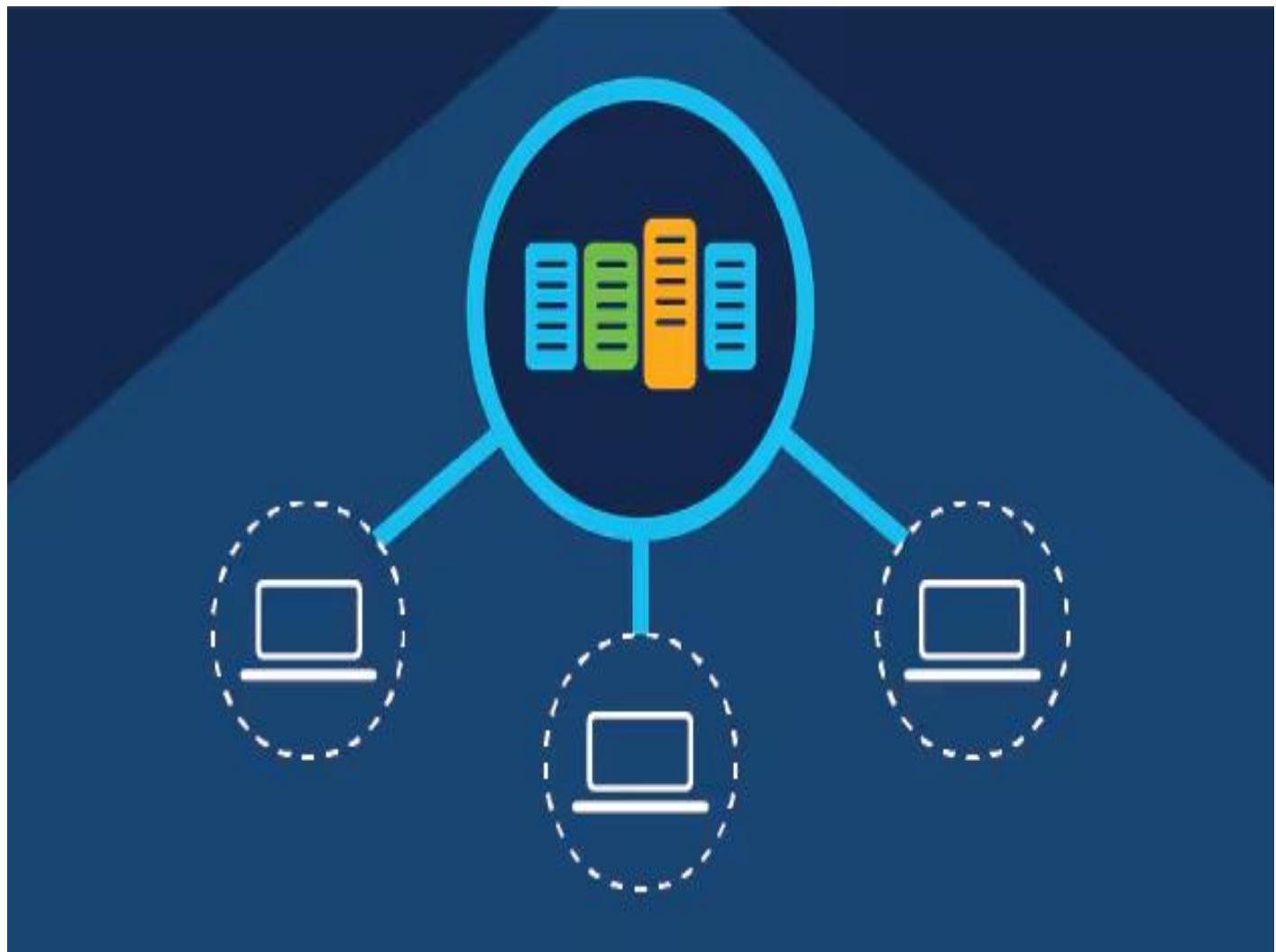


# **Virtual Machine Setup**

**&**

# **Configuration Plan**



# Project Overview

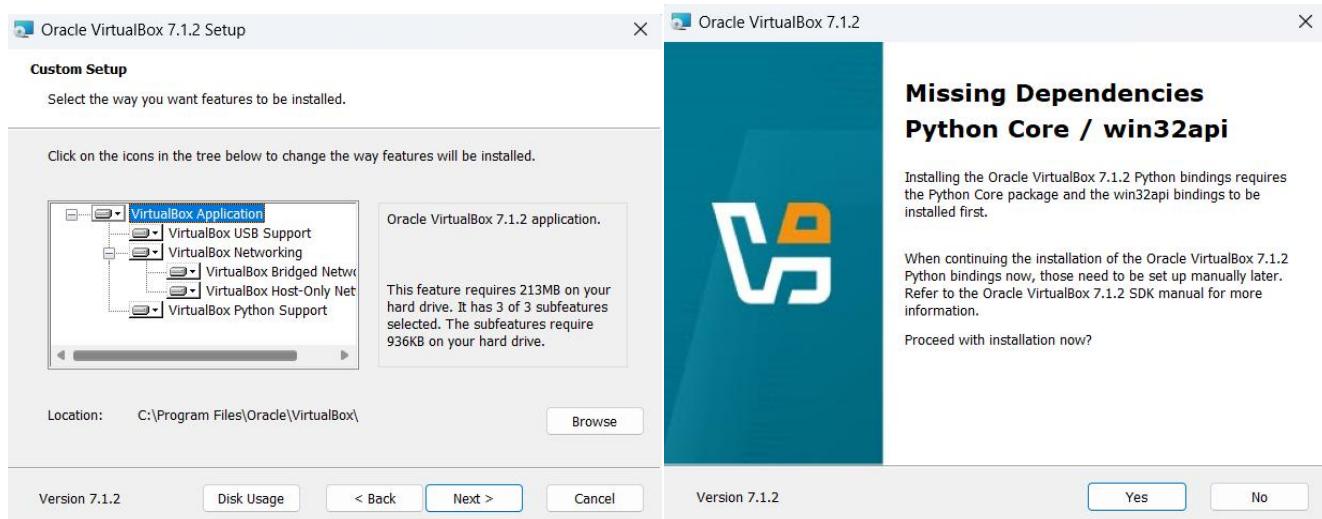
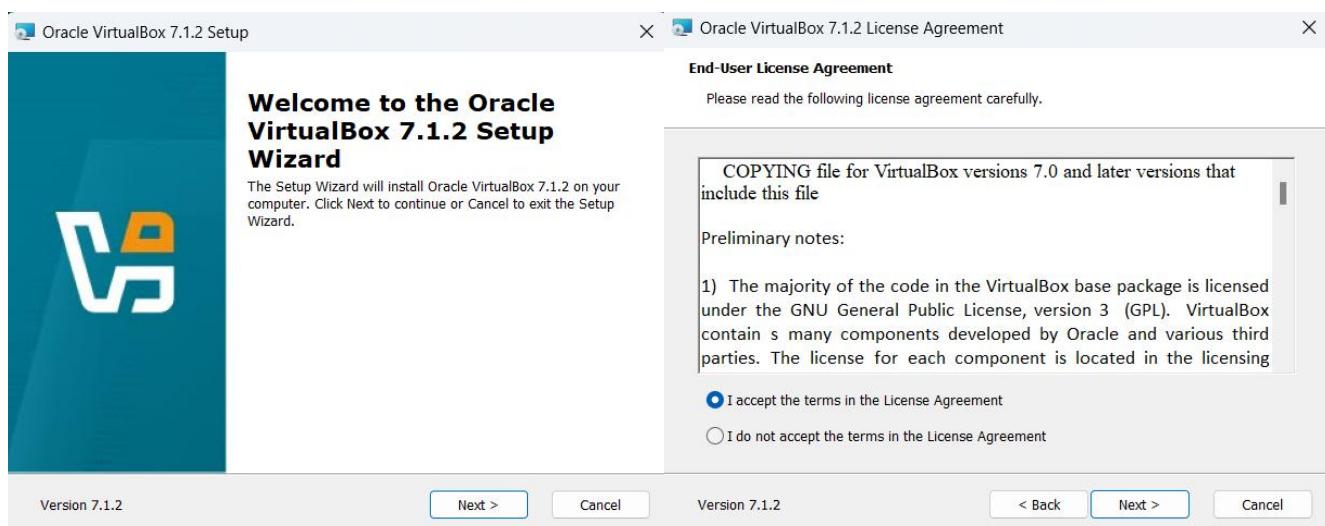
This project involves setting up a virtual machine environment using virtualization software (Virtual-box), installing multiple operating systems, and managing the VMs effectively.

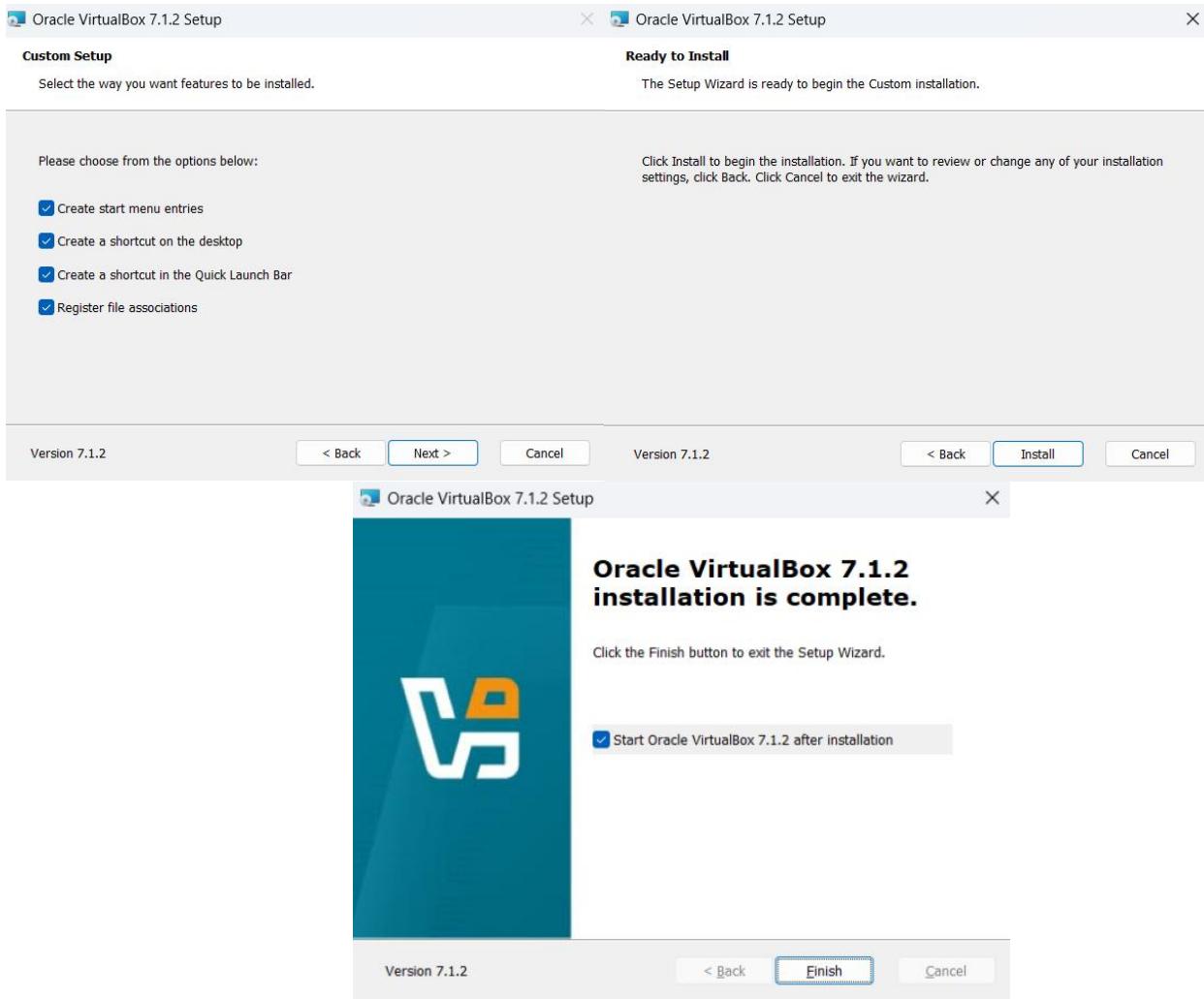
## Step 1: Download & Install Virtual Machine

- 1) Download VirtualBox from the official website.

<https://www.virtualbox.org/wiki/Downloads>

- 2) Install Virtual Box.





## Step 2: Install Operating System

### 1<sup>st</sup> : Linux

#### 1) Download Ubuntu Image.

**Ubuntu 22.04.1 LTS**

The latest LTS version of Ubuntu, for desktop PCs and laptops. LTS stands for long-term support — which means five years of free security and maintenance updates, guaranteed until April 2027.

[Ubuntu 22.04 LTS release notes](#)

Recommended system requirements:

- 2 GHz dual-core processor or better
- 4 GB system memory
- 25 GB of free hard drive space
- Internet access is helpful
- Either a DVD drive or a USB port for the installer media



[Download](#)

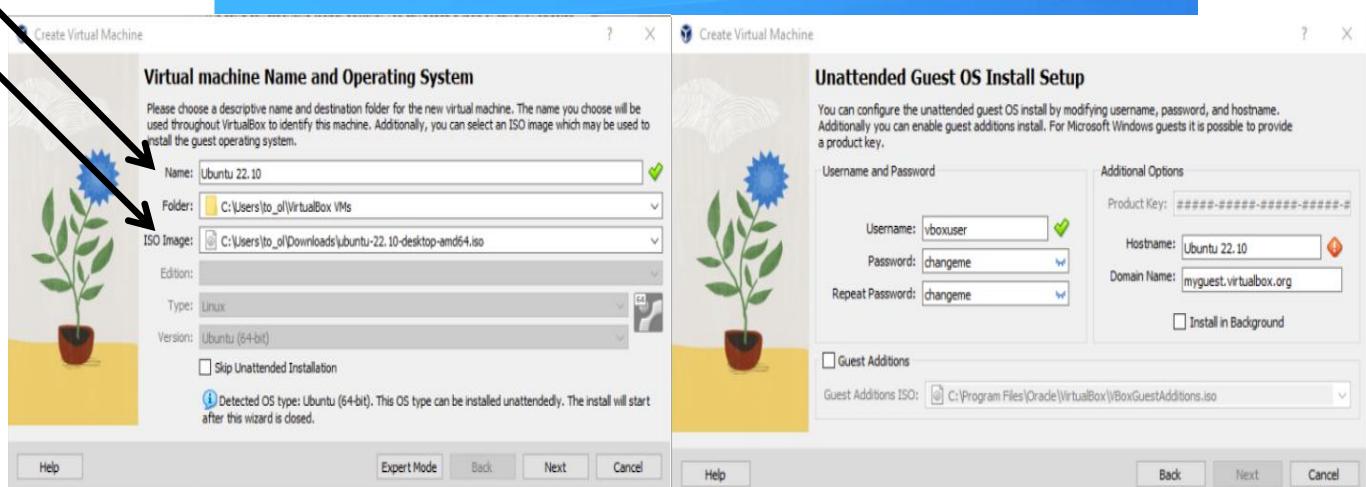
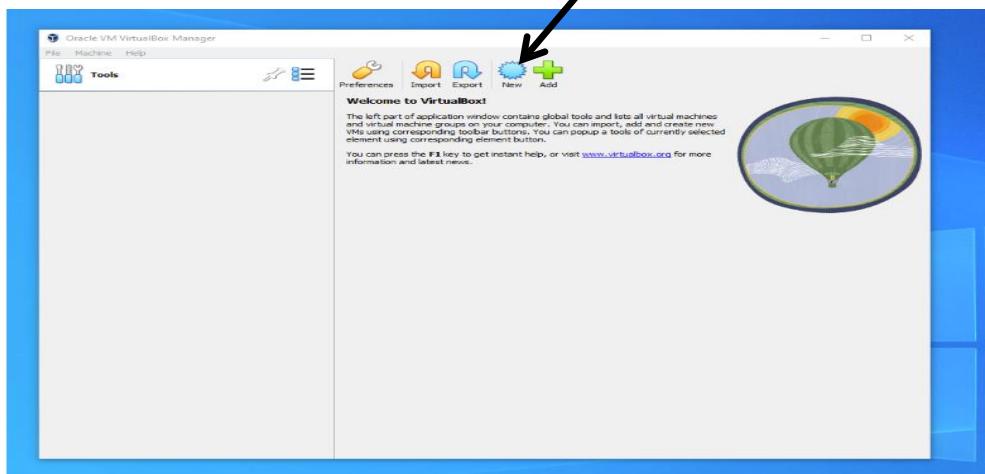
For other versions of Ubuntu Desktop including torrents, the network installer, a list of local mirrors and past releases see our [alternative downloads](#).

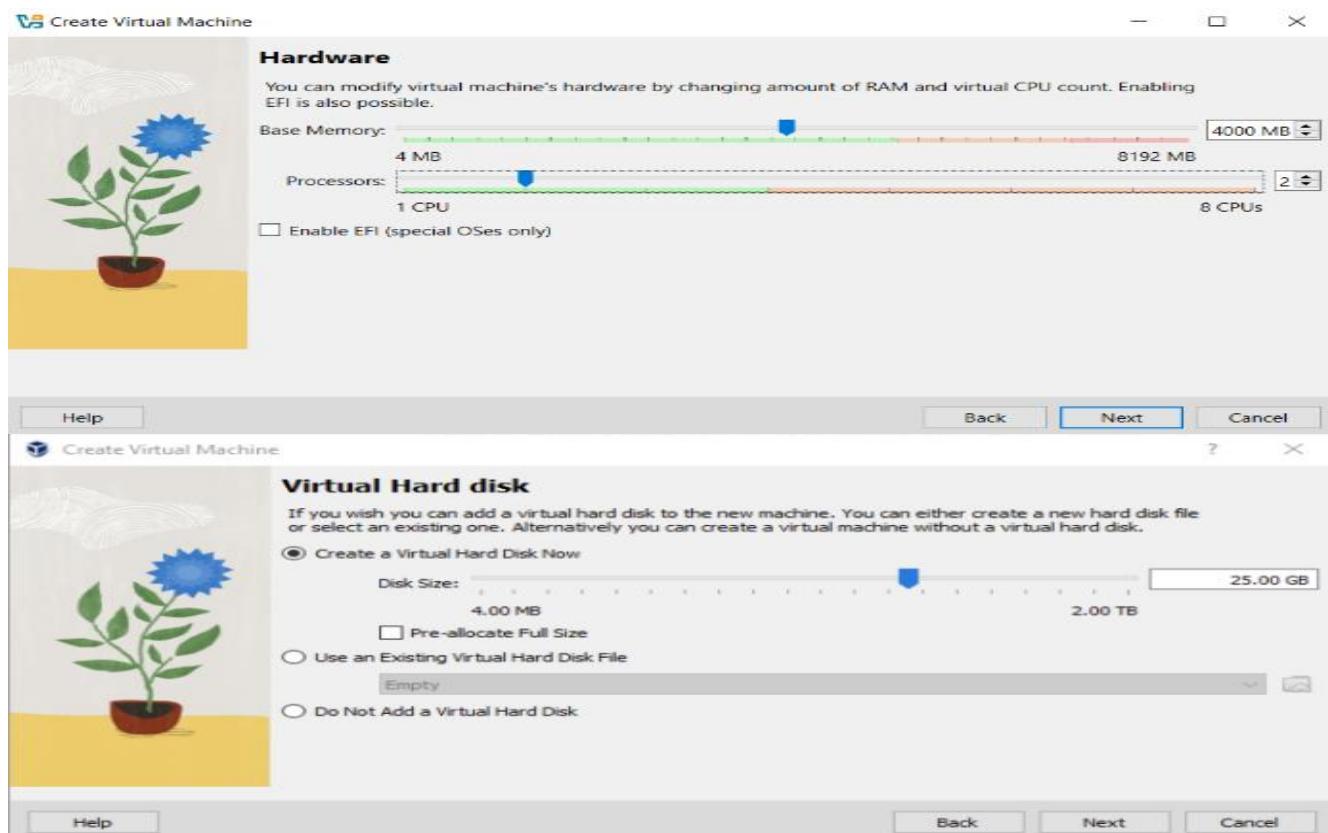

[Download](#)

For other versions of Ubuntu Desktop including torrents, the network installer, a list of local mirrors and past releases see our [alternative downloads](#).

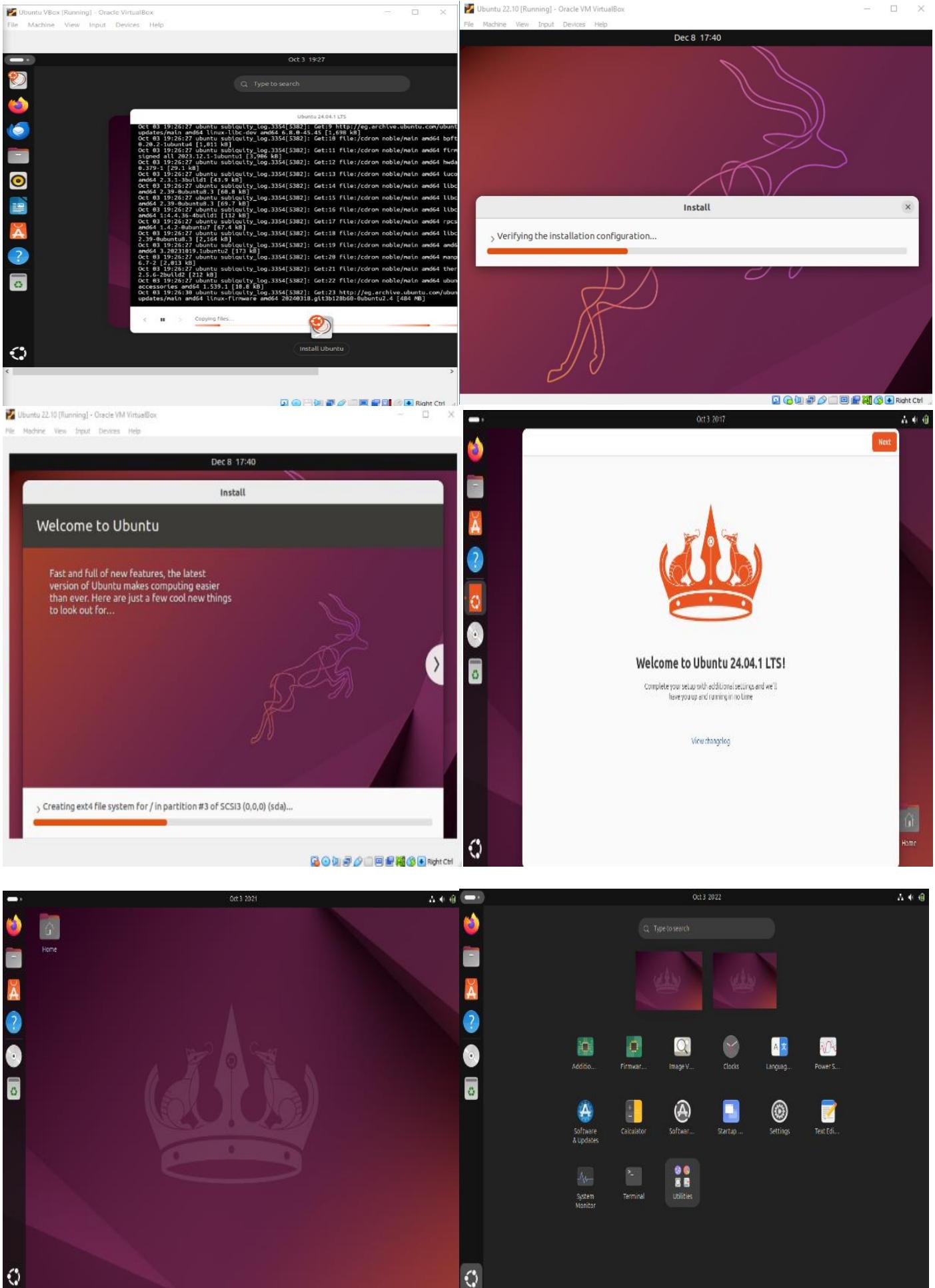
## 2) Create a new VM.



## 3) Allocate appropriate resources (CPU, RAM, Disk Space).



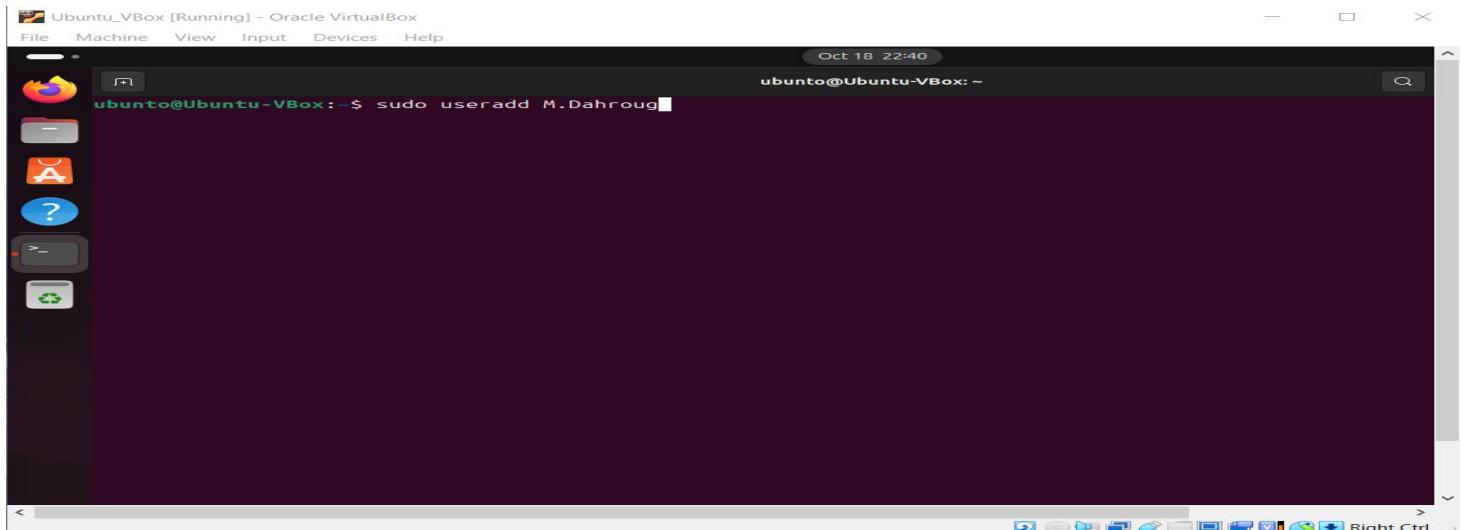
## 4) Install the image



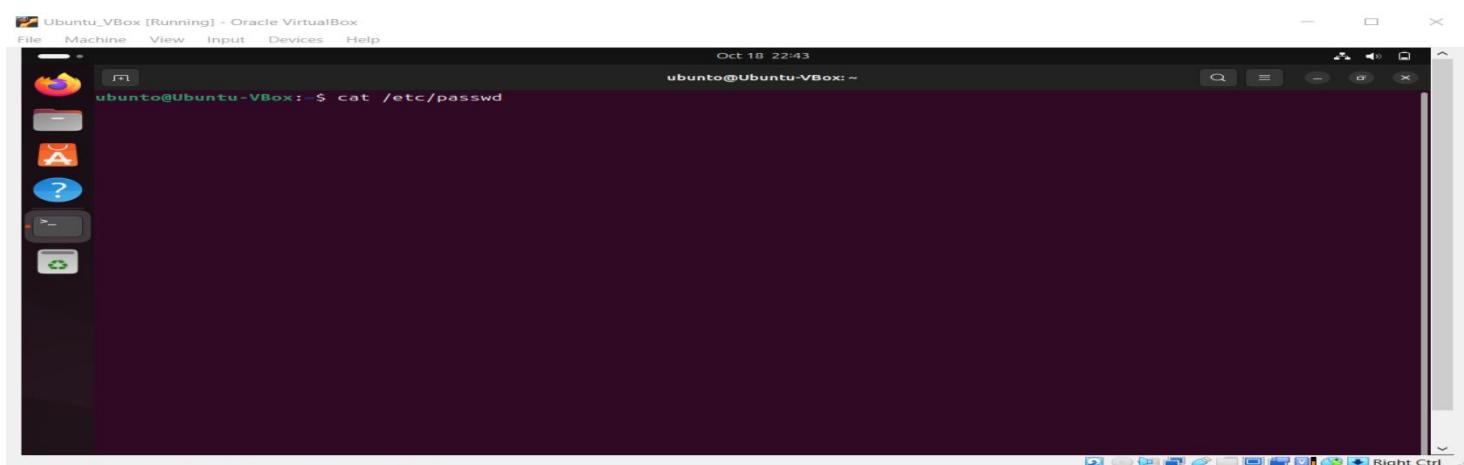
# Using Ubuntu Commands

To add user:

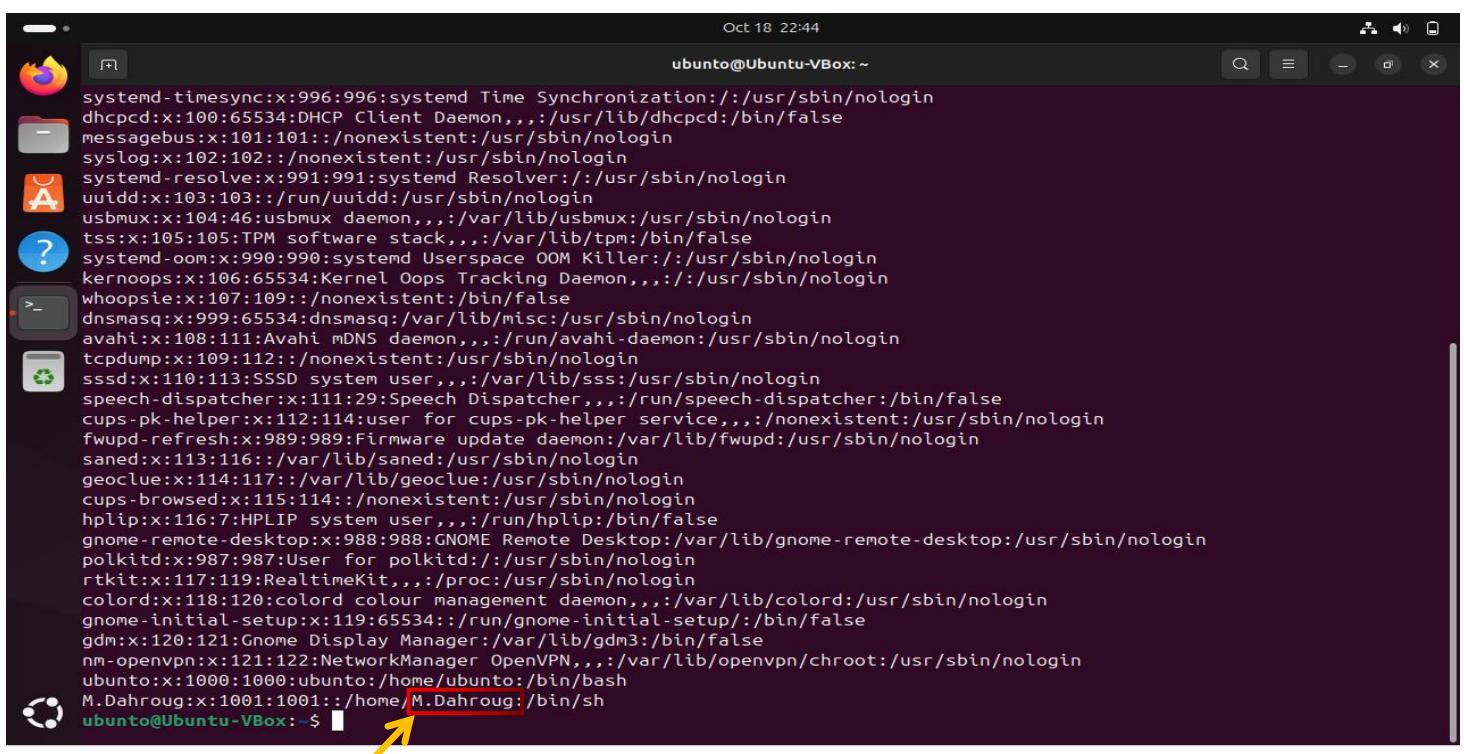
“adduser [nameuser]”



```
Ubuntu_VBox [Running] - Oracle VirtualBox
File Machine View Input Devices Help
Oct 18 22:40
ubuntu@Ubuntu-VBox: ~$ sudo useradd M.Dahroug
```



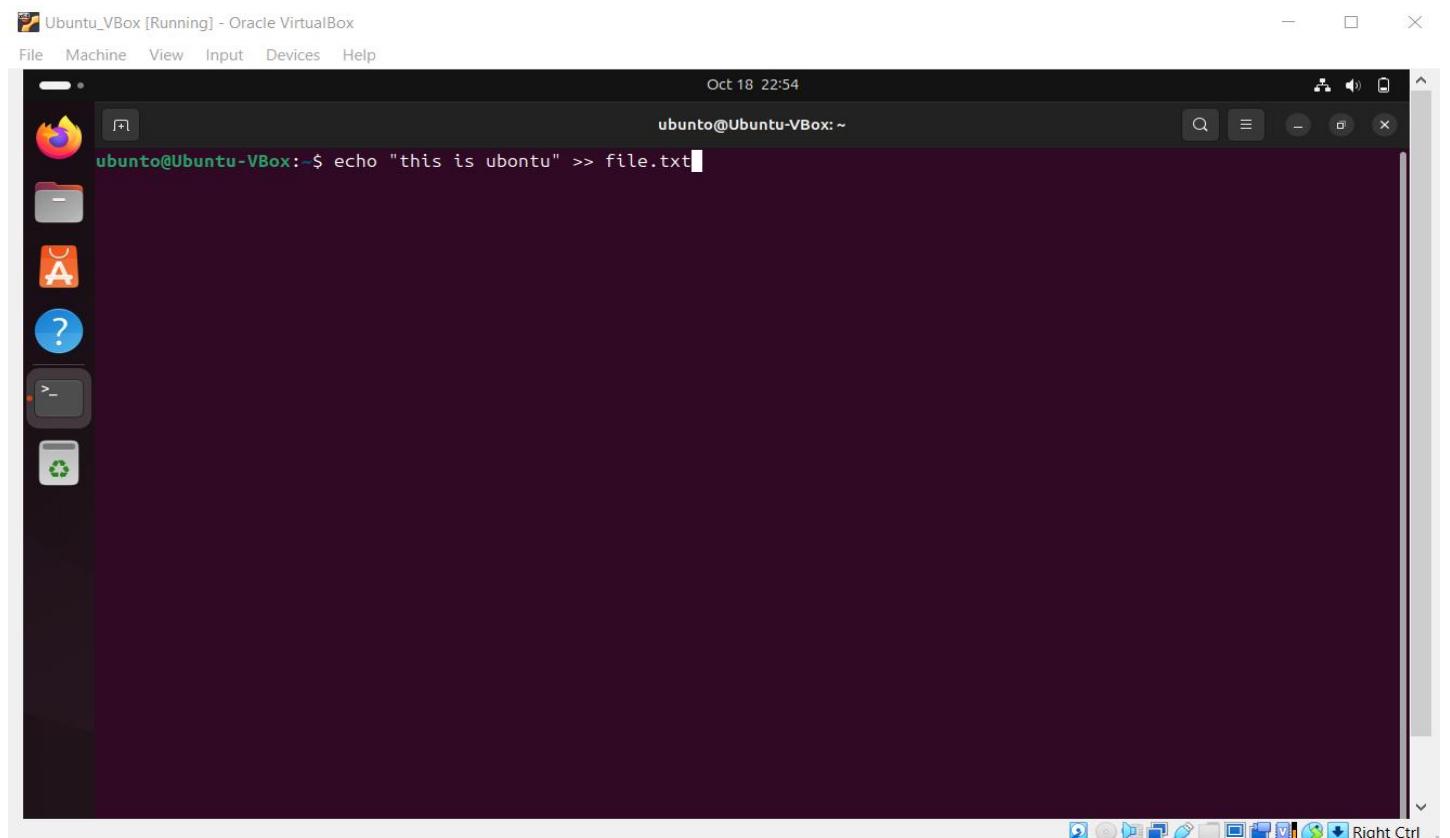
```
Ubuntu_VBox [Running] - Oracle VirtualBox
File Machine View Input Devices Help
Oct 18 22:43
ubuntu@Ubuntu-VBox: ~$ cat /etc/passwd
```



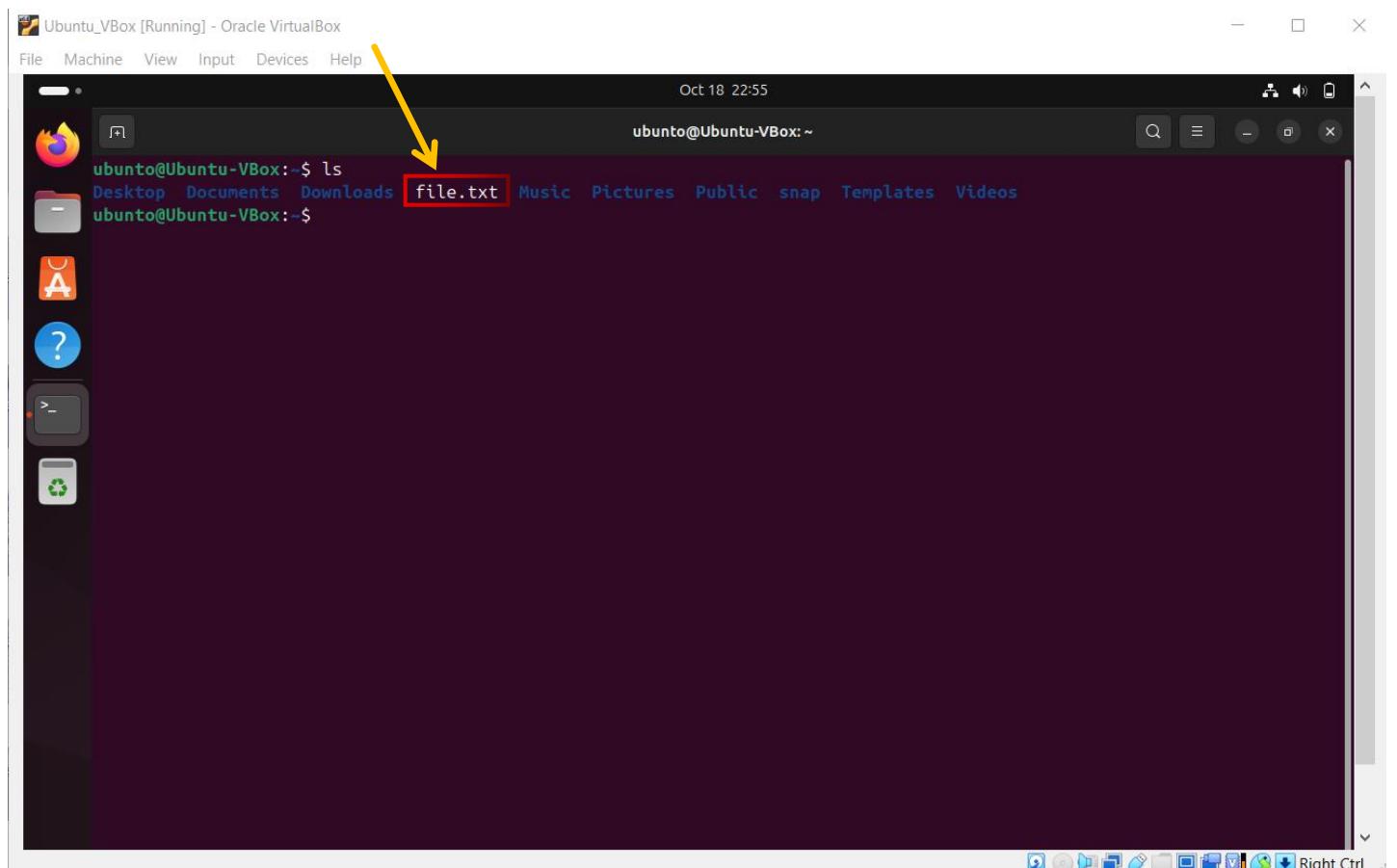
```
Oct 18 22:44
ubuntu@Ubuntu-VBox: ~
systemd-timesync:x:996:996:system Time Synchronization:/usr/sbin/nologin
dhcpcd:x:100:65534:DHCP Client Daemon,,,:/usr/lib/dhcpcd:/bin/false
messagebus:x:101:101::/nonexistent:/usr/sbin/nologin
syslog:x:102:102::/nonexistent:/usr/sbin/nologin
systemd-resolve:x:991:991:systemd Resolver:/usr/sbin/nologin
uuidd:x:103:103::/run/uuidd:/usr/sbin/nologin
usbmux:x:104:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
tss:x:105:105:TPM software stack,,,:/var/lib/tpm:/bin/false
systemd-oom:x:990:990:systemd Userspace OOM Killer:/usr/sbin/nologin
kernoops:x:106:65534:Kernel Oops Tracking Daemon,,,:/usr/sbin/nologin
whoopsie:x:107:109::/nonexistent:/bin/false
dnsmasq:x:999:65534:dnsmasq:/var/lib/misc:/usr/sbin/nologin
avahi:x:108:111:Avahi mDNS daemon,,,:/run/avahi-daemon:/usr/sbin/nologin
tcpdump:x:109:112::/nonexistent:/usr/sbin/nologin
sssd:x:110:113:SSSD system user,,,:/var/lib/sssd:/usr/sbin/nologin
speech-dispatcher:x:111:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
cups-pk-helper:x:112:114:user for cups-pk-helper service,,,:/nonexistent:/usr/sbin/nologin
fwupd-refresh:x:989:989:Firmware update daemon:/var/lib/fwupd:/usr/sbin/nologin
saned:x:113:116::/var/lib/saned:/usr/sbin/nologin
geoclue:x:114:117::/var/lib/geoclue:/usr/sbin/nologin
cups-browsed:x:115:114::/nonexistent:/usr/sbin/nologin
hplip:x:116:7:HPGLP system user,,,:/run/hplip:/bin/false
gnome-remote-desktop:x:988:988:GNOME Remote Desktop:/var/lib/gnome-remote-desktop:/usr/sbin/nologin
polkitd:x:987:987:User for polkitd:/usr/sbin/nologin
rtkit:x:117:119:RealtimeKit,,,:/proc:/usr/sbin/nologin
colord:x:118:120:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
gnome-initial-setup:x:119:65534::/run/gnome-initial-setup:/bin/false
gdm:x:120:121:Gnome Display Manager:/var/lib/gdm3:/bin/false
nm-openvpn:x:121:122:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
ubuntu:x:1000:1000:ubuntu:/home/ubuntu:/bin/bash
M.Dahroug:x:1001:1001::/home/M.Dahroug:/bin/sh
```

## To make a new file:

“echo \$null >> [filename]”



A screenshot of a terminal window titled "Ubuntu\_VBox [Running] - Oracle VirtualBox". The window shows a dark-themed desktop environment with icons for a browser, file manager, terminal, and others. The terminal window has a dark background and contains the following text:  
Oct 18 22:54  
ubuntu@Ubuntu-VBox:~\$ echo "this is ubontu" >> file.txt

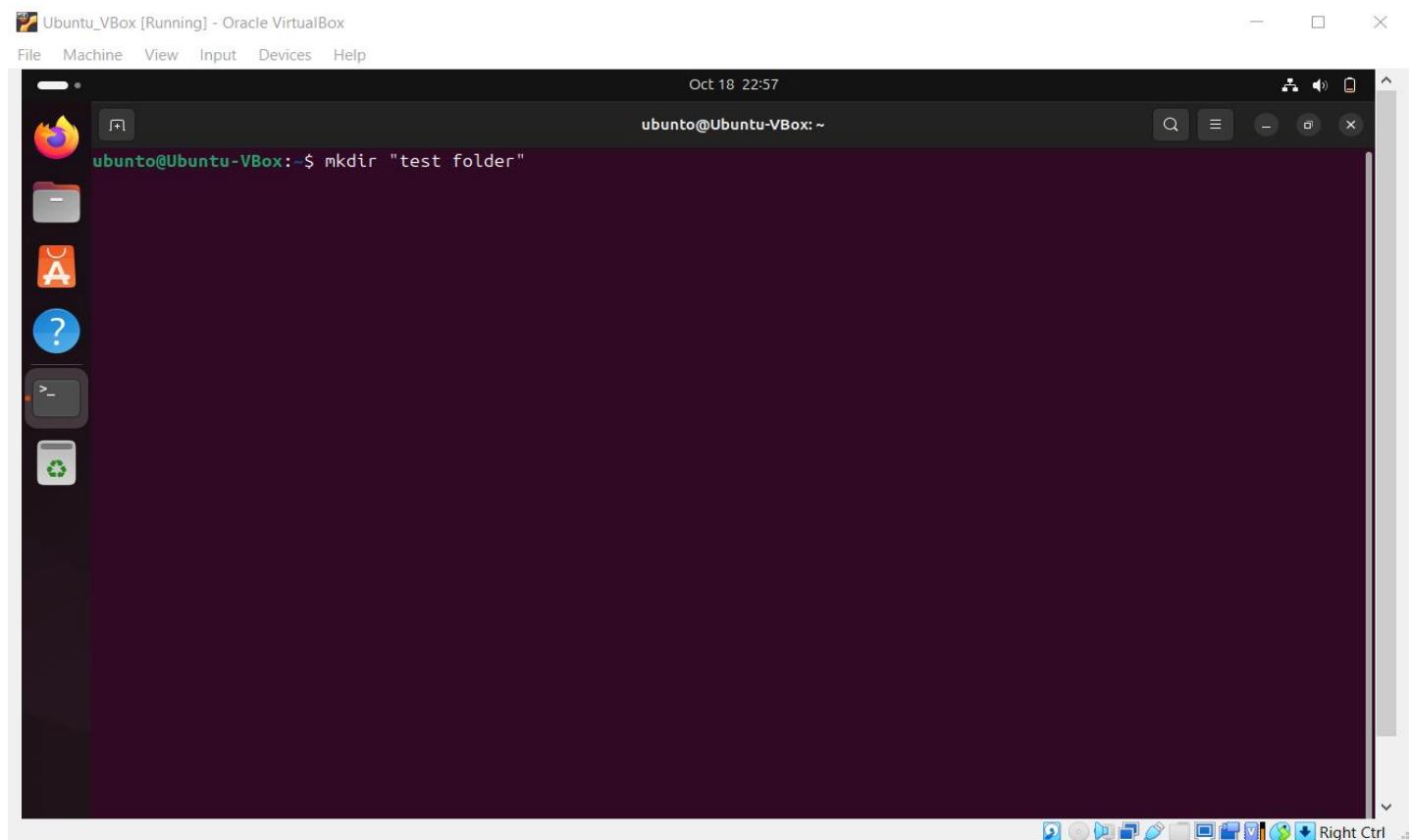


A screenshot of a terminal window titled "Ubuntu\_VBox [Running] - Oracle VirtualBox". The window shows a dark-themed desktop environment with icons for a browser, file manager, terminal, and others. The terminal window has a dark background and contains the following text:  
Oct 18 22:55  
ubuntu@Ubuntu-VBox:~\$ ls  
Desktop Documents Downloads file.txt Music Pictures Public snap Templates Videos  
ubuntu@Ubuntu-VBox:~\$

A yellow arrow points from the text above to the word "file.txt" in the terminal output, which is highlighted with a red box.

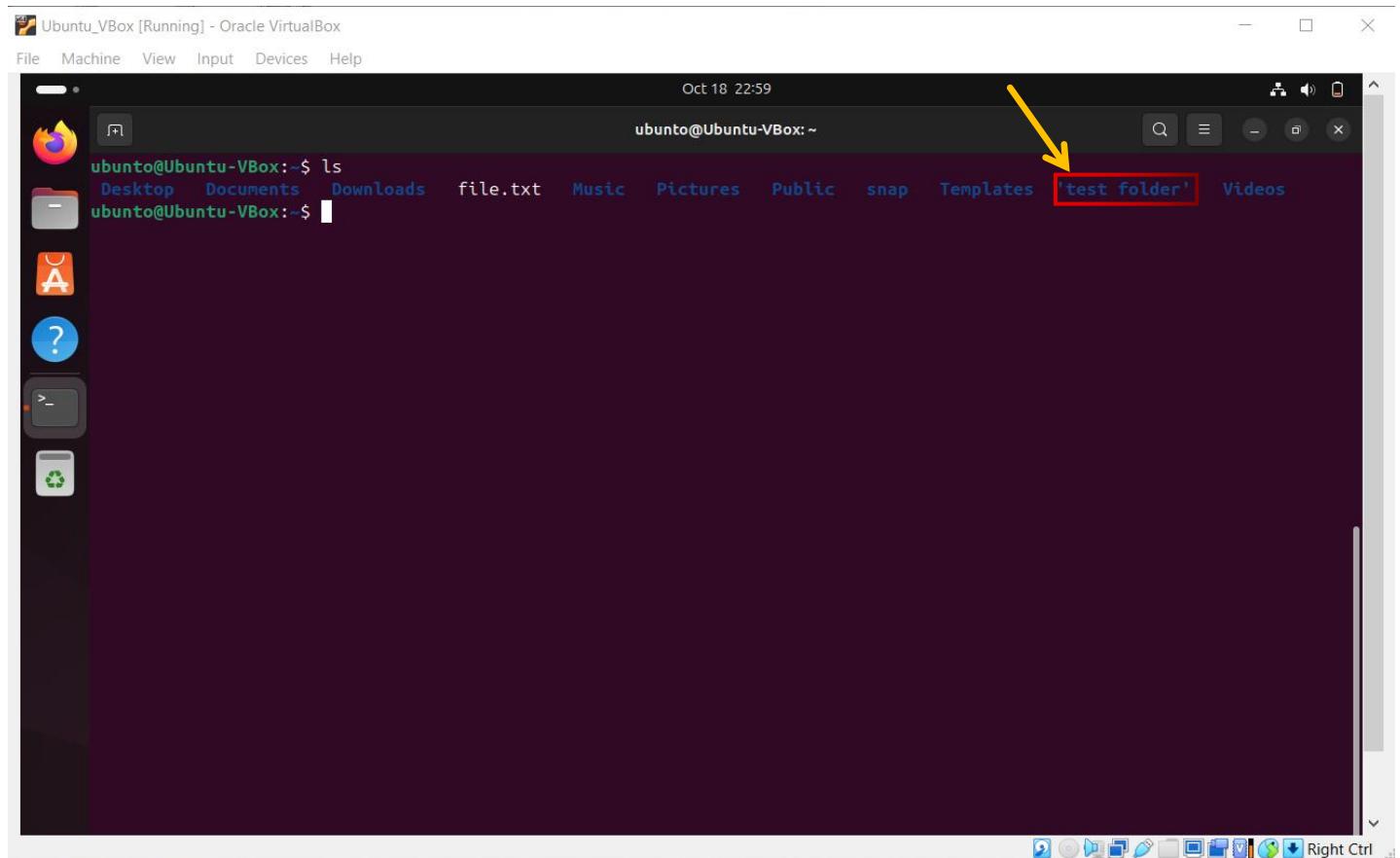
To make a new folder:

“mkdir [foldername]”



A screenshot of a terminal window titled "Ubuntu\_VBox [Running] - Oracle VirtualBox". The window shows a dark-themed desktop environment with a dock at the bottom containing icons for various applications like a browser, file manager, and terminal. The terminal itself has a black background with white text. At the top, it says "ubuntu@Ubuntu-VBox: ~" and the date "Oct 18 22:57". In the main area, the command "mkdir \"test folder\"" is typed and executed. The output shows the folder was created successfully.

```
ubuntu@Ubuntu-VBox: $ mkdir "test folder"
```

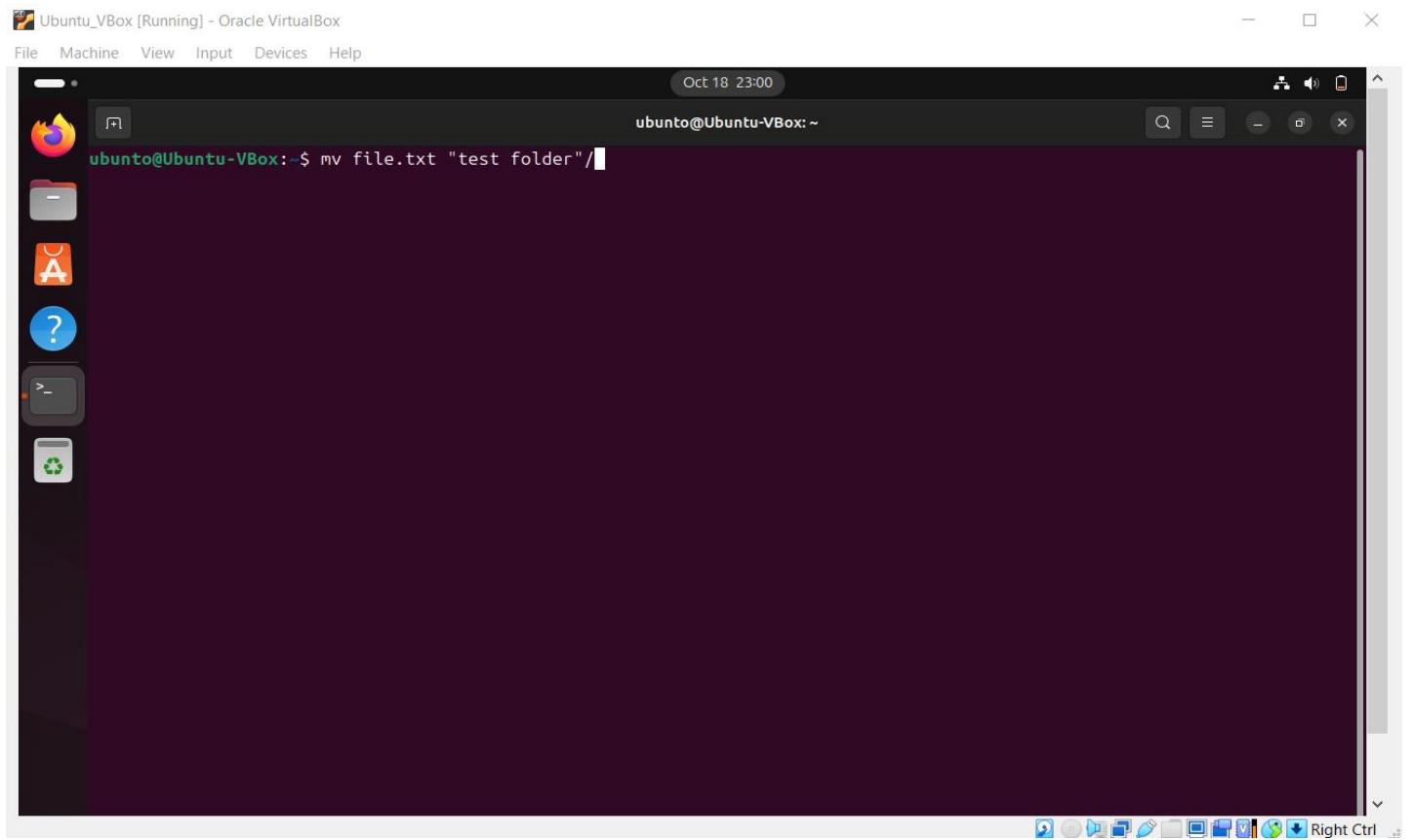


A screenshot of a terminal window titled "Ubuntu\_VBox [Running] - Oracle VirtualBox", identical to the one above. This time, the user runs the command "ls" to list the contents of the home directory. The output shows a standard set of directories like Desktop, Documents, Downloads, etc., plus a newly created folder named "test folder". A yellow arrow points from the left margin to the word "test folder", which is highlighted with a red border. The rest of the directory listing is in blue text.

```
ubuntu@Ubuntu-VBox: $ ls
Desktop  Documents  Downloads  file.txt  Music  Pictures  Public  snap  Templates  'test folder'  Videos
ubuntu@Ubuntu-VBox: $
```

## To move the file within a new folder:

“mv [filename] [newplace]”



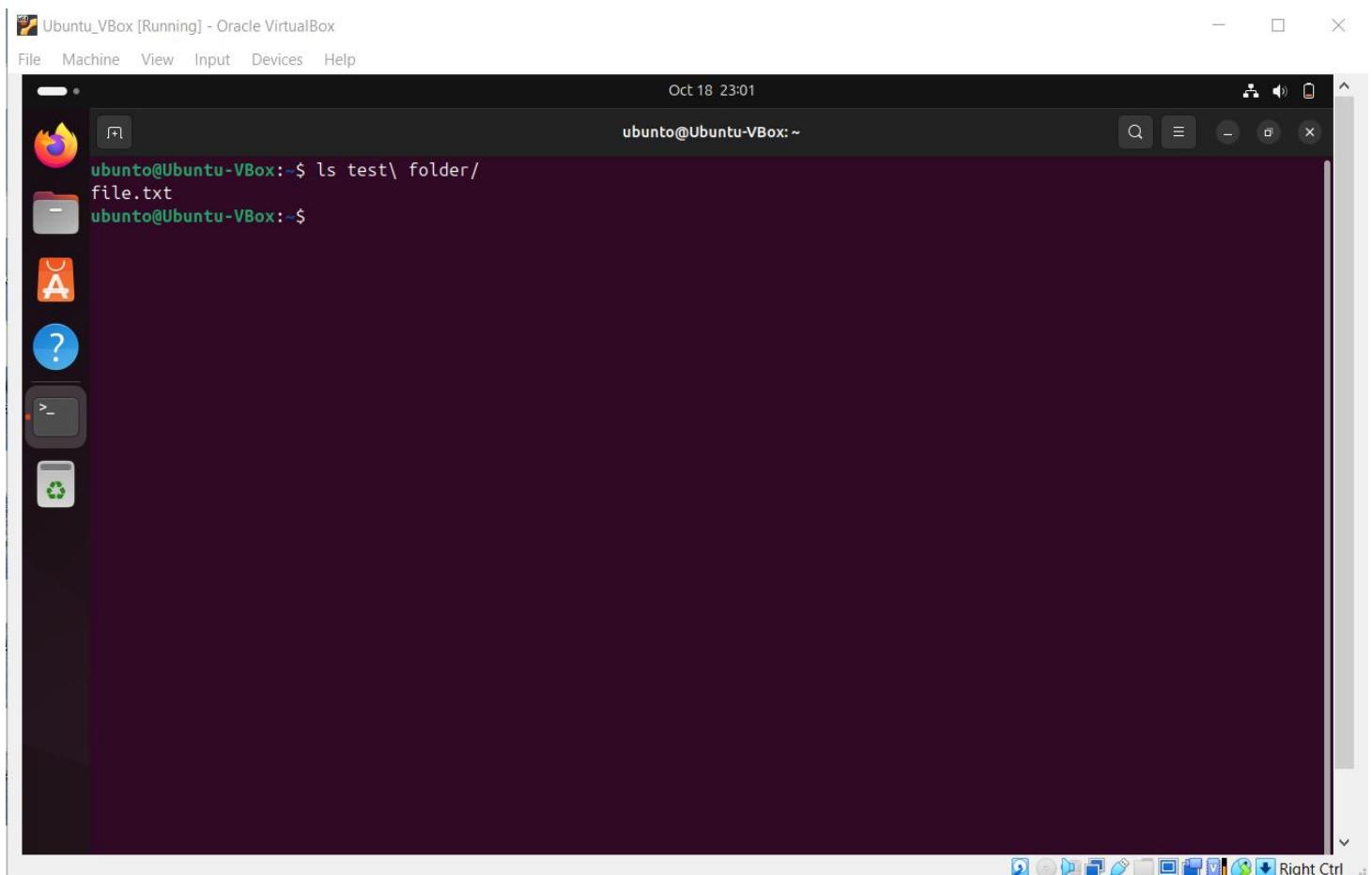
Ubuntu\_VBox [Running] - Oracle VirtualBox

File Machine View Input Devices Help

Oct 18 23:00

ubuntu@Ubuntu-VBox: \$ mv file.txt "test folder"/

The terminal window shows the command `mv file.txt "test folder"/` being typed. The cursor is positioned at the end of the command.



Ubuntu\_VBox [Running] - Oracle VirtualBox

File Machine View Input Devices Help

Oct 18 23:01

ubuntu@Ubuntu-VBox: ~

ubuntu@Ubuntu-VBox:~\$ ls test\ folder/  
file.txt  
ubuntu@Ubuntu-VBox:~\$

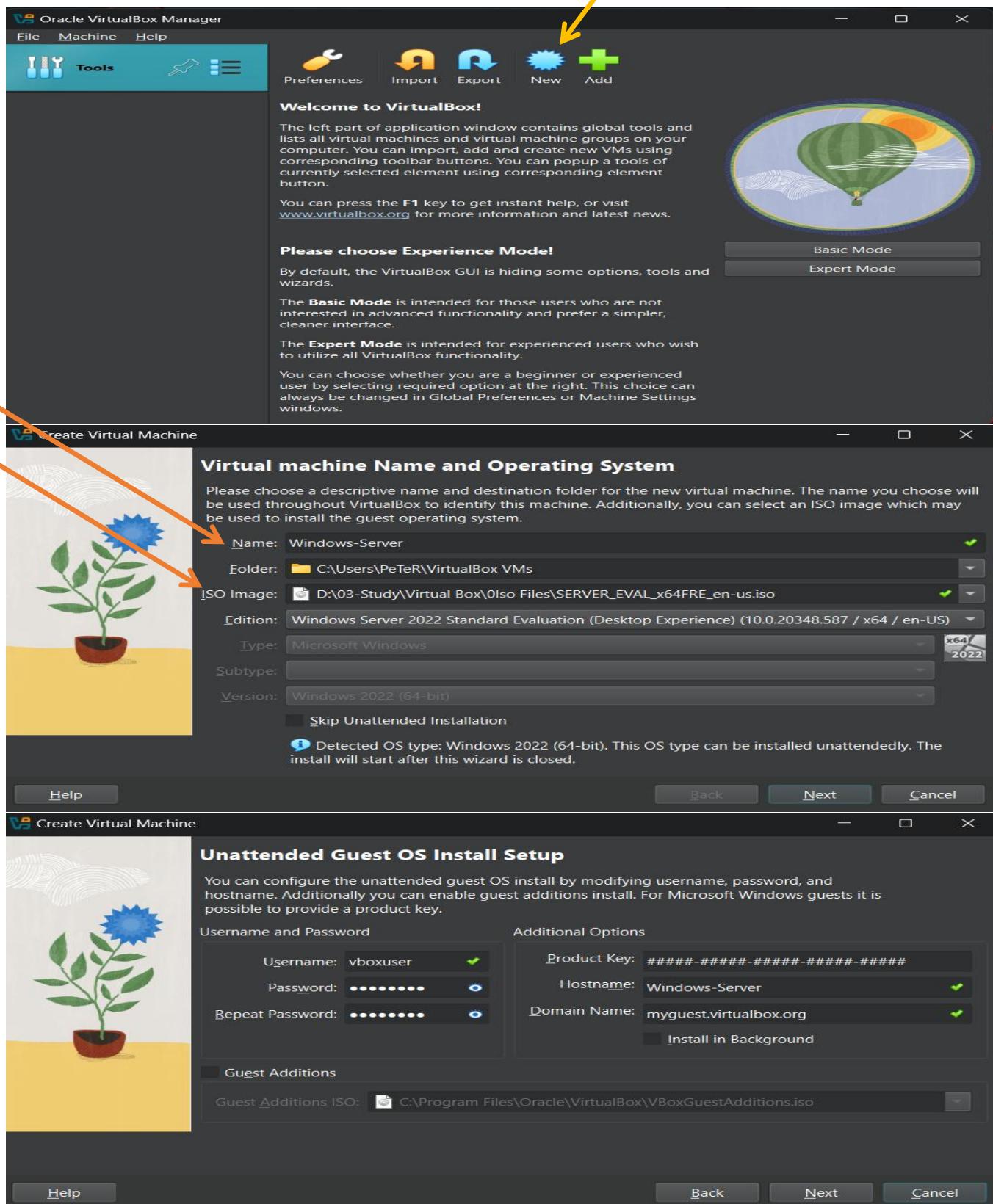
The terminal window shows the output of the `ls test\ folder/` command, which lists the file `file.txt` in the directory `test\ folder/`. The prompt then returns to the root directory.

## 2<sup>nd</sup> : Windows Server

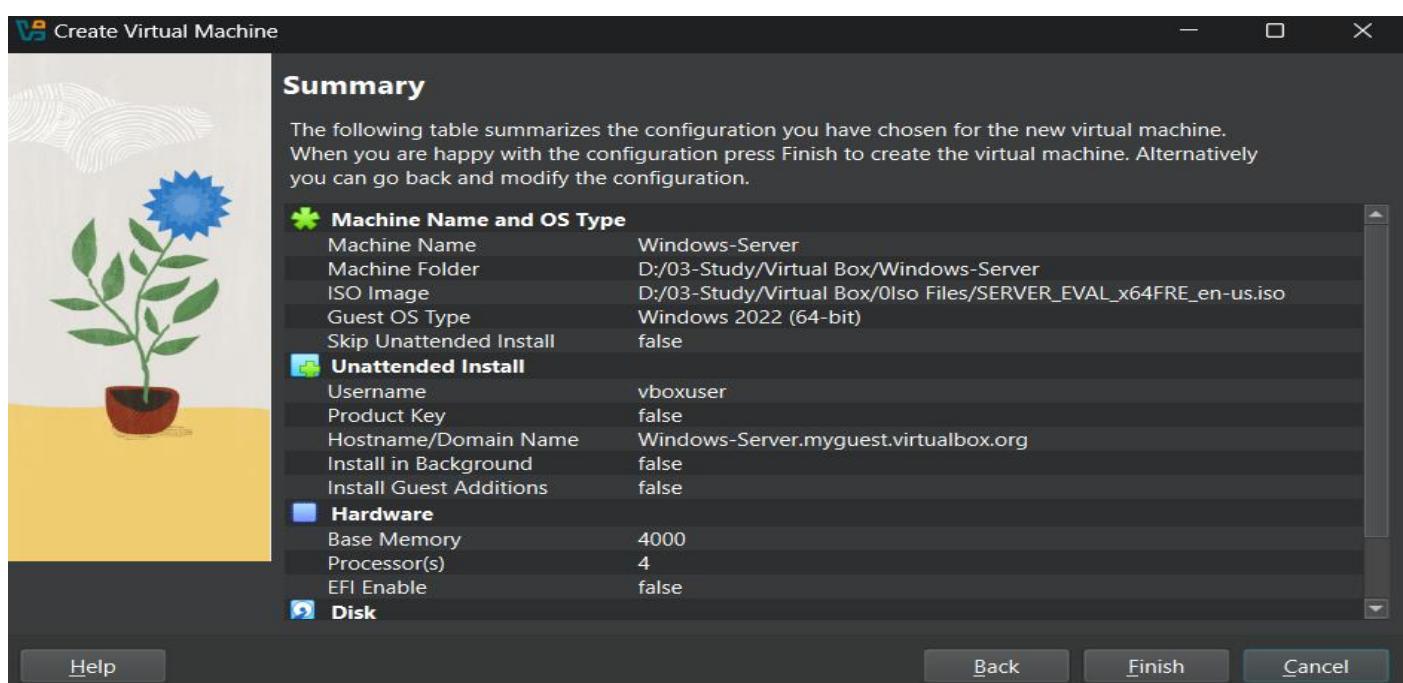
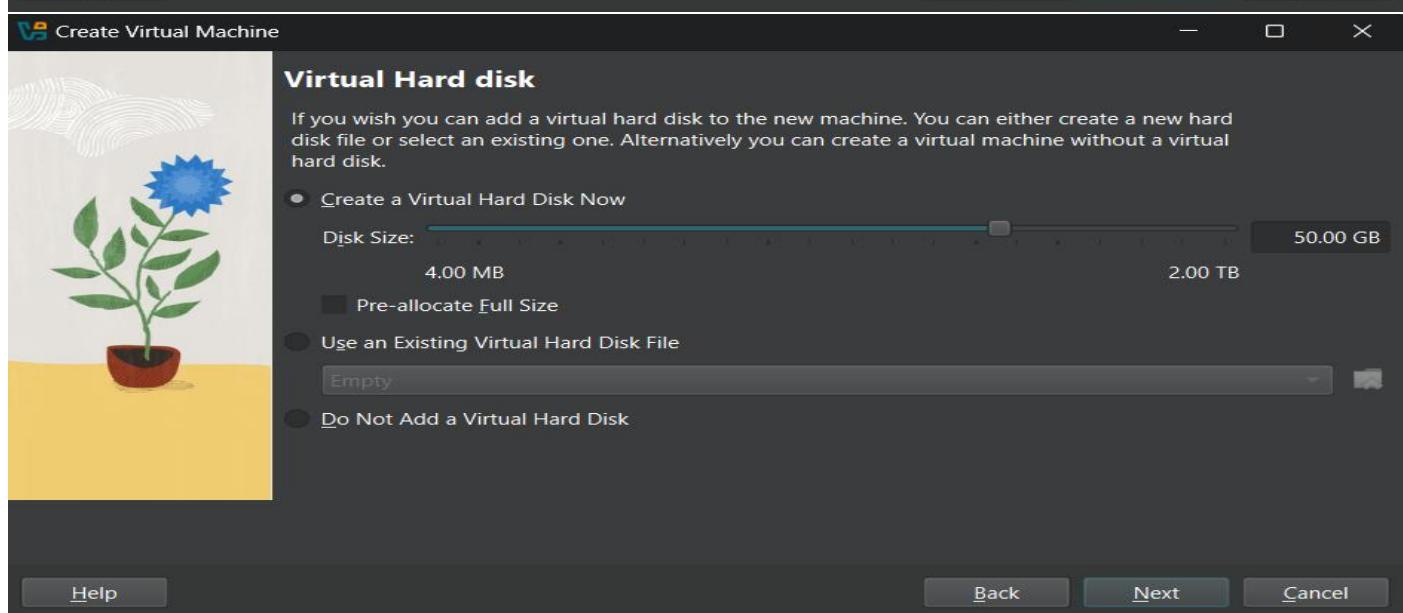
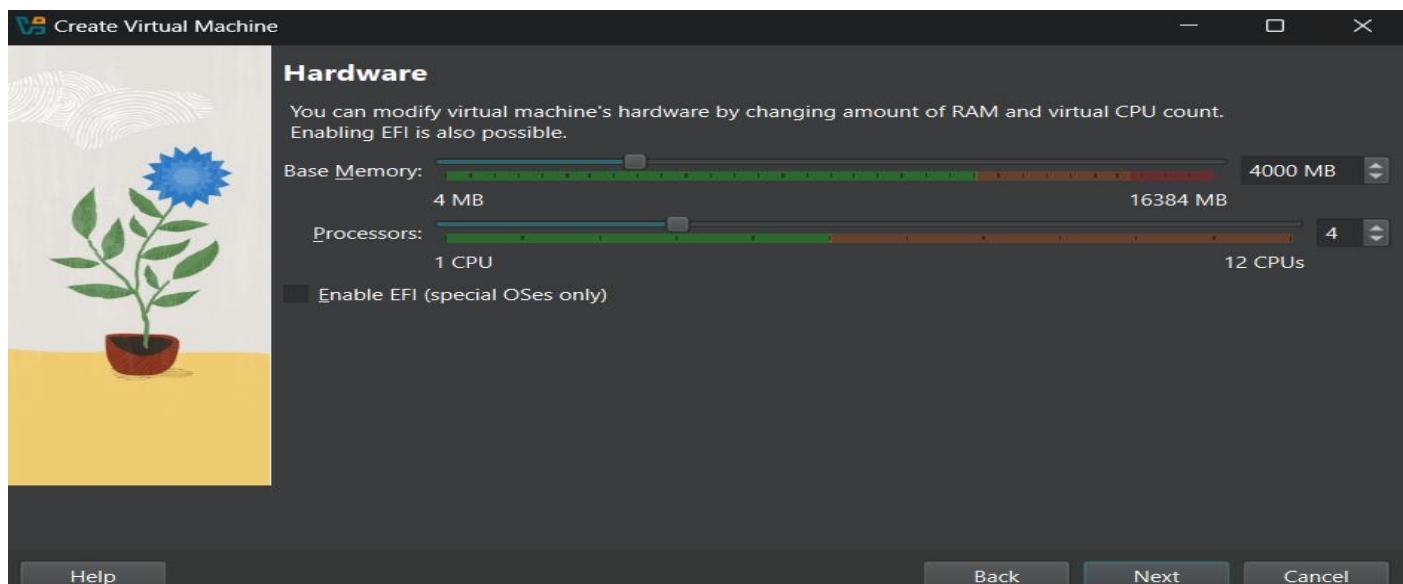
### 1) Download Windows Server Image.

<https://www.microsoft.com/en-us/evalcenter/download-windows-server-2022>

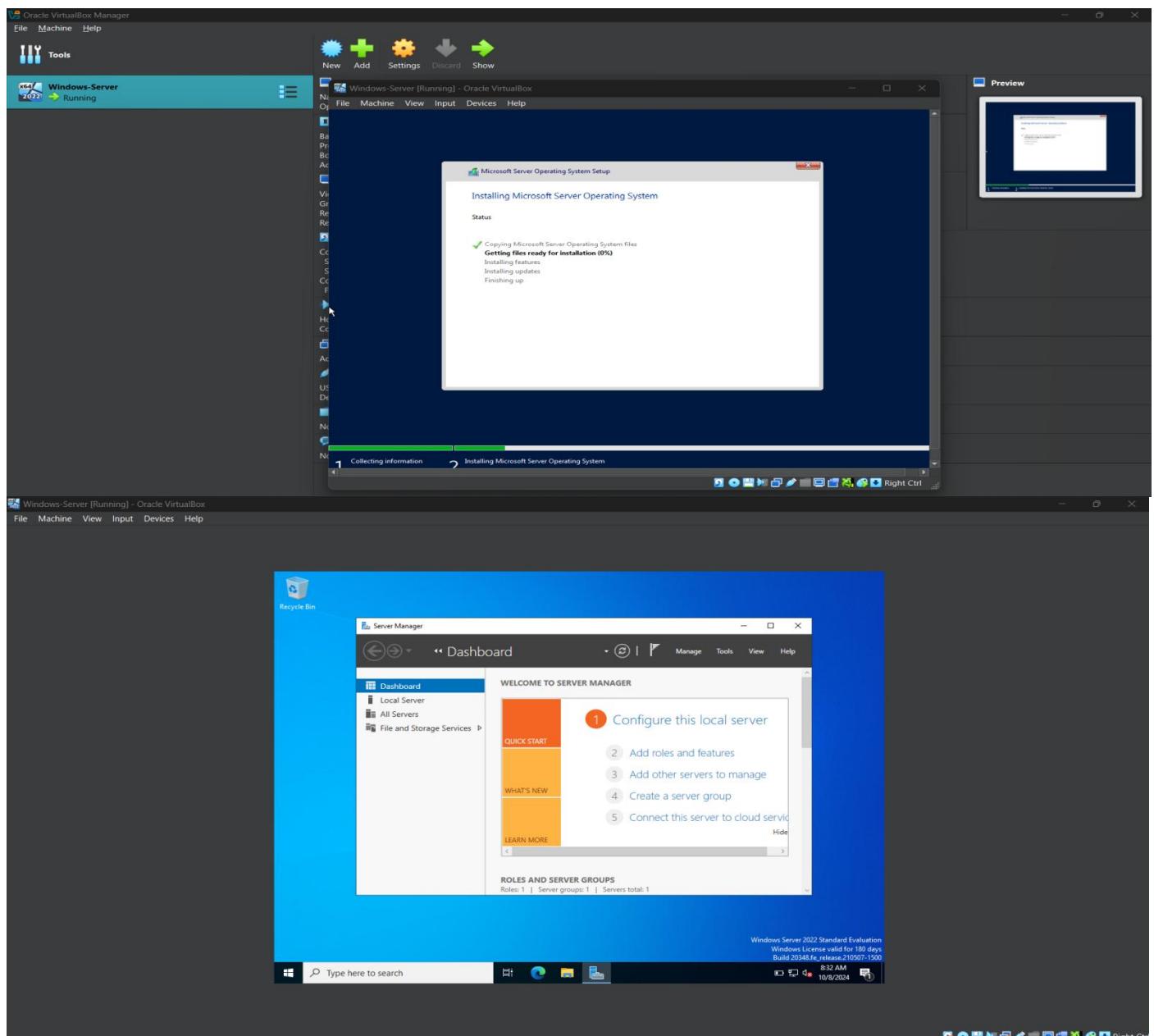
### 2) Create a new VM.



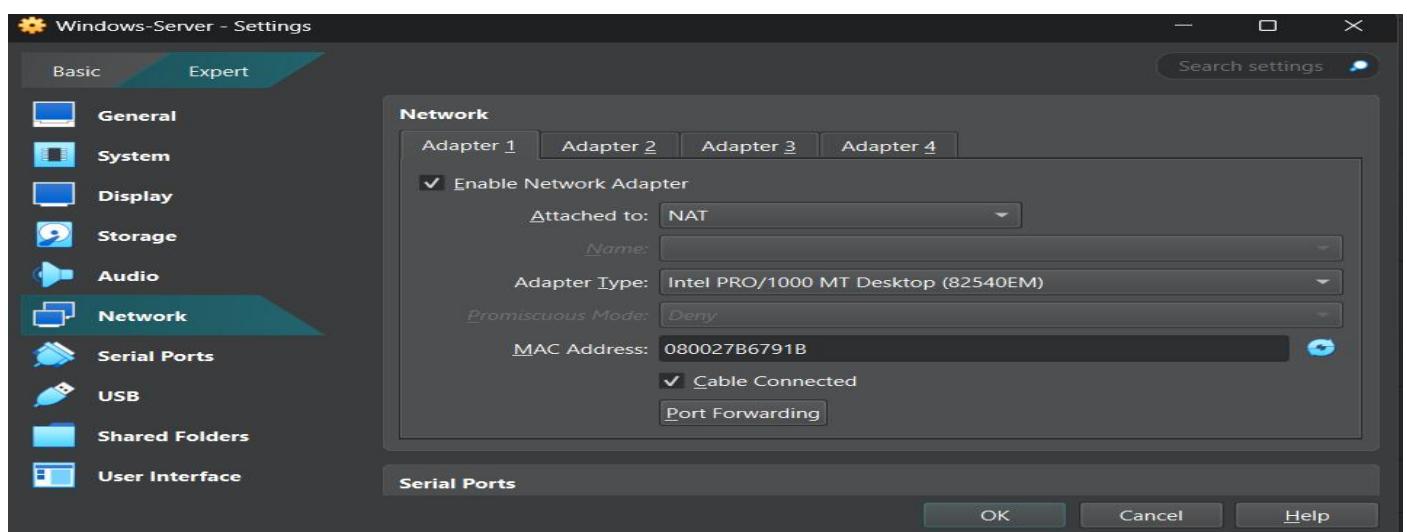
### 3) Allocate appropriate resources (CPU, RAM, disk space).



## 4) Install the image.

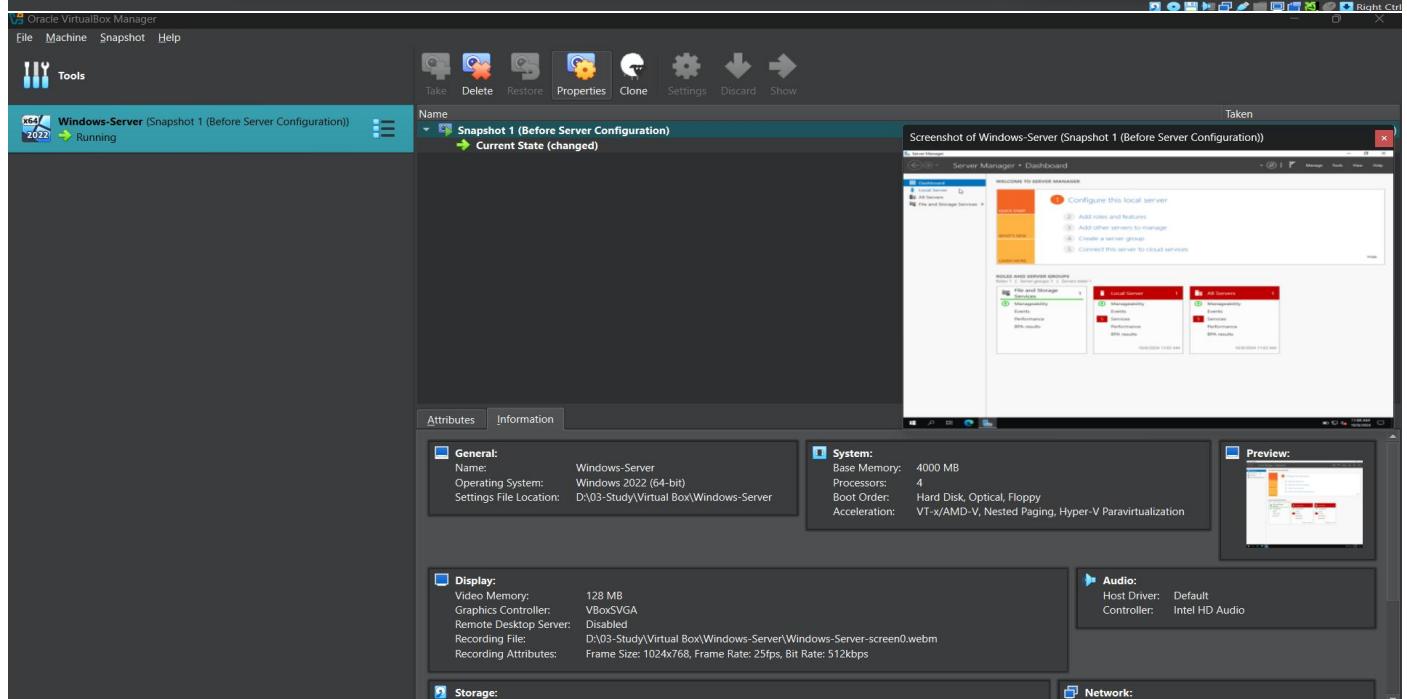
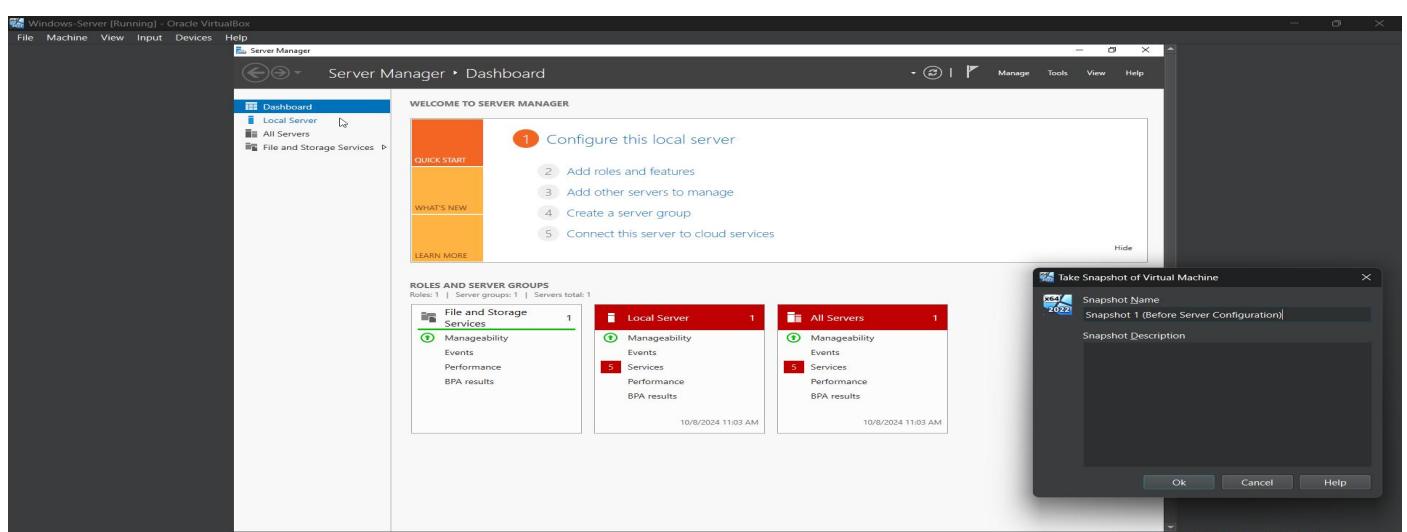
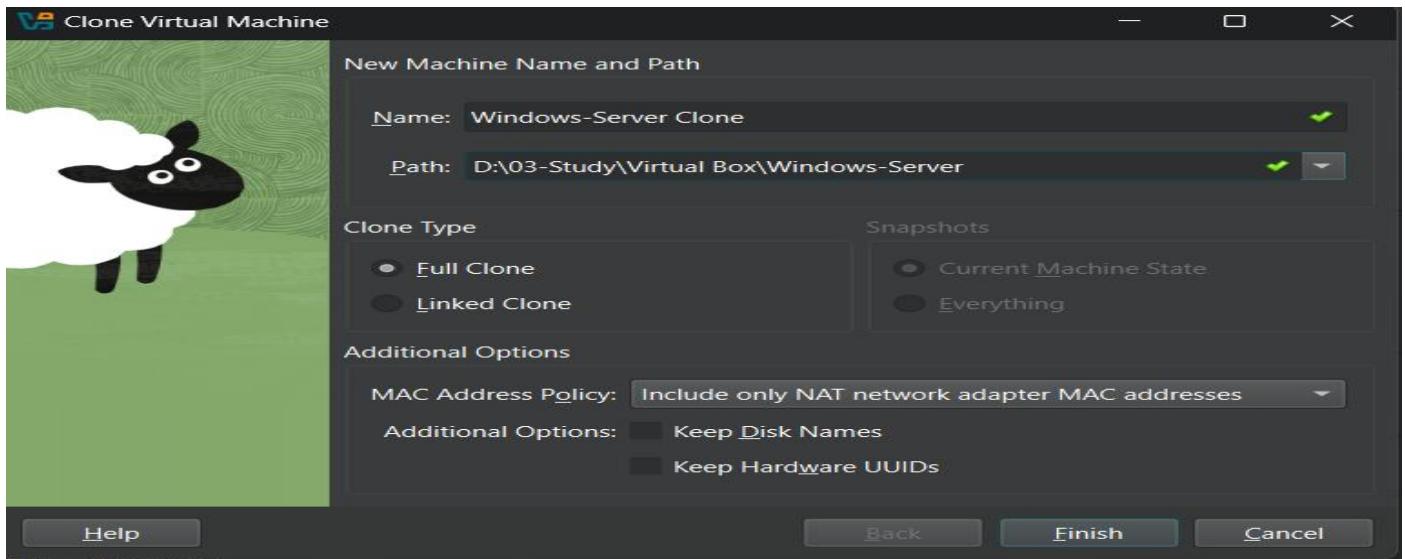


## 5) Configure Network.



## **Step 3: Configuration Backup**

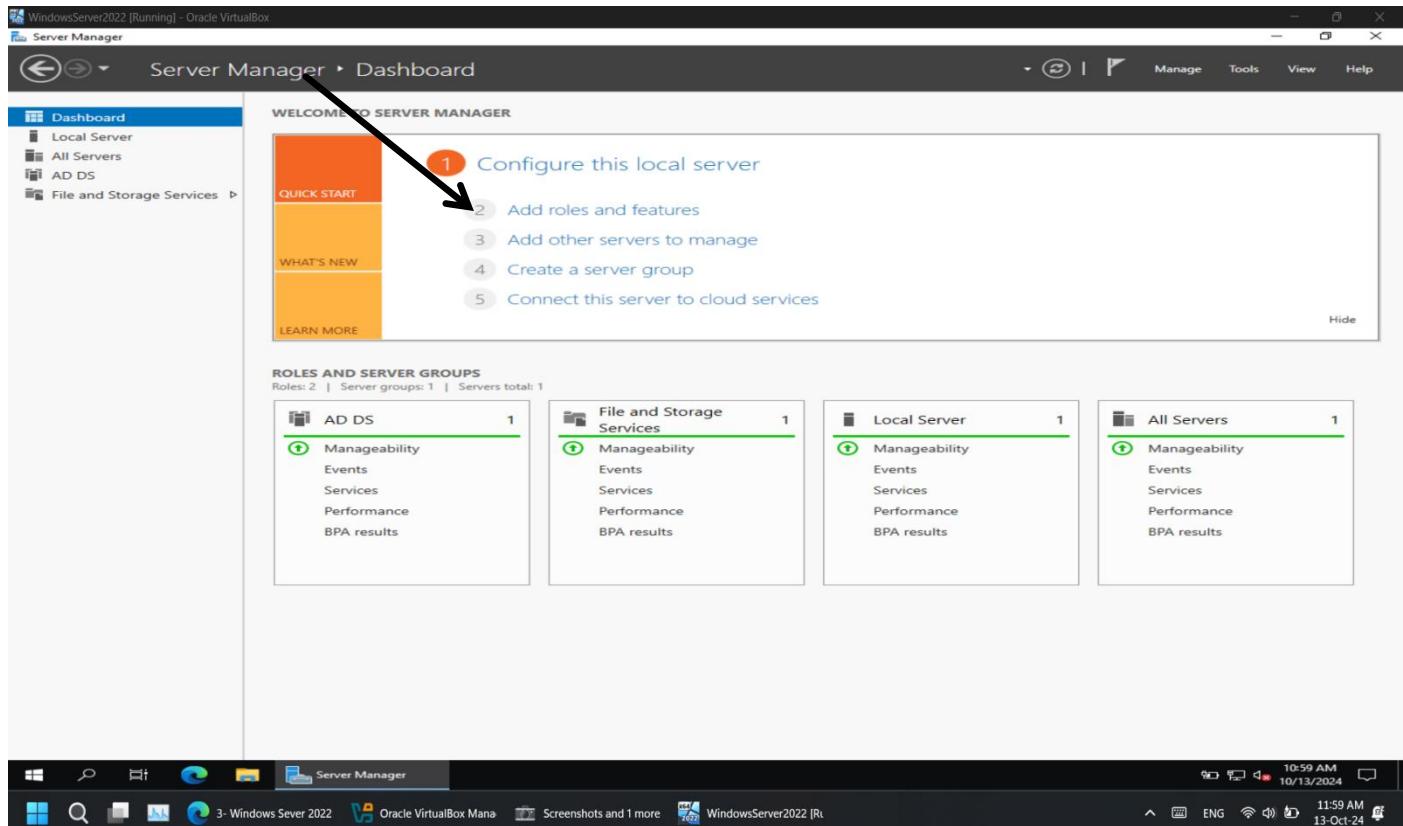
## By using Clone & Snapshots



# Installing & Configuring Services

## Active Directory

Select add roles & features



This screenshot shows the 'Before you begin' page of the 'Add Roles and Features Wizard'. The left sidebar lists steps: 'Before You Begin', 'Installation Type', 'Server Selection', 'Server Roles', 'Features', 'Confirmation', and 'Results'. The main pane contains instructions for using the wizard to install roles, role services, or features. It also provides links for removing roles and starting the Remove Roles and Features Wizard. Prerequisites listed include a strong password, network settings, and security updates. A checkbox at the bottom allows skipping the page by default. Navigation buttons at the bottom are '< Previous', 'Next >', 'Install', and 'Cancel'.

**Before You Begin**

This wizard helps you install roles, role services, or features. You determine which roles, role services, or features to install based on the computing needs of your organization, such as sharing documents, or hosting a website.

To remove roles, role services, or features:  
[Start the Remove Roles and Features Wizard](#)

Before you continue, verify that the following tasks have been completed:

- The Administrator account has a strong password
- Network settings, such as static IP addresses, are configured
- The most current security updates from Windows Update are installed

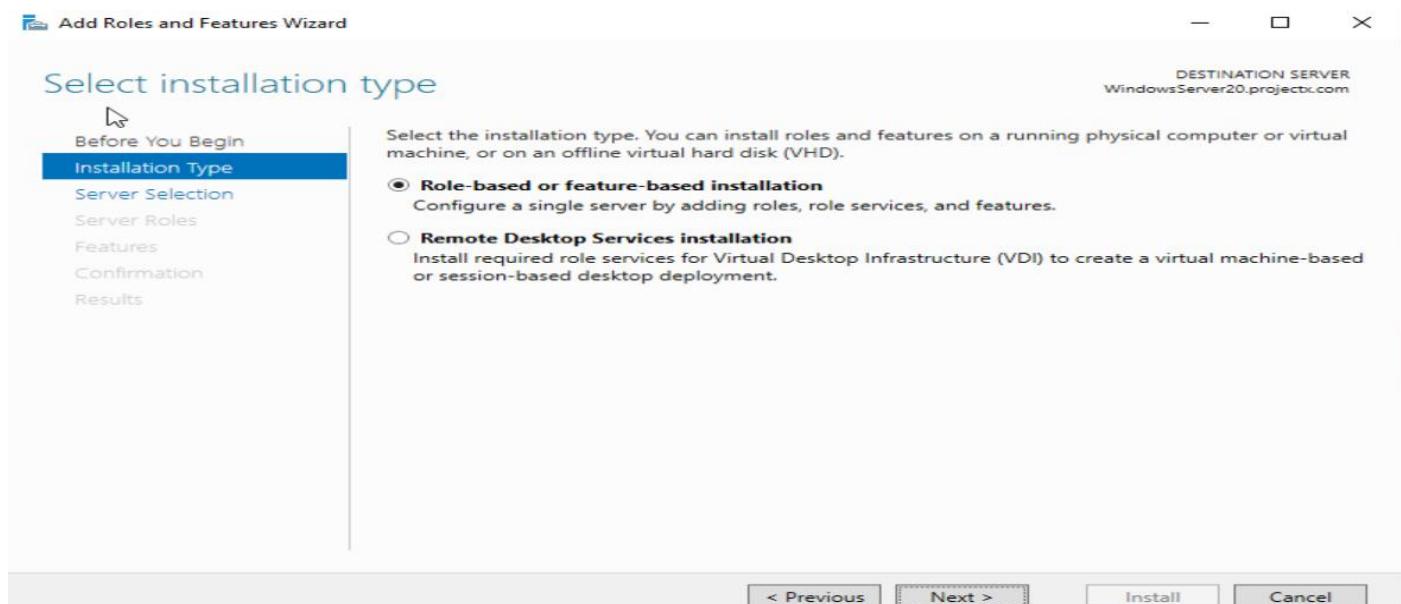
If you must verify that any of the preceding prerequisites have been completed, close the wizard, complete the steps, and then run the wizard again.

To continue, click Next.

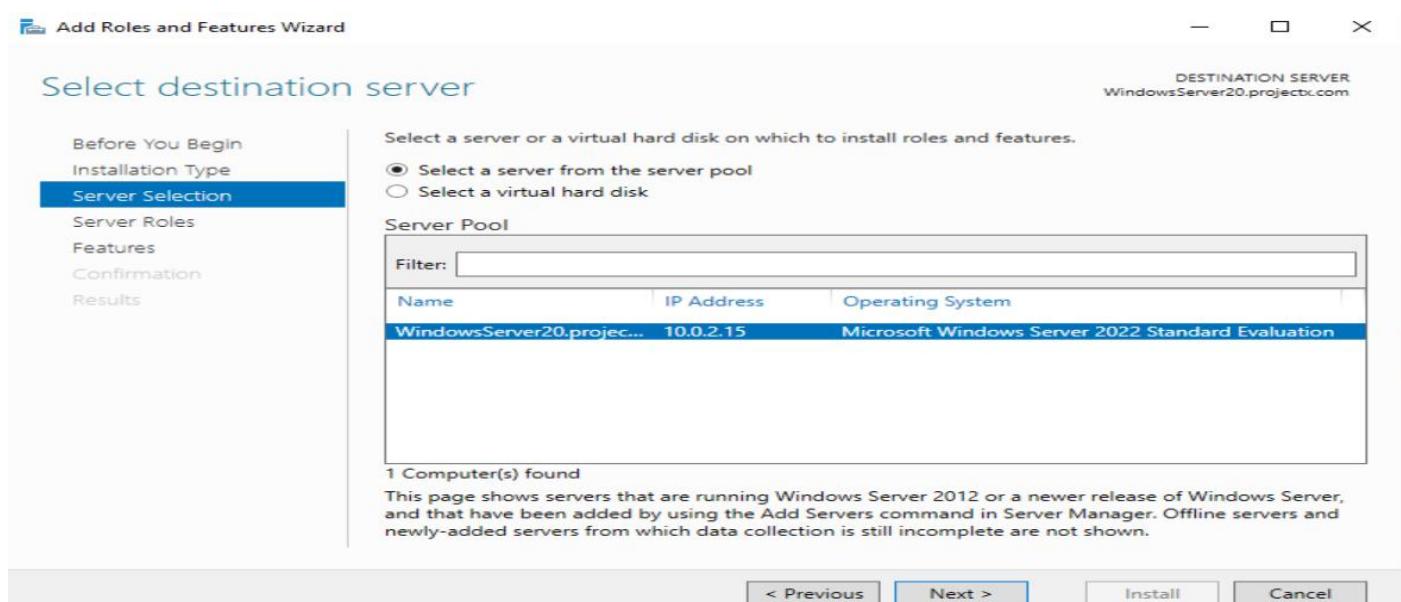
Skip this page by default

< Previous    Next >    Install    Cancel

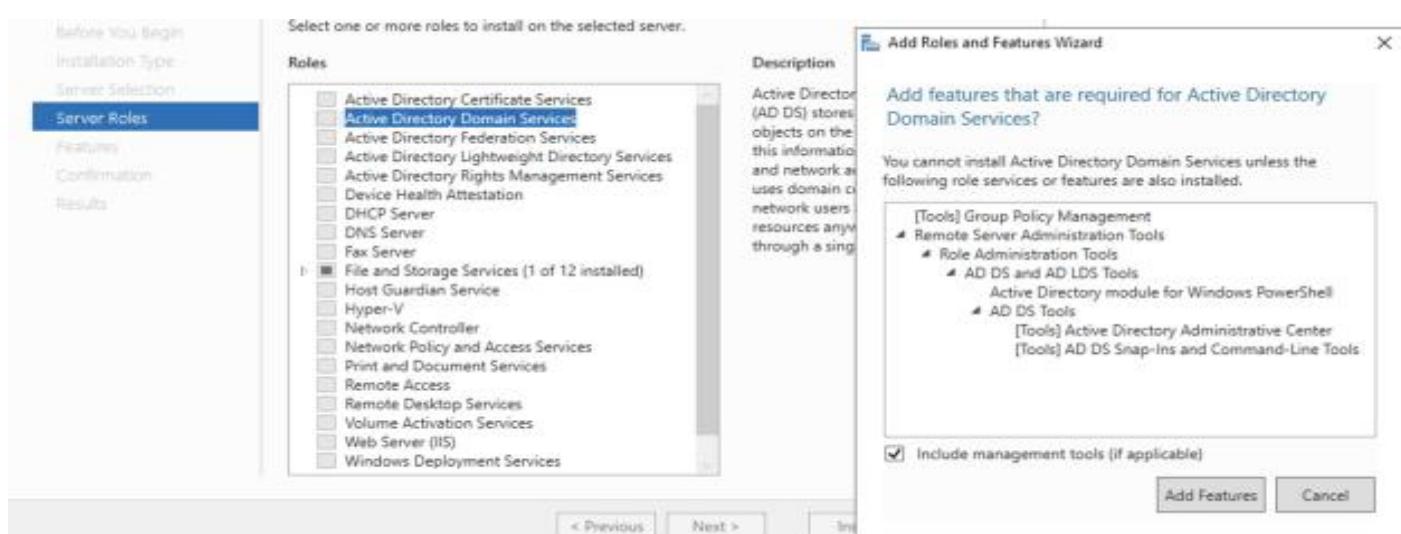
## Select Installation Type



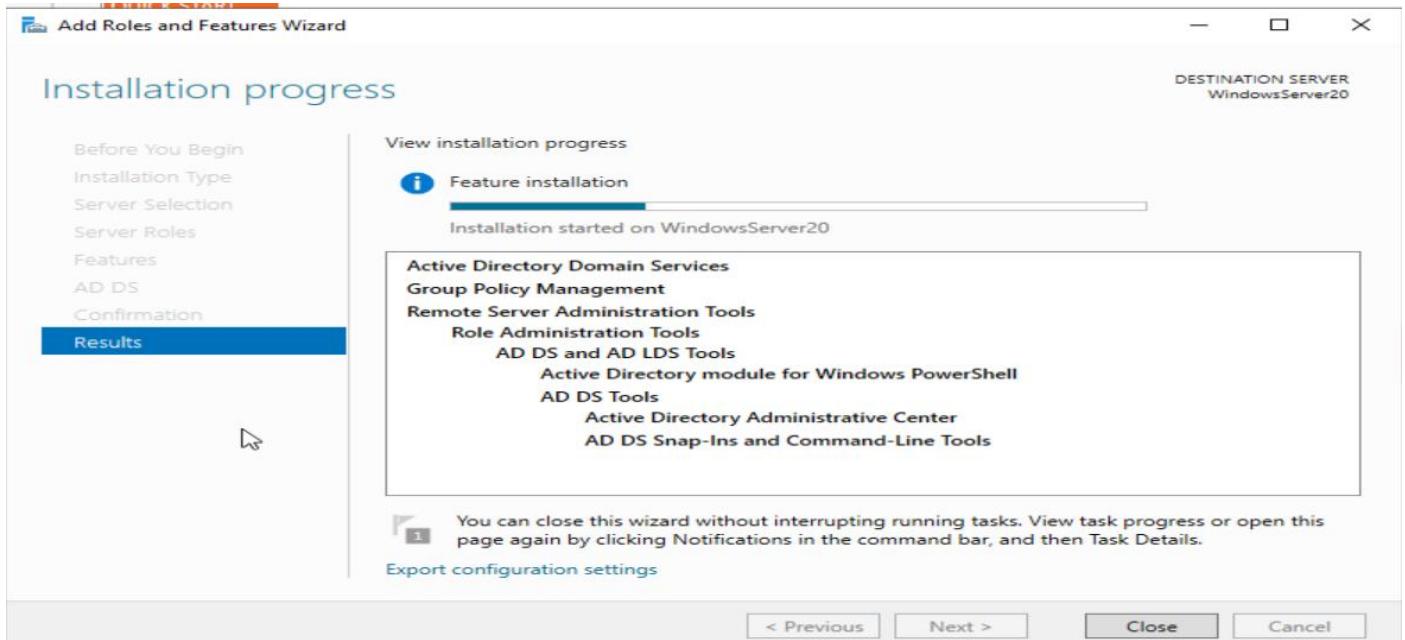
## Server Selection



## Select Server Roles & Add Features

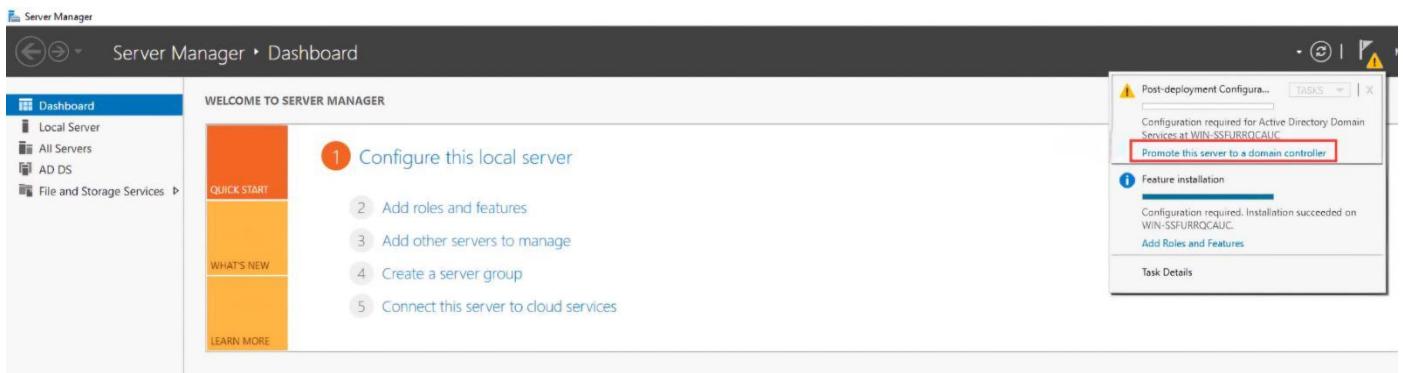


## Installation progress

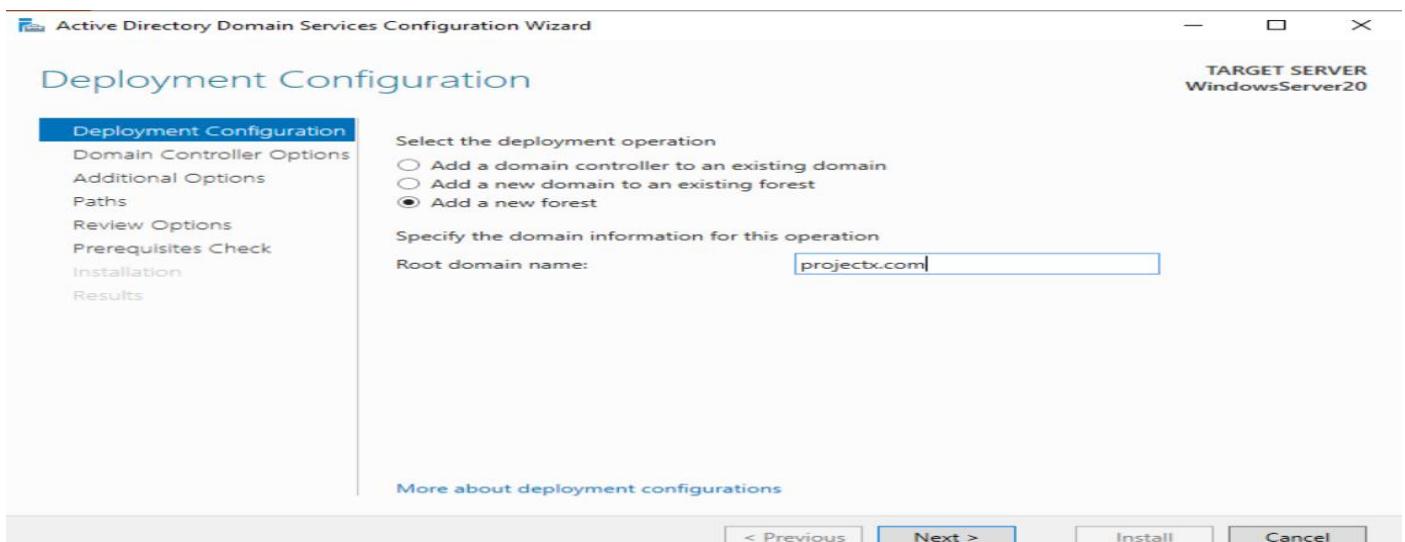


## Configure Active Directory Domain Services

Click on notification panel & select "Promote this server to a domain controller"



## Add a Forest



# Domain Controller Options

Active Directory Domain Services Configuration Wizard

## Domain Controller Options

TARGET SERVER  
WindowsServer20

Deployment Configuration  
**Domain Controller Options**  
Additional Options  
Paths  
Review Options  
Prerequisites Check  
Installation  
Results

Select functional level of the new forest and root domain

Forest functional level: Windows Server 2016  
Domain functional level: Windows Server 2016

Specify domain controller capabilities

Domain Name System (DNS) server  
 Global Catalog (GC)  
 Read only domain controller (RODC)

Type the Directory Services Restore Mode (DSRM) password

Password:  Confirm password:

[More about domain controller options](#)

< Previous Next > Install Cancel

Active Directory Domain Services Configuration Wizard

## Additional Options

TARGET SERVER  
WindowsServer20

Deployment Configuration  
**Additional Options**  
Domain Controller Options  
Paths  
Review Options  
Prerequisites Check  
Installation  
Results

Verify the NetBIOS name assigned to the domain and change it if necessary

The NetBIOS domain name: PROJECTX

[More about additional options](#)

< Previous Next > Install Cancel

# Set Path

Active Directory Domain Services Configuration Wizard

## Paths

TARGET SERVER  
WindowsServer20

Deployment Configuration  
Domain Controller Options  
Additional Options  
**Paths**  
Review Options  
Prerequisites Check  
Installation  
Results

Specify the location of the AD DS database, log files, and SYSVOL

Database folder: C:\Windows\NTDS  
Log files folder: C:\Windows\NTDS  
SYSVOL folder: C:\Windows\SYSVOL

[More about Active Directory paths](#)

< Previous Next > Install Cancel

## Review Options

The screenshot shows the 'Review Options' step of the Active Directory Domain Services Configuration Wizard. The left sidebar lists navigation options: Deployment Configuration, Domain Controller Options, Additional Options, Paths, Review Options (which is selected), Prerequisites Check, Installation, and Results. The main pane displays the configuration settings:

- Review your selections:**
  - Configure this server as the first Active Directory domain controller in a new forest.
  - The new domain name is "projectx.com". This is also the name of the new forest.
  - The NetBIOS name of the domain: PROJECTX
  - Forest Functional Level: Windows Server 2016
  - Domain Functional Level: Windows Server 2016
- Additional Options:**
  - Global catalog: Yes
  - DNS Server: No
- Database folder: C:\Windows\NTDS

Below the settings, a note says: "These settings can be exported to a Windows PowerShell script to automate additional installations". A "View script" button is available. At the bottom are buttons for < Previous, Next >, Install, and Cancel.

## Check Prerequisites

The screenshot shows the 'Prerequisites Check' step of the Active Directory Domain Services Configuration Wizard. The left sidebar lists navigation options: Deployment Configuration, Domain Controller Options, Additional Options, Paths, Review Options, Prerequisites Check (selected), Installation, and Results. The main pane displays the results of the prerequisite checks:

- All prerequisite checks passed successfully. Click 'Install' to begin installation. (A green checkmark icon is shown.)
- Prerequisites need to be validated before Active Directory Domain Services is installed on this computer.
- Rerun prerequisites check.

A "View results" section shows:

- A warning icon: Windows Server 2022 domain controllers have a default for the security setting named "Allow cryptography algorithms compatible with Windows NT 4.0" that prevents weaker cryptography algorithms when establishing security channel sessions. For more information, see Knowledge Base article 942564 (<http://go.microsoft.com/fwlink/?LinkId=104751>).
- A blue circular icon with a white arrow: Prerequisites Check Completed.
- A green checkmark icon: All prerequisite checks passed successfully. Click 'Install' to begin installation.

At the bottom, a note says: "If you click Install, the server automatically reboots at the end of the promotion operation." A "More about prerequisites" link is available. Buttons at the bottom include < Previous, Next >, Install, and Cancel.

## Installation “restart required”

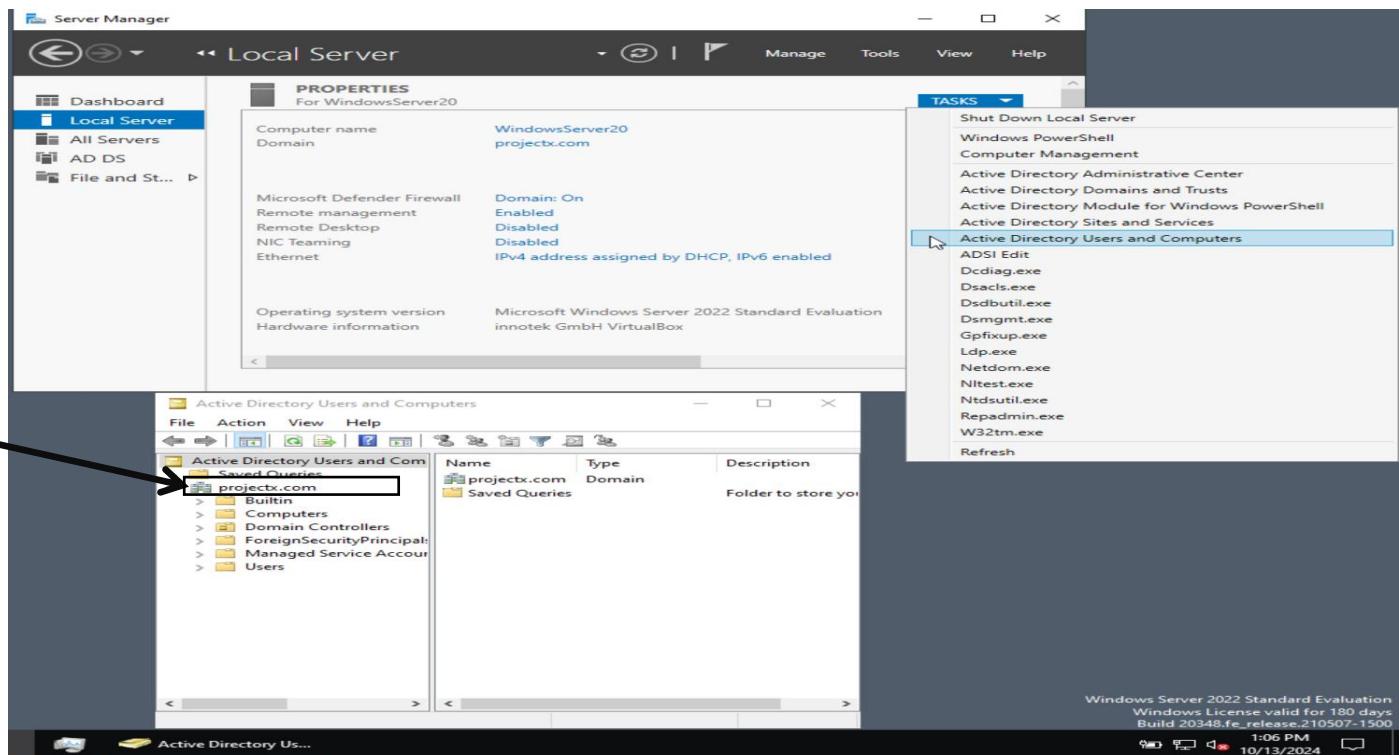
The screenshot shows the 'Installation' step of the Active Directory Domain Services Configuration Wizard. The left sidebar lists navigation options: Deployment Configuration, Domain Controller Options, Additional Options, Paths, Review Options, Prerequisites Check, Installation (selected), and Results. The main pane displays the installation progress:

Progress: Starting

A "View detailed operation results" section shows:

- A warning icon: Windows Server 2022 domain controllers have a default for the security setting named "Allow cryptography algorithms compatible with Windows NT 4.0" that prevents weaker cryptography algorithms when establishing security channel sessions. For more information, see Knowledge Base article 942564 (<http://go.microsoft.com/fwlink/?LinkId=104751>).

At the bottom, a note says: "More about installation options". Buttons at the bottom include < Previous, Next >, Install, and Cancel.



## Creating user from Active Directory

The screenshot shows the 'Active Directory Users and Computers' console. The left pane displays the domain structure under 'projectx.com'. The right pane lists existing users and groups. A context menu is open over a user account, with 'New' selected. A secondary context menu is open at the bottom right, with 'User' selected. This indicates the process of creating a new user account.

Name	Type	Description
Administrator	User	Built-in account for ad...
Allowed RO...	Security Group...	Members in this group c...
Cert Publish...	Security Group...	Members of this group ...
Cloneable D...	Security Group...	Members of this group t...
Denied ROD...	Security Group...	Members in this group c...
Domain Ad...	Security Group...	Designated administrato...
Domain Co...	Security Group...	All workstations and ser...
Domain Con...	Security Group...	All domain controllers i...
Domain Gue...	Security Group...	All domain guests
Domain Users	Security Group...	All domain users
Enterprise A...	Security Group...	Designated administrato...
Enterprise K...	Security Group...	Members of this group ...
Enterprise R...	Security Group...	Members of this group ...
Group Polic...	Security Group...	Members in this group c...
Guest	User	Built-in account for gue...
Key Admins	Security Group...	Members of this group ...
Protected Us...	Security Group...	Members of this group ...
RAS and IAS ...	Security Group...	Servers in this group can...
Read-only D...	Security Group...	Members of this group ...
Schema Ad...	Security Group...	Designated administrato...

## Active Directory Users and Computers

File Action View Help

**New Object - User**

Create in: projectx.com/Users

First name:	peter	Initials:	<input type="text"/>
Last name:	<input type="text"/>		
Full name:	peter		
User logon name:	peter	@projectx.com	<input type="button" value="▼"/>
User logon name (pre-Windows 2000):	PROJECTX\	peter	<input type="button" value="▼"/>

File Action View Help

**New Object - User**

Create in: projectx.com/Users

Password:	<input type="password" value="*****"/>
Confirm password:	<input type="password" value="*****"/>
<input checked="" type="checkbox"/> User must change password at next logon <input type="checkbox"/> User cannot change password <input type="checkbox"/> Password never expires <input type="checkbox"/> Account is disabled	

## Active Directory Users and Computers

File Action View Help

**New Object - User**

Create in: projectx.com/Users

When you click Finish, the following object will be created:

Full name: peter
User logon name: peter@projectx.com
The user must change the password at next logon.

## Active Directory Users and Computers

File Action View Help

**New Object - User**

Create in: projectx.com/Users

When you click Finish, the following object will be created:

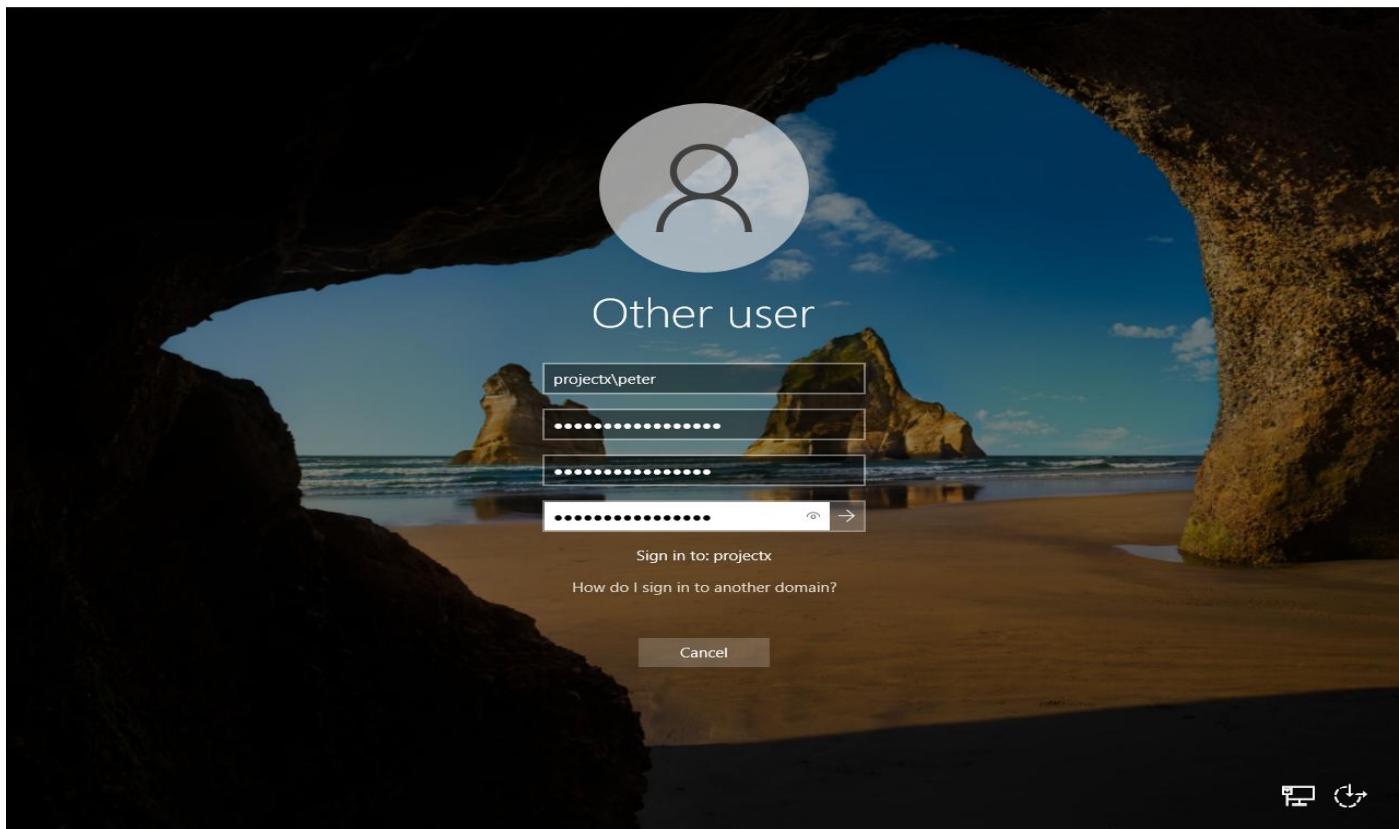
Full name: peter
User logon name: peter@projectx.com
The user must change the password at next logon.

Object Explorer:

- Active Directory Users and Com
  - > Saved Queries
  - > projectx.com
    - Builtin
    - Computers
    - Domain Controllers
    - ForeignSecurityPrincipal
    - Managed Service Account
    - Users

Properties:

Name	Type	Description
Administrator	User	Built-in account for ad...
Allowed RO...	Security Group...	Members in this group c...
Cert Publish...	Security Group...	Members of this group ...
Cloneable D...	Security Group...	Members of this group t...
Denied ROD...	Security Group...	Members in this group c...
Domain Ad...	Security Group...	Designated administrato...
Domain Co...	Security Group...	All workstations and ser...
Domain Con...	Security Group...	All domain controllers i...
Domain Gue...	Security Group...	All domain guests
Domain Users	Security Group...	All domain users
Enterprise A...	Security Group...	Designated administrato...
Enterprise K...	Security Group...	Members of this group ...
Enterprise R...	Security Group...	Members of this group ...
Group Polic...	Security Group...	Members in this group c...
Guest	User	Built-in account for gue...
Key Admins	Security Group...	Members of this group ...
<b>peter</b>	<b>User</b>	
Protected Us...	Security Group...	Members of this group ...
RAS and IAS ...	Security Group...	Servers in this group ca...
Read-only D...	Security Group...	Members of this group ...
Schema Ad...	Security Group...	Designated administrato...
server	User	

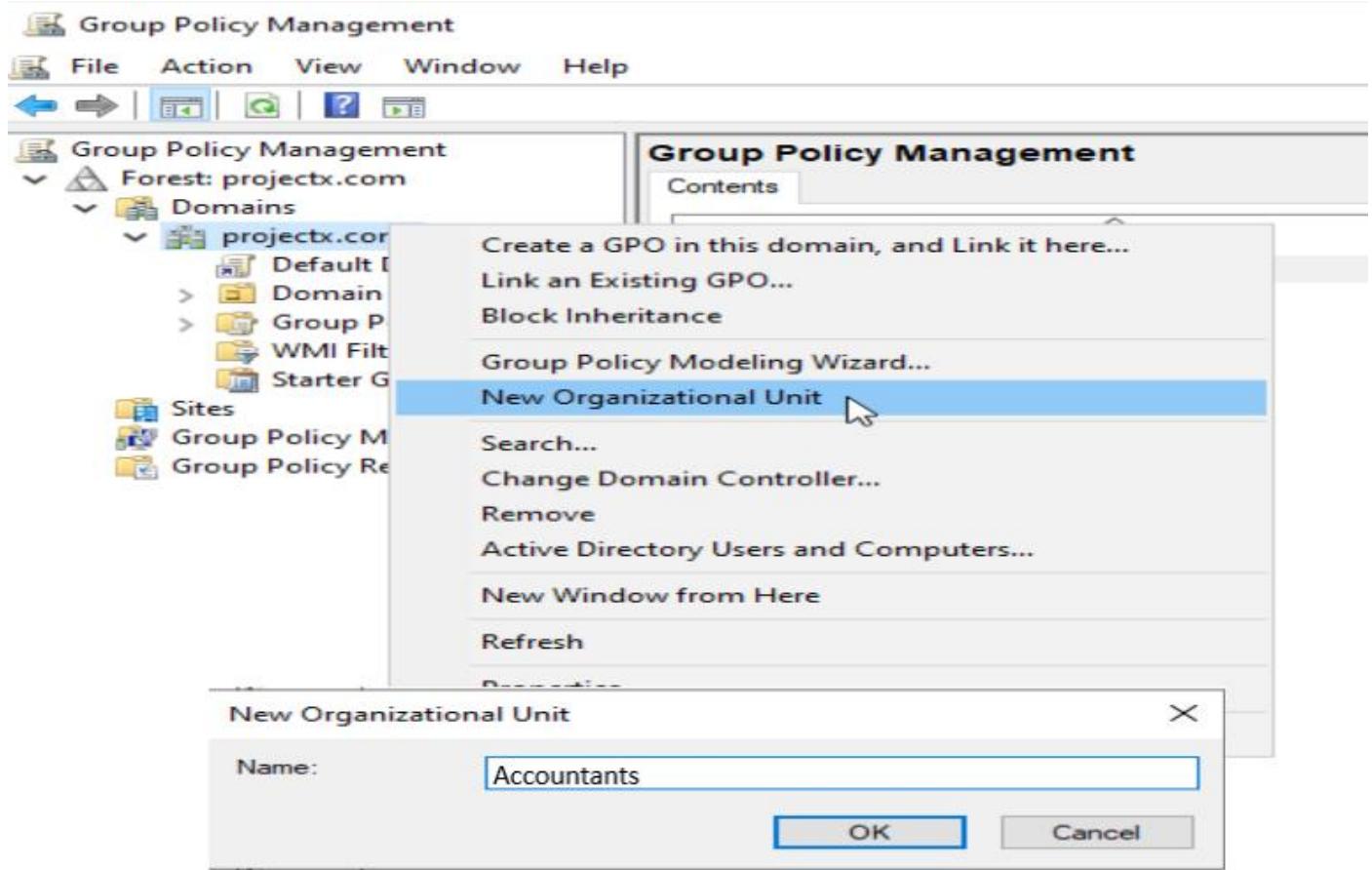


## Configuring Policies

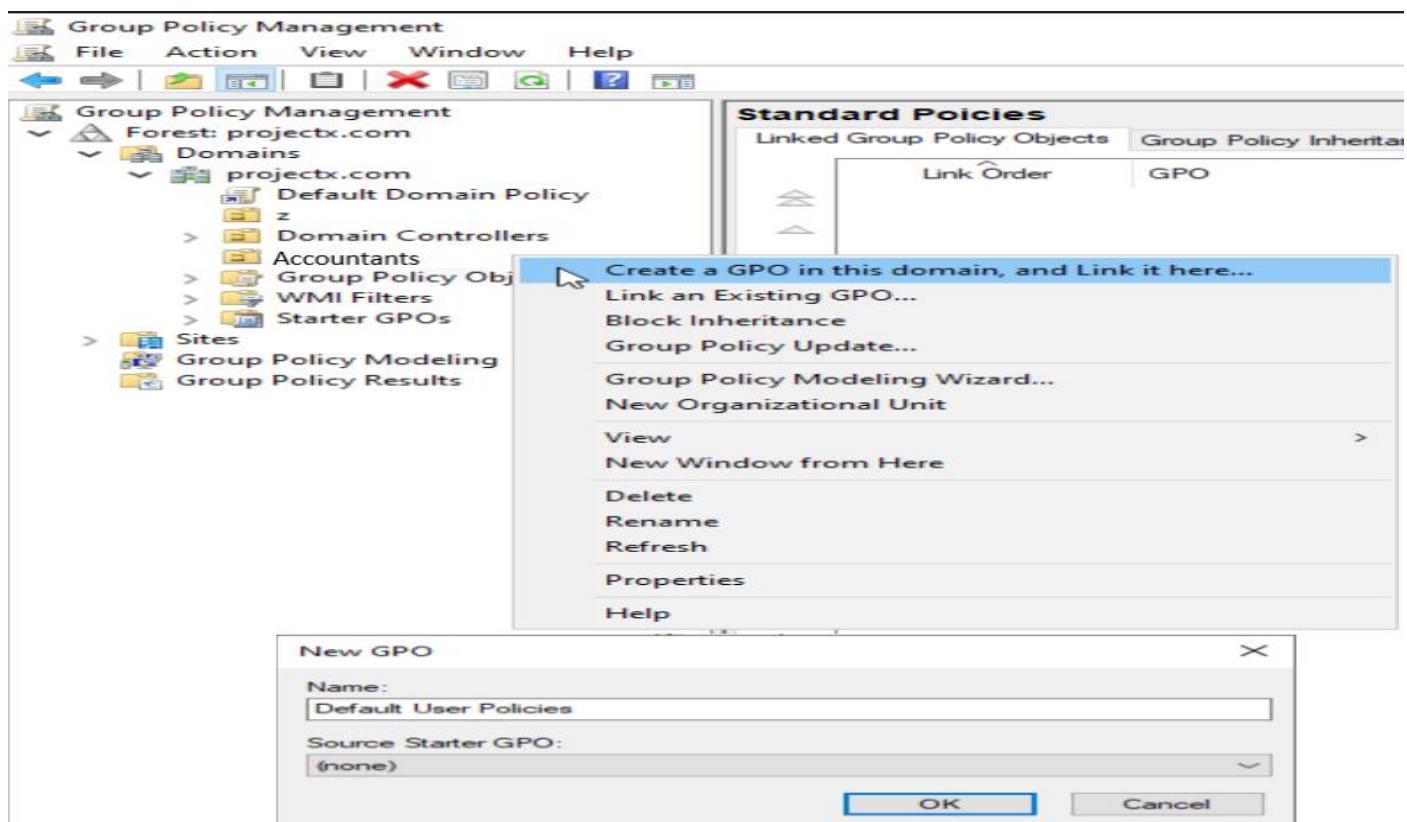
Select tools then group policy management

The screenshot shows a Windows Server 2022 Standard Evaluation environment. On the desktop, there are icons for Recycle Bin and Microsoft Edge. The Start menu is open, showing options like File Explorer, Control Panel, and Settings. The taskbar includes icons for Server Manager and Group Policy Management. The main window is the Group Policy Management console. The left pane displays the forest structure under 'Forest: projectx.com' with 'Domains' selected. The right pane shows the 'Dashboard' with sections for 'WELCOME TO SERVER M...', 'QUICK START', 'WHAT'S NEW', and 'LEARN MORE'. A context menu is open over the 'Tools' tab, listing various administrative tools. The 'Group Policy Management' option is highlighted. The status bar at the bottom indicates a valid license until 179 days, build 20348, and a date of 10/14/2024.

Right-click on projectx.com “whatever domain has been created”, then select new OU



Right-click on Standard Policies “OU created”, then select create a GPO



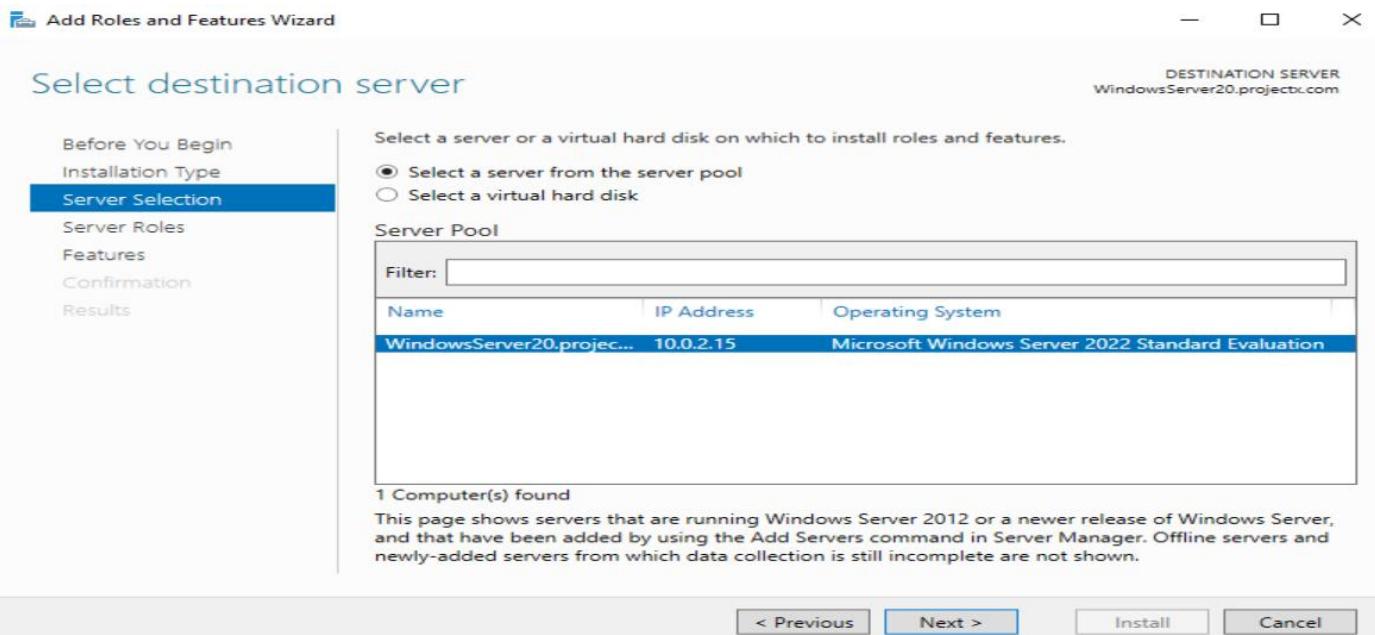
## Right-click on User Rights Assignment & Configure policies

The screenshot shows two windows side-by-side. The left window is 'Group Policy Management' showing the 'Default User Policies' for 'projectx.com'. The right window is 'Group Policy Management Editor' showing the 'User Rights Assignment' policy under 'Default User Policies [WINDOWSSERVER20.PROJECTX]'. Arrows point from specific policy items in the editor back to their definitions in the GPM window.

Policy	Policy Setting
Access Credential Manager as a trusted caller	Not Defined
Access this computer from the network	PROJECTX\Domain Users
Act as part of the operating system	Not Defined
Add workstations to domain	Not Defined
Adjust memory quotas for a process	Not Defined
Allow log on locally	Authenticated Users,Administrators
Allow log on through Remote Desktop Services	Not Defined
Back up files and directories	Administrators
Bypass traverse checking	Not Defined
Change the system time	Not Defined
Change the time zone	Not Defined
Create a pagefile	Not Defined
Create a token object	Not Defined
Create global objects	Not Defined
Create permanent shared objects	Not Defined
Create symbolic links	Not Defined
Debug programs	Not Defined
Deny access to this computer from the network	Not Defined
Deny log on as a batch job	Not Defined
Deny log on as a service	Not Defined
Deny log on locally	Not Defined
Deny log on through Remote Desktop Services	Not Defined
Enable computer and user accounts to be trusted for delegation	Not Defined
Force shutdown from a remote system	Not Defined
Generate security audits	Not Defined
Impersonate a client after authentication	Not Defined
Increase a process working set	Not Defined
Increase scheduling priority	Not Defined
Load and unload device drivers	Not Defined
Lock pages in memory	Not Defined
Log on as a batch job	Not Defined
Log on as a service	Not Defined

## Installing DNS Server & WEB Server

The screenshot shows the 'Add Roles and Features Wizard' on the 'Select installation type' screen. The 'Installation Type' section is selected, showing two options: 'Role-based or feature-based installation' (selected) and 'Remote Desktop Services installation'. The 'Role-based or feature-based installation' section includes a note about configuring a single server by adding roles, role services, and features.



## Server roles & features

Add Roles and Features Wizard

## Web Server Role (IIS)

DESTINATION SERVER  
WindowsServer20.projectx.com

Before You Begin  
Installation Type  
Server Selection  
Server Roles  
Features  
DNS Server  
**Web Server Role (IIS)**  
Role Services  
Confirmation  
Results

Web servers are computers that let you share information over the Internet, or through intranets and extranets. The Web Server role includes Internet Information Services (IIS) 10.0 with enhanced security, diagnostic and administration, a unified Web platform that integrates IIS 10.0, ASP.NET, and Windows Communication Foundation.

- The default installation for the Web Server (IIS) role includes the installation of role services that enable you to serve static content, make minor customizations (such as default documents and HTTP errors), monitor and log server activity, and configure static content compression.

More information about Web Server IIS

< Previous Next > Install Cancel

Add Roles and Features Wizard

## Confirm installation selections

DESTINATION SERVER  
WindowsServer20.projectx.com

Before You Begin  
Installation Type  
Server Selection  
Server Roles  
Features  
DNS Server  
Web Server Role (IIS)  
Role Services  
**Confirmation**  
Results

To install the following roles, role services, or features on selected server, click Install.

Restart the destination server automatically if required

Optional features (such as administration tools) might be displayed on this page because they have been selected automatically. If you do not want to install these optional features, click Previous to clear their check boxes.

DNS Server  
  Remote Server Administration Tools  
    Role Administration Tools  
    DNS Server Tools

Web Server (IIS)  
  Management Tools  
    IIS Management Console

  Web Server  
    Common HTTP Features  
      Default Document  
      Directory Browsing

Export configuration settings  
Specify an alternate source path

< Previous Next > Install Cancel

Add Roles and Features Wizard

## Installation progress

DESTINATION SERVER  
WindowsServer20.projectx.com

Before You Begin  
Installation Type  
Server Selection  
Server Roles  
Features  
DNS Server  
Web Server Role (IIS)  
Role Services  
**Confirmation**  
Results

View installation progress

Feature installation  
Installation started on WindowsServer20.projectx.com

DNS Server  
  Remote Server Administration Tools  
    Role Administration Tools  
    DNS Server Tools

Web Server (IIS)  
  Management Tools  
    IIS Management Console

  Web Server  
    Common HTTP Features  
      Default Document  
      Directory Browsing

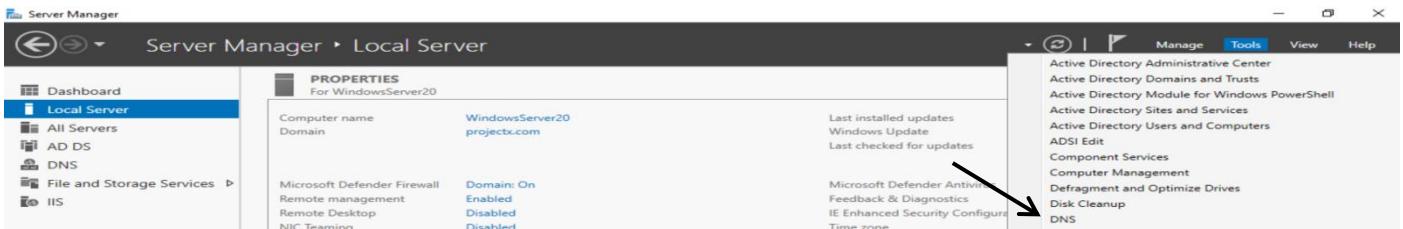
You can close this wizard without interrupting running tasks. View task progress or open this page again by clicking Notifications in the command bar, and then Task Details.

Export configuration settings

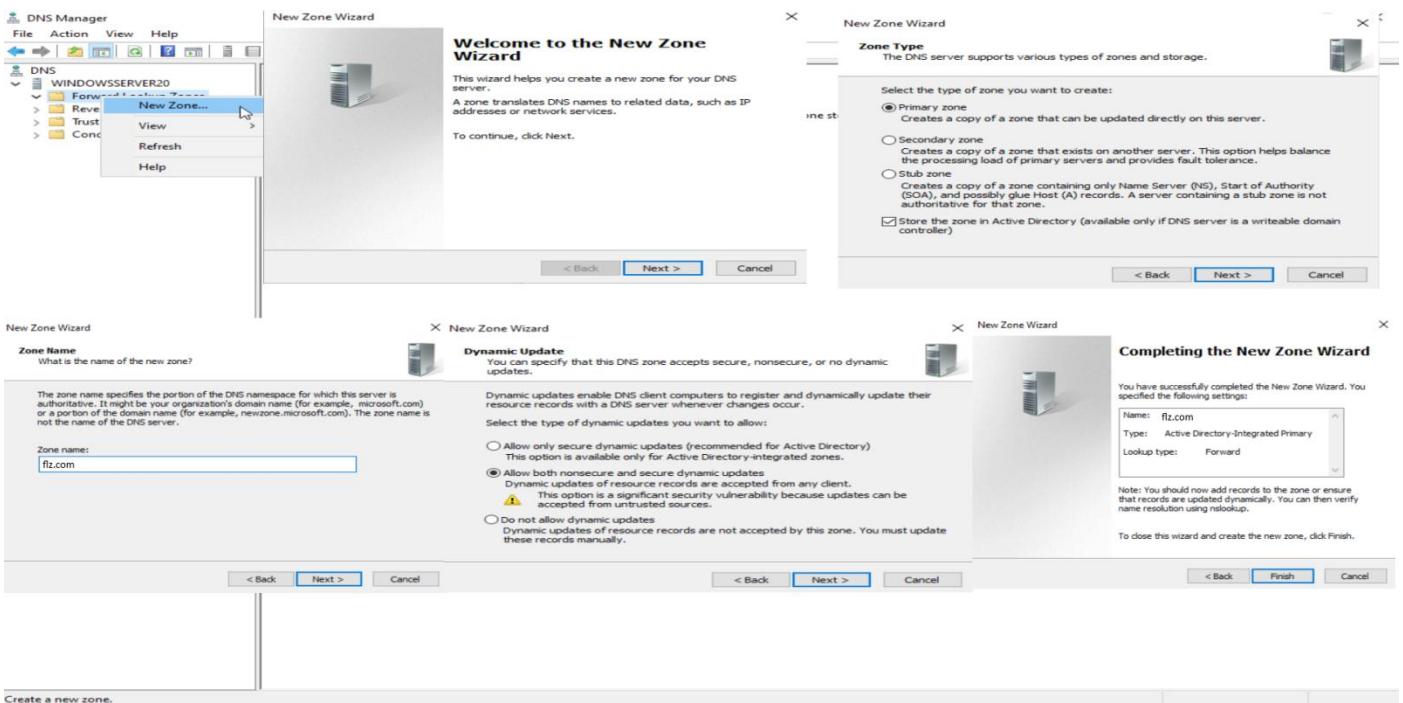
< Previous Next > Close Cancel

# Configuring DNS

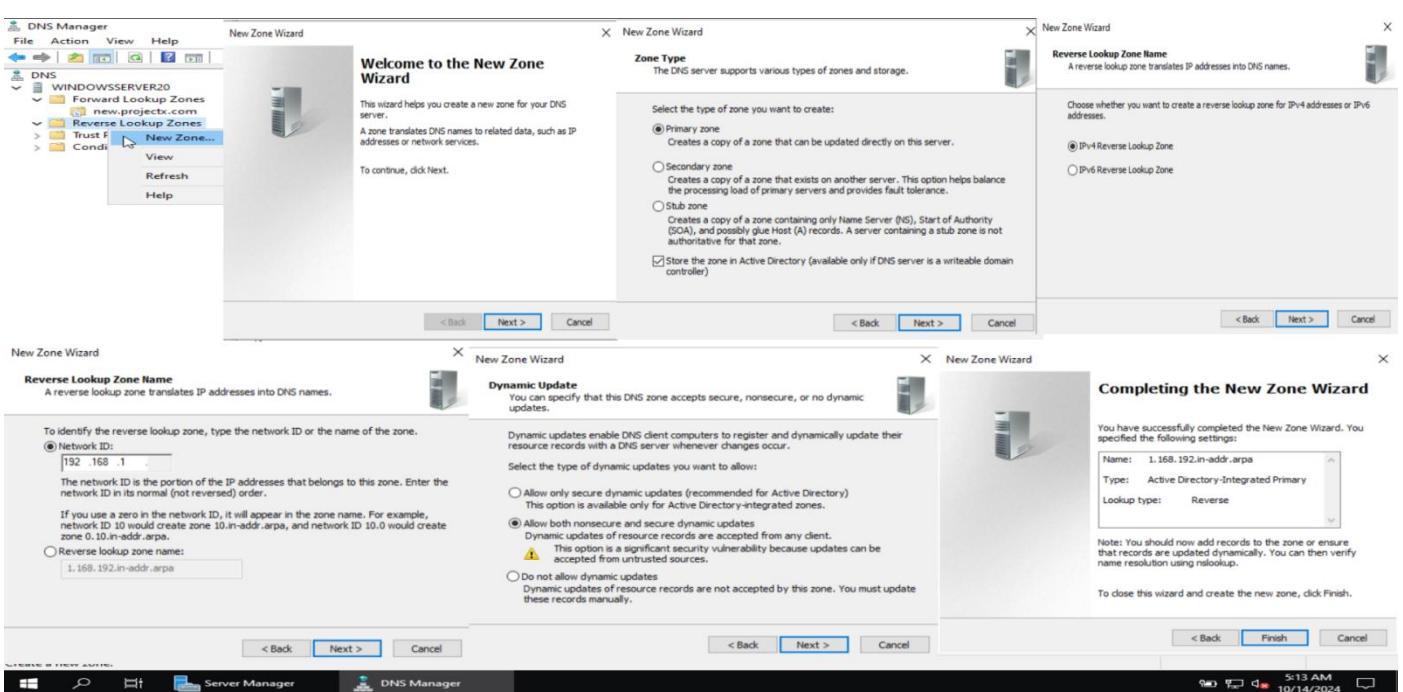
## Select tools then DNS



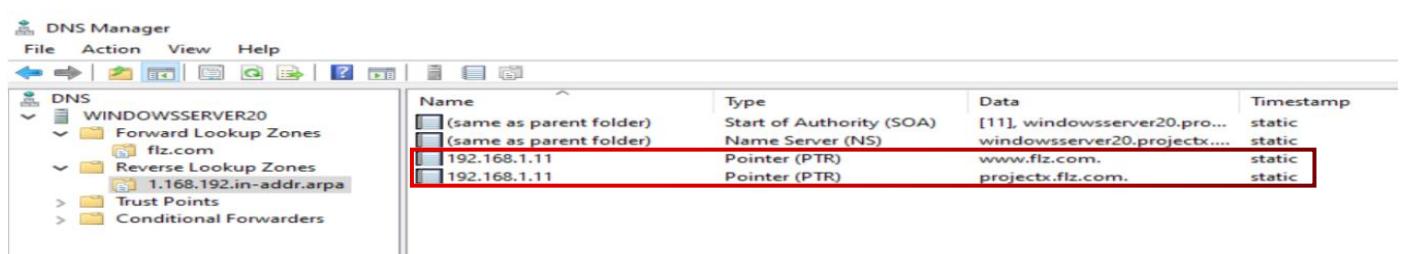
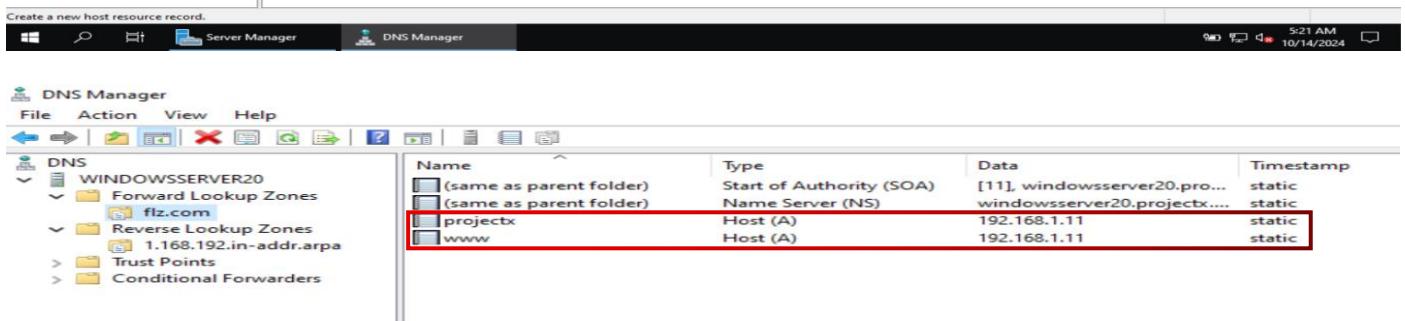
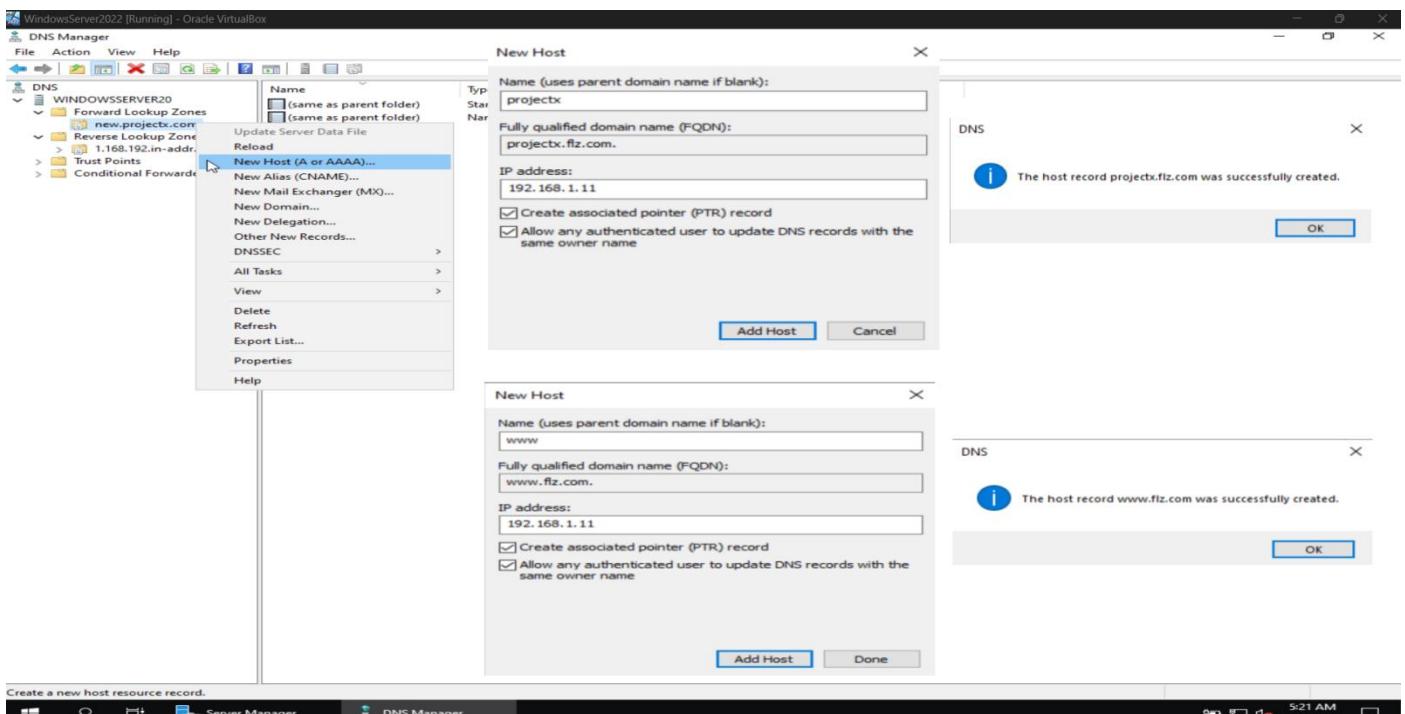
## Right-click on Forward Lookup Zones, then select New Zone



## Right-click on Reverse Lookup Zones, then select New Zone



## Right-click on the created zone, then select New Host



```

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

PS C:\Users\administrator> ping www.flz.com

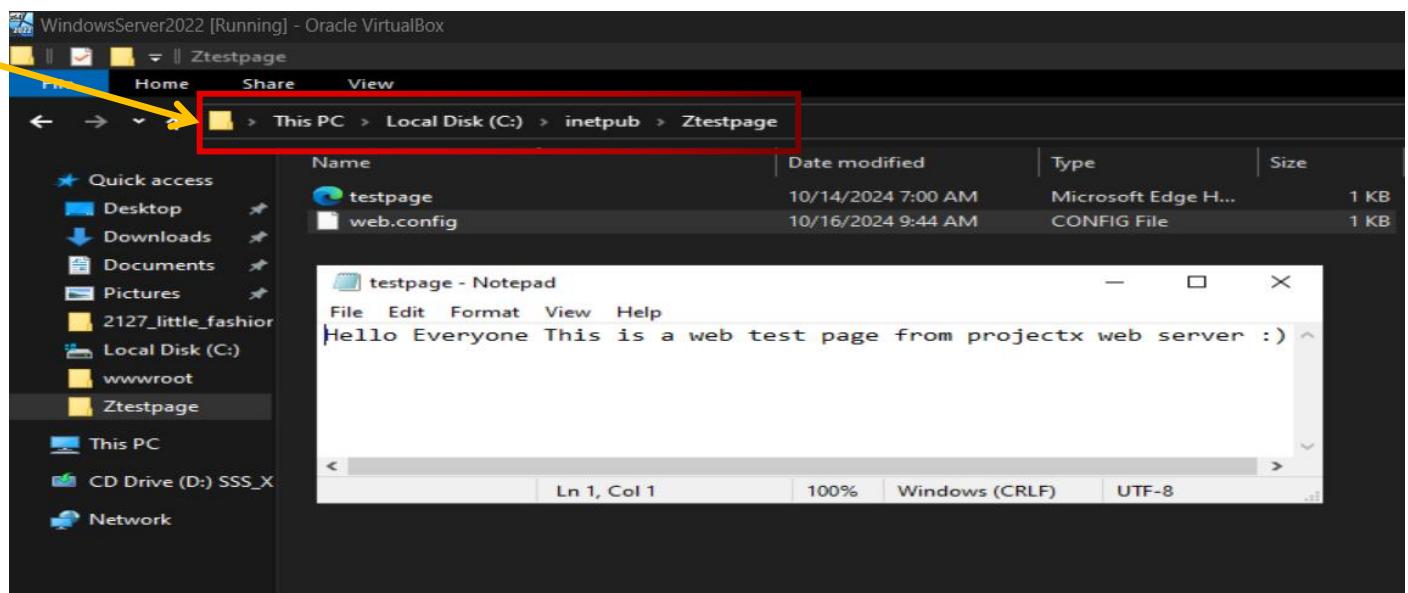
Pinging www.flz.com [192.168.1.11] with 32 bytes of data:
Reply from 192.168.1.11: bytes=32 time<1ms TTL=128
Reply from 192.168.1.11: bytes=32 time<1ms TTL=128
Reply from 192.168.1.11: bytes=32 time<1ms TTL=128
Reply from 192.168.1.11: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.1.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
PS C:\Users\administrator>

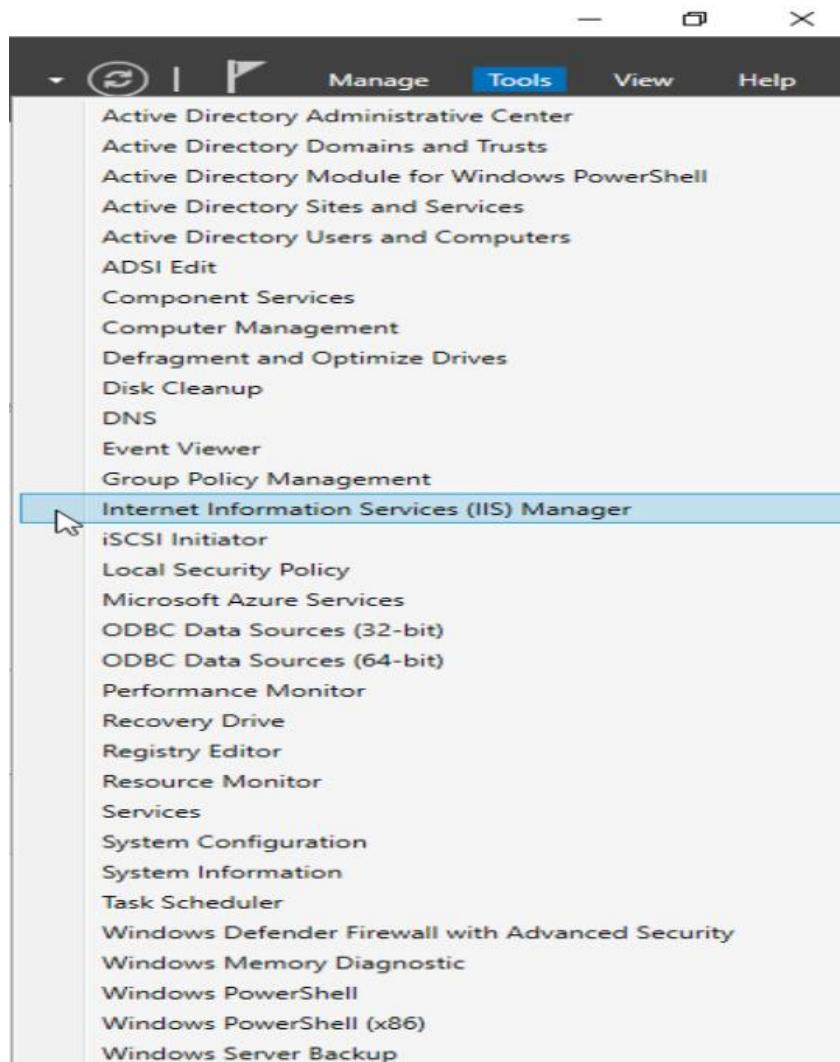
```

## Create Website

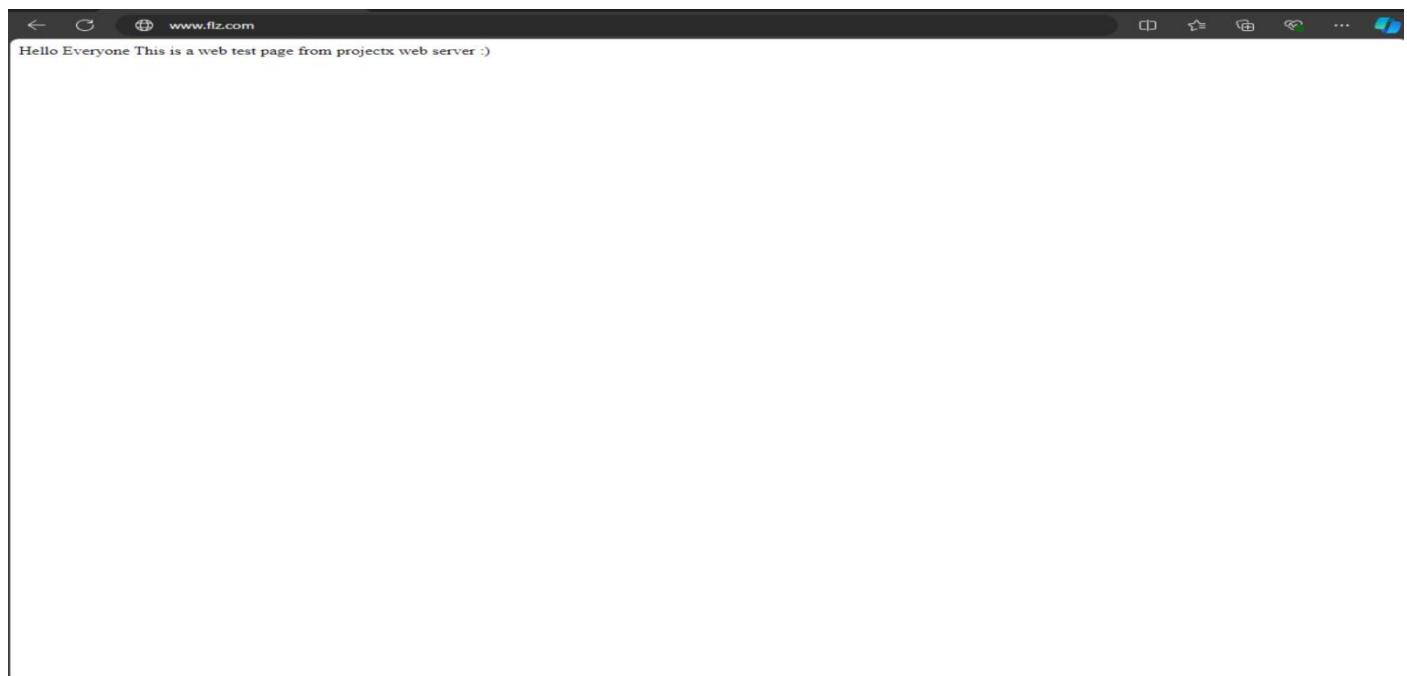
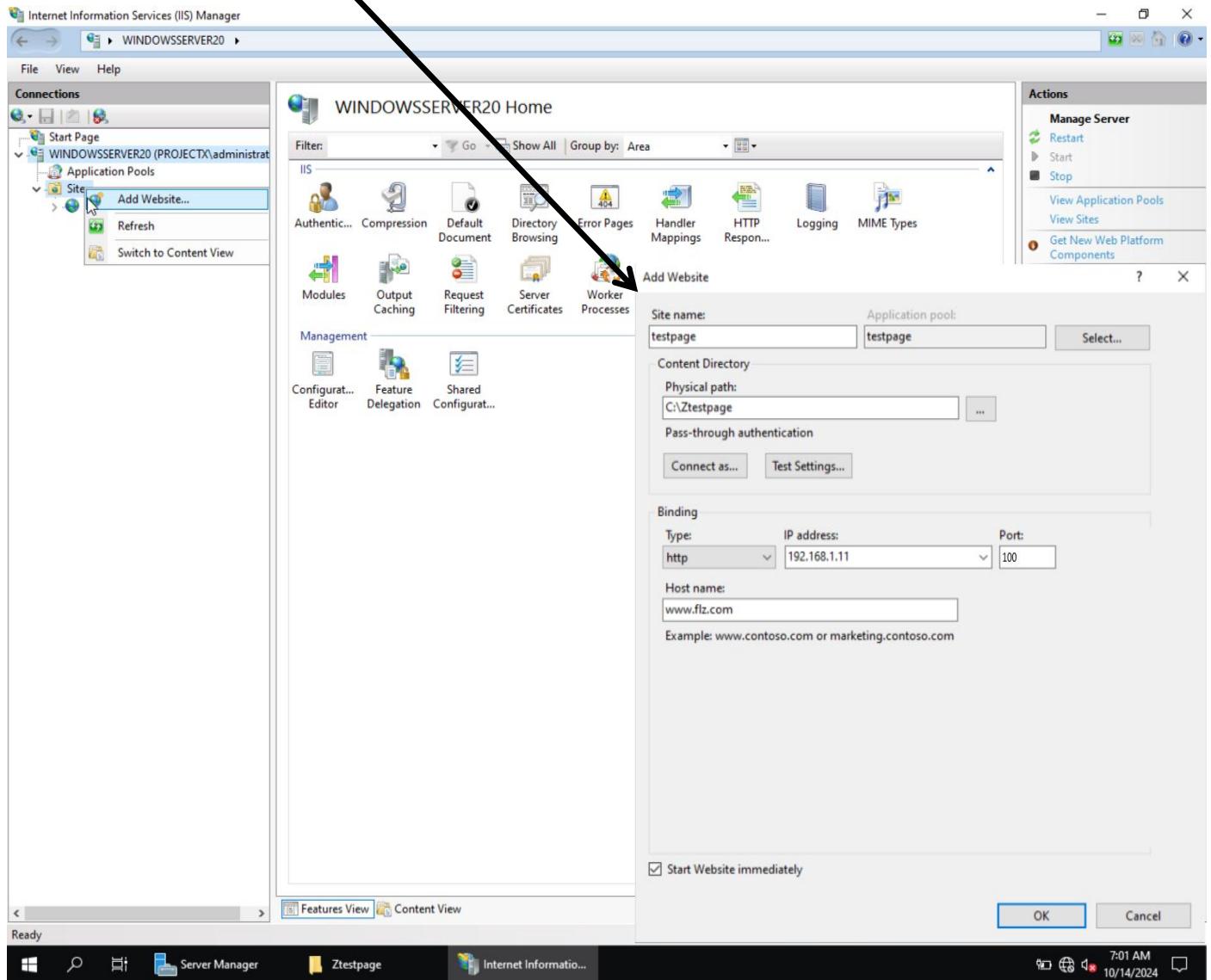
Create a document file & save it as html file in the path below “ IIS Manger Path”



Open Server Manger, select tools , select IIS Manger



Right-click on sites, then select add website  
fill the data required



# *Test report*

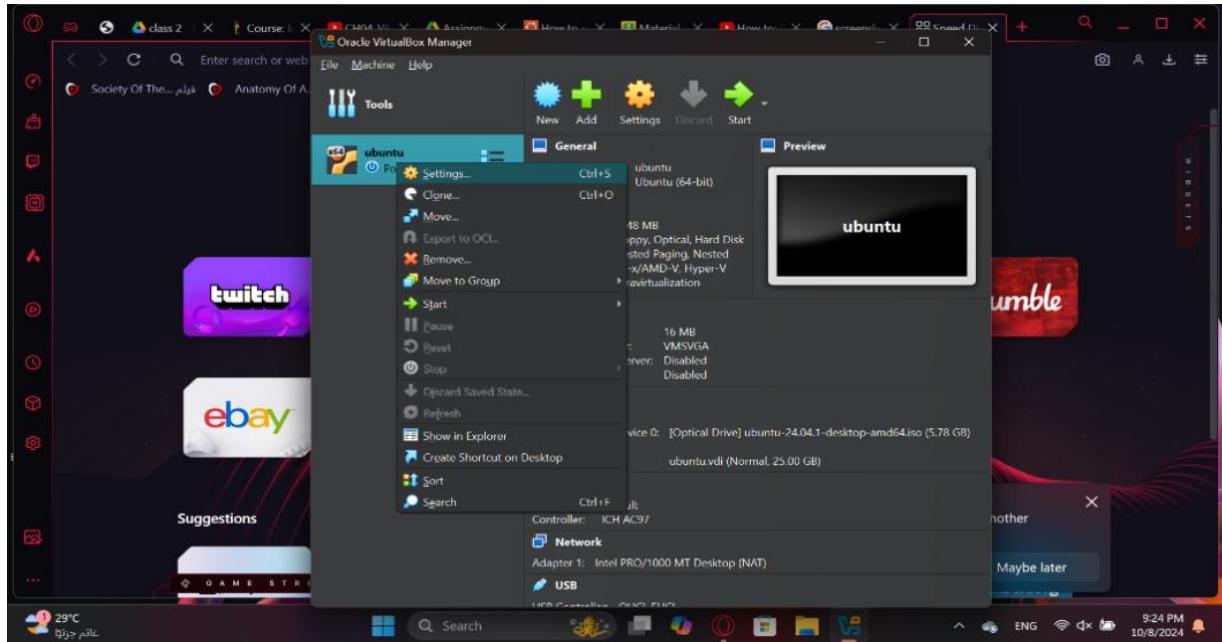
## Issue 1

Backscreen: when run the ubuntu from the VBOX displays a backscreen

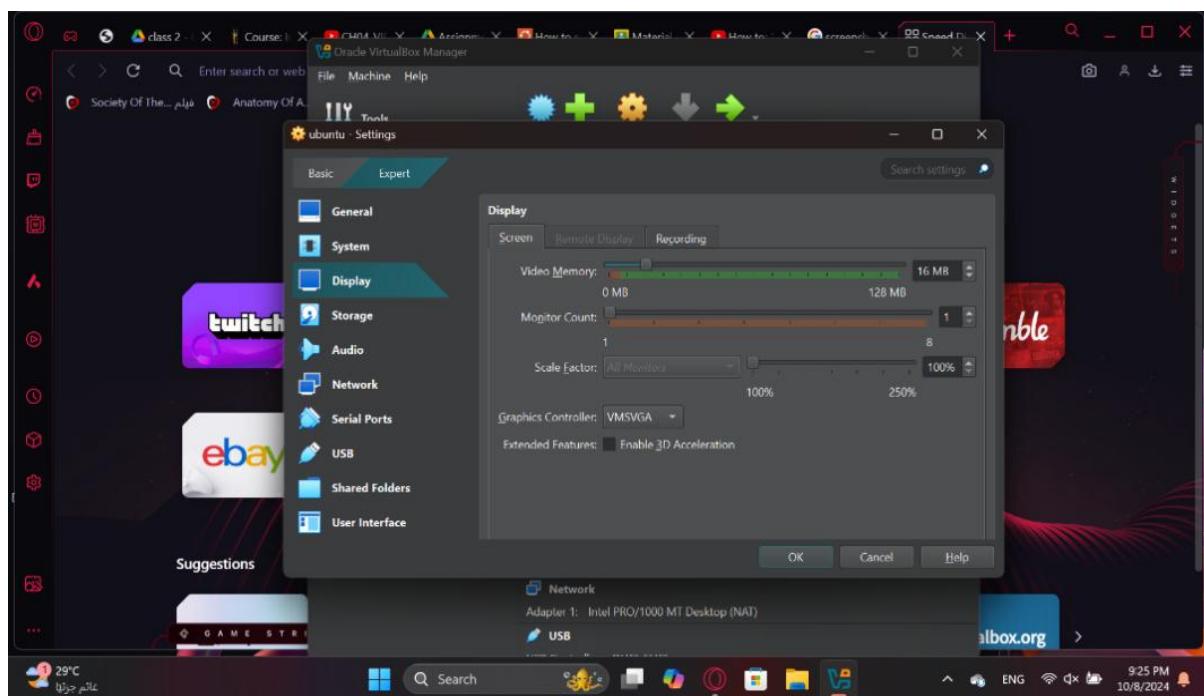
## Solution

increase the video memory to 50 or 60 MB then the ubuntu will work properly

1-ubuntu settings



2-display then increase video memory to 50 or 60 MB



## Issue 2

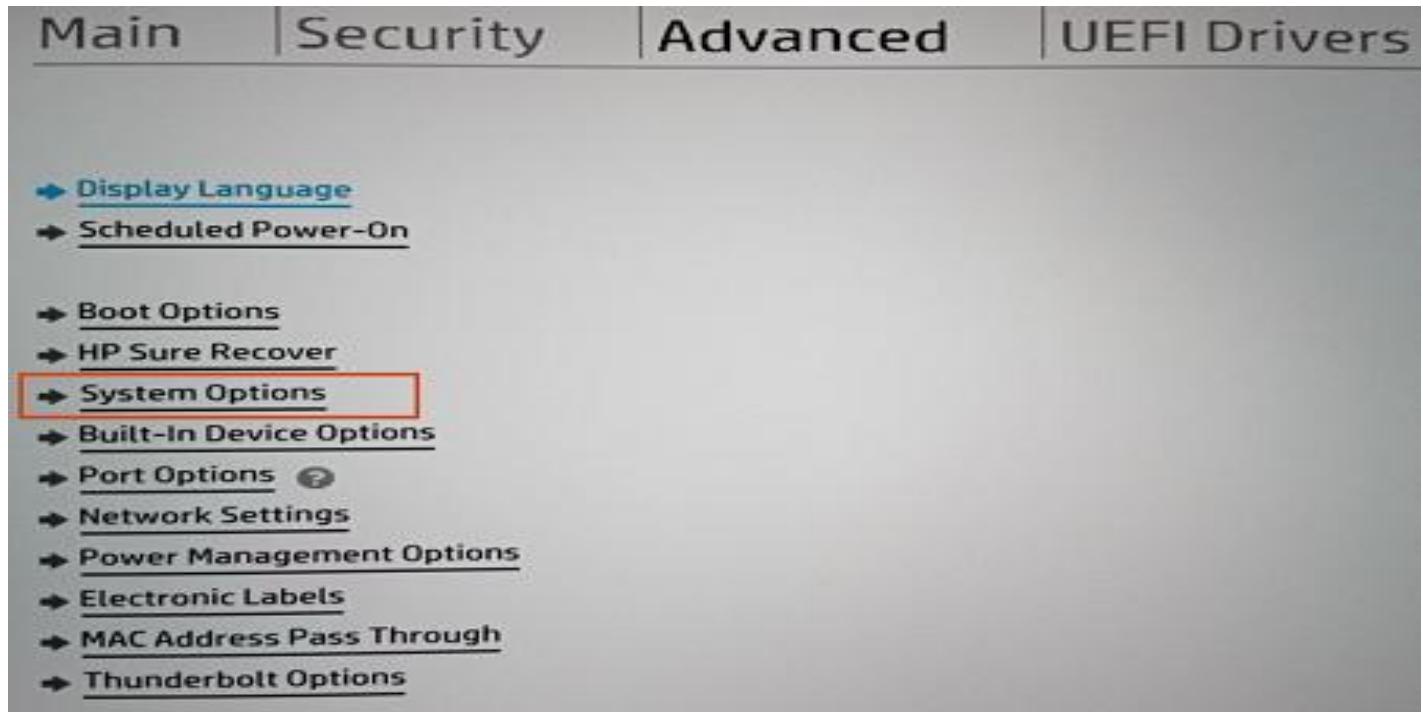
Error message that AMD-V is and VTx is disabled.

## Solution

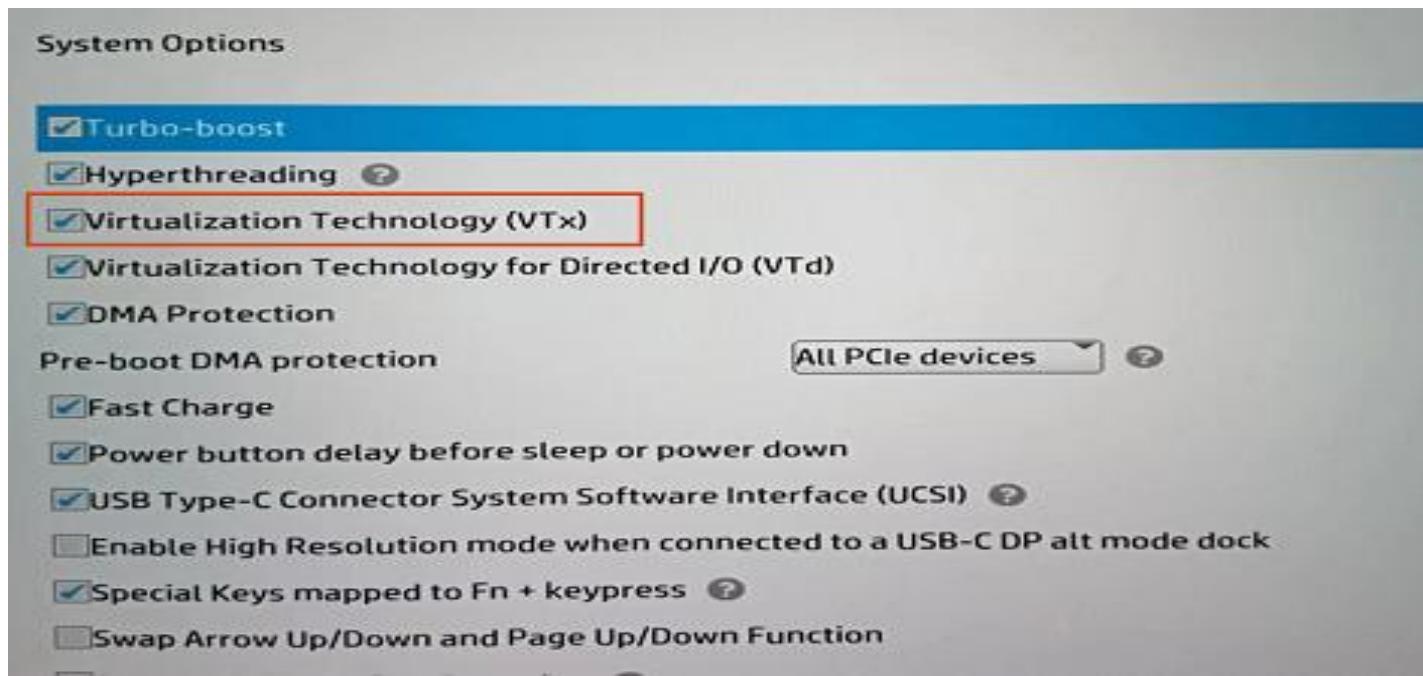
enable the AMD-V AND vt3 from the BIOS.

1-enter the bios of your device then click advanced.

2-from advanced select system options.



3-In the System Options window, select the **Virtualization Technology (VTx)** box.



4-Press f10 to save your changes and exit BIOS.

## Enable Virtualization Technology

1-in the BIOS Under the Security tab, use the up and down arrows to select USB Security, and then press enter.



2-Use the up and down arrows to select **Virtualization Technology (VTx)**, and then use the left and right arrows to select either **Enabled** or **Disabled**.



## Issue 3

error invalid setting detected Not enough memory is left for the host operation system  
VirtualBox

## Solution

allocate enough RAM and CPU minimum 2GB more is better

## Issue 4

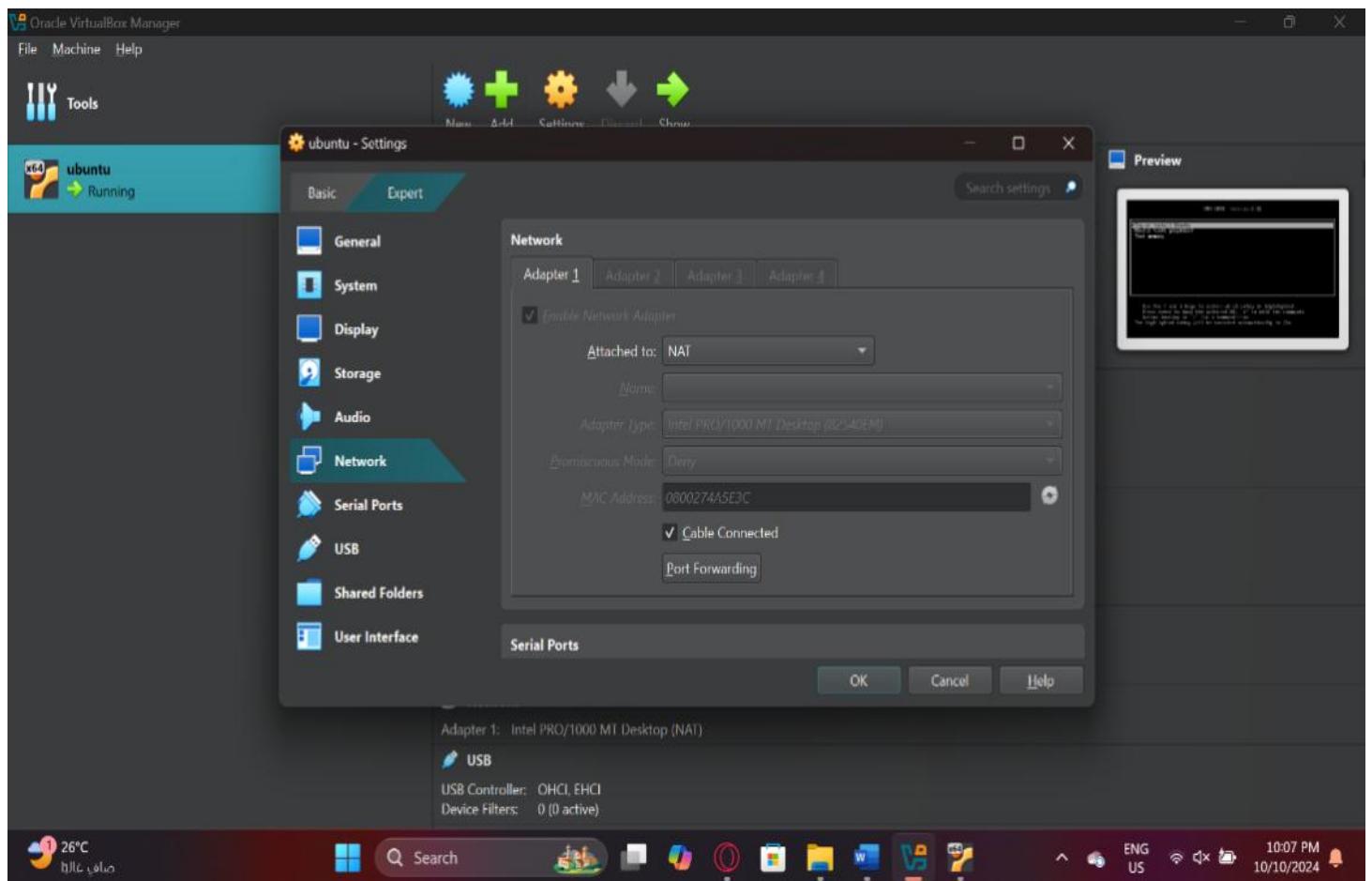
### VirtualBox Version Compatibility

Ensure you are using the latest version of VirtualBox. Compatibility issues can arise with older versions.

## Issue 5

### Network Issues

If you have network problems, ensure the network adapter is set to "NAT" or "Bridged" in the VM settings. You may also need to configure the firewall settings on your host machine



## Issue 6

### Website error loading

The screenshot shows a browser window titled "WindowsServer2022 [Running] - Oracle VirtualBox" with the URL "IIS 10.0 Detailed Error - 403.14 - | Not secure | www.flz.com". The error message is "HTTP Error 403.14 - Forbidden" and "The Web server is configured to not list the contents of this directory." Below this, there are sections for "Most likely causes:", "Things you can try:", "Detailed Error Information:", and "More Information:". The "Detailed Error Information" section shows the following details:

Module	DirectoryListingModule	Requested URL	http://www.flz.com:80/
Notification	ExecuteRequestHandler	Physical Path	C:\Ztestpage
Handler	StaticFile	Logon Method	Anonymous
Error Code	0x00000000	Logon User	Anonymous

The "More Information" section notes that the error occurs when a document is not specified in the URL, no default document is specified for the Web site or application, and directory listing is not enabled for the Web site or application. It also mentions that this setting may be disabled on purpose to secure the contents of the server.

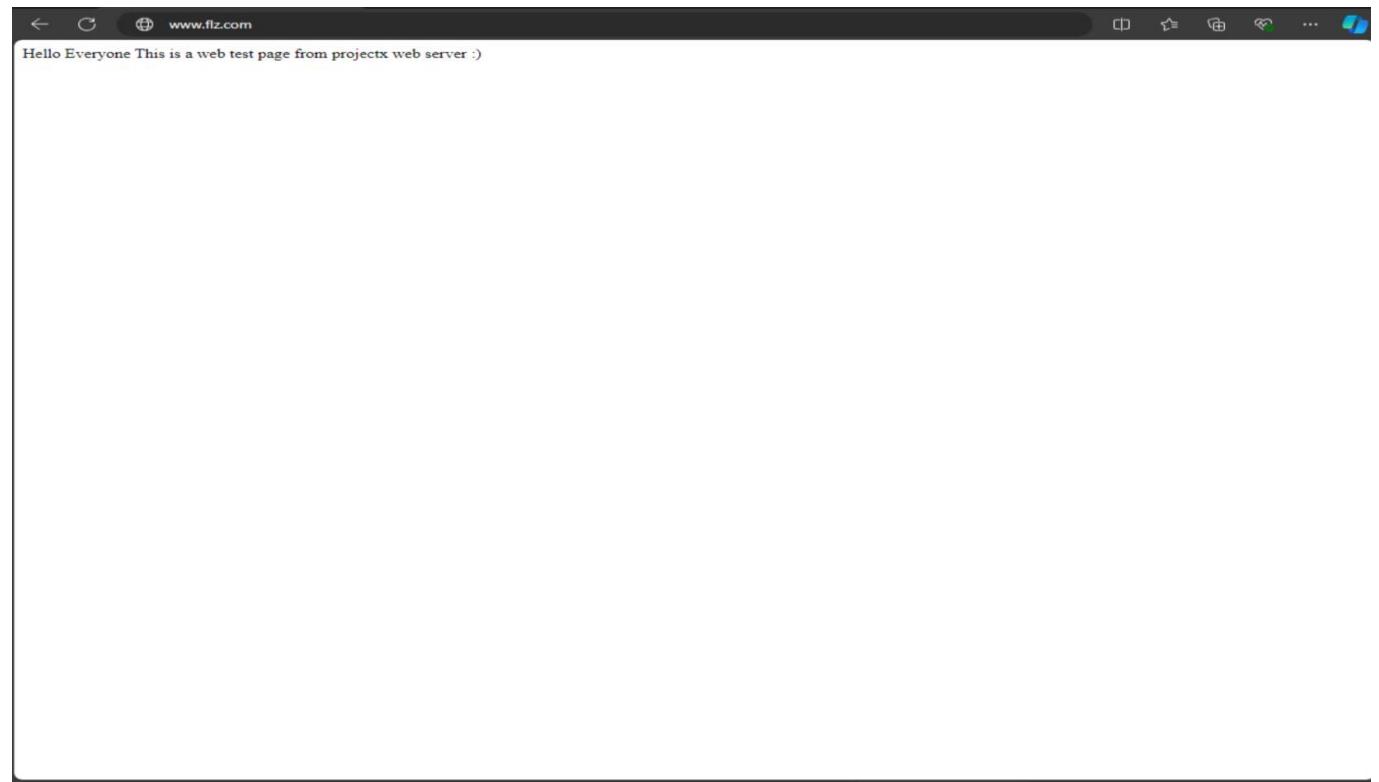
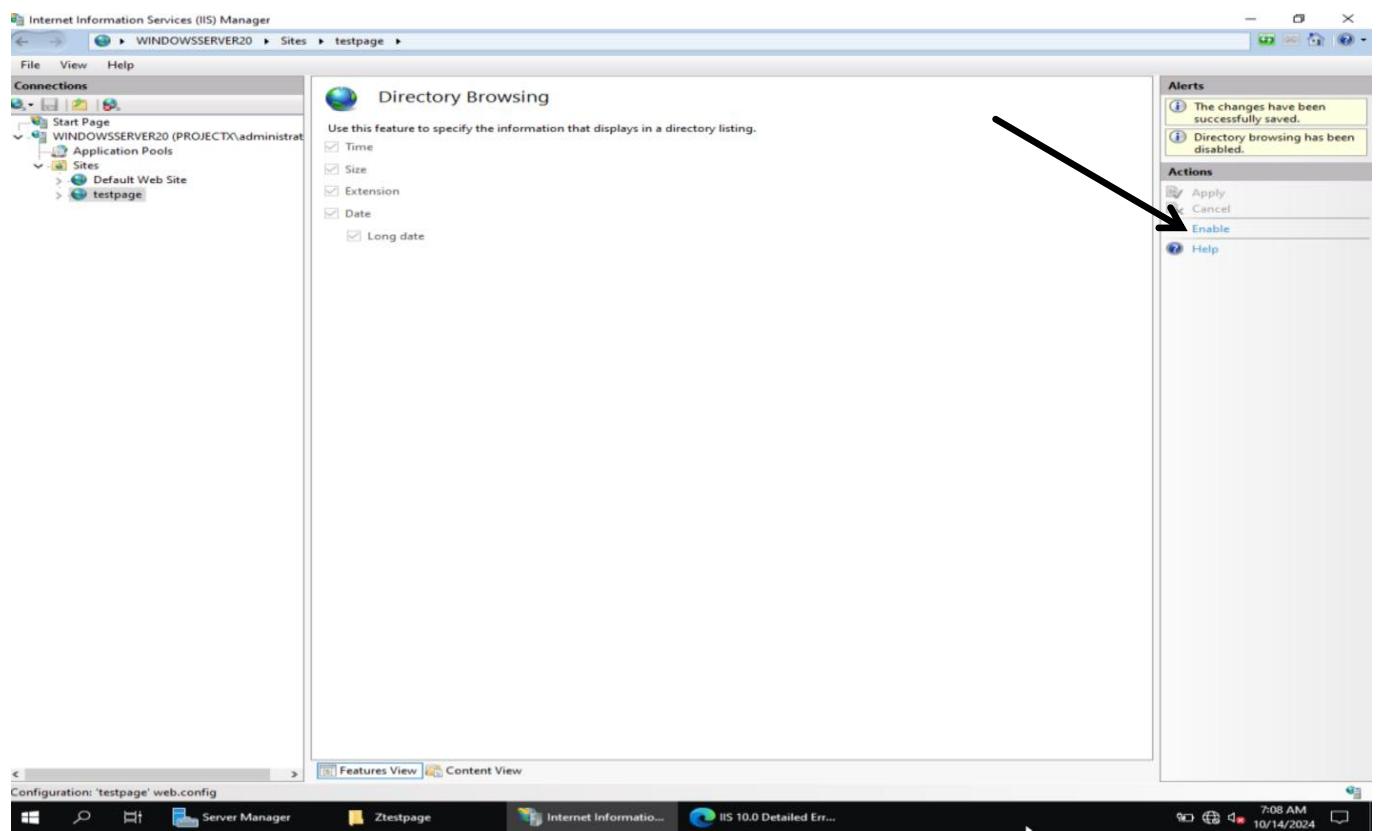
## Solution

### Ensure to enable Directory Browsing

Right-click on the website created, then select Directory Browsing

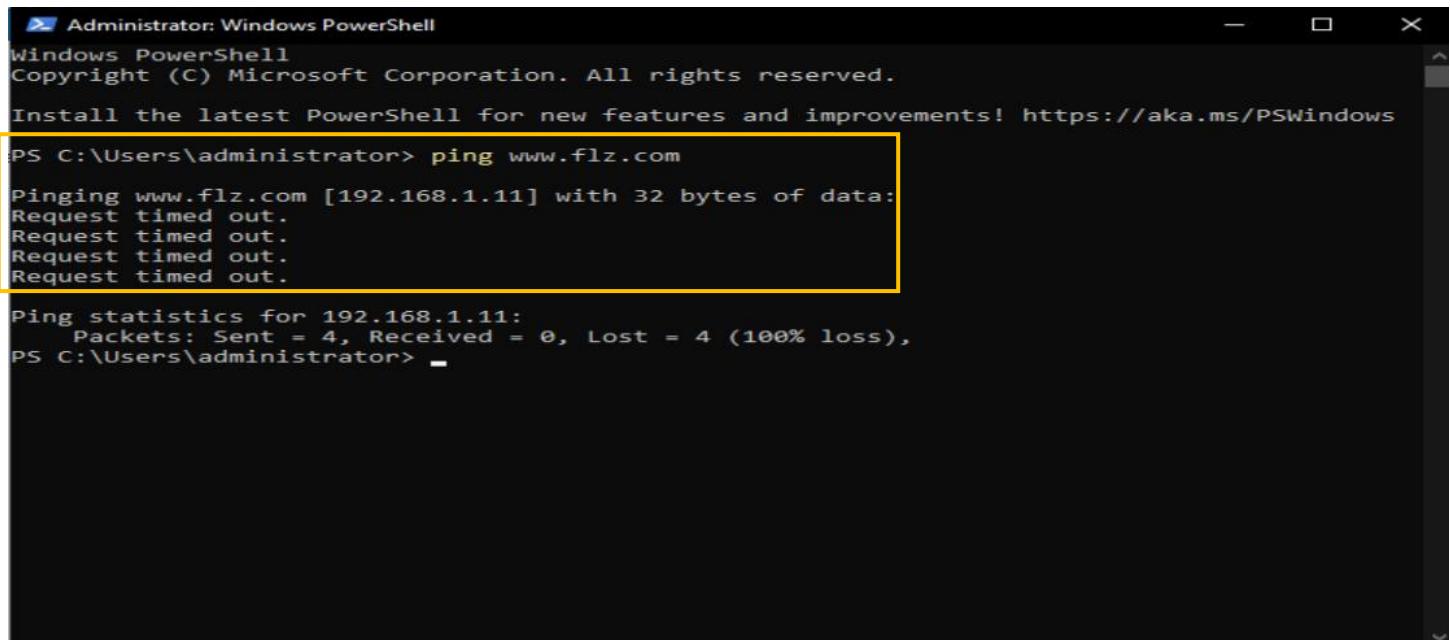
The screenshot shows the "Internet Information Services (IIS) Manager" interface. The left navigation pane shows the "Connections" tree with "Start Page", "Application Pools", and "Sites" expanded, showing "Default Web Site" and "testpage". A black arrow points to the "testpage" node. The main pane displays the "testpage Home" configuration with various icons for managing the site. A second black arrow points to the "Directory Browsing" icon in the center feature list. The right pane contains the "Actions" menu with options like "Explore", "Edit Permissions...", "Edit Site", etc., and a "Manage Website" section with "Restart", "Start", and "Stop" buttons. The status bar at the bottom indicates "Ready" and the date/time "10/14/2024 7:07 AM".

Click on enable



## Issue 7

Host name & Domain name are not replying



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

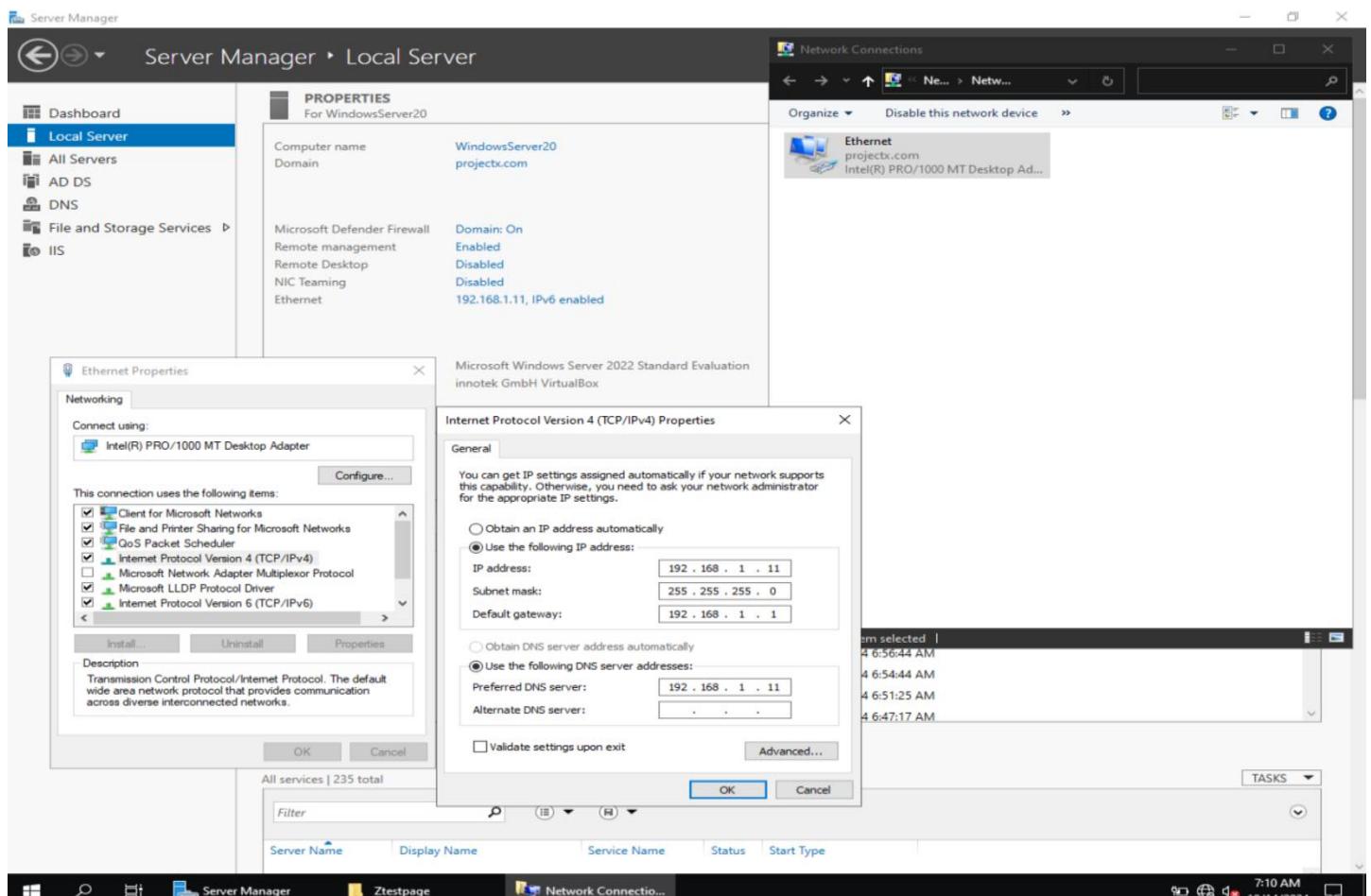
PS C:\Users\administrator> ping www.flz.com

Pinging www.flz.com [192.168.1.11] with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.1.11:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
PS C:\Users\administrator>
```

## Solution

Ensure to configure your network settings



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

PS C:\Users\administrator> ping www.flz.com

Pinging www.flz.com [192.168.1.11] with 32 bytes of data:
Reply from 192.168.1.11: bytes=32 time<1ms TTL=128
Reply from 192.168.1.11: bytes=32 time<1ms TTL=128
Reply from 192.168.1.11: bytes=32 time<1ms TTL=128
Reply from 192.168.1.11: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.1.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
PS C:\Users\administrator>
```

## Issue 8

Server users forgot their passwords

## Solution

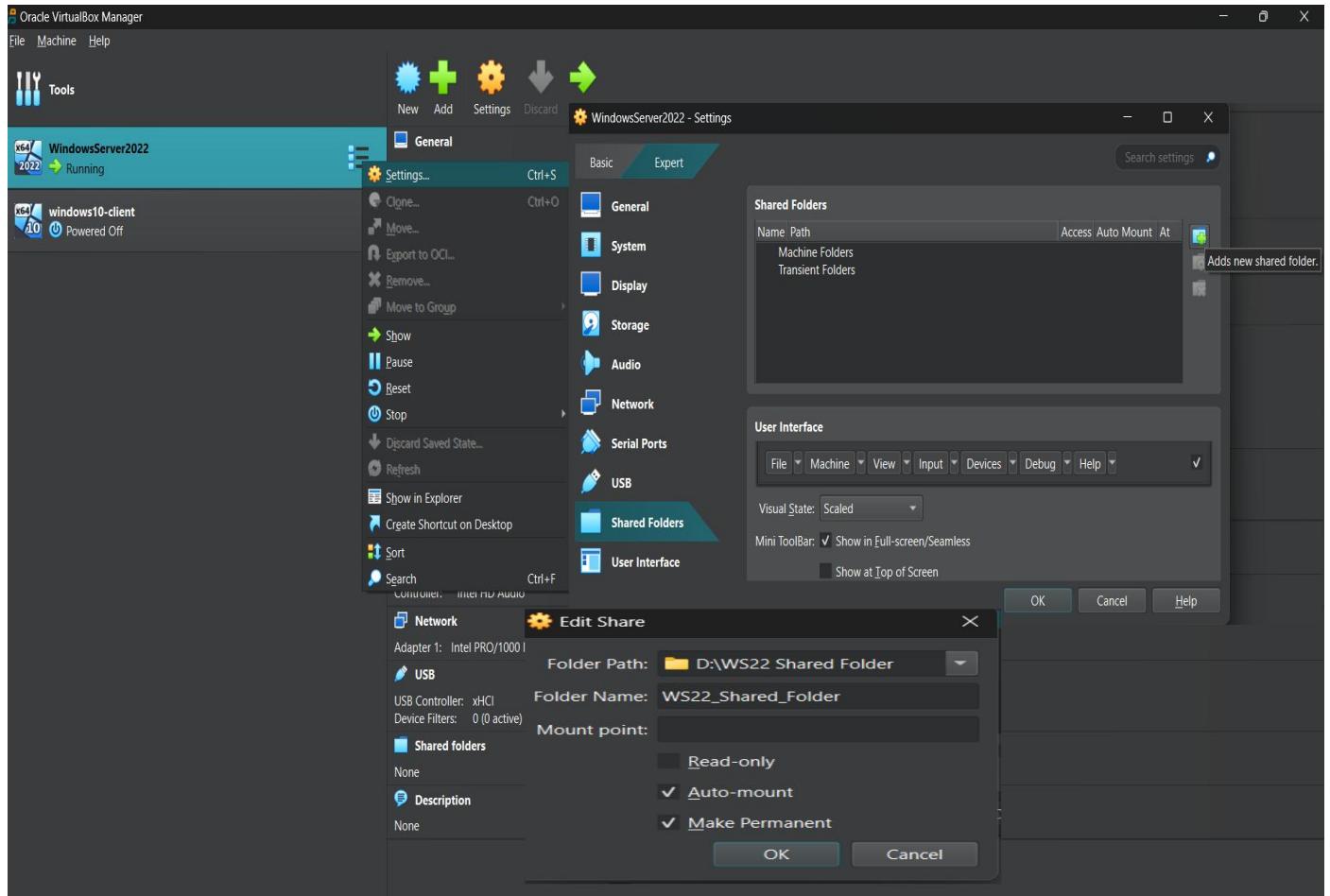
Select tools, then click-on active directory administrative center

The screenshot shows the Windows Server 2022 interface. On the left, the Server Manager dashboard is visible with options like Local Server, All Servers, AD DS, and File and Storage Services. A large orange 'QUICK START' button is present. On the right, the Active Directory Administrative Center is open, showing its 'Overview' page. This page includes a 'WELCOME TO ACTIVE DIRECTORY ADMINISTRATIVE CENTER' section with links to Learn more about Active Directory, Dynamic Access Control, and Azure Active Directory. Below this is a 'RESET PASSWORD' form with fields for User name, Password, and Confirm password, along with checkboxes for 'User must change password at next log on' and 'Unlock account'. At the bottom of the page is a 'GLOBAL SEARCH' bar. The top navigation bar of the Active Directory Admin Center includes 'Manage', 'Tools', 'View', and 'Help'. A vertical sidebar on the far left lists Active Directory components: Overview, projectx (local), Dynamic Access Control, Authentication, and Global Search. A black arrow points from the bottom-left towards the 'RESET PASSWORD' form.

# ***Useful Tips***

## Sharing Folders from your own OS to virtual OS

- ✓ Right click on OS intended to share folders with
- ✓ Select settings, then shared folders
- ✓ Fill required data



# OS Network Failure

Choose between one of the following adapters & your network will work properly

