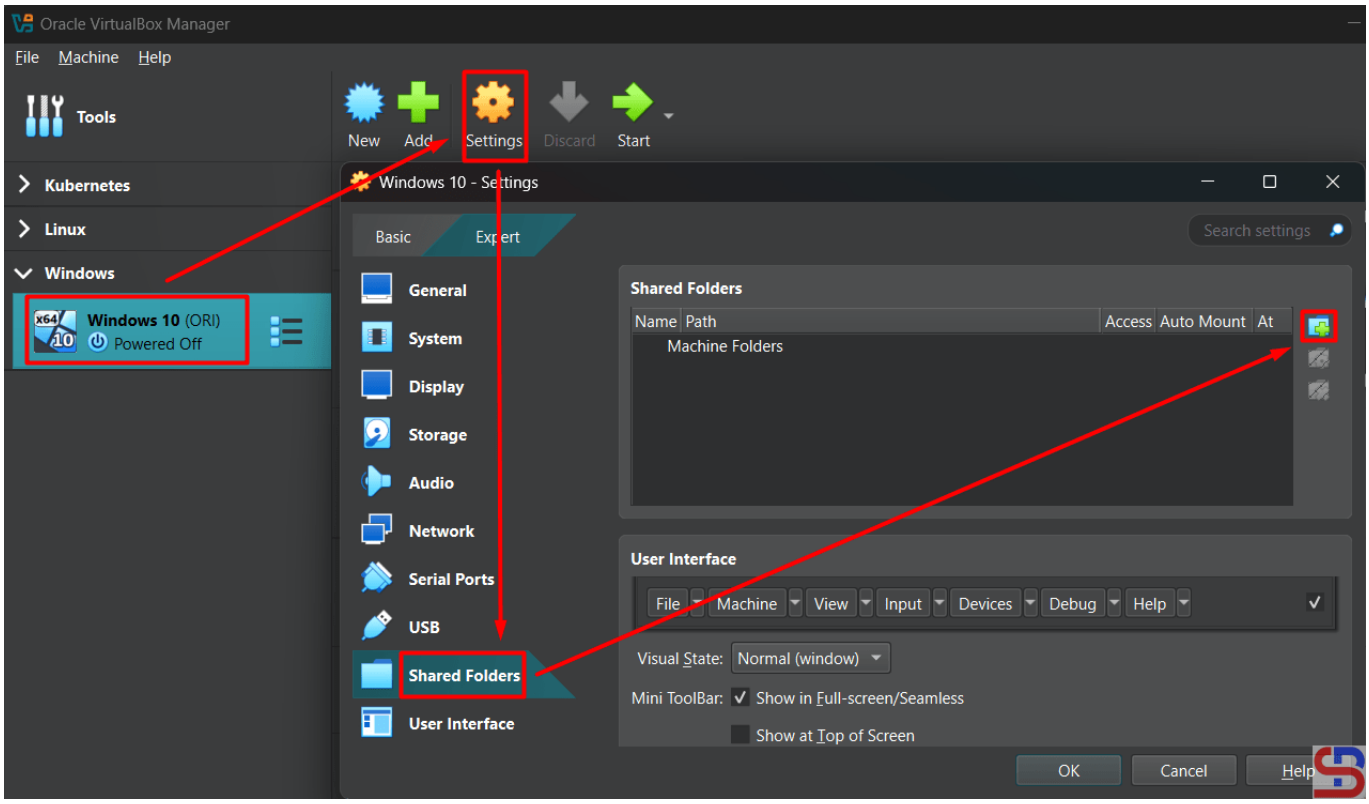


The shared folder

B. In the Guest (VirtualBox)

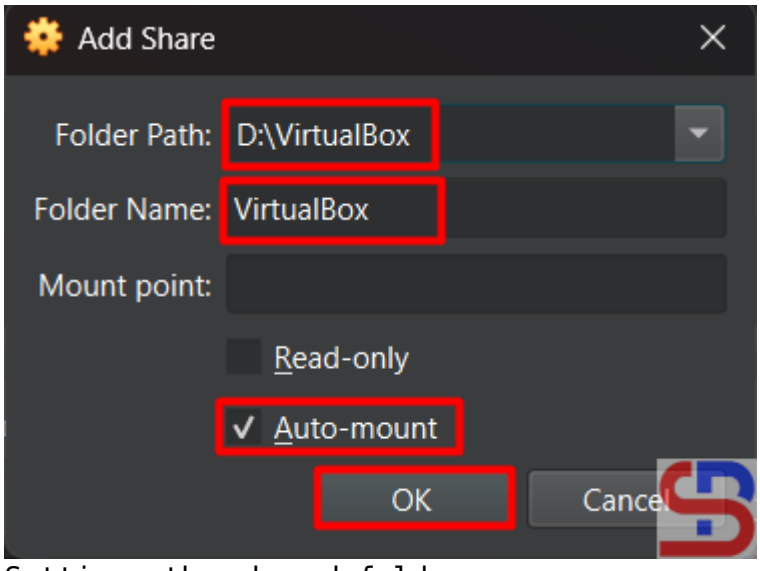
To connect the folder, you need the driver to connect them and the driver has been provided by VirtualBox that is available in an ISO file. Go to this page to install the driver. After you install the driver, configure the shared

folder in VirtualBox. Go to **Settings** – **Shared Folders** and click the icon like in the image below:



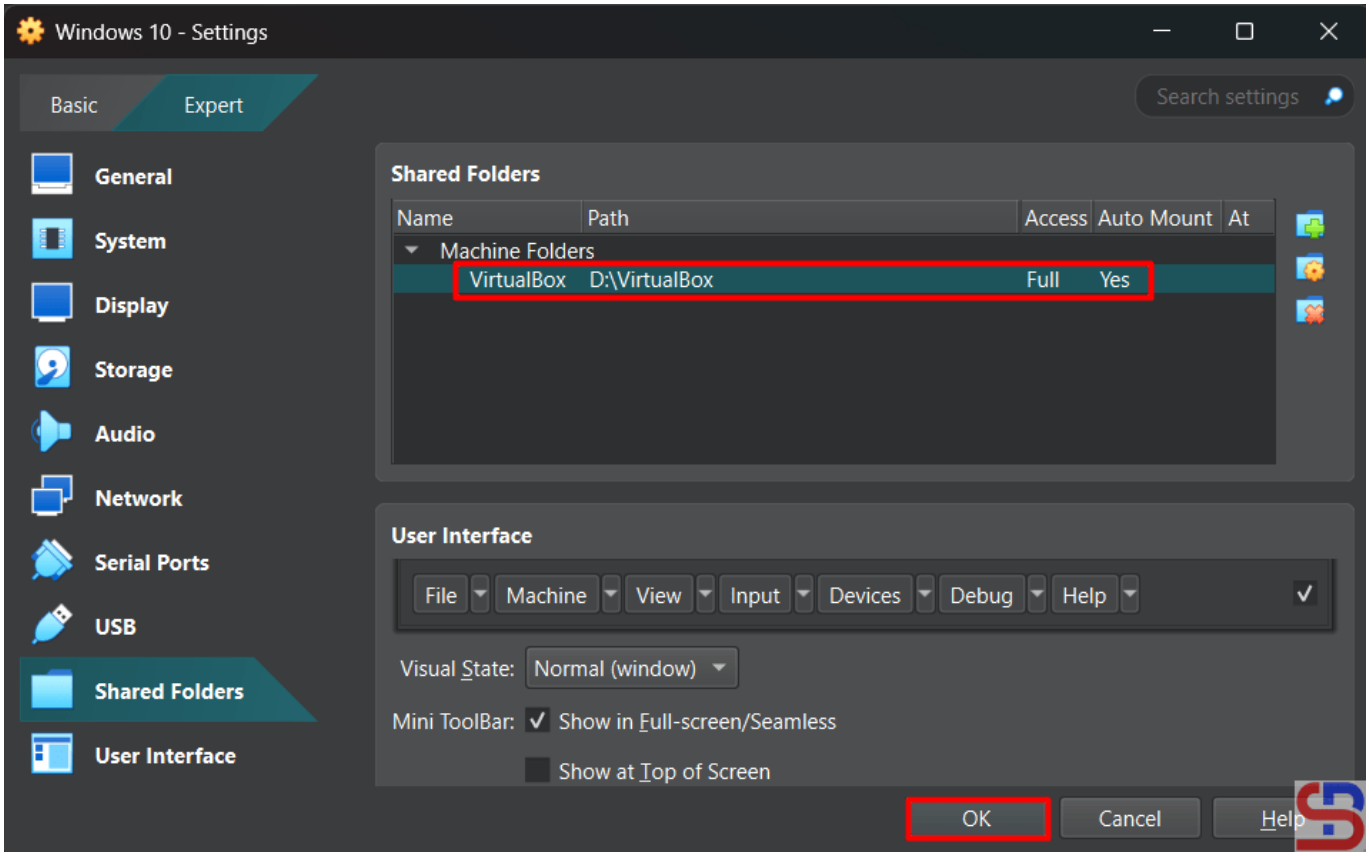
Click the icon in the Shared Folders section

Fill the columns like in the image below:



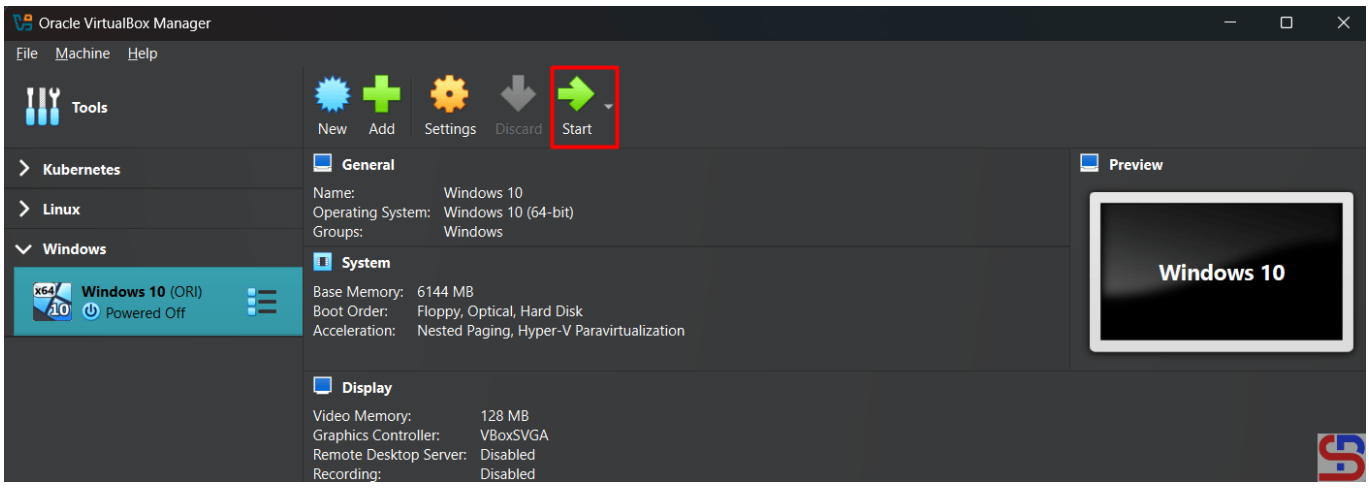
Settings the shared folders

Click the **OK** button and the shared folder will appear like in the image below:



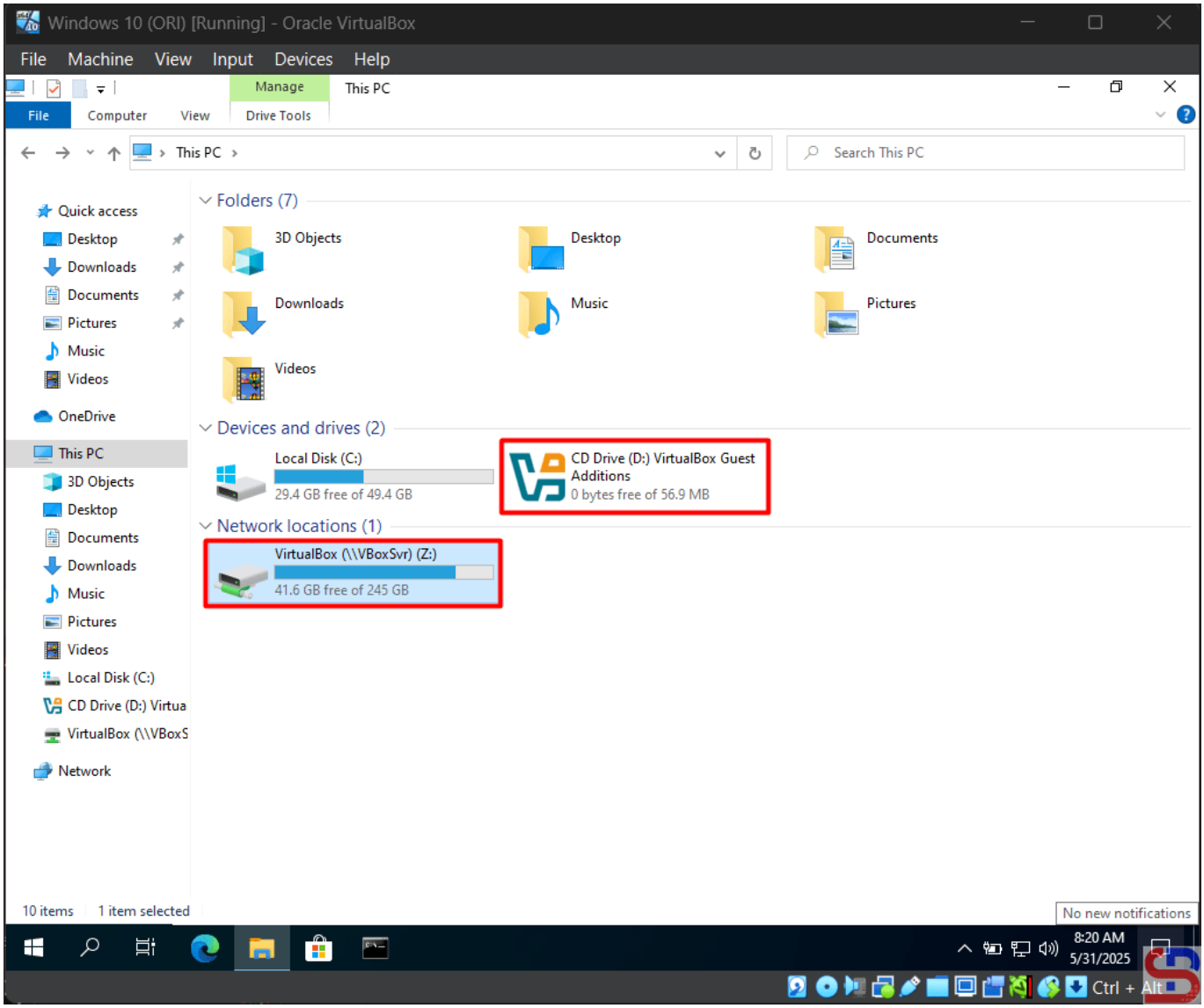
The shared folder appears

Click the **OK** button. After that, turn on your virtual machine by clicking the **Start** button like in the image below:



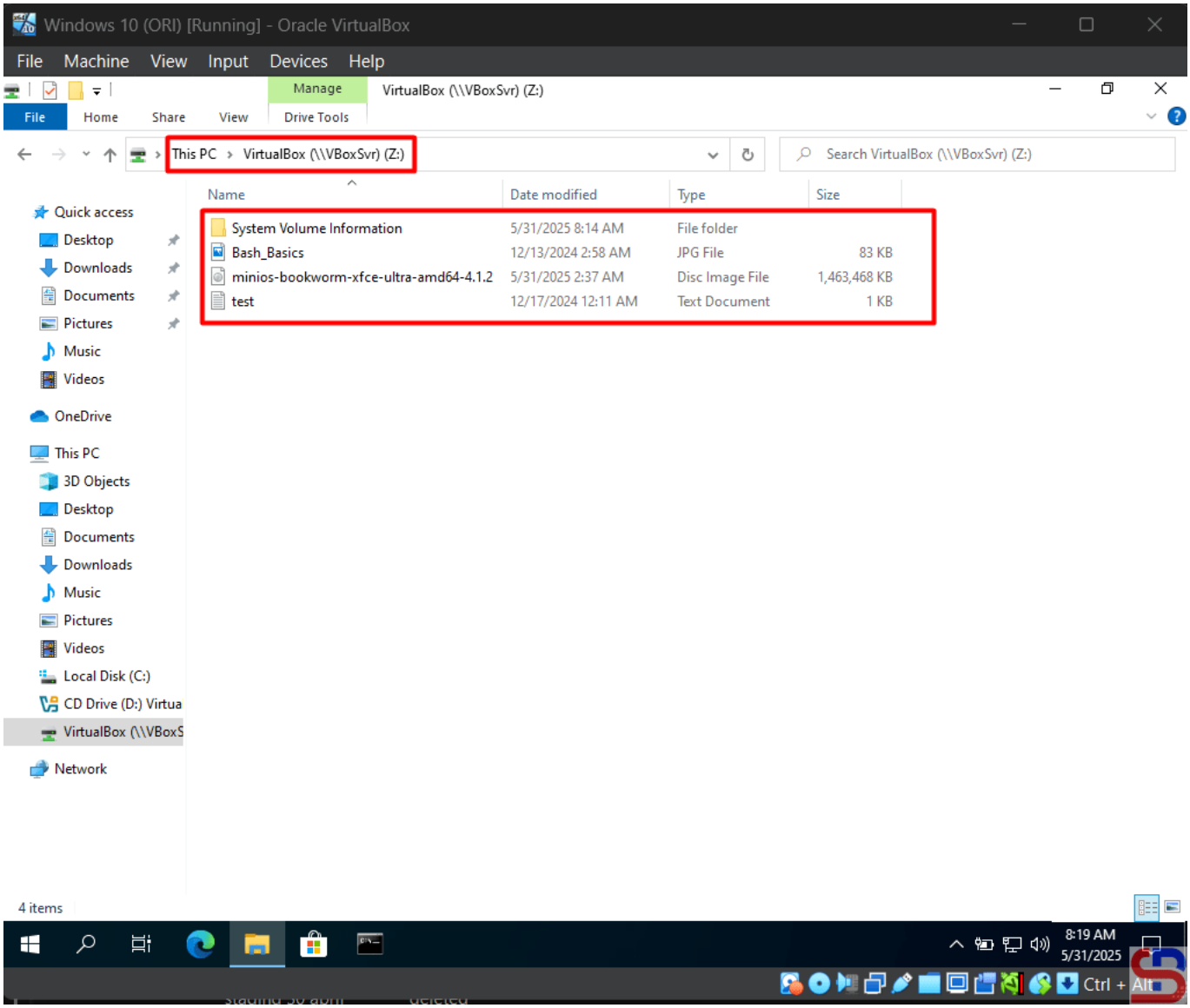
Turn on the VM

Go to **This PC** page and you will see the view in the image below:



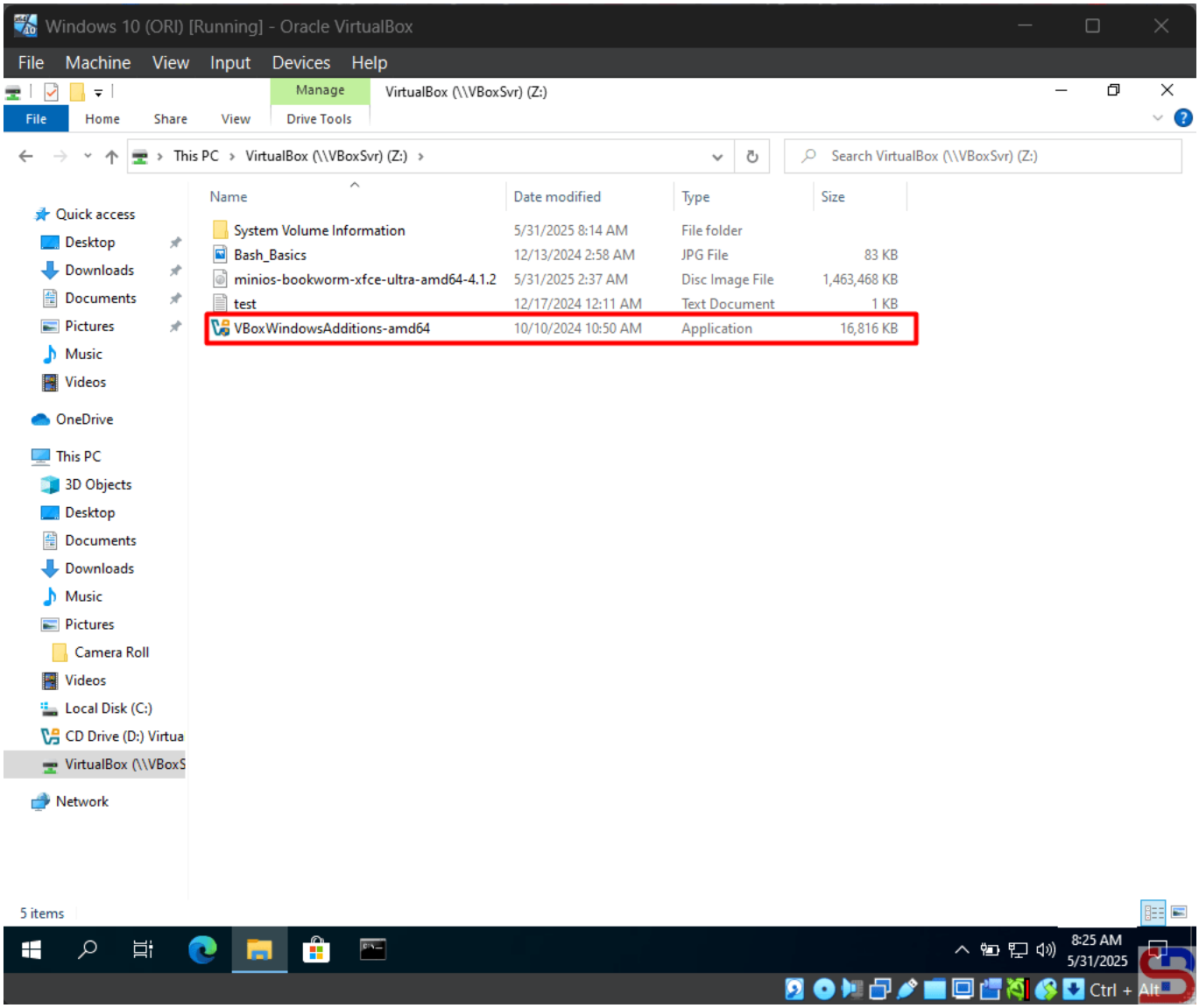
This PC image

Double-click the **VirtualBox (Z:)** and you should be able to access the folder like in the image below:



Access the shared folder

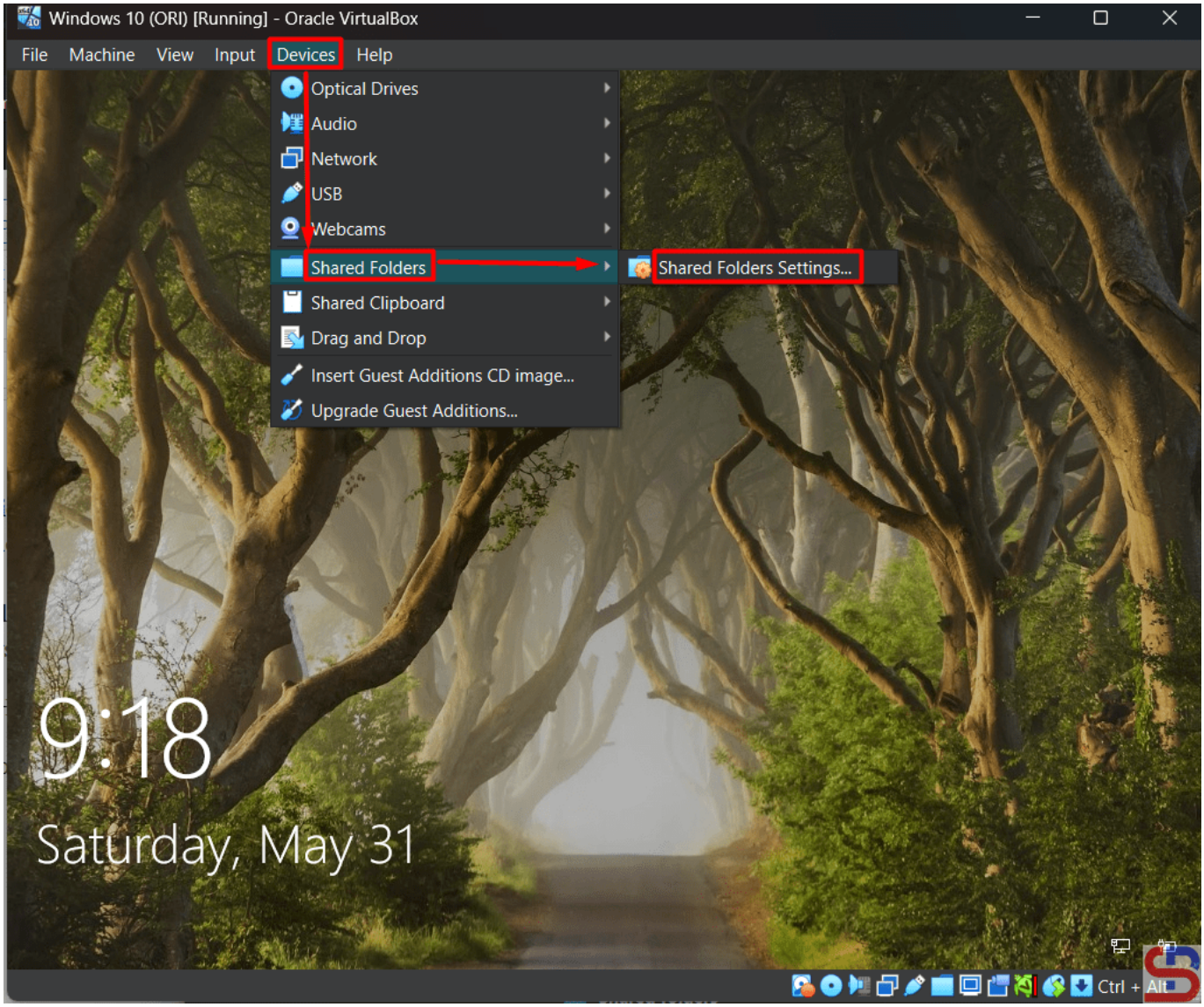
Now, you can access the shared folder and you should add the file like in the image below:



Add the file to the shared folder

Note

You can configure the shared folder or mount the iso after you turn on the virtual machine like in the image below:



Configure the shared folder after turning on the VM

References

virtualbox.org
youtube.com
docs.oracle.com
blogs.oracle.com

How to Install the VirtualBox Guest Additions?

written by sysadmin | 2 July 2025

The Guest Additions in VirtualBox is used to optimize the

guest operating system for better performance and usability.

Problem

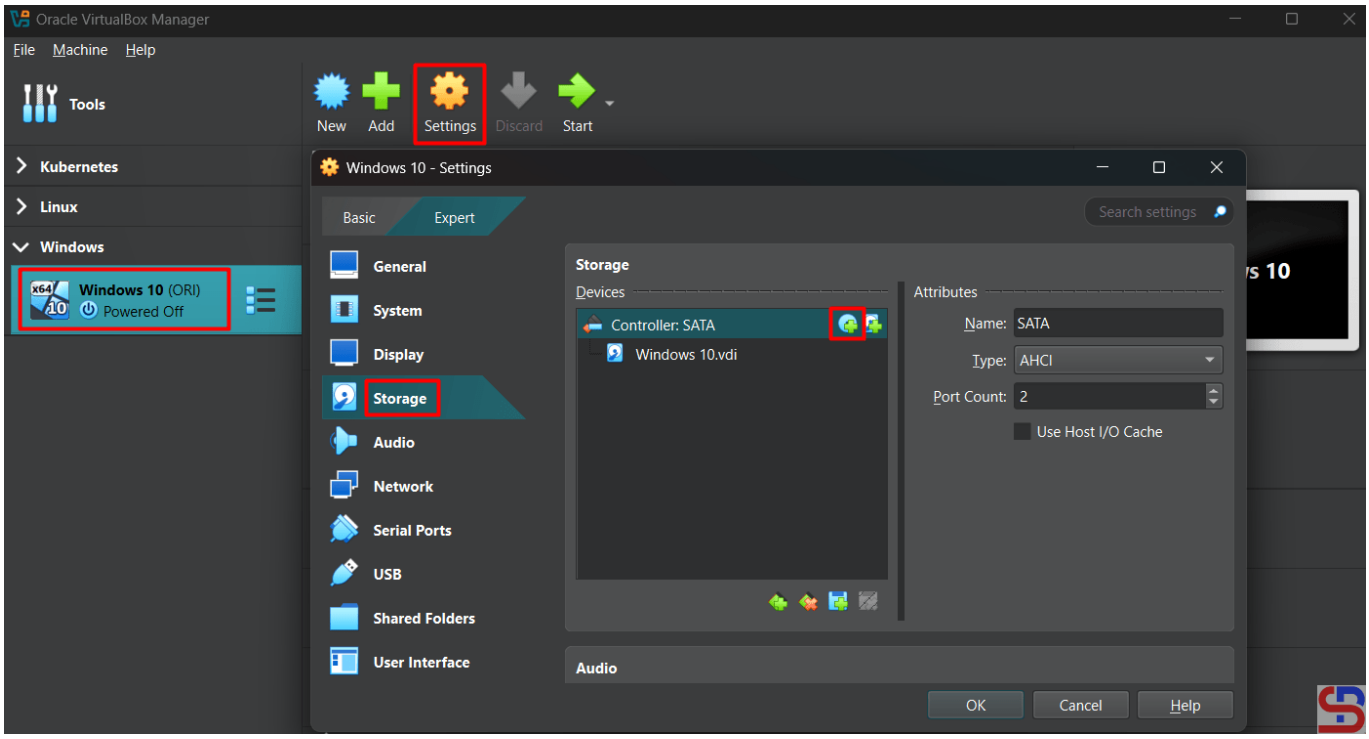
How to install the VirtualBox Guest Additions?

Solution

The Oracle VM VirtualBox Guest Additions for all supported guest operating systems are provided as a single CD-ROM image file which is called VBoxGuestAdditions.iso. This image file is located in the installation directory of Oracle VM VirtualBox. These are the steps to install the ISO in the Windows and Linux guests.

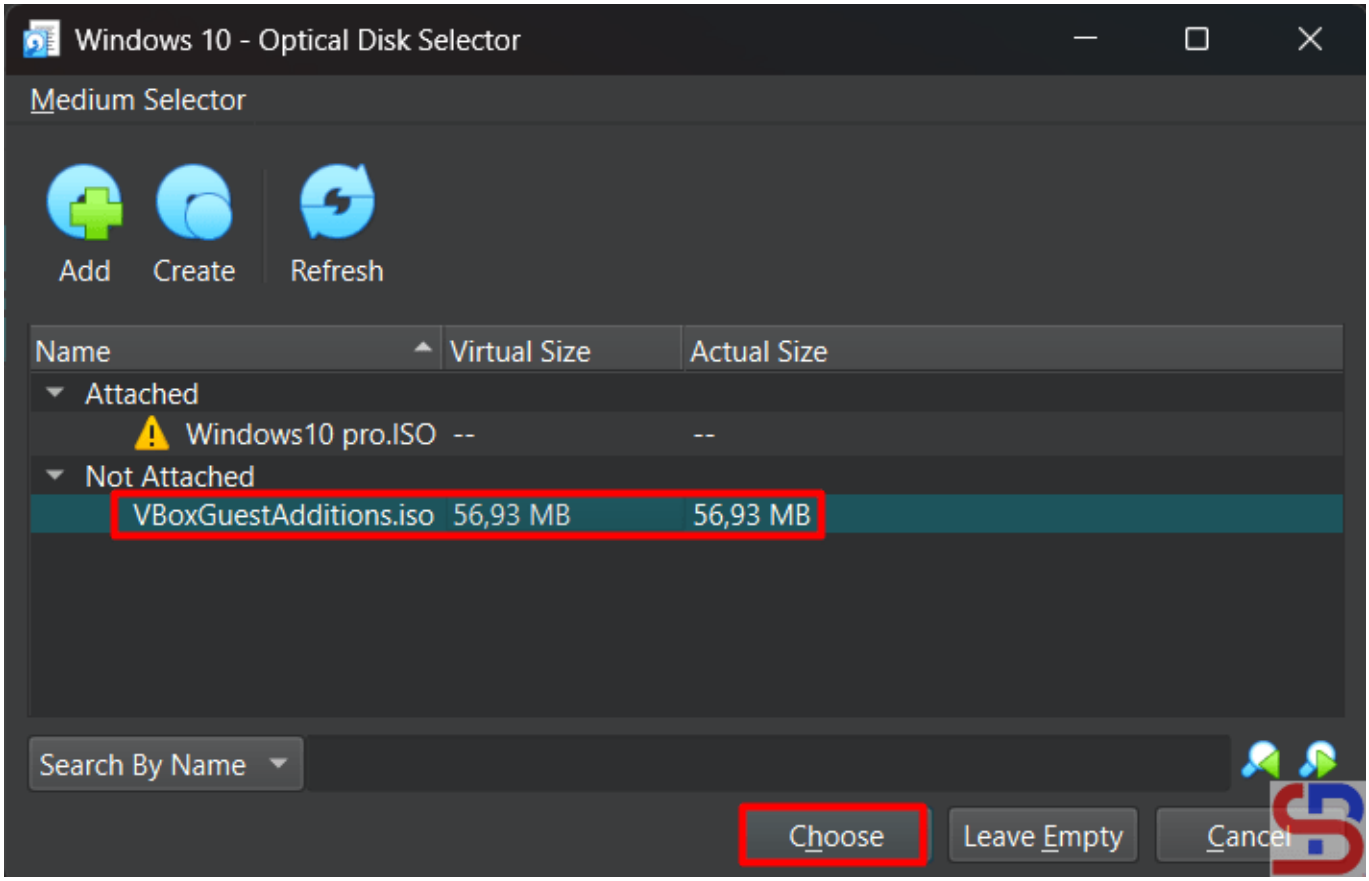
A. In the Windows guest

Open your VirtualBox, click your guest or your virtual machine, click **Settings** – **Storage**, and then click the icon like in the below image:



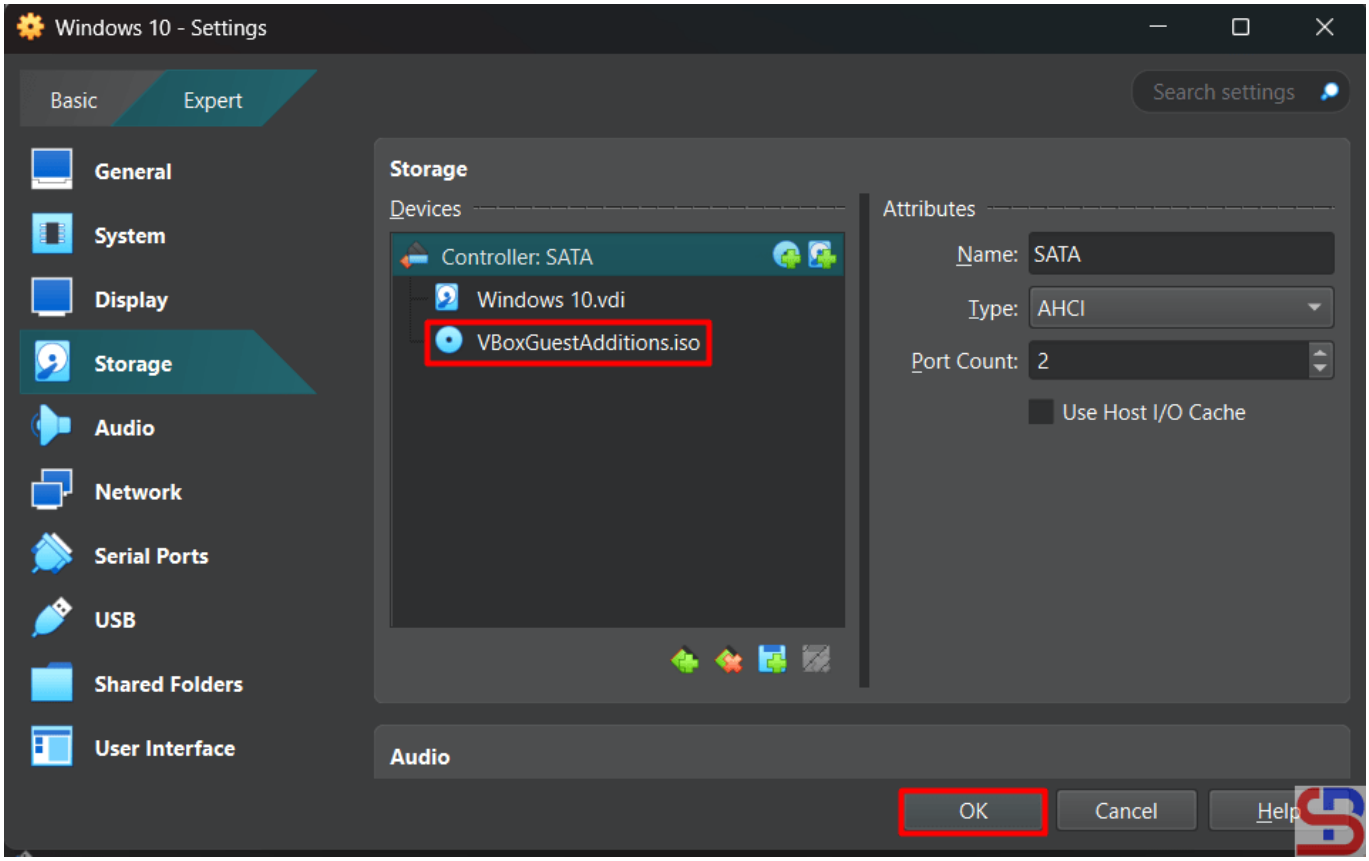
Click the icon in the Storage

Choose the **VBoxGuestAdditions.iso** like in the below image:



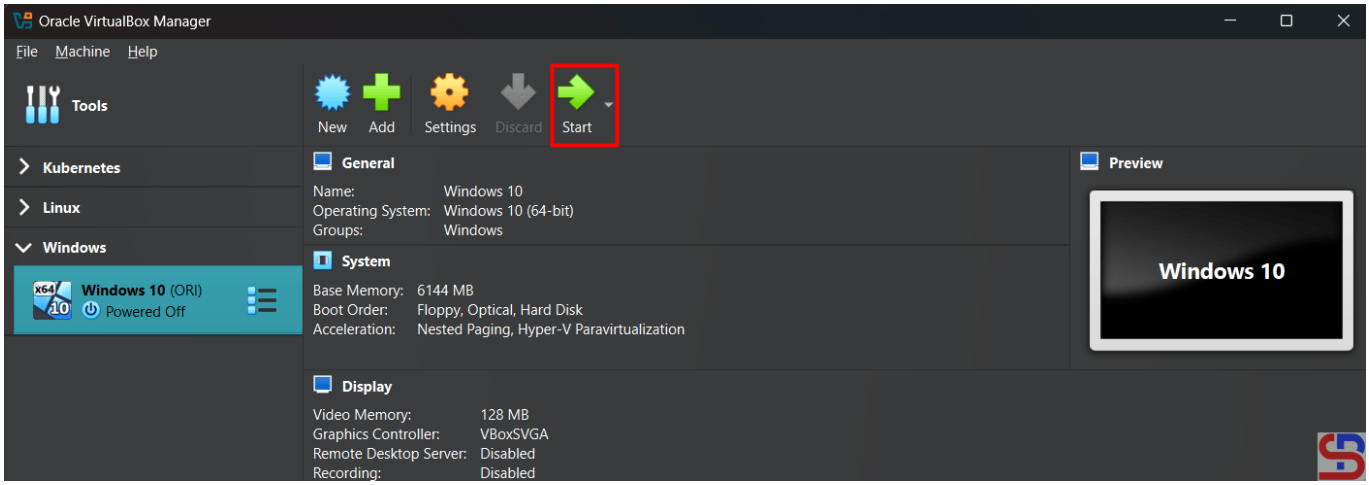
Choose the iso

Click the **Choose** button and the iso will appear like in the image below:



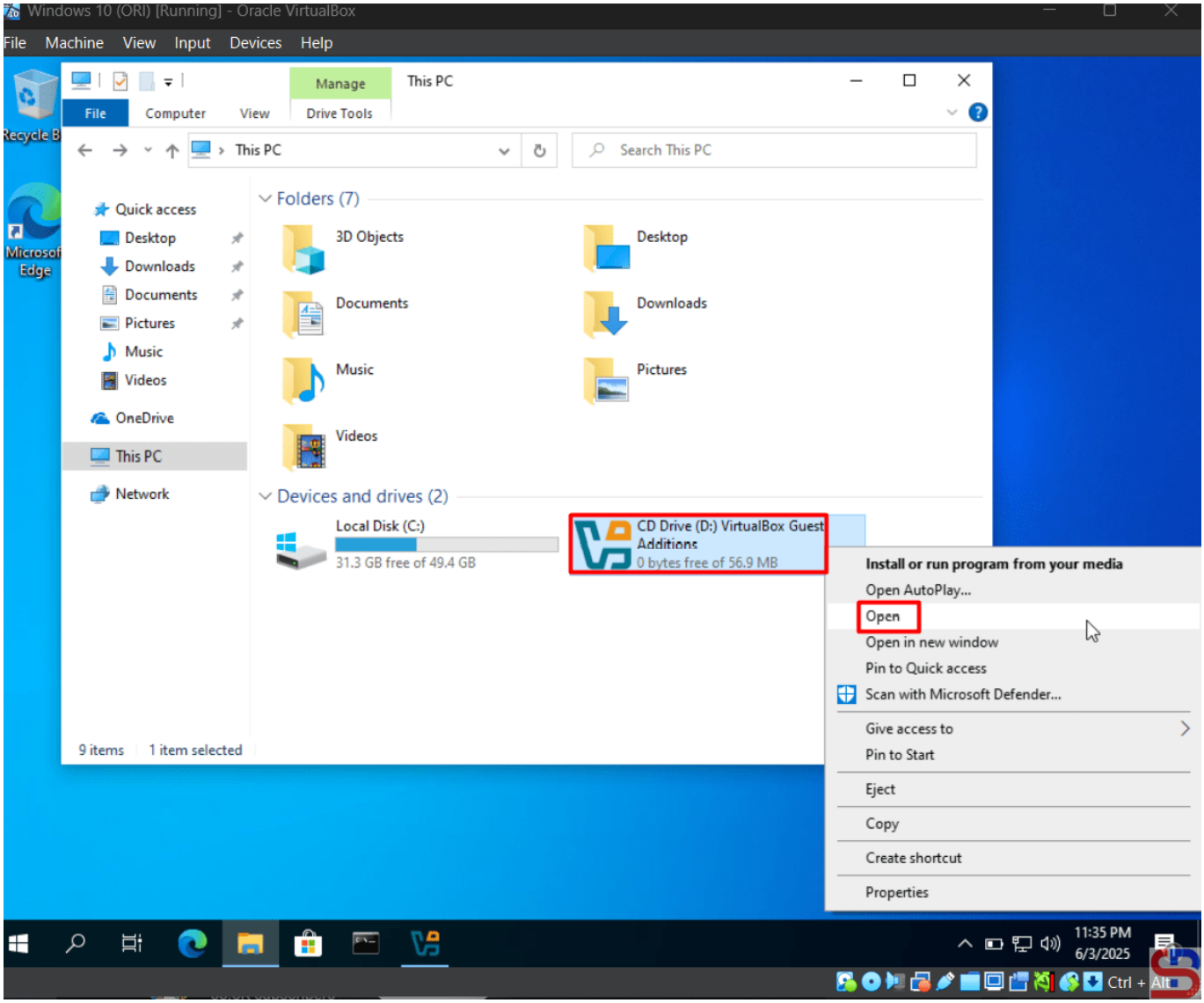
The iso appear

After that, turn on your virtual machine by clicking the **Start** button like in the image below:



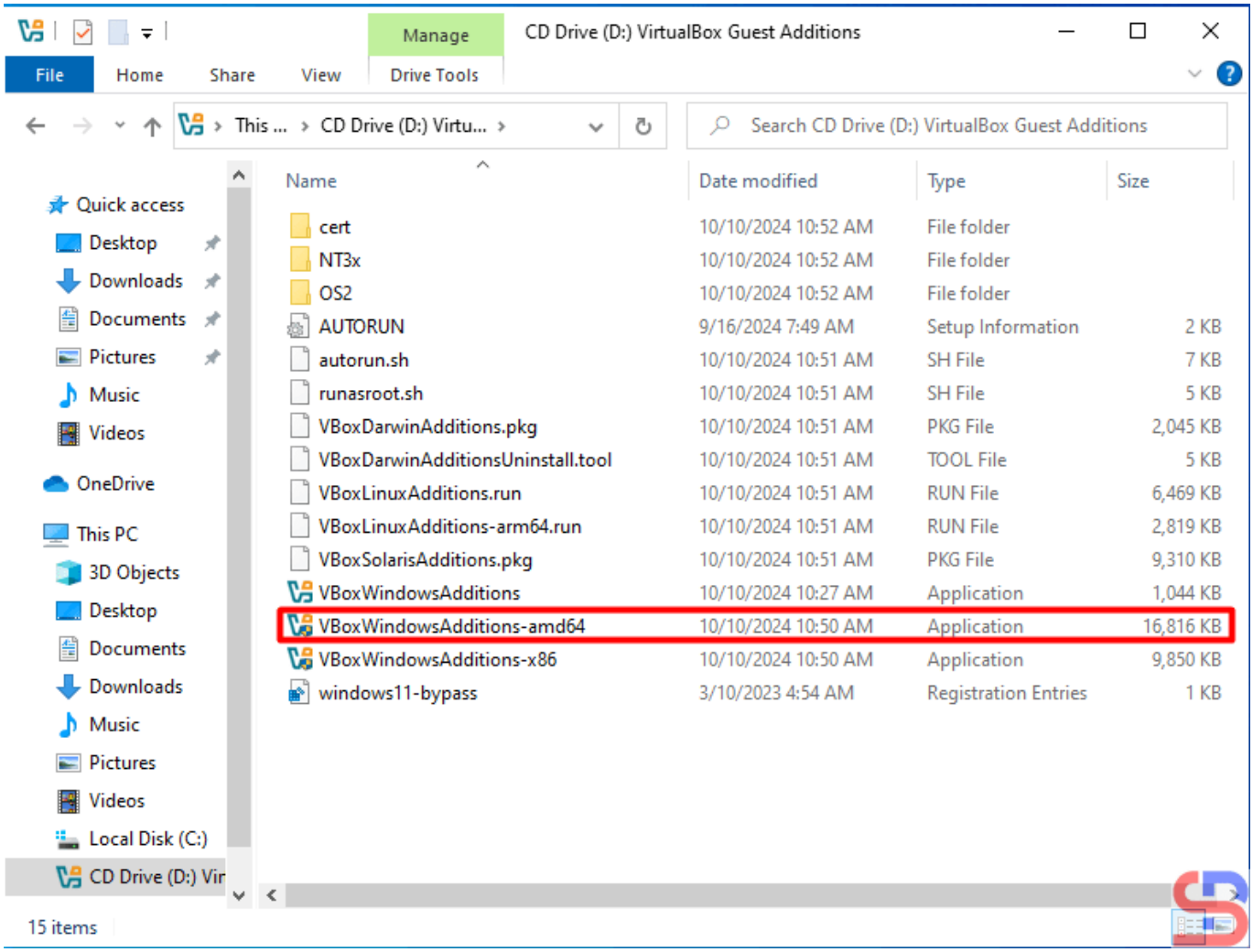
Turn on the VM

Go to This **PC page** and you will see the view in the image below:



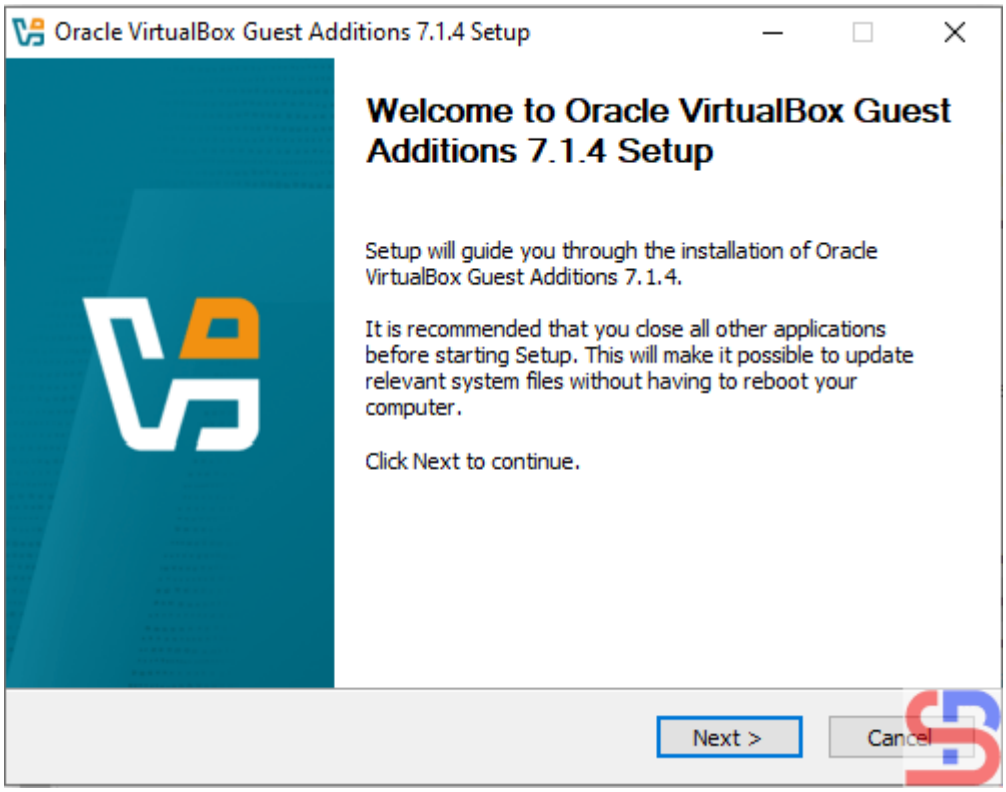
Right-click the CD

Right-click the CD Drive and click **Open**, so there is a display like in the image below:



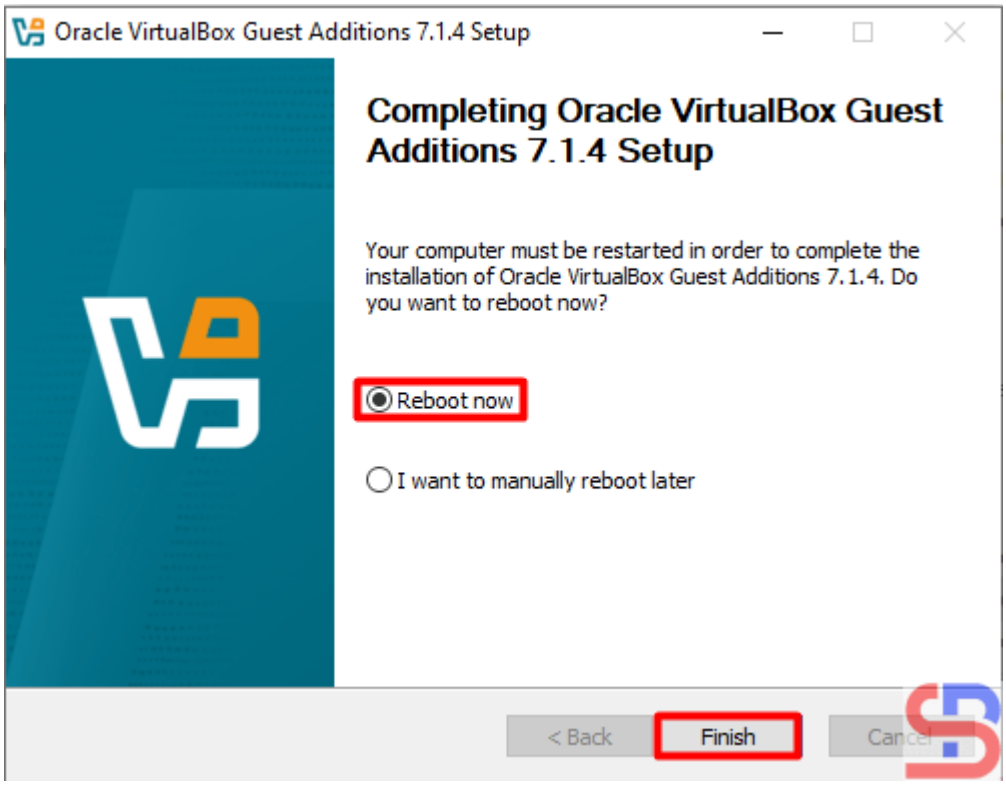
Choose the installer

Double-click on the installer in the red box if your guest is 64-bit, and display it like in the image below:



The installation will start

Click the **Next** button and continue until the driver installation is successful until it displays as shown in the image below:

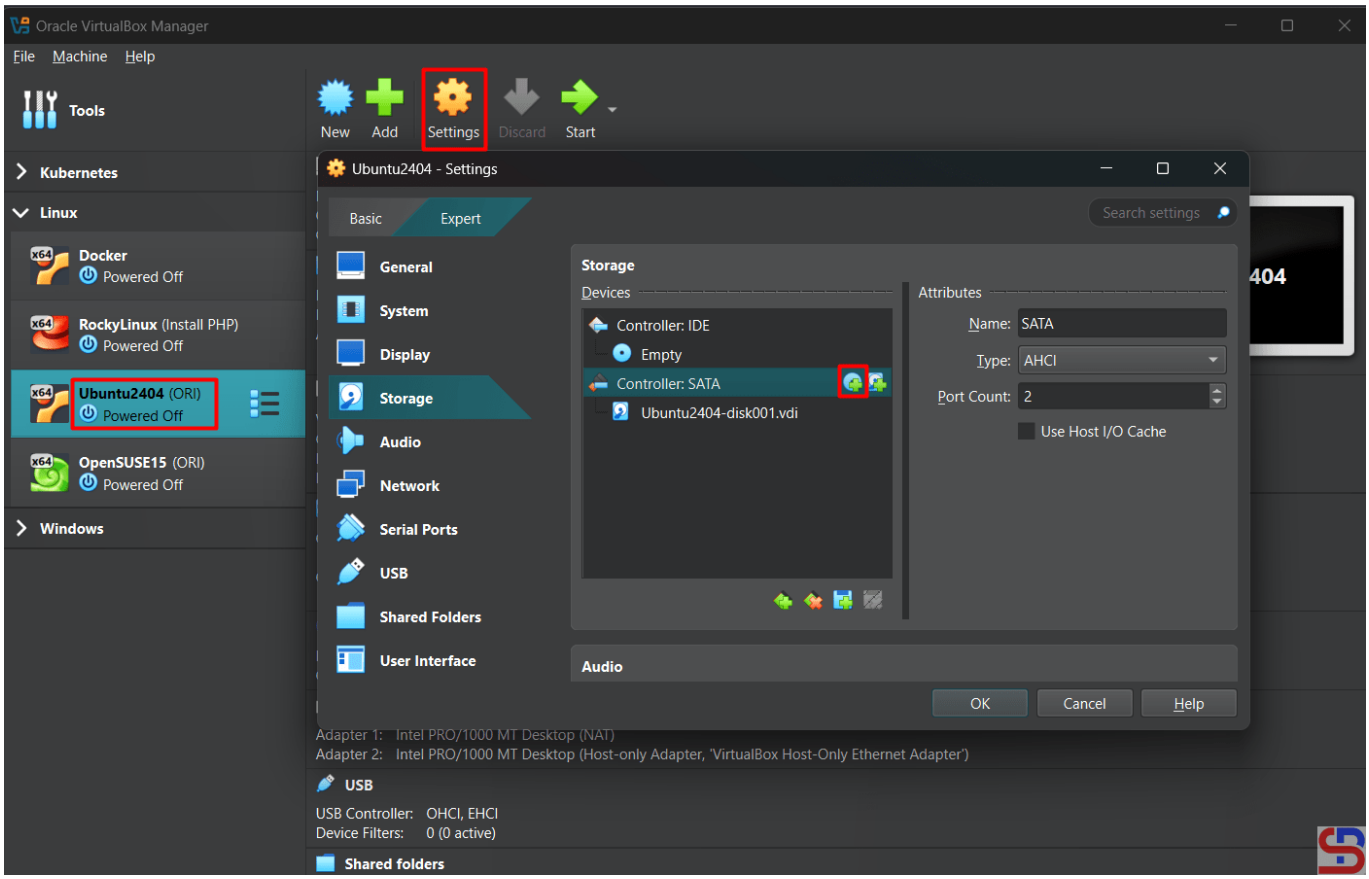


The installation ends

Choose the **Reboot** now and click the Finish button.

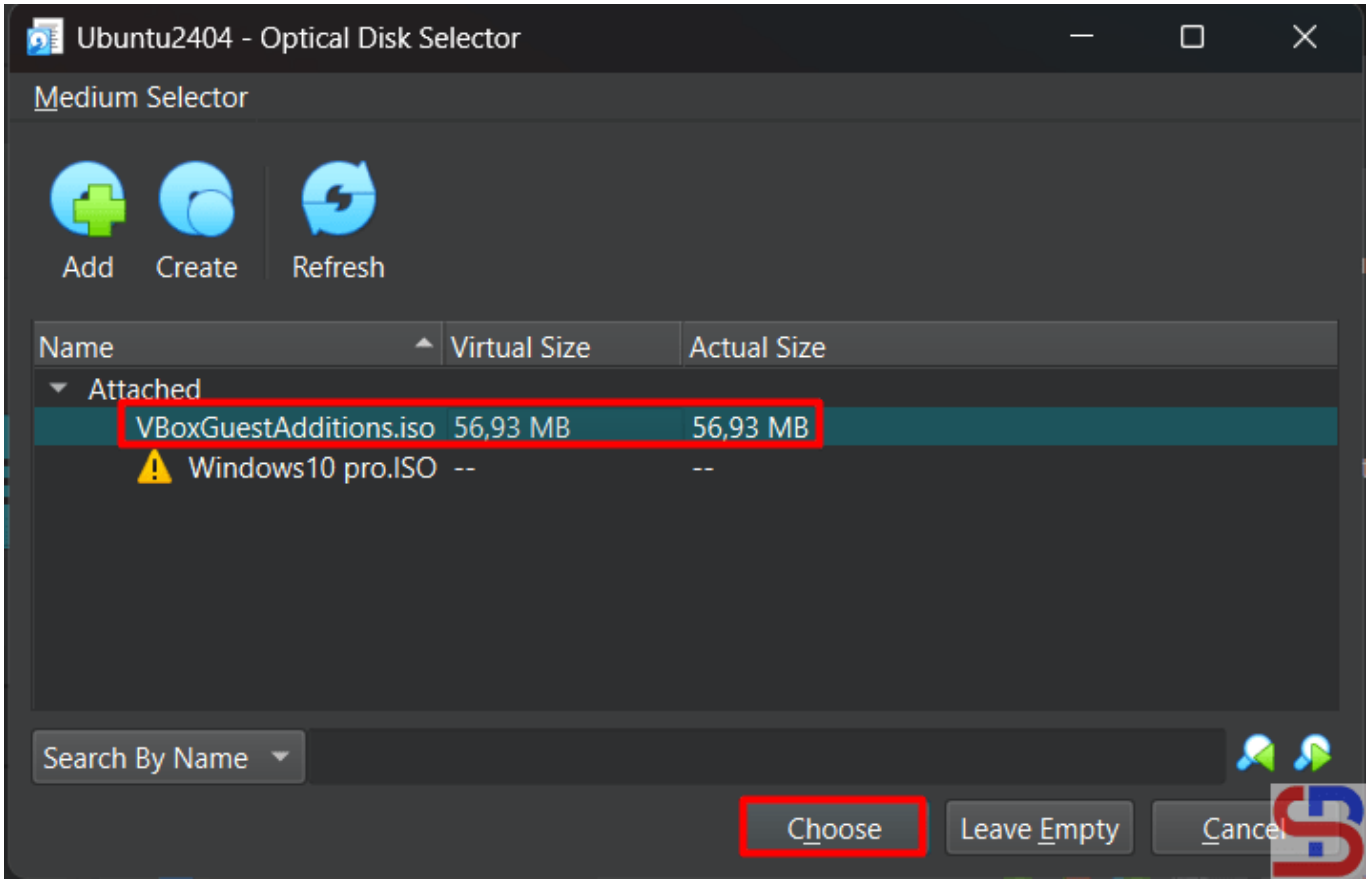
B. In the Linux guest

Open your VirtualBox, click your guest or your virtual machine, click **Settings** – **Storage**, and then click the icon like in the below image:



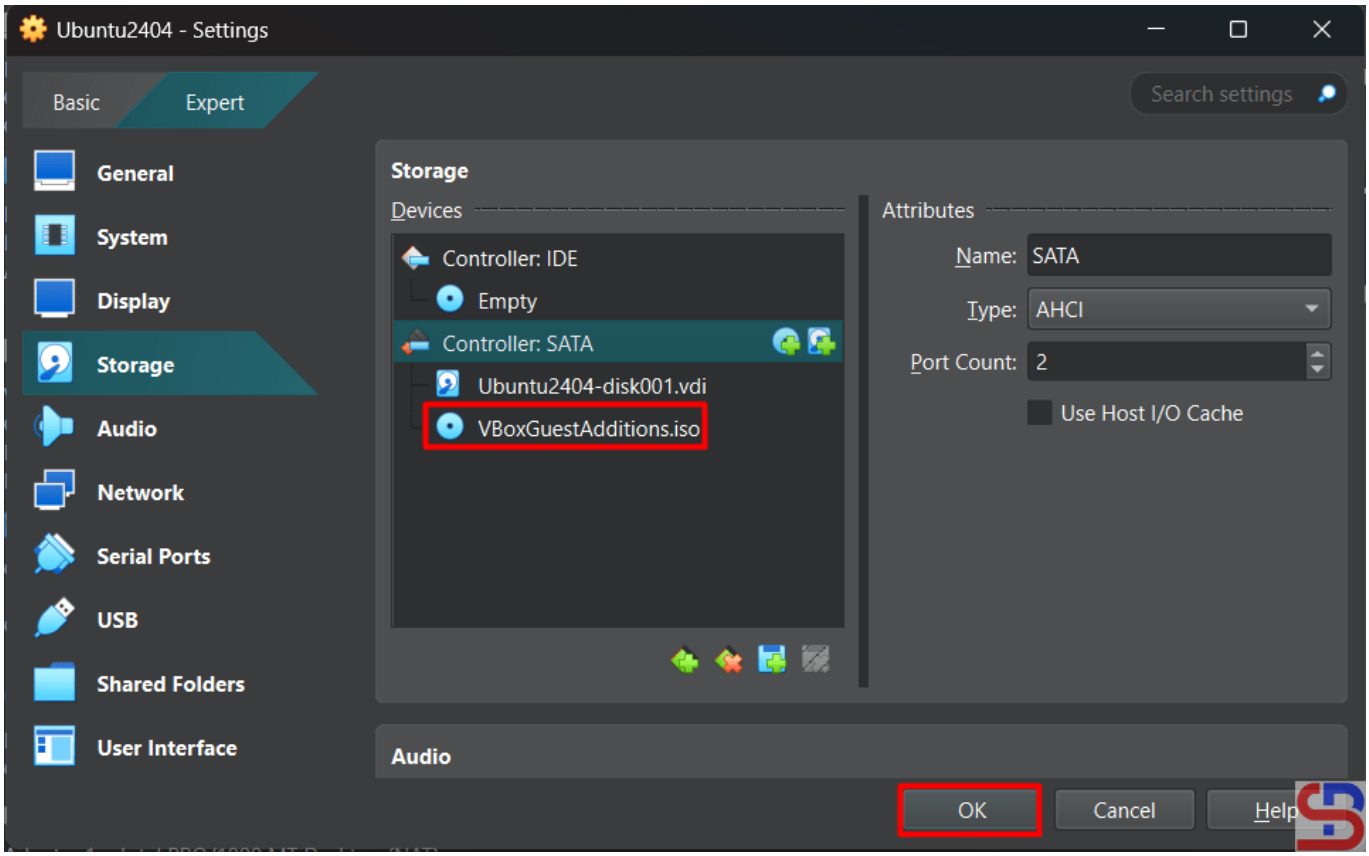
Click the icon in the Storage section

Choose the **VBoxGuestAdditions.iso** like in the below image:



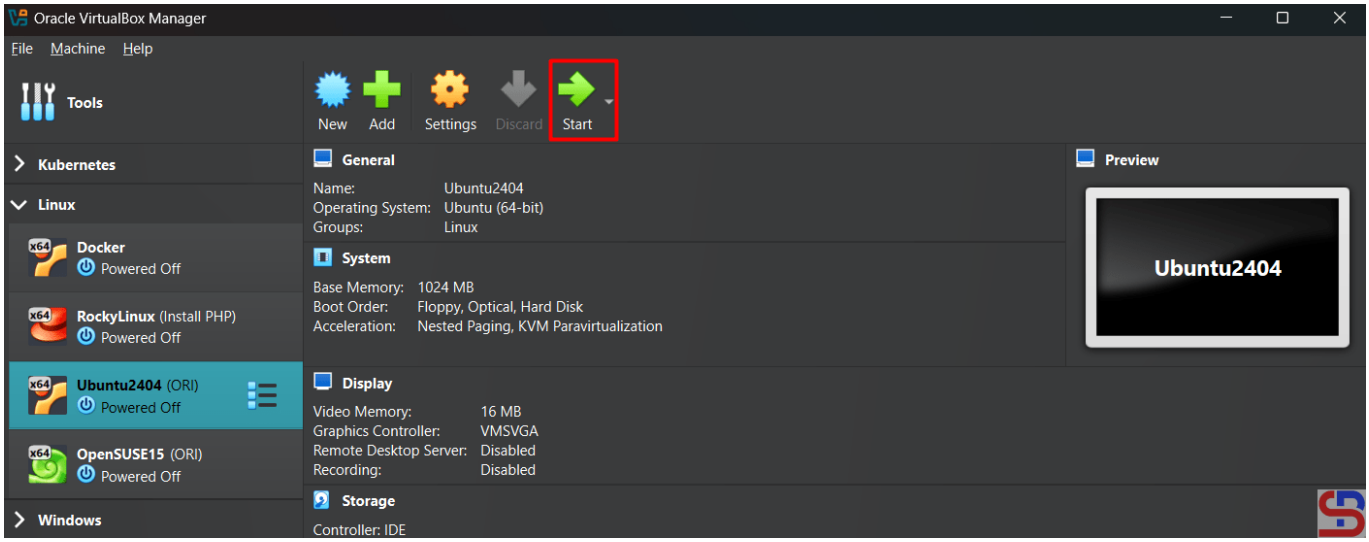
Choose the ISO

Click the **Choose** button and the iso will appear like in the image below:



The ISO appear

After that, turn on your virtual machine by clicking the **Start** button like in the image below:



Turn on the VM

Make a folder in Linux and I created a folder **/mnt/cdrom** using the command below:

```
sudo mkdir /mnt/cdrom
```

Execute the below command to mount the shared folder with your folder:

```
sudo mount /dev/sr0 /mnt/cdrom/
```

Install some packages by running the command below:

Ubuntu

```
sudo apt update
sudo apt install -y bzip2 tar gcc make perl
```

RockyLinux/AlmaLinux/CentOS

```
sudo dnf install -y bzip2 tar gcc make perl
```

OpenSUSE

```
sudo zypper install -y bzip2 tar gcc make perl
```

After installation, go to the folder cdrom:

```
cd /mnt/cdrom
```

Execute the command below and wait until finish:

```
sudo sh VBoxLinuxAdditions.run
```

After that, reboot your virtual machine.

Note

Guest Addition will be very useful if your guest uses graphics such as Windows OS or Linux that have graphics because it will improve performance and usability such as Mouse pointer integration, better video support, shared clipboard, and so on. But if you use the Linux CLI in the guest, this guest addition will not be useful.

References

virtualbox.org
blogs.oracle.com
greenwebpage.com

How to Reboot Windows OS in One Click?

written by sysadmin | 2 July 2025

The previous article explained how to shut down Windows OS

in one click. This article will explain how to reboot Windows OS in one click.

Problem

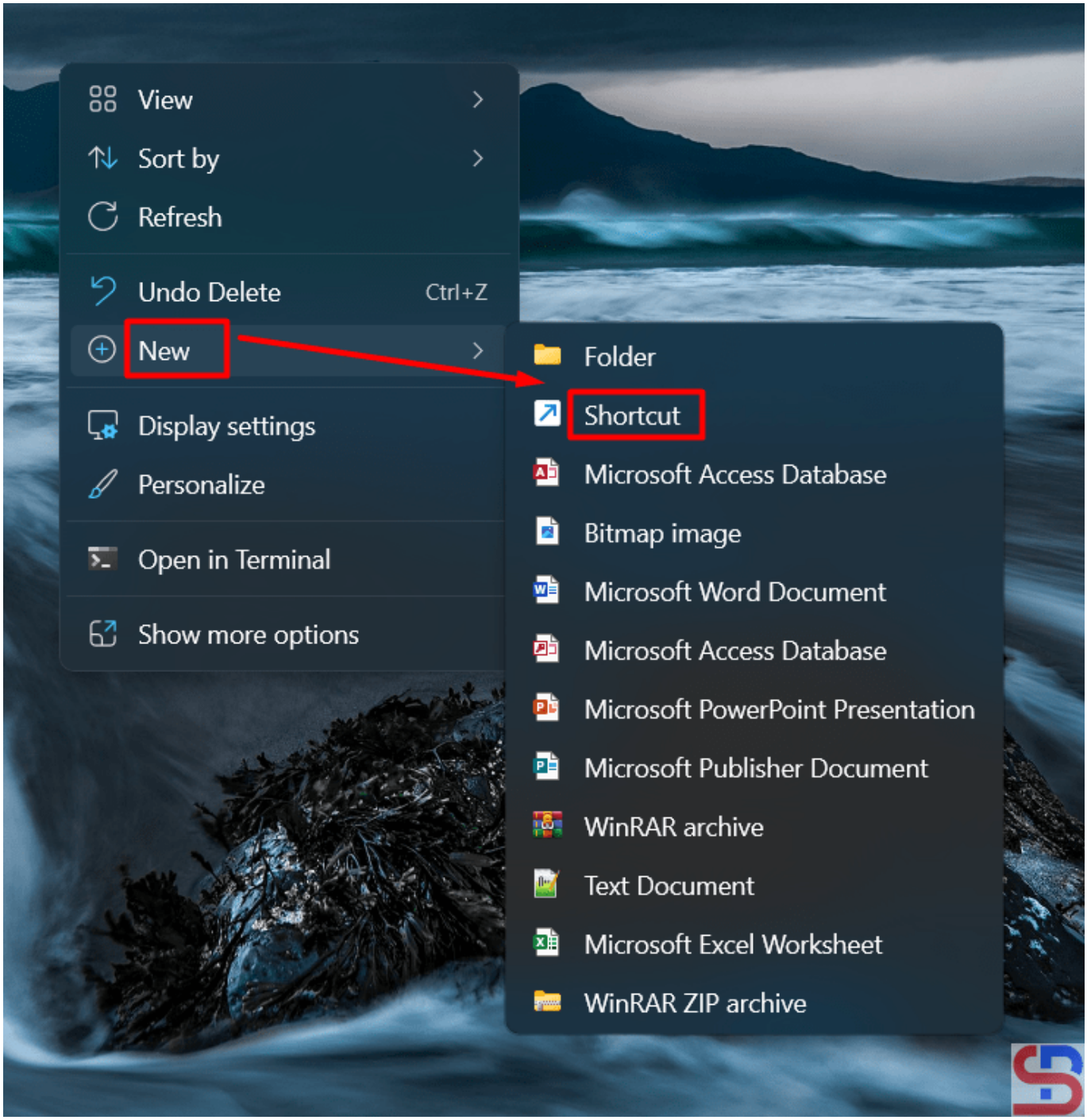
How to reboot Windows OS in one click?

Solution

The following steps to reboot the Windows OS in one click:

1. Create a shortcut

Go to the desktop, then right click and select **New** – **Shortcut** as shown below:



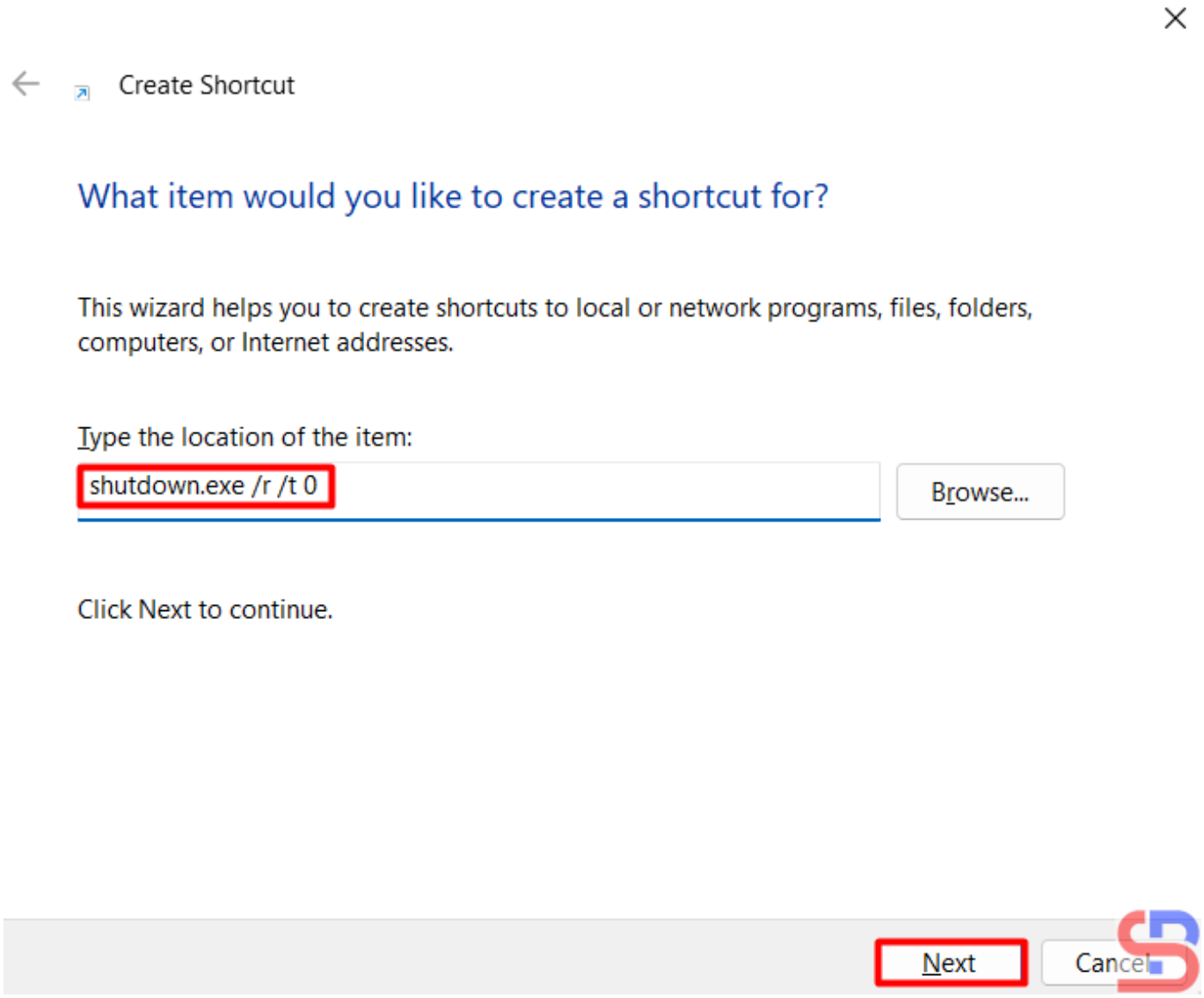
Click New – Shortcut

2. Write a script

Write the script below:

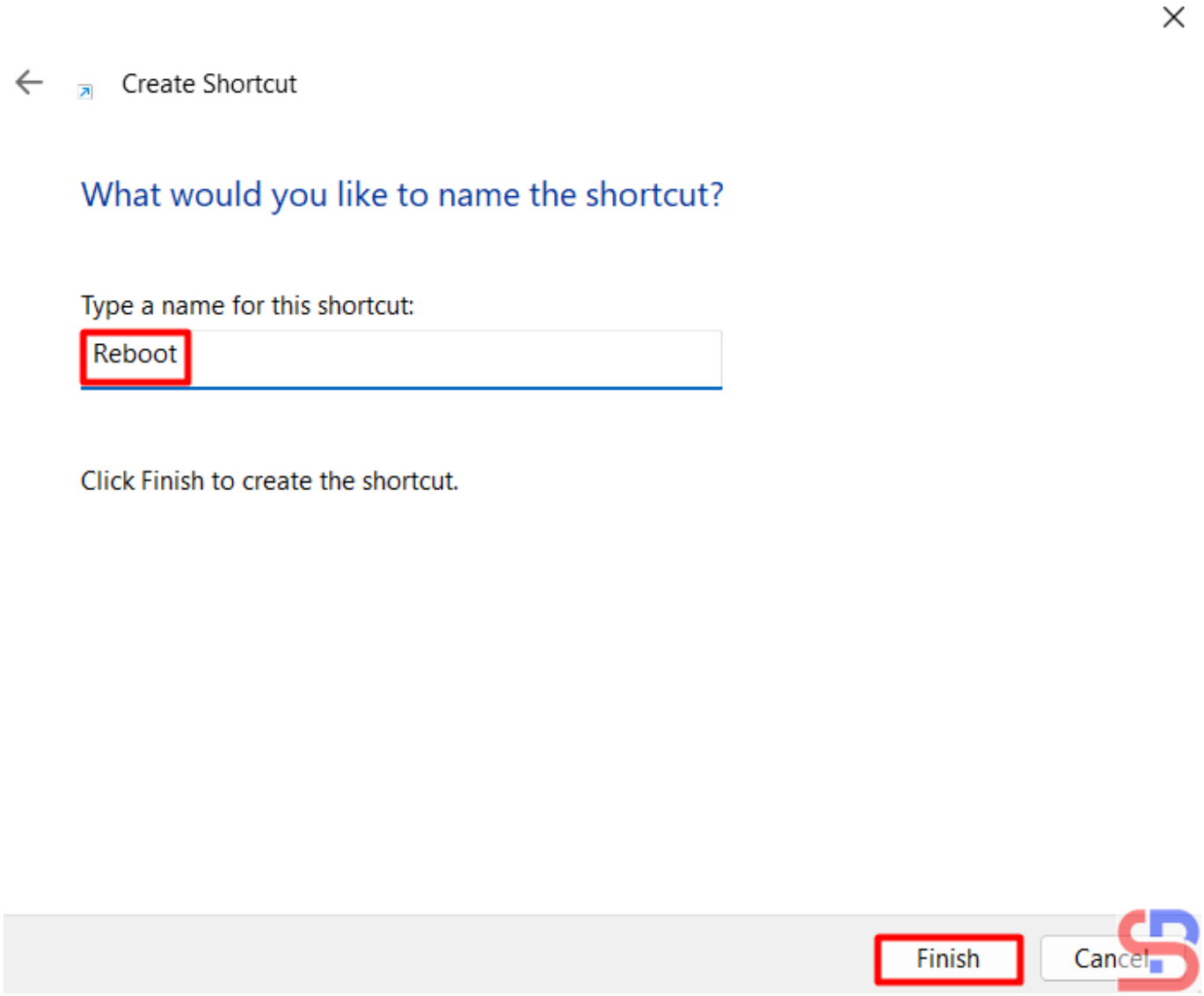
```
shutdown.exe /r /t 0
```

In the section as shown below:



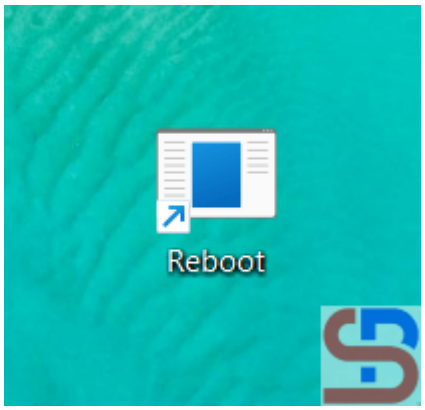
Write the script

Then press the **Next** button, and then there will be a display as below:



Create a name for the shortcut

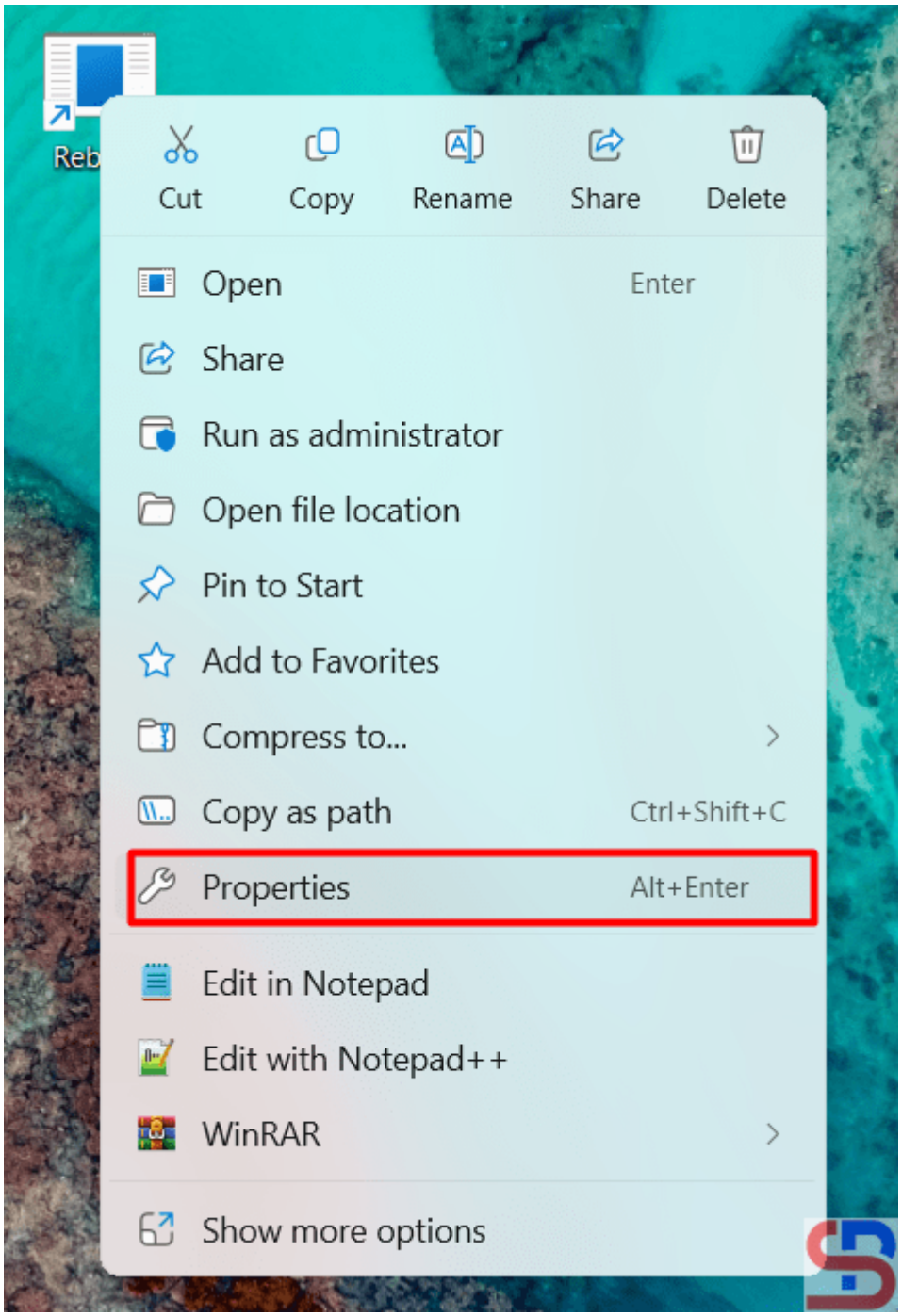
You can change the name for the shortcut, and after that, press the **Finish** button, then there will be a display as below:



Display of the shortcut icon

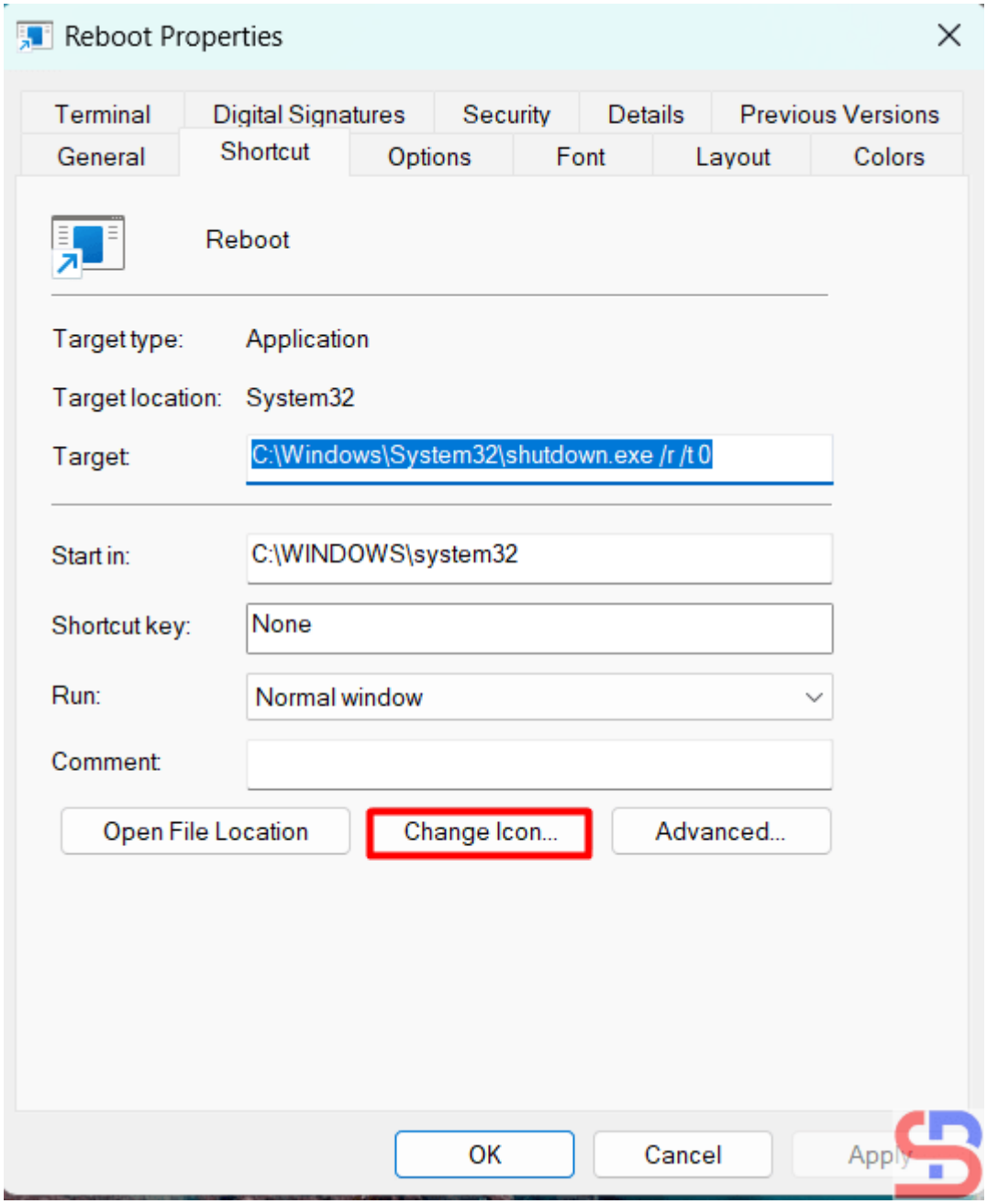
3. Change the icon

Right-click on the icon, select **Properties** as shown below:



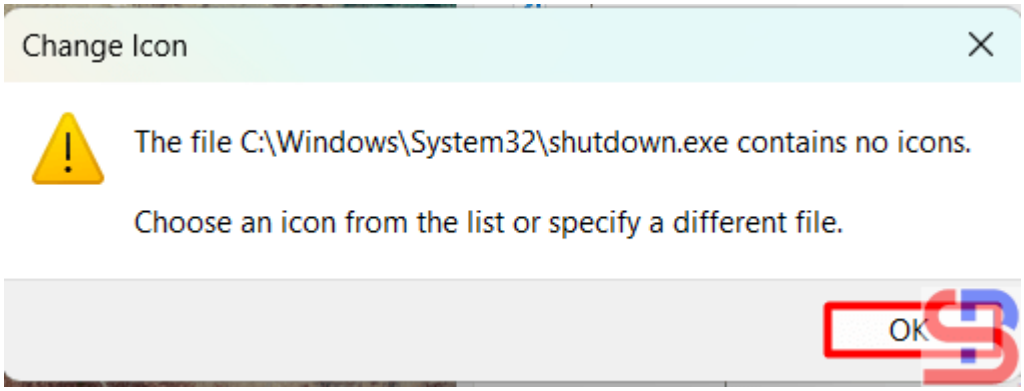
Click the Properties

Then click **the Change Icon** button, and there will be a display as below:



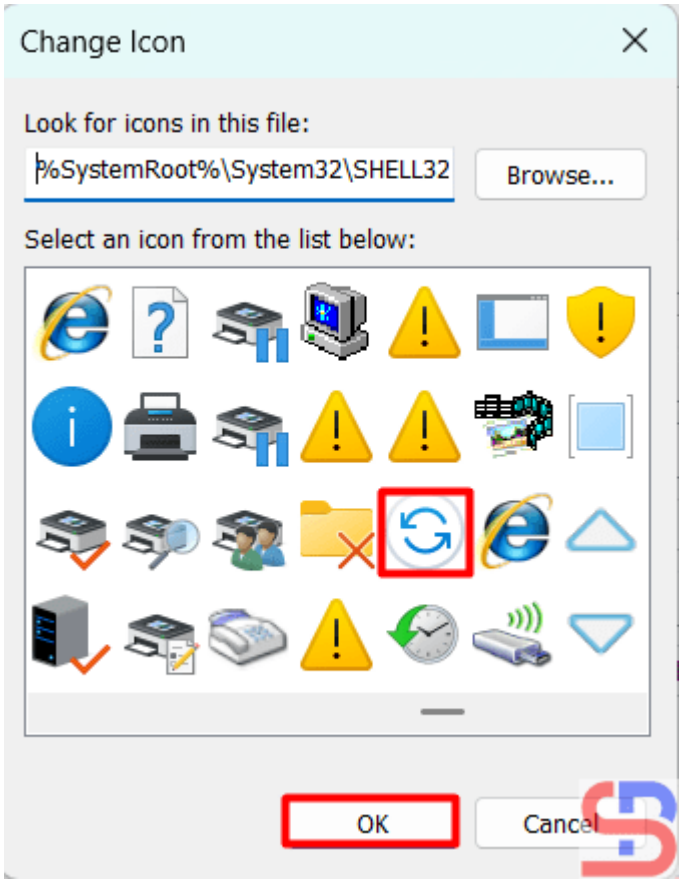
Click the Change Icon button

There will be a display as below:



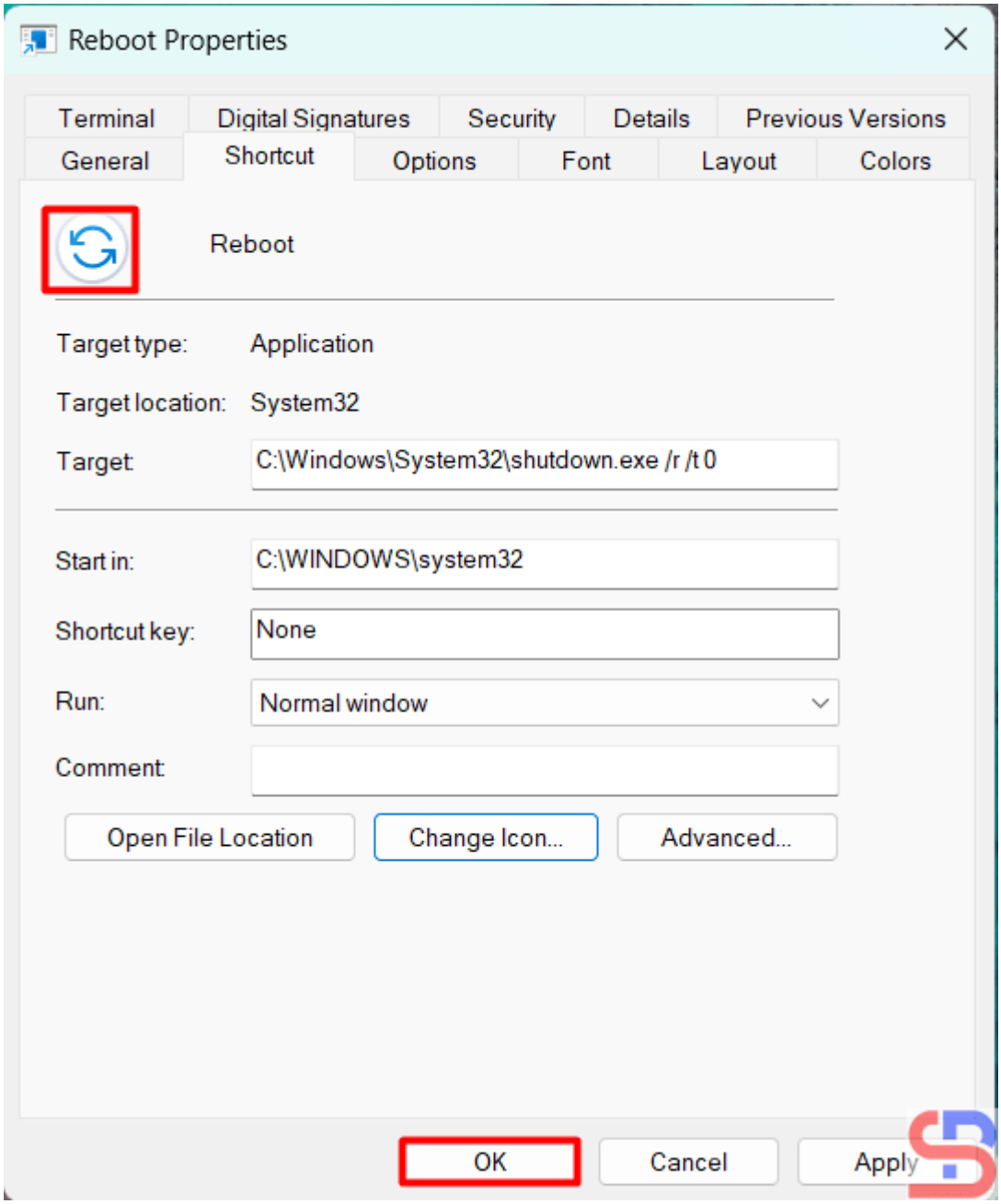
Click the OK button

Click the **OK** button, and after that, you can choose the icon you like, but I chose the icon like in the red box, press **OK**, then there will be a display as below:



Choose the icon

The shortcut icon will change to what you chose in the previous section. After that, press **OK**, the shortcut icon will change the image according to what you choose.



The icon is changed

4. Move the icon

Move the icon to the taskbar by dragging it as shown below:


Drag the icon to the Taskbar

After the icon has been moved to the taskbar, you can delete the icon from the desktop.

5. Test the result

After that, try clicking the icon in the taskbar, and your Windows OS should do the shutdown process.

Note

In this article, the time used is 0, so there is no time lag after you click the icon with the shutdown process. You can change it to the time you want, for example, to 5 seconds, so that the script becomes like below:

```
shutdown.exe /r /t 5
```

Then there will be a break of 5 seconds after you finish clicking the icon and the shutdown process.

References

boostitco.com
isumsoft.com
wikihow.com

How to Turn Off Windows OS in One Click?

written by sysadmin | 2 July 2025

By default, if you want to turn off the Windows OS on a PC, laptop, or server, there are usually three stages to do that. You will press the **Start** button first, then press the **Power** button, and after that select the **Shut down** option.

But you can turn off the Windows OS just by pressing one click.

Problem

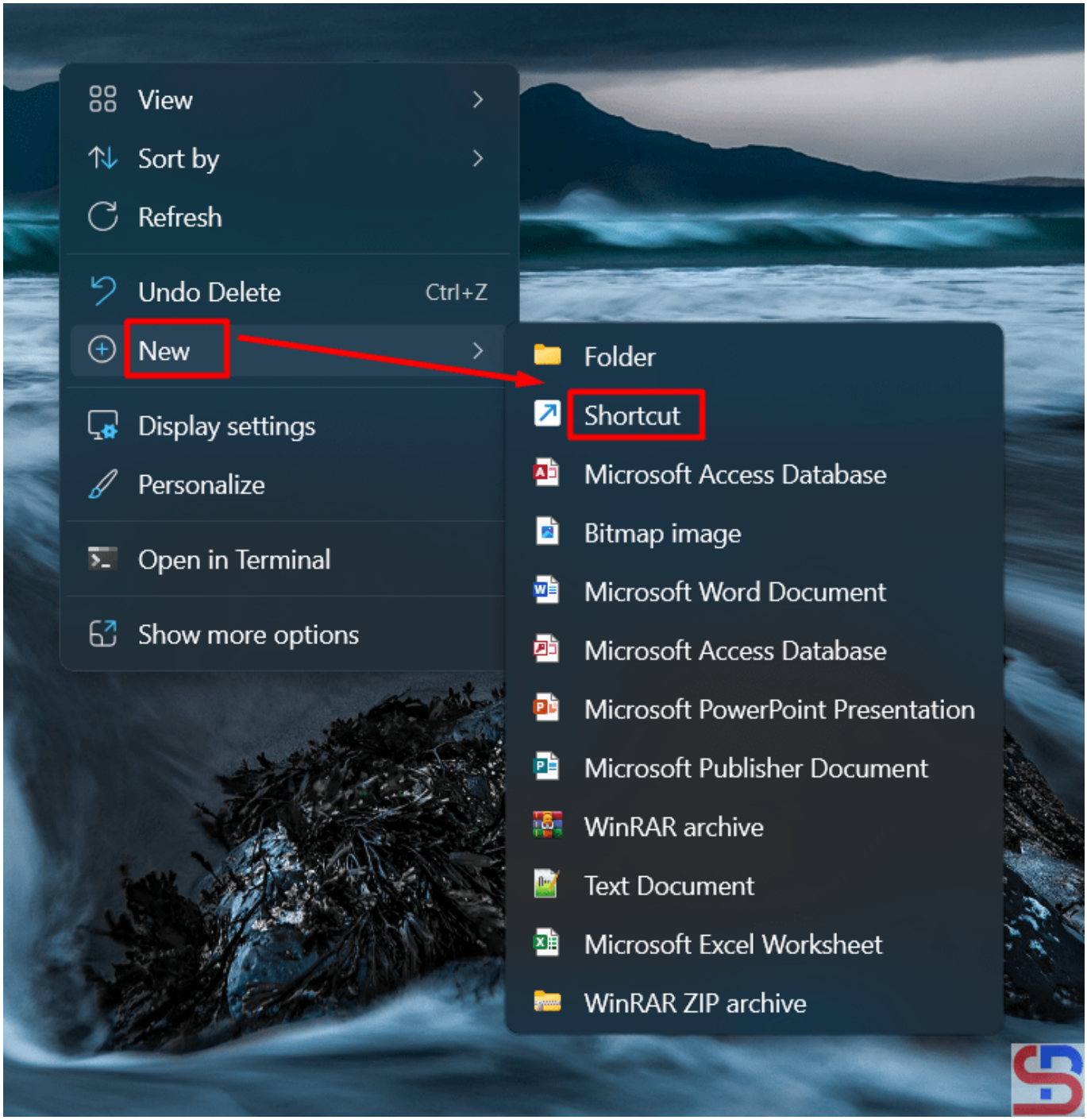
How to turn off windows OS in one click?

Solution

The following steps to turn off the Windows OS in one click:

1. Create a shortcut

Go to the desktop, then **right click** and select **New** – **Shortcut** as shown below:



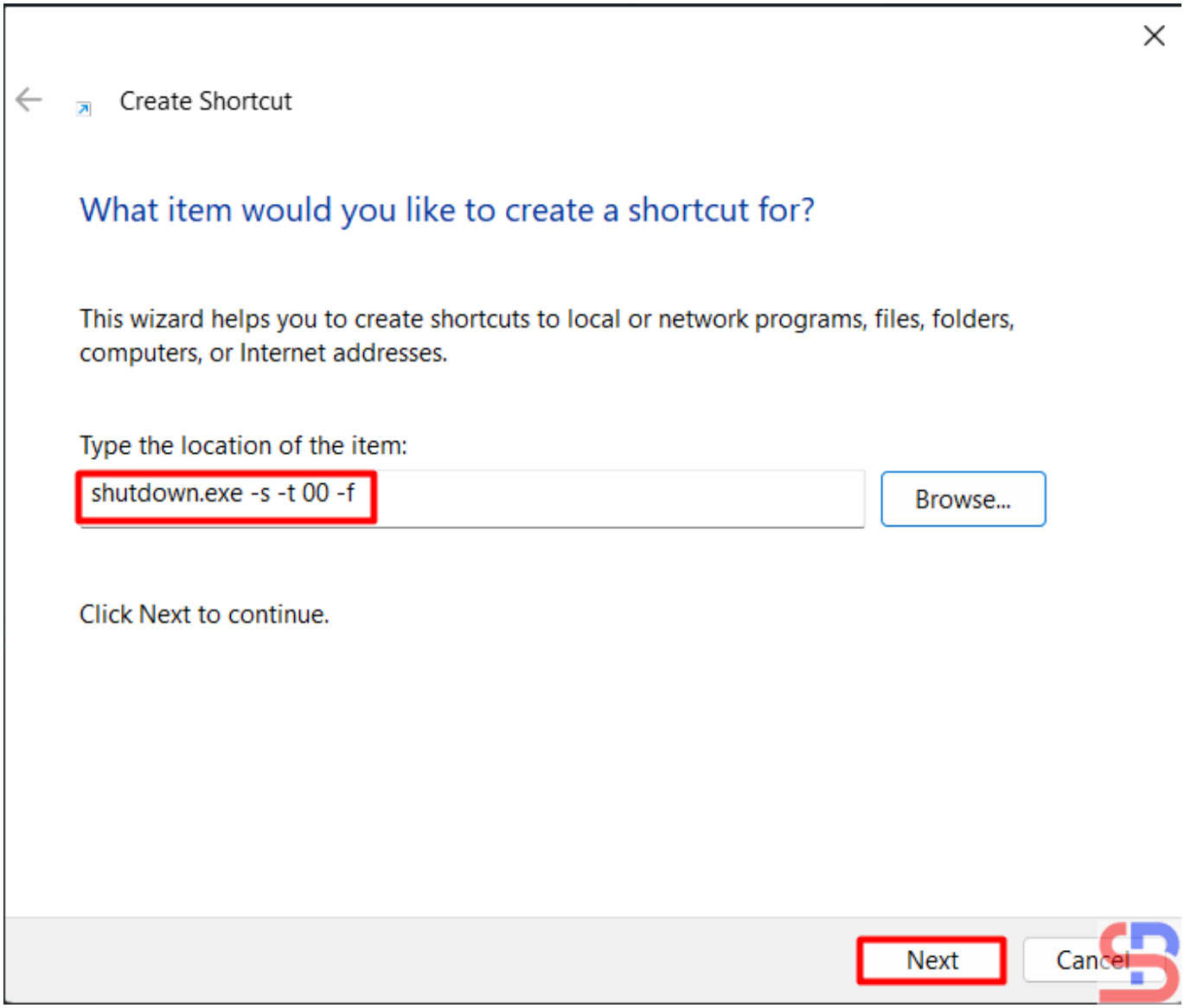
Click New – Shortcut in the desktop

2. Write a script

Write the script below:

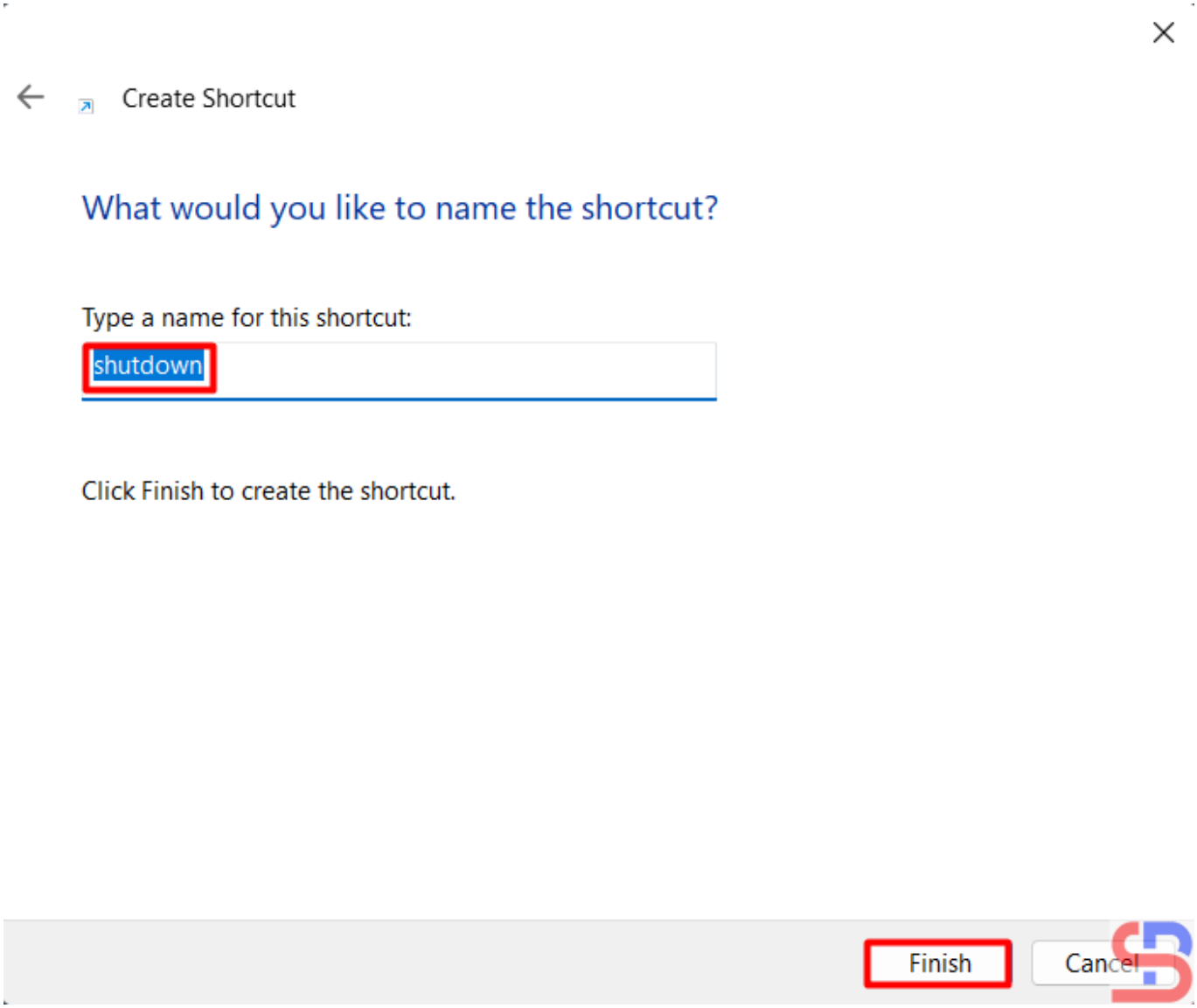
```
shutdown.exe -s -t 00 -f
```

In the section as shown below:



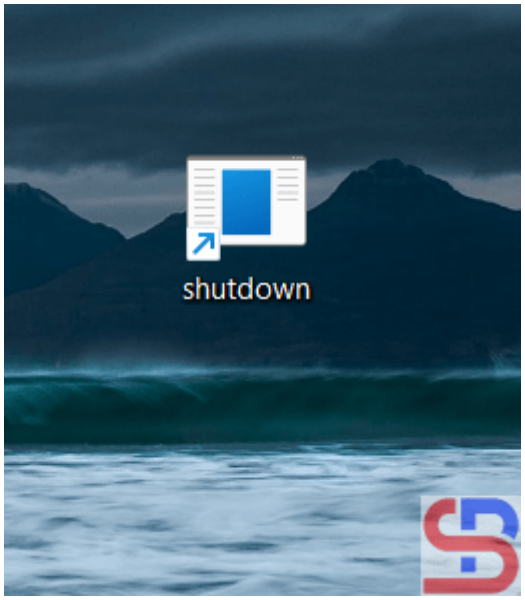
Write the script

Then press the **Next** button, and then there will be a display as below:



Create a name for the shortcut

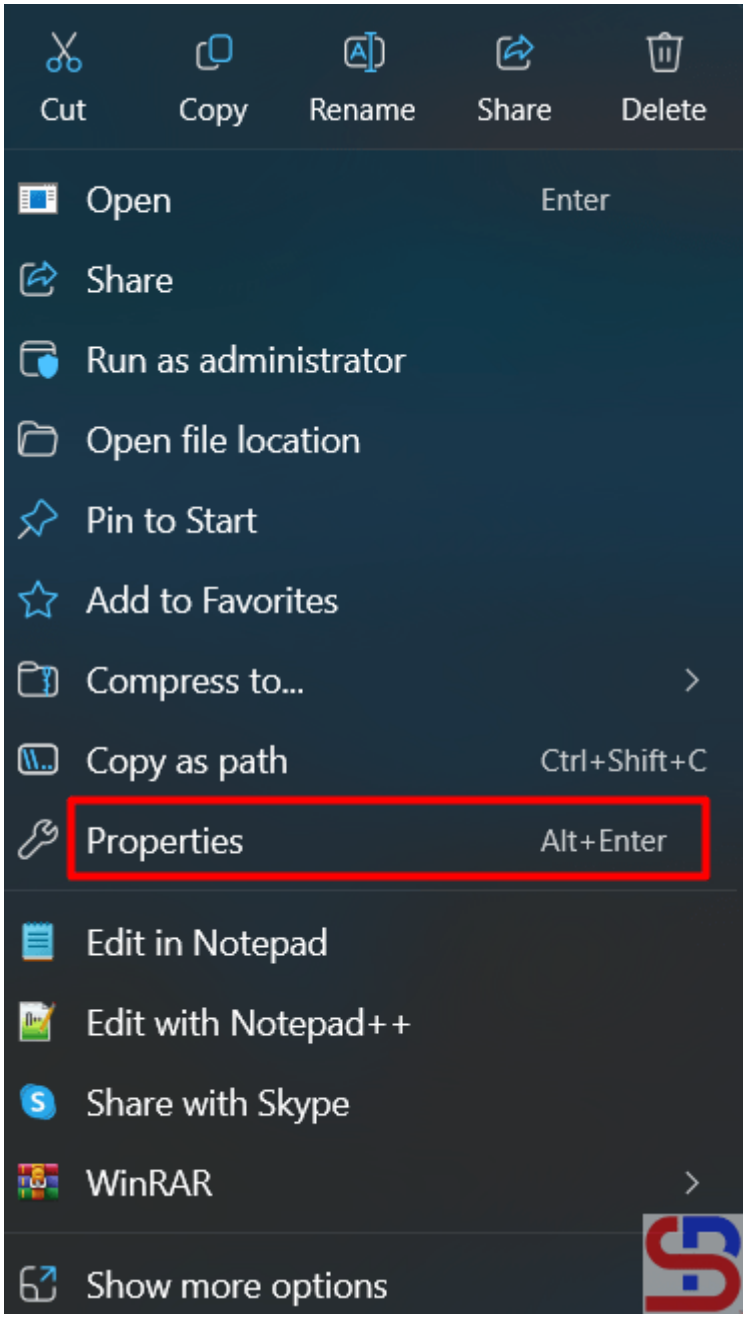
You can change the name for the shortcut, and after that, press the **Finish** button, then there will be a display as below:



Display of the shortcut icon

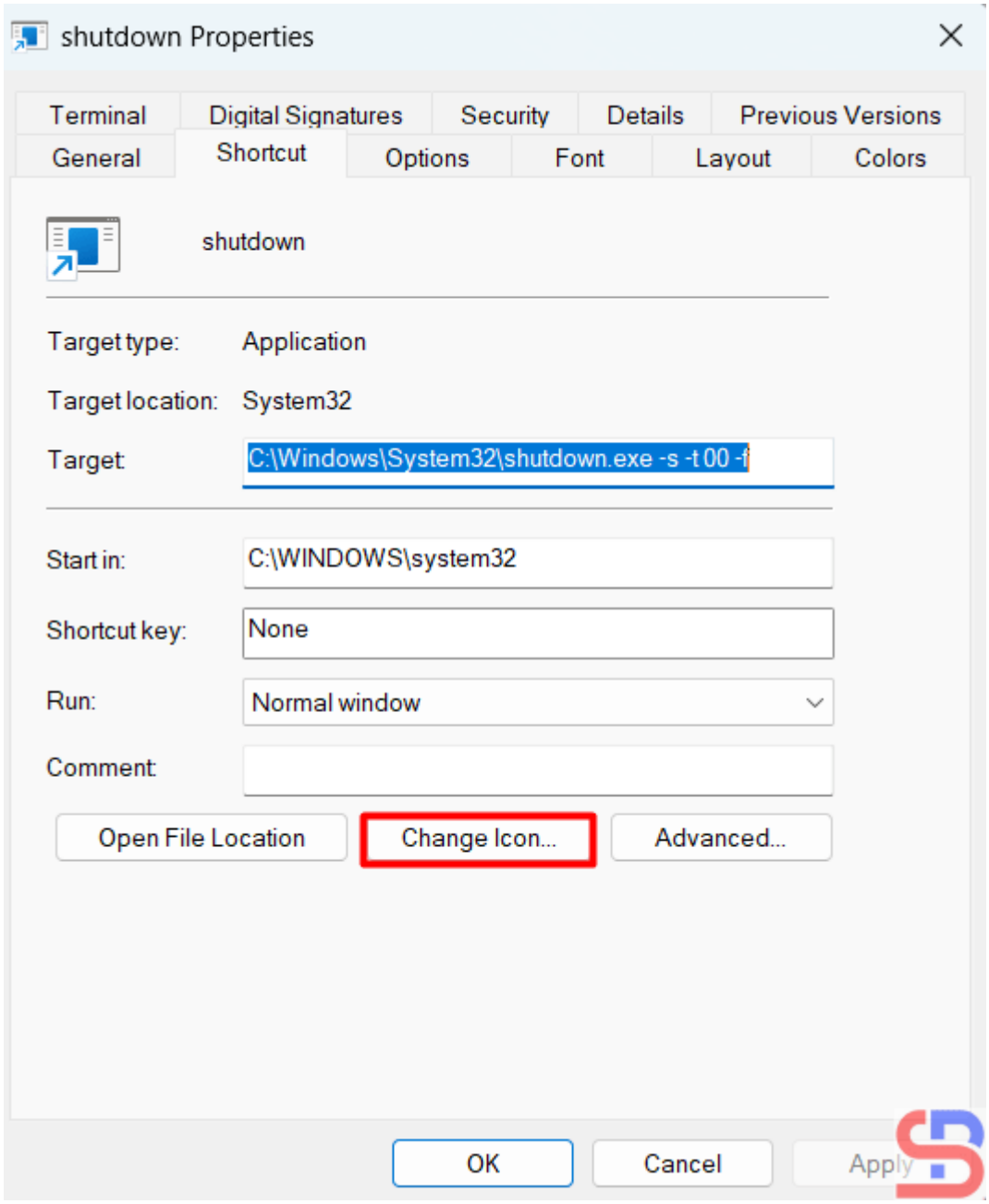
3. Change the icon

Right-click on the icon, select **Properties** as shown below:



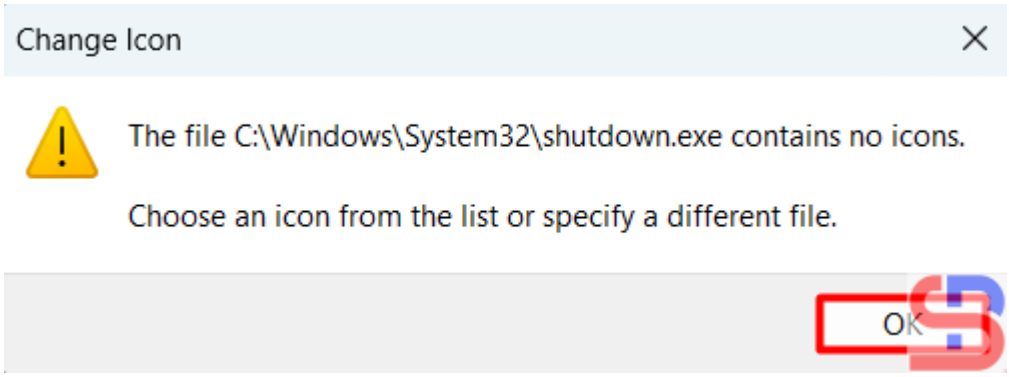
Click the Properties of the icon

Then click **Change Icon**, there will be a display as below:



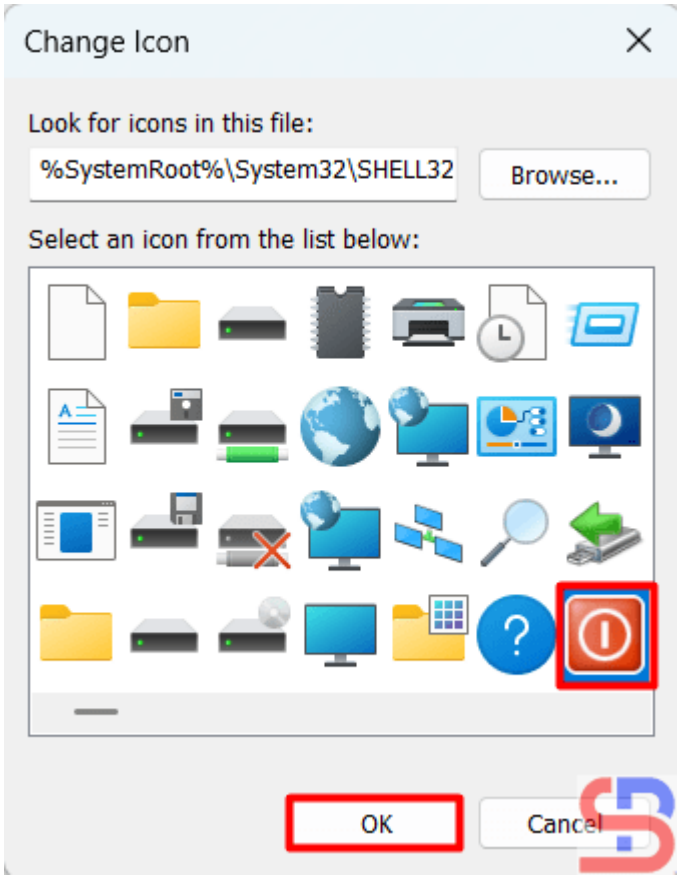
Click the change Icon

There will be a display as below:



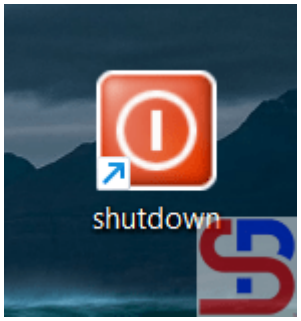
Click the OK button

Click the **OK** button and after that,, you can choose the icon you like, but I chose the icon in the red box, press **OK**, then there will be a display as below:



Choose the icon

The shortcut icon will change to what you chose in the previous section. After that, press OK, the shortcut icon will change the image according to what you choose.



The icon is changed

4. Move the icon

Move the icon to the taskbar by dragging it as shown below:

Drag the icon

After the icon has been moved to the taskbar, you can delete the icon from the desktop.

5. Test the result

After that, try clicking the icon in the taskbar, and your Windows OS should do the shutdown process.

Note

In the second part of the script writing, the time used is 0, so there is no time lag after you click the icon with the shutdown process. You can change it to the time you want, for example, to 5 seconds, so that the script becomes like below:

```
shutdown.exe -s -t 5 -f
```

Then there will be a break of 5 seconds after you finish clicking the icon and the shutdown process.

References

wikihow.com
cnet.com
facebook.com

How to Make a Virtual Machine’s IP Address on Hyper-V Static?

written by sysadmin | 2 July 2025

Throughout my experience using Hyper-V on Windows, if my virtual machine is using a static IP, then if my virtual machine or my laptop is restarted, my virtual machine’s IP will change automatically, even though I have created a static IP on my virtual machine. So I had to change the settings in a few places to keep up with the IP changes on my virtual machine, and it’s very tiring. However, I plan to make the virtual machine’s IP address on Hyper-V static.

Problem

How to make a virtual machine's IP address on Hyper-V static?

Solution

When you create a virtual machine in Hyper-V, it will use the **Default-Switch** connection by default. This connection usually has a class B IP, like in the image below on my laptop:

```
sysadmin@DESKTOP-SYSADMI C:\Users\sysadmin
$ ipconfig

Windows IP Configuration


Wireless LAN adapter Local Area Connection* 1:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 10:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Wi-Fi:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Ethernet adapter vEthernet (Default Switch):

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::d345:a72f:784:6fe8%21
   IPv4 Address. . . . . . . . . . . : 172.26.32.1
   Subnet Mask . . . . . . . . . . . : 255.255.240.0
   Default Gateway . . . . . . . . . :

sysadmin@DESKTOP-SYSADMI C:\Users\sysadmin
$
```

The IP of the Default Switch in my laptop

If I create a virtual machine in Hyper-V, it will usually get an IP in class B as well, and it will change if there is a restart on my virtual machine or my Windows laptop. Therefore, I want to create a static IP in class C on my virtual machine in Hyper-V.

A. On Windows

First, I have to create a new Virtual Switch, which I call **StaticIP**, and I write the following command in PowerShell:

```
New-VMSwitch -SwitchName "StaticIP" -SwitchType Internal
```

On the new Virtual Switch, I have to enter the IP address 192.168.100.0/24, so I type in PowerShell like the command below:

```
New-NetIPAddress -IPAddress 192.168.100.1 -PrefixLength 24 -InterfaceAlias
"vEthernet (StaticIP)"
```

After that, I created an IP NAT for the new Virtual Switch by typing in PowerShell:

```
New-NetNAT -Name NATStaticIP -InternalIPInterfaceAddressPrefix
192.168.100.0/24
```

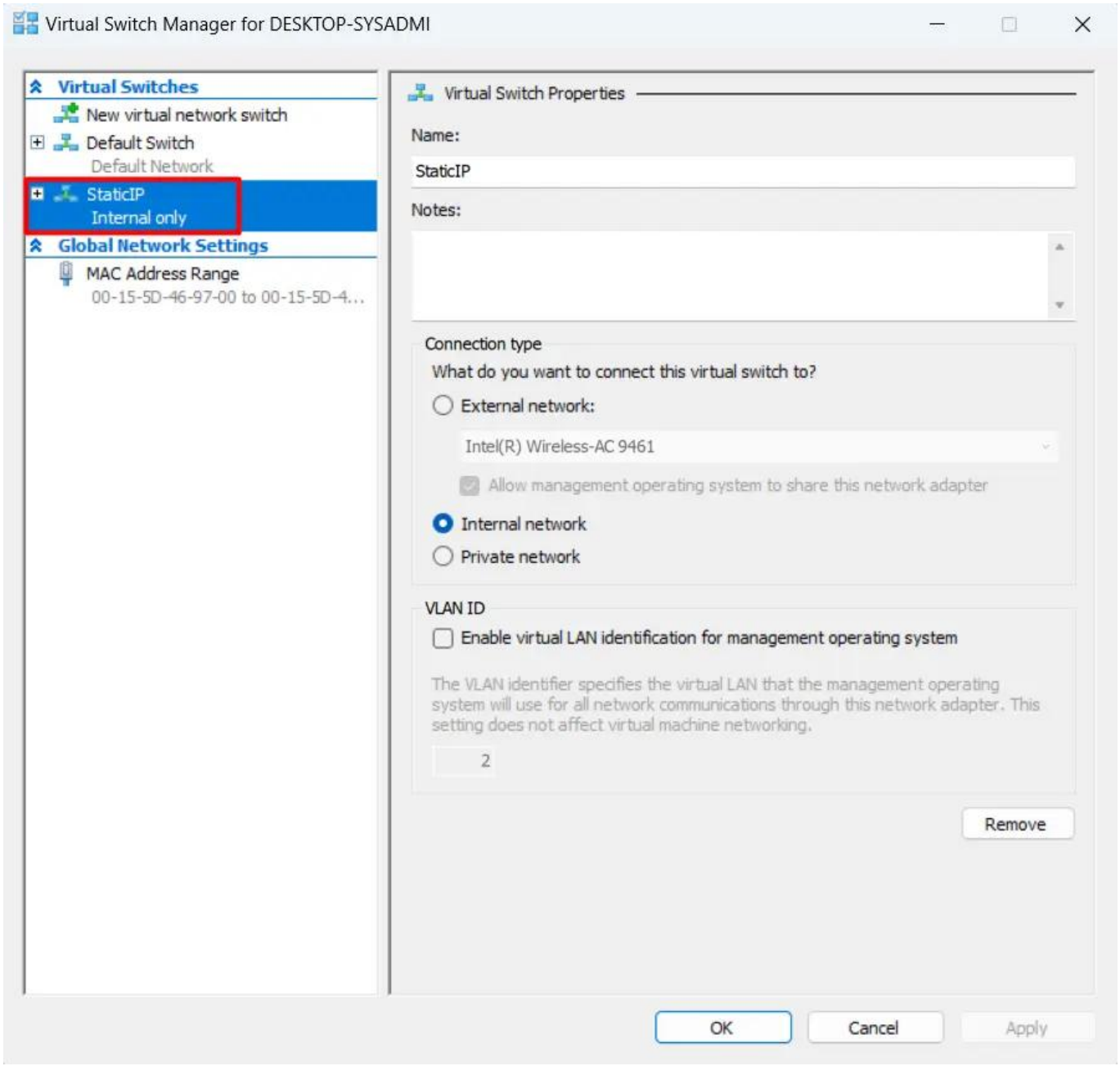
Then there should be a display as in the image below:

```
PS C:\Users\sysadmin> New-VMSwitch -SwitchName "StaticIP" -SwitchType Internal

Name     SwitchType NetAdapterInterfaceDescription
----     ---------- ----------------------------
StaticIP Internal


PS C:\Users\sysadmin> New-NetIPAddress -IPAddress 192.168.100.1 -PrefixLength 24 -InterfaceAlias "vEthernet (StaticIP)"


IPAddress         : 192.168.100.1
InterfaceIndex    : 37
InterfaceAlias    : vEthernet (StaticIP)
AddressFamily     : IPv4
Type              : Unicast
PrefixLength      : 24
PrefixOrigin      : Manual
SuffixOrigin      : Manual
AddressState      : Tentative
ValidLifetime     :
PreferredLifetime :
SkipAsSource      : False
PolicyStore       : ActiveStore

IPAddress         : 192.168.100.1
InterfaceIndex    : 37
InterfaceAlias    : vEthernet (StaticIP)
AddressFamily     : IPv4
Type              : Unicast
PrefixLength      : 24
PrefixOrigin      : Manual
SuffixOrigin      : Manual
AddressState      : Invalid
ValidLifetime     :
PreferredLifetime :
SkipAsSource      : False
PolicyStore       : PersistentStore


PS C:\Users\sysadmin> New-NetNAT -Name NATStaticIP -InternalIPInterfaceAddressPrefix 192.168.100.0/24


Name                             : NATStaticIP
ExternalIPInterfaceAddressPrefix :
InternalIPInterfaceAddressPrefix : 192.168.100.0/24
IcmpQueryTimeout                 : 30
TcpEstablishedConnectionTimeout  : 1800
TcpTransientConnectionTimeout    : 120
TcpFilteringBehavior             : AddressDependentFiltering
UdpFilteringBehavior             : AddressDependentFiltering
UdpIdleSessionTimeout            : 120
UdpInboundRefresh                : False
Store                            : Local
Active                           : True


PS C:\Users\sysadmin>
```

Execute the commands

B. Check the Connections

On Hyper-V Manager, there will be a new Virtual Switch Manager named **StaticIP** as shown below:

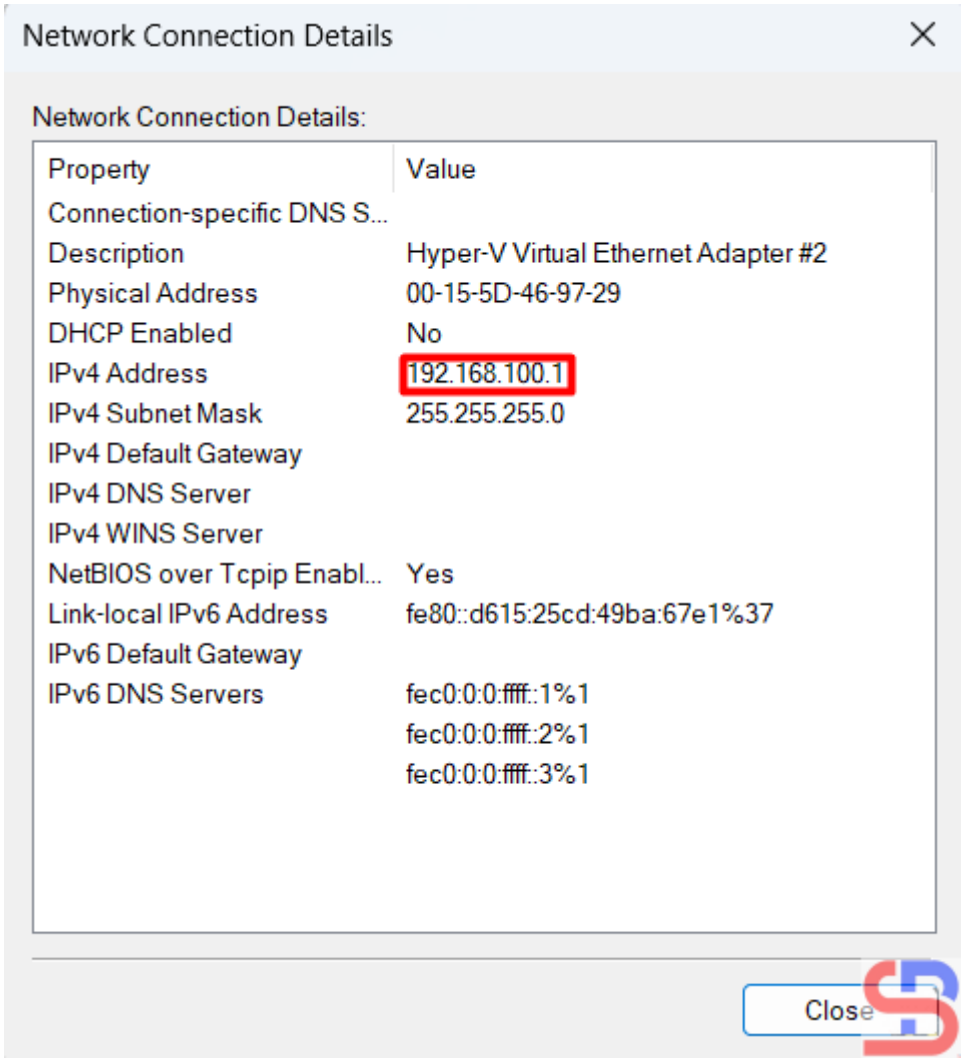


New Virtual Switch

In the **Network Connections** section, there will be a new adapter as shown below:

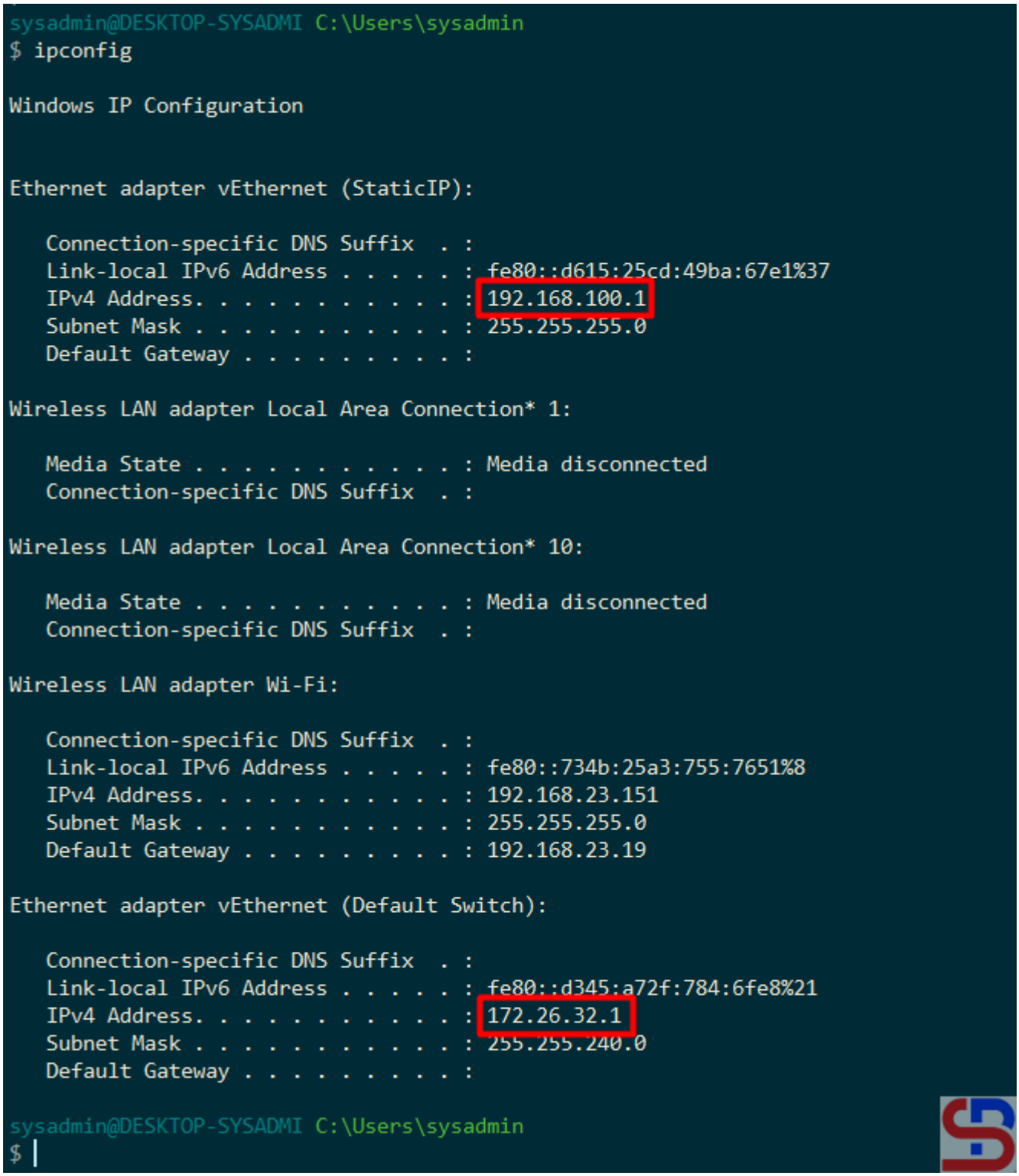
New adapter in the Network Connection

And the IP of the new adapter is 192.168.100.1 as shown below:



The IP of the new adapter

Or if you want a more complete IP for all adapters can be seen in the image below:

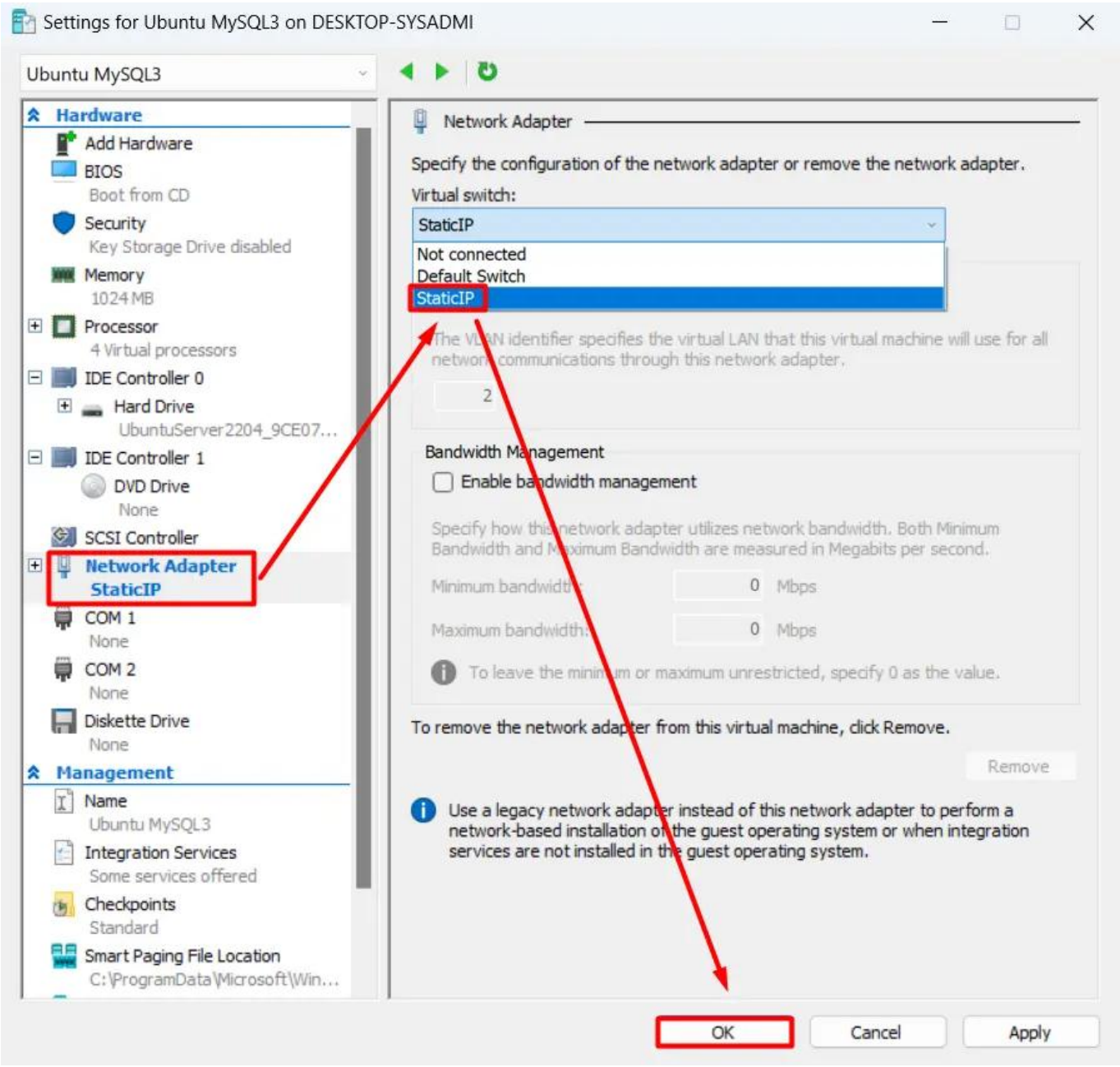


Display all IPs of adapters

B. On a Virtual Machine

If you have previously created a virtual machine, change the virtual machine settings in the **Virtual Switch** section,

select StaticIP as shown below, and then click the OK button:



Select the new Virtual Switch

After that, log in to the virtual machine and change the IP. Because I am using Ubuntu, I changed it in the netplan section as shown below:

```
# This is the network config written by 'subiquity'
network:
  ethernets:
    eth0:
      dhcp4: false
      addresses:
          - 192.168.100.11/24
      routes:
          - to: default
            via: 192.168.100.1
      nameservers:
        addresses:
          - 8.8.8.8
          - 8.8.4.4
  version: 2
```

Change IP in Ubuntu

After that, I restarted the network and saw the changed IP as in the picture below:

```
qwerty@server3:~$ sudo netplan apply
[  143.282259] blk_update_request: I/O error, dev fd0, sector 0 op 0x0:(READ) flags 0x80700 phys_seg 1 prio class 0
[  143.282598] blk_update_request: I/O error, dev fd0, sector 0 op 0x0:(READ) flags 0x0 phys_seg 1 prio class 0
[  143.282634] Buffer I/O error on dev fd0, logical block 0, async page read
qwerty@server3:~$
qwerty@server3:~$ ip a
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
       valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000
    link/ether 00:15:5d:46:97:22 brd ff:ff:ff:ff:ff:ff
    inet 192.168.100.11/24 brd 192.168.100.255 scope global eth0
       valid_lft forever preferred_lft forever
    inet6 fe80::215:5dff:fe46:9722/64 scope link
       valid_lft forever preferred_lft forever
qwerty@server3:~$
qwerty@server3:~$ ping -c2 google.com
PING google.com (142.250.4.113) 56(84) bytes of data.
64 bytes from sm-in-f113.1e100.net (142.250.4.113): icmp_seq=1 ttl=108 time=41.6 ms
64 bytes from sm-in-f113.1e100.net (142.250.4.113): icmp_seq=2 ttl=108 time=50.8 ms

--- google.com ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1001ms
rtt min/avg/max/mdev = 41.648/46.231/50.815/4.583 ms
qwerty@server3:~$
qwerty@server3:~$ _
```

Restart the network in the VM

Based on the picture above, my virtual machine can connect to the internet, making it easier for me to install something from the internet on my virtual machine. After that, I tried to reboot the virtual machine, and the IP of the virtual machine is still the same.

Note

You don’t need the above steps if your virtual machine uses DHCP.

References

mattwalsh.dev
devpress.csdn.net
superuser.com

How to Set Up Passwordless SSH in Putty?

written by sysadmin | 2 July 2025

The previous article explained how to create a passwordless SSH login. However, the article is useful if a sysadmin accesses a Linux server through another Linux server. In general, many sysadmins use PuTTY to access their Linux servers.

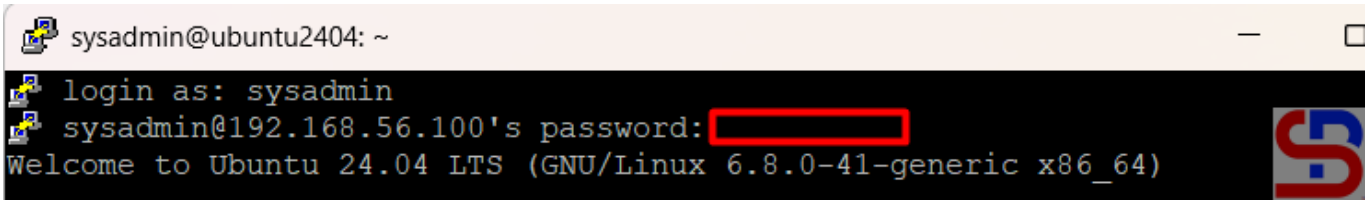
Problem

How to set up passwordless SSH in Putty?

Solution

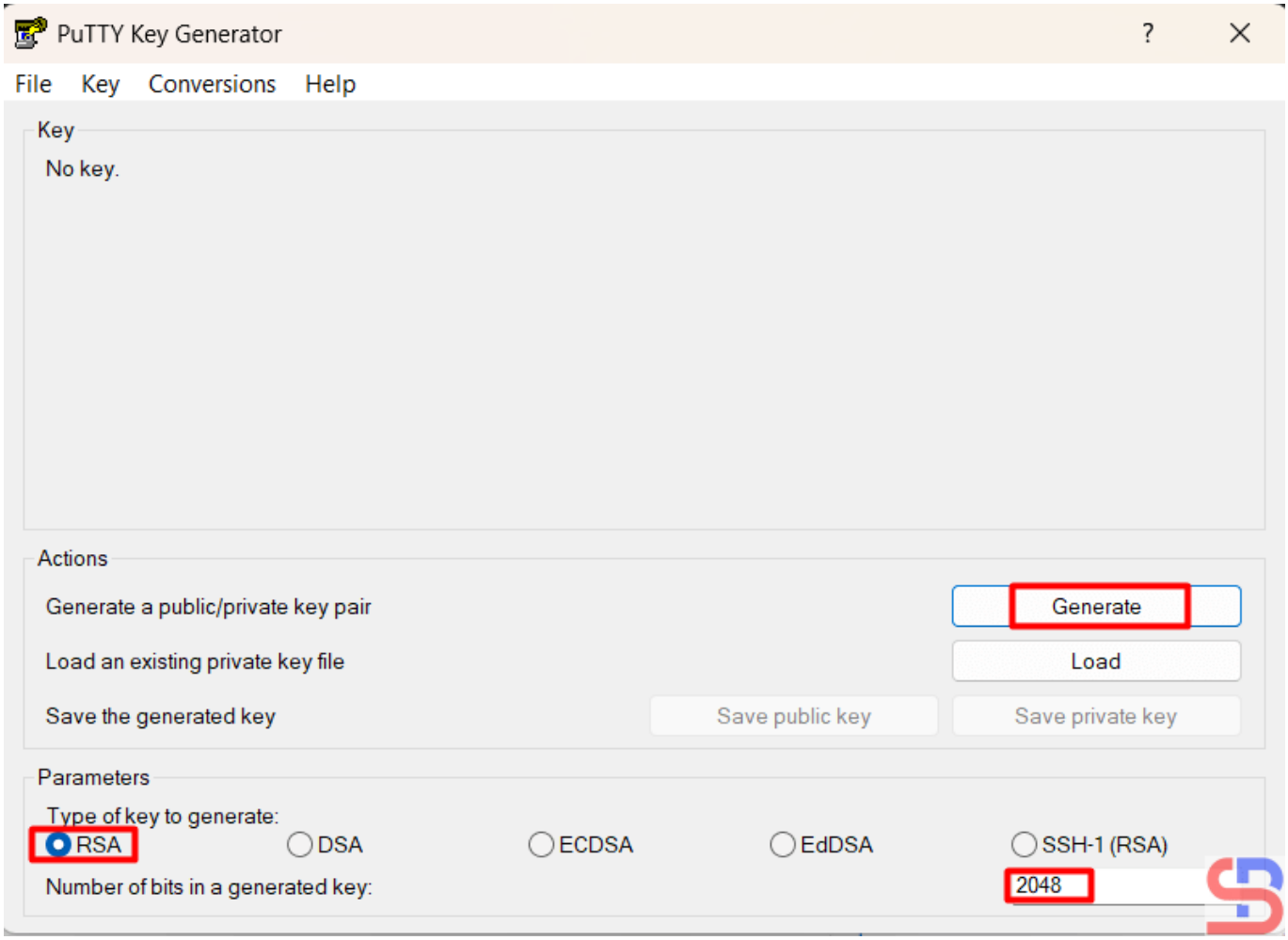
Putty is a tool created by Simon Tatham to access a device using SSH, Telnet, rlogin, and serial protocols. As of January 2025, the stable version of PuTTY is 0.82. You can visit this page to see the latest version and download PuTTY. Just like accessing a Linux server via SSH from another server, if you access a Linux server using PuTTY,

you will be asked to enter a username and password, as in the image below:



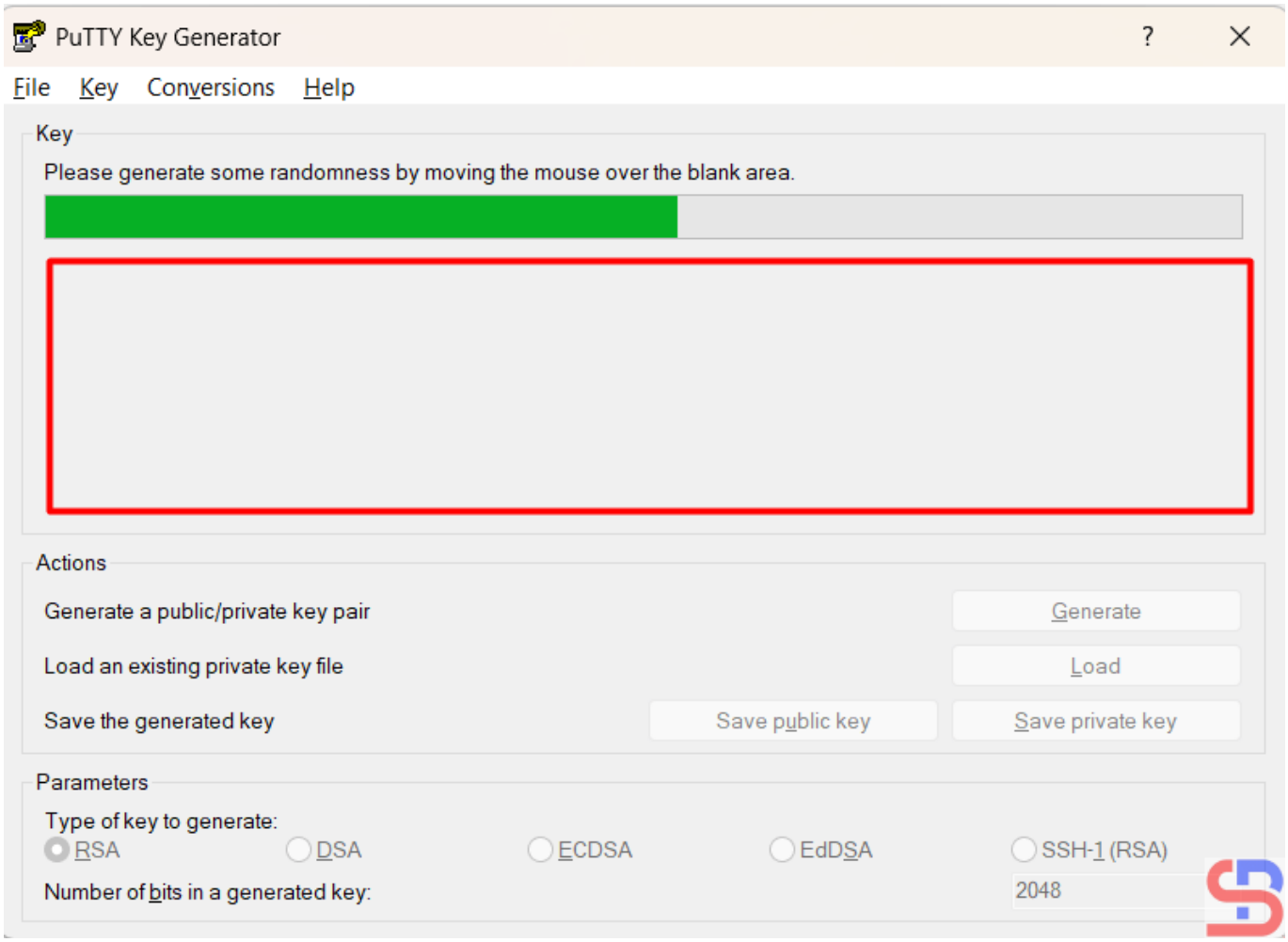
Access to the Linux server using PuTTY

To set up passwordless SSH in Putty, download the Puttygen application here to create your private/public keypair. After that, run the Puttygen application and you can choose the key according to your wishes, but in this article, we use an RSA key with 2048 bits.



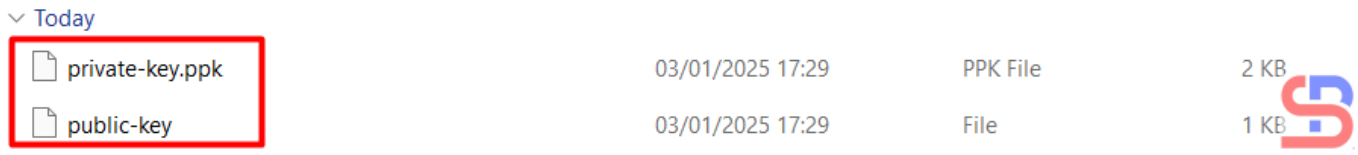
Choose the RSA key and click the Generate button

Press the **Generate** button and move your mouse randomly in the blank area of this application until the key is generated. Please see the image below for more details:



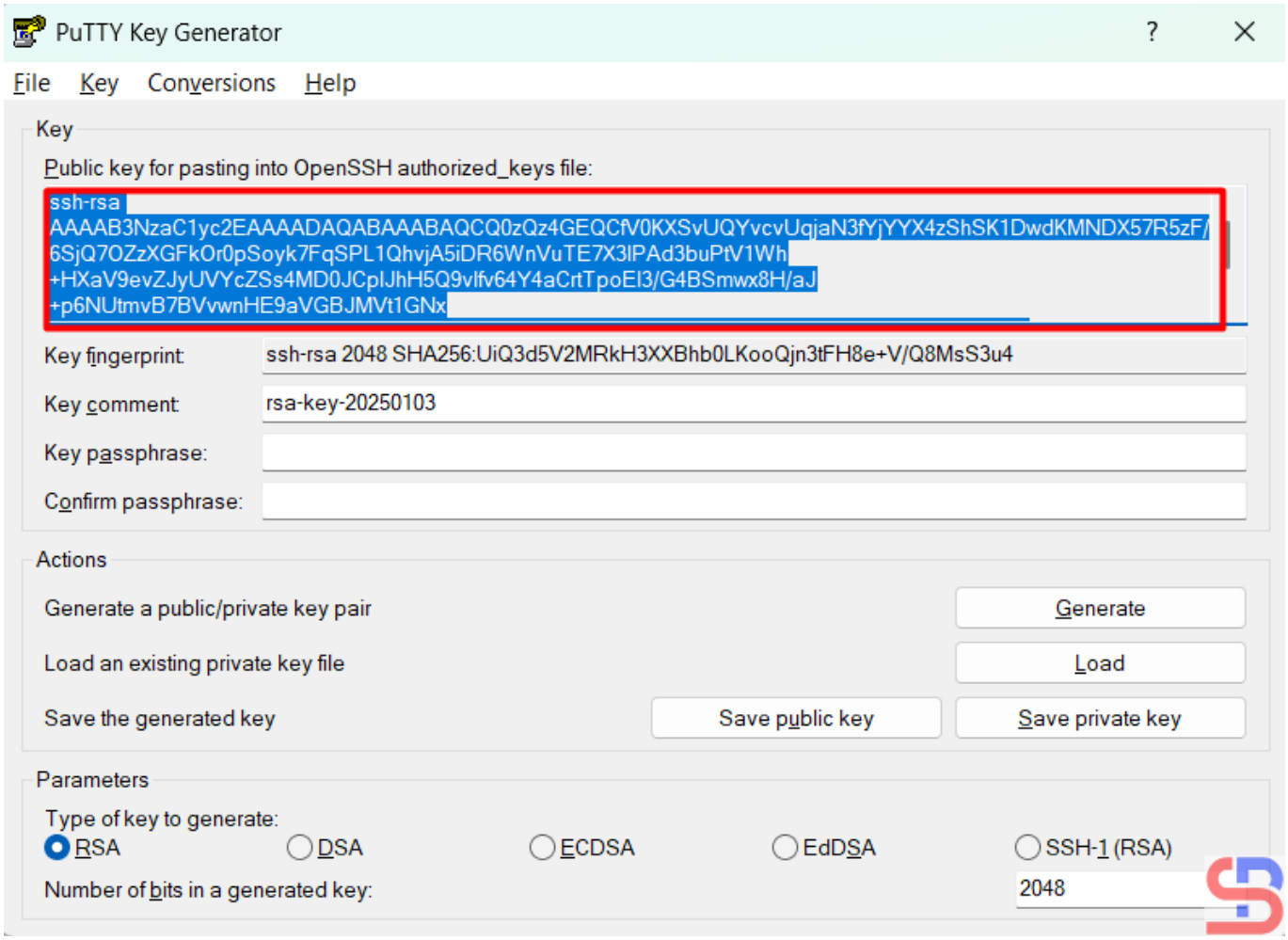
Move your mouse randomly on the blank area

After that, press the save **public key** and **save private key** buttons to save the two keys on your computer. Press the **Yes** button if you are asked a question when you click the Save Private Key button. On your computer, there should be 2 keys as in the image below:



Two key files from puttygen

Then copy the public key by opening the public key file or copying it directly from Puttygen, as in the image below:



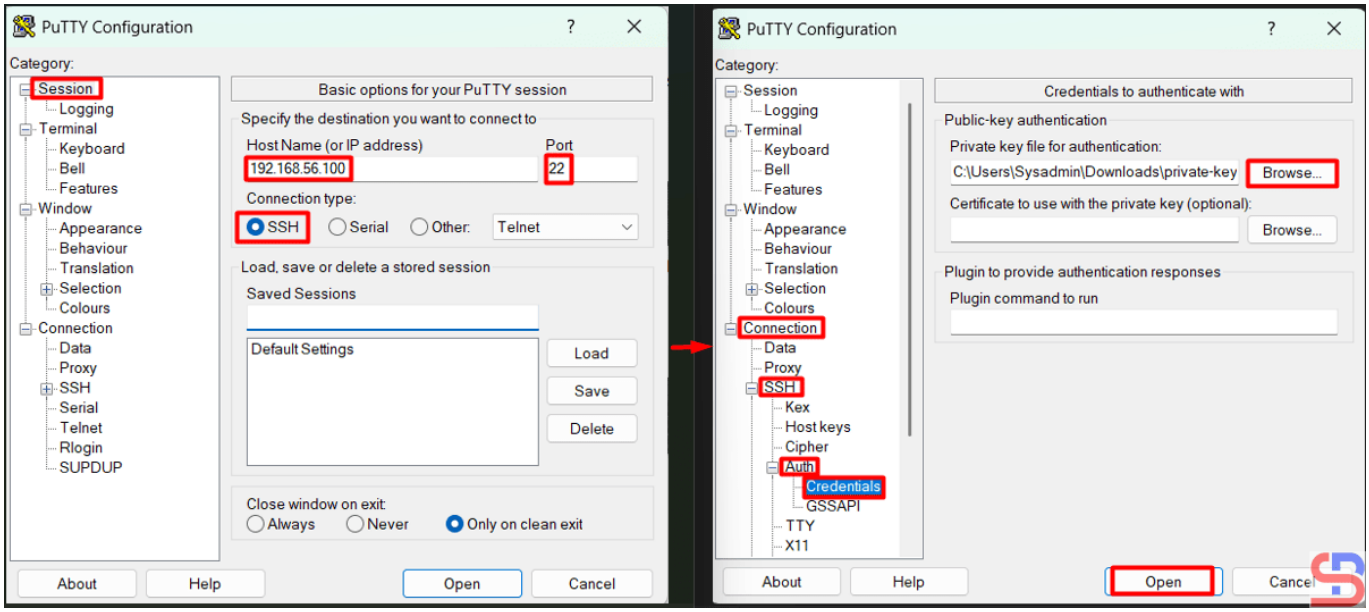
Copy the public key

After that, go to the remote server, open the **.ssh/authorized_keys** file, and enter the public key from Puttygen into that file:

```
sysadmin@ubuntu2404:~$ cat .ssh/authorized_keys
sysadmin@ubuntu2404:~$
sysadmin@ubuntu2404:~$ vi .ssh/authorized_keys
sysadmin@ubuntu2404:~$
sysadmin@ubuntu2404:~$ cat .ssh/authorized_keys
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABAQCQ0zQz4GEQCfV0KXSvUQYvcvUqjaN3fYjYYX4zShSK
1DwdKMNDX57R5zF/6SjQ7OZzXGFkOr0pSoyk7FqSPL1QhvjA5iDR6WnVuTE7X3lPAd3buPtV1Wh+HXaV
9evZJyUVYcZSs4MD0JCplJhH5Q9vIfv64Y4aCrtTpoEI3/G4BSmwx8H/aJ+p6NUtmvB7BVvwnHE9aVGB
JMVt1GNx+snUY7SLCsBcDwRtcol6oX9hBRUqj2ARki/sbS7WP4ysSSwC4GWmO8l/XgxtUorbWUsNV52x
YTEizZ+i0p54CqrLo/dOOzutAaEjFCCF4vHKqzEQ584GMKNS3Z0c1sDtk/IH rsa-key-20250103
sysadmin@ubuntu2404:~$
```
Put the public key into the remote server

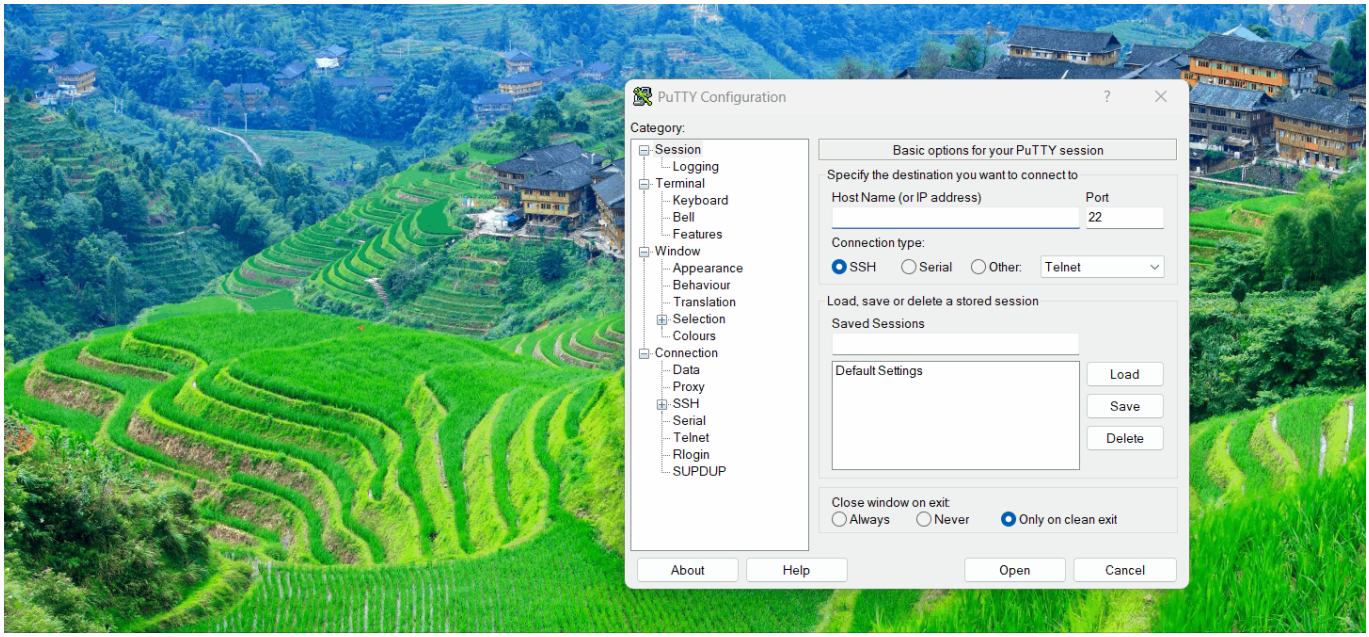
After that, try the remote server to test the SSH Passwordless login. Open Putty, then go to the **Session** and enter the IP of the remote server in the HostName section.

After that, go to the **Connection** > **Auth** > **Credentials** > **Browse** section in the Private key file for the authentication section as in the image below:



Configure PuTTY to access the Linux server without a password

Press the **Enter** or **Open** button, and you should be able to access the server without having to enter a password as in the image below:

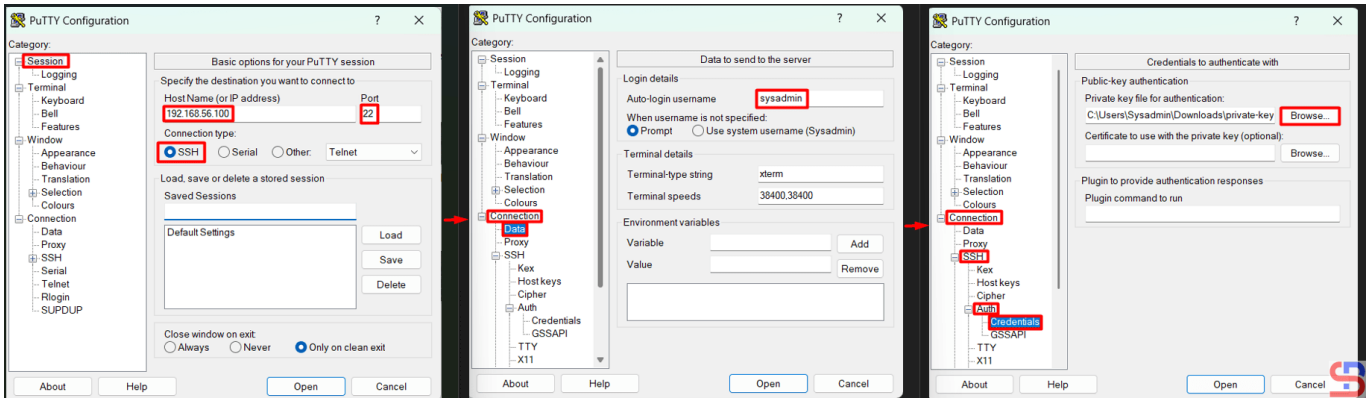


Steps to access the Linux server without a password using PuTTY

Note

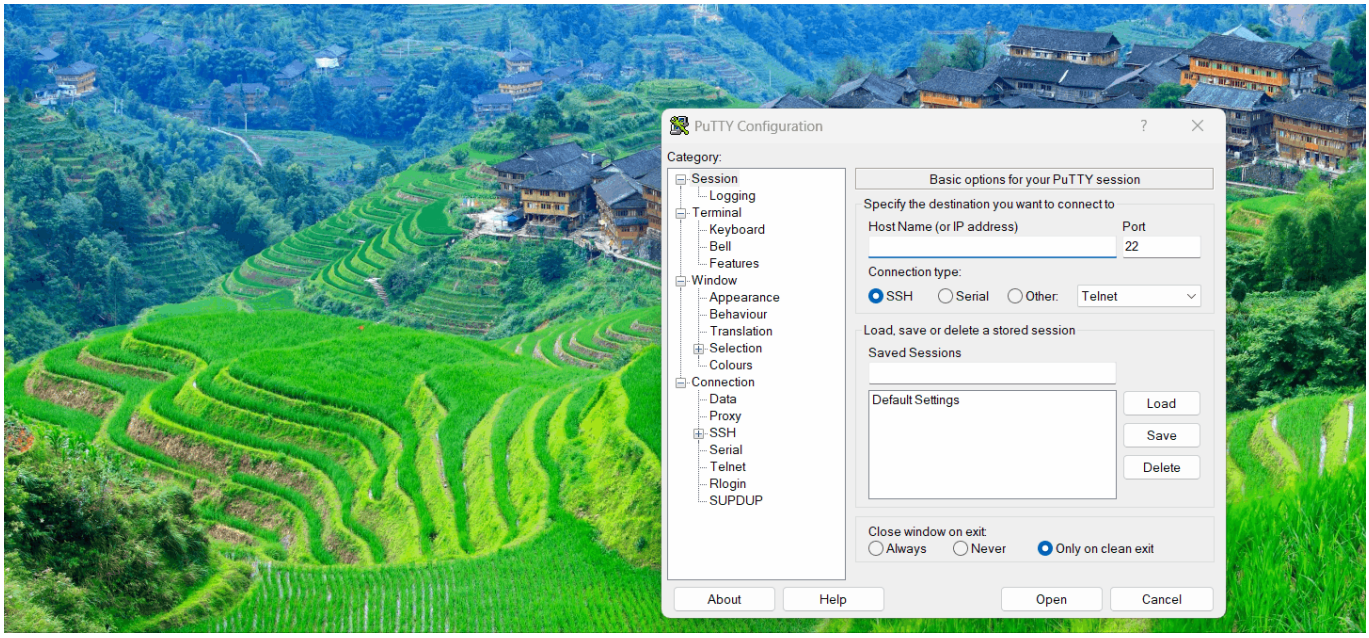
To speed up access to the Linux server, you can also not

write your username to Putty by configuring it in **Connection** > **Data** > Enter your username in the **Auto-login username** column, as in the image below:



Steps to not write your username in Putty

Press the **Enter** or **Open** button, and you should be able to access the server without having to enter the username and password, as in the image below:



Steps to access the Linux server without a username and password using Putty

References

en.wikipedia.org
portal.nutanix.com
help.dreamhost.com
tecmint.com
filecloud.com