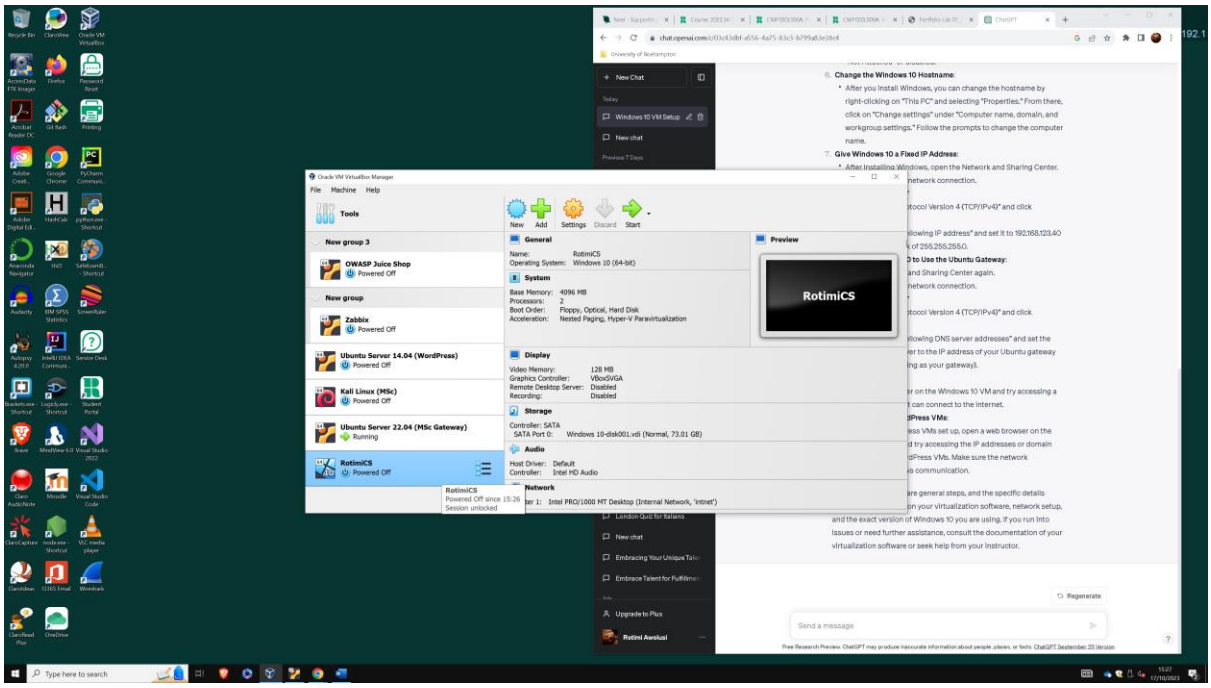
Cybersecurity

Sandboxed Network

Installing, deploying, and configuring a Windows 10 virtual machine on a virtual environment.

1. **Install Virtualization Software**:

   - Download and install VirtualBox (or other virtualization software of your choice) from the official website: https://www.virtualbox.org/



2. **Download Windows 10 ISO**:

   - You'll need a Windows 10 ISO file. You might have received one from your instructor. If not, you can download an evaluation version from the official Microsoft website. I uploaded the iso file and activated my windows

3. **Create a New Virtual Machine**:

   - Open VirtualBox.

   - Click on "New" to create a new virtual machine.

   - Follow the wizard:

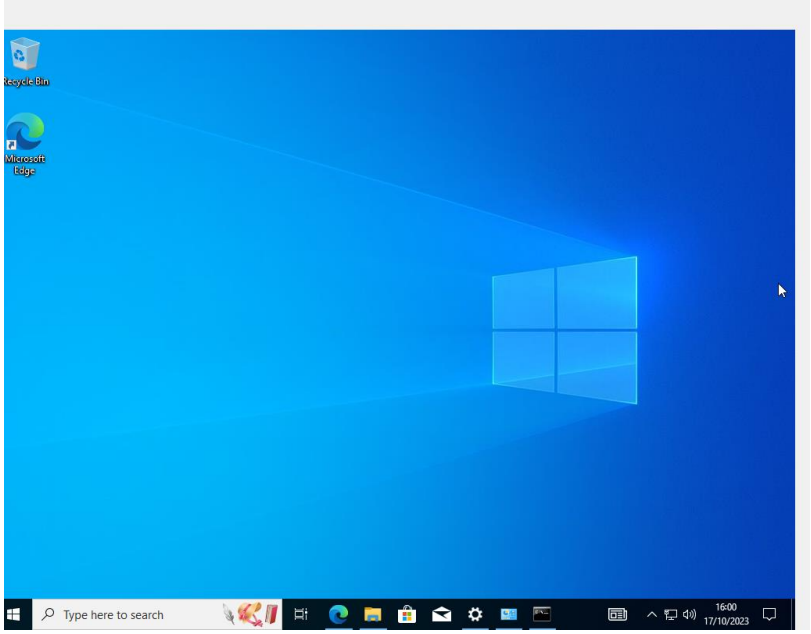
- Name your VM (e.g., "Windows 10").

- Choose "Windows" as the type.

- Choose "Windows 10 (64-bit)" as the version.

- Allocate memory (4GB or more is recommended).

- Create a virtual hard disk and set its size (at least 40GB)



4. **Set Network Adapter 1 to Internal Network**:

- Select the virtual machine you just created.

- Click on "Settings."

- Go to the "Network" tab.

- Set "Adapter 1" to "Attached to: Internal Network."

5. **Disable Other Network Adapters**:

- In the same "Network" tab, make sure other adapters are set to "Not Attached" or disabled.

6. **Change the Windows 10 Hostname**:

- After you install Windows, you can change the hostname by right-clicking on "This PC" and selecting "Properties." From there, click on "Change settings" under "Computer name, domain, and workgroup settings." Follow the prompts to change the computer name.

7. **Give Windows 10 a Fixed IP Address**:

- After installing Windows, open the Network and Sharing Center.

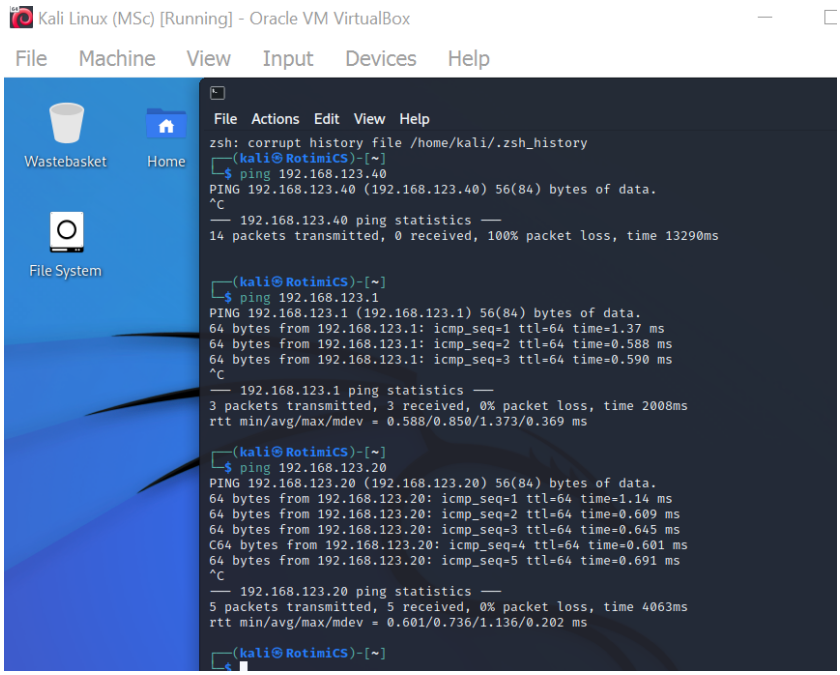
- Click on the active network connection.

- Select "Properties."

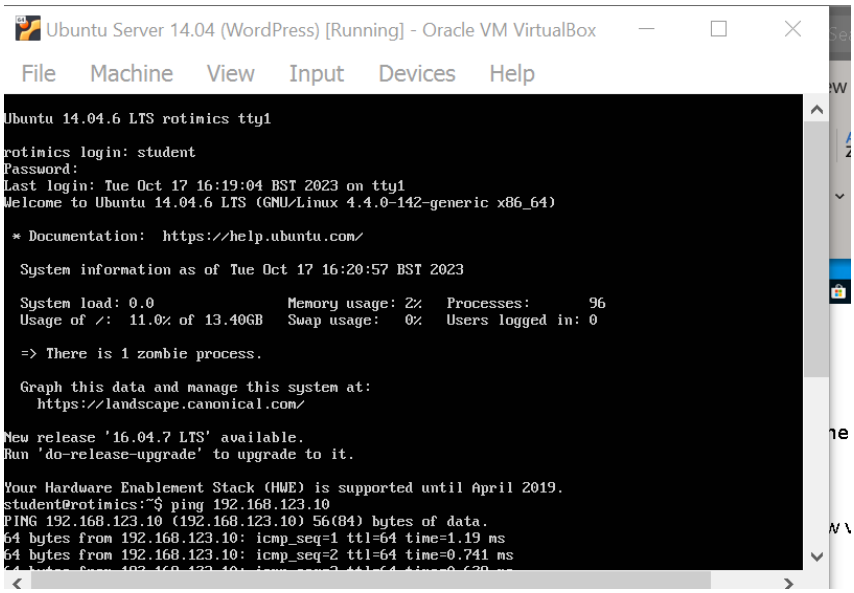
- Select "Internet Protocol Version 4 (TCP/IPv4)" and click "Properties."

- Choose "Use the following IP address" and set it to 192.168.123.40 with a subnet mask of 255.255.255.0.

KALI LINUX: Configure the IP address of Kali, changed the hostname, pinged it with other machines and made sure it can access the internet.



Ubuntu WordPress: I pinged Ubuntu WordPress to Kali and it worked perfectly, I have changed the hostname and made sure it can access the internet.



8. **Configure Windows 10 to Use the Ubuntu Gateway**:

- Open the Network and Sharing Center again.

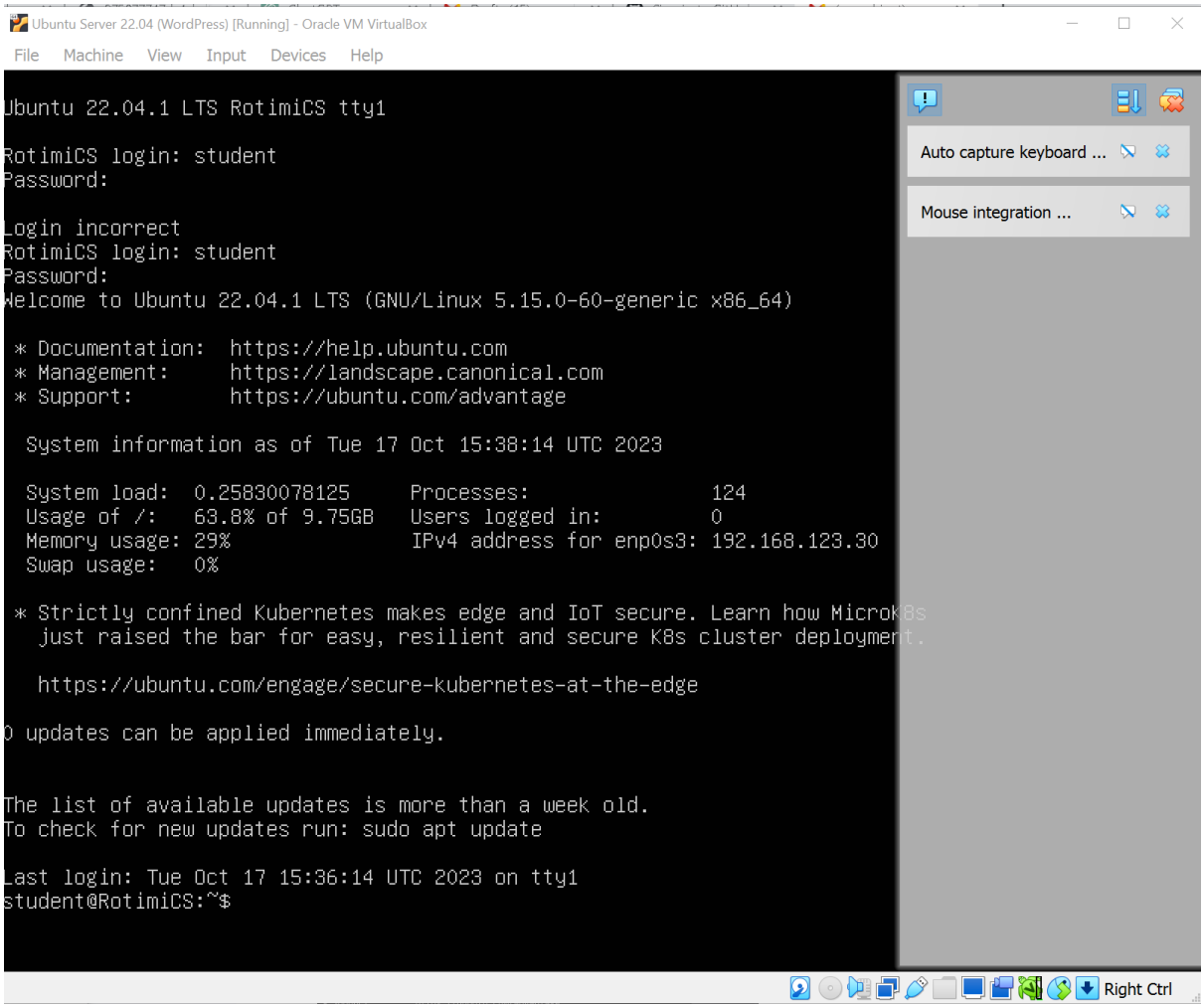
- Click on the active network connection.

- Select "Properties."

- Select "Internet Protocol Version 4 (TCP/IPv4)" and click "Properties."

- Choose "Use the following DNS server addresses" and set the Preferred DNS server to the IP address of your Ubuntu gateway (or the device serving as your gateway).

UBUNTU WORDPRESS 22.04: Configure the IP address, changed the hostname, pinged it with other machines and to sure it can access the internet.



9. **Test Internet Access**:

- Open a web browser on the Windows 10 VM and try accessing a website to ensure it can connect to the internet.

10. Test Browsing to WordPress VMs

IN CONCLUSION:

Below are step-by-step instructions for setting up Network Adapter 1 as an Internal Network for a Windows 10 VM in two popular virtualization software: VirtualBox Workstation. Choose the one that corresponds to your virtualization software.

For VirtualBox:

1. Open VirtualBox

   Launch the VirtualBox application on your computer.

2. Select the Windows 10 VM:**

   In the VirtualBox Manager, select your Windows 10 VM from the list of available virtual machines.

3. **Go to Network Settings:**

   With the Windows 10 VM selected, click on the "Settings" button (gear icon) in the toolbar or press `Ctrl + S`.

4. **Configure Network Adapter:**

   - In the VM settings window, go to the "Network" tab on the left sidebar.

   - You'll see "Adapter 1" in the list. Under "Attached to," select "Internal Network" from the drop-down menu.

5. **Set Internal Network Name:**

   - After selecting "Internal Network," a field named "Name" will appear. Enter a name for your internal network (e.g., "InternalNetwork").

6. **Save and Close:**

   - Click "OK" to save the settings and close the VM settings window.

These steps successfully configure Network Adapter 1 as an Internal Network for your Windows 10 VM, isolating it from the host system and external networks while allowing communication with other VMs on the same internal network.