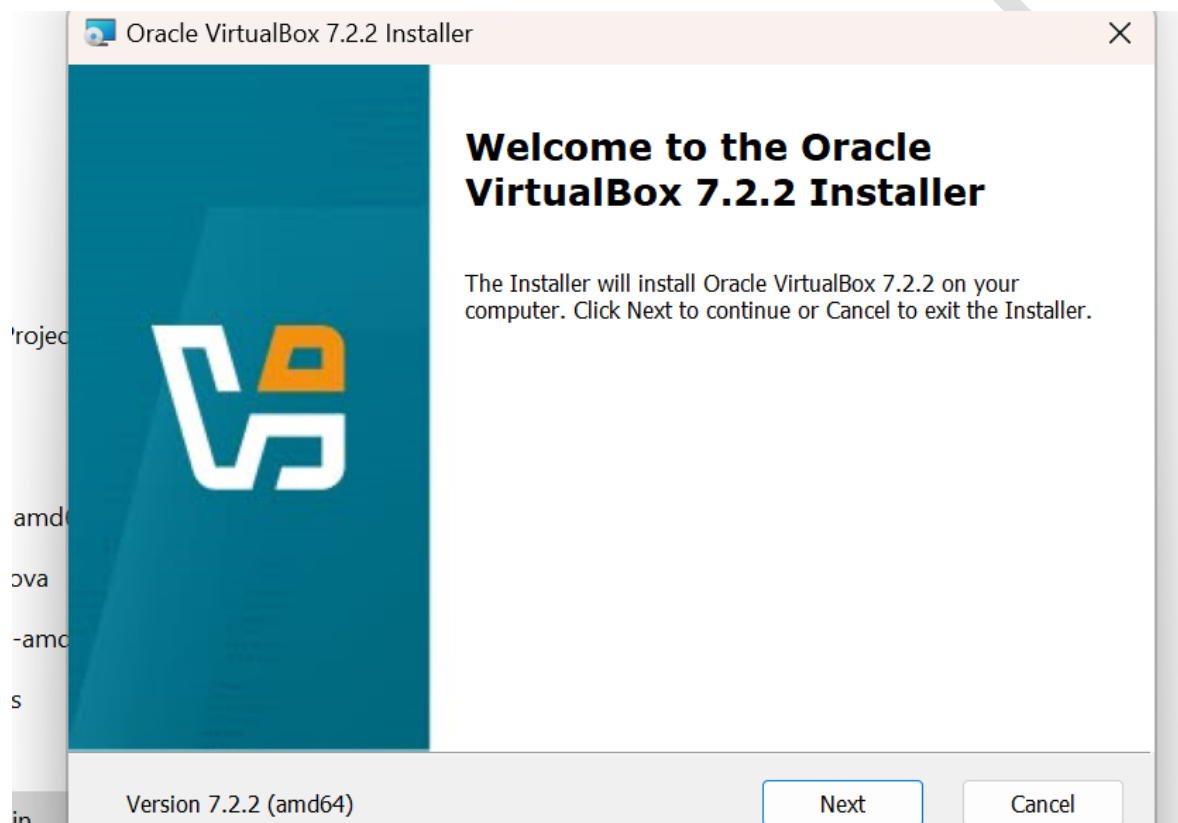


# SETTING UP HOME LAB

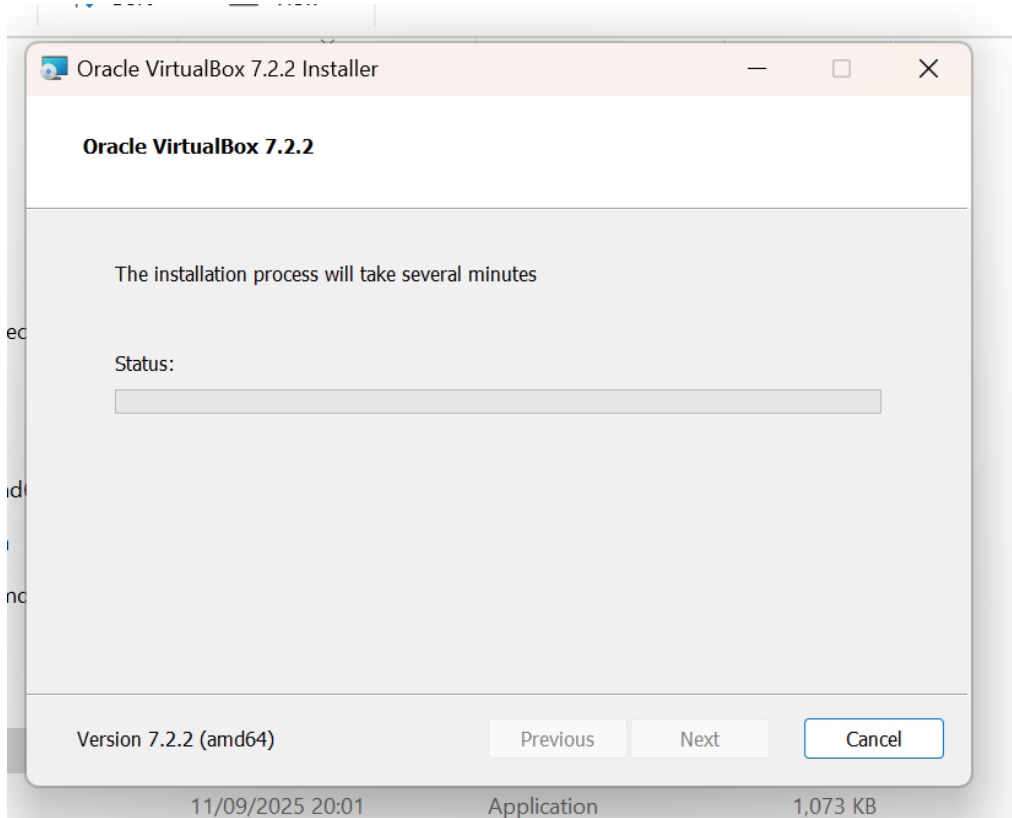
## Setting Up a Home Lab

I am setting up a home lab for myself, which consists of different machines. I will explain in detail how to set up each of these machines through the installation process.

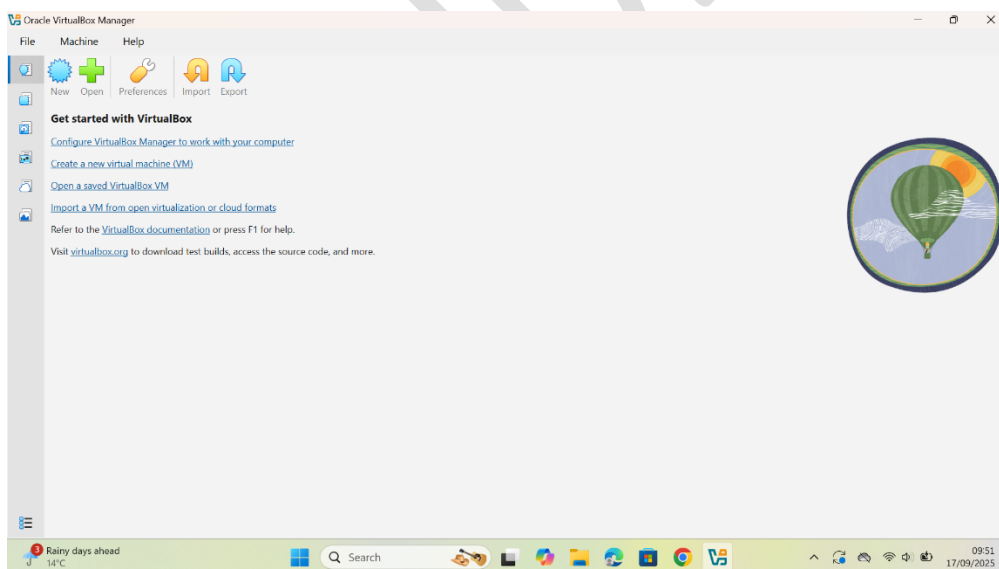
The first step involves installing Virtual Box, where I can mount virtual machines. This is very important because it's what I'll use to host all the machines needed for the lab I'm setting up. The images below explain the process I followed while installing the virtual machine much better.



The above image shows the beginning of installation and from there the next was click in order to proceed to the next steps.

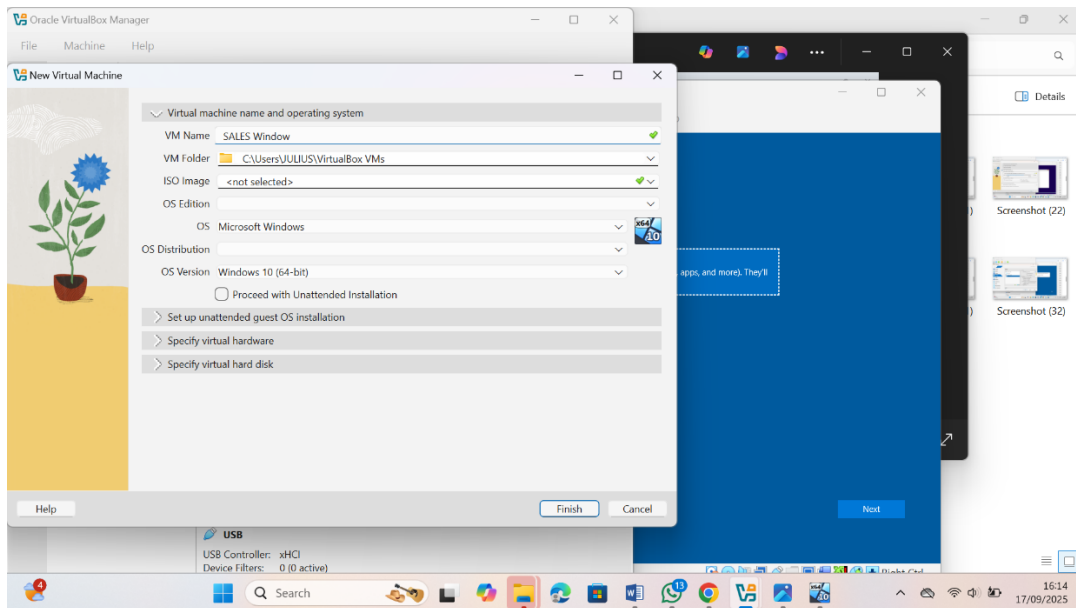


This above image explained the process of how the installed was went before its reach the final stage. And below is how the virtual look like after the installation done.

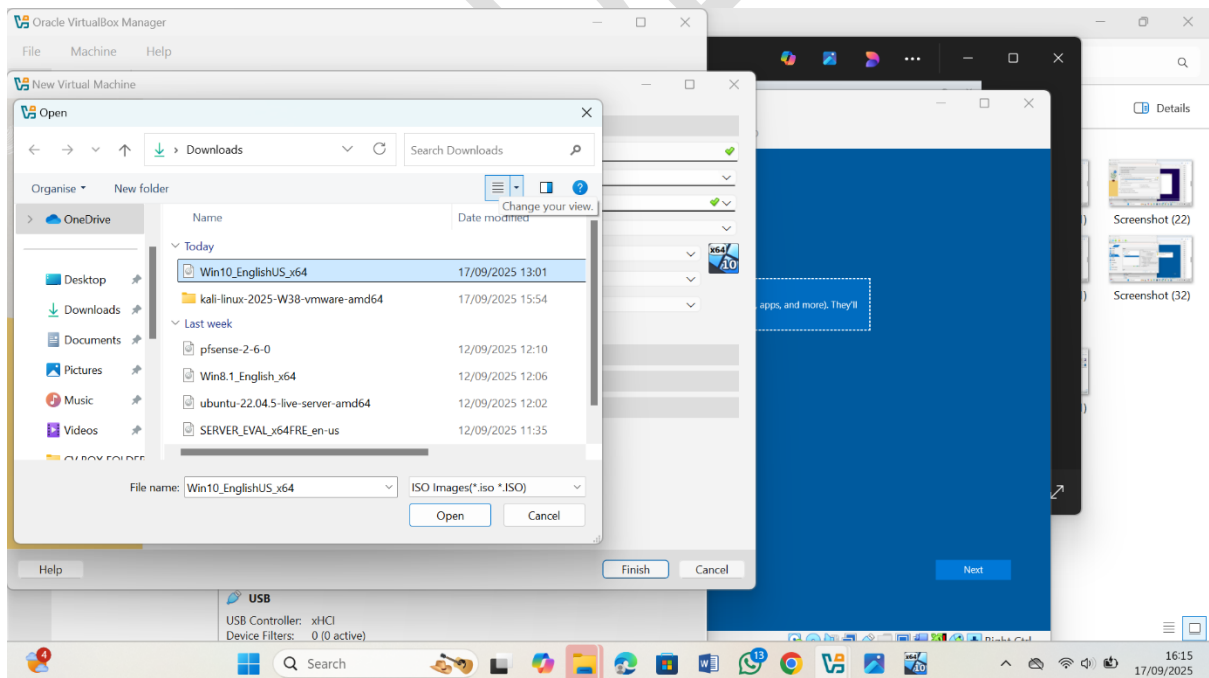


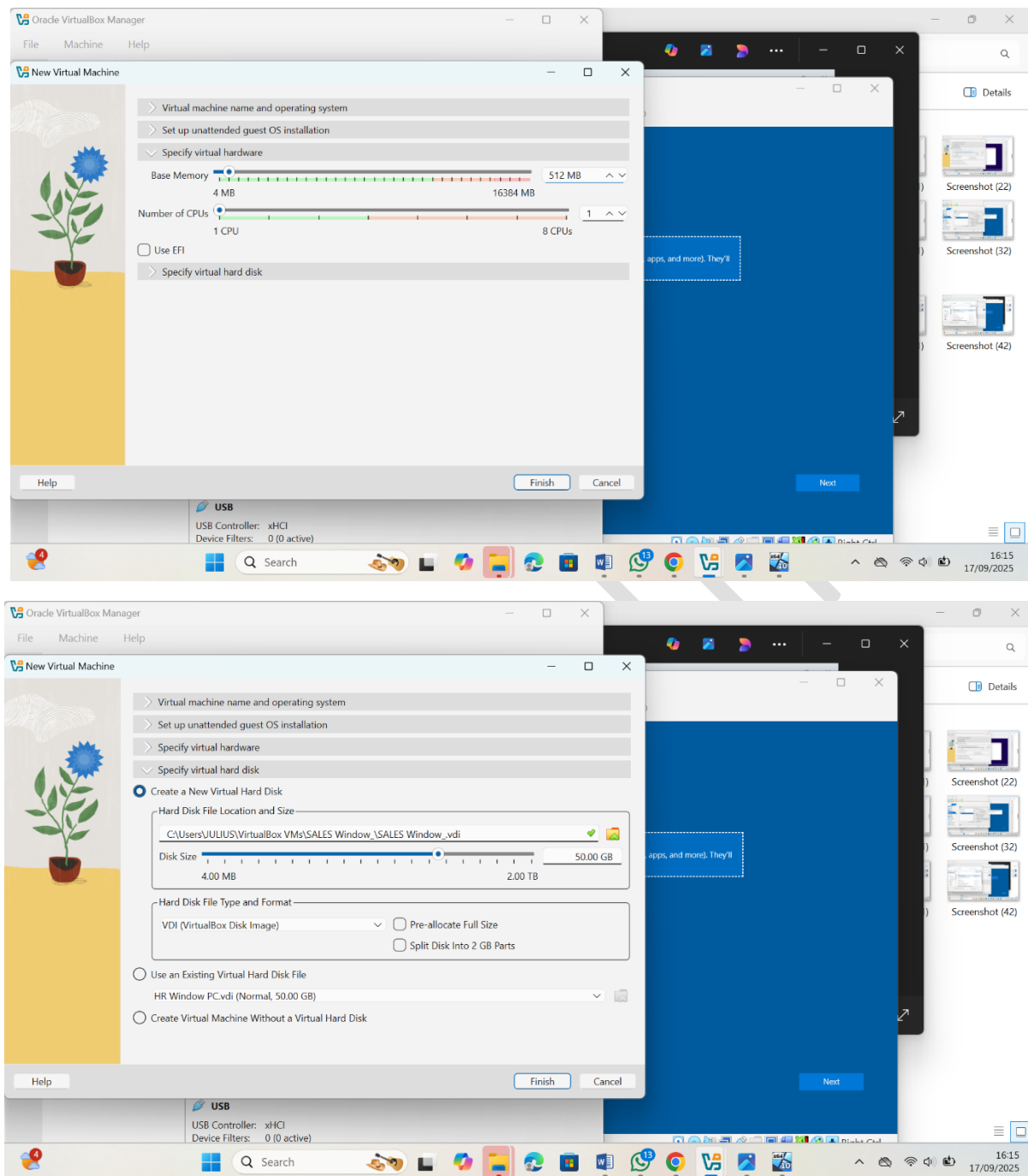
After completing the installation of VirtualBox, the first system I set up was for the Sales department, named "**Sales Windows PC.**" Below is the process I followed to begin the installation.

## Sales Window PC



Next, I selected the ISO image for the installation, and the image below shows proof of how it was selected. Afterward, I unchecked the option for an unattended installation. I then configured the virtual hardware with 512MB of RAM and set the virtual hard disk to 50GB.



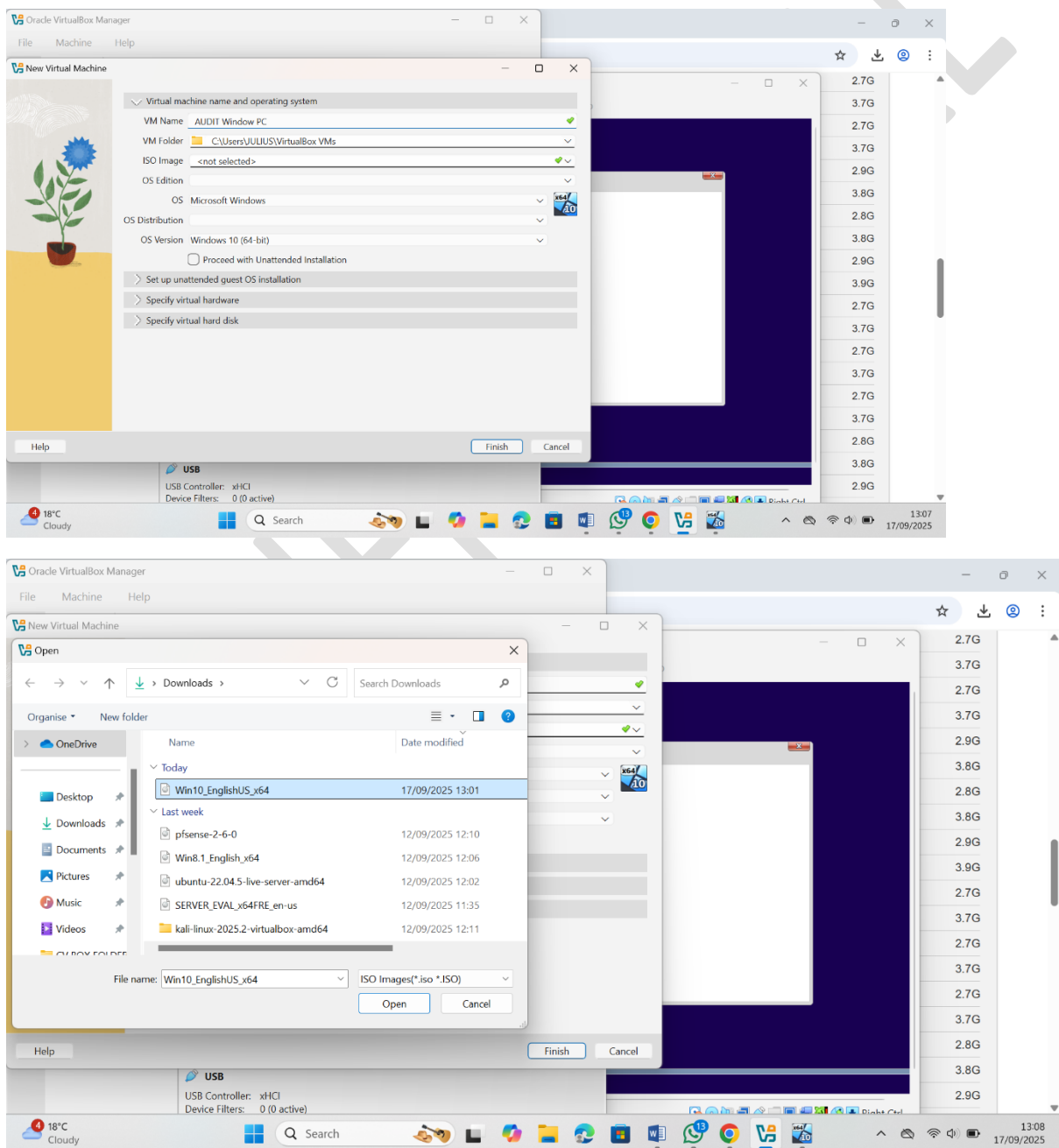


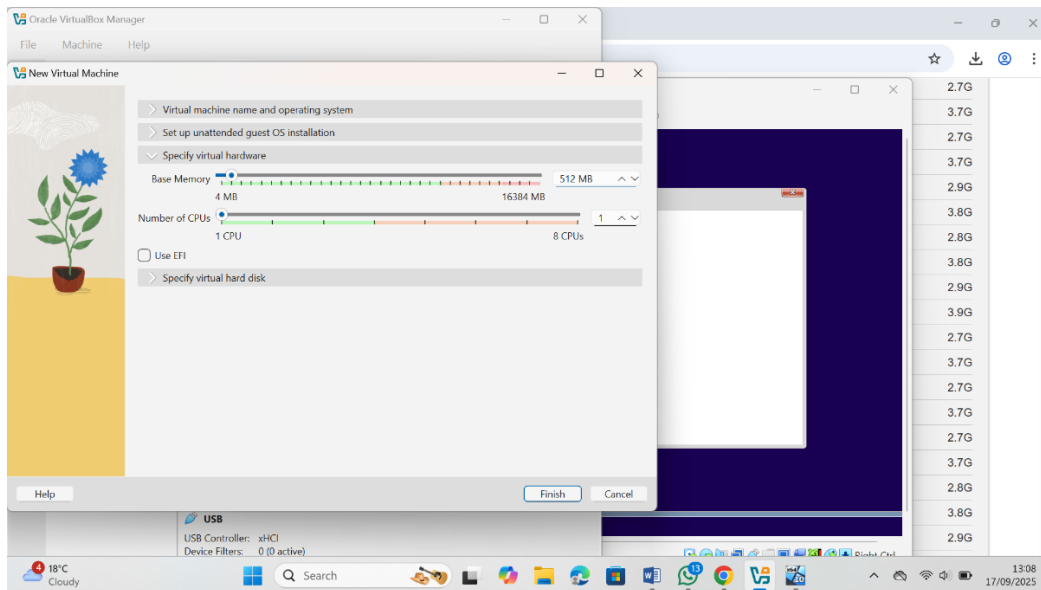
After the steps shown in the image above, I clicked the "Finish" button to complete the installation of the first system, the Sales Windows PC. Next, I proceeded to set up the second system, the Audit system, on VirtualBox. Below is the explanation of how I mounted and completed the installation process for the

### **Audit system.**

1. **Creating the Audit System Virtual Machine:** I opened Virtual Box and selected "New" to create a new virtual machine. I named it "Audit System" and chose the appropriate operating system type and version (e.g., Windows or Linux, depending on the system requirements for the Audit system).

2. **Selecting the ISO Image:** Similar to the Sales Windows PC, I selected the ISO image for the Audit system. I navigated to the storage settings in Virtual Box, attached the ISO file to the virtual optical drive, and verified it was correctly selected.
3. **Configuring Virtual Hardware:** I allocated resources for the Audit system, setting the RAM to 512MB and the virtual hard disk to 50GB, ensuring sufficient space for the system's needs. I also unchecked the "Unattended Installation" option to manually control the setup process.
4. **Completing the Installation:** After configuring the settings, I clicked "Finish" to start the virtual machine. I followed the on-screen prompts for the operating system installation, ensuring all necessary components were installed correctly. Once the installation was complete, the Audit system was fully set up and ready for use.



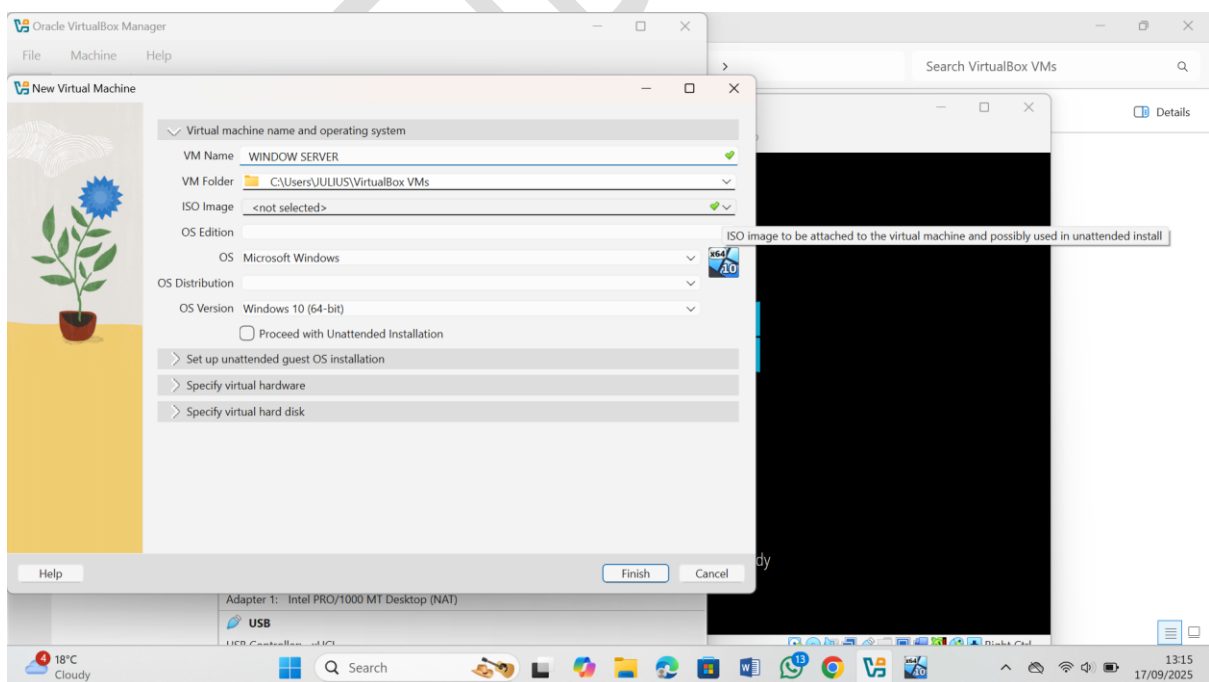


After developing a system for the Sales and Audit departments, I proceeded to set up a server to manage Active Directory for both departments. The installation process is outlined below:

## Server Machine

1. I downloaded Windows Server 2022.
2. I mounted the ISO file onto a virtual machine.

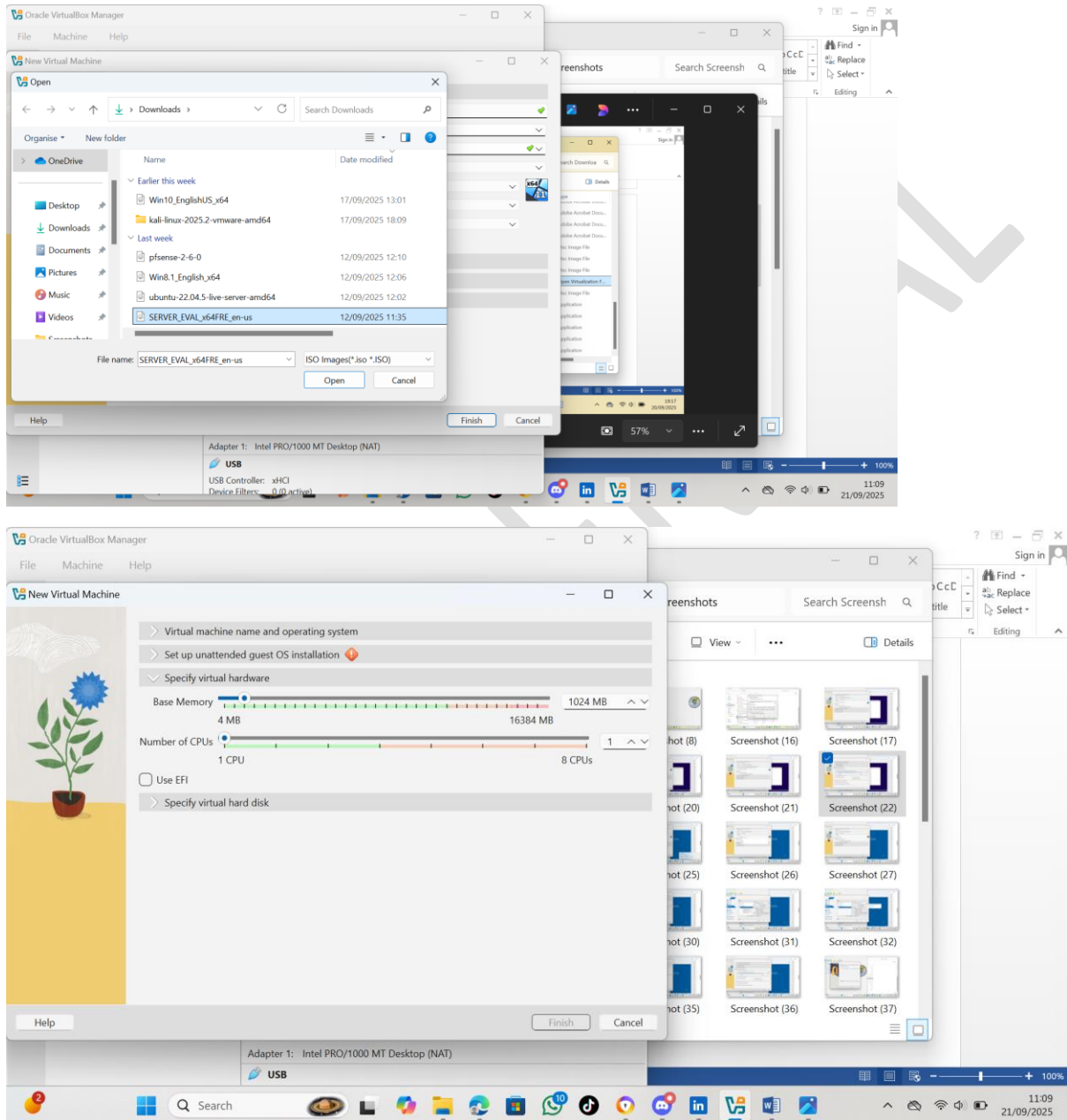
The screenshot provided illustrates the initial stage of the installation process.

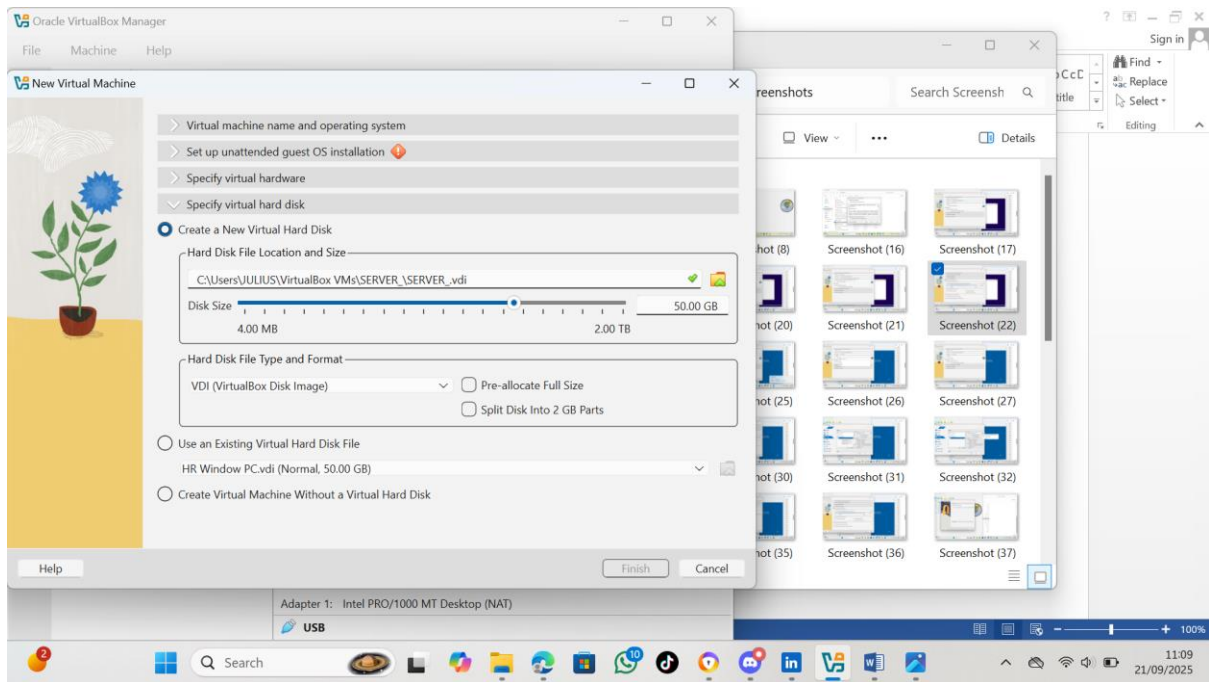


After downloading Windows Server 2022 and mounting it onto a virtual machine, I continued the installation by:

1. Selecting the ISO file from my download folder.
2. Configuring the storage requirements for the server.

The screenshot provided illustrates this stage of the process.





After configuring all necessary installation requirements, I clicked "Finish," and the installation process was successfully completed. Then I proceed to install KALI machine.

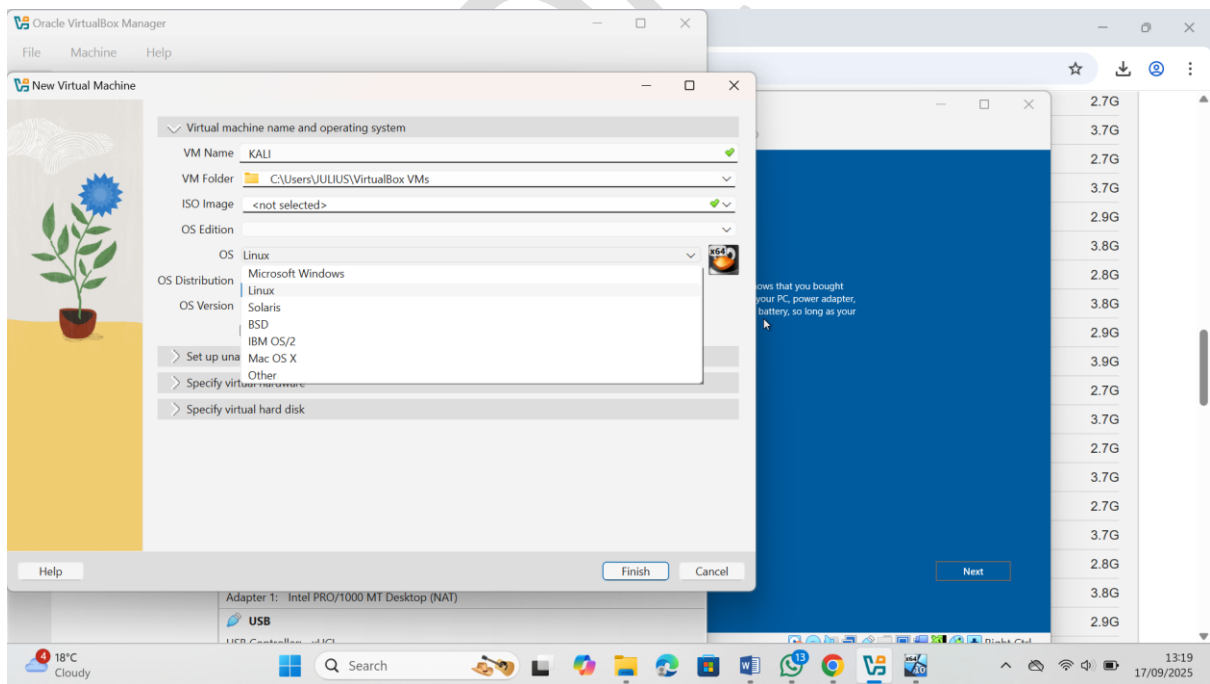
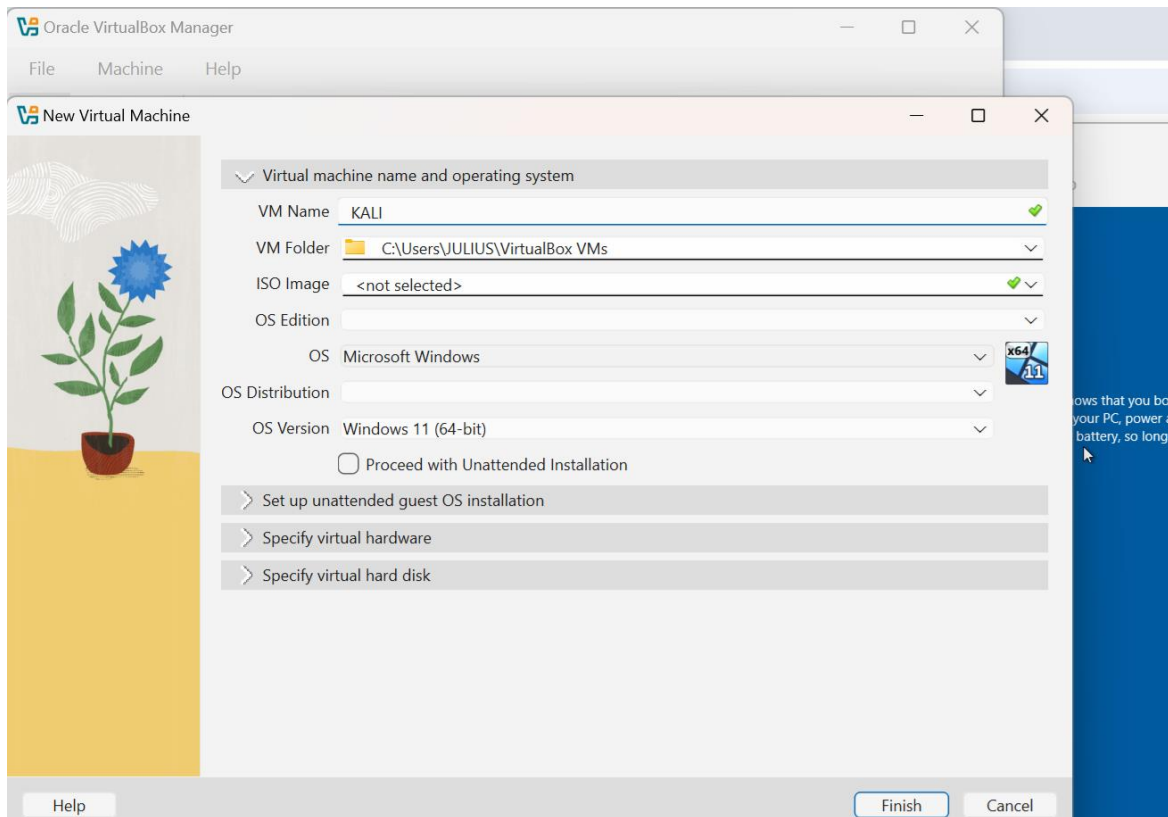
## Kali Machine

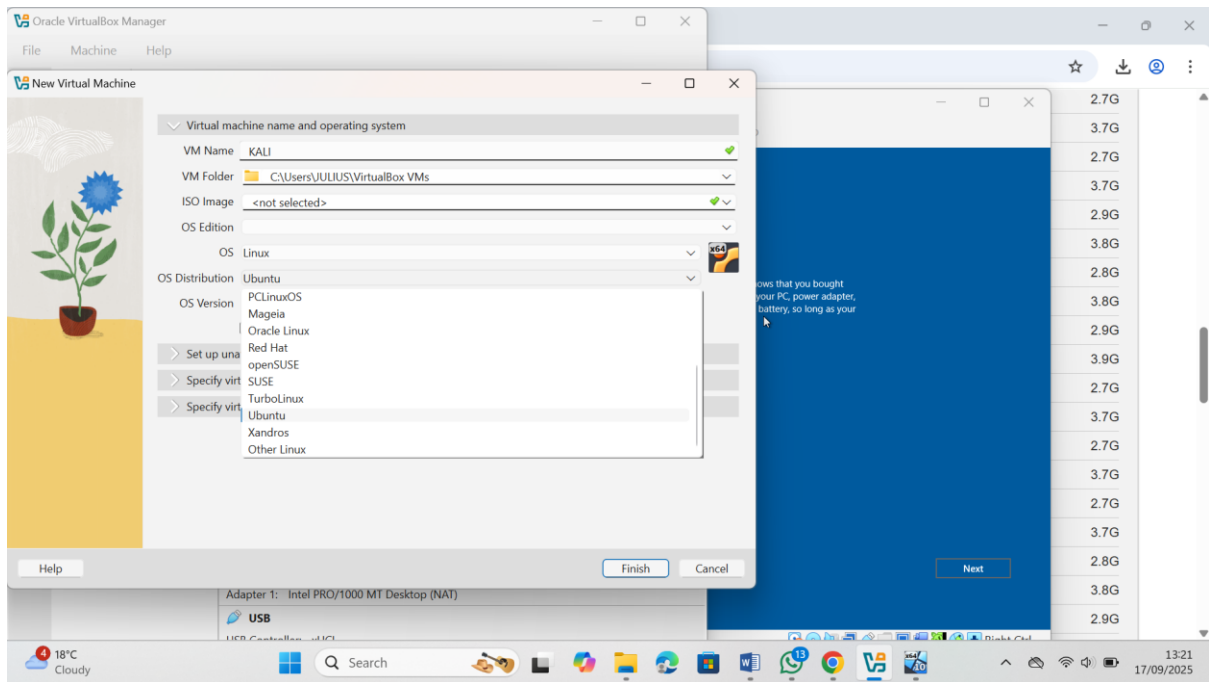
To begin the installation of my Kali machine, I followed these steps:

1. Downloaded the Kali Linux ISO from kali.org.
2. After a successful download, I launched my virtual machine software.
3. Clicked on "New" to create a new virtual machine and named it "Kali Machine."
4. Set the operating system type to "Linux."
5. Changed the OS distribution to "Ubuntu."

The provided screenshot illustrates the steps taken to complete the first phase of the Kali machine setup.







After completing the initial setup for the Kali machine, I proceeded by:

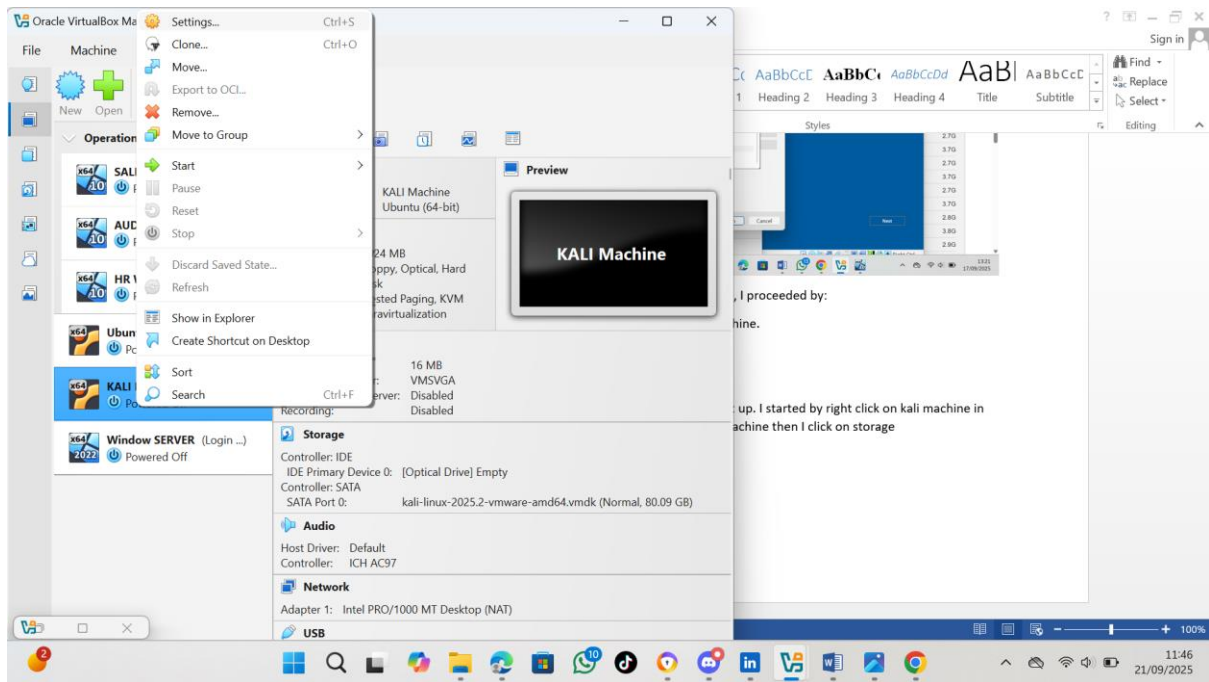
1. Configuring the storage settings for the virtual machine.
2. Clicking "Finish" to complete the setup process.

The installation was then finalized.

After finalizing the initial setup for the Kali machine, I moved on to the stage of attaching the installation setup by:

1. Right-clicking on the "Kali Machine" in the virtual machine software.
2. Navigating to the basic and expert settings of the machine to configure the installation setup.

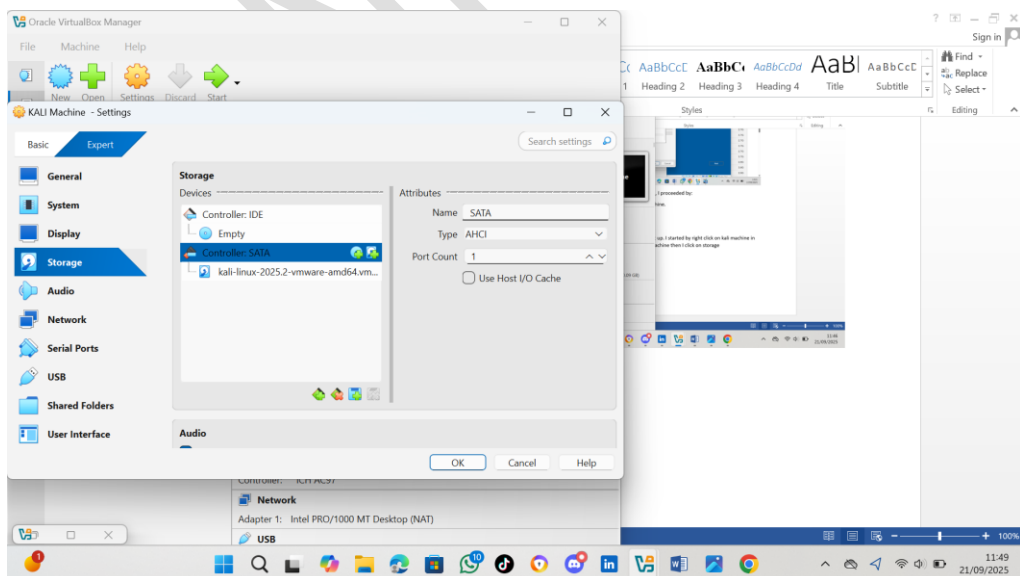
The provided screenshot illustrates this process.

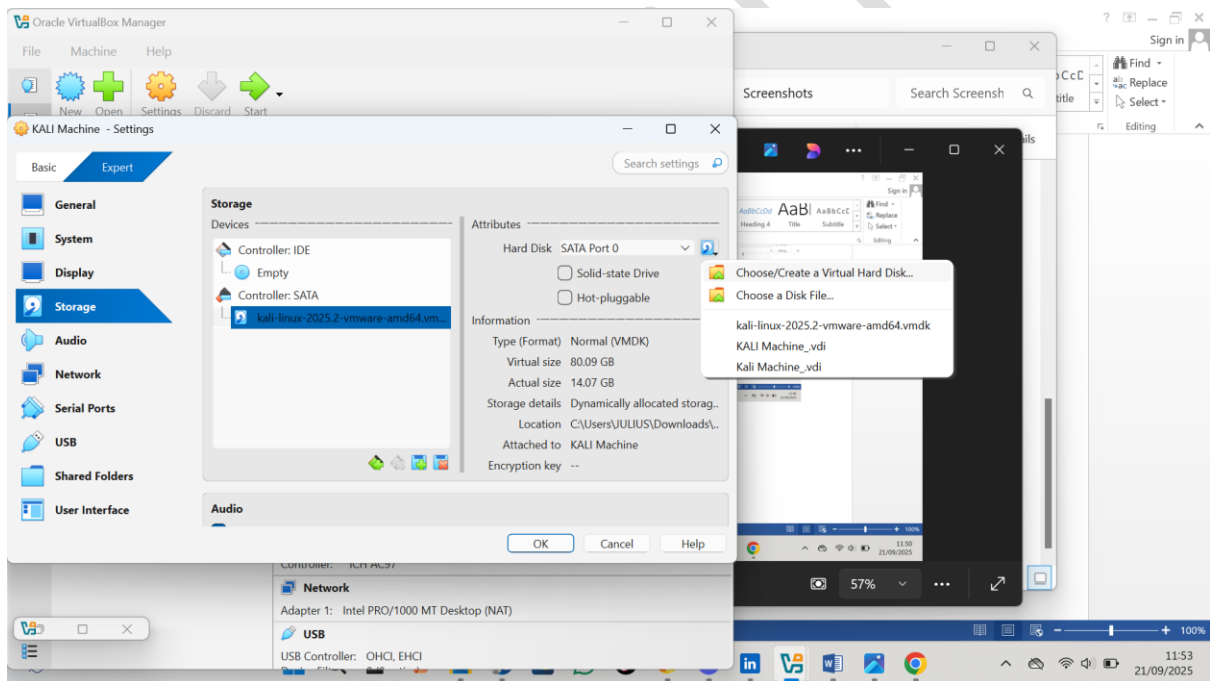
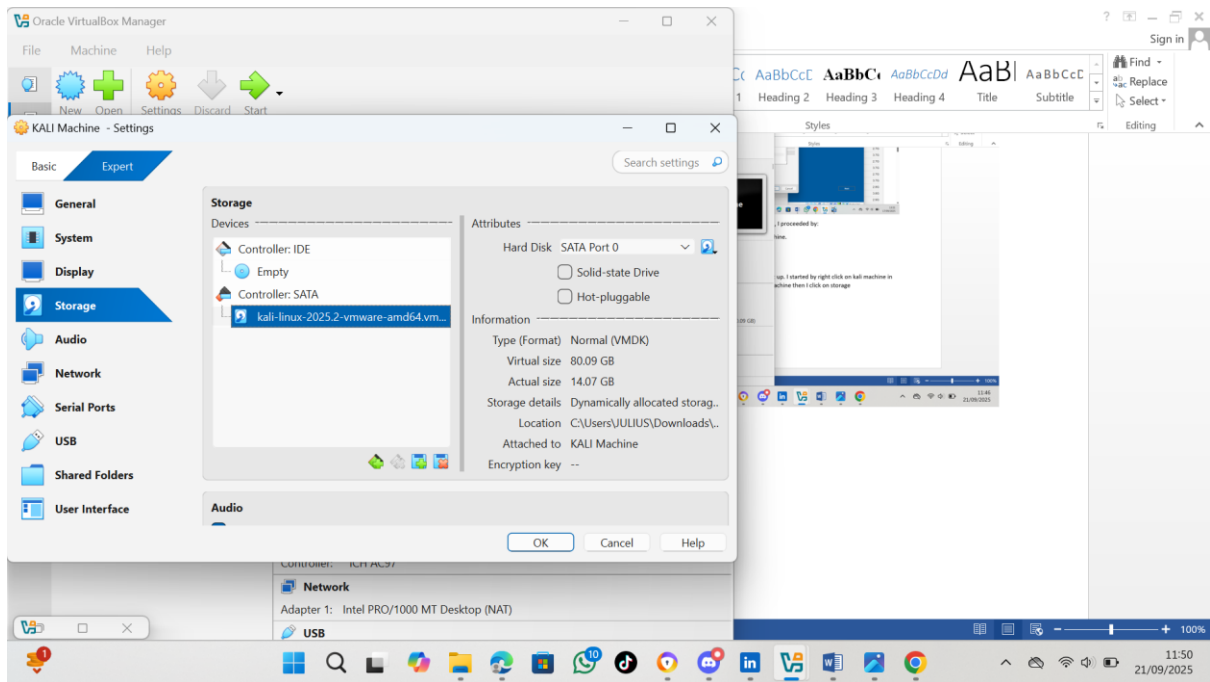


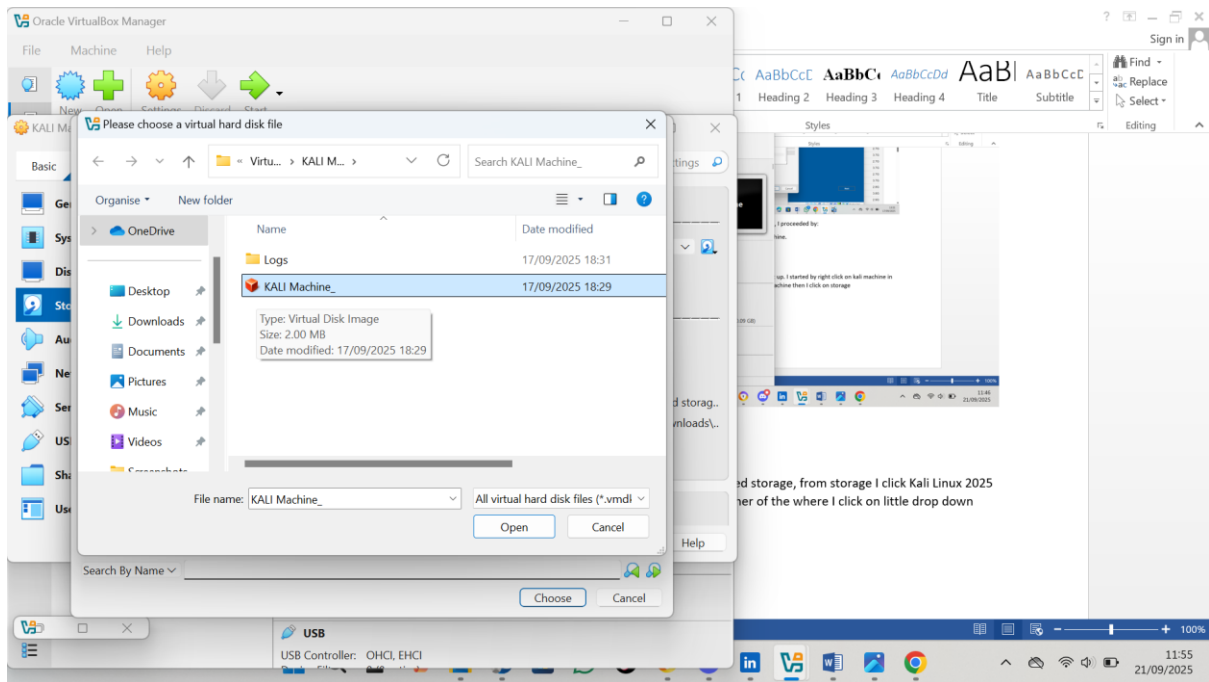
After accessing the settings for the Kali machine, I continued with the following steps to attach the installation setup:

1. Selected the "Storage" option in the settings menu.
2. Under "Controller: SATA," selected the "Kali Linux 2025" entry.
3. Clicked on the small dropdown menu at the right corner of the storage settings.
4. Chose the option to "Choose or Create Virtual Hard Disk."
5. Navigated to the next window, where I clicked "Add new" to attach the downloaded Kali Linux setup.

The provided screenshot illustrates this process.







After selecting the downloaded Kali Linux setup, I proceeded by:

1. Clicking "Open" to attach the setup.
2. Completing the configuration process.

The installation was then successfully completed.