



Module Code & Module Title

Level 5 – CT5052 Network Operating System

Assessment Type

Logbook -5

Semester

2023/24 Spring/Autumn

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Assignment Due Date: 7 December 2024

Assignment Submission Date: 2024

Submitted To: Prashant Adhikari

Word Count (Where Required): 1405

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

An operating system, which is created to help many organizations and large businesses for handling their servers and computer system. It was designed by Microsoft in 2021 in order to provide safe, healthier and better accessible work.

Key Highlights:

- i. Bigger Security: It helps to provide advanced security devices to protect important documents.
- ii. Works with Cloud: Simply links to Azure, which is a cloud service provided by Microsoft.
- iii. Rapid Performance: It helps to quickly and effectively maintains high workloads.
- iv. Modern Applications: Recent developments such as Kubernetes and containers are being utilized by today's applications.

In addition, with Windows Server 2022, Microsoft has consolidated its status in the world of cloud service providers by completing head to head with the Amazon Web Services cloud (AWS cloud) (Dauti, Sep 16, 2022). Security features have been improved upon to offer better encryption support for Server Message Block (SMB). (Perrott, Mar 29, 2022)

2. Windows Server 2022 to host our static website

Step 1: Select the virtual environment after entering virtual box. When the virtual environment is selected, choose the “Setting” choice.

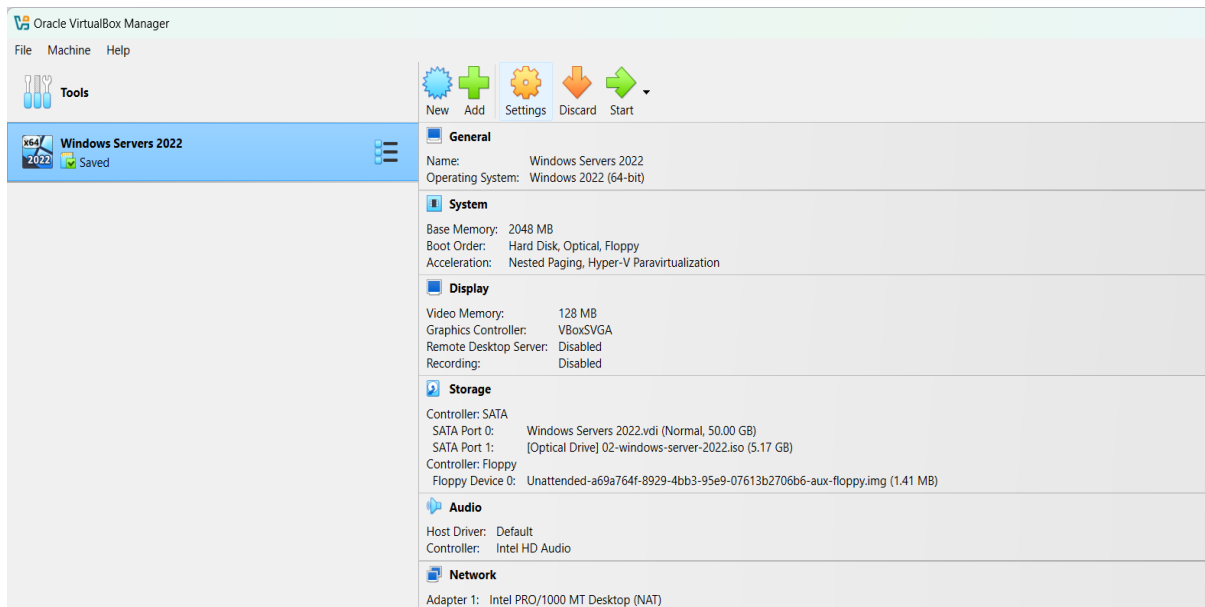


Figure 1: Selecting Virtual environment

Step 2: Select Network now and then click Bridge adapter in the attached to option on the right. Next, start our Windows Server 2022 by selecting “OK” button.

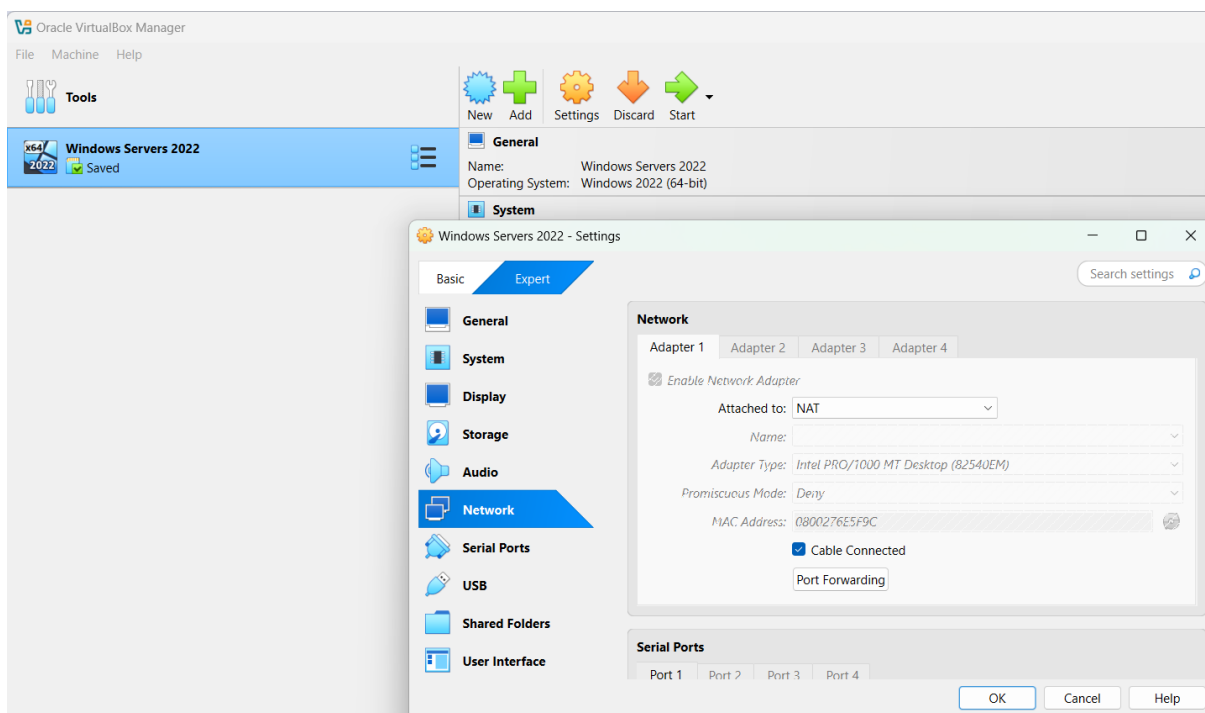


Figure 2: Selecting Network by starting Windows Server 2022

Step 3: Like in previous workshop, store your website files in Window Server 2022's Local Disk C disk.

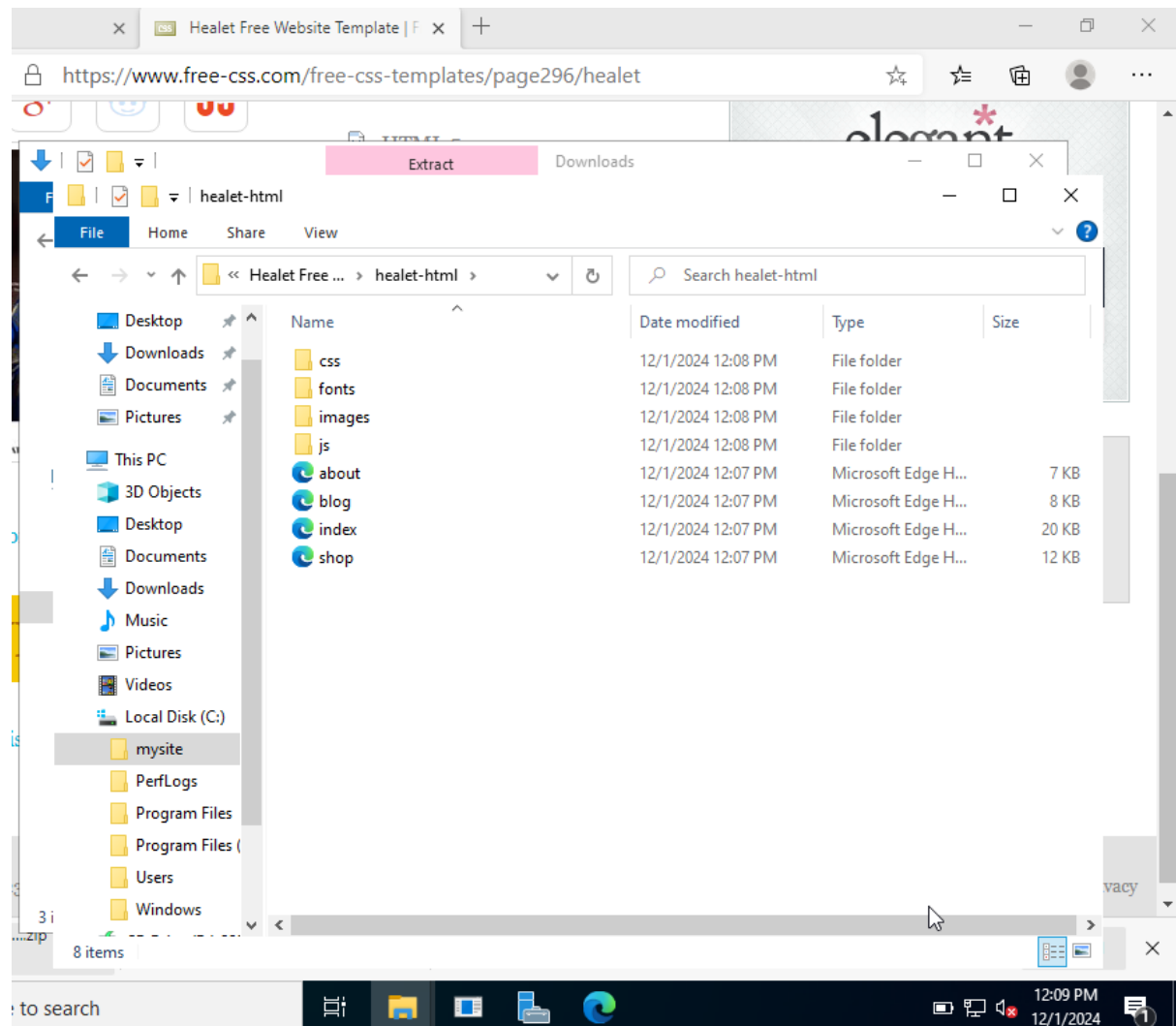


Figure 3: Storing the files in Local Disk C

Step 4: Start "run" and write "inetmgr" then our Internet Information Service will become available which help us to setup hosting.

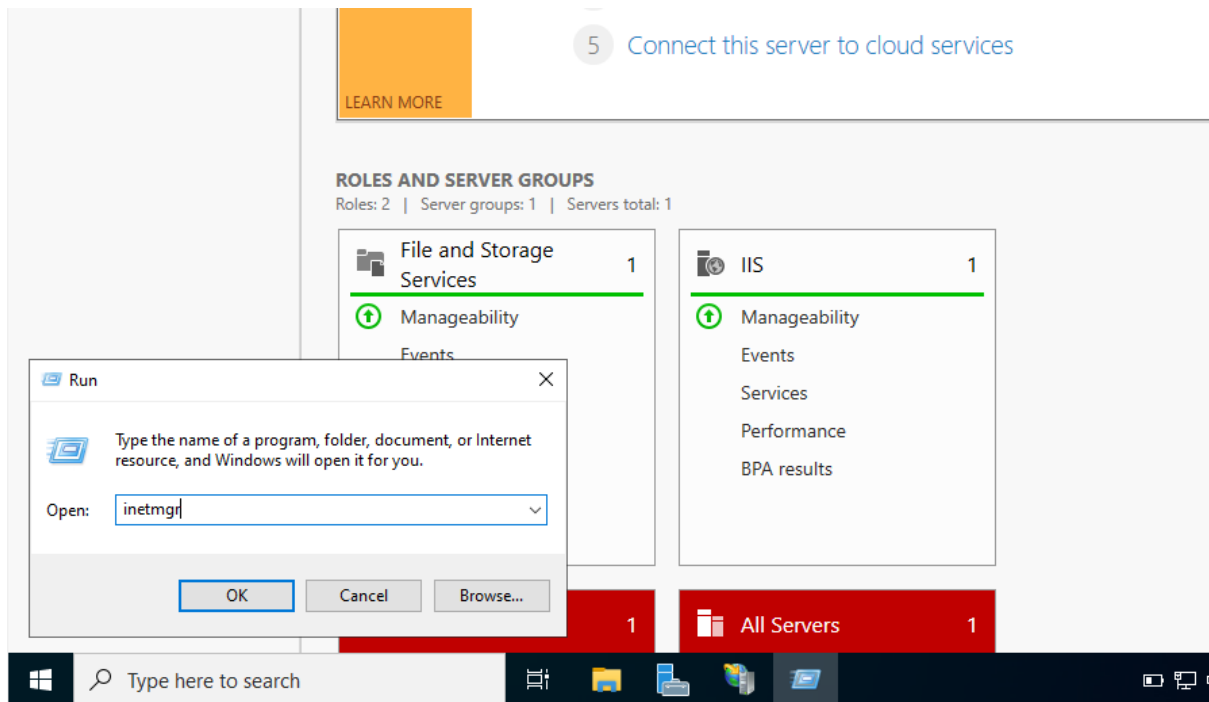


Figure 4: starting run and writing inetmgr

Step 5: Like in previous website, select the server name and choose right on “Sites” and click the “Add Website”.

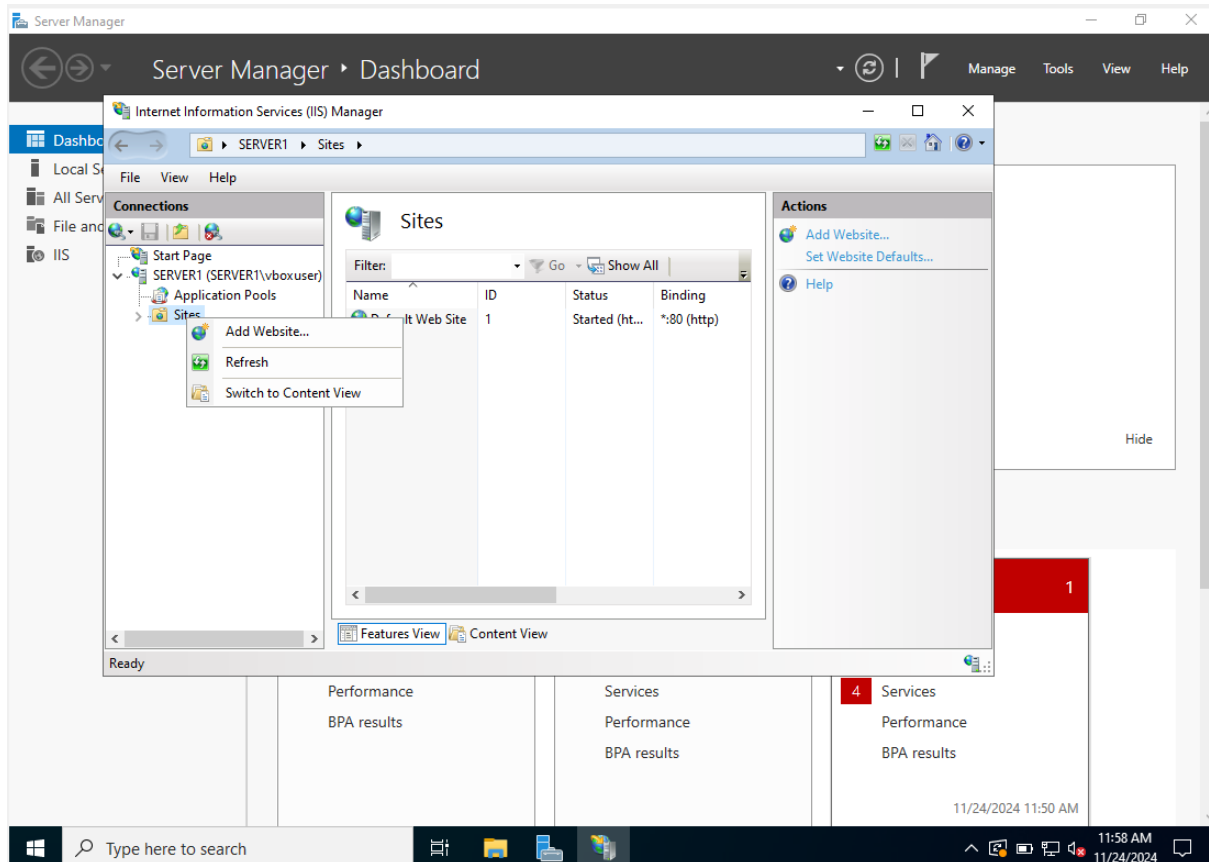


Figure 5: Clicking on Add website

Step 6: We are required to enter websites information as follows:

- Insert a name that you want under site name.
- Enter the path to the folder storing the files of our website under physical path.
- Enter the chosen IP address from the drop-down list that appears under IP address.

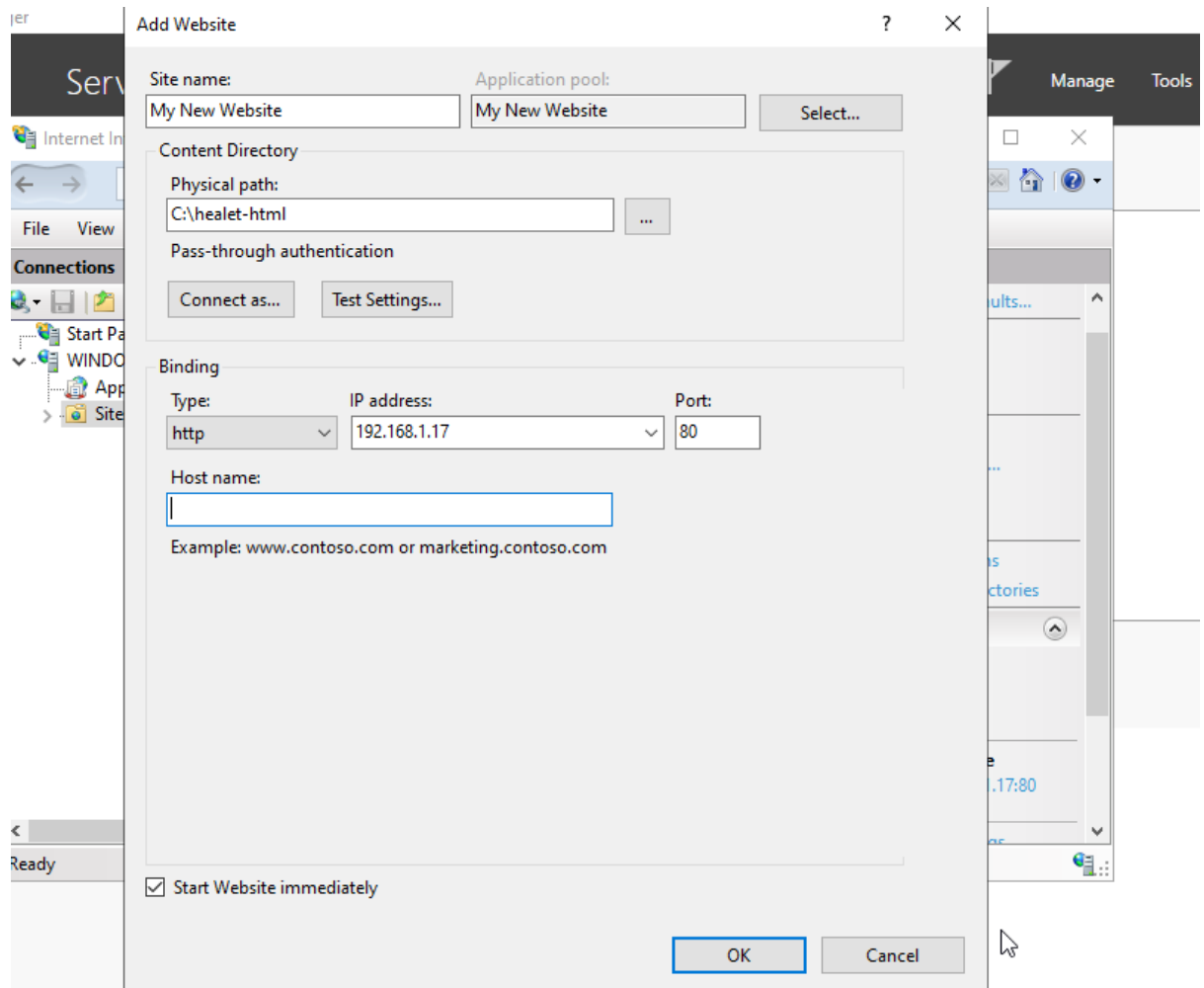


Figure 6: Inserting the required websites information

Step 7: The website name is shown in the list. We are going to visit our website by choosing on "browse" then adding IP address on the right side of screen. Finally, our website will run in a browser.

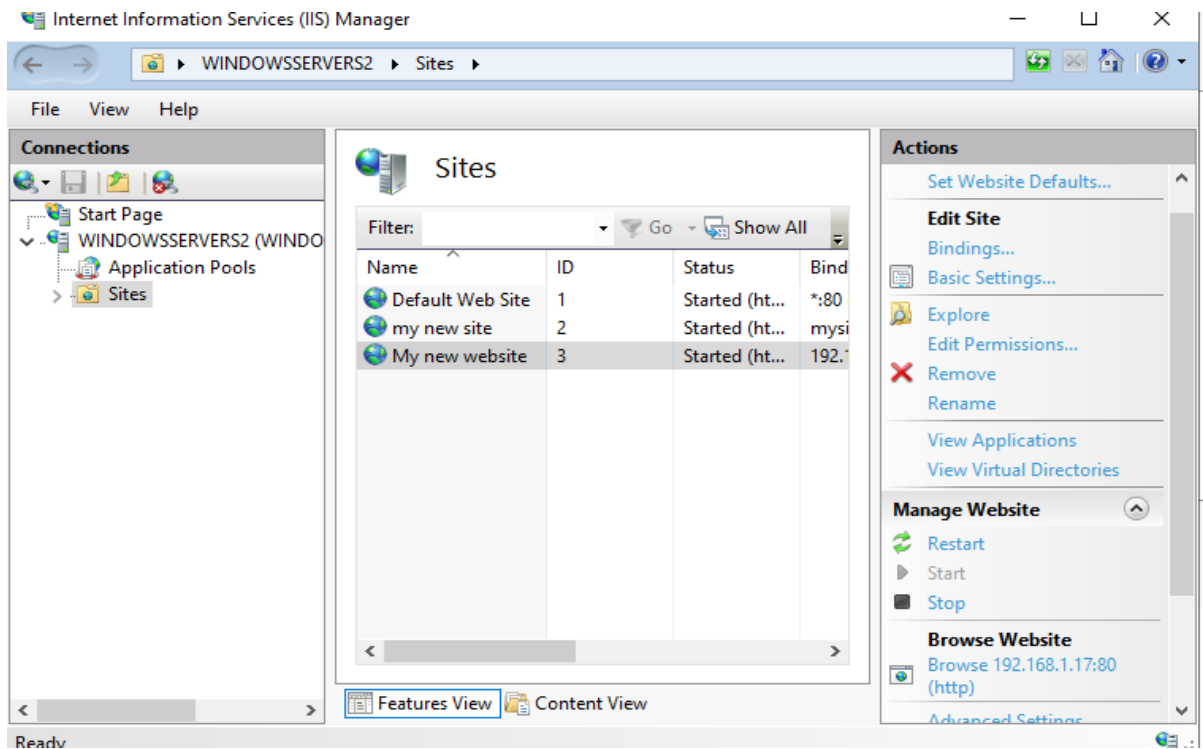


Figure 7: Showing the website name in the list

Our website has been active.

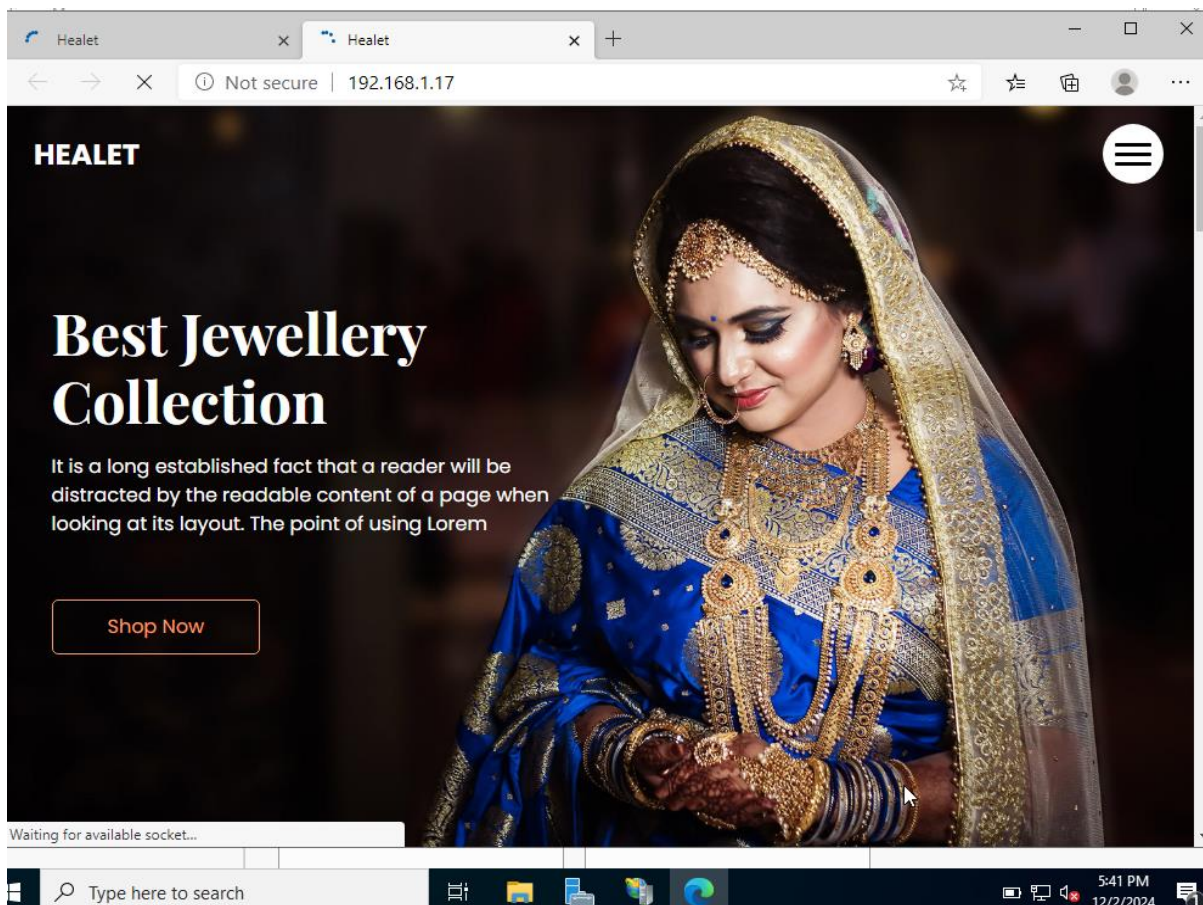


Figure 8: Our website is on live

Step 8: Select the Guest OS's Ip address in the host OS browser to check how well your website will be viewed from host OS.

Step 9: Furthermore, visit the website from your smartphone and put in Guest OS's IP address, and verify if it works on your phone.

Next create a remote connection through our Windows Server and the host operating system.

We are now working to a remote connection to the Guest OS from Host OS, considering the VM's previous stated settings.

Terms: We have to get the Virtual Box Extension Pack. First test your Virtual Box model first and install the extension package from the following URL:

<https://download.virtualbox.org/virtualbox/>

Pick the correct version of your Virtual Box.

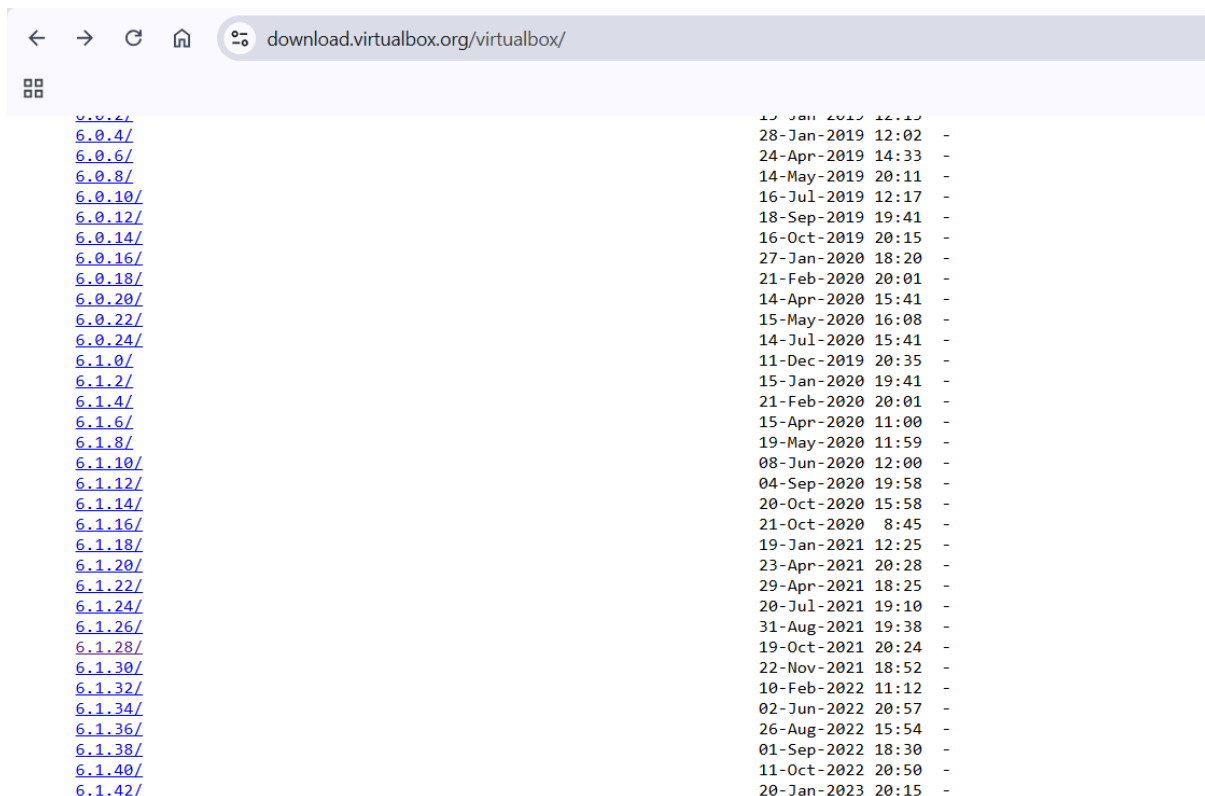


Figure 9: Selecting the correct version of Virtual Box

My version is 6.1.28 in this situation. After choosing Help from the Virtual Box management and then choosing About Virtual box, you will see latest version of Virtual Box.

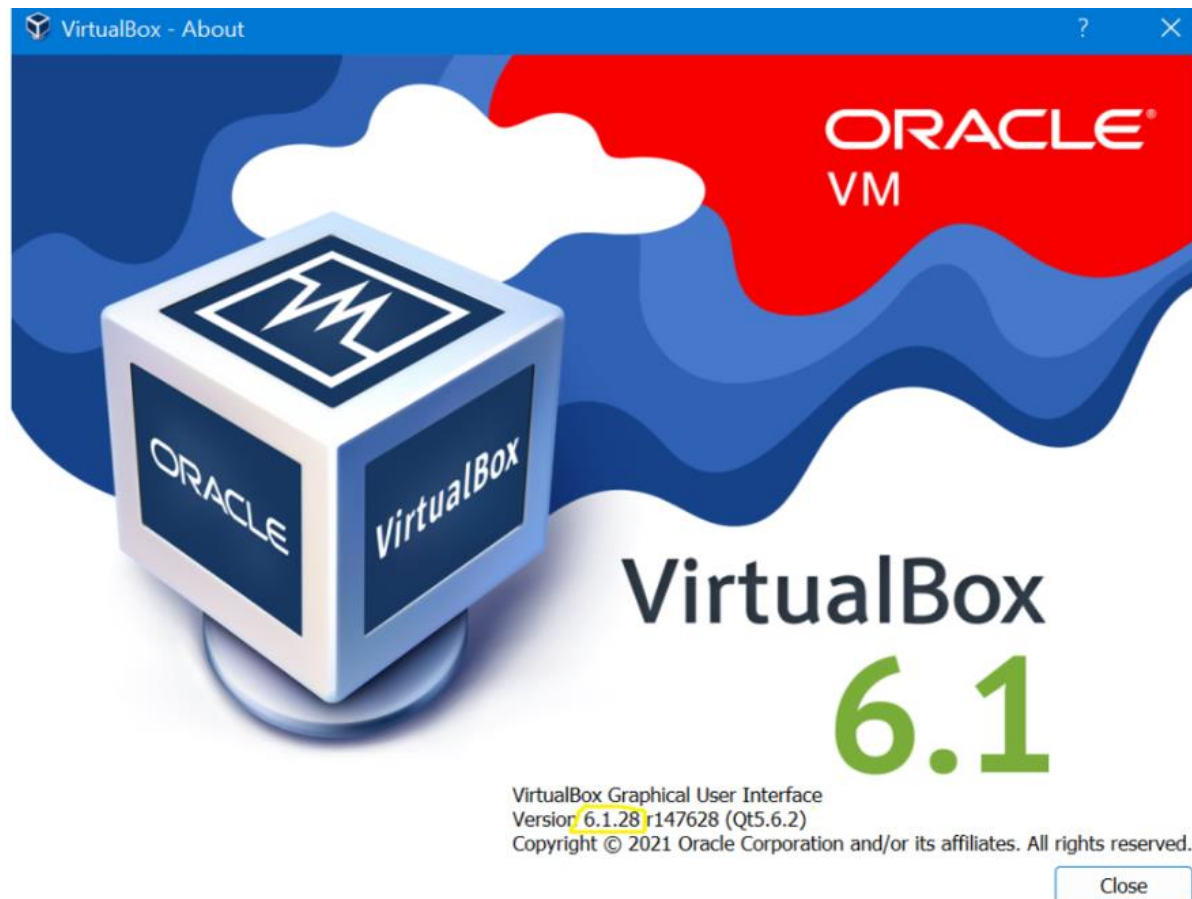


Figure 10: Starting the latest version of Virtual Box

When your version of the link has been pressed, select the extpack that is displayed on the following image and install it.

Index of /virtualbox/6.1.28		
Name	Last modified	Size
Parent Directory		
MD5SUMS	19-Oct-2021 20:24	1.9K
Oracle_VM_VirtualBox_Extension_Pack-6.1.28-147628.vbox-extpack	18-Oct-2021 21:29	11M
Oracle_VM_VirtualBox_Extension_Pack-6.1.28.vbox-extpack	18-Oct-2021 21:29	11M
SDKRef.pdf	18-Oct-2021 21:29	2.8M
SHA256SUMS	19-Oct-2021 20:24	2.7K
UserManual.pdf	18-Oct-2021 21:29	4.8M
VBoxGuestAdditions_6.1.28.iso	18-Oct-2021 21:29	60M
VirtualBox-6.1-6.1.28_147628_el6-1.x86_64.rpm	19-Oct-2021 19:20	99M
VirtualBox-6.1-6.1.28_147628_el7-1.x86_64.rpm	19-Oct-2021 19:21	97M
VirtualBox-6.1-6.1.28_147628_el8-1.x86_64.rpm	19-Oct-2021 19:21	90M
VirtualBox-6.1-6.1.28_147628_fedora32-1.x86_64.rpm	19-Oct-2021 19:18	89M
VirtualBox-6.1-6.1.28_147628_el6-1.x86_64.rpm	19-Oct-2021 19:20	99M

Figure 11: Selecting extpack in the list and installing it

After installing the extension pack as mentioned earlier. We should follow the step that are stated below:

Step 1: Turn off Virtual Box, and any other working virtual machines. Then use “Run as Administrator” to start Virtual Box.

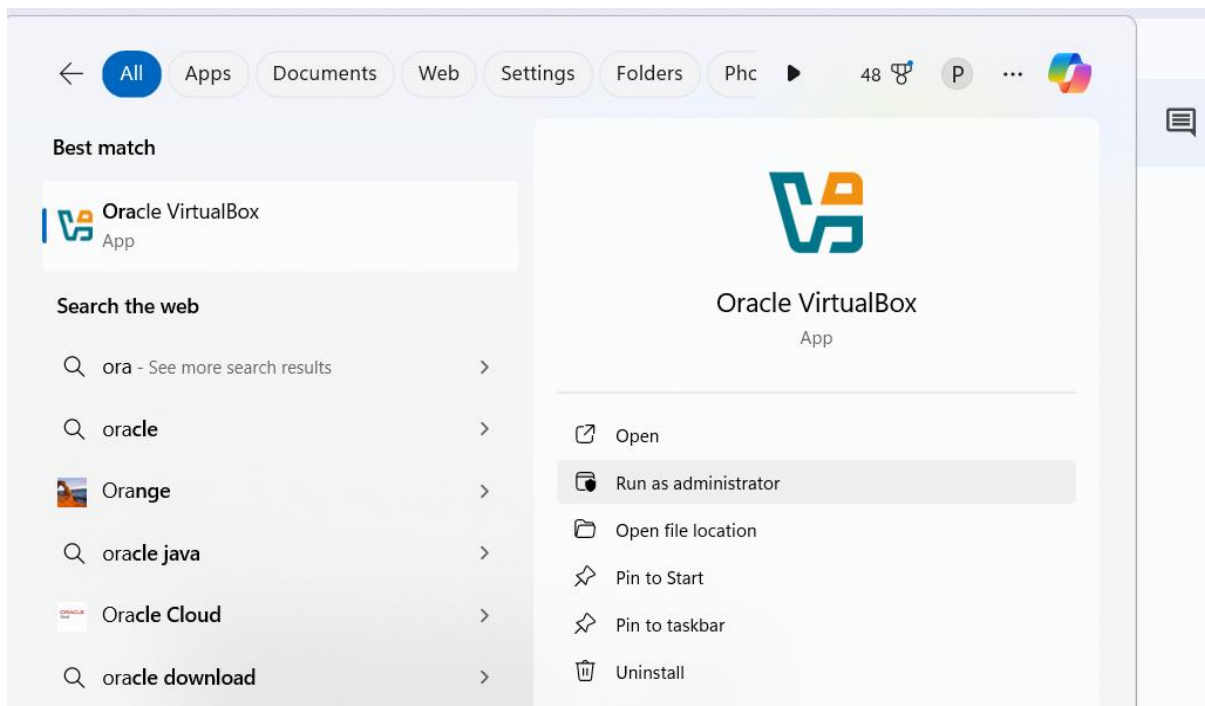


Figure 12: Running Virtual Box as administrator

Step 2: Tap “Tools”, that is located at the top. Then, select on Preferences.

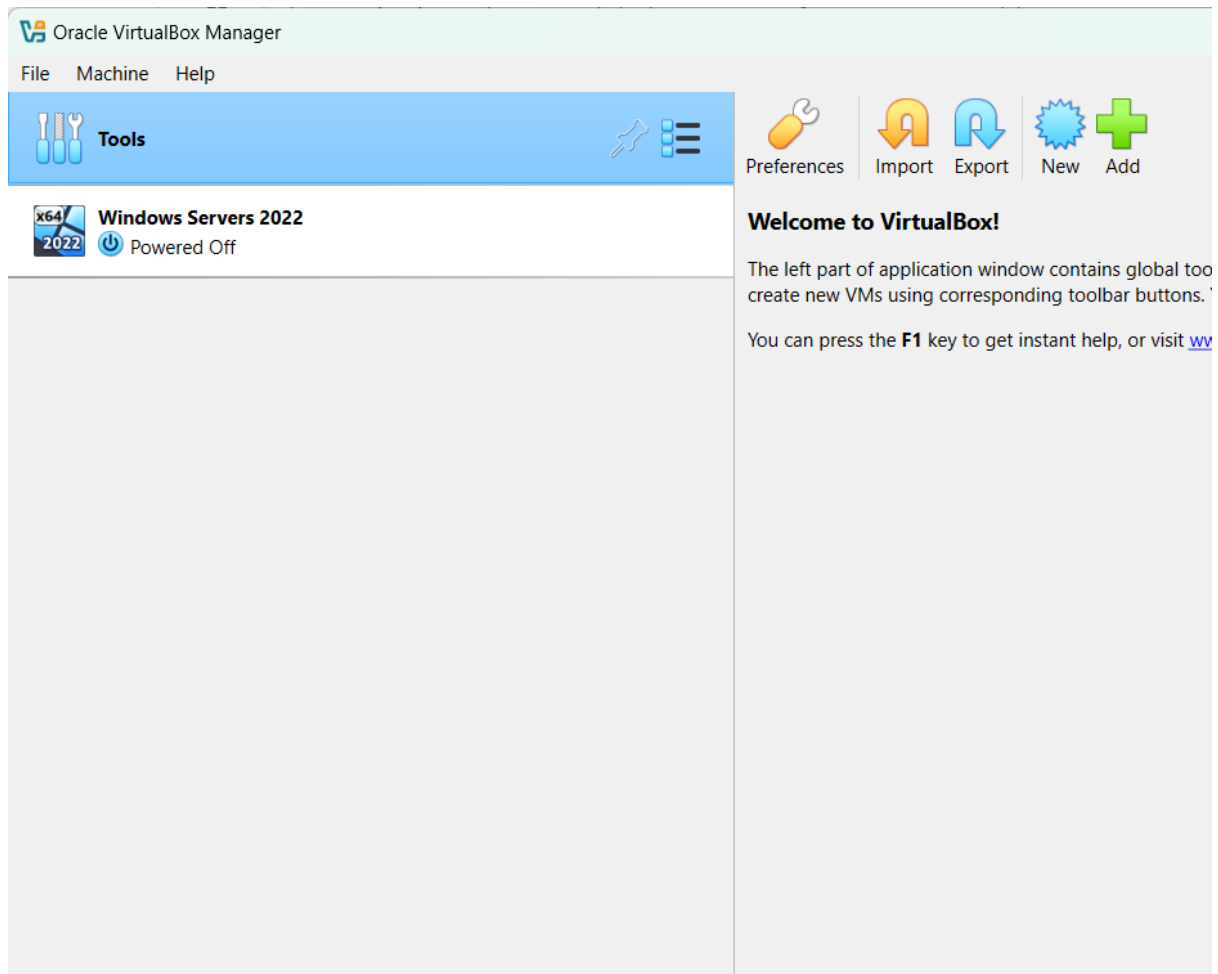


Figure 13: Selecting on preferences

Step 3: Choose on Extension option and tap the green symbol “+” which is located on the right.

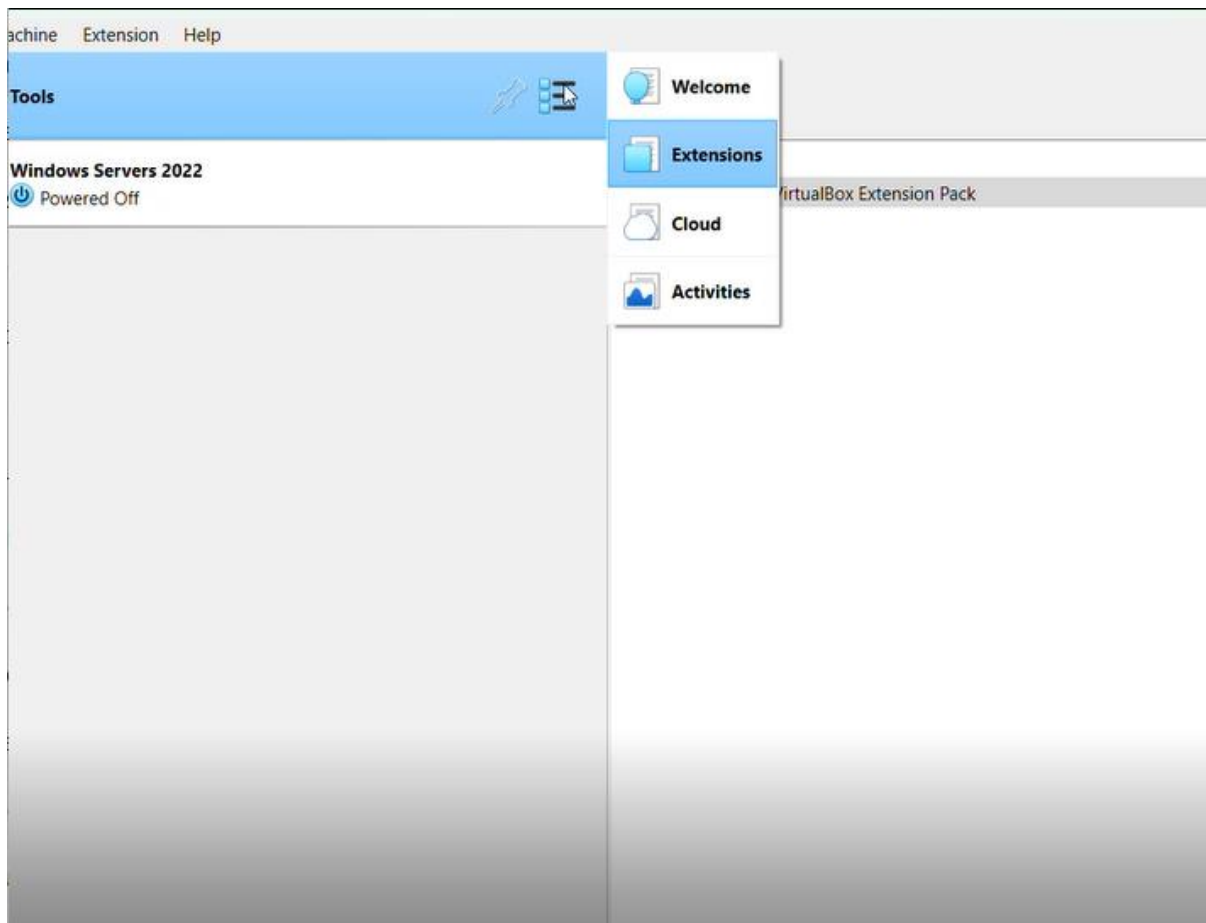


Figure 14: Choosing on Extension option

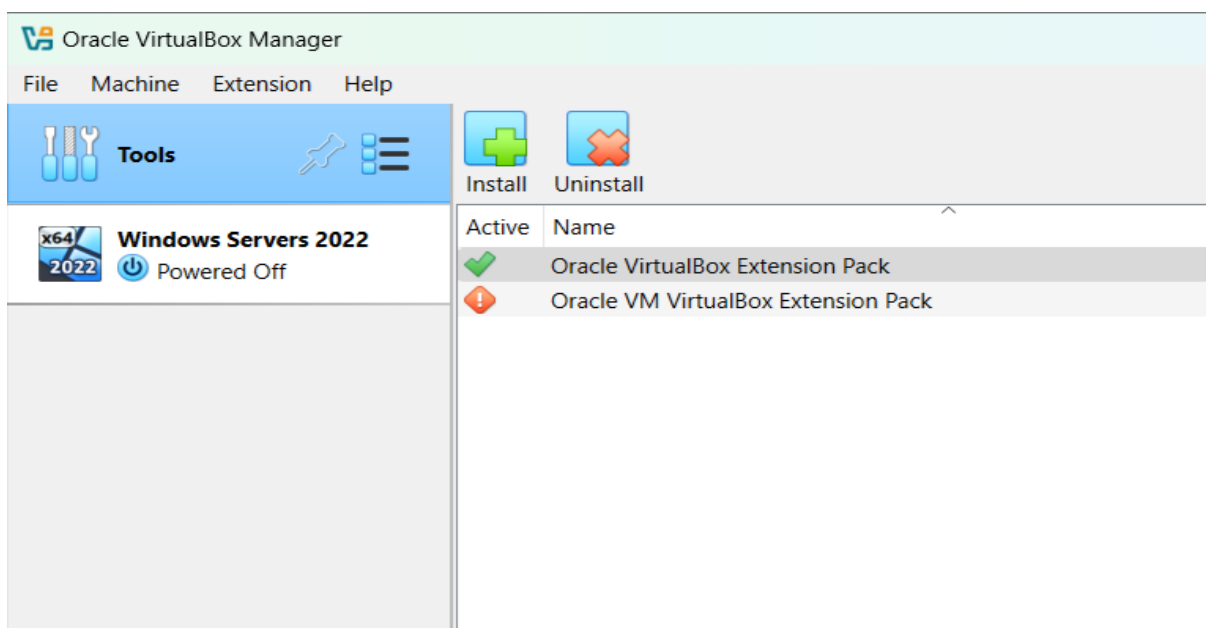


Figure 15: Pressing on green symbol located at the right

Step 4: A dialog box will pop up. Find and pick the extension pack file that was already installed. Then, when the option has been selected, tap install.

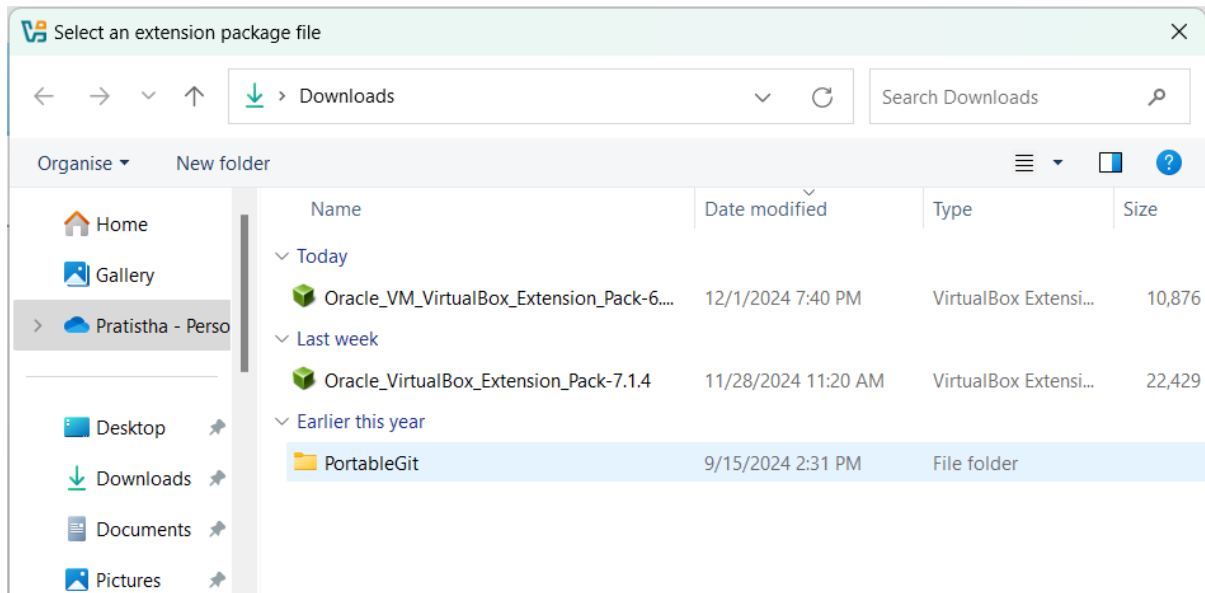


Figure 16: Selecting the Extension pack file

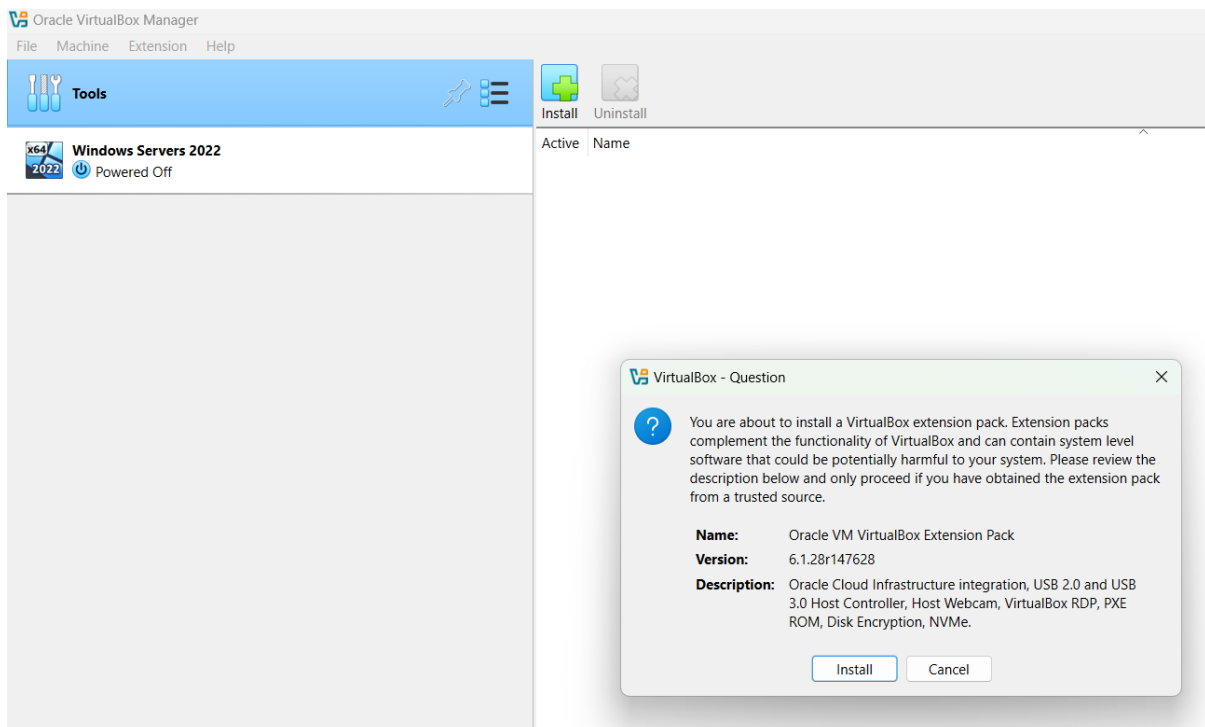


Figure 17: Installing the Extension pack file

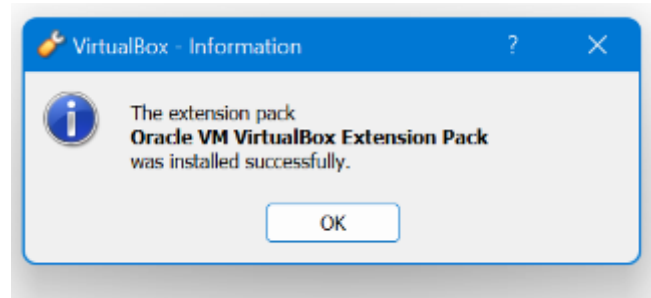


Figure 18: Successfully installing the file

Step 5: Select Settings soon after selecting Server 2022 Virtual Environment and close the tab.

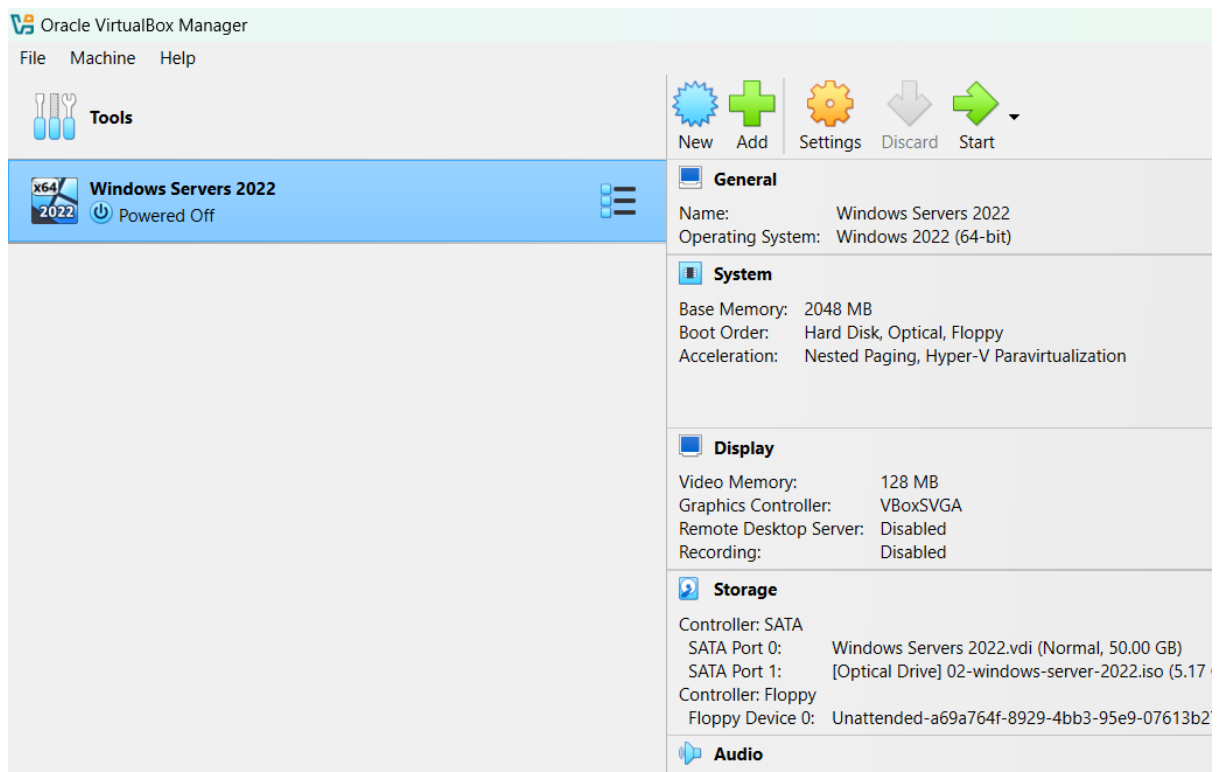


Figure 19: Selecting settings after clicking server 2022 virtual environment

Step 6: Choose Display and select “Remote Display” then again click on “Enable server” and lastly tap “OK”.

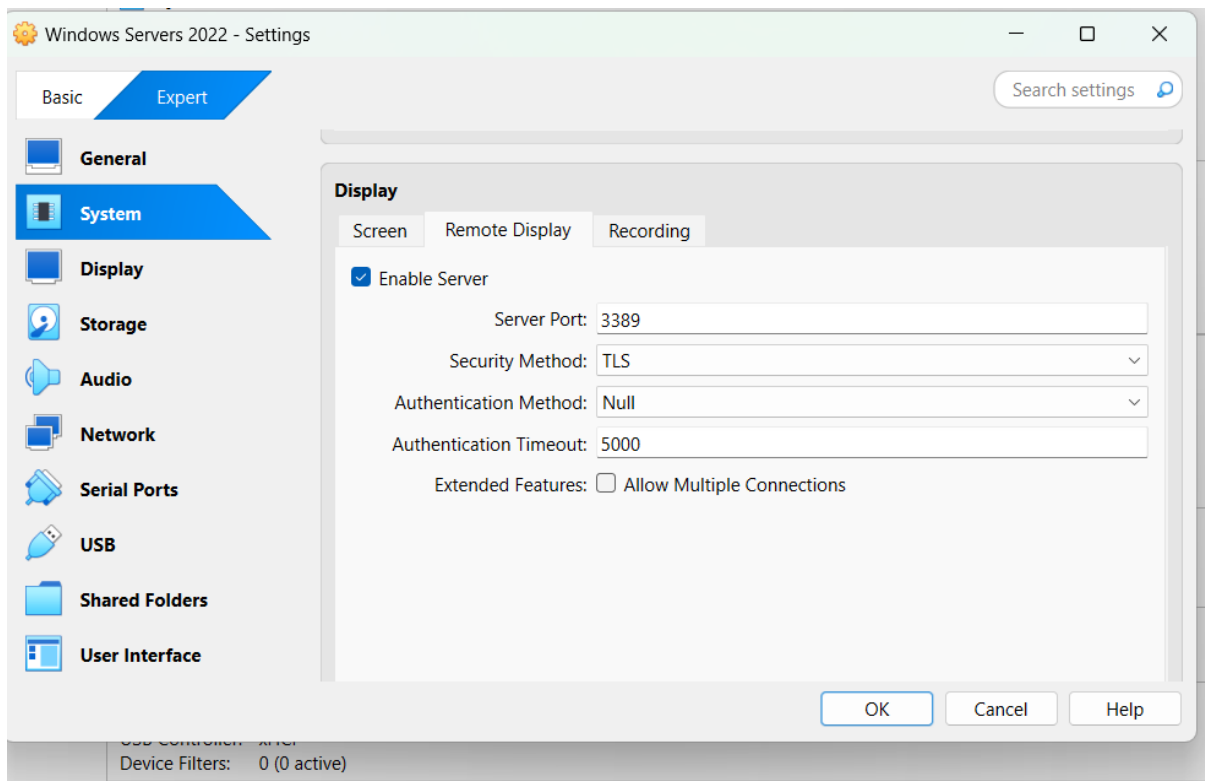


Figure 20: Selecting Remote display and enabling server

Step 7: Open Windows Server 2022 in order to find your Guest OS's IP address.

```
Microsoft Windows [Version 10.0.20348.169]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\system32>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : 
    IPv6 Address. . . . . : 2407:1400:aa4b:5e70::1
    Link-local IPv6 Address . . . . . : fe80::8cf3:39bb:e9eb:f45c%2
    IPv4 Address. . . . . : 192.168.1.17
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1

C:\Windows\system32>
```

Figure 21: Finding your Guest OS's IP address

Step 8: Start Remote Desktop Connection from the host operating system. Then provide the Guest OS's IP address and select connect.

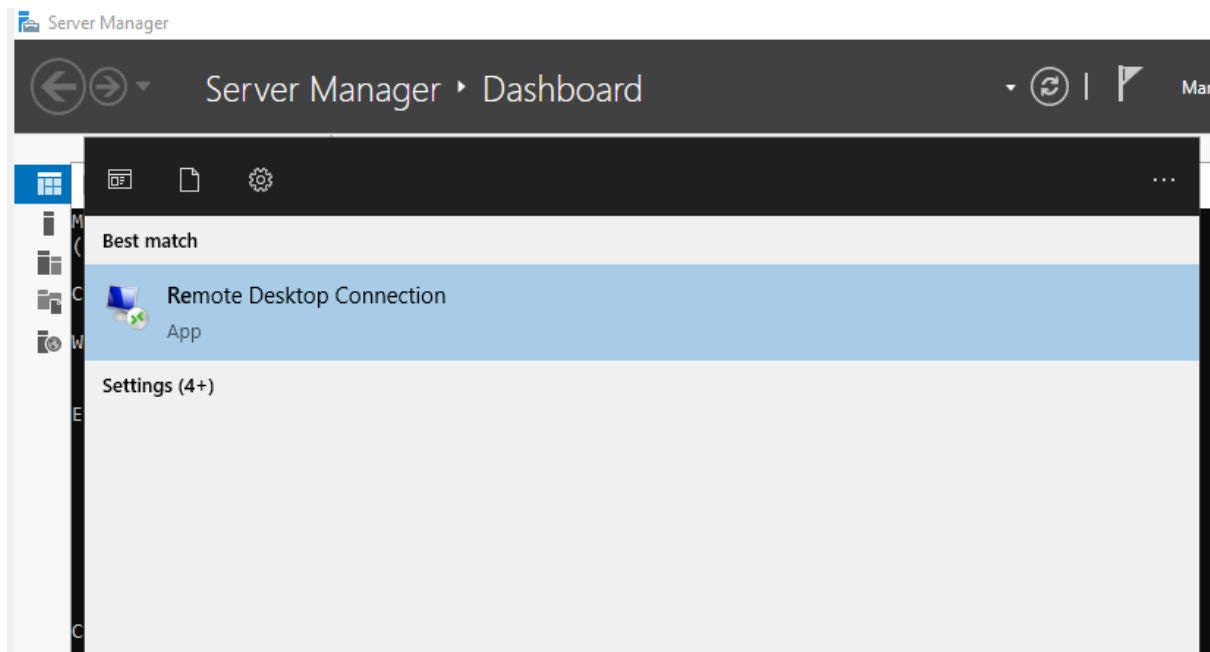


Figure 22: Running Remote Desktop Connection

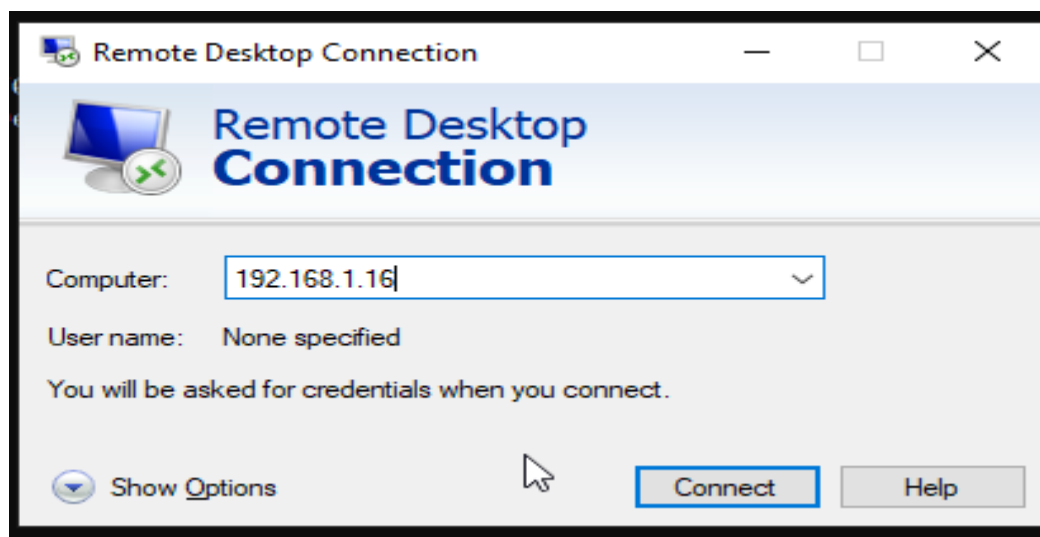


Figure 23: Providing Guest OS's IP address and connecting it

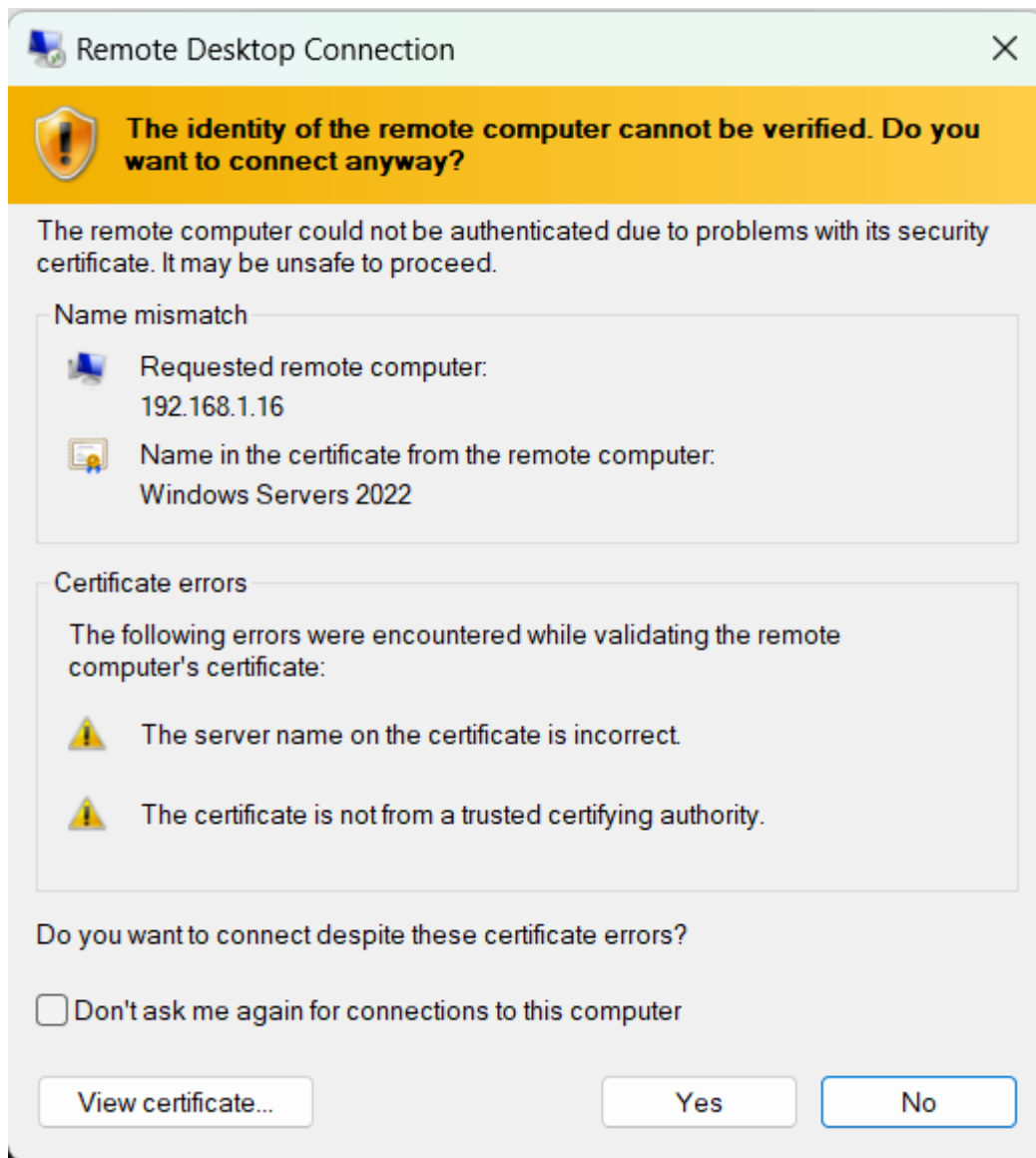


Figure 24: Selecting Yes for connecting remote desktop

Step 9: Now we may use Remote Desktop to connect into our Guest OS from the Host OS.

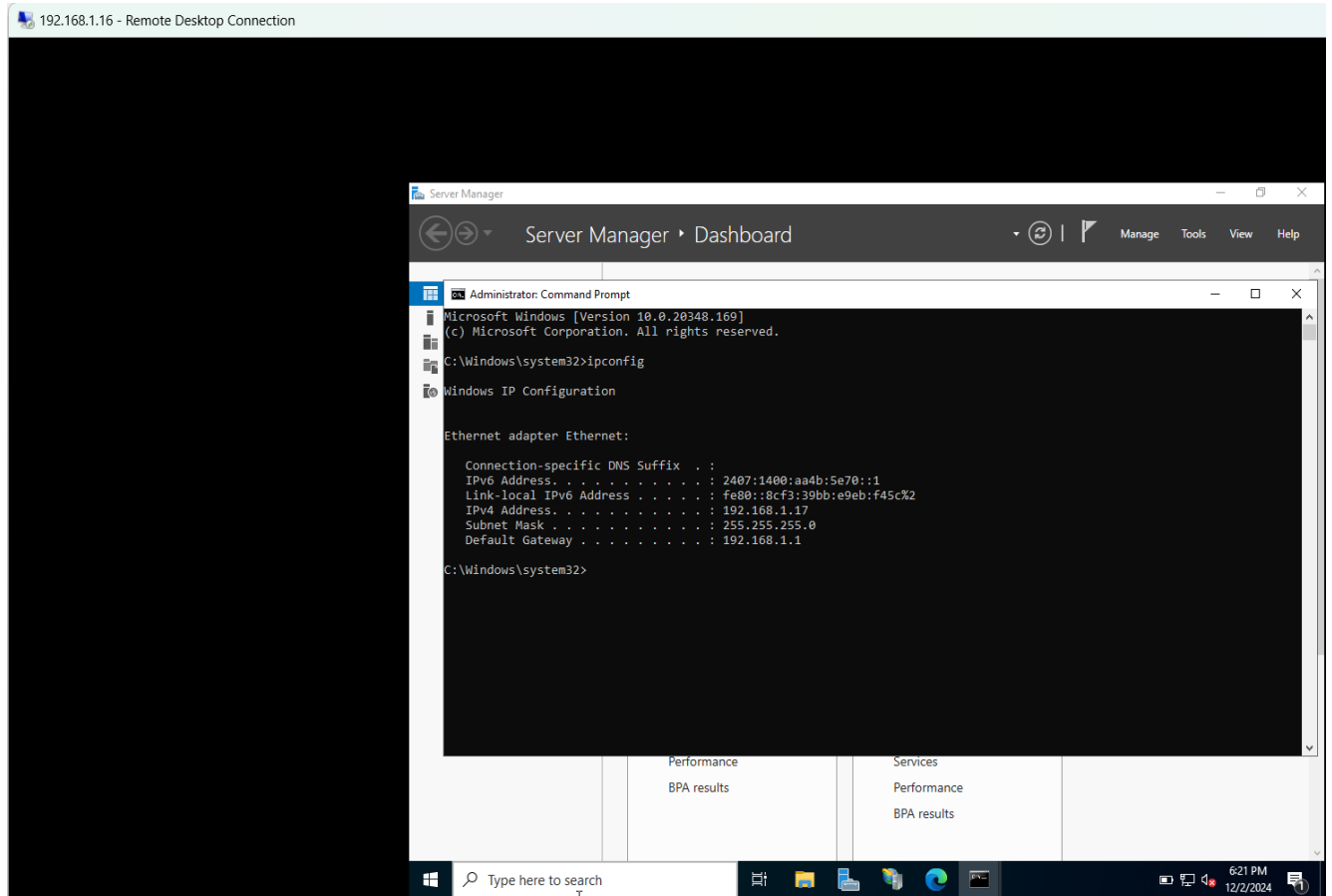


Figure 25: Using Remote desktop to connect Guest OS

3. References

Dauti, B. (Sep 16, 2022). *Windows Server 2022 Administration Fundamentals*. Birmingham, UK: Packt Publishing.

Perrott, S. (Mar 29, 2022). *Windows Server 2022 & PowerShell All-in-One For Dummies*. Hoboken, New Jersey: Wiley & Sons,.

4. Conclusion

Windows Server is advanced operating system which was developed to handle that provide company needs when offering safety, flexibility and consistency. Window server provide managers the strong resources for controlling operations of network, sharing of resources, identification of users, and application hosting. Window Server is a vital part nowadays in IT sector due to its abilities such as virtualization, connection of cloud using Power Shell. Quality, privacy and flexible abilities of cloud all receive the highest priority due to its new models for example, Windows Server 2022. It is important for all kinds of organizations that are hoping to stay successful and active in this era which has become more digital.