POE – Deploy a Pre-Built Kali Linux VM

Lab Title: Deploy a Pre-Built Kali Linux Virtual Machine (VM)
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Course / Program: Ethical Hacking – Cisco Networking Academy (Skills Program at Afrika Tikkun)
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1. Lab Description & Objectives

This lab focuses on deploying a pre-built Kali Linux VM using virtualization software and exploring basic Linux commands.

Objectives:

1. Deploy a customized Kali Linux VM on AMD/Intel or ARM-based (M1/M2) Mac computers.
2. Explore Linux commands and understand root privileges.
3. Learn useful terminal shortcuts (up/down arrows, history, tab completion).

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2. Lab Steps & Evidence

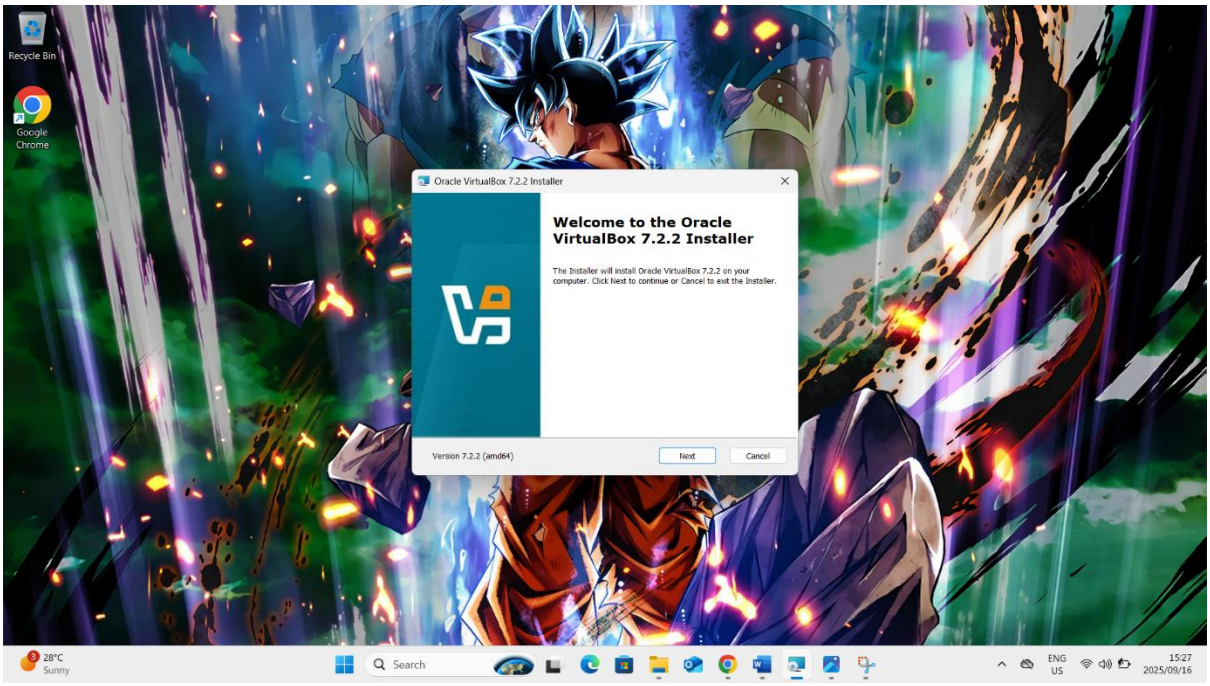
Part 1: Deploying Kali VM (AMD/Intel)

1. Installed **Oracle VirtualBox** from https://www.virtualbox.org.
2. Downloaded the **Kali.ova** file from NetAcad Resource Hub.

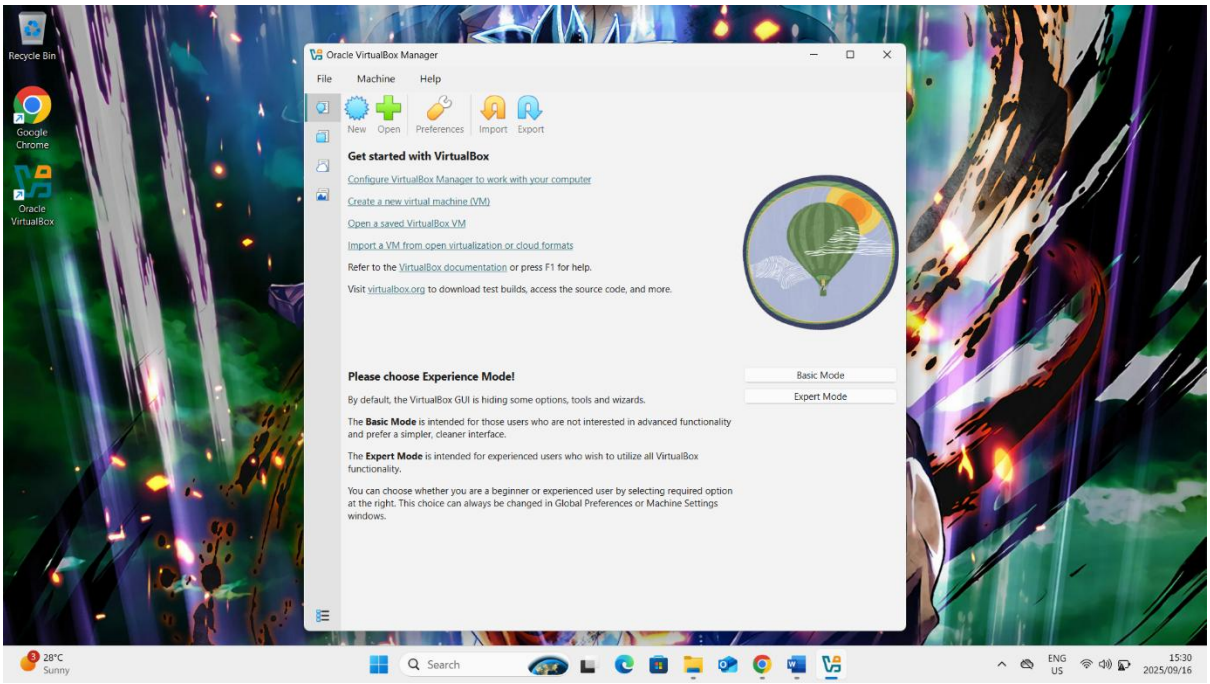
3. Imported the OVA into VirtualBox (File > Import Appliance).
4. Adjusted VM settings (e.g., RAM) and started the VM.

Screenshot Evidence:

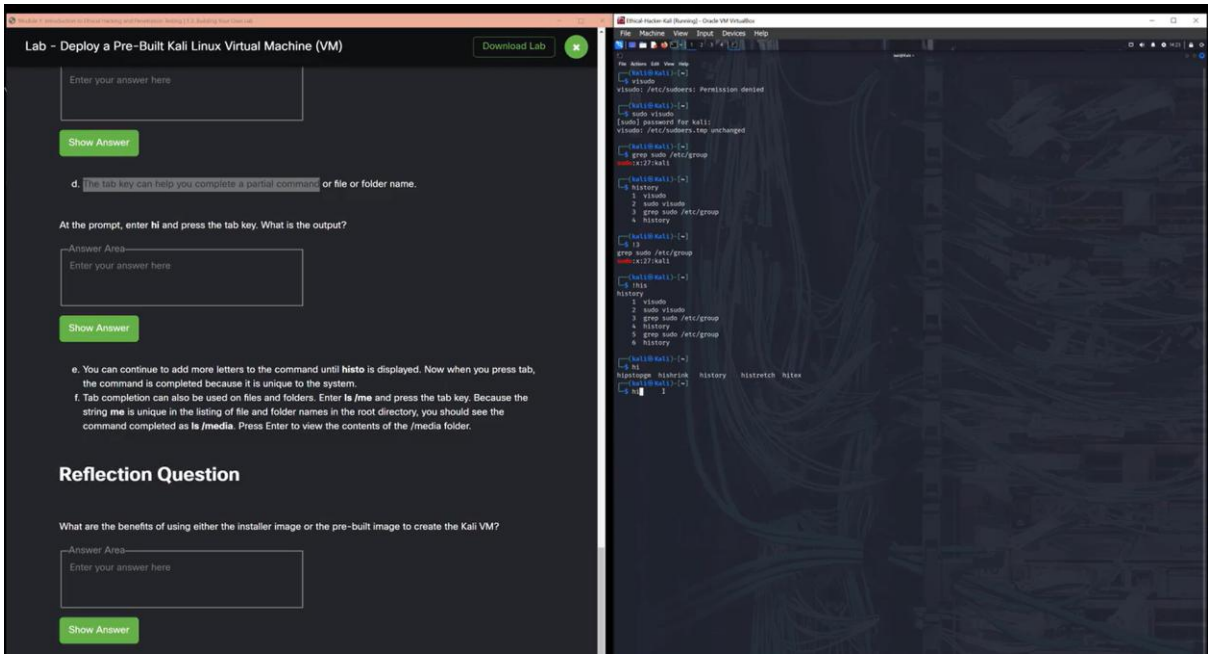
- Installing virtual box



- Virtual box installed



- Kali desktop after booting.



Part 2: Deploying Kali VM (ARM M1/M2 Mac)

1. Installed **UTM** from https://mac.getutm.app.
2. Downloaded and unzipped **Kali.utm.zip** from NetAcad Resource Hub.
3. Opened the VM in UTM.

Screenshot Evidence:

- UTM main window showing imported Kali VM.
- Kali desktop running on ARM Mac.

Part 3: Exploring Linux

Step 1: Root Privileges

- Logged in with user: `kali` / password: `kali`.
- Opened Terminal Emulator.
- Ran `visudo` → permission denied.
- Ran `sudo visudo` → granted root privileges.
- Verified user `kali` in sudo group: `grep sudo /etc/group` → `sudo:x:27:kali`.

Step 2: Keyboard Shortcuts

Task	Command / Action	Output / Answer
Up arrow to find `visudo` command	Pressed up arrow **3 times**	Command displayed: `visudo`
Down arrow to locate `sudo visudo`	Pressed down arrow **3 times**	Command displayed: `sudo visudo`
Display command history	`history`	Shows list of recent commands
Repeat command #3	`!3`	Command executed: `grep sudo /etc/group`
Repeat last history command using string	`!his`	Command executed: `history`
Tab completion for partial command `hi`	Pressed `Tab`	Suggestions: `hipstopgm hishrink history histretch hitex`
Tab completion for partial path `/me`	Pressed `Tab`	Completed path: `/media`

Reflection Question

Q: What are the benefits of using either the installer image or the pre-built image to create the Kali VM?

A:

- **Installer Image:** Allows more control and customization of installation options, including partitions, packages, and configurations.
- **Pre-Built Image:** Faster and simpler to deploy, minimal setup effort, ideal for labs and training environments.

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3. Screenshots to Include in POE

- VirtualBox or UTM VM imported view.
- Kali desktop environment.
- Terminal showing `sudo visudo` execution.
- Terminal showing `history` and tab completion.

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4. References

- Oracle VirtualBox
- UTM Virtualization for Mac
- NetAcad Resource Hub – Kali VM