



Module Title

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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

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

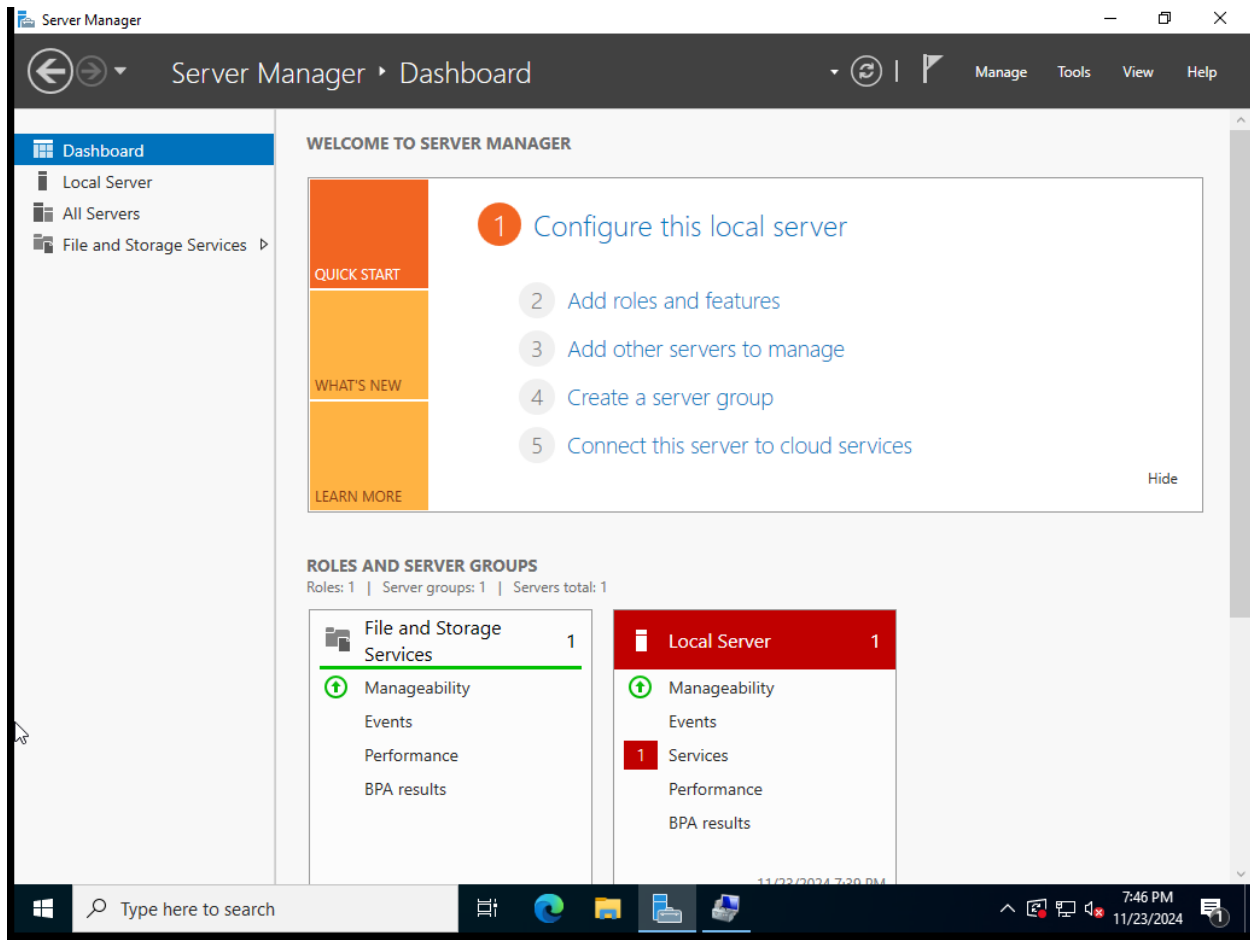


Figure 1: Opening a Server Manager

Step 2: Changing the Server's name

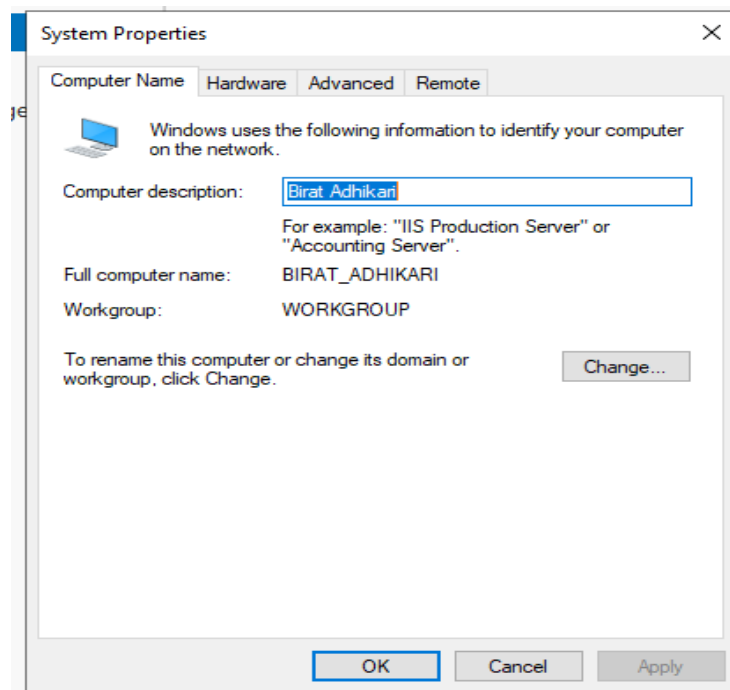


Figure 2: Changing computer description

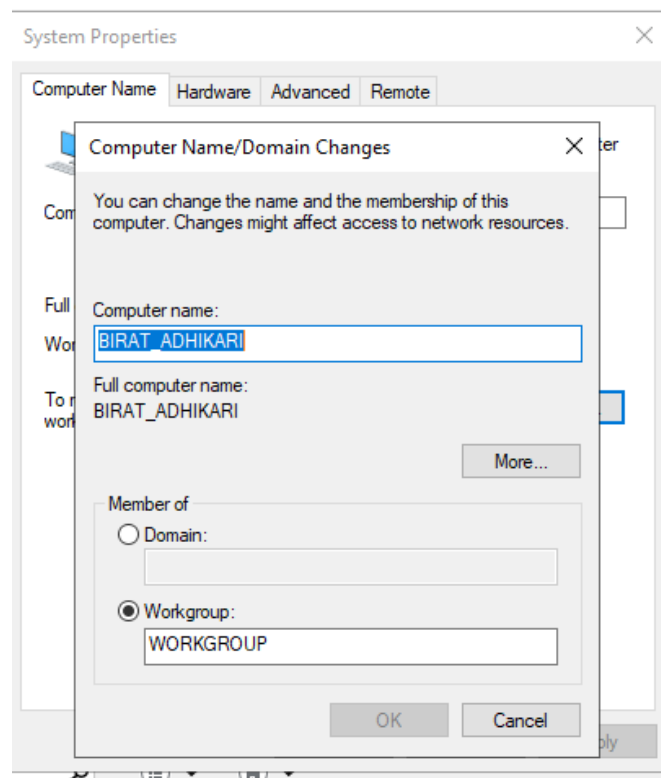


Figure 3: Changing computer name

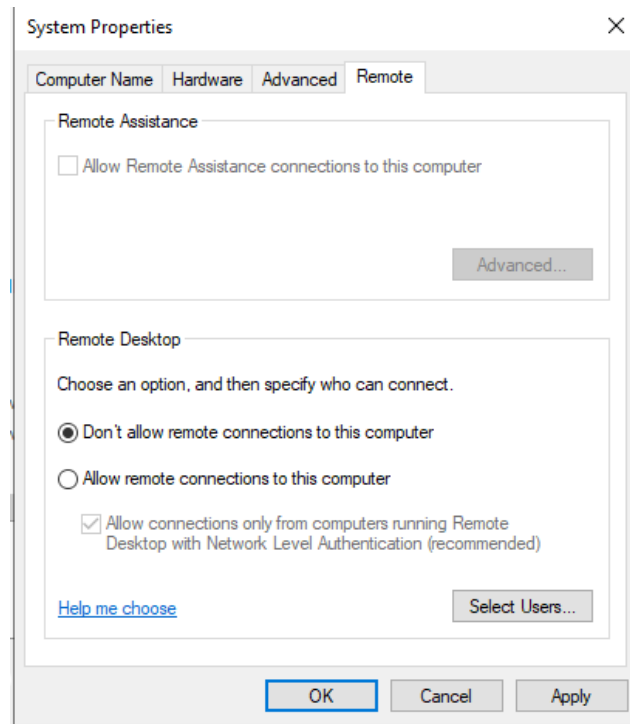


Figure 4:opening remote access

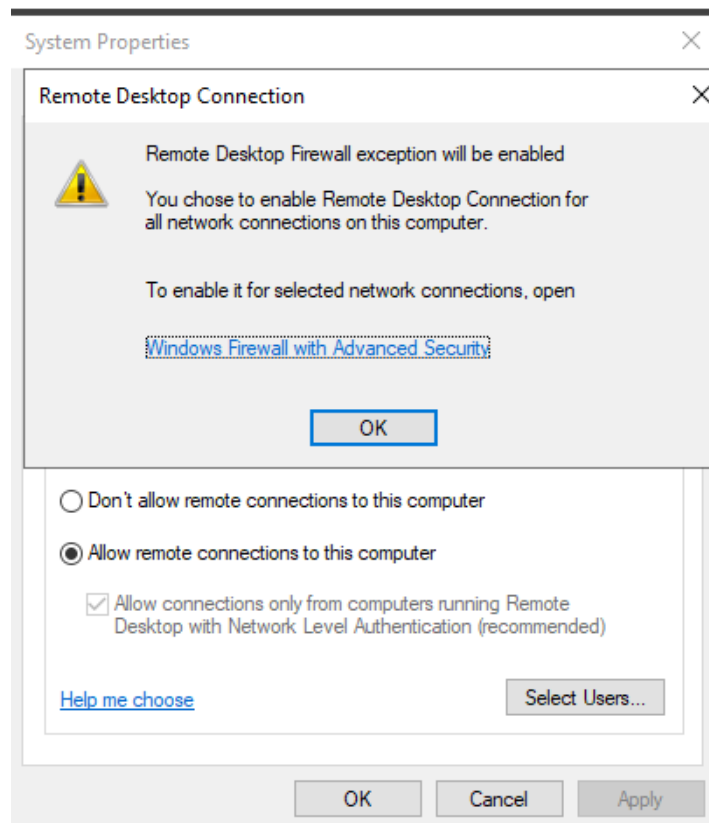


Figure 5:enabling remote access

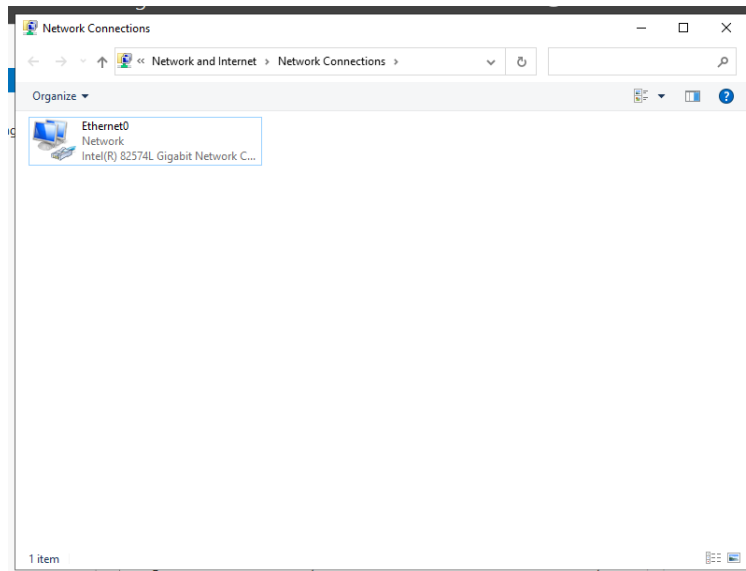


Figure 6: opening network settings

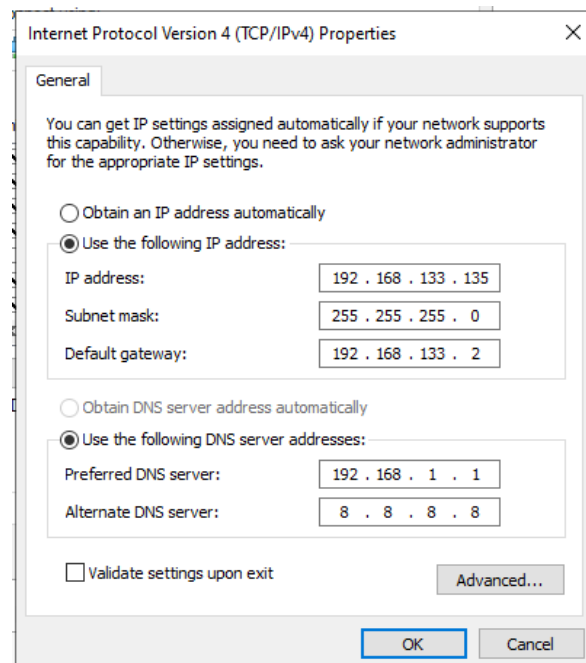


Figure 7: configuring the ip, subnet,DNS GATEWAY

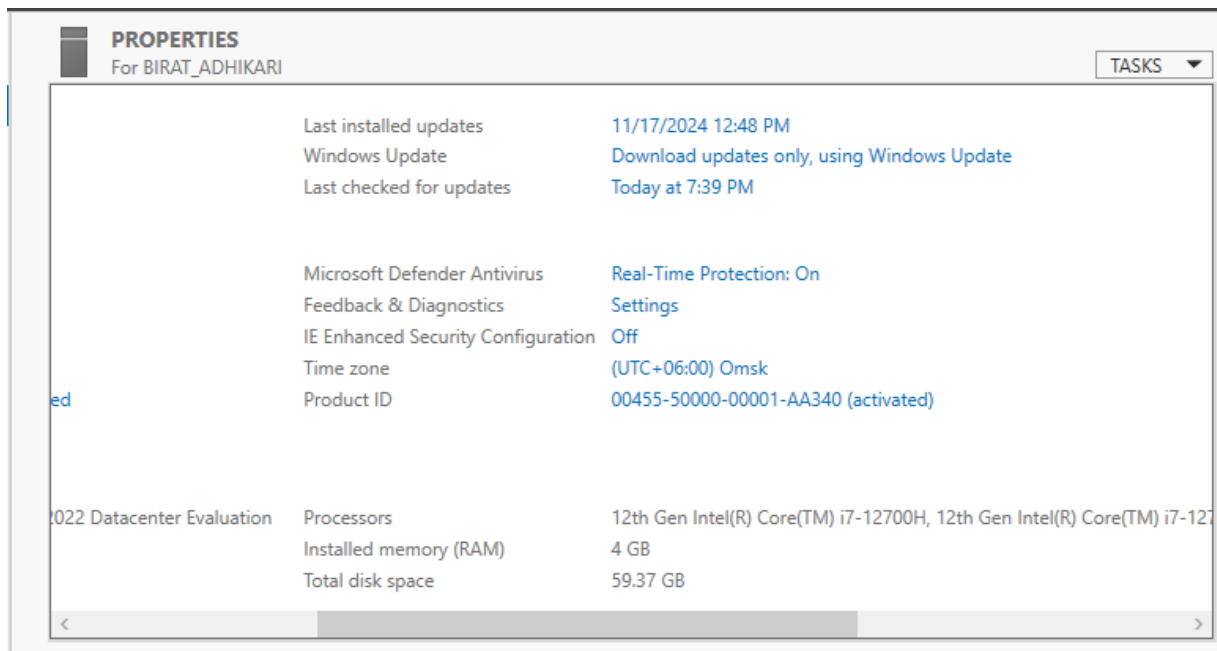


Figure 8:changing time zone

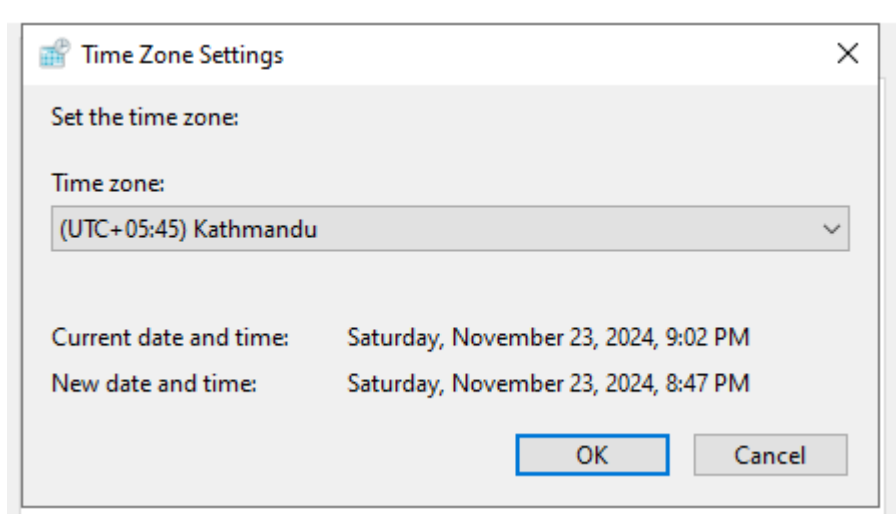


Figure 9:changing time zone to Kathmandu

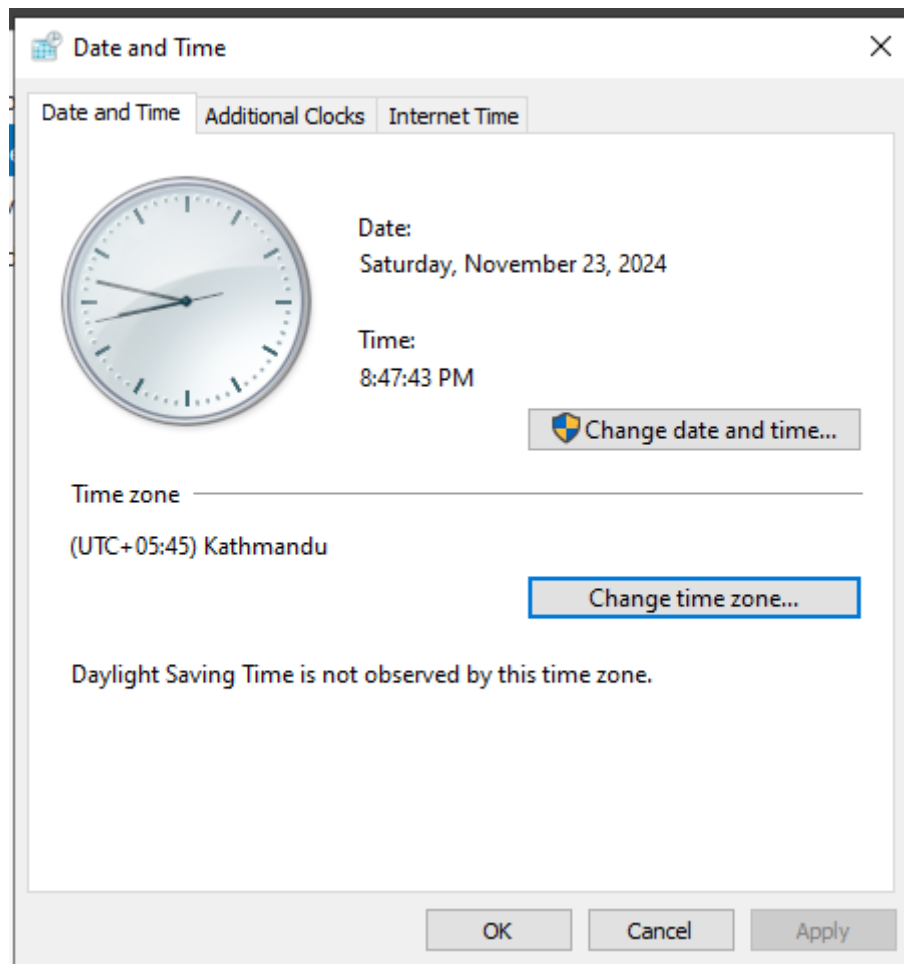


Figure 10: showing up the changed time zone

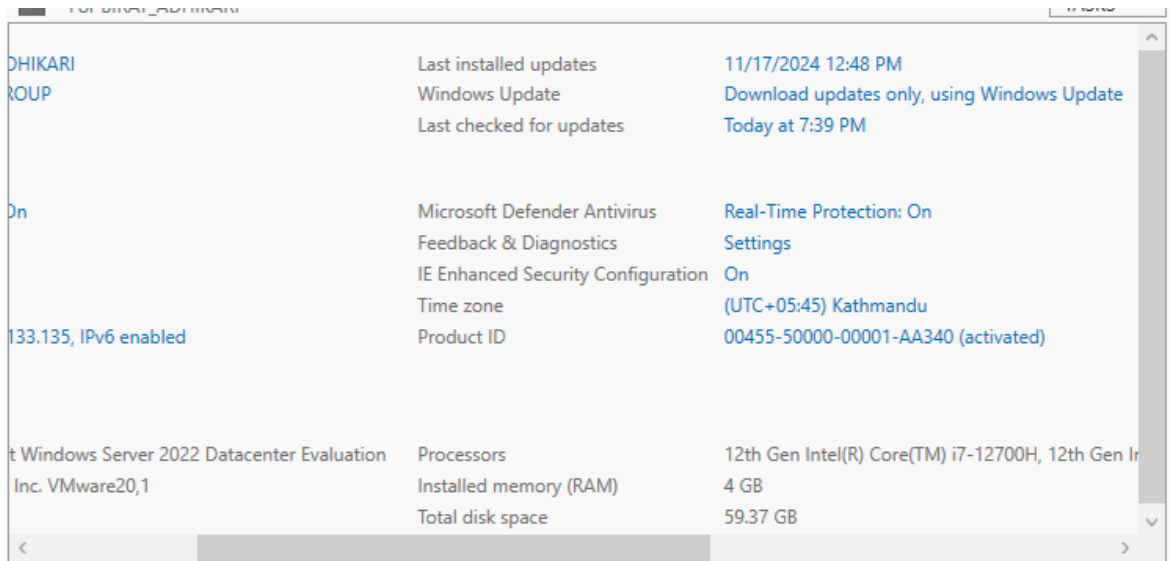


Figure 11:changing enhanced security option to off

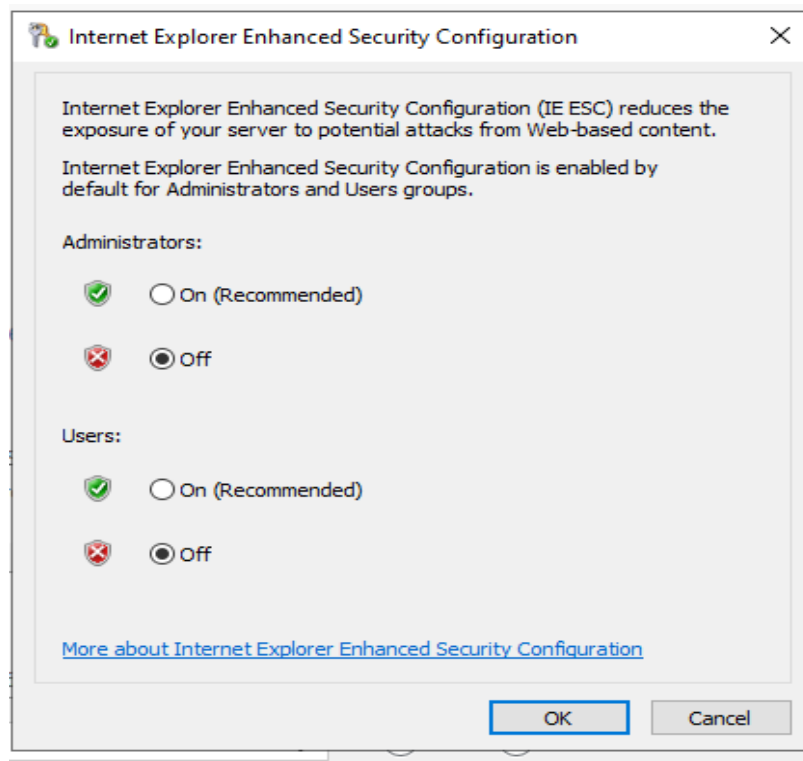


Figure 12:turning off enhanced configuration

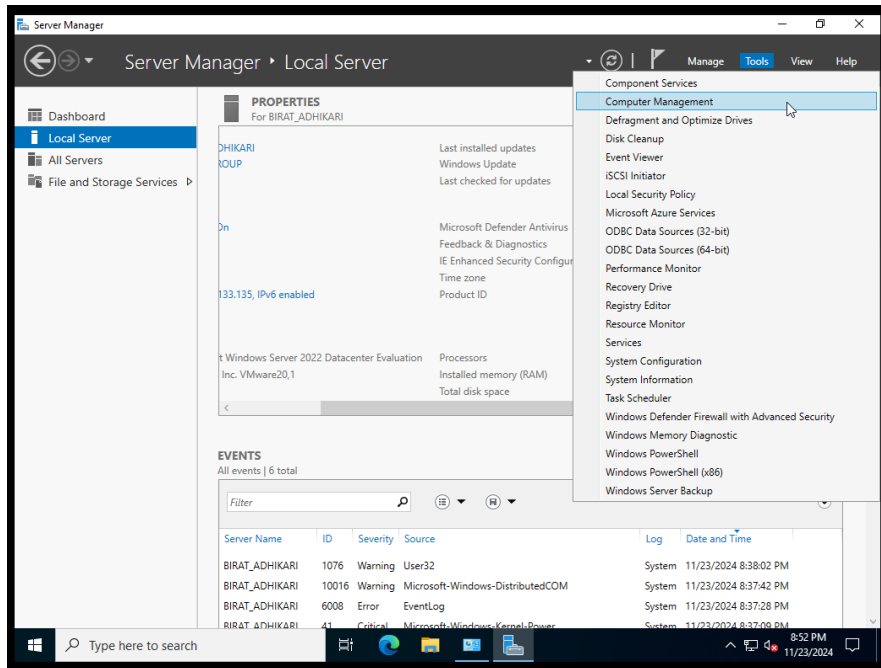


Figure 13:navigation to computer management console

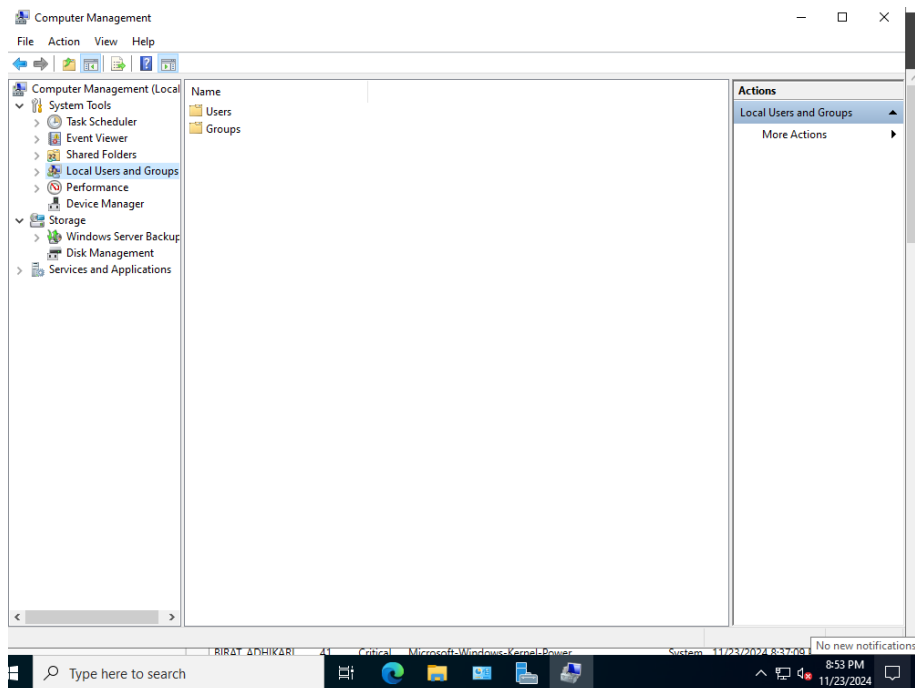


Figure 14:opening up local user and groups

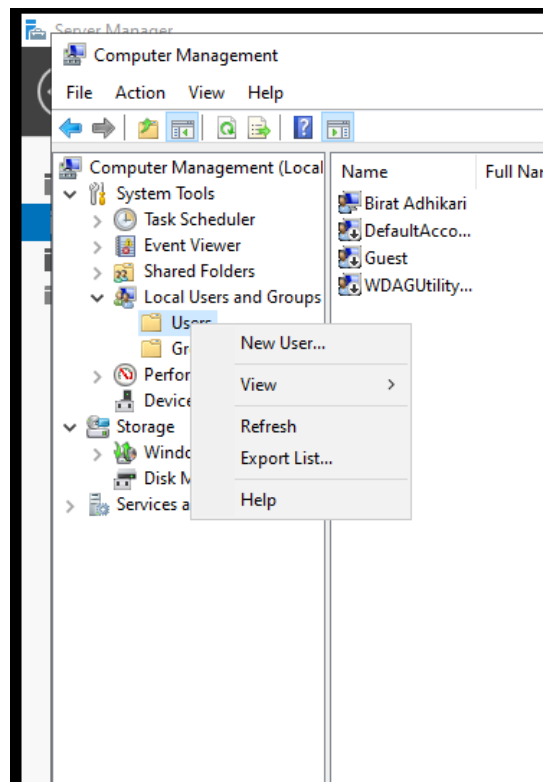


Figure 15: Adding up new user named ronaldo

Name	Full Name	Description
Birat Adhikari		Built-in account for administering...
DefaultAcco...		A user account managed by the s...
Guest		Built-in account for guest access t...
Ronaldo	Cristiano Ronaldo	test for log
WDAGUtility...		A user account managed and use...

Figure 16: User name Ronaldo had added

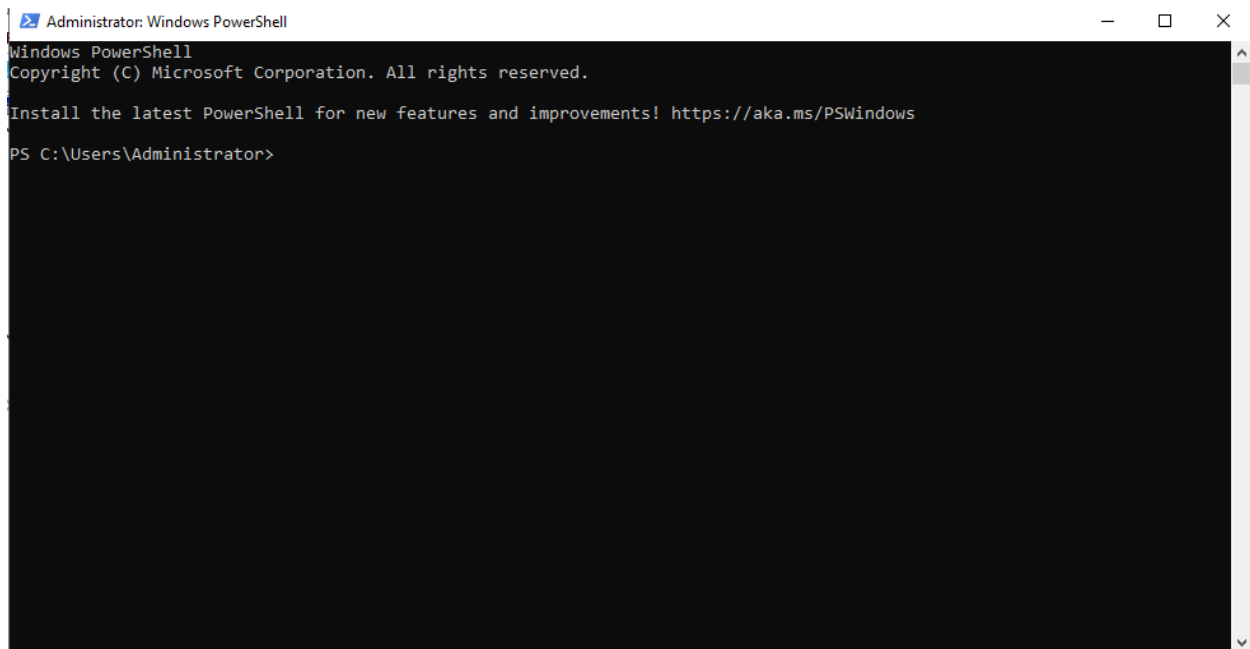


Figure 17: Opening up windows PowerShell console

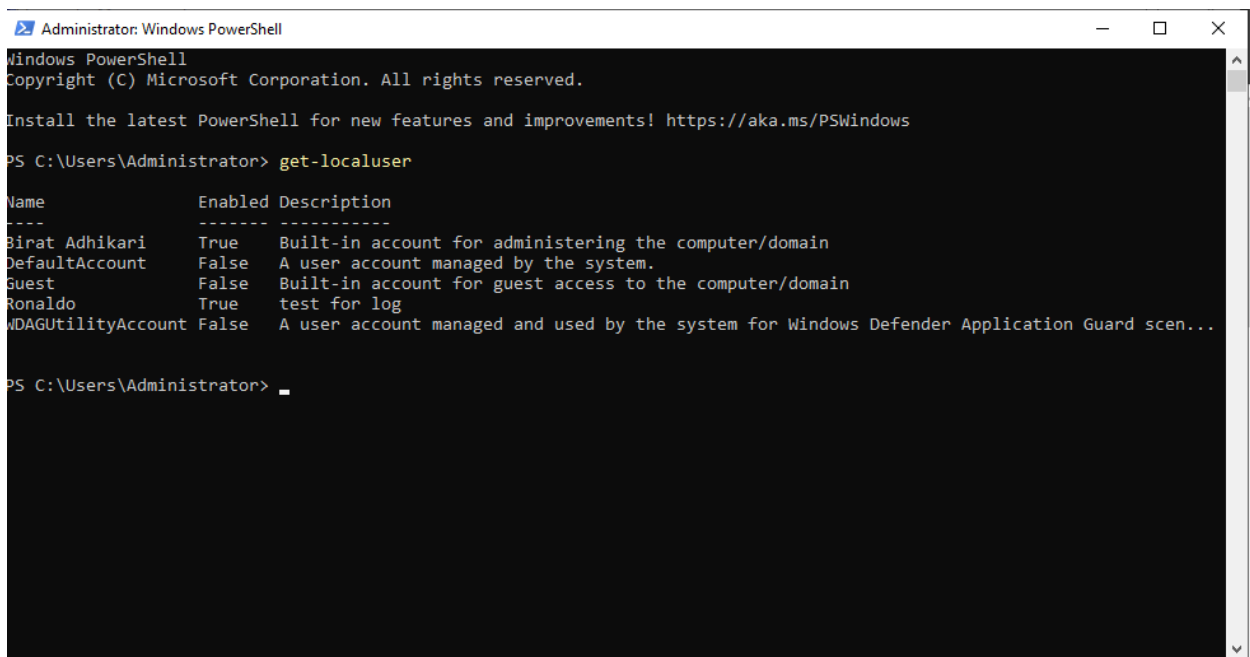


Figure 18: listing local user


```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\Administrator> get-localuser

Name                Enabled Description
-----
Birat Adhikari      True   Built-in account for administering the computer/domain
DefaultAccount      False  A user account managed by the system.
Guest               False  Built-in account for guest access to the computer/domain
Ronaldo             True   test for log
WDAGUtilityAccount  False  A user account managed and used by the system for Windows Defender Application Guard scen...

PS C:\Users\Administrator> new-localuser -name "log3" -description "local user for log 3" -nopasswor_
```

Figure 19: adding new local user named log3

```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\Administrator> get-localuser

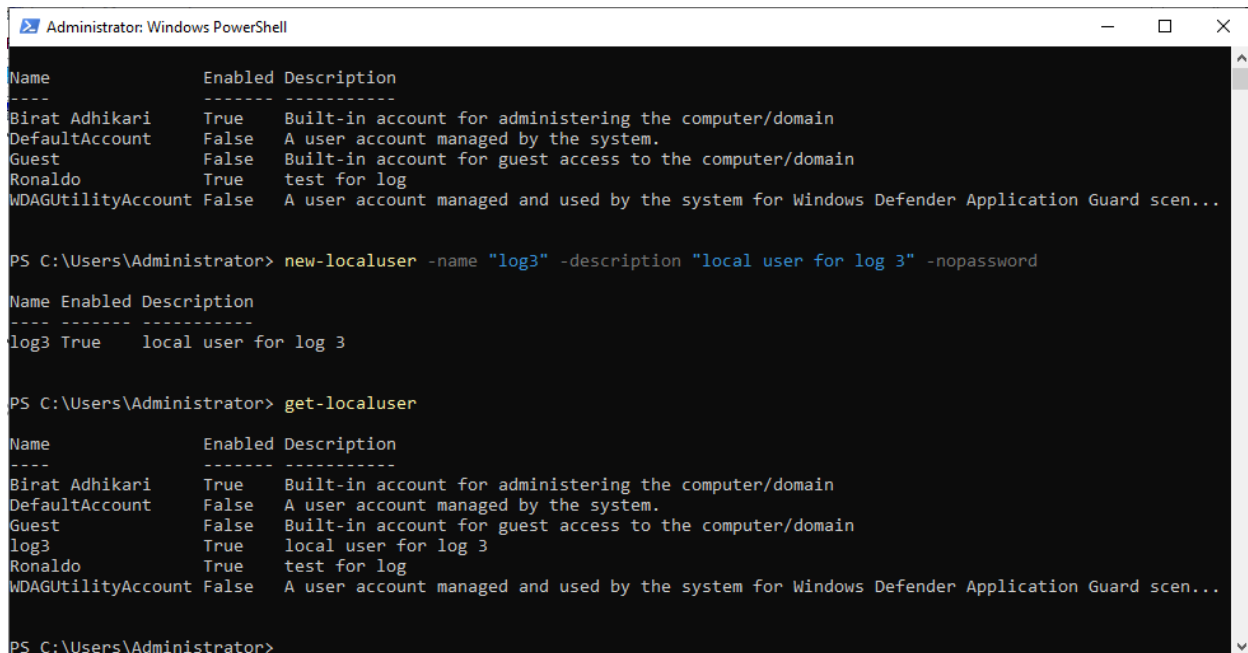
Name                Enabled Description
-----
Birat Adhikari      True   Built-in account for administering the computer/domain
DefaultAccount      False  A user account managed by the system.
Guest               False  Built-in account for guest access to the computer/domain
Ronaldo             True   test for log
WDAGUtilityAccount  False  A user account managed and used by the system for Windows Defender Application Guard scen...

PS C:\Users\Administrator> new-localuser -name "log3" -description "local user for log 3" -nopasswor

Name Enabled Description
-----
log3 True    local user for log 3

PS C:\Users\Administrator> _
```

Figure 20: User named log3 added



Administrator: Windows PowerShell

```
Name           Enabled Description
-----
Birat Adhikari  True    Built-in account for administering the computer/domain
DefaultAccount False   A user account managed by the system.
Guest           False   Built-in account for guest access to the computer/domain
Ronaldo         True    test for log
WDAGUtilityAccount False   A user account managed and used by the system for Windows Defender Application Guard scen...

PS C:\Users\Administrator> new-localuser -name "log3" -description "local user for log 3" -nopassword

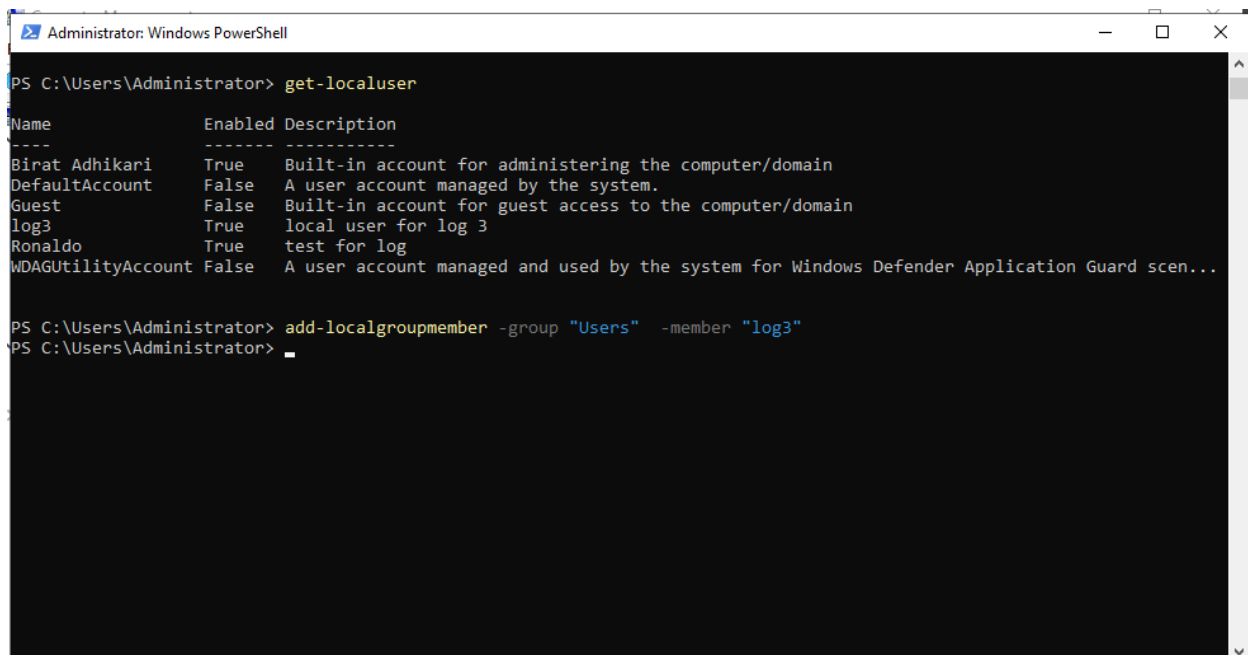
Name Enabled Description
-----
log3 True    local user for log 3

PS C:\Users\Administrator> get-localuser

Name           Enabled Description
-----
Birat Adhikari  True    Built-in account for administering the computer/domain
DefaultAccount False   A user account managed by the system.
Guest           False   Built-in account for guest access to the computer/domain
log3            True    local user for log 3
Ronaldo         True    test for log
WDAGUtilityAccount False   A user account managed and used by the system for Windows Defender Application Guard scen...

PS C:\Users\Administrator>
```

Figure 21: viewing local users after adding log3 as User



Administrator: Windows PowerShell

```
PS C:\Users\Administrator> get-localuser

Name           Enabled Description
-----
Birat Adhikari  True    Built-in account for administering the computer/domain
DefaultAccount False   A user account managed by the system.
Guest           False   Built-in account for guest access to the computer/domain
log3            True    local user for log 3
Ronaldo         True    test for log
WDAGUtilityAccount False   A user account managed and used by the system for Windows Defender Application Guard scen...

PS C:\Users\Administrator> add-localgroupmember -group "Users" -member "log3"
PS C:\Users\Administrator>
```

Figure 22: adding local group member

```
Administrator: Windows PowerShell
+ FullyQualifiedErrorId : CommandNotFoundException

PS C:\Users\Administrator> remove-localuser -name "log3"
PS C:\Users\Administrator> get-localuser

Name                Enabled Description
-----
Birat Adhikari      True    Built-in account for administering the computer/domain
DefaultAccount      False   A user account managed by the system.
Guest               False   Built-in account for guest access to the computer/domain
Ronaldo             True    test for log
WDAGUtilityAccount  False   A user account managed and used by the system for Windows Defender Application Guard scen...

PS C:\Users\Administrator> _
```

Figure 23:removing a user

```
PS C:\Users\Administrator> $password = red-host -assecurestring
red-host : The term 'red-host' is not recognized as the name of a cmdlet, function, script file, or operable program.
Check the spelling of the name, or if a path was included, verify that the path is correct and try again.
At line:1 char:13
+ $password = red-host -assecurestring
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (red-host:String) [], CommandNotFoundException
+ FullyQualifiedErrorId : CommandNotFoundException
```

Figure 24:syntax error while running command

```
PS C:\Users\Administrator> $password = read-host -assecurestring
*****
PS C:\Users\Administrator> _
```

Figure 25:storing password in a string variable

```
PS C:\Users\Administrator> $password = read-host -assecurestring
*****
PS C:\Users\Administrator> new-localuser -name "new user 3" -password $password -description "user 3"

Name                Enabled Description
-----
new user 3          True    user 3

PS C:\Users\Administrator>
```

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.