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I confirm that I understand my coursework needs to be submitted online via Google Classroom under the relevant module page before the deadline in order for my assignment to be accepted and marked. I am fully aware that late submissions will be treated as non-submission and a mark of zero will be awarded.

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1. Introduction

The project is about the implementation of virtualization and network management for hosting and accessing a simple website through Windows Server 2022. Hands-on activity utilizes development tools such as Oracle VM VirtualBox, presented in each corresponding step. In this case, a virtual machine running Windows Server 2022 would be set up with a website hosted by it that could be accessed not only from the main computer (host) but also from other devices connected to the same local network. This hands-on activity is intended to give practical experience in setting up servers and managing them in real-world IT environments.

2. Aim of the report

- To exhibit the step-by-step procedure for hosting a static website.
- To explore and document configuring Windows Server 2022 for management and hosting of a static website and then allowing the use of remote desktop features.
- To enhance understanding of virtualized environments

3.Objectives of the report

The primary goal of this report is to install and host static websites on the guest operating system, Windows Server 2022, so that they can be accessed from both the host operating system and other connected devices on the same local area network. Moreover, the workshop configures and enables the remote desktop feature on Windows Server 2022 for access from the host OS.

4. Required tools

The following are the tools that I used to make this report:

- Free-CSS website
Free CSS has 3552 free website templates coded using HTML & CSS in its gallery. The HTML website templates that are showcased on Free CSS.com are the best that can be found in and around the net. (Contact-Us, n.d.)

- Oracle VirtualBox (Virtual Machine)

Oracle VM VirtualBox can display virtual machines remotely, meaning that a virtual machine can execute on one computer even though the virtual machine will be displayed on a second computer. The virtual machine can be controlled from the second computer, as if the virtual machine was running on that computer.

- Microsoft word

Microsoft Word enables us to create professional-quality reports, documents, resumes, and letters. Unlike a plain text editor, Microsoft Word has highlights including grammar check, spell check, image support, text and font formatting, advanced page layout, HTML support, and more

5. Steps in Detail

5.1. Configuring Adapter 1 as a Bridged Network Adapter.

The process begins by opening the VirtualBox and choosing the virtual machine with which you want to work. Once you have made your selection, click on the "Settings" button below to open the configuration options.

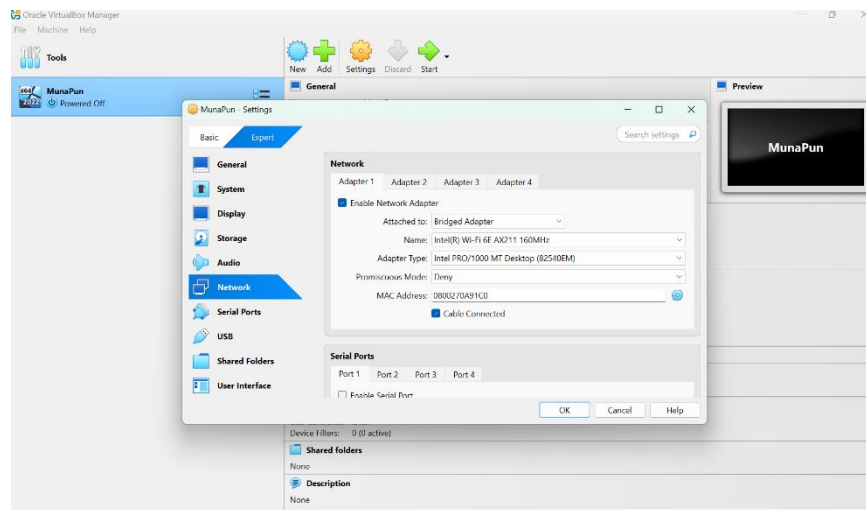


Figure 1: Configuring bridged adapter

And then, we should open IIS manager and then continue our process

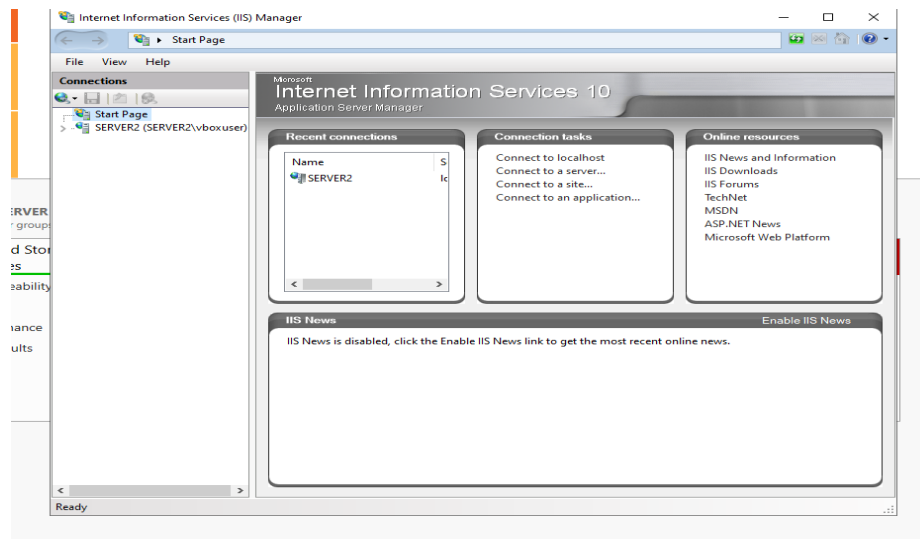


Figure 2: Opening the IIS manager

5.2. Setting up a website.

Here we should set up a website by clicking the right side on the sites.

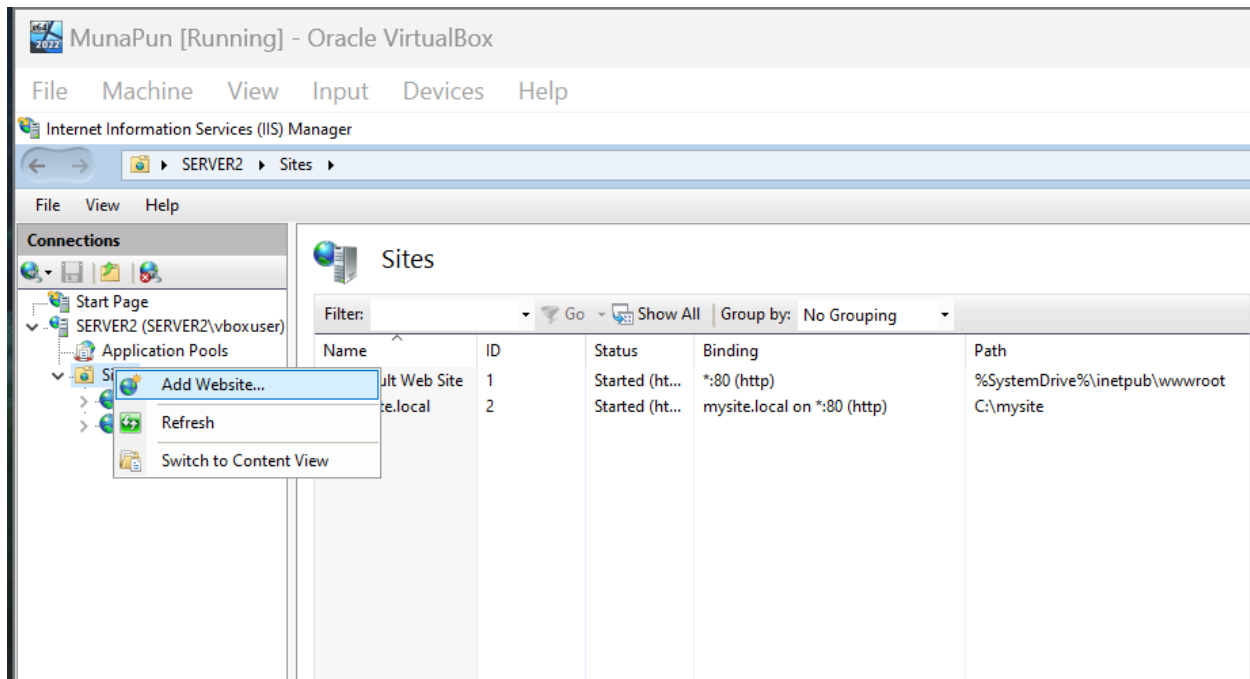


Figure 3: Adding a website

5.3. Filling up website details

here, we should fill up the website details and linking an IP address to the website.

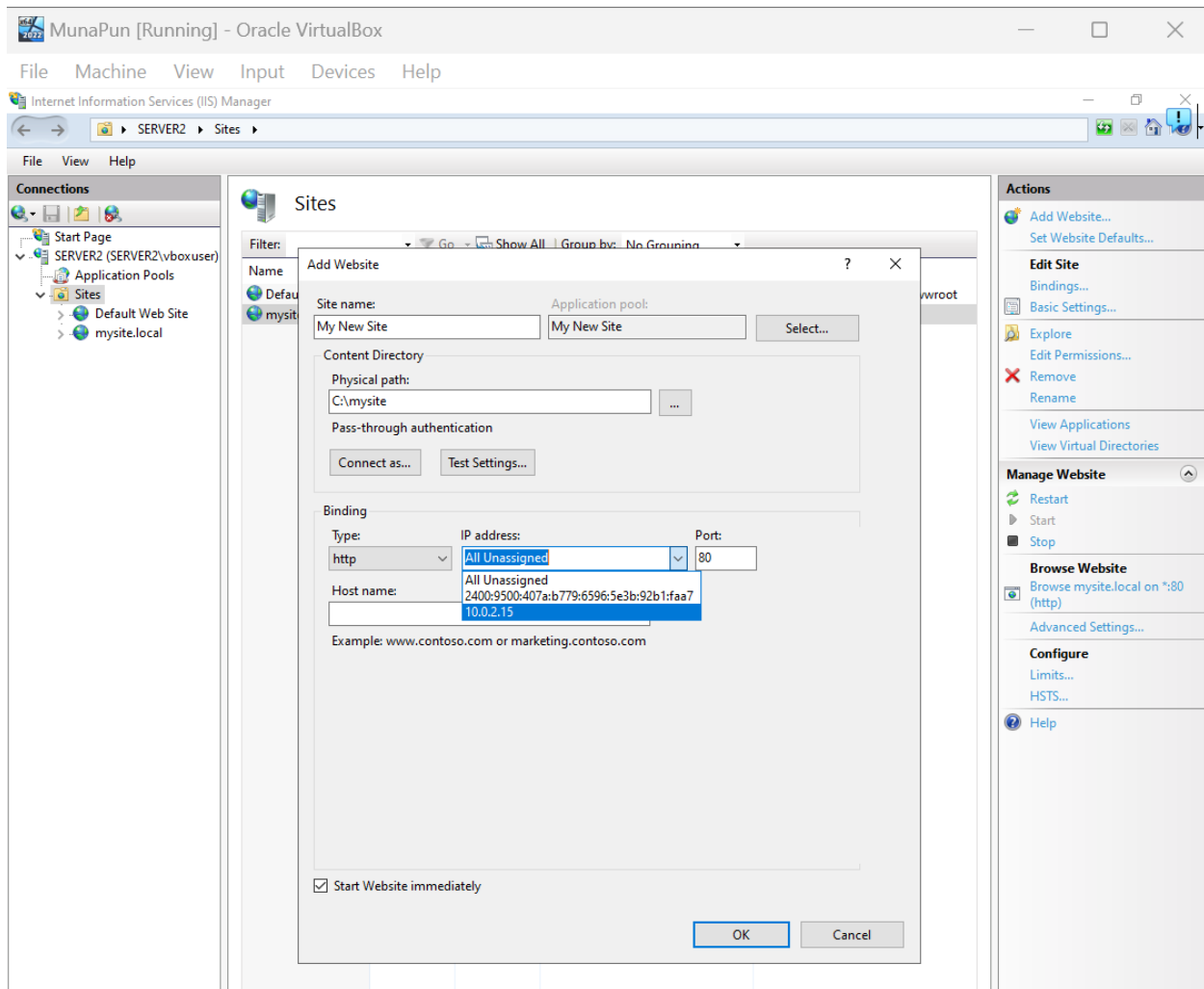


Figure 4: Filling a website detail

5.4. Website Added Successfully

After adding the whole details of website, the website should add successfully.

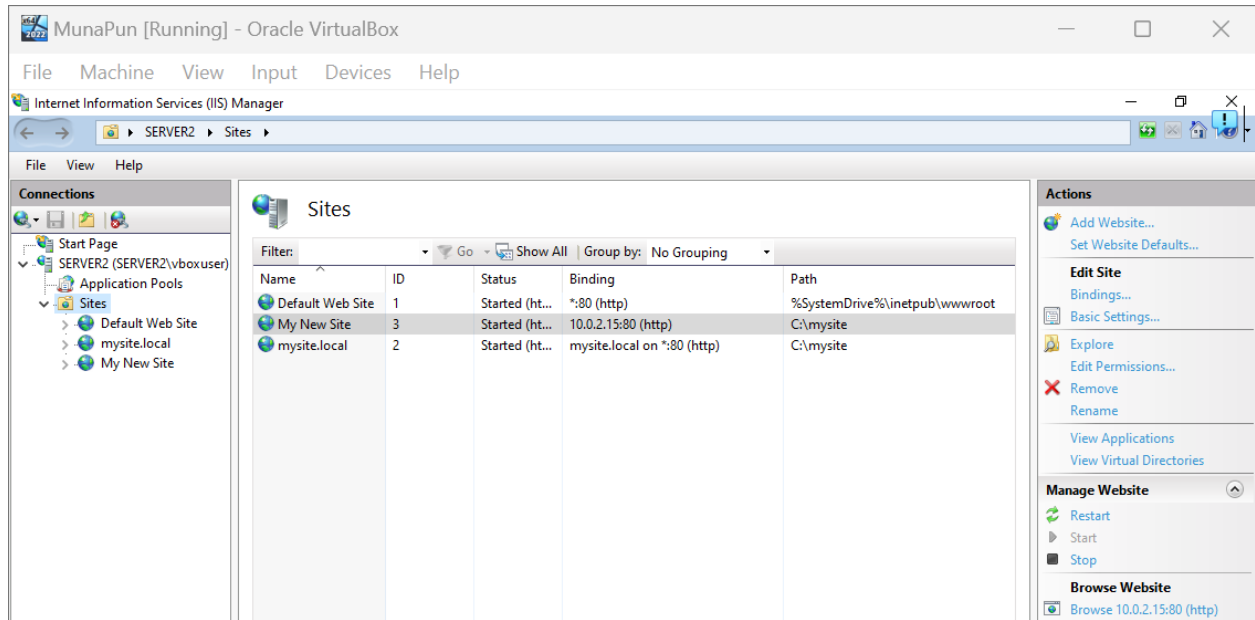


Figure 5: Website added successfully

5.5. Accessing the live website on the Guest OS.

In this step, we should browse the website after add the website successfully. The website is now live and accessible from the Guest OS.

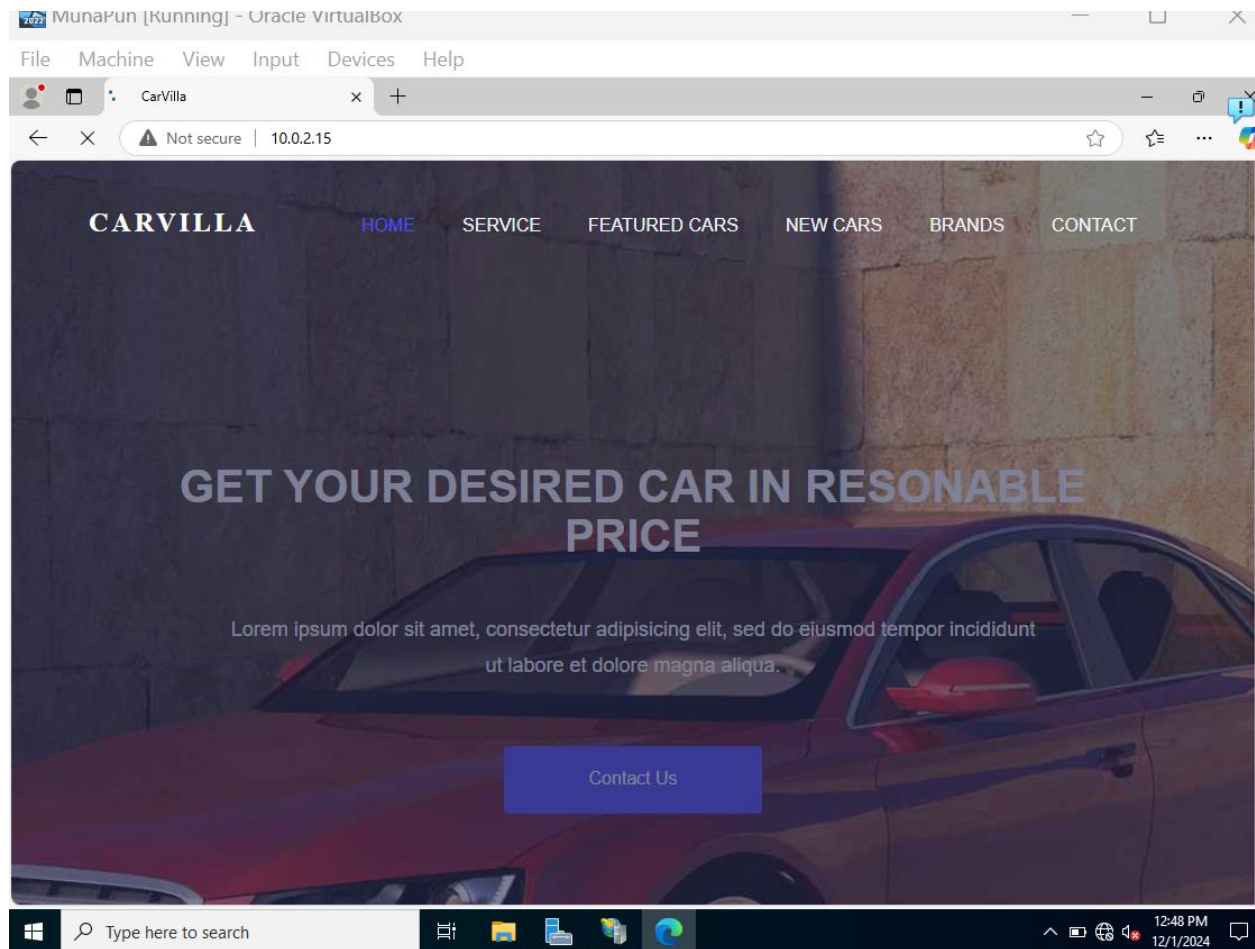


Figure 6: Website browsed on Guest OS

5.6. Confirmation of version of virtual box

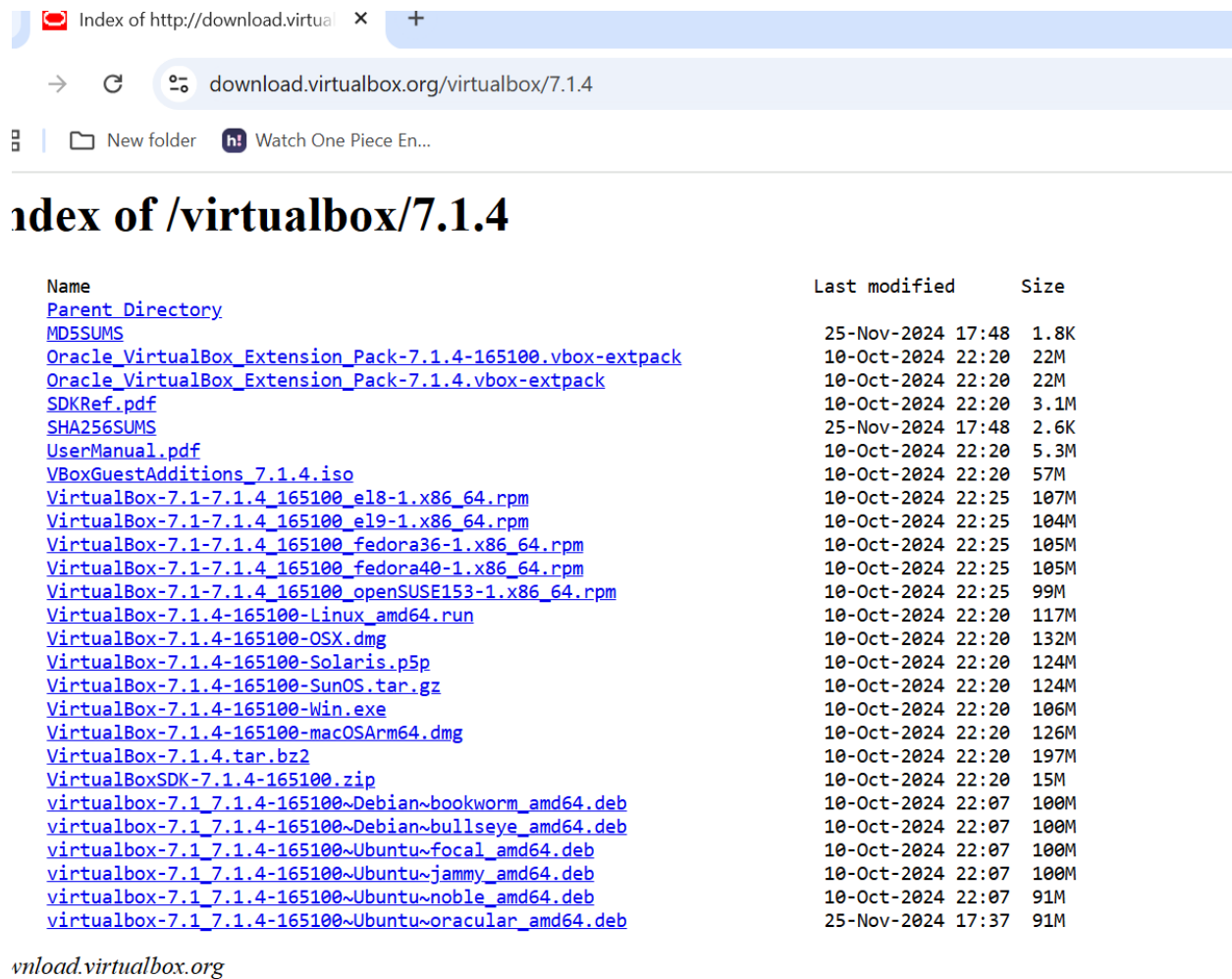
After checking my version of virtual box, in my case my version is 7.1.4.



Figure 7: version of virtual box

5.7. Downloading the extension pack

After confirming the version, we should download the extension pack



Index of <http://download.virtualbox.org/virtualbox/7.1.4>

→ ↻ ↺ download.virtualbox.org/virtualbox/7.1.4

📁 New folder 📄 Watch One Piece En...

Index of /virtualbox/7.1.4

Name	Last modified	Size
Parent Directory		
MD5SUMS	25-Nov-2024 17:48	1.8K
Oracle_VirtualBox_Extension_Pack-7.1.4-165100.vbox-extpack	10-Oct-2024 22:20	22M
Oracle_VirtualBox_Extension_Pack-7.1.4.vbox-extpack	10-Oct-2024 22:20	22M
SDKRef.pdf	10-Oct-2024 22:20	3.1M
SHA256SUMS	25-Nov-2024 17:48	2.6K
UserManual.pdf	10-Oct-2024 22:20	5.3M
VBoxGuestAdditions_7.1.4.iso	10-Oct-2024 22:20	57M
VirtualBox-7.1-7.1.4_165100_el8-1.x86_64.rpm	10-Oct-2024 22:25	107M
VirtualBox-7.1-7.1.4_165100_el9-1.x86_64.rpm	10-Oct-2024 22:25	104M
VirtualBox-7.1-7.1.4_165100_fedora36-1.x86_64.rpm	10-Oct-2024 22:25	105M
VirtualBox-7.1-7.1.4_165100_fedora40-1.x86_64.rpm	10-Oct-2024 22:25	105M
VirtualBox-7.1-7.1.4_165100_openSUSE153-1.x86_64.rpm	10-Oct-2024 22:25	99M
VirtualBox-7.1.4-165100-Linux_amd64.run	10-Oct-2024 22:20	117M
VirtualBox-7.1.4-165100-OSX.dmg	10-Oct-2024 22:20	132M
VirtualBox-7.1.4-165100-Solaris.p5p	10-Oct-2024 22:20	124M
VirtualBox-7.1.4-165100-SunOS.tar.gz	10-Oct-2024 22:20	124M
VirtualBox-7.1.4-165100-Win.exe	10-Oct-2024 22:20	106M
VirtualBox-7.1.4-165100-macOSArm64.dmg	10-Oct-2024 22:20	126M
VirtualBox-7.1.4.tar.bz2	10-Oct-2024 22:20	197M
VirtualBoxSDK-7.1.4-165100.zip	10-Oct-2024 22:20	15M
virtualbox-7.1_7.1.4-165100~Debian~bookworm_amd64.deb	10-Oct-2024 22:07	100M
virtualbox-7.1_7.1.4-165100~Debian~bullseye_amd64.deb	10-Oct-2024 22:07	100M
virtualbox-7.1_7.1.4-165100~Ubuntu~focal_amd64.deb	10-Oct-2024 22:07	100M
virtualbox-7.1_7.1.4-165100~Ubuntu~jammy_amd64.deb	10-Oct-2024 22:07	100M
virtualbox-7.1_7.1.4-165100~Ubuntu~noble_amd64.deb	10-Oct-2024 22:07	91M
virtualbox-7.1_7.1.4-165100~Ubuntu~oracular_amd64.deb	25-Nov-2024 17:37	91M

download.virtualbox.org

Figure 8: extension pack of our version

After download the extension pack we should run virtual box as administration

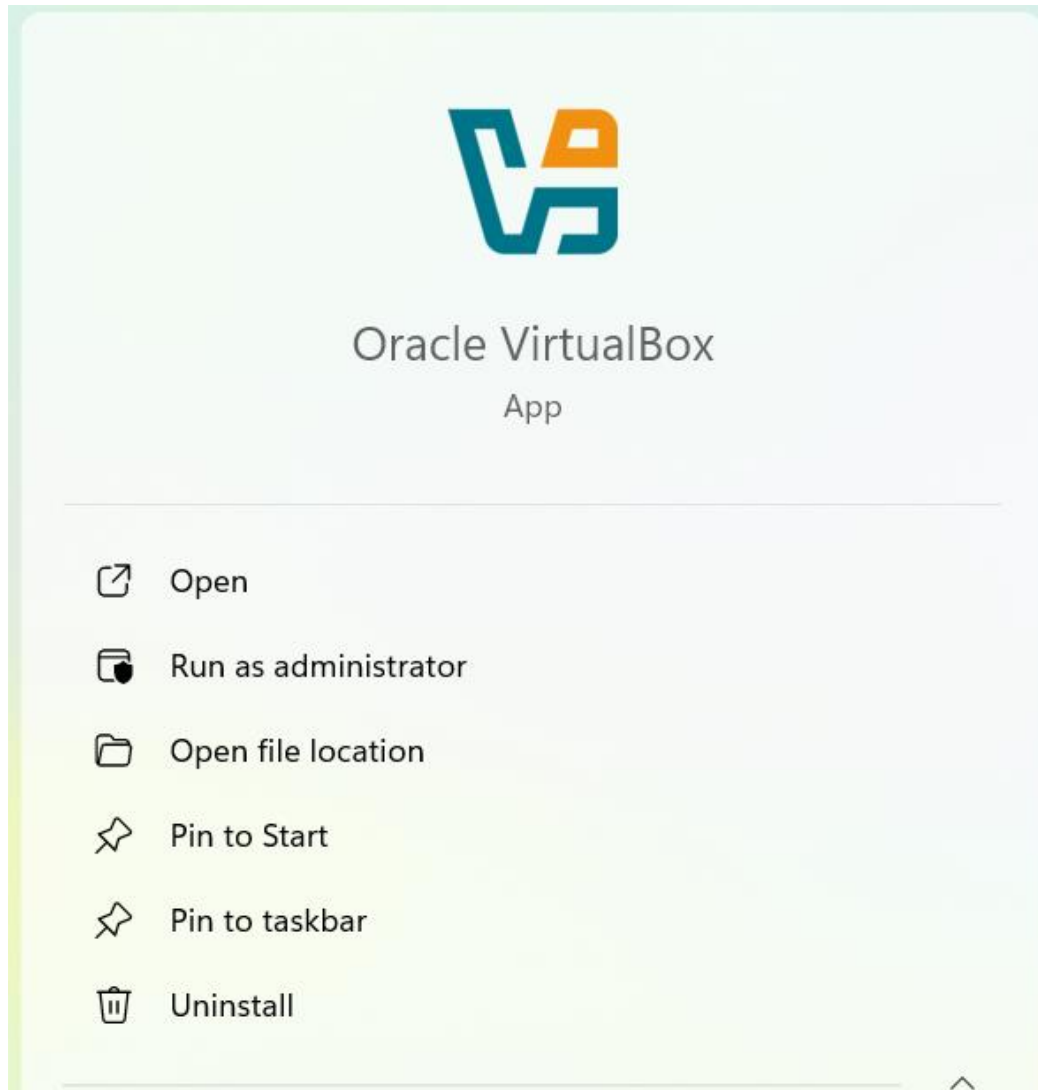


Figure 9:Running as administration

5.8. Adding an extension pack

In this step we gonna add an extension pack by going on tools and clicking on the side button and clicking the extensions

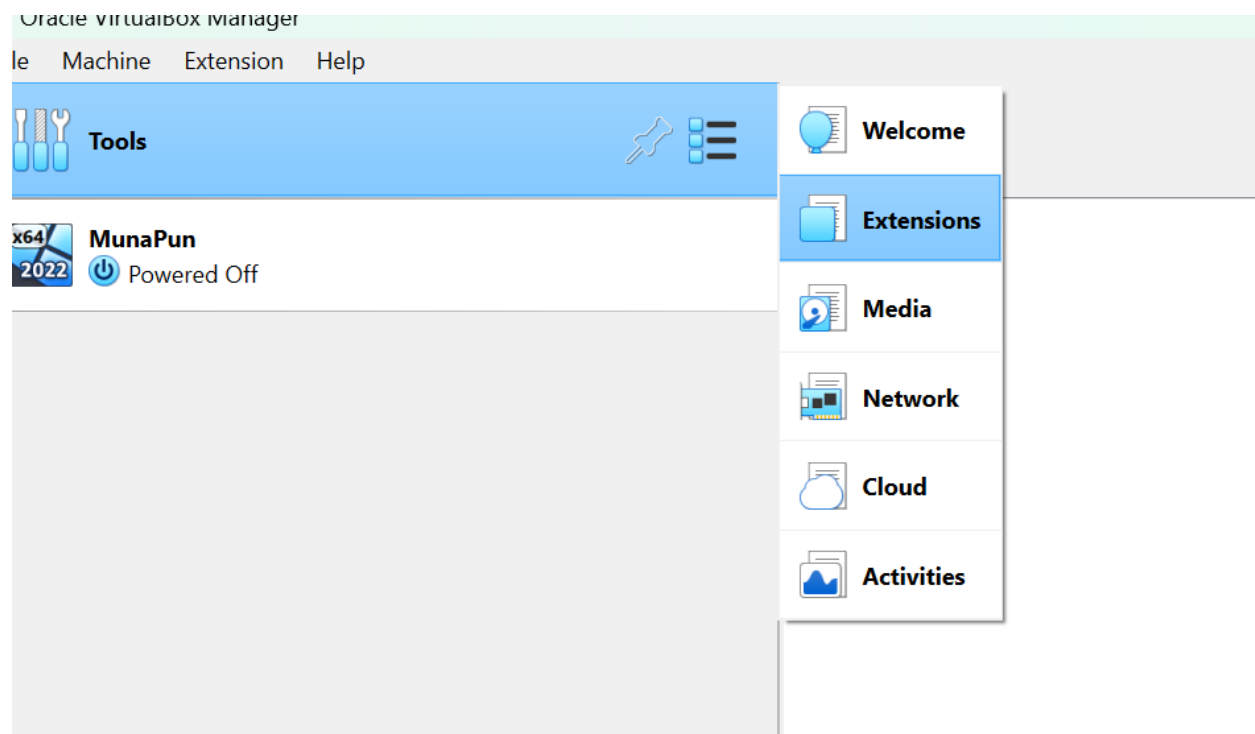


Figure 10: Finding the extension on tools

After this, the downloaded file will be load and we have to choose the extension pack of this version and press on open then it will tell the further process.

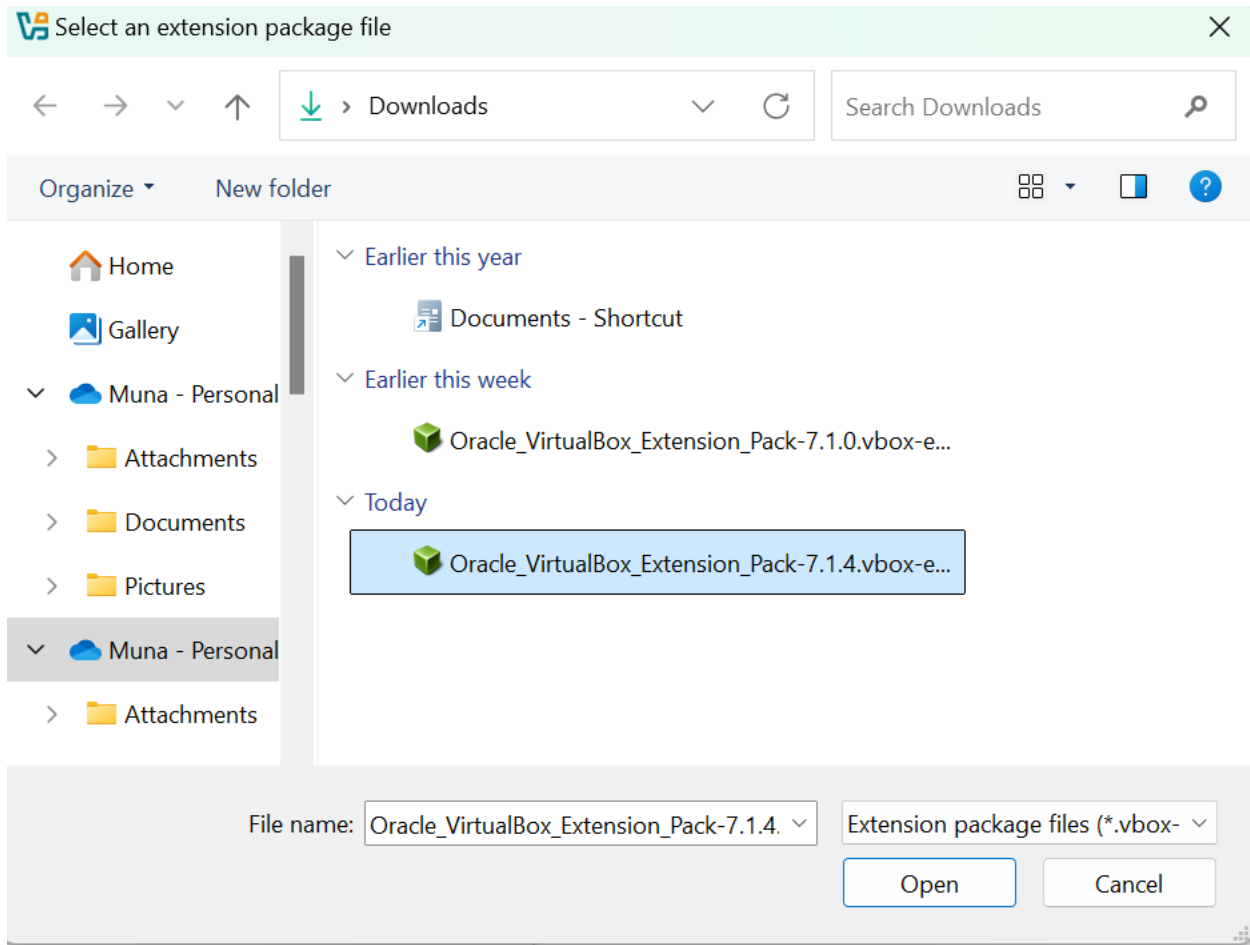


Figure 11:Downloaded extension pack

5.9. Installation of extension pack

Here, after opening the extension pack we have to install the extension pack to go further.

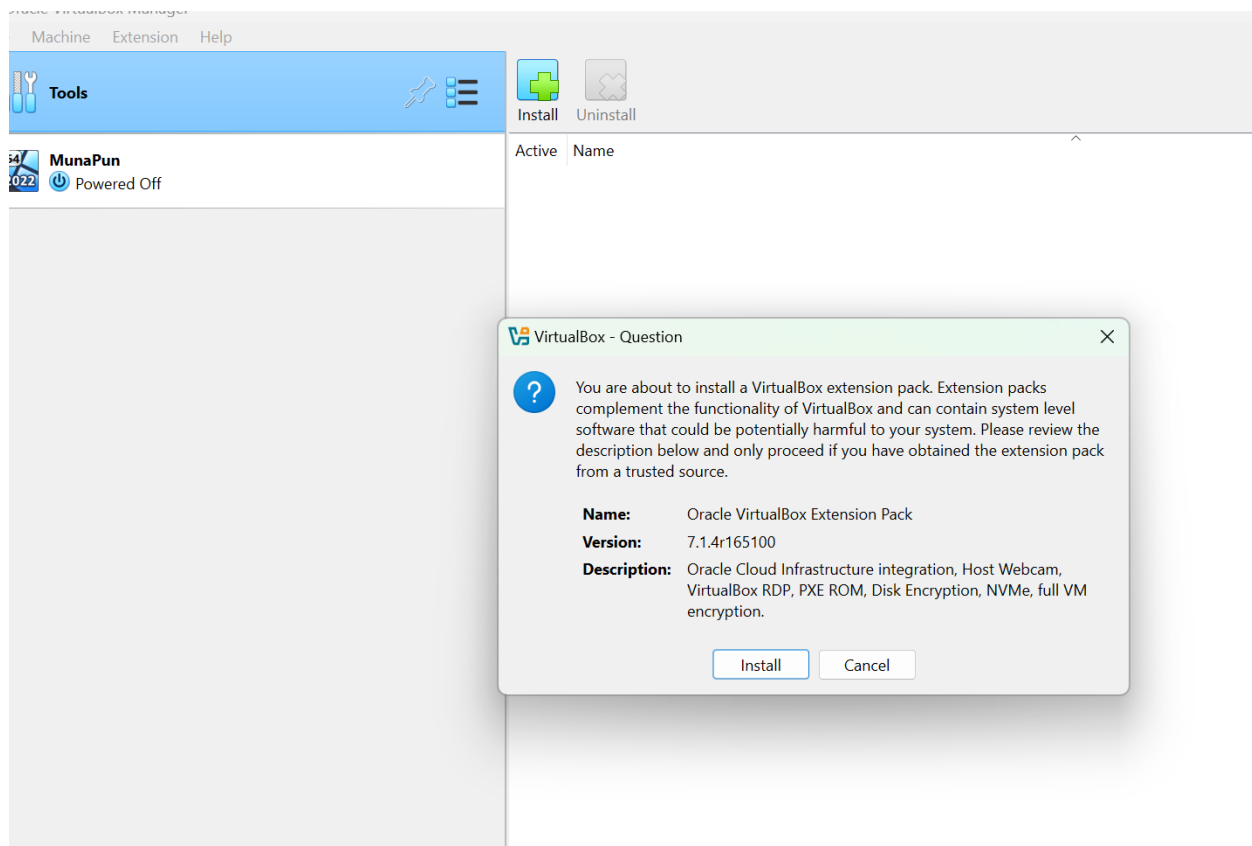


Figure 12: Installation of extension pack

5.10. Activating remote display.

Go to server settings and open display section and enable the remote display option.

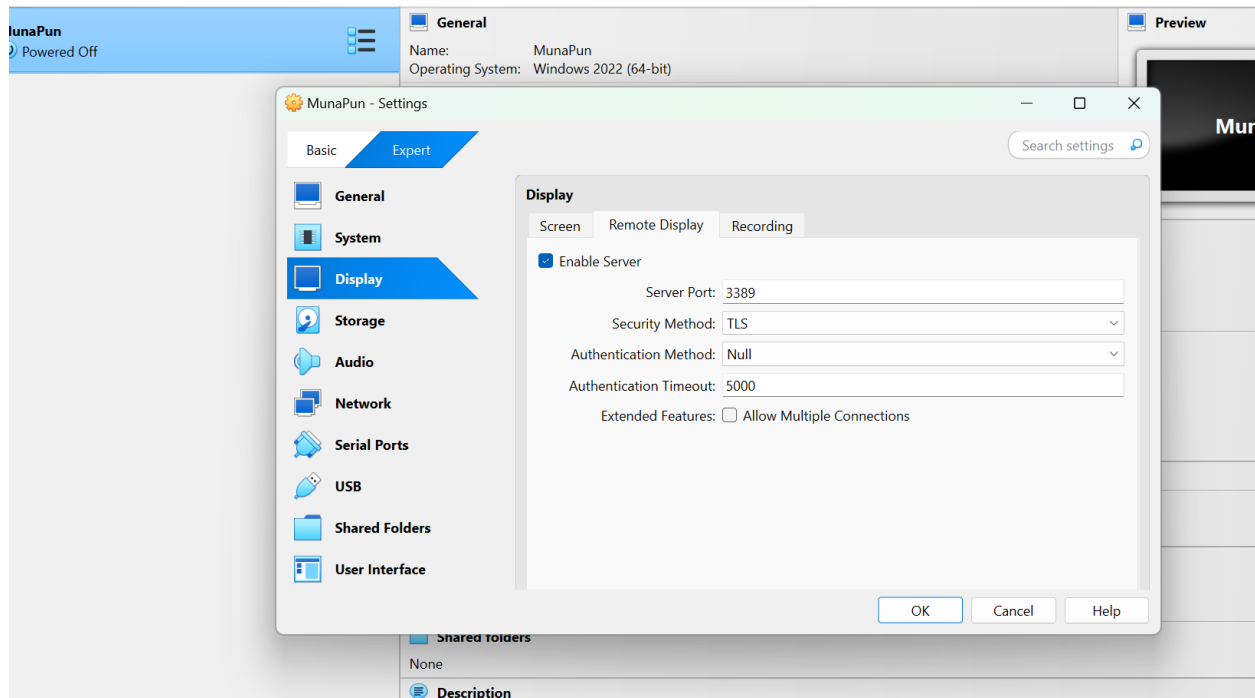


Figure 13: Activating remote display

5.11 IP configuration

Open CMD of virtualized server as admin and config the IP to assure the ip address of the computer.

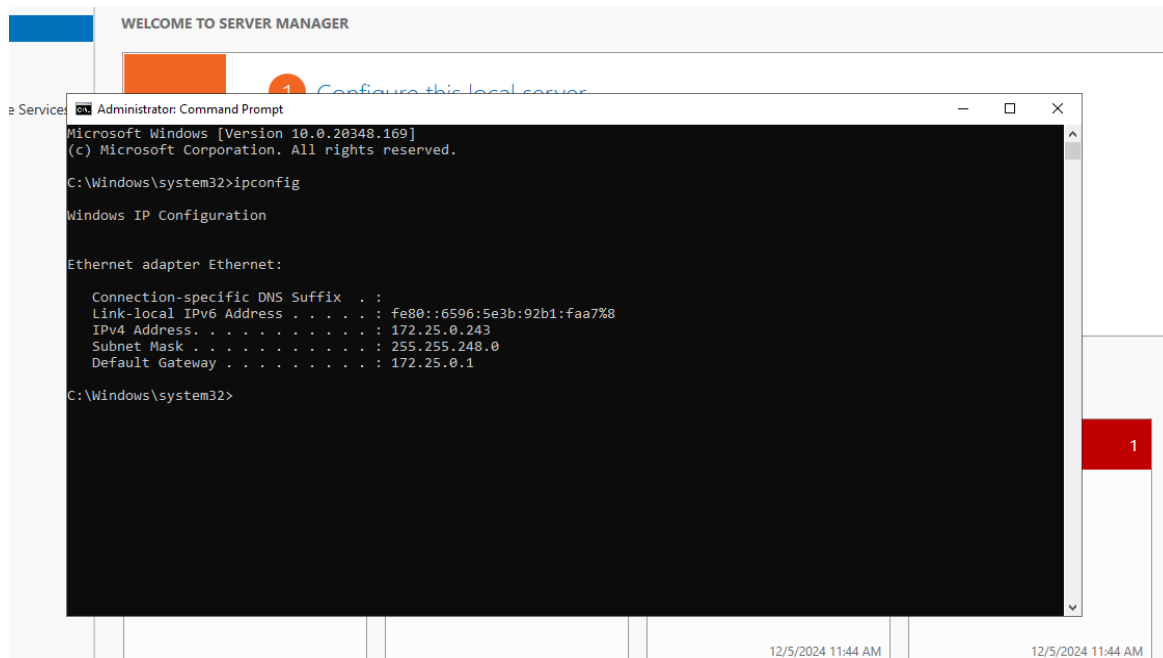


Figure 14: IP configuration

5.12 Connecting computer using remote desktop connection of host OS

Open remote desktop connection software in Host OS and enter the IP address of the Computer of Guest OS and click the connect button.

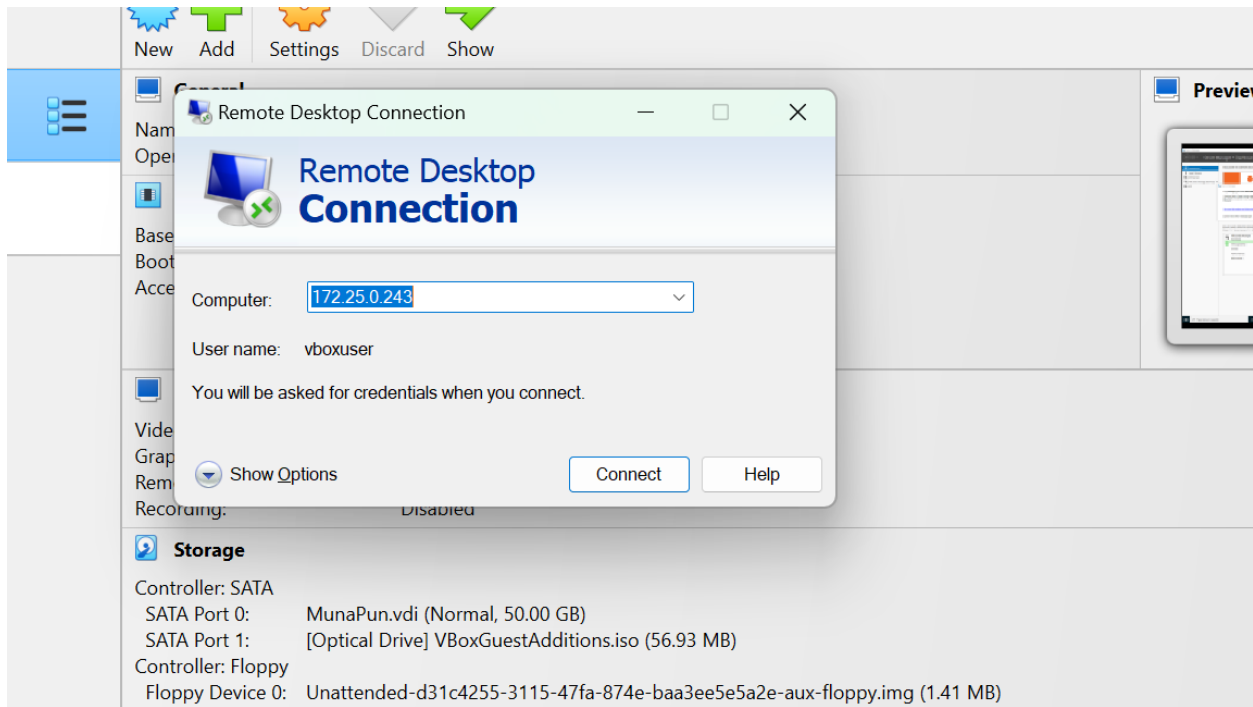


Figure 15: Connecting computer using remote desktop connection of host os

Then, Click button yes to confirm the process.

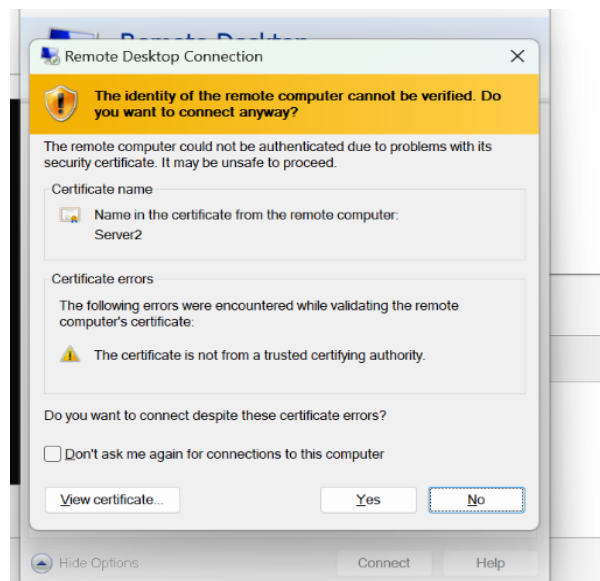


Figure 16: confirmation of remote connection

5.13 Computer connected successfully.

Now, the computer is successfully connected using the remote desktop connection of Host OS.

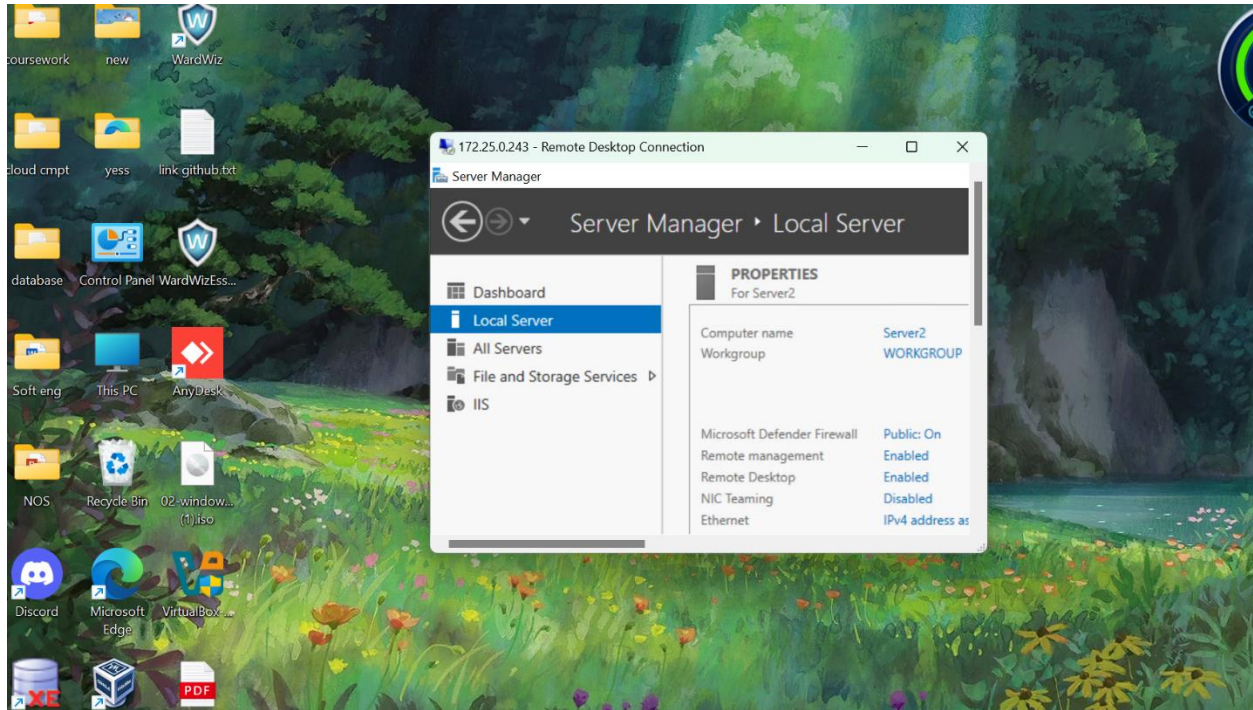


Figure 17: Computer connected successfully

6. Conclusion

This report provides a walk-through on hosting a static website on Windows Server 2022 and configuring remote desktop access. After following the given instructions, I was able to successfully configure a virtual environment by using Oracle VirtualBox and made it accessible to both the host operating system and other devices within the network.

This project has helped me to get hands-on experience with some critical things: hosting a website through IIS, setting up network adapters, and enabling remote desktop connections. More importantly, this project has illustrated that smooth execution can always be achieved when the proper steps are followed with a rudimentary knowledge of networking. It was basically a great exercise to understand how server handling and issues related to them can be managed in a virtual environment.

7.References

Contact-Us. (n.d.). Retrieved from Free-css: <https://www.free-css.com/contact-us>