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Module Title

Level 5 – Network operating system

Assessment Type

Logbook 3

Semester

2023/24 Autumn

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Assignment Due Date: 23 November 2024

Assignment Submission Date: 23 November 2024

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Table of Contents

Table of figures-:

1. Introduction

Windows PowerShell

Windows PowerShell is a tool from Microsoft that helps manage and automate tasks on computers. It's both a command-line program and a scripting language, making it easy to handle things like files, processes, and network settings. You can use it to write scripts for repetitive tasks or to manage multiple systems at once, both locally and remotely (Microsoft, 2024).

IP Address

An IP address is like the digital address of a device on a network. It helps devices find and talk to each other, like sending and receiving data. There are two types: IPv4, which looks like 192.168.1.1, and IPv6, which is longer and designed for more devices. Some IP addresses are used only inside private networks, while others are public and can be accessed over the internet (Rooney, 2010).

2. Objective

Process of configuration and management of a Windows Server, including server setup, network settings, user management, and system security.

3. Required Tools and Concepts

i. System requirements-:

First off all your system must fulfil the sufficient storage and processing power to run VMware or virtual Box smoothly at least 8 GB of ram and 50 GB if storage is recommended with multi core processor.

ii. Virtualization Software-:

Then you need to install virtualization tool that allows to create virtual machine on the system.

iii. Windows Server 2022 ISO File-:

A copy of windows server 2002 ISO file which is available in the Microsoft official website.

4. Steps of Replicate

Step 1: Opening a Server Manager
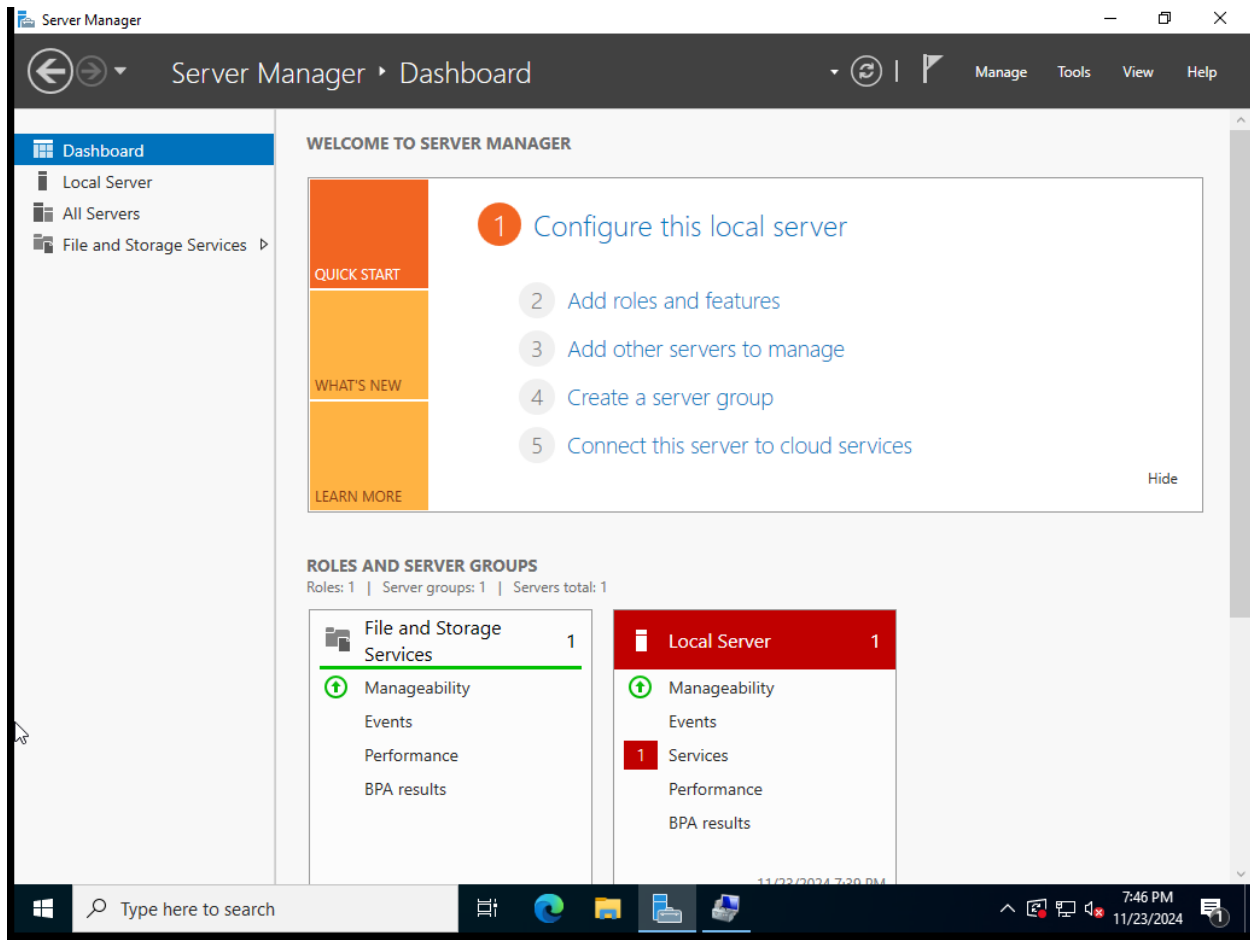
Figure 1:Opening a Server Manager

Step 2: Changing the Server's name
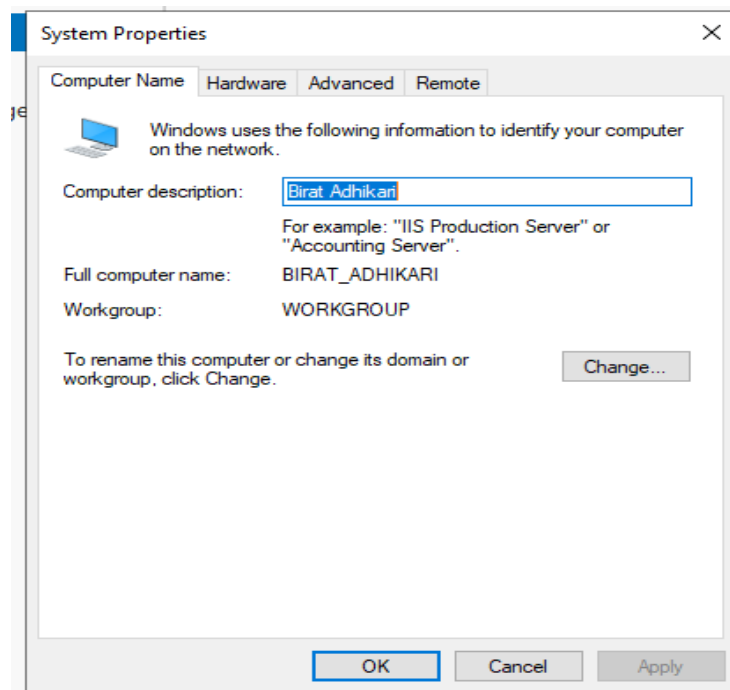
Figure 2: Changing computer description
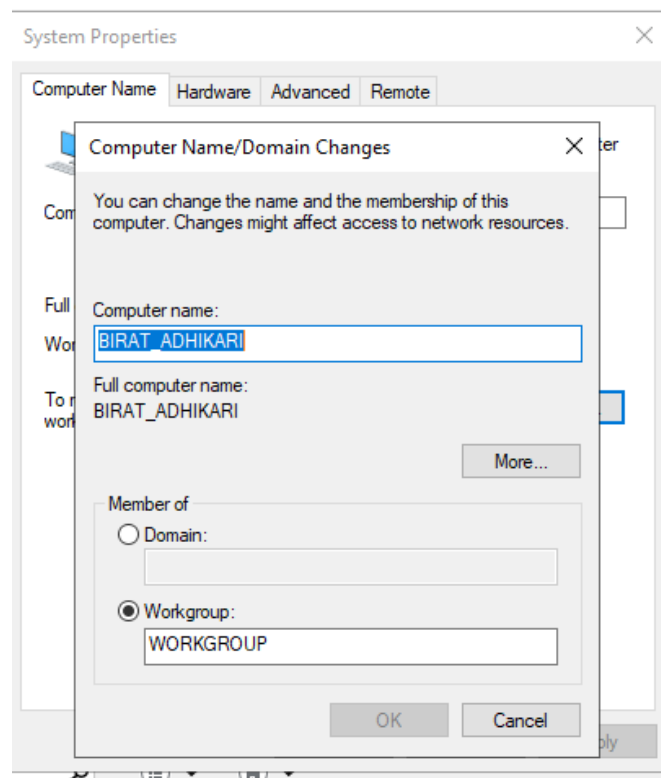
Figure 3:Changing computer name
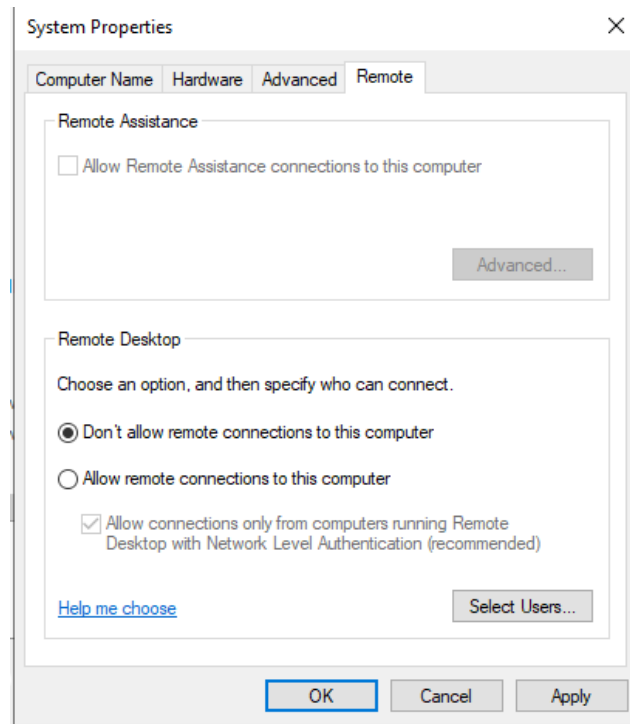
Figure 4:opening remote access
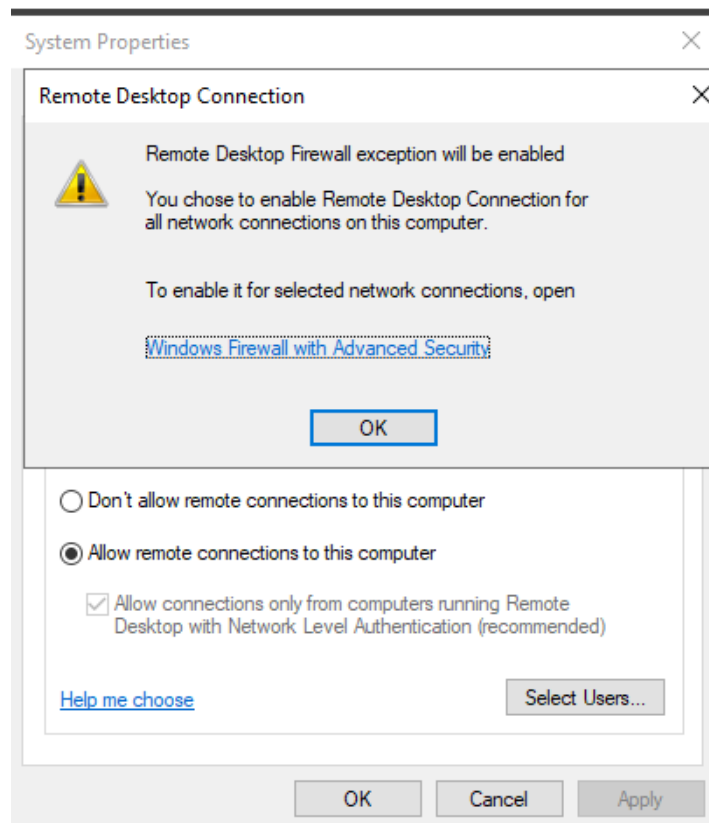
Figure 5:enabling remote access
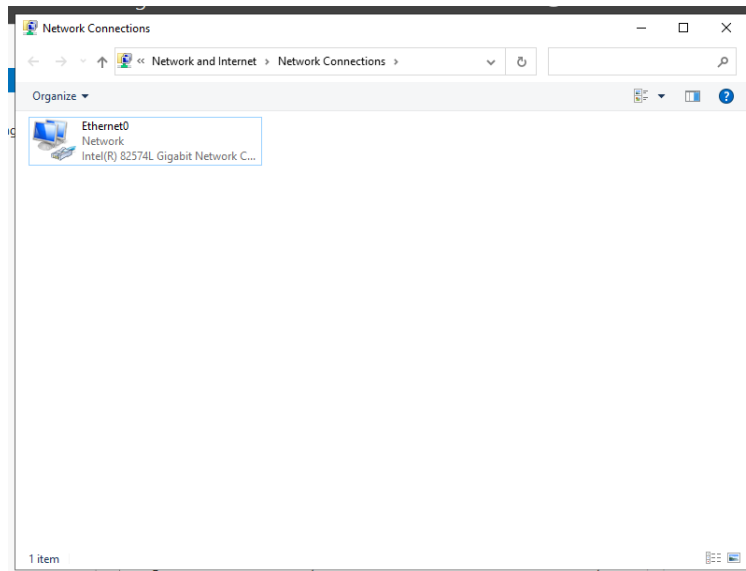
Figure 6:opening network settings
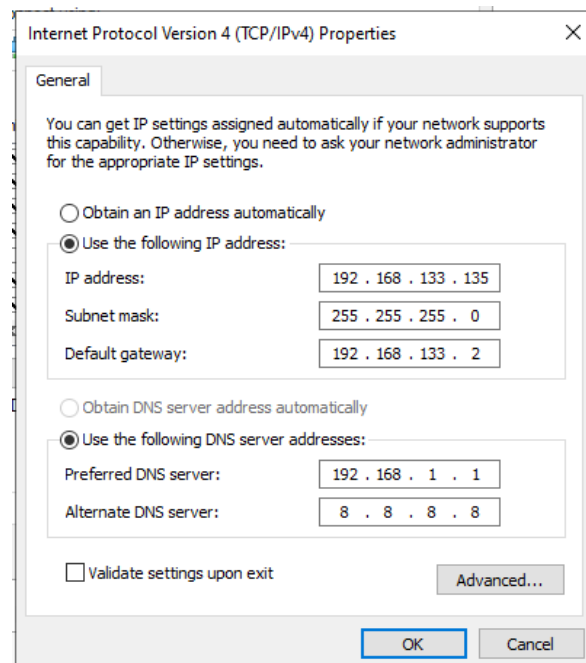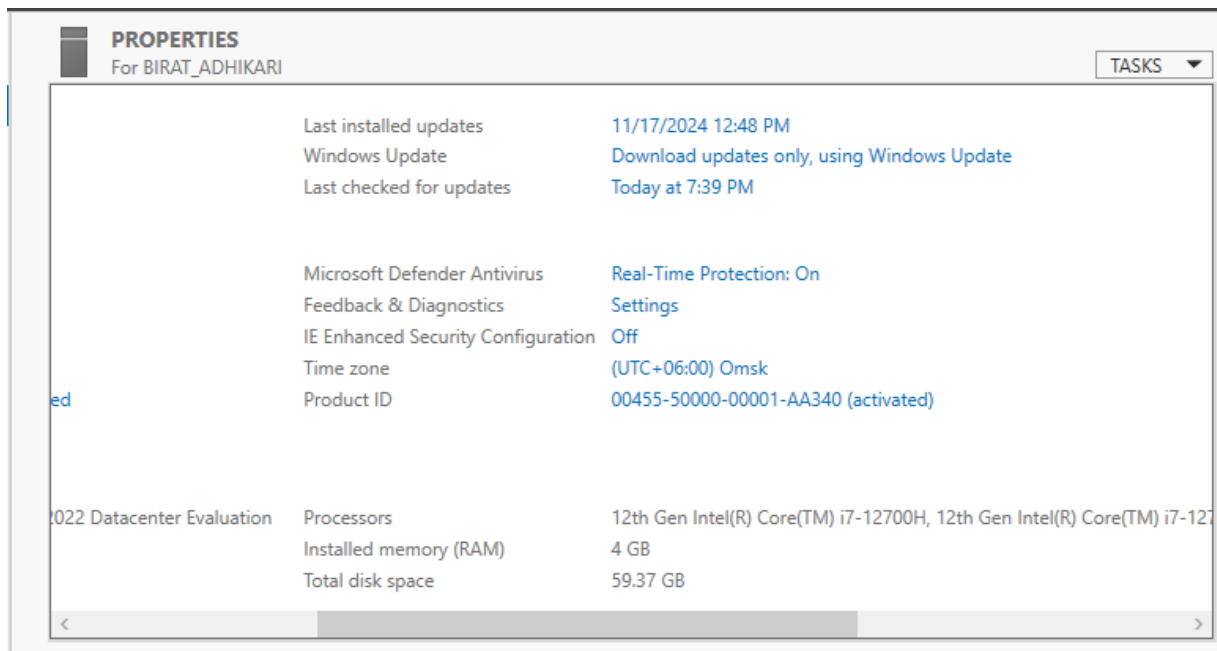

Figure 7: configuring the ip, subnet,DNS GATEWAY

Figure 8:changing time zone
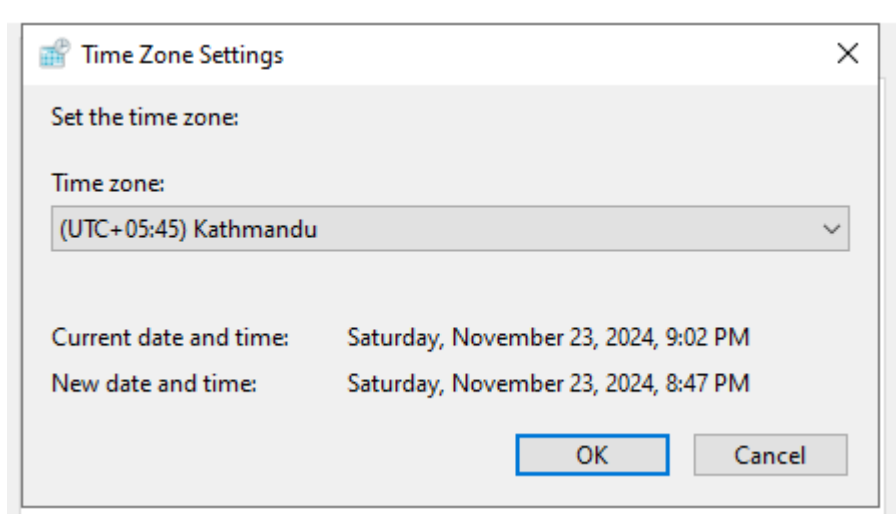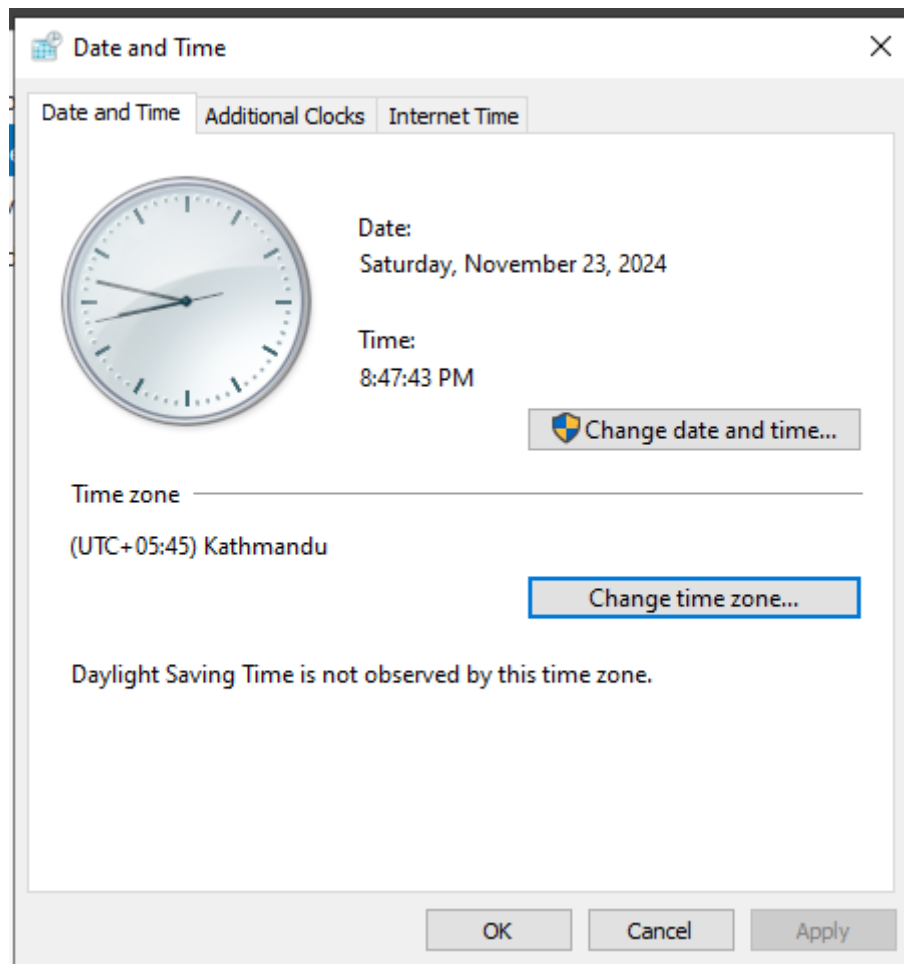

Figure 9:changing time zone to Kathmandu

Figure 10:showing up the changed time zone
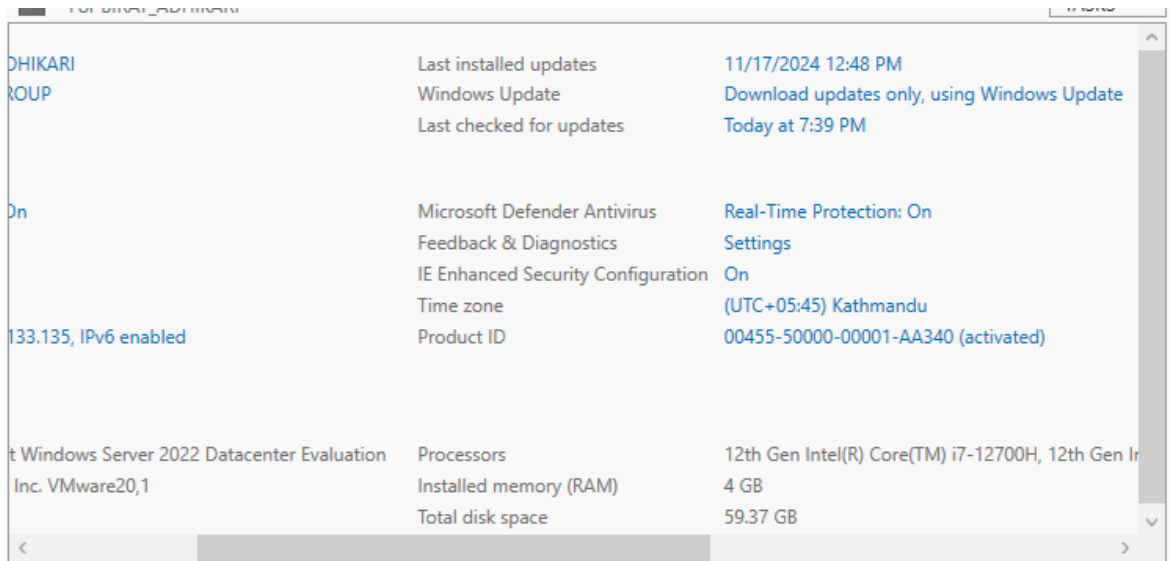
Figure 11:changibne enhanced security option to off
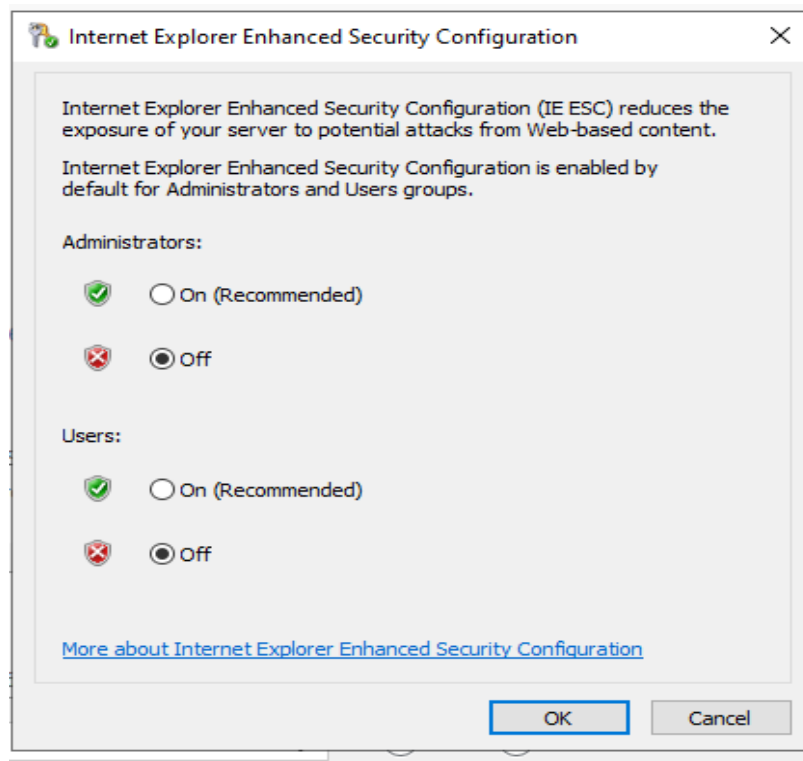
Figure 12:turning off enhanced configuration
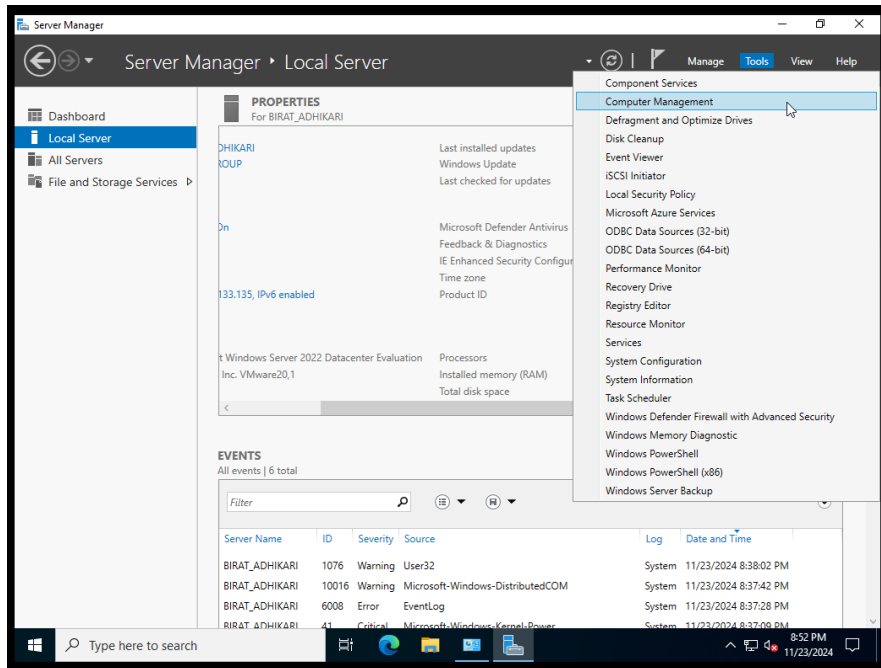
Figure 13:navigation to computer management console
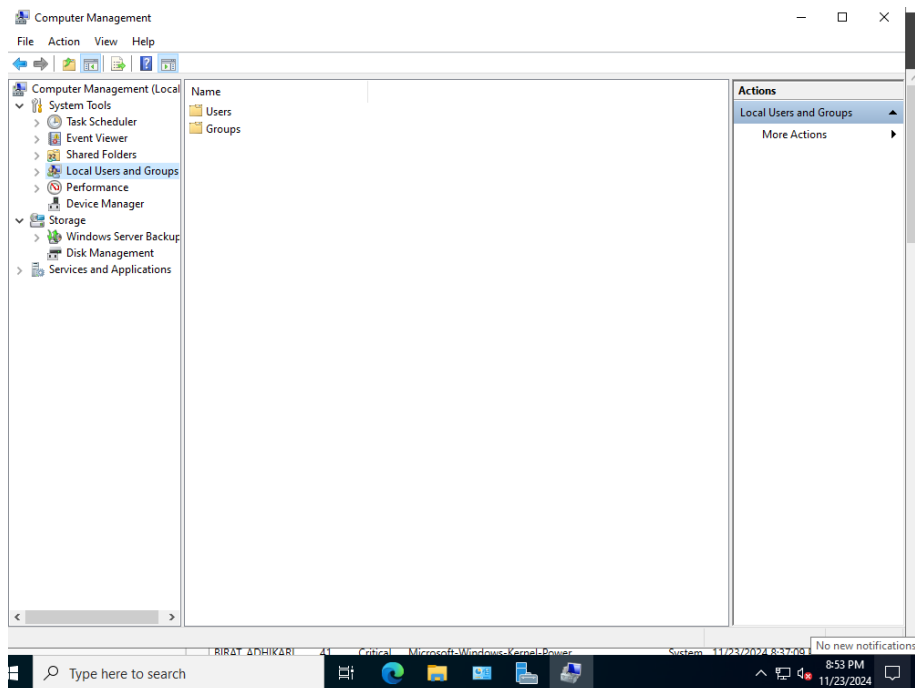
Figure 14:opening up local user and groups
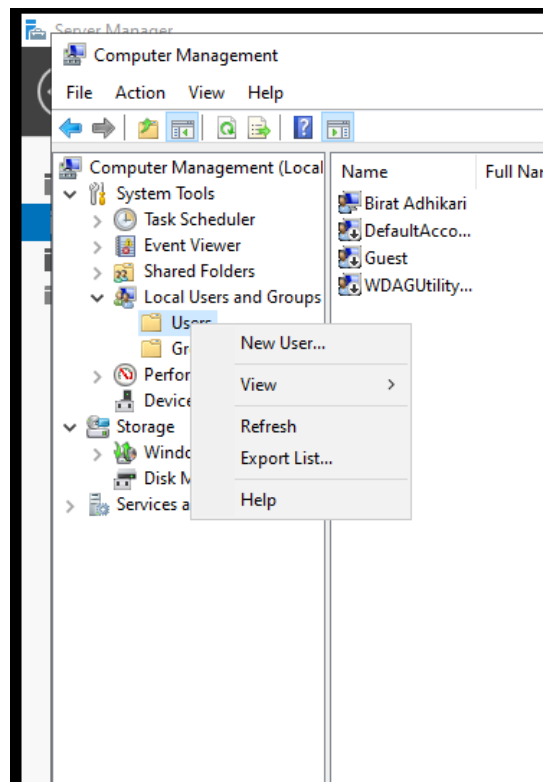
Figure 15:Adding up new user named ronaldo

Figure 16:User name Ronaldo had added
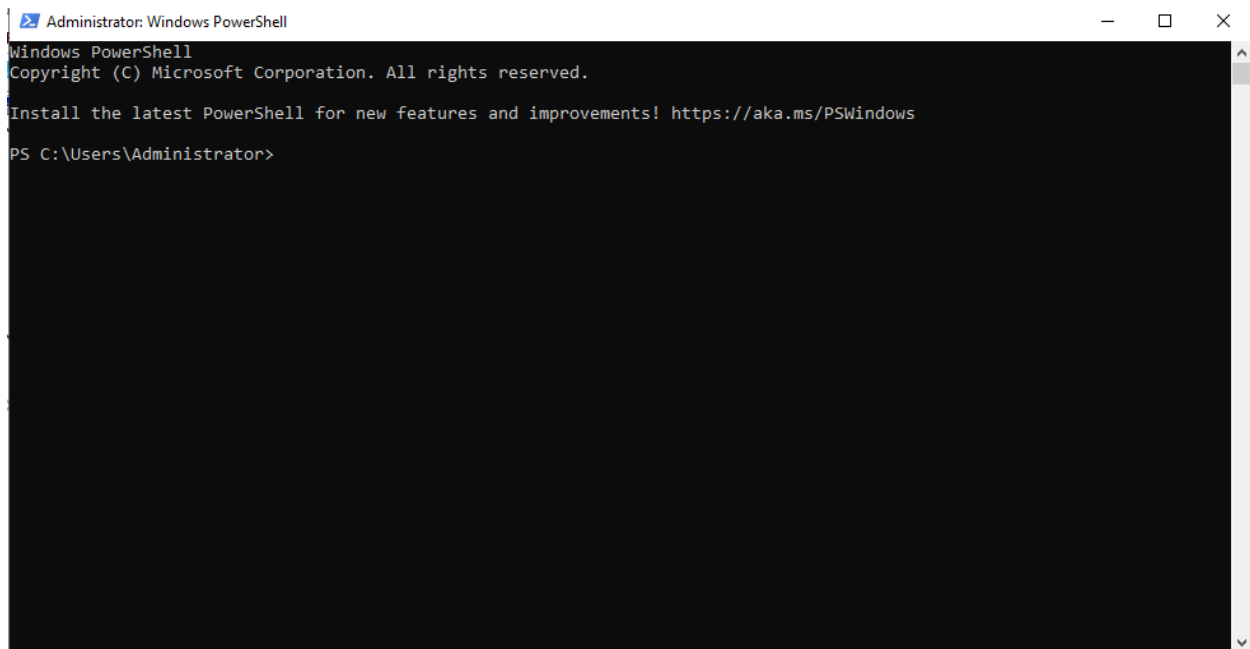
Figure 17:Opening up windows PowerShell console

Figure 18:listing local user

Figure 19: adding new local user named log3

Figure 20:User named log3 added

Figure 21:viewing local users after adding log3 as User

Figure 22:adding local group member

Figure 23:removing a user

Figure 24:syntax error while running command

Figure 25:storing password in a string variable

Figure 26:using same variable to user 3 as password

5. Conclusion-:

This log covers the key steps for setting up and managing a Windows Server effectively. Using tools like Server Manager and PowerShell, tasks such as renaming the server, setting a static IP address, enabling Remote Desktop, and managing users become simple and efficient. These processes help ensure the server runs smoothly, stays secure, and meets the needs of the organization, making system administration easier and more reliable.

6. References

Microsoft, 2024. *Installing PowerShell on Windows*. [online] Available at: https://learn.microsoft.com/en-us/powershell/scripting/install/installing-powershell-on-windows?view=powershell-7.4 [Accessed 23 November 2024].

Rooney, T., 2010. Introduction to IP address management (Vol. 17). John Wiley & Sons.