LONDON METROPOLITAN UNIVERSITY

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Module Code & Module Title

CT505NP – Computer Networking System

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Submitted To: Prasant Adhikari

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

Windows Server is a powerful operating system that helps businesses manage their computer networks. This report will discuss how to set up a Windows Server, including tasks like renaming the server, enabling remote access, setting a fixed IP address, and adjusting the time zone. We will also explore both graphical and command-line methods for managing user accounts.

2. Objectives

The primary goal of this report is to gain practical knowledge in configuring Windows Server. It focuses on key tasks like modifying the server name, activating remote desktop services, setting a static IP address, and synchronizing the time zone. The report also dig in into both graphical and command-line techniques, including user account management.

3. Server Manager

A server is like a powerful computer that provides services to other computers. It stores and processes information, then shares it with other devices when they request it. For example, when we check our email on your phone, our phone is a client that requests information from an email server. The server sends the emails to our phone so we can read them (Krause, 2023).

4. Required Tools and Concepts

Required tools and concepts:

Hardware Requirements:

- Processor: An x86-based processor, commonly found in modern computers.
- RAM: While 1GB is the minimum, 4GB is recommended for smoother performance, especially when running multiple virtual machines or demanding workloads.

Software Requirements:

- Operating System: VirtualBox supports a wide range of Windows operating systems, including both 32-bit and 64-bit versions. This is the software that creates and manages virtual machines. It allows to configure settings like memory, storage, and network connections for each VM. It's also compatible with various Windows Server versions (College, 2019).

5. Changing the Server's name

From the dashboard of Server Manager, navigate to Local Server.

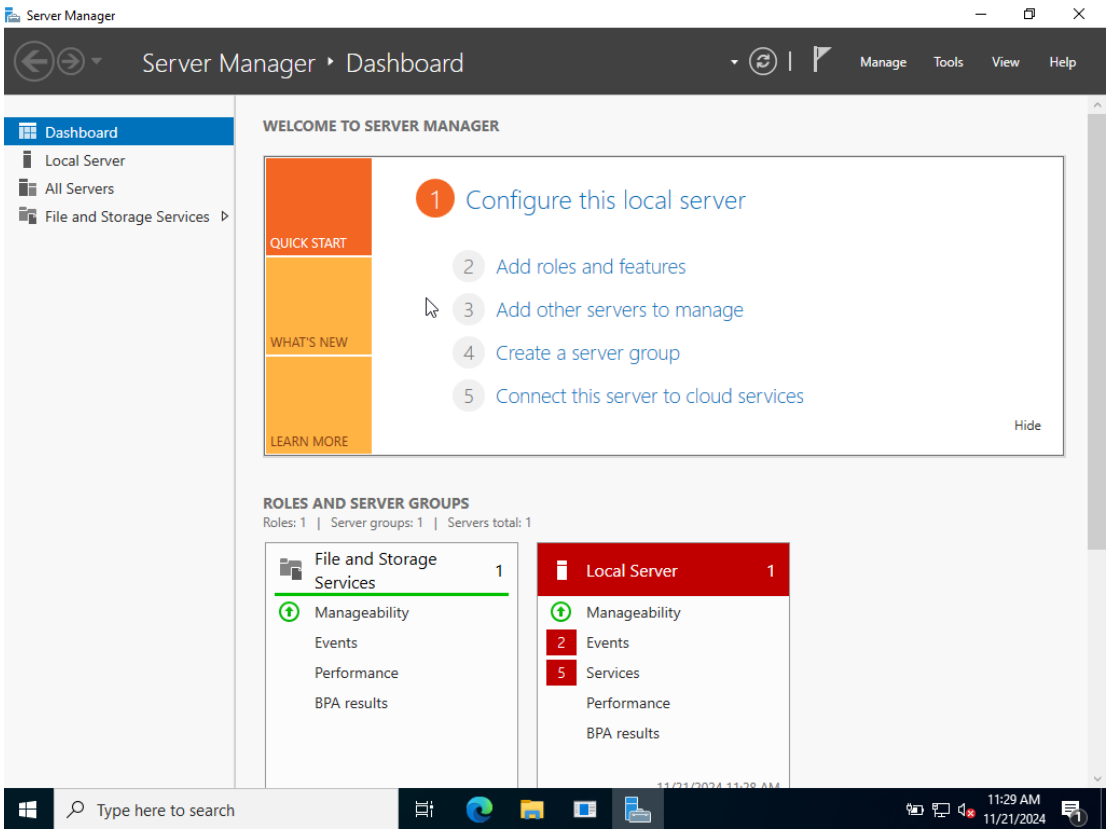


Figure 1 Dashboard of Server Manager

Then click on the Computer name, this will open a new window to configure the Server name.

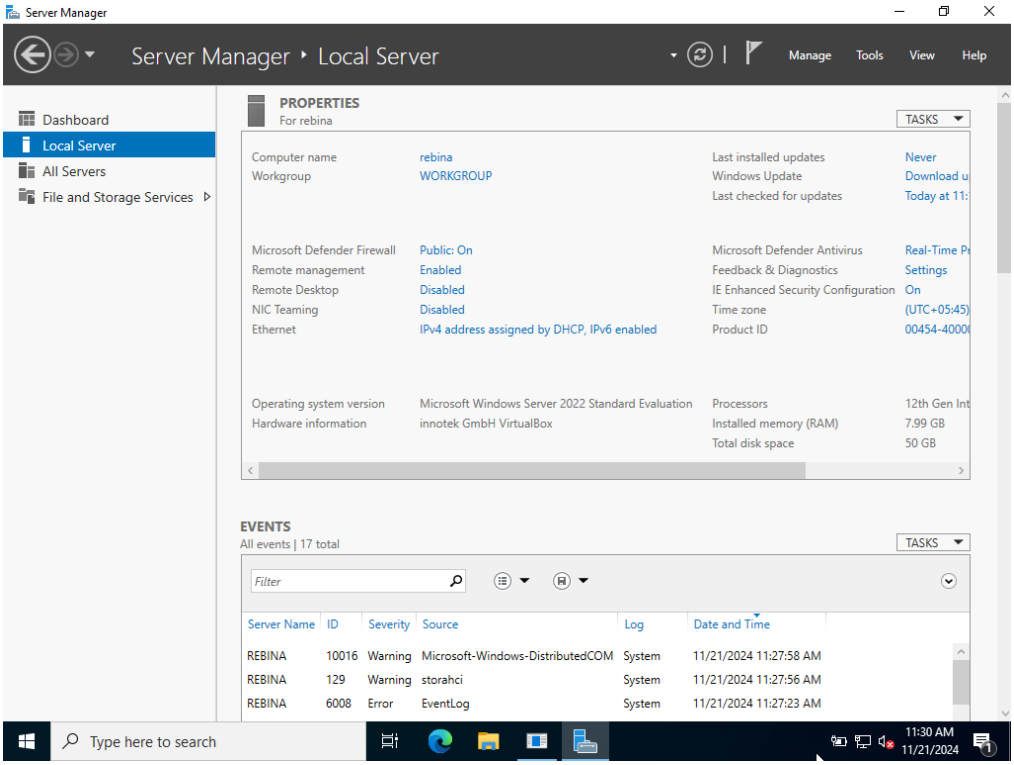


Figure 2 Before changing name of the server

In the new window, press the “Change button”.

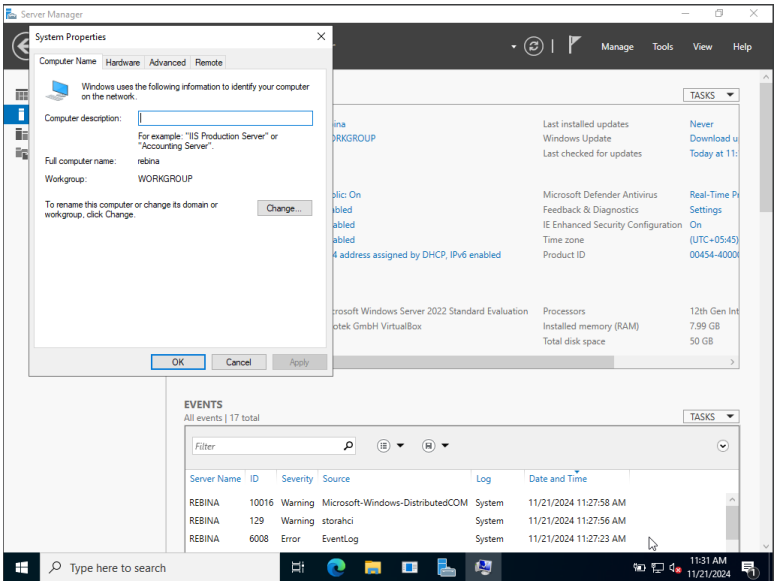


Figure 3 Computer description

Enter the new name of the server and press “OK” button.

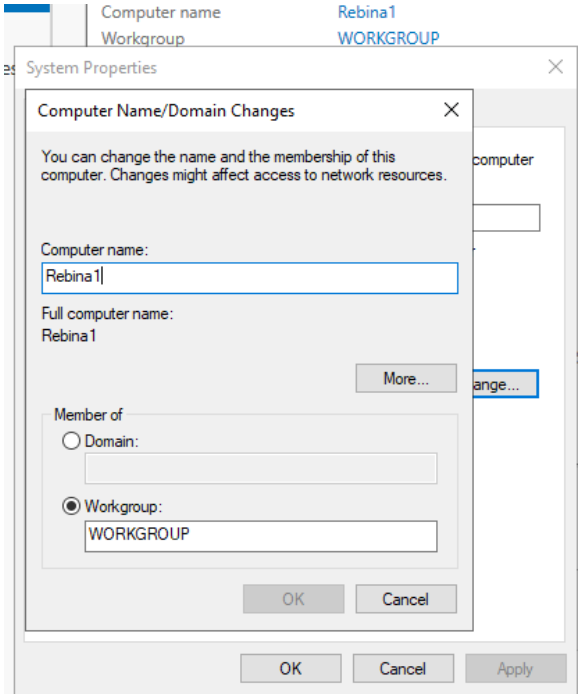
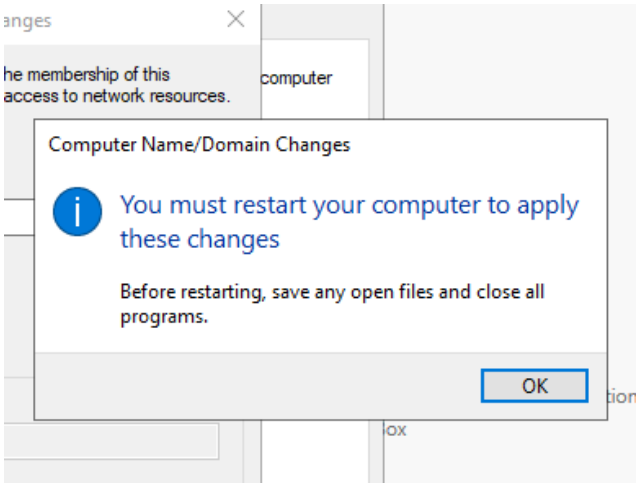


Figure 4 Changing server name to Rebina1

After pressing “OK” button, a new window appears requesting a restart in order to change the name.



6. Enabling Remote Desktop

Remote Desktop Service allows a remote connection to the server to access its GUI and features. Pressing the Remote Desktop Button opens a window.

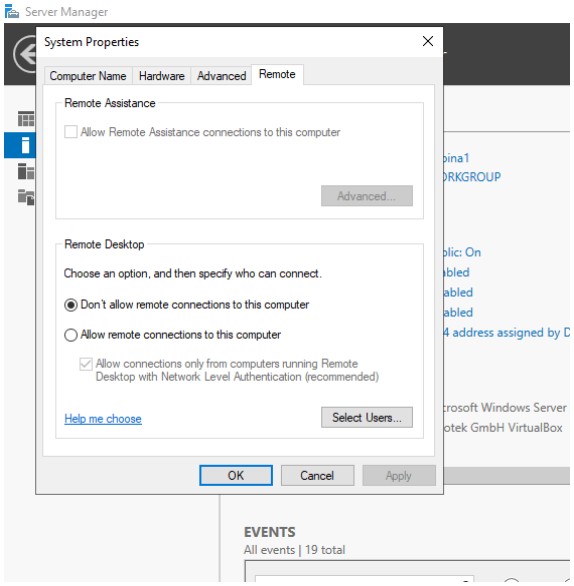


Figure 5 Before enabling remote desktop

From there, the Allow button is pressed, this shows a warning about the firewall. On pressing the “OK” button, the remote desktop service gets enabled.

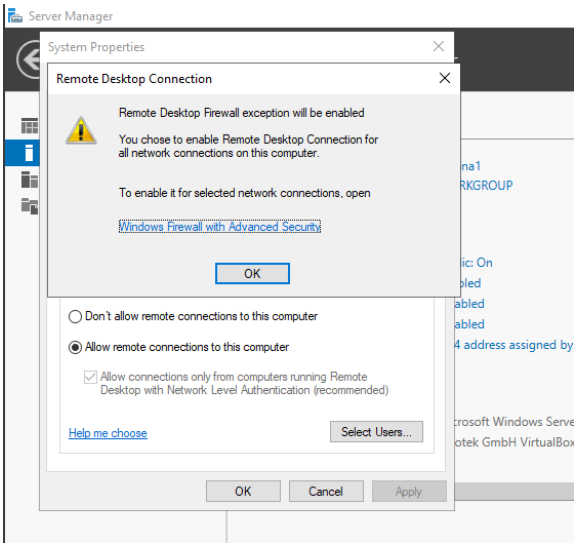


Figure 6 Disclaimer before enabling

From here, “OK” button is pressed again to close the remote desktop settings window.

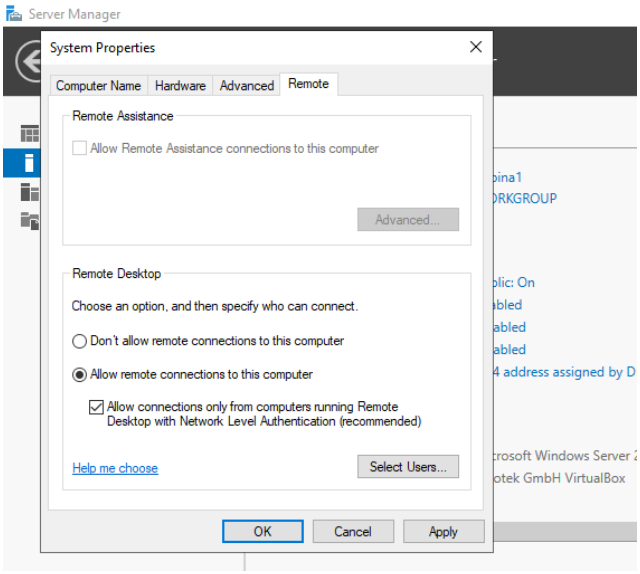


Figure 7 Enabling remote connection

7. Setting up Static IP address

To set an IP address, press the Ethernet button. This shows a list of network adapters connected to the server.

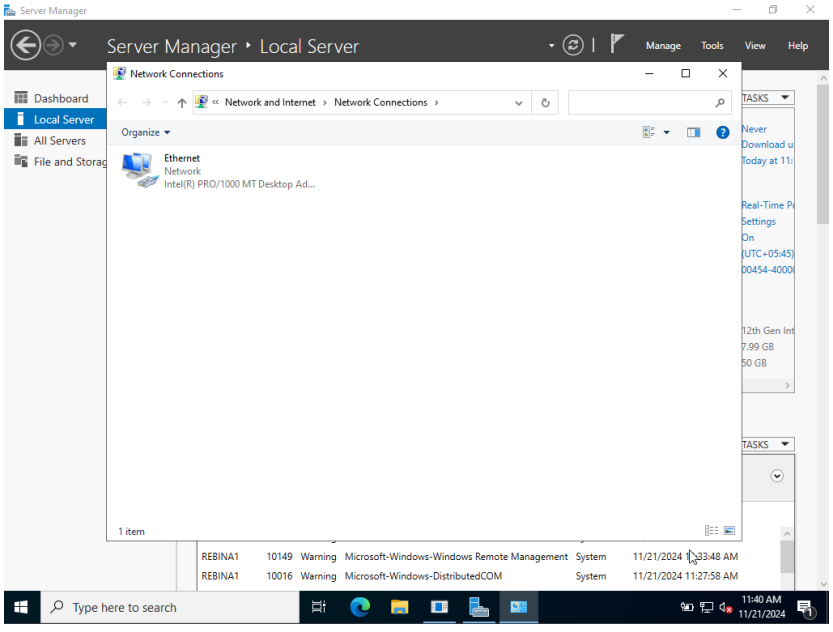


Figure 8 Displaying list of network adapters

The properties of the adapter is opened by right click on the adapter.

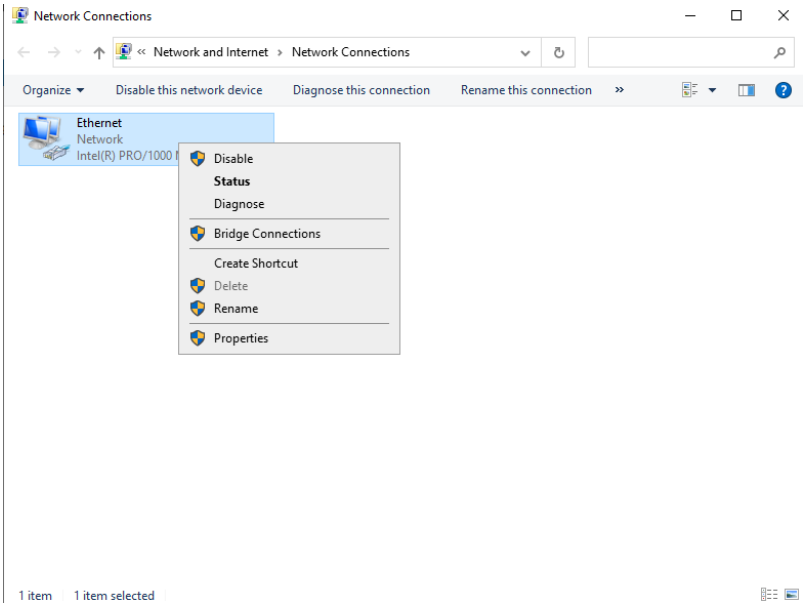


Figure 9 Choosing properties

From the properties, double click on IPv4 from the list. This will open a new window to enter the IP.

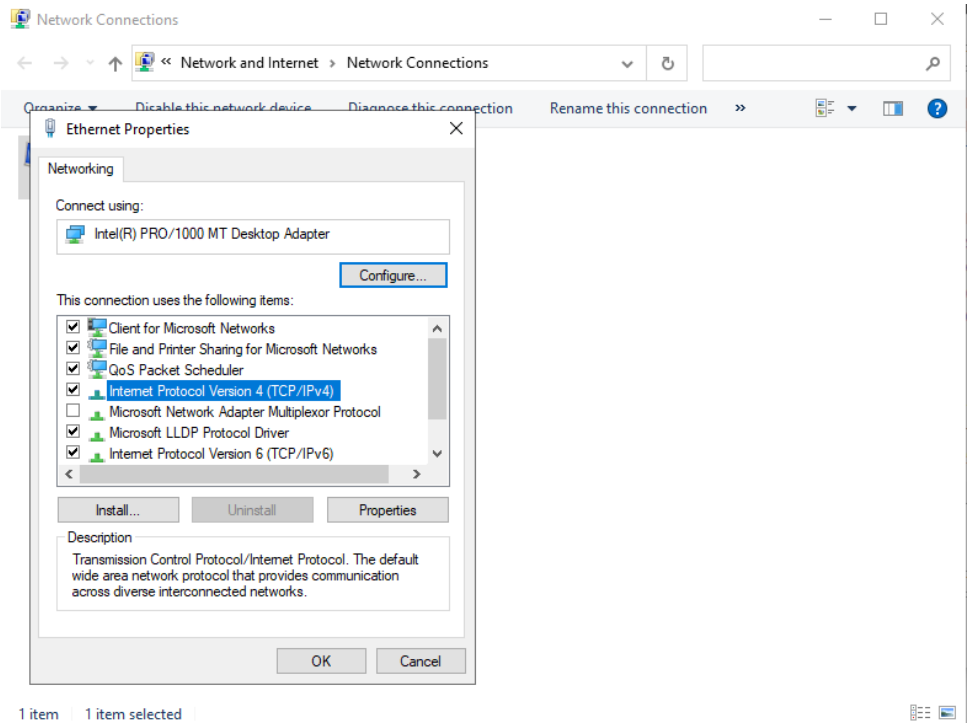


Figure 10 Choose IPv4

In the new window, enter the IP for the device and also Subnet mask, Gateway and Primary and Secondary DNS server address. Static IP is configured successfully.

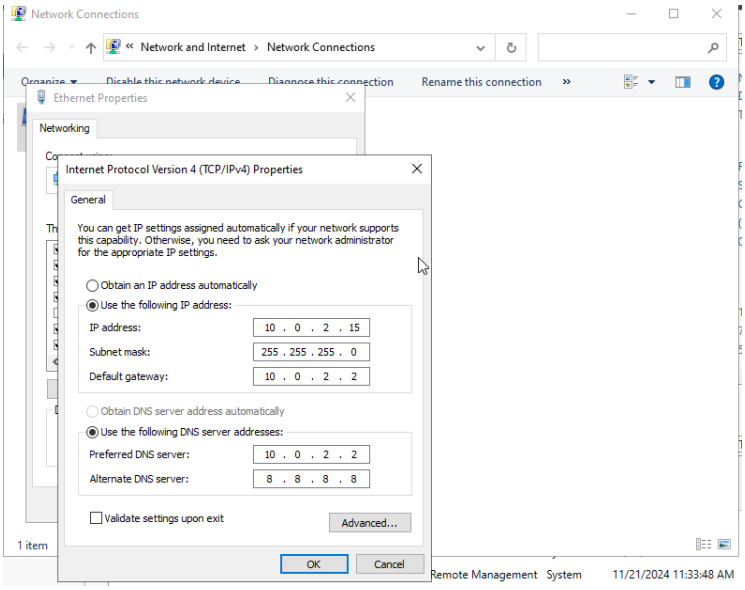


Figure 11 Enter IP, subnet mask and default

8. Changing the time zone

To change the time zone, press on the time zone from the menu on Server Manager. Selecting the correct time zone is important for the server.

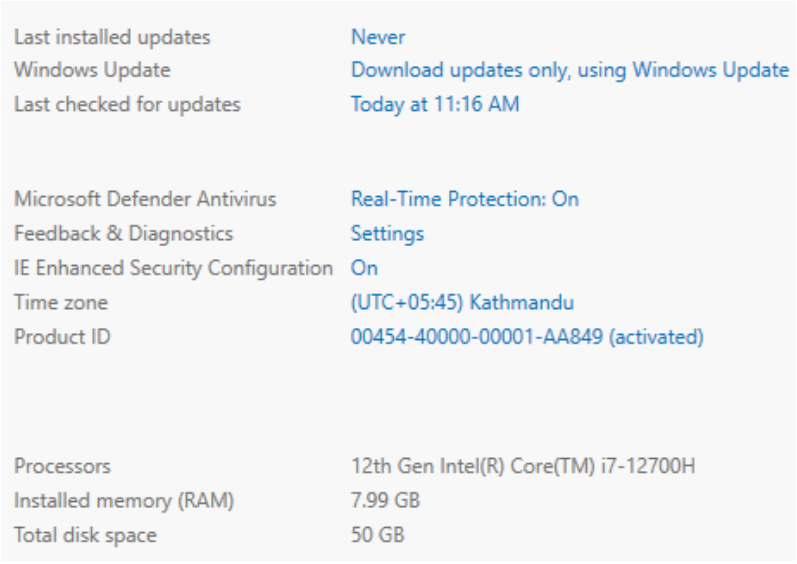


Figure 12 Selecting Time zone

On the new window, press the Change time zone button.

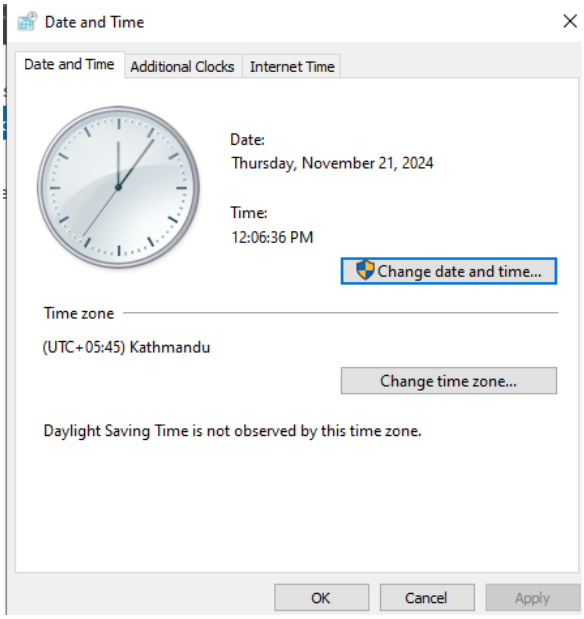


Figure 13 Click on change time zone

From the drop-down list, select the correct time zone for the Server, here Kathmandu is selected.

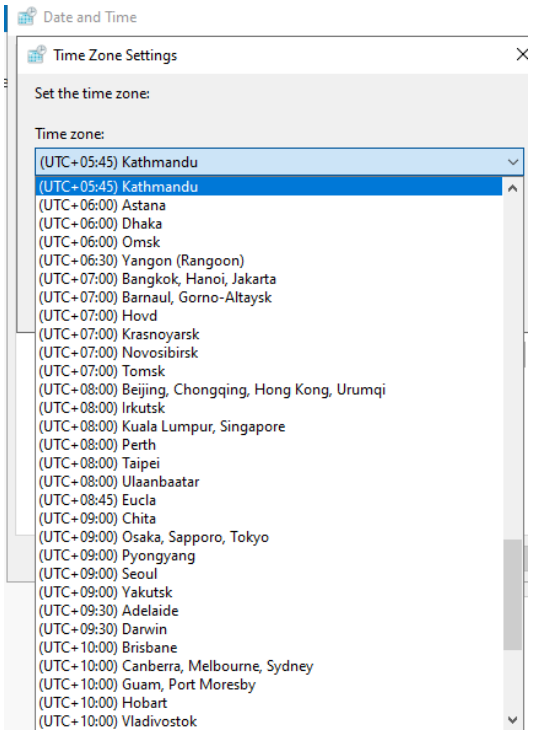


Figure 14 Choose Kathmandu

Finally, press the “OK” button.

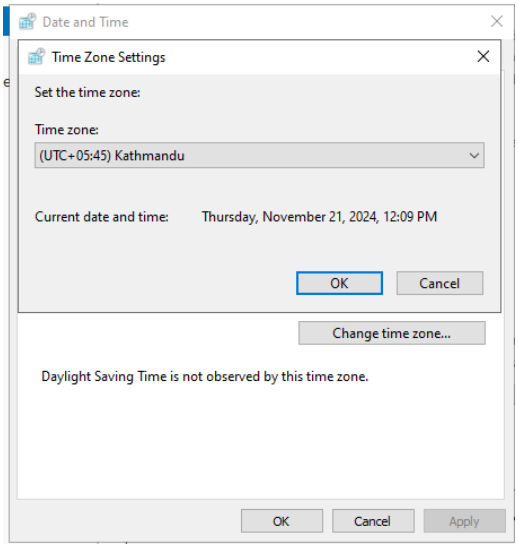


Figure 15 Click OK

9. Turning off IE enhanced security and checking for updates

To turn off IE enhanced security, from the menu, the IE Enhanced Security button is pressed. A new window opens.

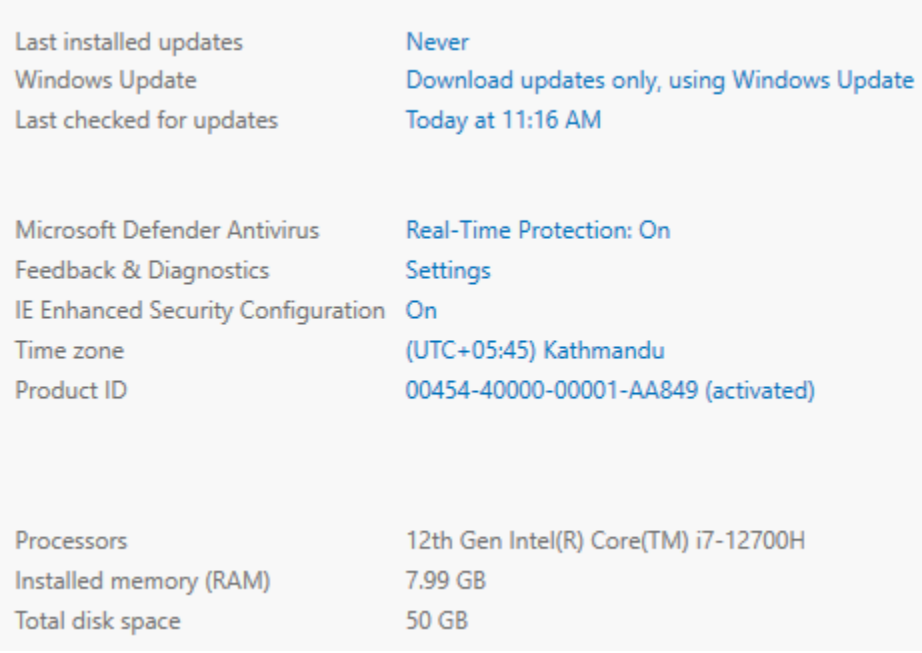


Figure 16 Click on IE Enhanced Security Configuration

By default, the Security Configuration is turned on.

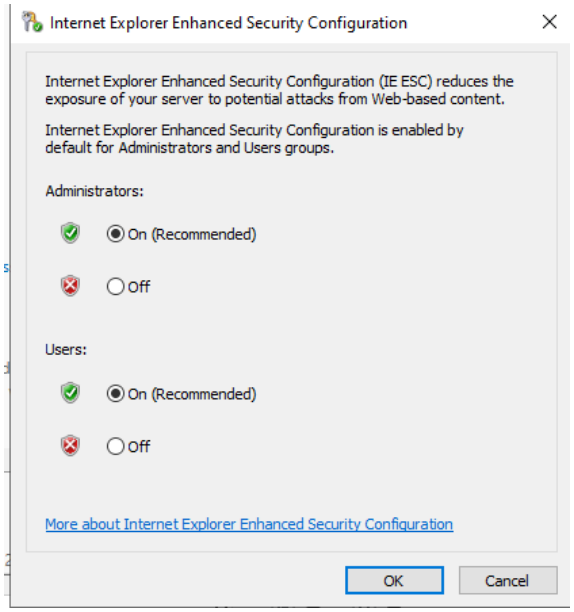


Figure 17 By default, Security configuration is turned on

The IE security is turned off for both Admin and Users and “OK” is pressed.

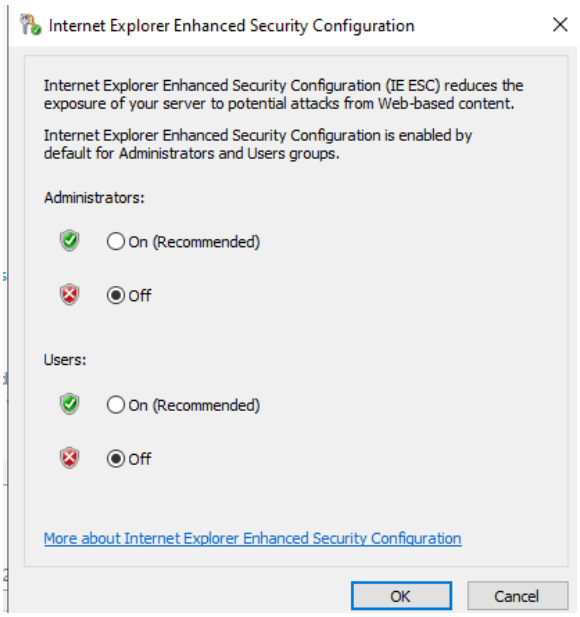


Figure 18 Turn off

For Windows Update, press the Update button and press Check for Updates, new updates will be downloaded and installed automatically.

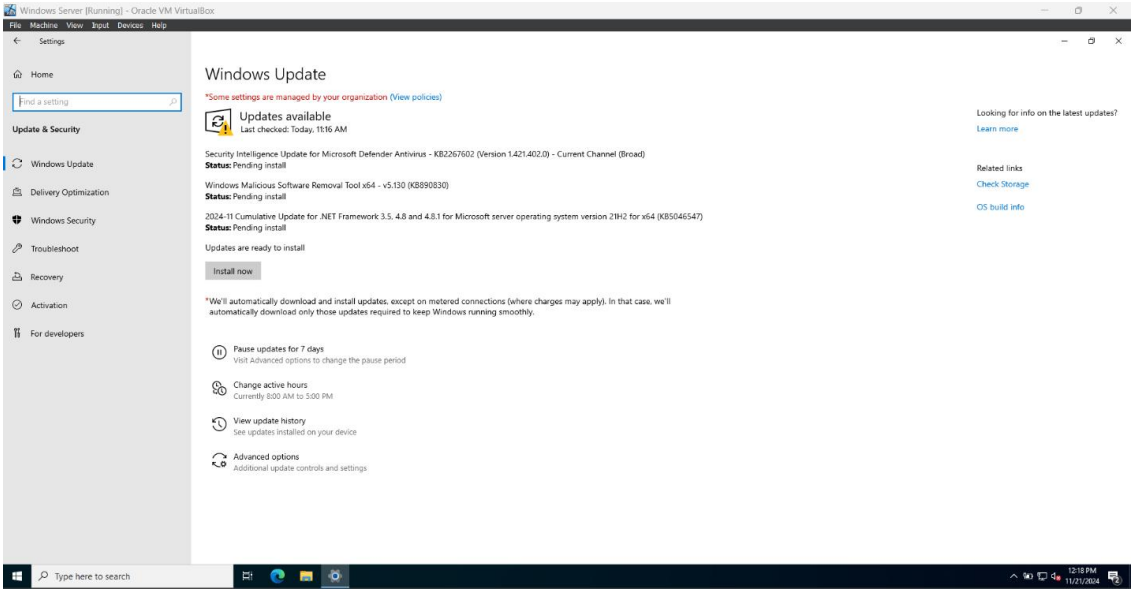


Figure 19 Checking for updates

10. Adding user using GUI

From the toolbar at the top right of Server Manager, press Tools and From the list select Computer Management.

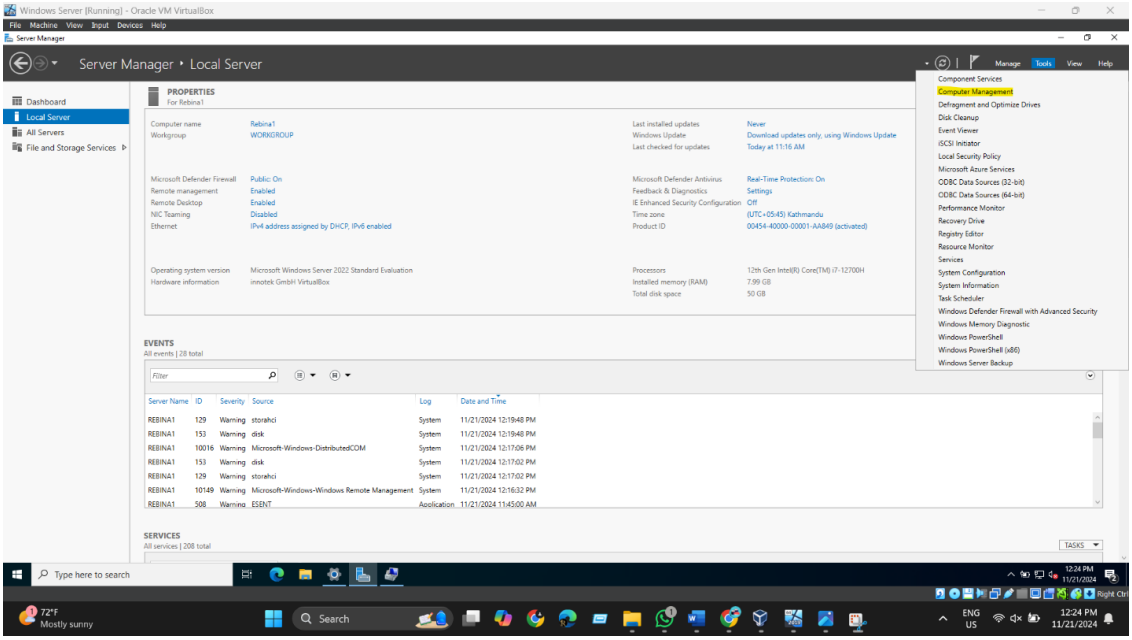


Figure 20 From tools choose computer management

Select Local Users and Groups form the list at the left.

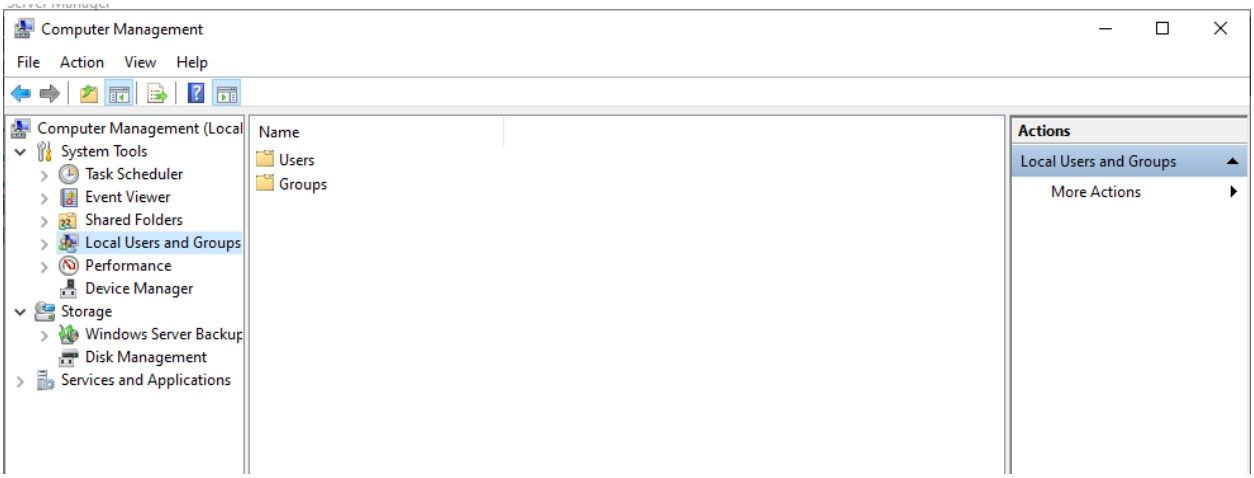


Figure 21 Choose local user and Groups

Right click on Users and press New User.

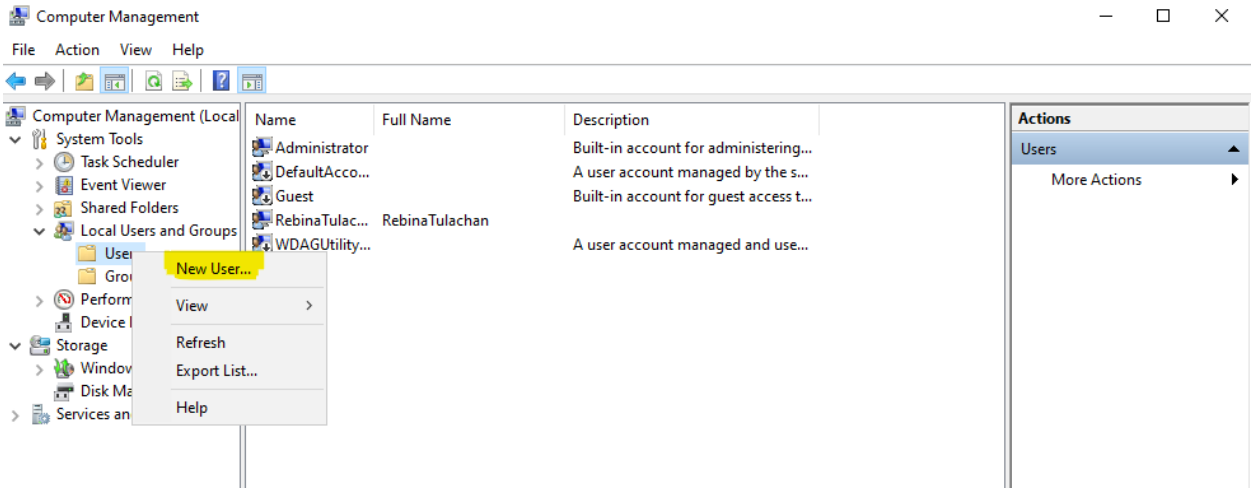


Figure 22 Click on user and press new user

On the new window, enter details on the new user and press Create.

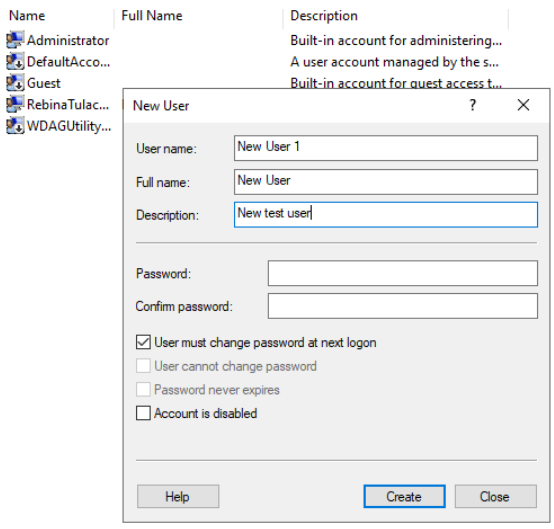


Figure 23 Enter details for new user

The new user will be added.

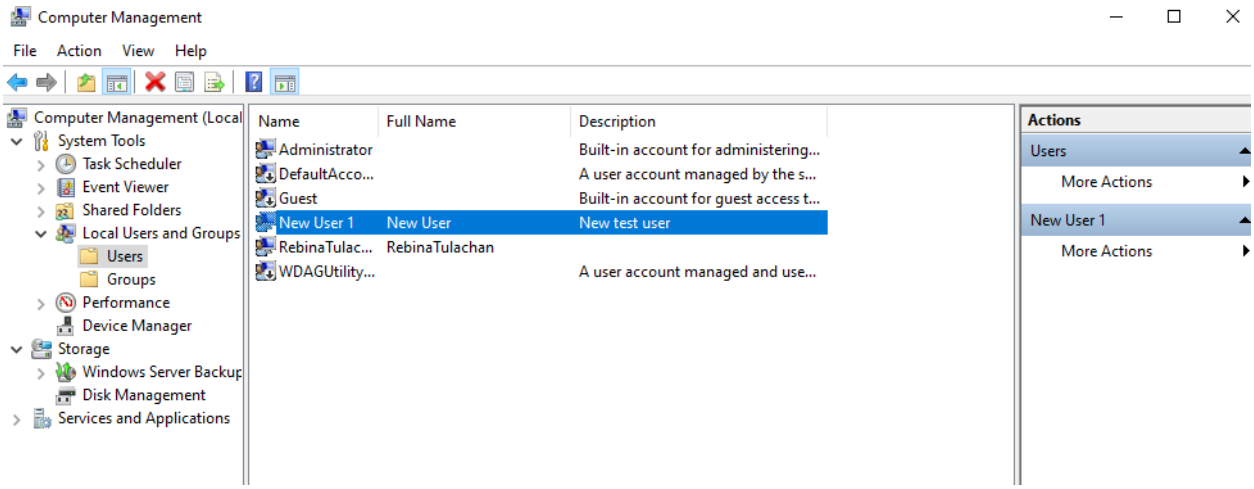


Figure 24 New user has been created

11. Adding new user using Shell

Open Windows Powershell as an administrator

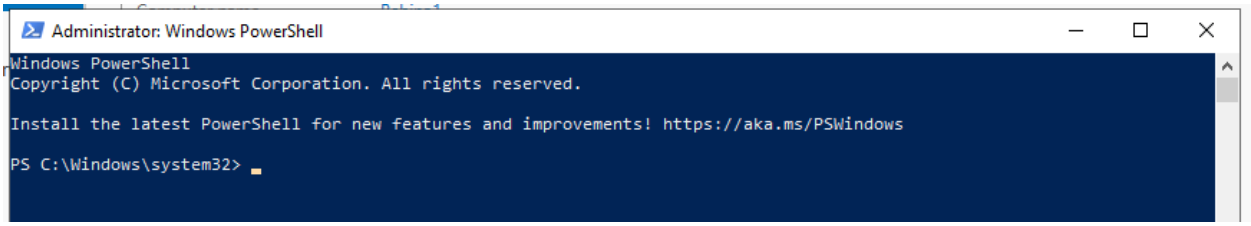


Figure 25 Open window power cell

Enter the command “get-localuser” to view all the users.

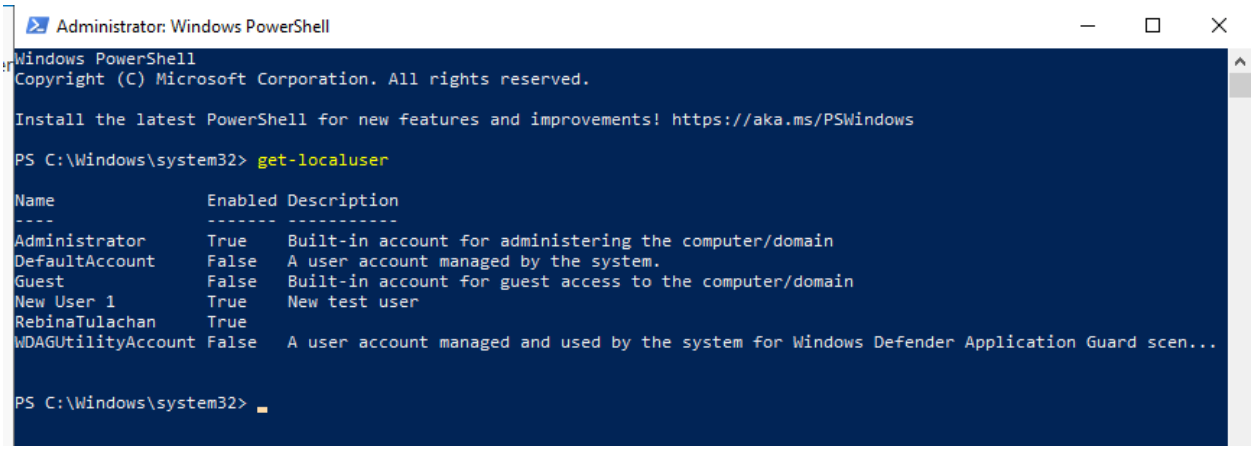


Figure 26 Enter command "get-localuser"

Enter the command “new-localuser -name ‘username’ -description ‘description’ -password ‘password’ ” to create new user. In this case, nopassword is given to skip the password.

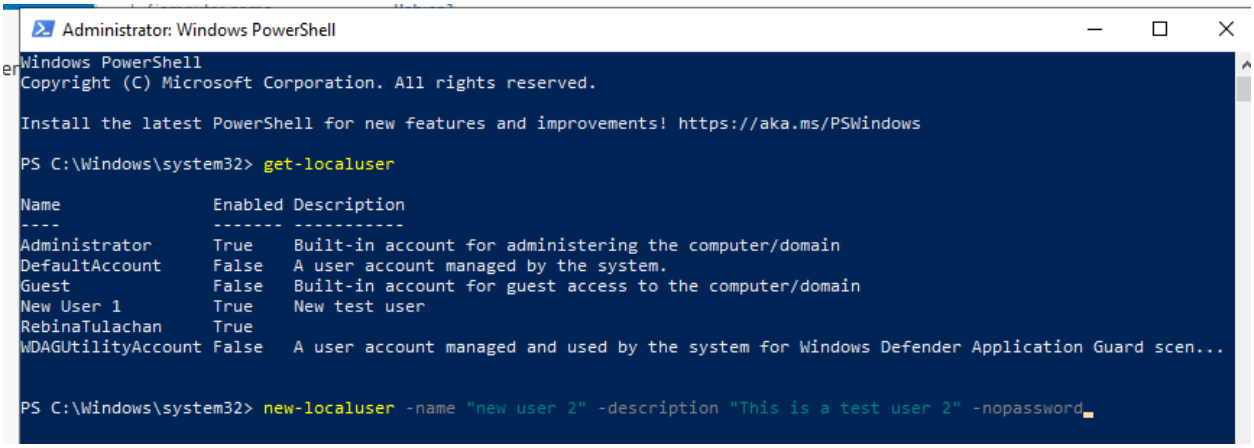


Figure 27 Enter command "new-localuser"

The new user is added successfully.

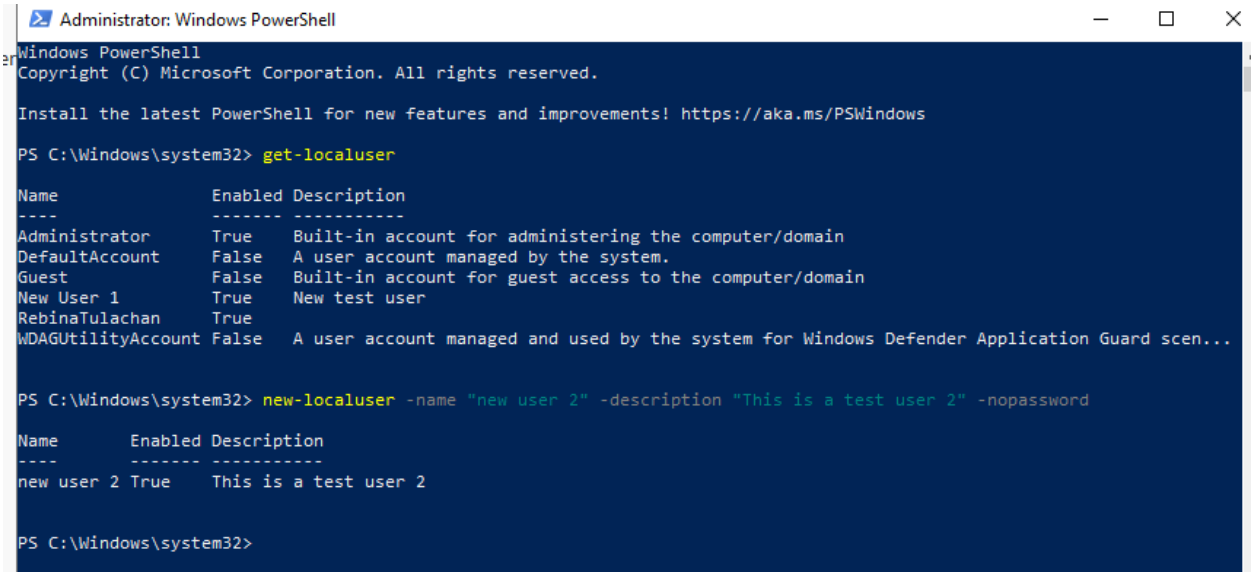


Figure 28 New user has added

Unlike GUI, users are not added automatically to the group and require them to be manually added from the Shell. The command is “add-localgroupmember -group ‘groupname’ -member ‘username’ ”

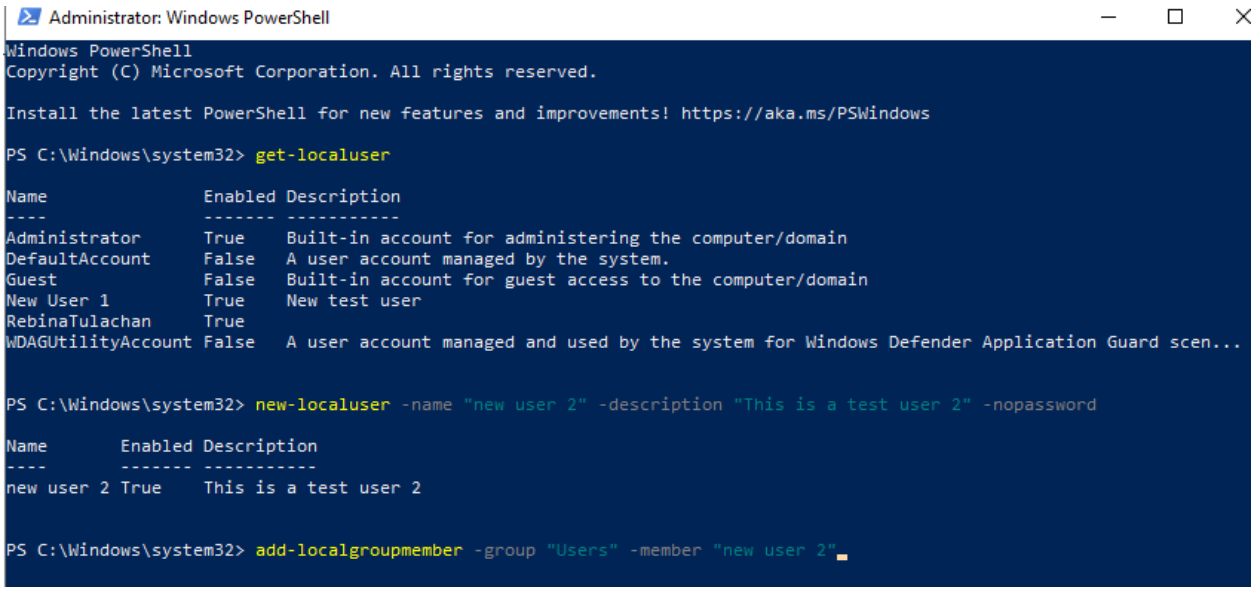


Figure 29 Adding local group member

12. Removing a user

Removing users is very simple. The command to remove a user using Shell is “remove-localuser -name ‘username’ ”

Figure 30 Removing user

Confirming that the user is removed.

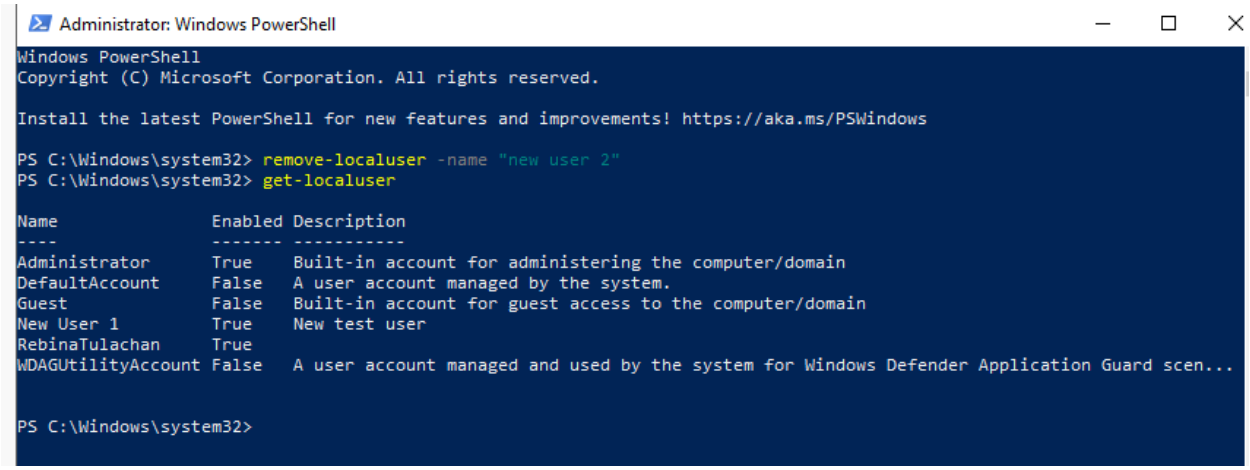


Figure 31 Confirming that user has been removed

13. Storing passwords using variables as secure strings

To store strings as secure string a new variable is created using the command $variable -read-host -assecurestring

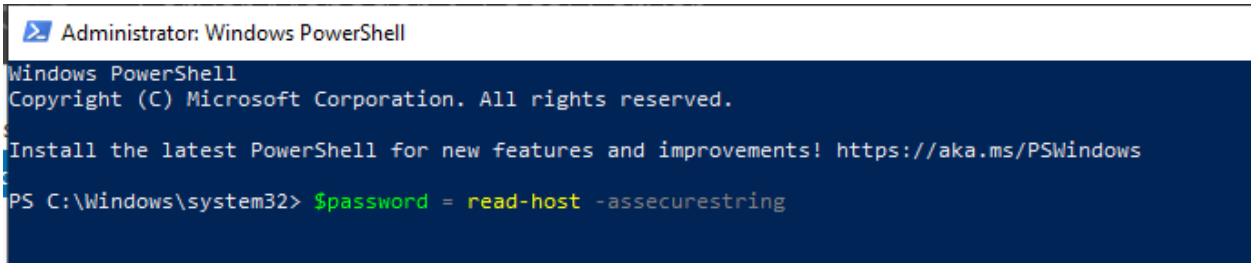


Figure 32 Creating password

Password string is given and is stored by the variable. Passwords must be alpha numeric and symbolic.

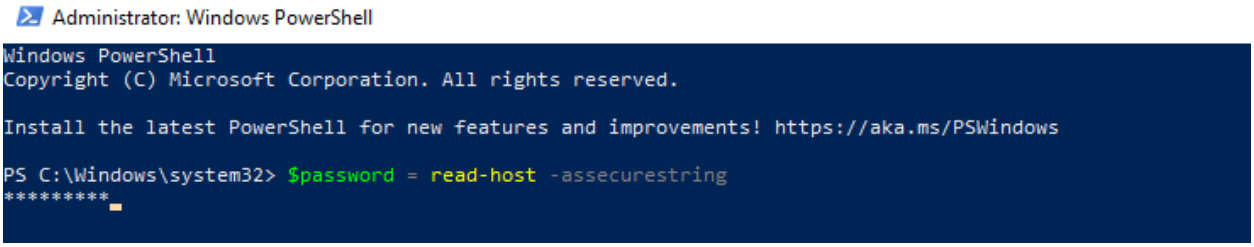


Figure 33 Entering password

A new user is created by giving the variable as password.

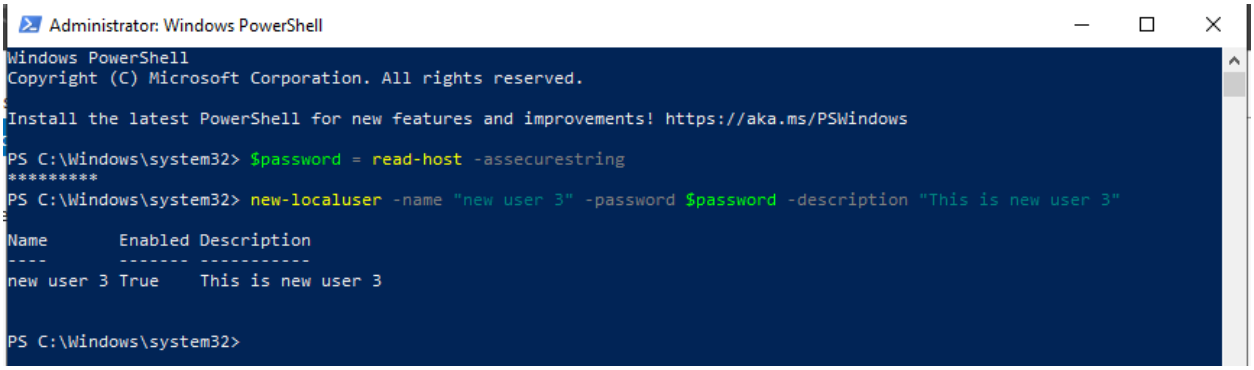


Figure 34 Creating new user

New user created by using variable as password.

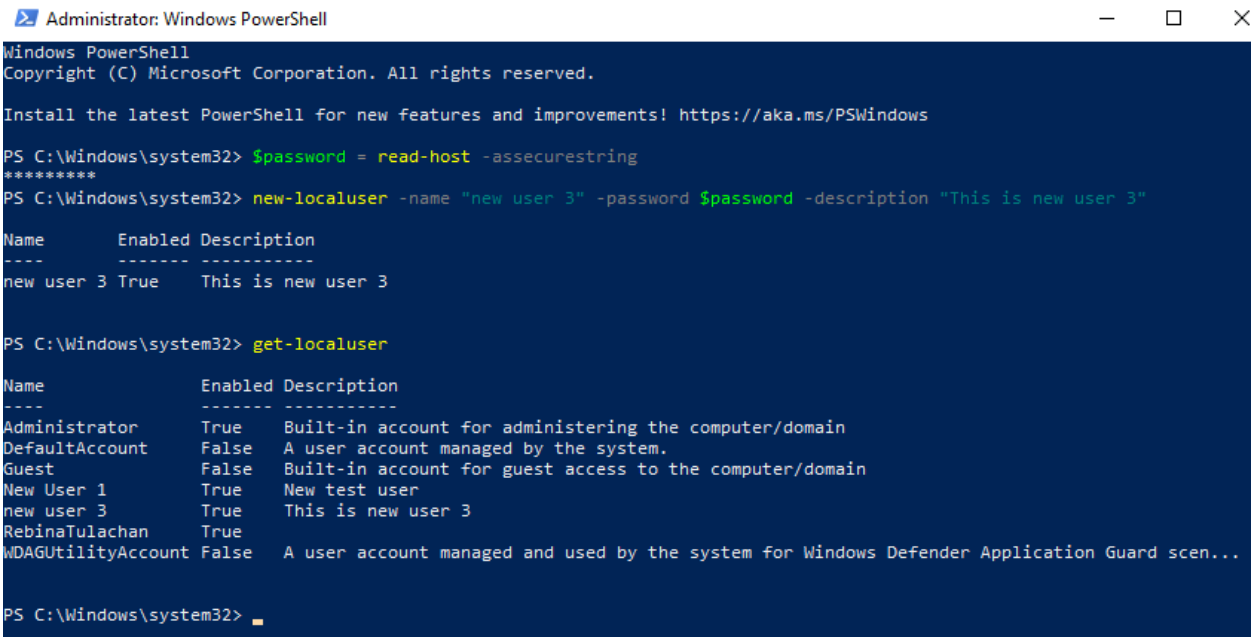


Figure 35 New user 3

14. Conclusion

This report has provided a basic understanding of Windows Server configuration. We've covered essential tasks like renaming the server, enabling remote access, setting up a static IP address, and managing user accounts. By mastering these fundamental skills, we can effectively manage our Windows Server and ensure its smooth operation.

However, Windows Server offers a wide range of advanced features and capabilities. To fully leverage its potential, we need to continue exploring and learning about its various functionalities.

15. References

College, A., 2019. *VM VirtualBox: Virtualization.* s.l.:s.n.

Krause, J., 2023. *Mastering Windows Server 2022.* s.l.:s.n.