

**NAME: RAHUL THAKUR**

**ROLL..NO.:31031522034**

**SUBJECT: CLOUD COMPUTING**

**(PRACTICAL JOURNAL)**

**INDEX**

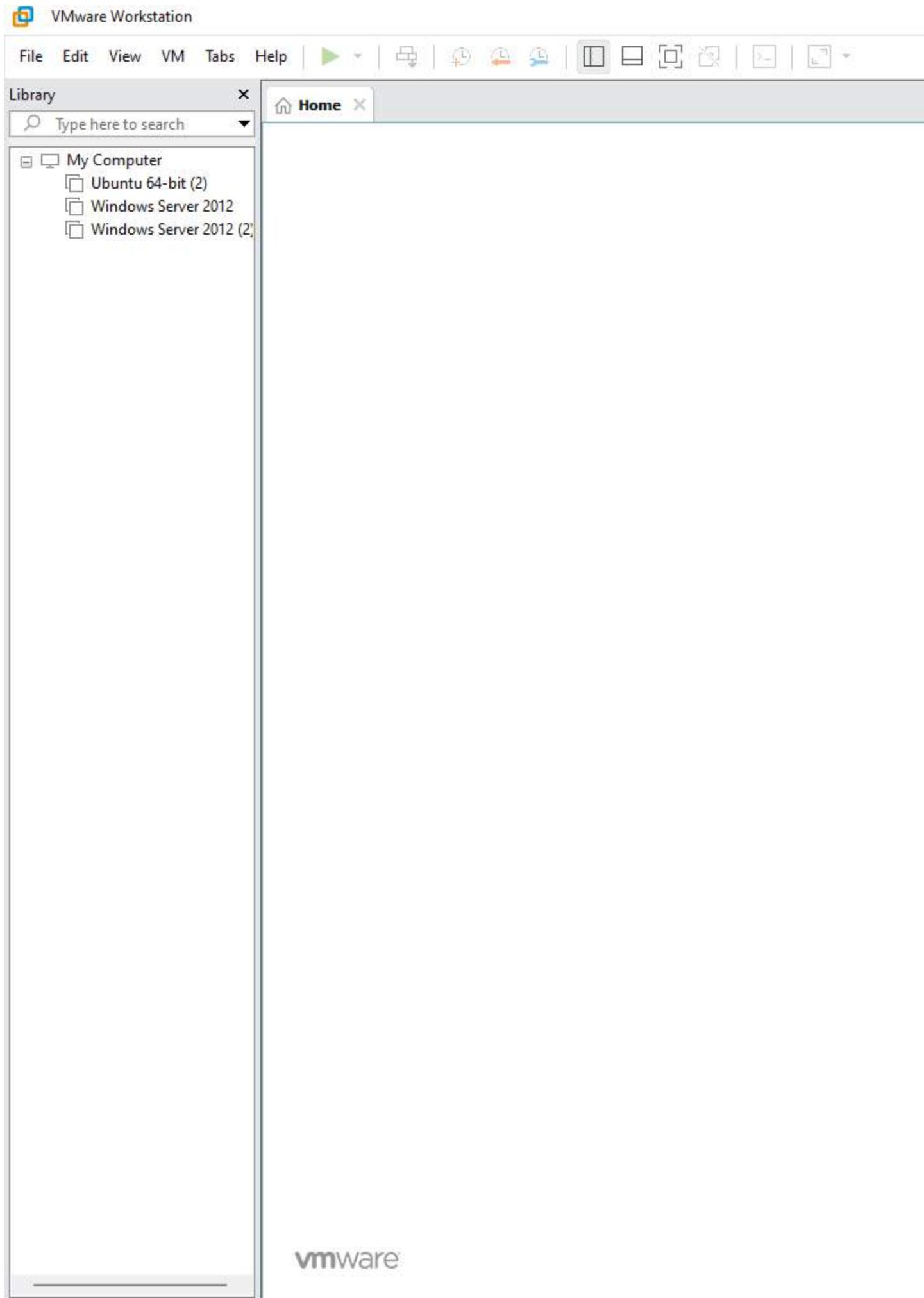
<b>SR. No</b>	<b>Name</b>
1	Virtual Machine on VMware
2	VM account on Microsoft Azure/IaaS
3	Implement Windows Cluster
4	Storage Account on Microsoft Azure/SaaS
5	SQL Database using Microsoft Azure
6	PowerBi/Data Analytics
7	Develop App on Microsoft Azure
8	Developing App for Windows Azure
9	Implementing VM's on XEN Server

**Practical No. 1**

**Aim:** virtual machine on VMWare

**Step1: Install and download VMware Workstation pro**





**Step 2: Choose ubuntu and click on next**





VMware Workstation

File Edit View VM Tabs Help | |

Library

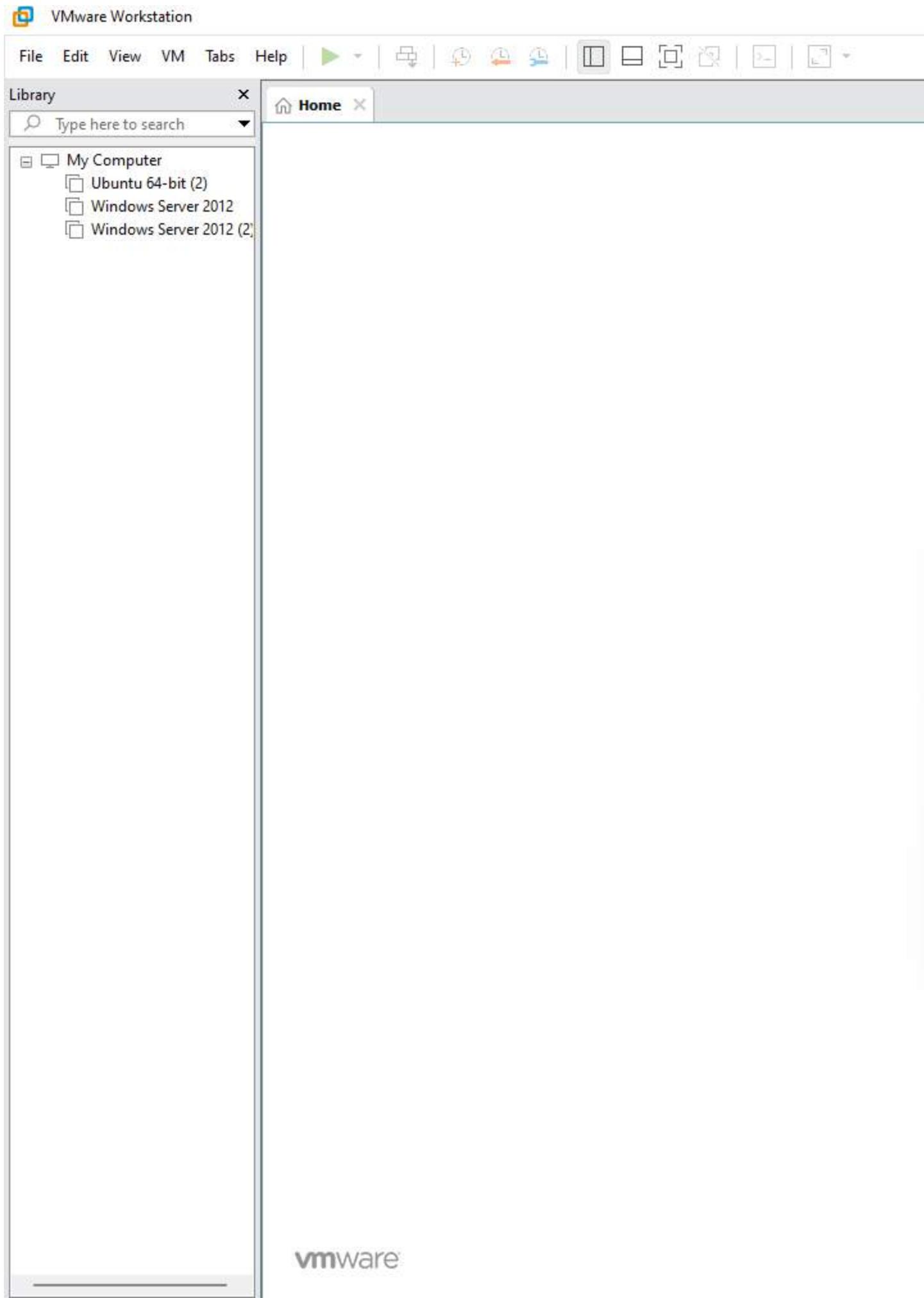
Home

- My Computer
  - Ubuntu 64-bit (2)
  - Windows Server 2012
  - Windows Server 2012 (2)

vmware

**Step 3: give username and set passwords**





**Step 4: click on next and click finish. Your virtual machine is now created.**





VMware Workstation

File Edit View VM Tabs Help | |

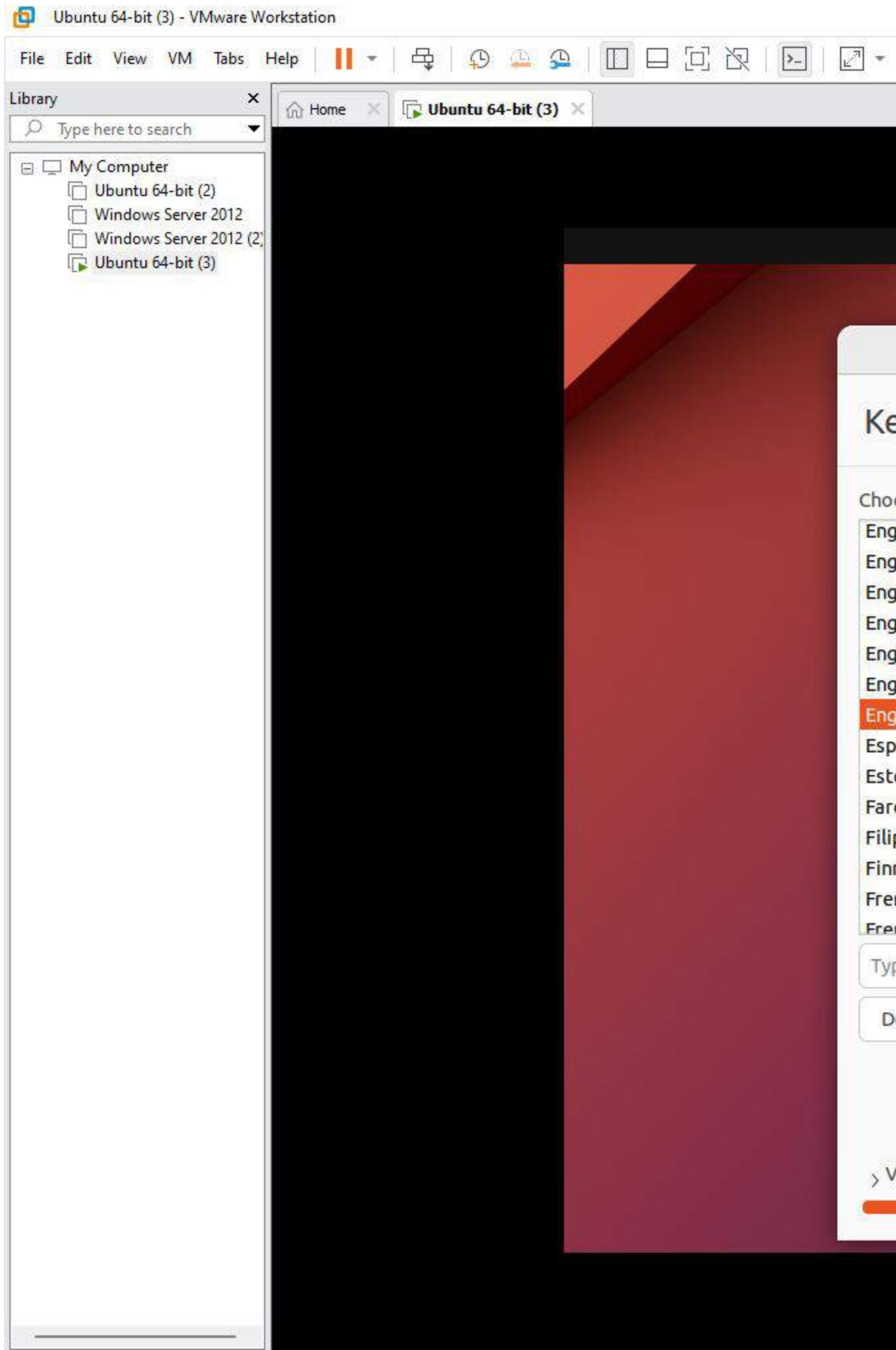
Library

Home

- My Computer
  - Ubuntu 64-bit (2)
  - Windows Server 2012
  - Windows Server 2012 (2)

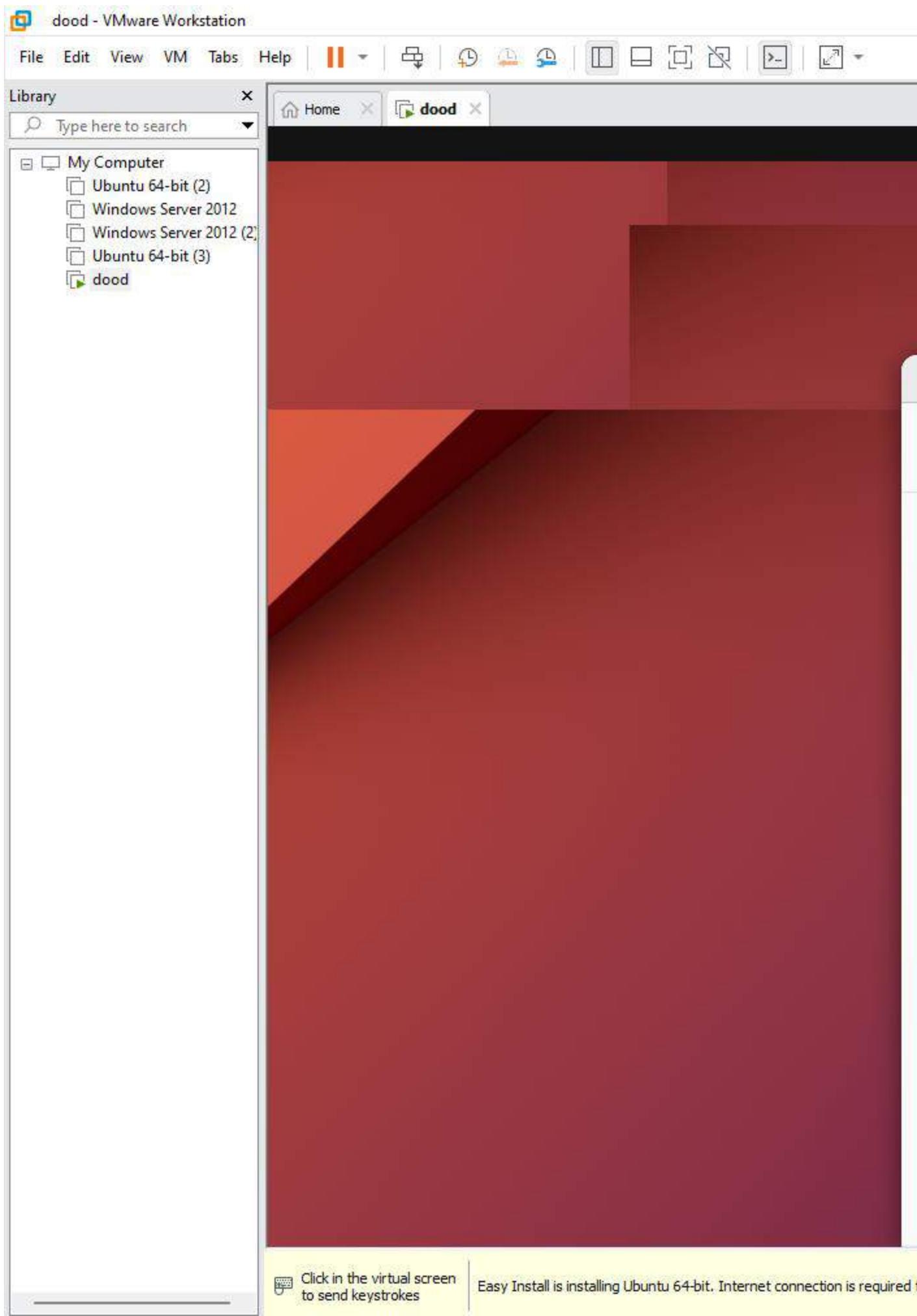
vmware

**Step 5: click on continue**



**Step 6: choose ‘something else’ option and click on continue**



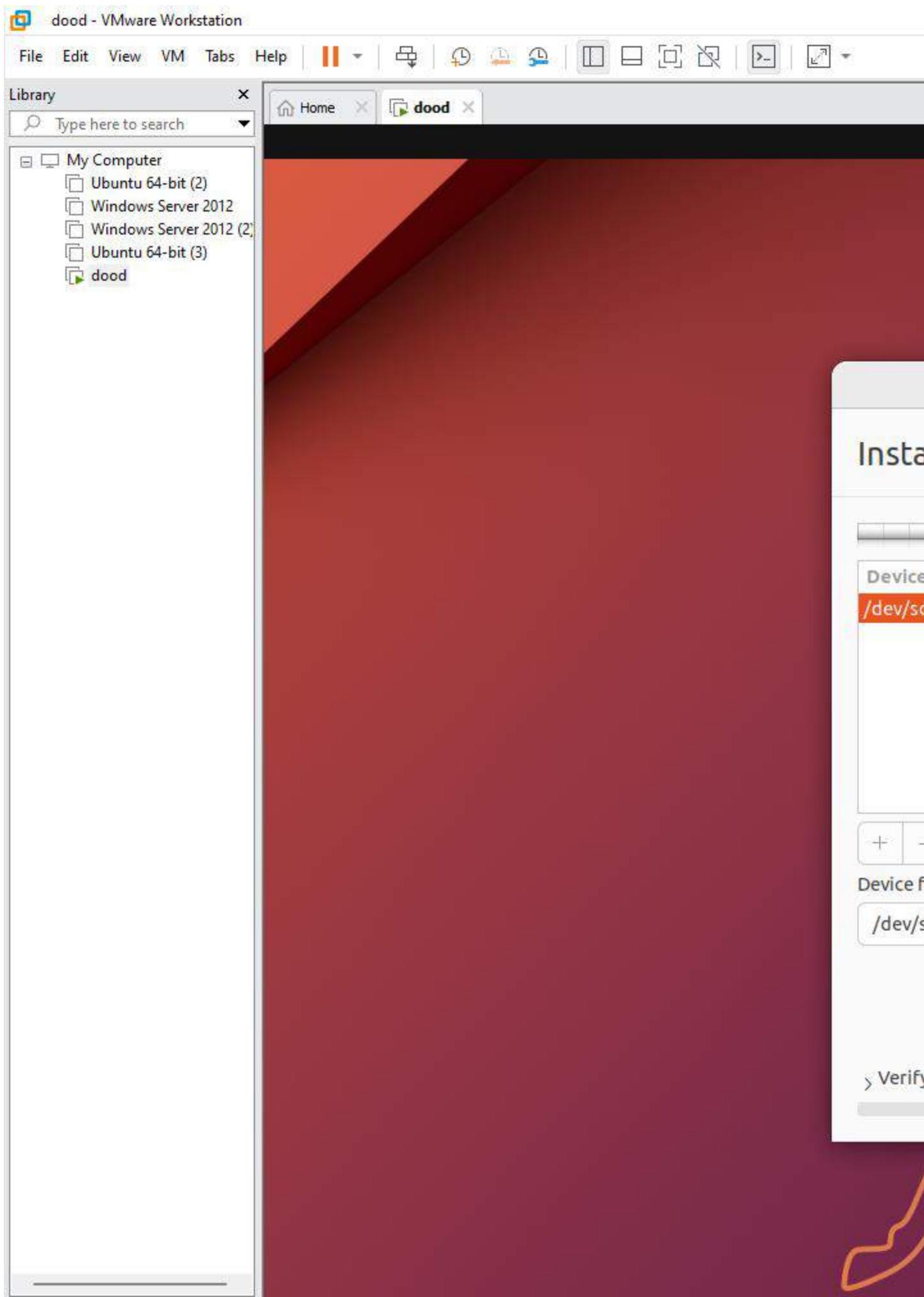


Click in the virtual screen  
to send keystrokes

Easy Install is installing Ubuntu 64-bit. Internet connection is required for this operation

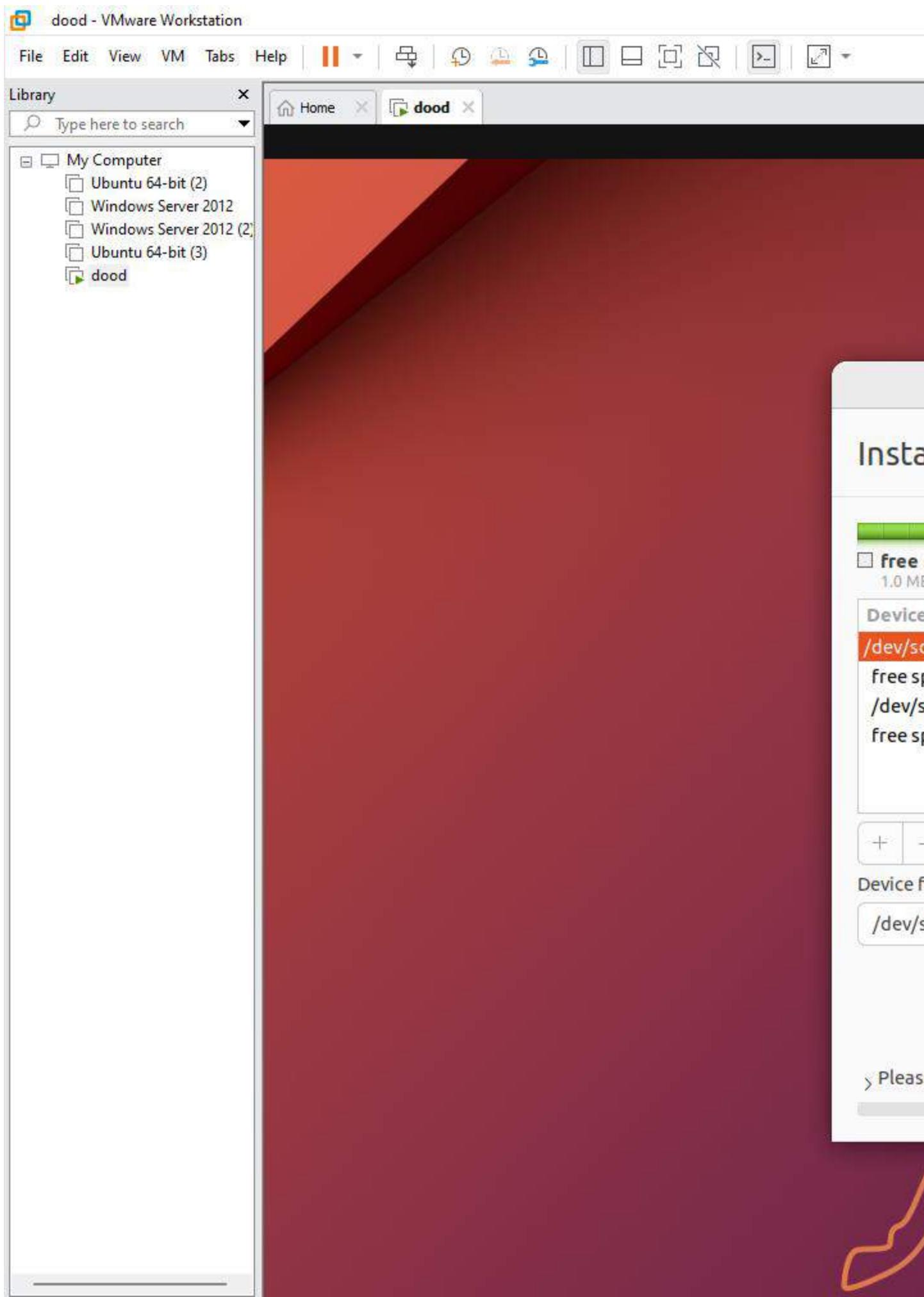
**Step 7: Set the storage as much as you want from the disk and click on ok. It will appear on the screen /dev/sda1 ext4**



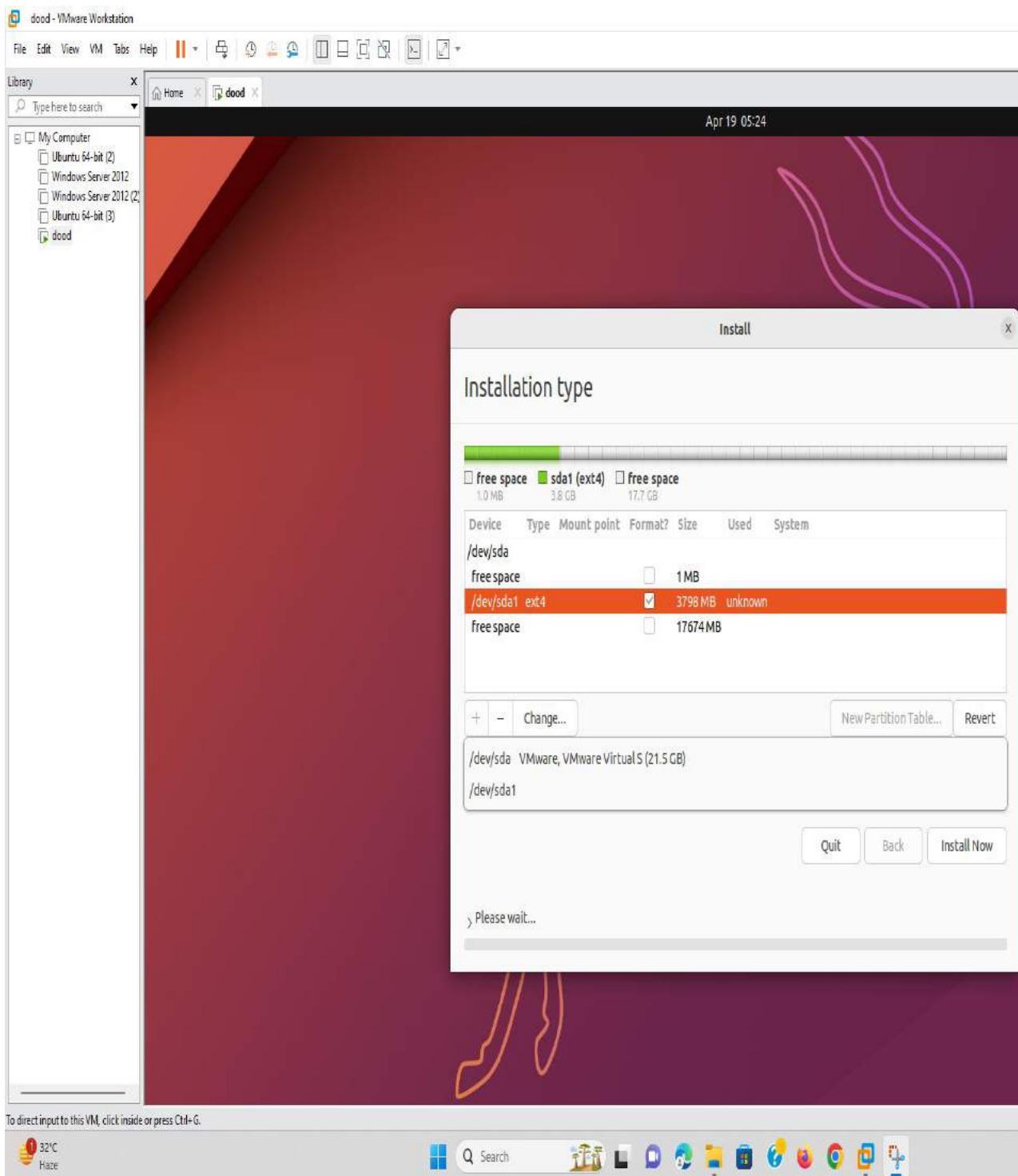


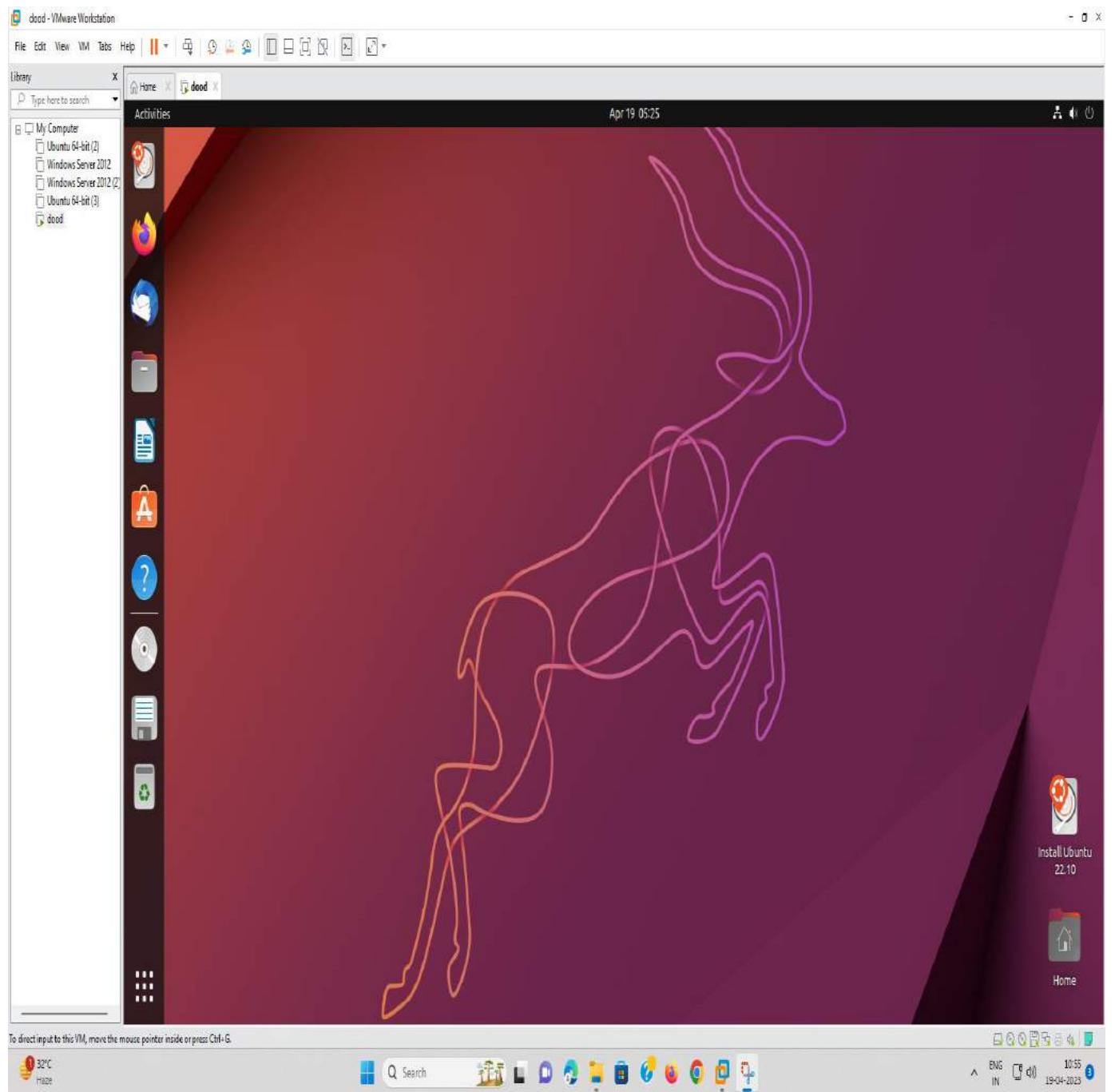
**Step 8: choose /dev/sda1 and click on QUIT**





## Step 9: Your Ubuntu interface will be shown





Practical No: 2

# VM account on Microsoft Azure

**Step 1:** Open Microsoft Azure Website and login with Somaiya.edu

The screenshot shows the Microsoft Azure portal interface. At the top, there's a navigation bar with icons for search, notifications, and account information (p.pandey@somaiya.edu). Below the bar, the 'Azure services' section is visible, featuring icons for Create a resource, Cost Management, All resources, Resource groups, Subscriptions, SQL databases, Storage accounts, Power BI Embedded, Firewalls, and More services. The 'Resources' section follows, with tabs for Recent (selected) and Favorite. A table lists a single resource group named 'pankajjj\_group' under the 'Recent' tab. The 'Navigate' section at the bottom contains a 'Search' bar and several navigation links.

**Step 2:** Click on Create resource Click on create virtual machine

**Step 3:** Fill in details such as Resource Group, VM Name, Region, Image and Inbound type.

Microsoft Azure Search resources, services, and docs (G+) All services > Virtual machines Create a virtual machine

Basics Disks Networking Management Monitoring Advanced Tags Review + create

Create a virtual machine that runs Linux or Windows. Select an image from Azure marketplace or use your own customized image. Complete the Basics tab then Review + create to provision a virtual machine with default parameters or review each tab for full customization. [Learn more](#)

This subscription may not be eligible to deploy VMs of certain sizes in certain regions.

**Project details**  
Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription \*  Resource group \*  [Create new](#)

**Instance details**  
Virtual machine name \*  Region \*  Availability options  Availability zone \*   You can now select multiple zones. Selecting multiple zones will create one VM

[Review + create](#) [Next : Disks >](#) [Give feedback](#)

Microsoft Azure Search resources, services, and docs (G+) All services > Virtual machines Create a virtual machine

Image \*  [See all images](#) | [Configure VM generation](#)

VM architecture  x64  Arm64

Run with Azure Spot discount

Size \*  [See all sizes](#)

**Administrator account**

Authentication type  SSH public key  Password

Azure now automatically generates an SSH key pair for you and allows you to store it for future use. It is a fast, simple, and secure way to connect to your virtual machine.

Username \*

SSH public key source

Key pair name \*

Inbound port rules

[Review + create](#) [Next : Disks >](#) [Give feedback](#)

Disk, Network, Management, Advanced and Tags. Keep everything default.

Step 4: Click next and go to Review + create. Verify your VM information and click create.

[All services](#) > [Virtual machines](#) >

## Create a virtual machine

 Validation passed[Basics](#) [Disks](#) [Networking](#) [Management](#) [Monitoring](#) [Advanced](#) [Tags](#) [Review + create](#)

 Cost given below is an estimate and not the final price. Please use [Pricing calculator](#) for all your pricing needs.

### Price

1 X Standard D2s v3

by Microsoft

[Terms of use](#) | [Privacy policy](#)Subscription credits apply **9.8168 INR/hr**[Pricing for other VM sizes](#)

### TERMS

By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (b) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), with the same billing frequency as my Azure subscription; and (c) agree that Microsoft may share my contact, usage and transactional information with the provider(s) of the offering(s) for support, billing and other transactional activities. Microsoft does not provide rights for third-party offerings. See the [Azure Marketplace Terms](#) for additional details.

Name

Pankaj Pandey

Preferred e-mail address

p.pandey@somaiya.edu

[Create](#)[< Previous](#)[Next >](#)[Download a template for automation](#) [Give feedback](#)

**Step 5: Click 'Go to Resource'**

Microsoft Azure | Search resources, services, and docs (G+) | p.pandey@somaiya.edu SOMAIYA.EDU (SOMAIYA.EDU)

All services > CreateVm-canonical.0001-com-ubuntu-server-focal-2-20230415004717 | Overview >

PK Virtual machine

Connect Start Restart Stop Capture Delete Refresh Open in mobile Feedback CLI / PS

Essentials

Resource group (move) : [pankajii\\_group](#)  
Status : Running  
Location : Australia East (Zone 1)  
Subscription (move) : [Azure for Students](#)  
Subscription ID : eb8ae702-464a-4341-82e8-e57befa008b7  
Availability zone : 1  
Tags (edit) : [Click here to add tags](#)

Operating system : Linux (ubuntu 20.04)  
Size : Standard D2s v3 (2 vcpus, 8 GiB memory)  
Public IP address : [20.213.22.186](#)  
Virtual network/subnet : [PK-vnet/default](#)  
DNS name : [Not configured](#)

Properties Monitoring Capabilities (7) Recommendations Tutorials

**Virtual machine**

Computer name	PK
Health state	-
Operating system	Linux (ubuntu 20.04)
Publisher	canonical
Offer	0001-com-ubuntu-server-focal
Plan	20_04-lts-gen2
VM generation	v2
VM architecture	x64
Agent status	Ready
Agent version	2.9.0.4
Host group	None
Host	-
Proximity placement group	-

**Networking**

Public IP address	20.213.22.186 ( Network interface pk767_z1 )
Public IP address (IPv6)	-
Private IP address	10.0.0.4
Private IP address (IPv6)	-
Virtual network/subnet	PK-vnet/default
DNS name	<a href="#">Configure</a>

**Size**

Size	Standard D2s v3
vCPUs	2
RAM	8 GiB

**Disk**

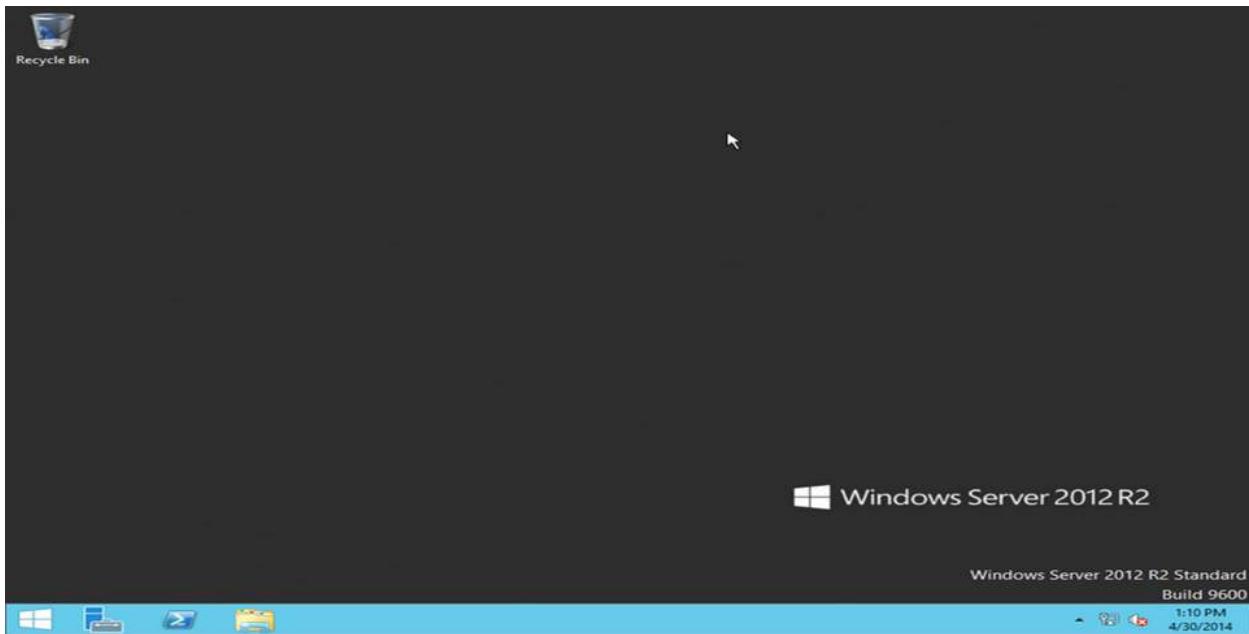
OS disk	PK_OsDisk_1_eceee22d505d84406951dc9615dd7c5d7
---------	---

Show all X

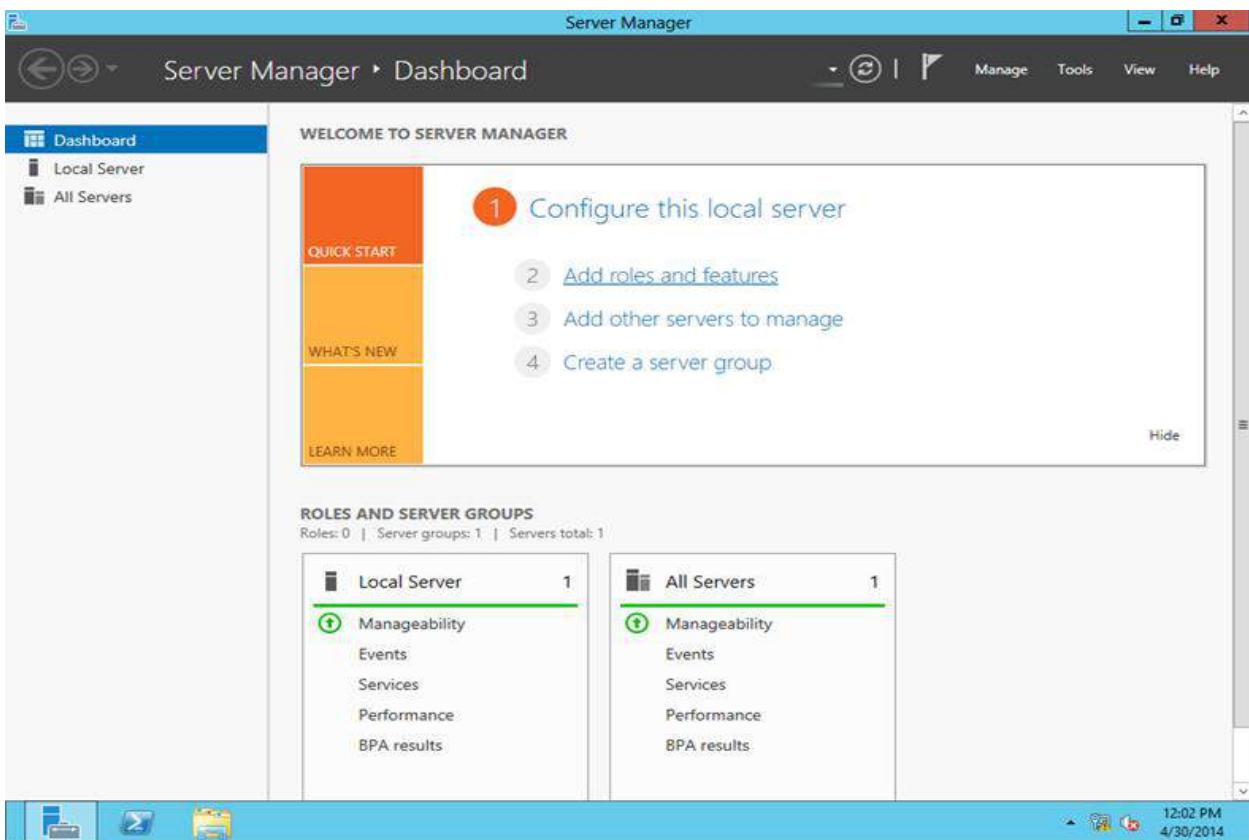
# Practical No: 3

## Aim: Implement Windows / Linux Cluster

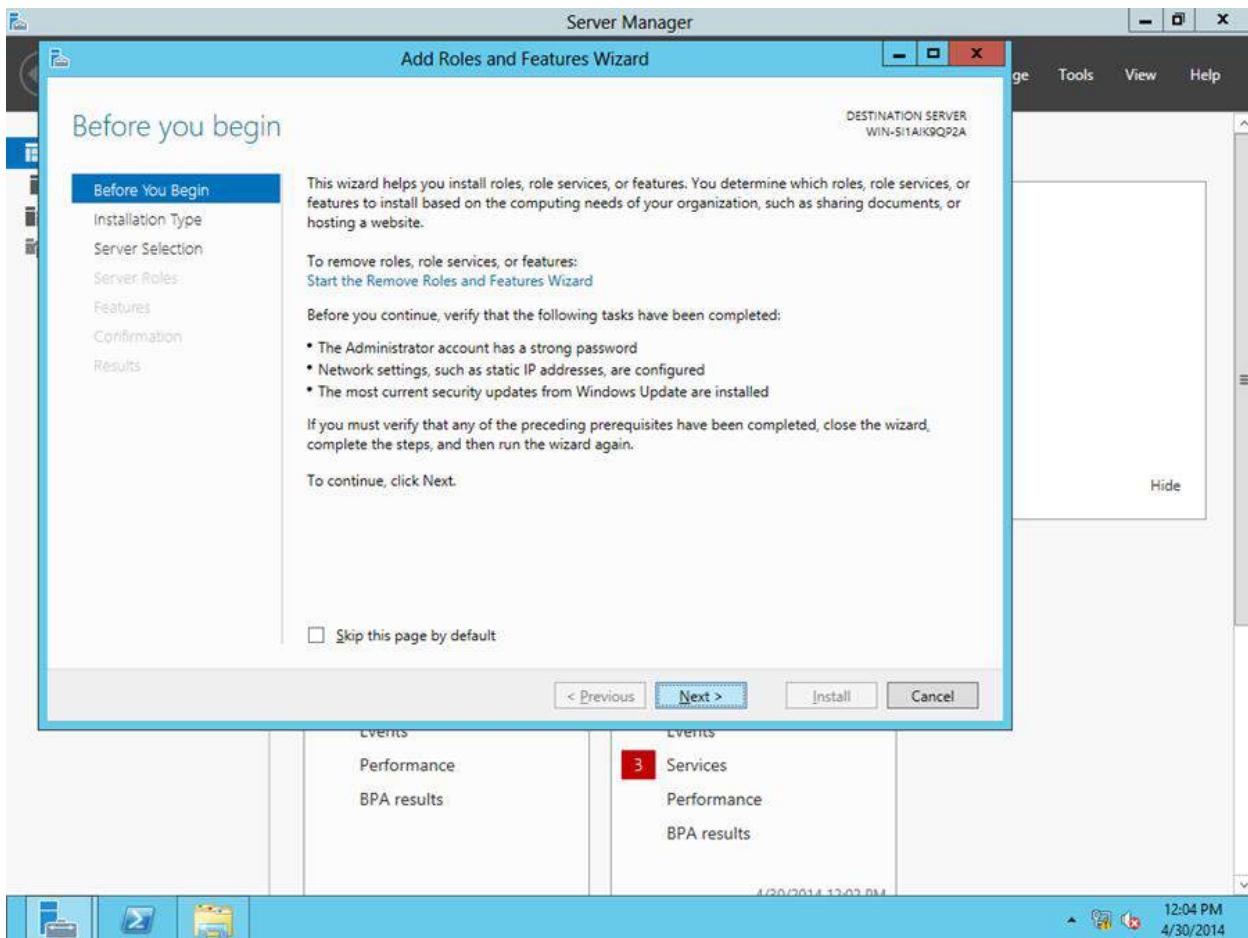
Step 1: starter of VM ware. Install windows server 12 image in VM Ware



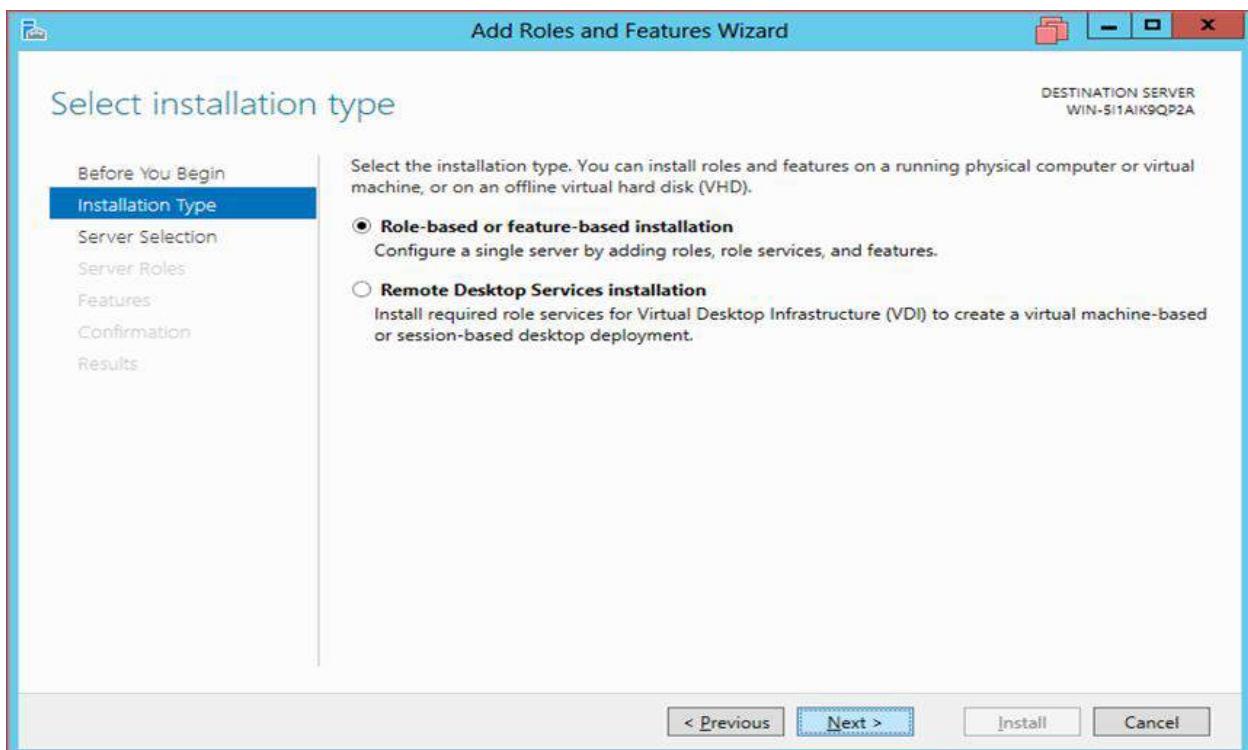
Step 2: Dash board of windows server 12 for further configuration and click 'Add role and features' for adding AD DS



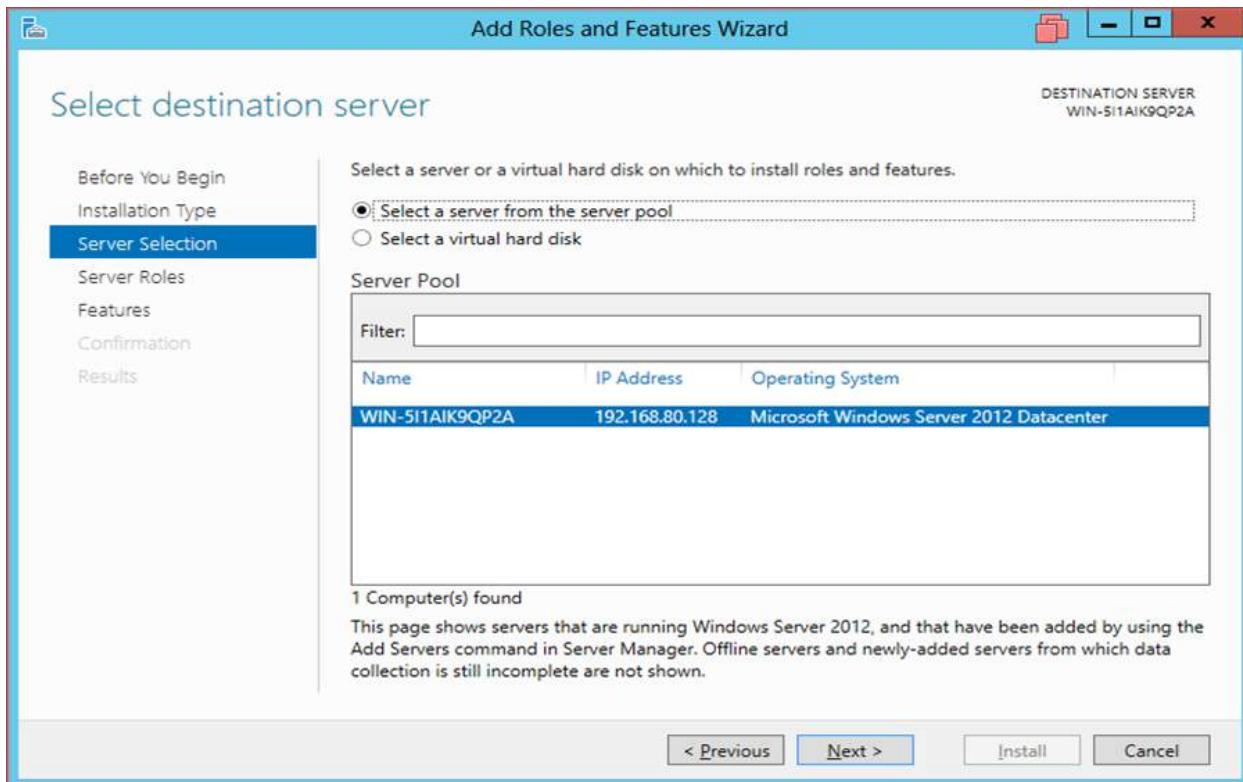
Step 3: setup start asking basic features and information



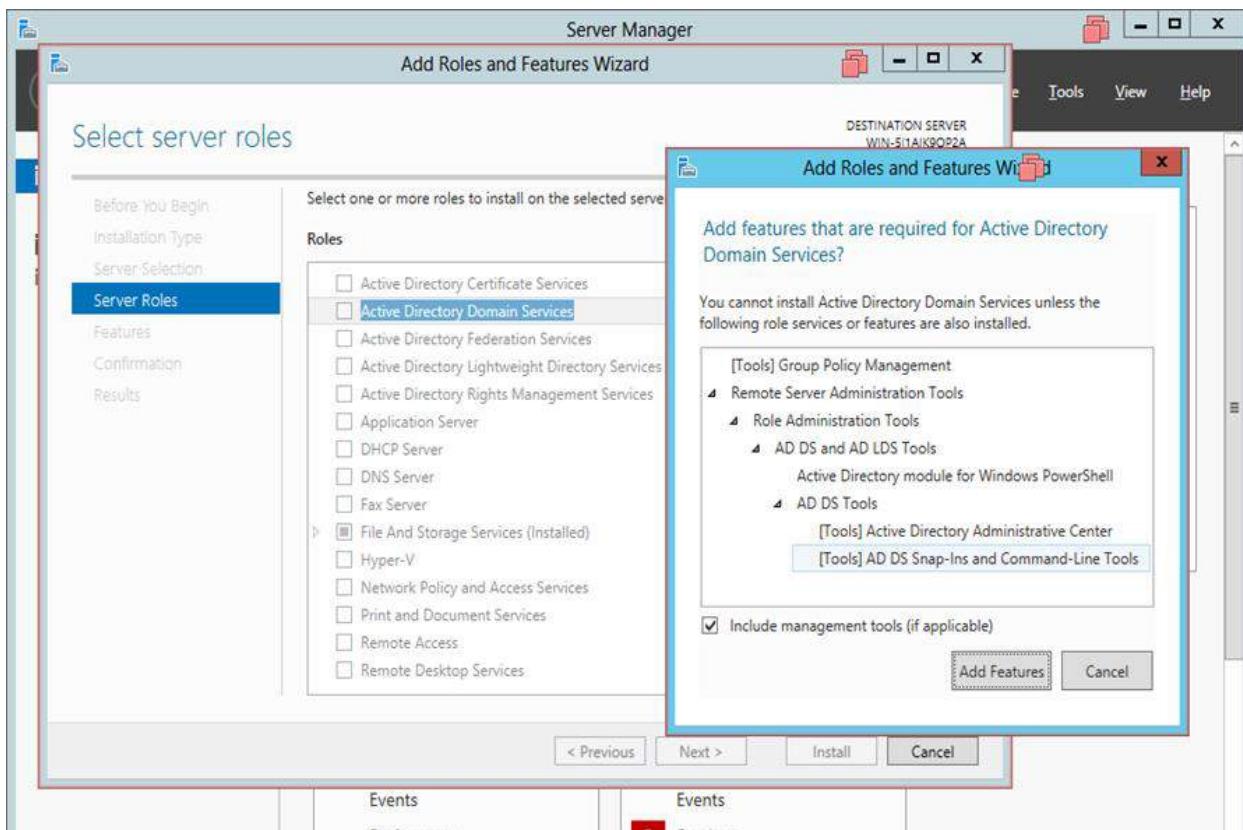
#### Step 4: Asking 'installation type' in radio button, select 'Role-based or feature based installation' and click 'next'



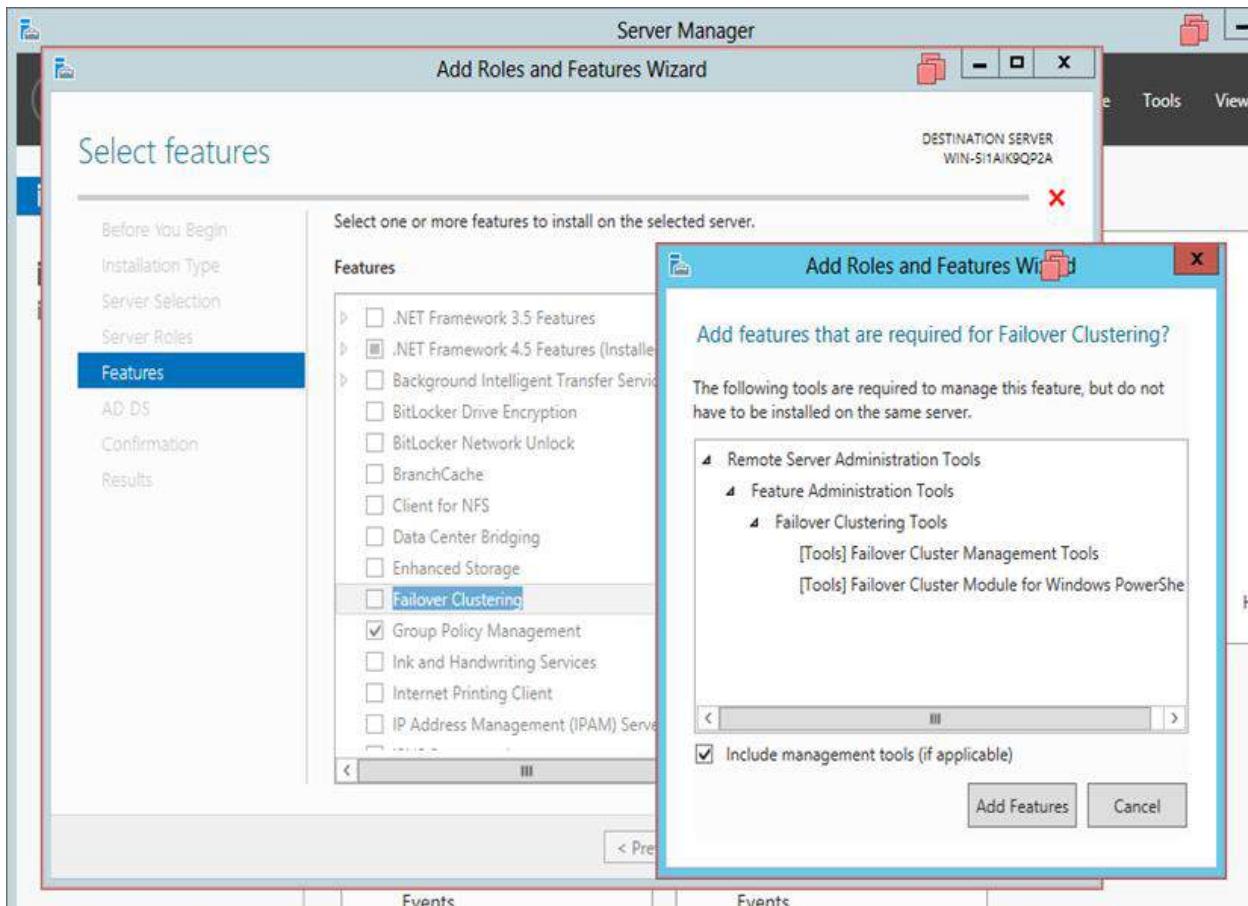
#### Step 5: Selection of server



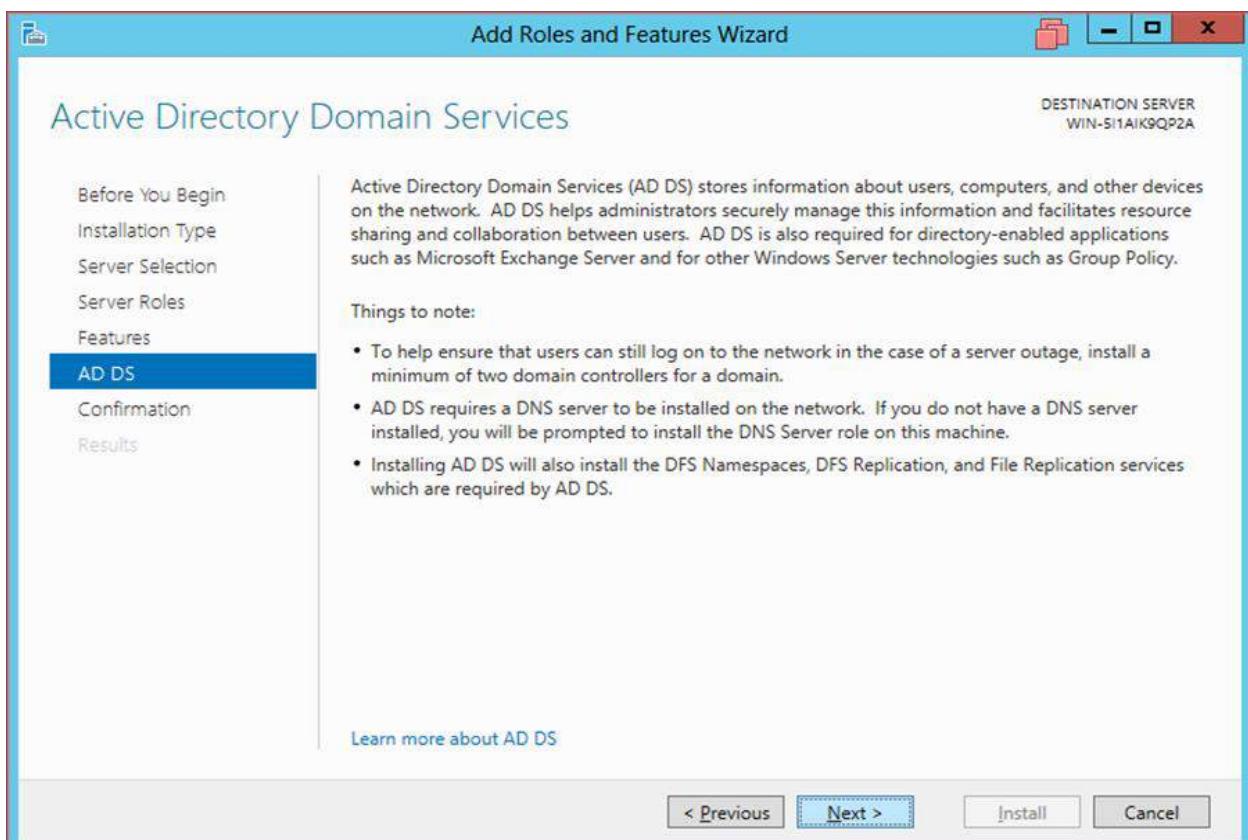
**Steps 6: Select server role as ‘Active Directory Domain Services i.e. AD DS’ it will show the add feature to add features’ in server**



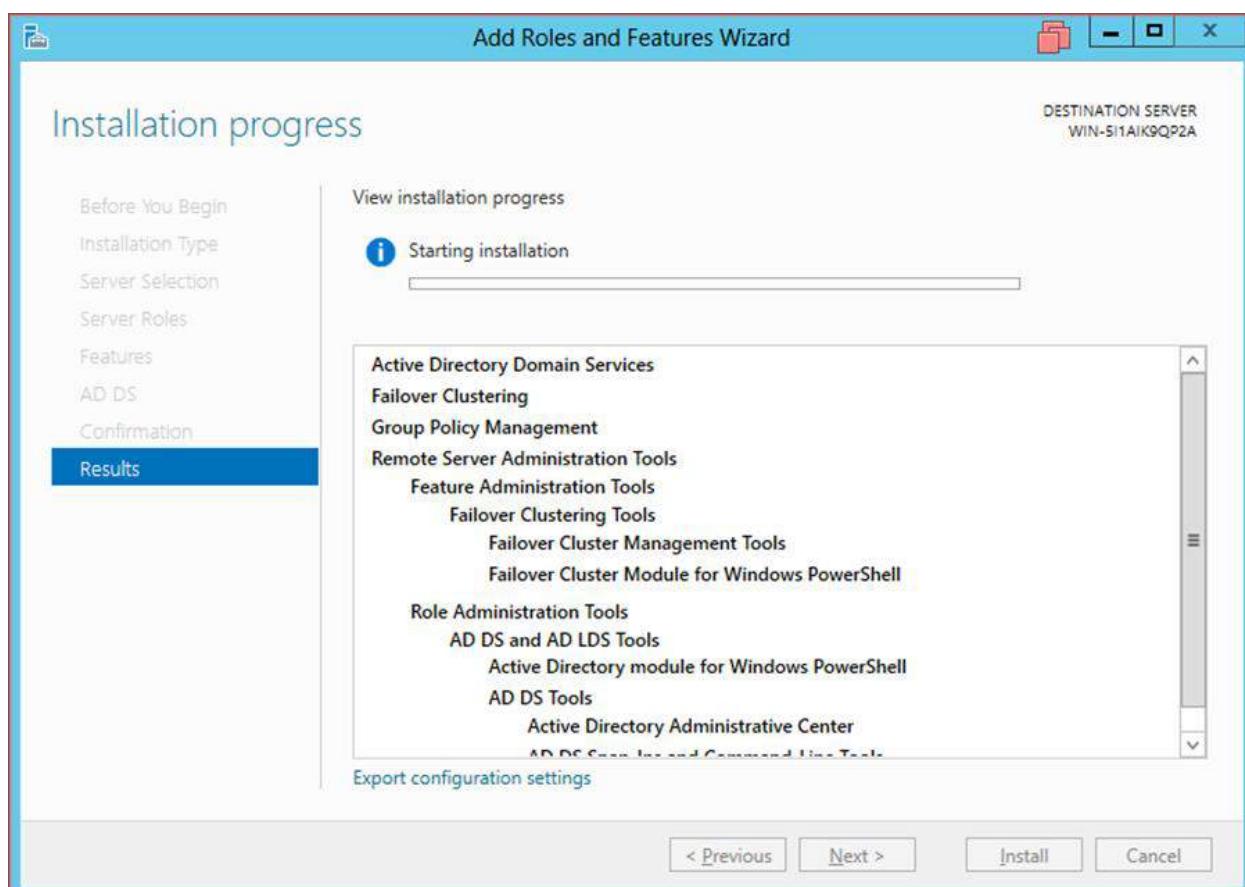
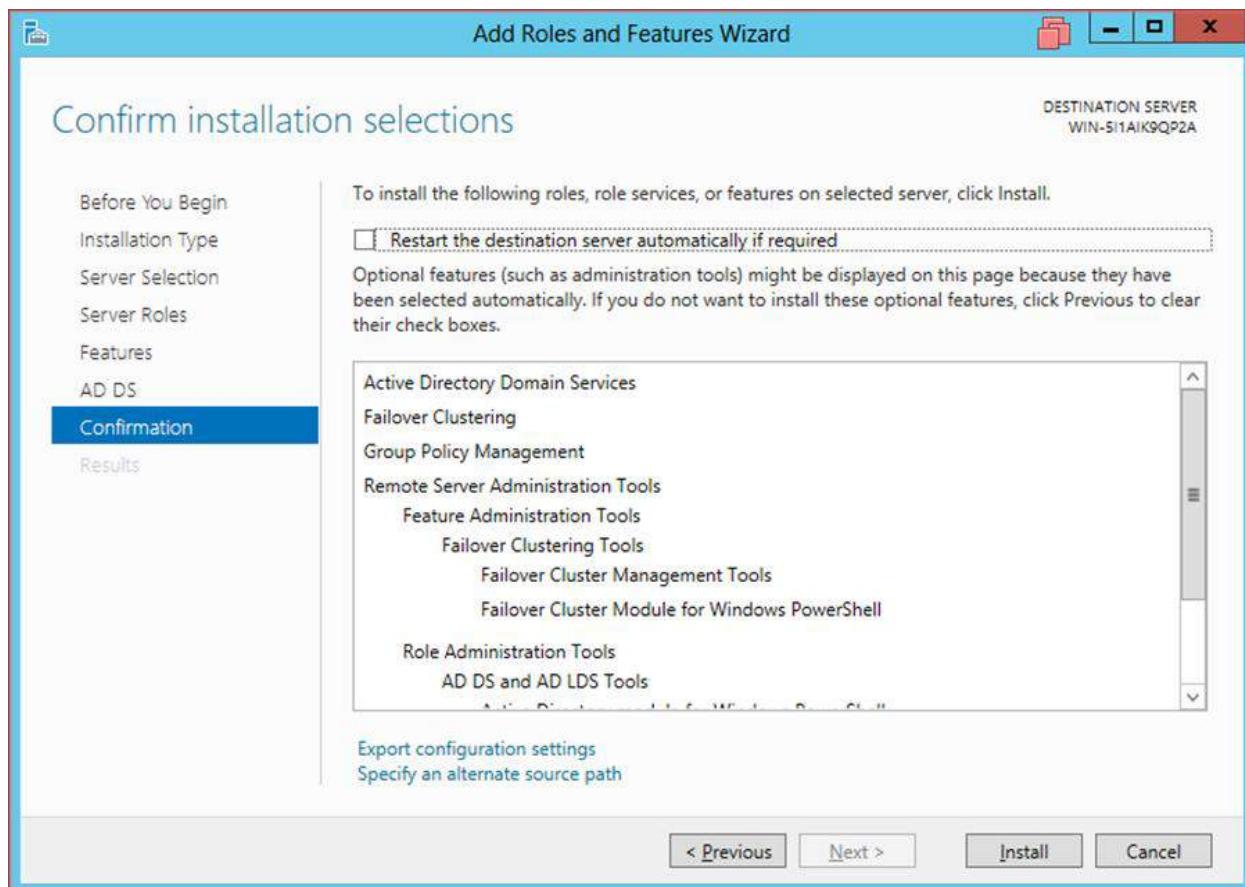
**Step 7: Select server role as ‘Failover Clustering’ it will show the add feature to add features’ in server**

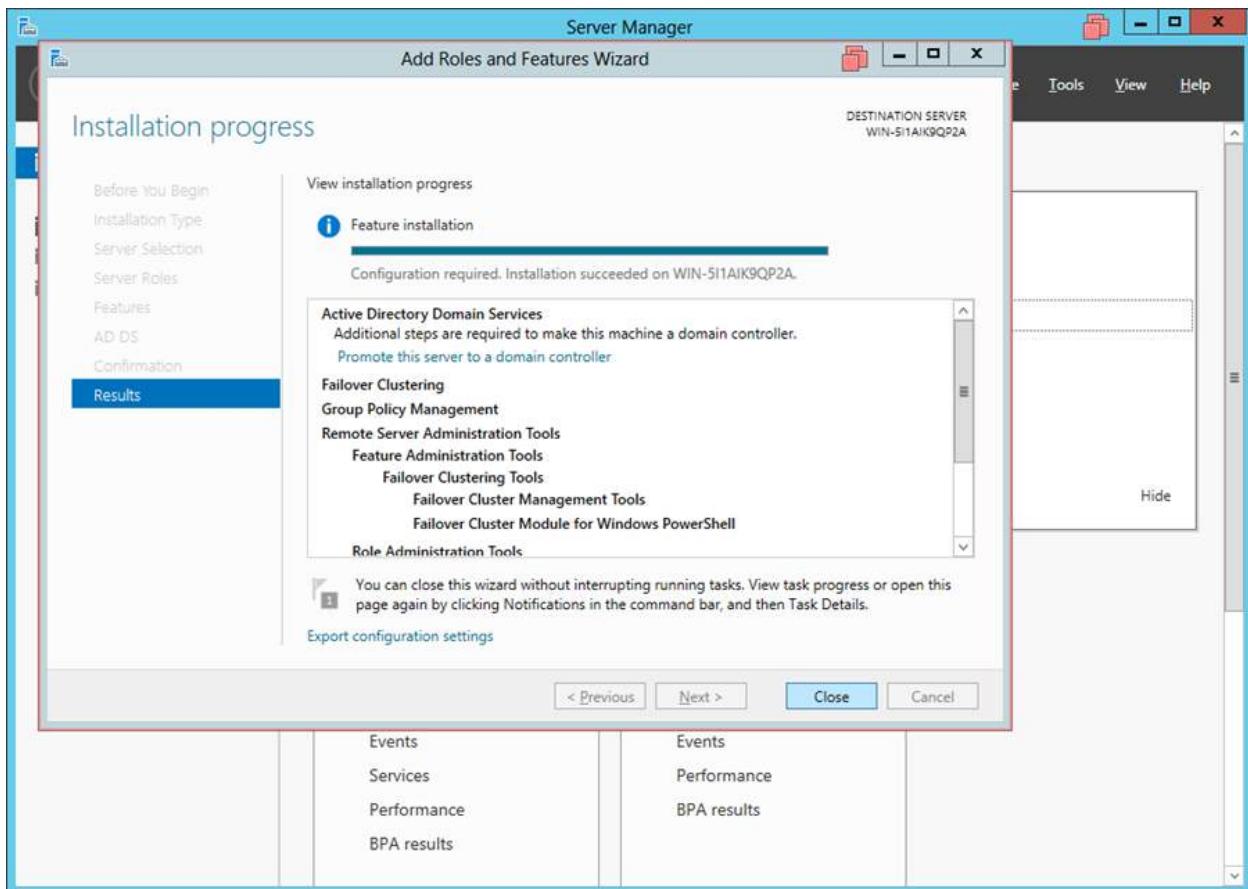


## Step 8: Add Roles and features wizard for AD DS

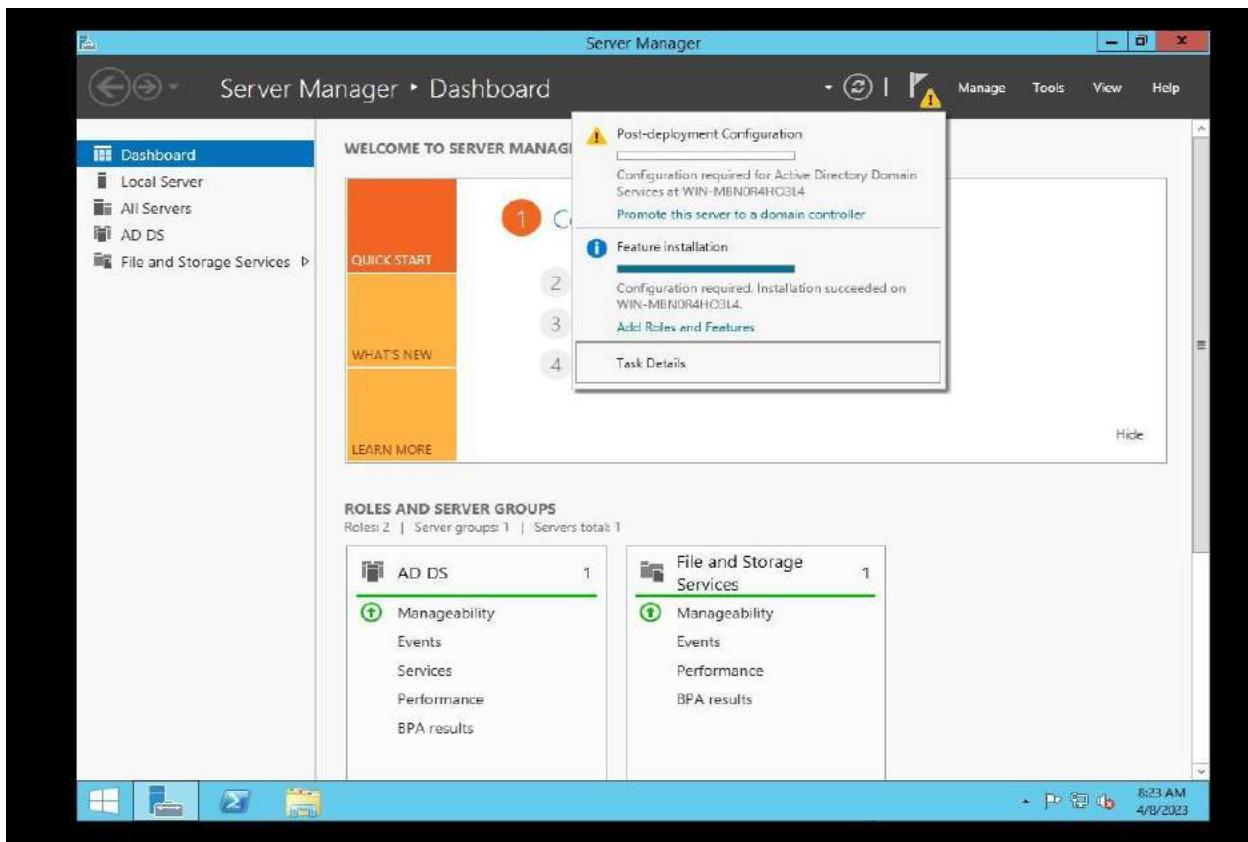


## Step 9: Conformation of installation and click Install button to install



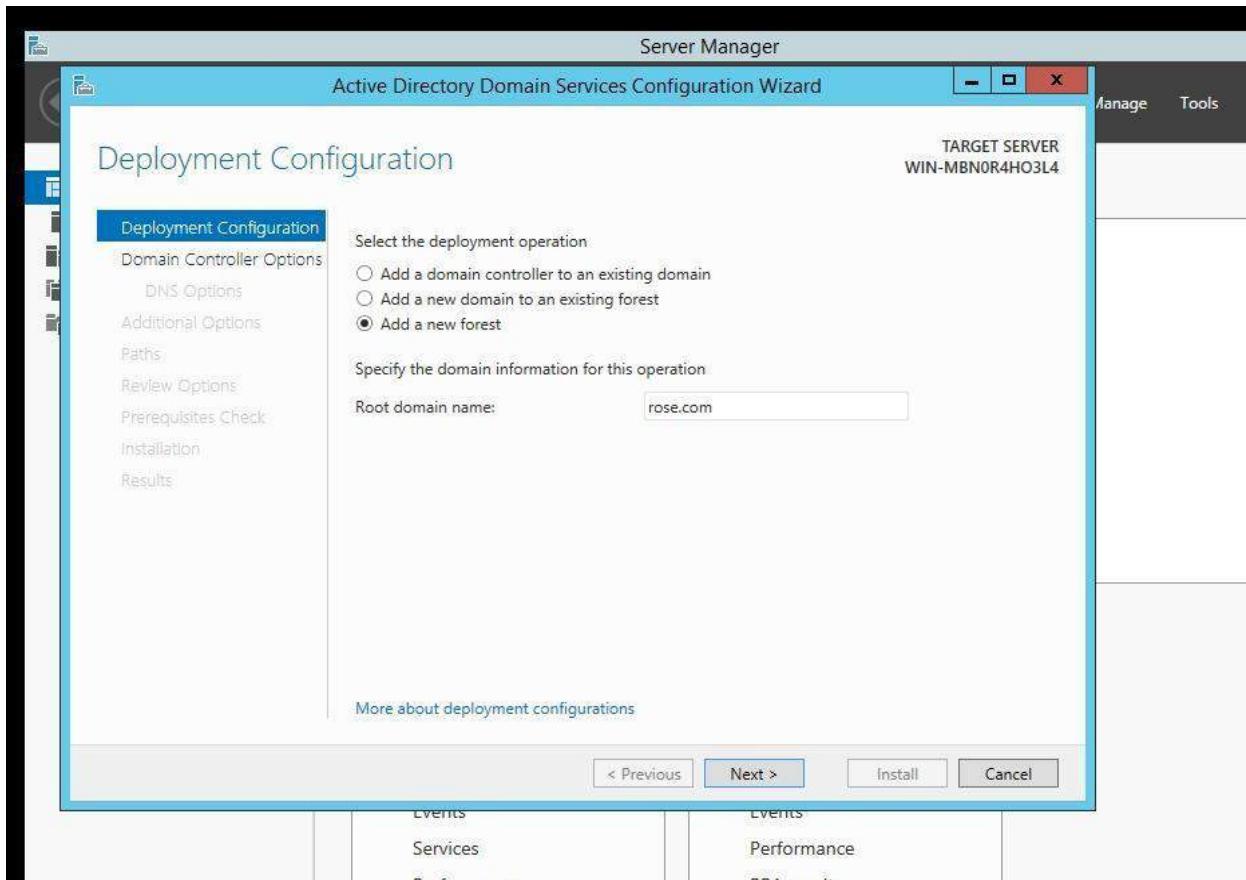


**Step 10: when we add new AD DS it will give as notification ‘Promote this server to a domain controller’**

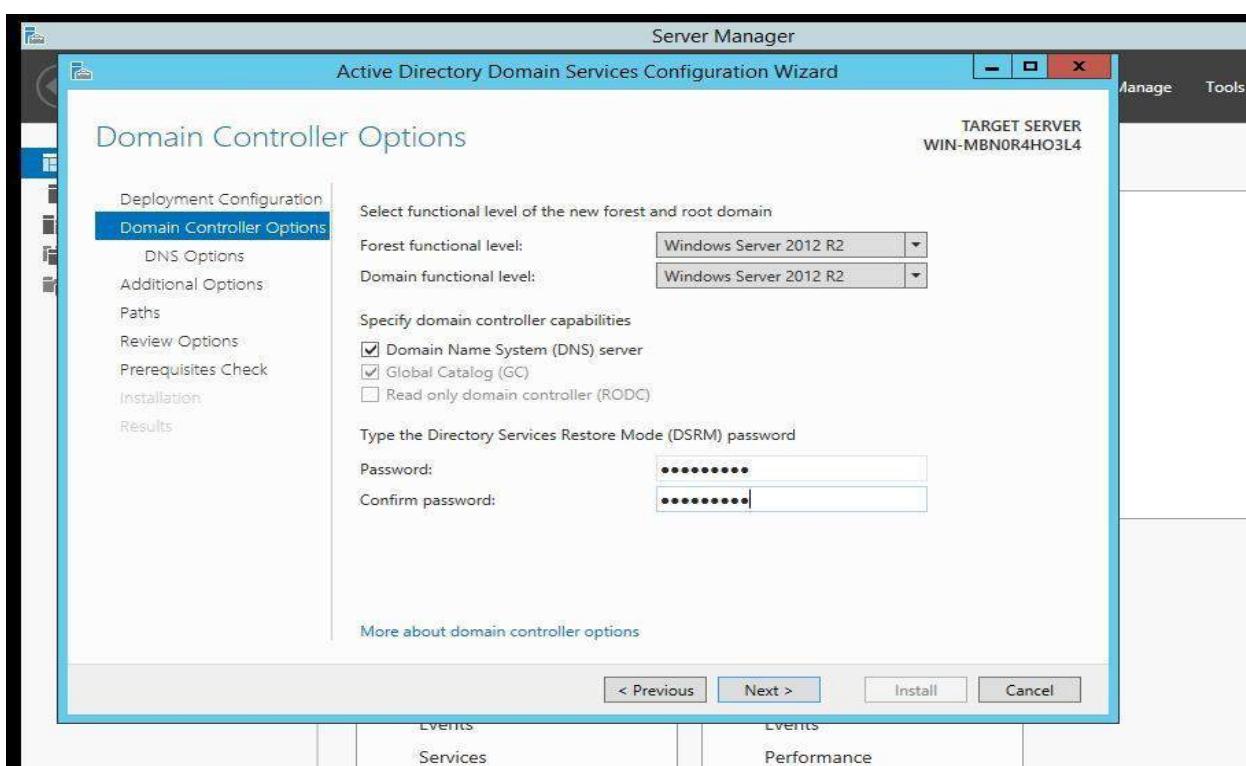


**Step 11: After adding AD DS, now configure the AD DS to deployment, by clicking ‘Promote this server to a domain controller’**

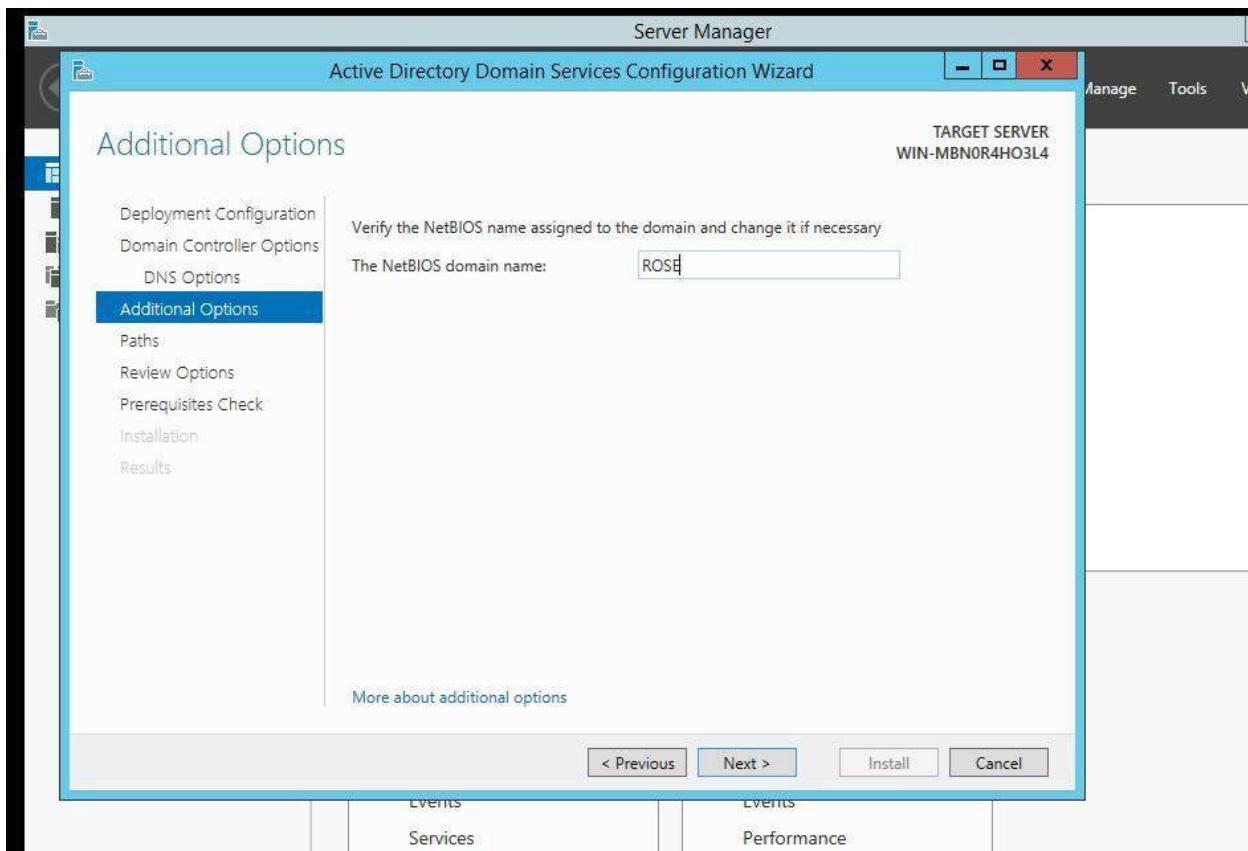
**Step 12:** Select the deployment operation as ‘Add a new Forest’ radio button and give the root name as ‘rose.com’



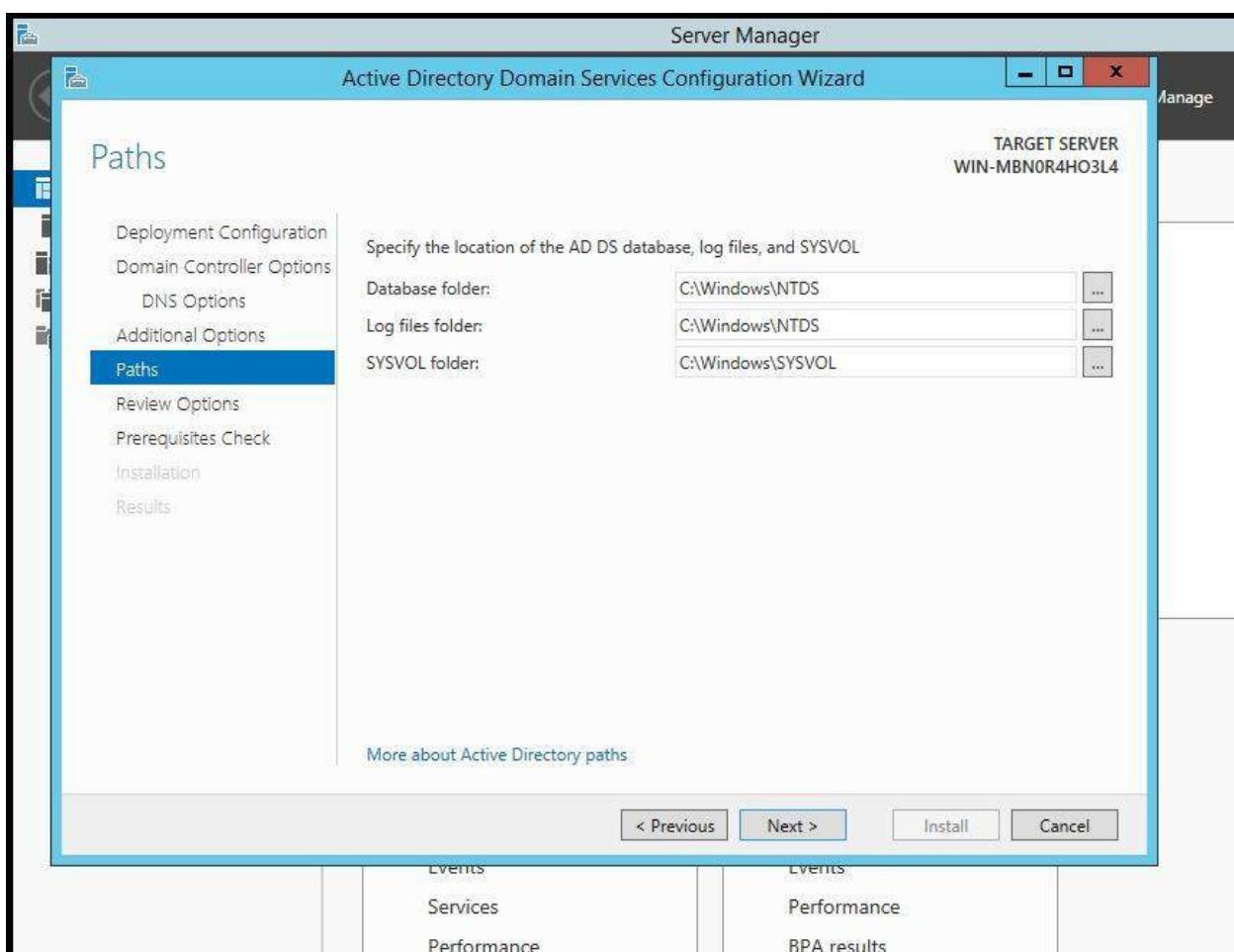
**Step 13:** give password to Directory Service Restore node



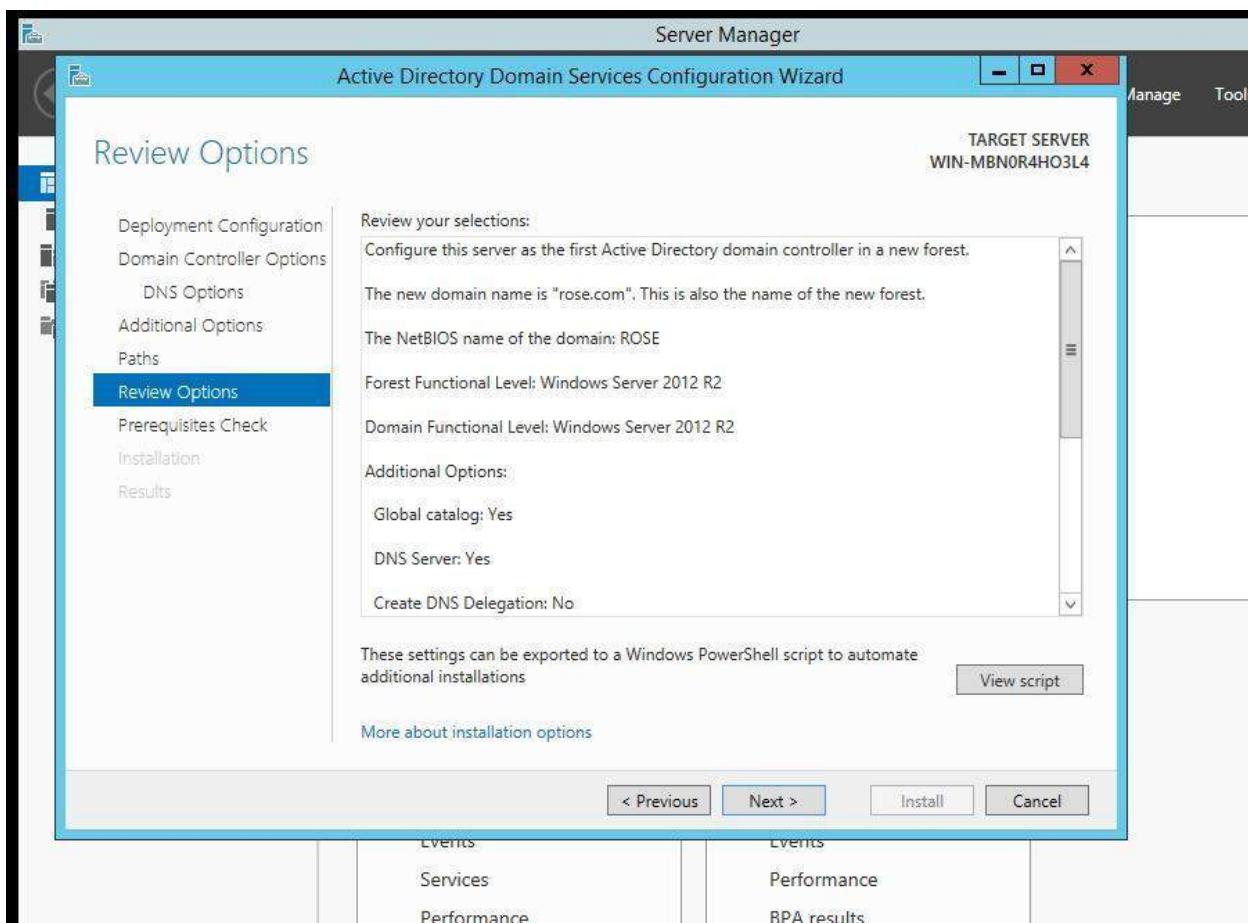
## Step 14: Verification of root name



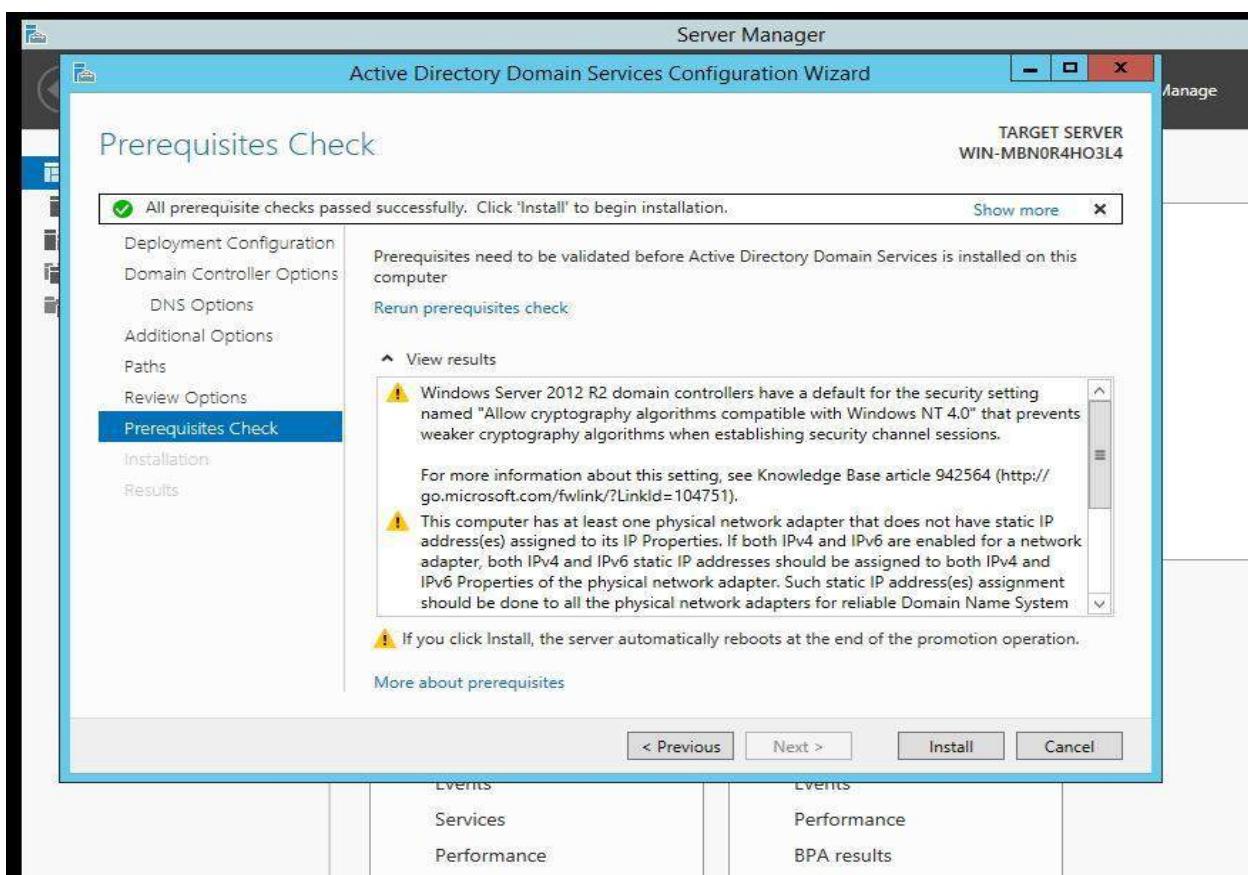
## Step 15: Specify the location of the AD DS database



## Step 16: last verification review option window where all information in short

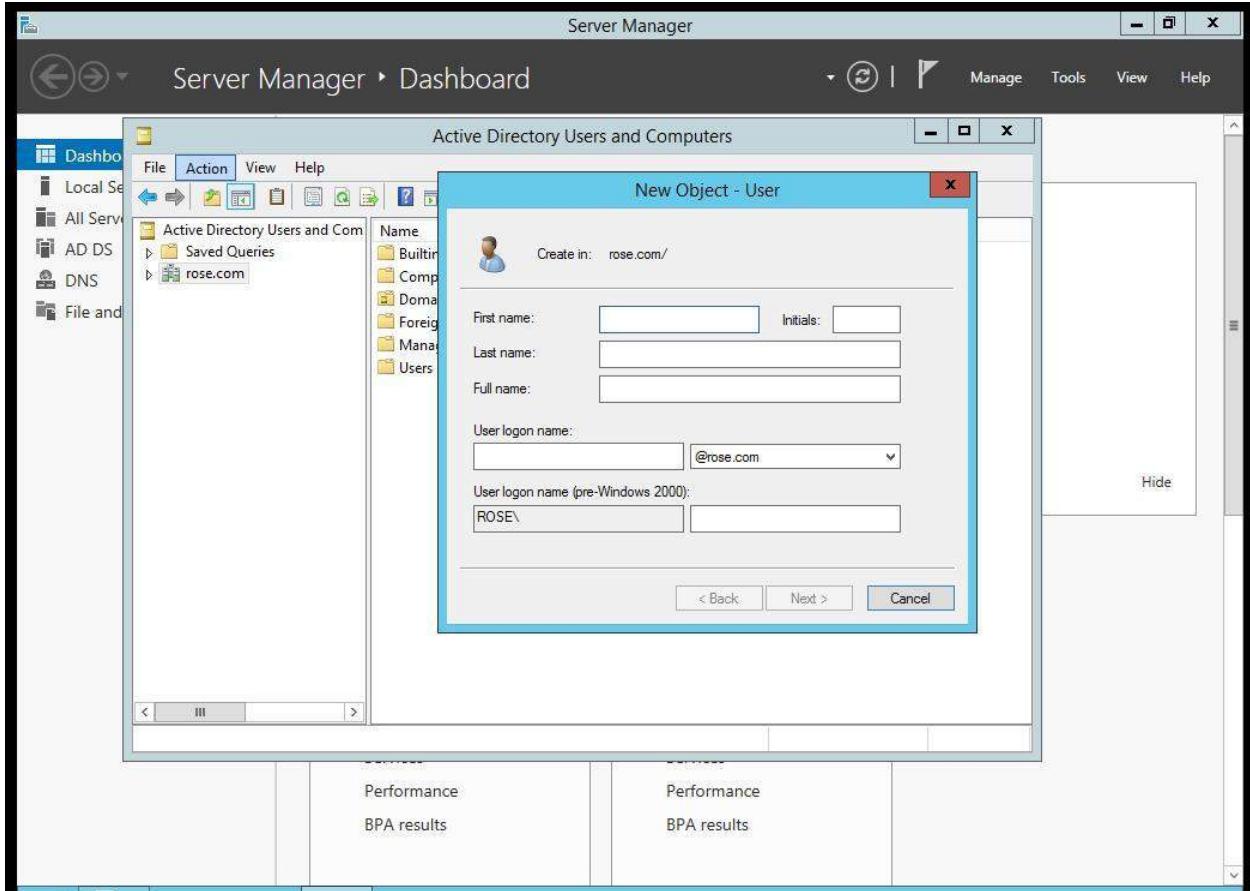


## Step 17: Prerequisites check for installation

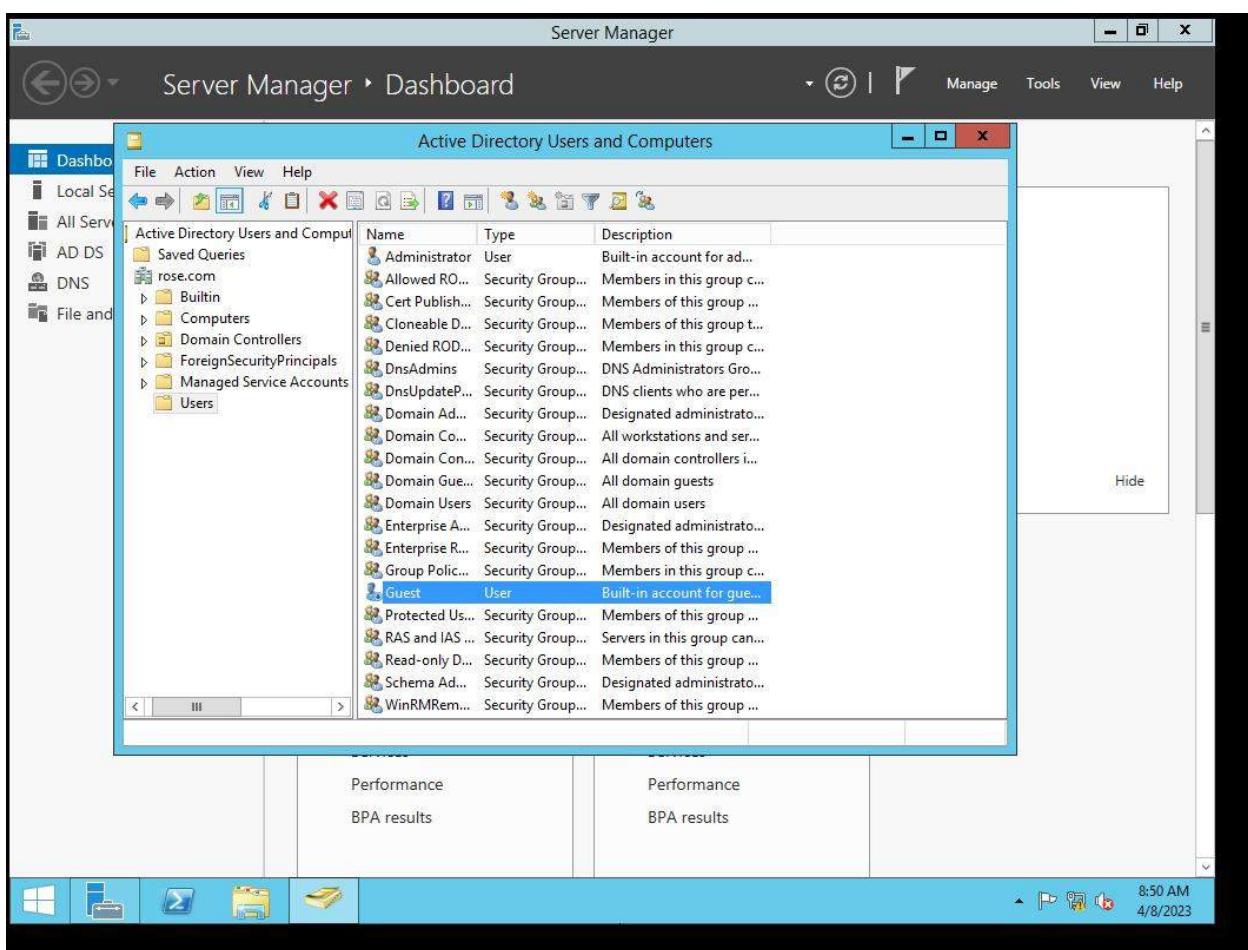
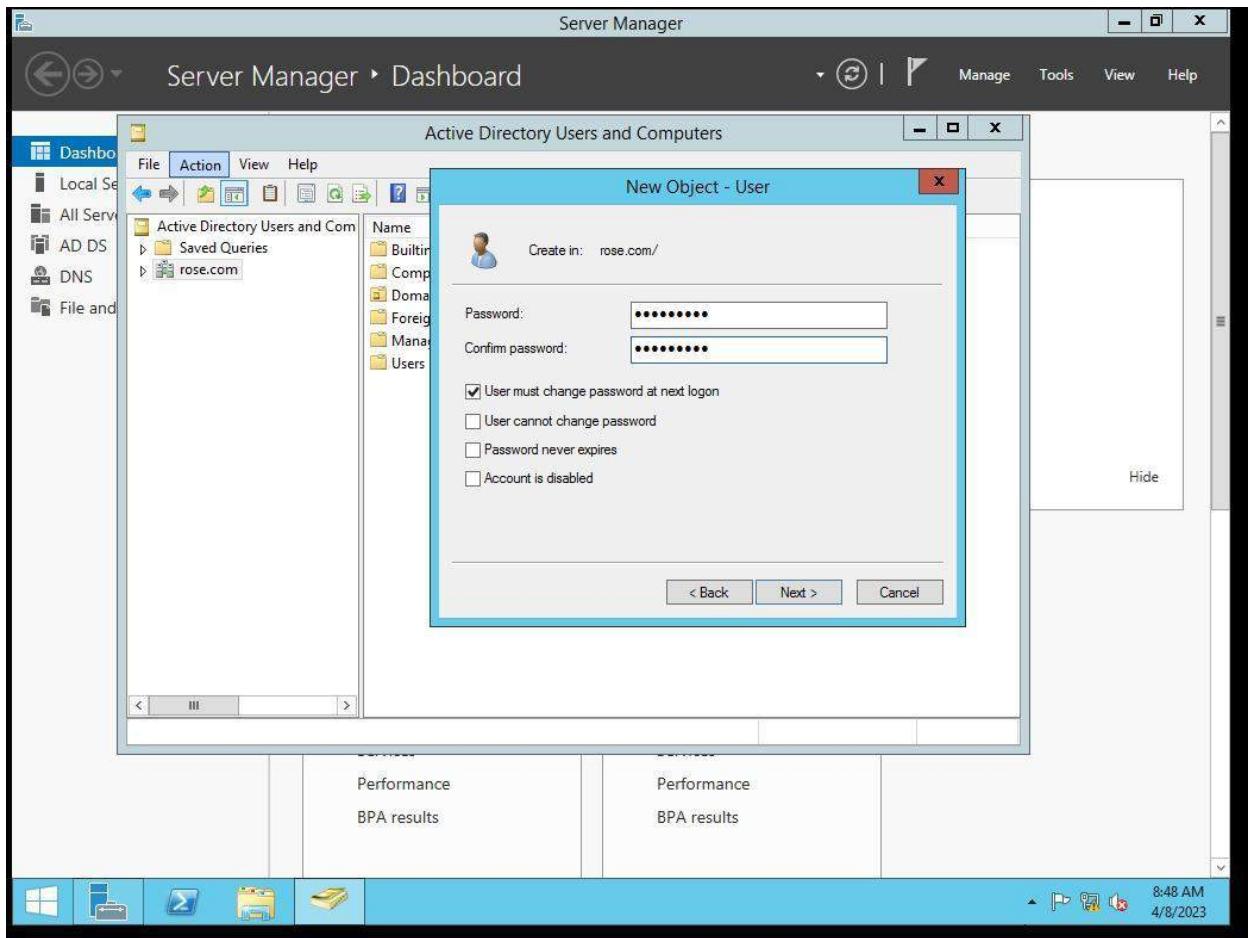


## **Step 18:** Adding a new User

Open “Active Directory Users and Computers” - it can be opened from Server Manager using the Tools menu. In the left pane of a screen right click on Users. Click New and then User. It will display the following screen. Provide the necessary information for creating New Object-User. Click Next.

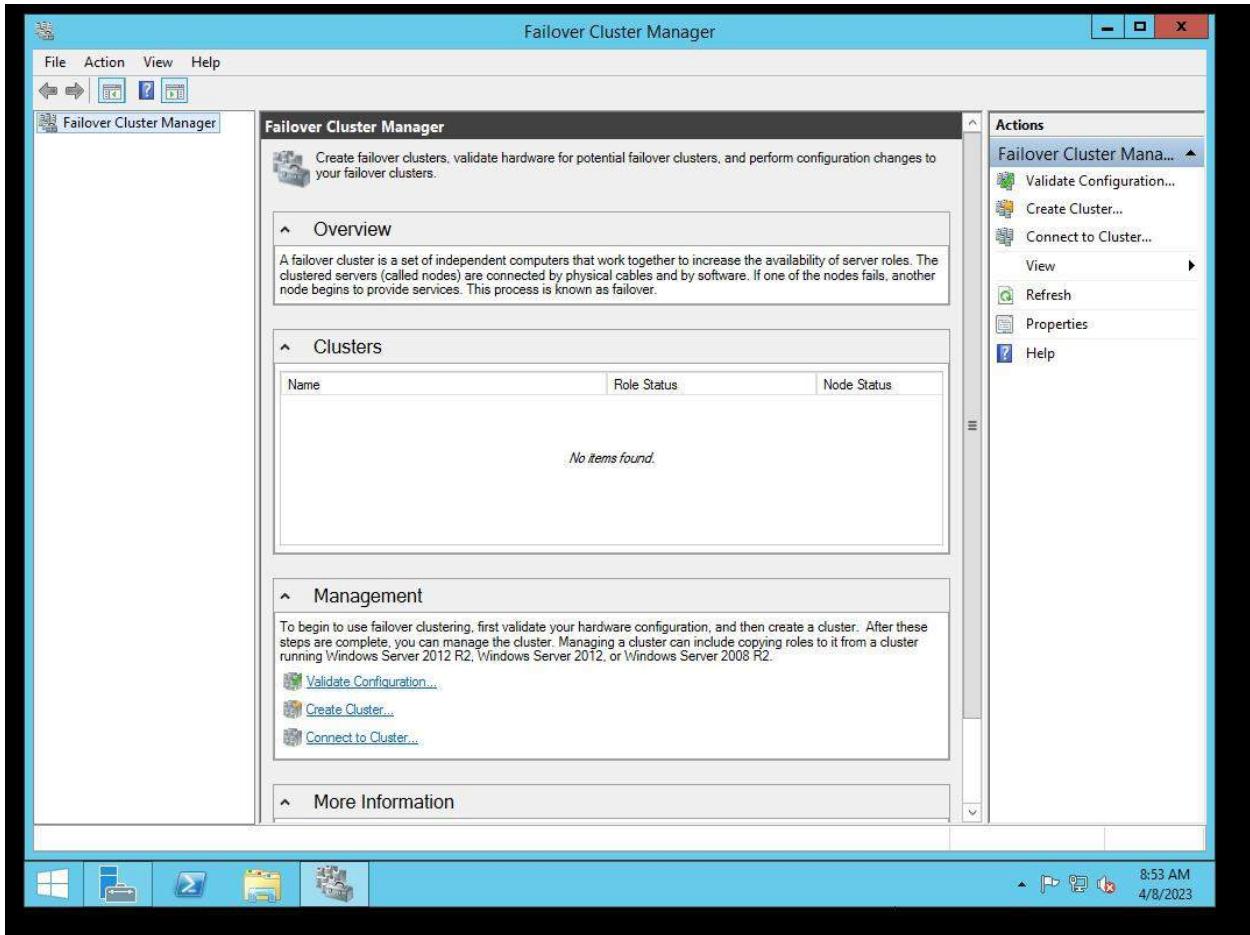


## **Step 19:** Give the password and then click next.

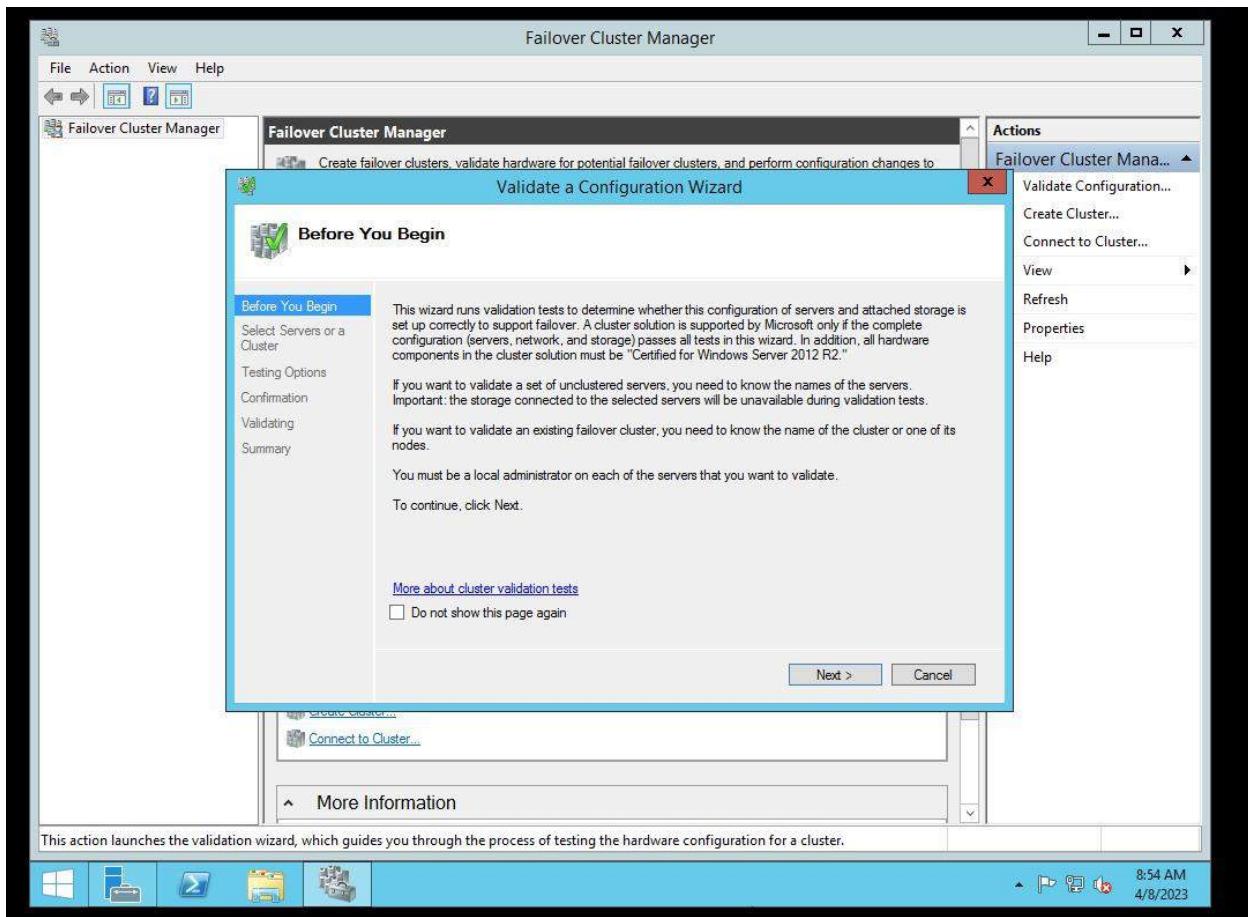


## **Step 20:** Validating the Configuration.

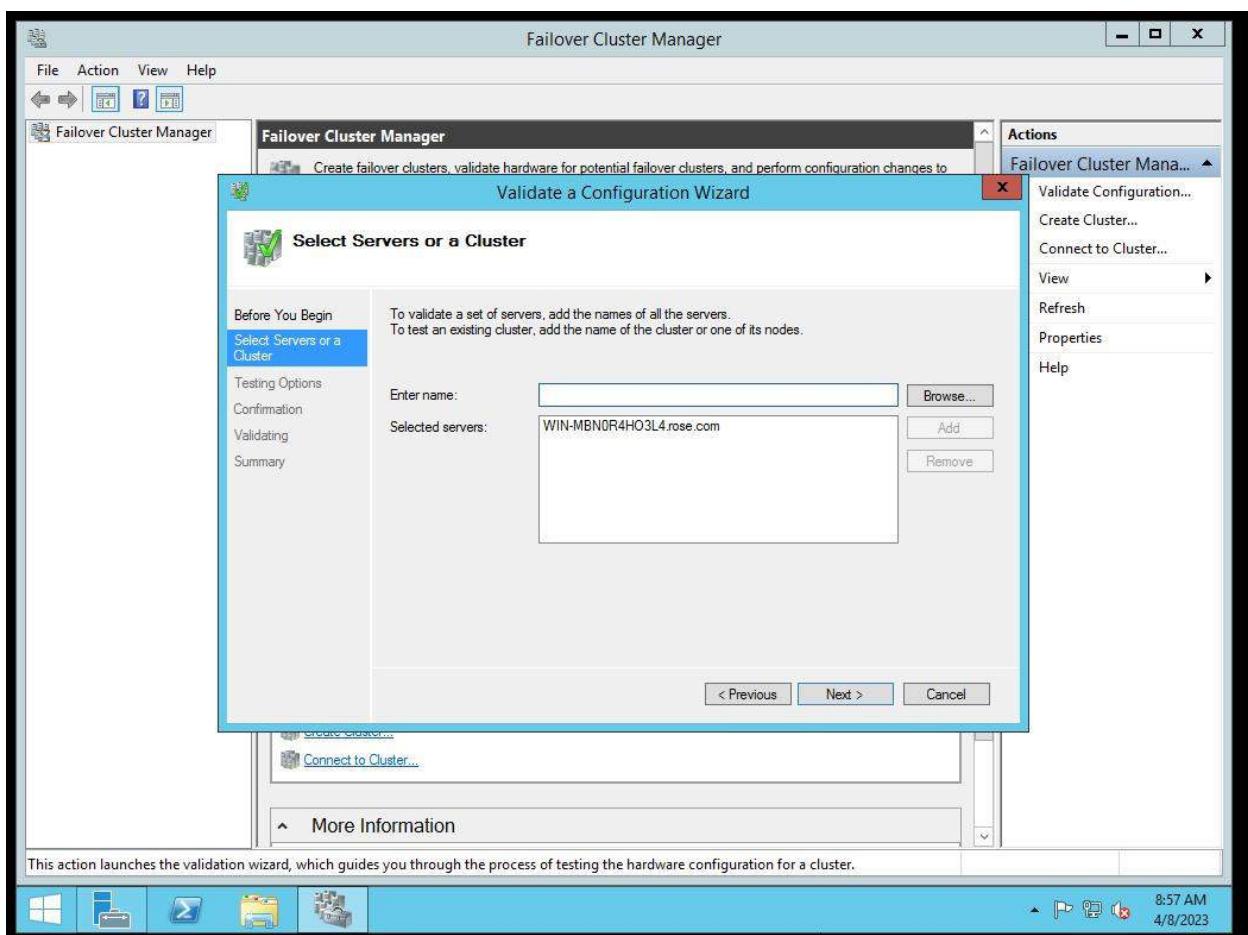
Open “Failover Cluster Manager” - it can be opened from Server Manager using the Tools menu. Click “Validate Configuration” option.



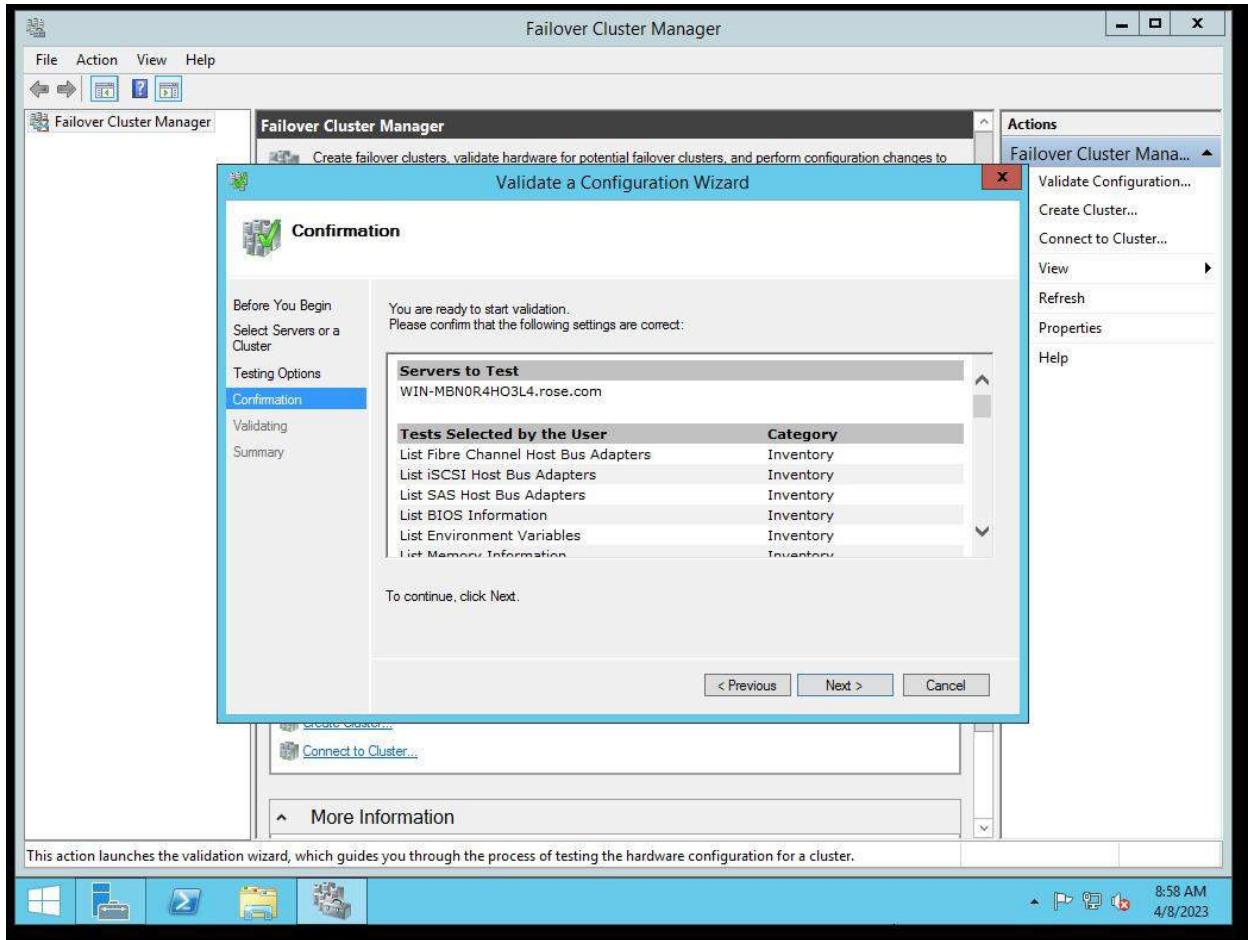
## **Step 21:** “Validate a Configuration Wizard” opens. Click Next



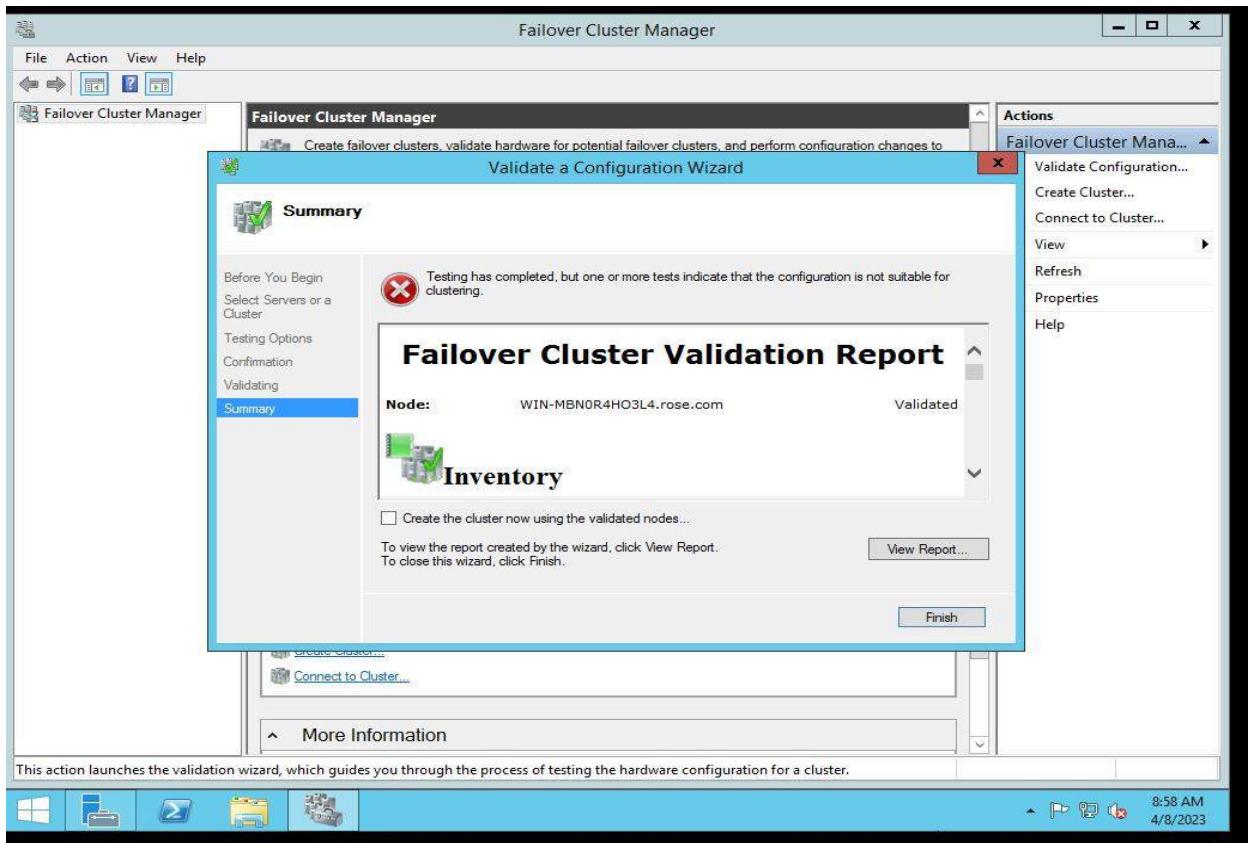
**Step 22:** In “Select Servers or a Cluster”-click next.



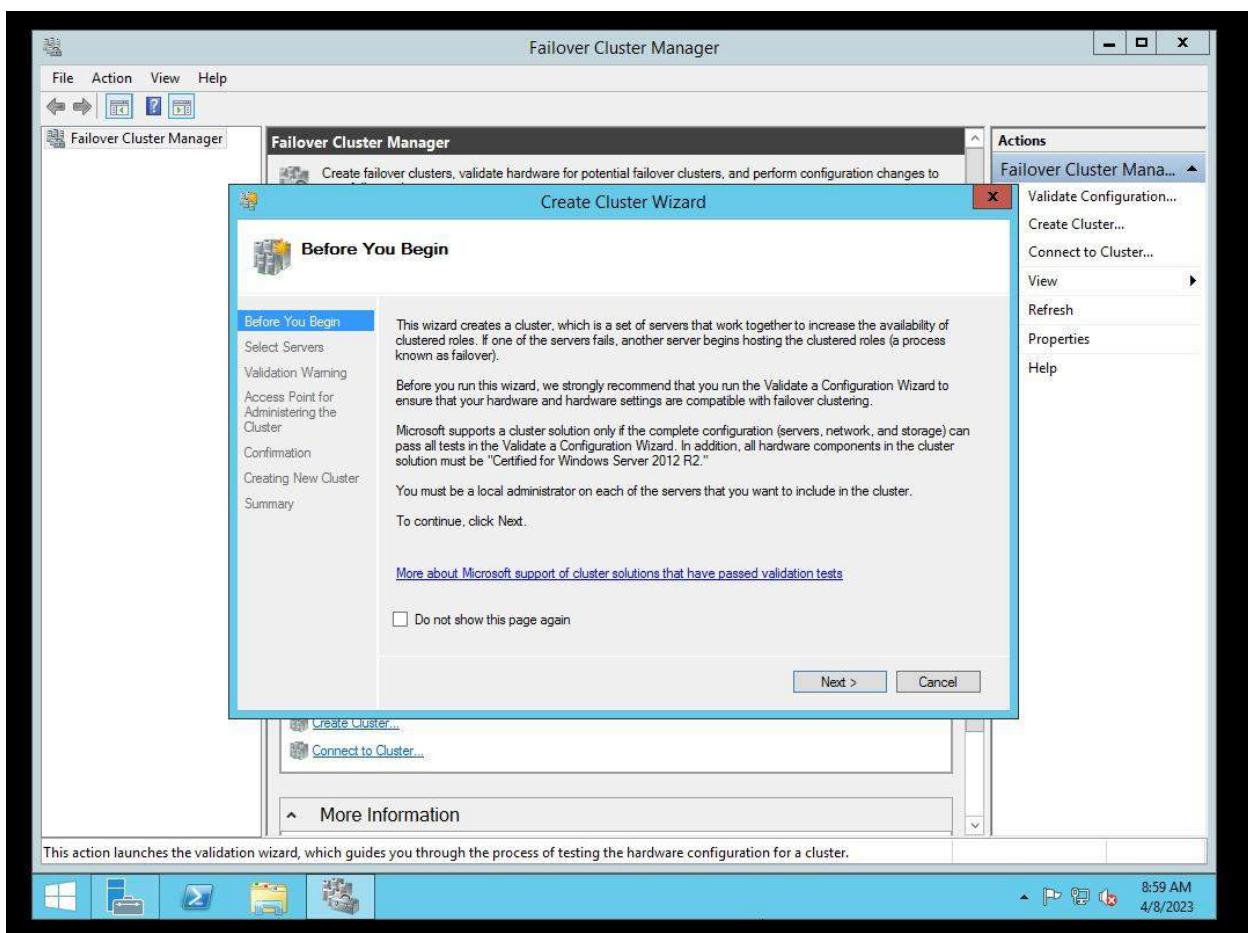
**Step 23:** In the “Confirmation” window of a Validate a Configuration Wizard click next.



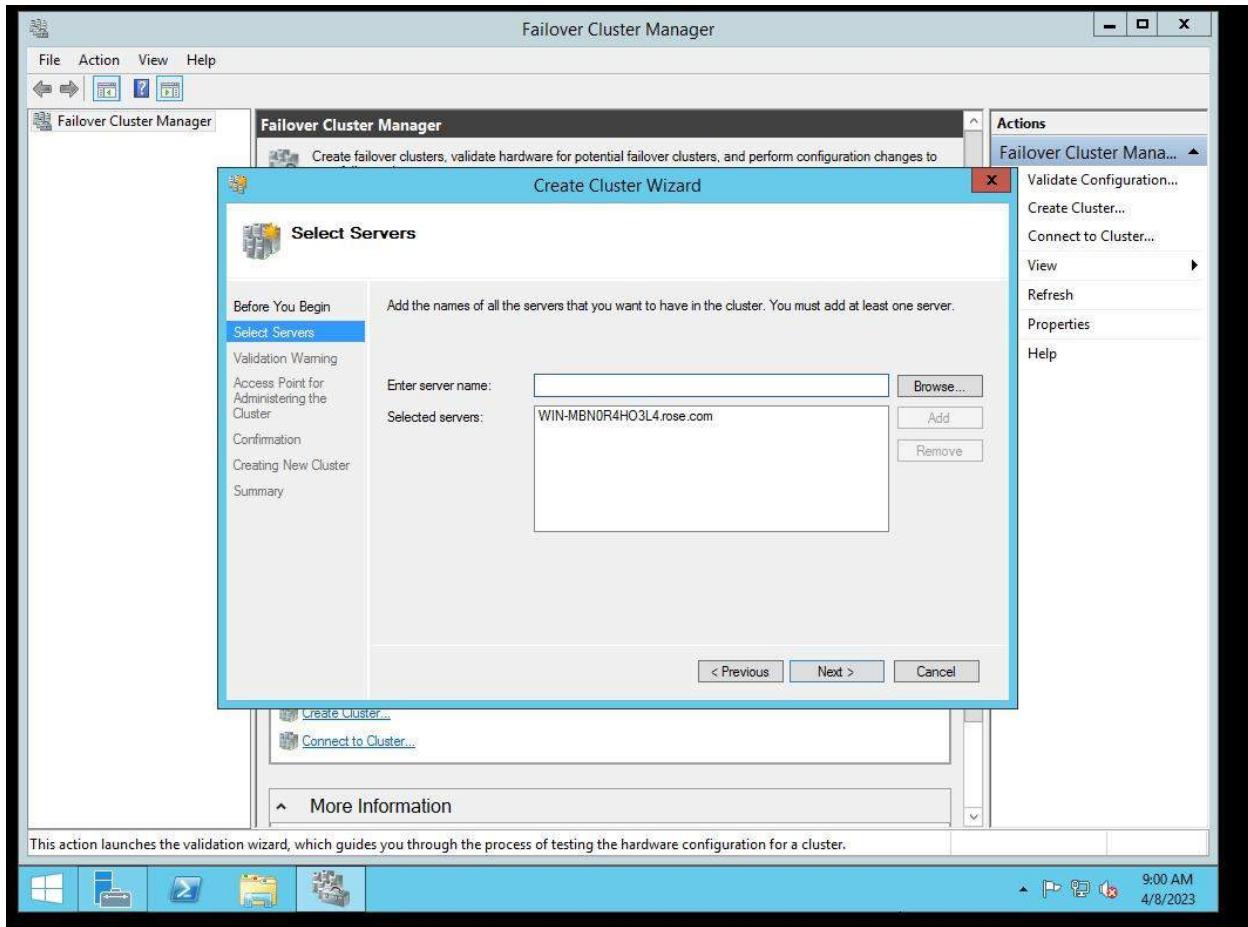
**Step 24:** If we want to show a report of a validation then click “View Report” on the Summary window of a Configure a Validate wizard.



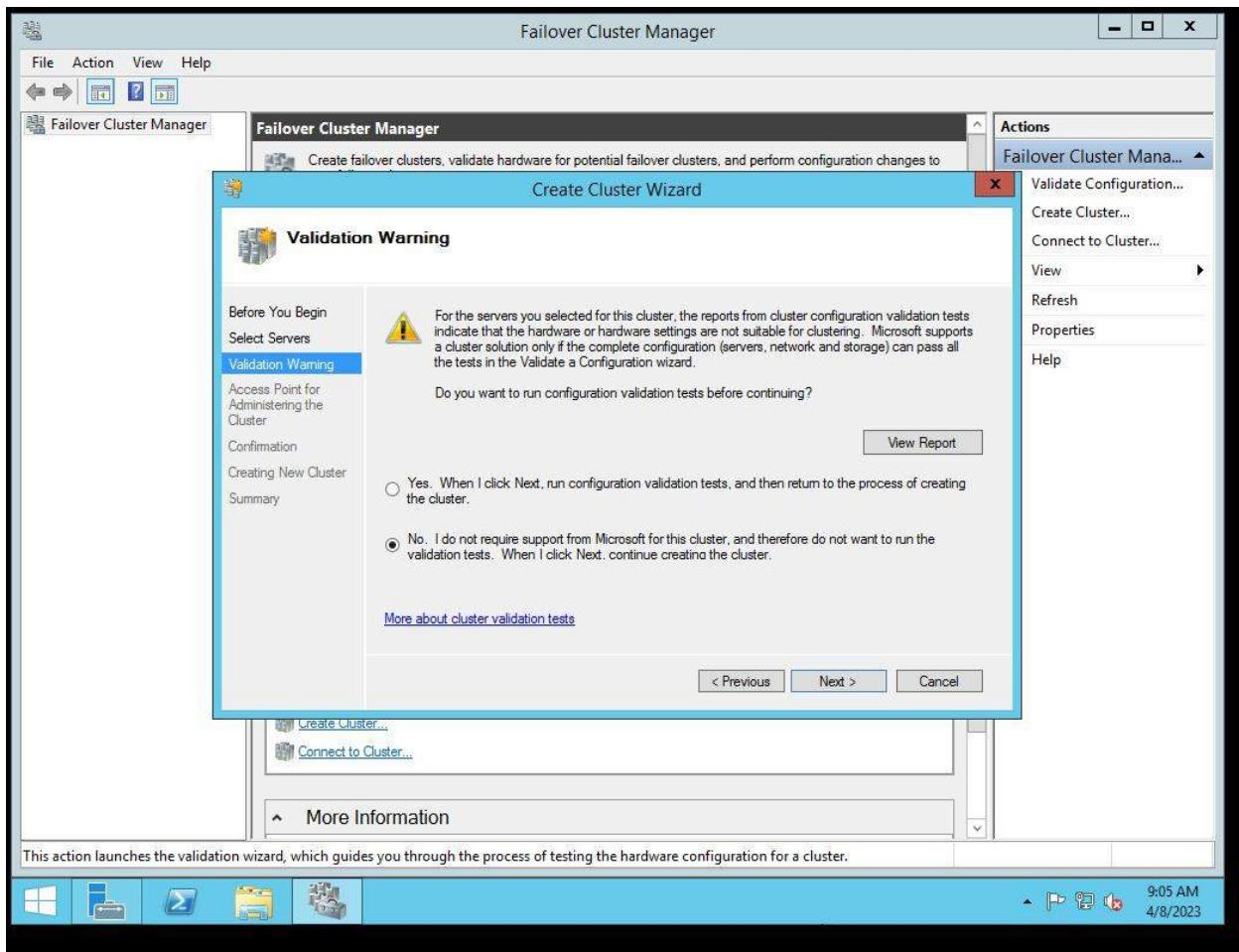
**Step 25:** In the first step of Create Cluster wizard click next.



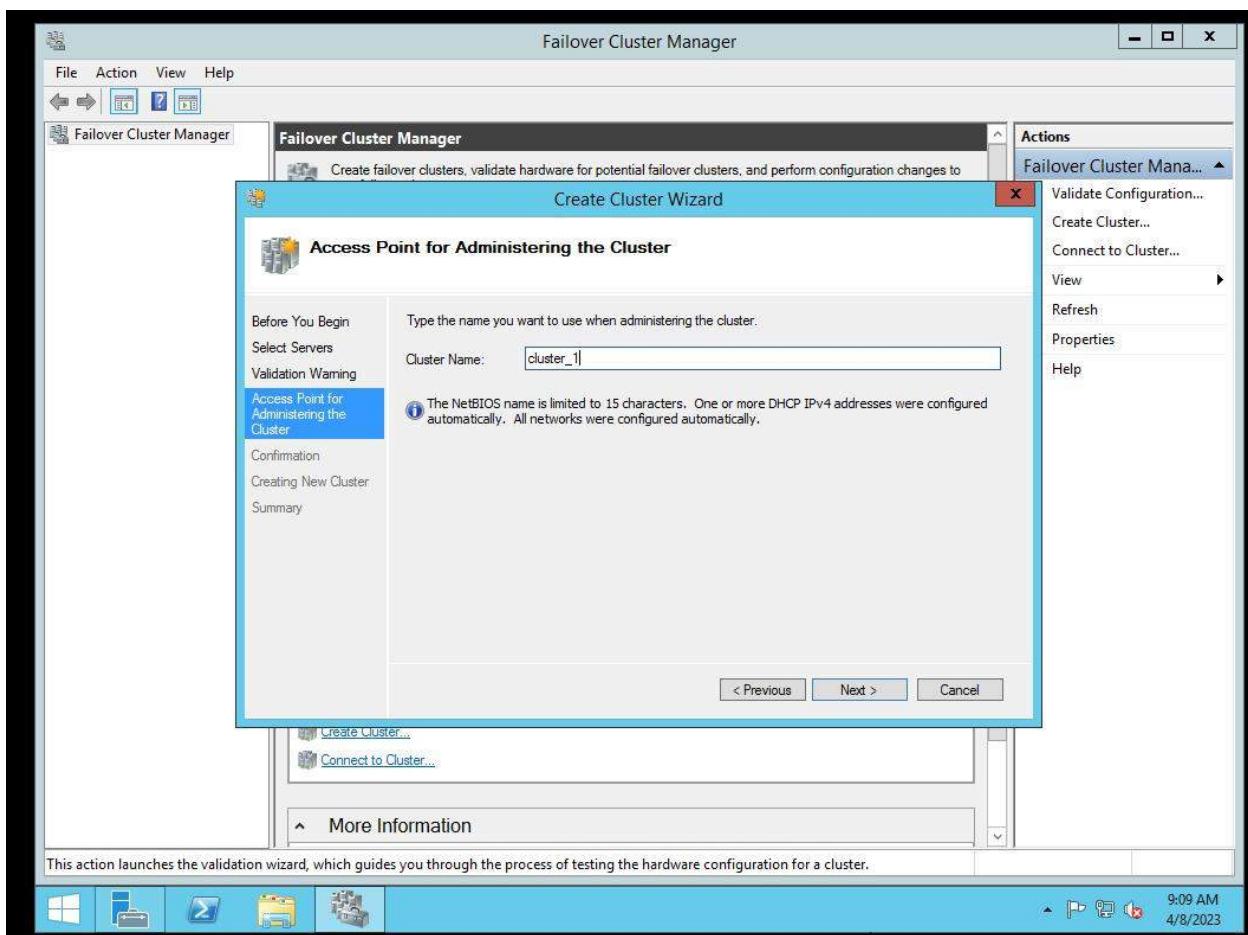
**Step 26:** Enter the name of the server in the second step of create Cluster Wizard. Add the server and then click Next.



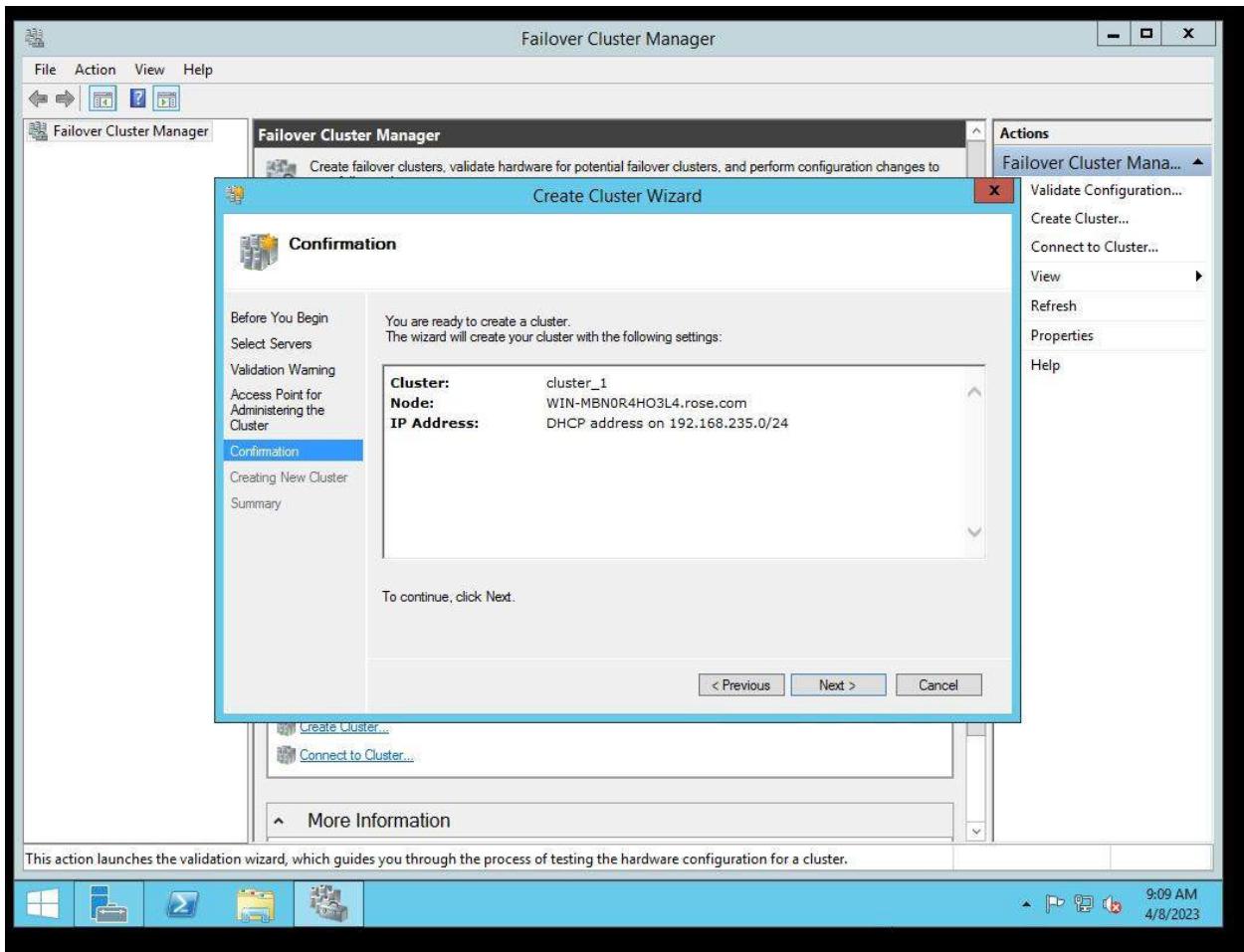
**Step 27:** In the Validation Warning window select the second option of not to run the validate tests because we have already done it and then click Next.



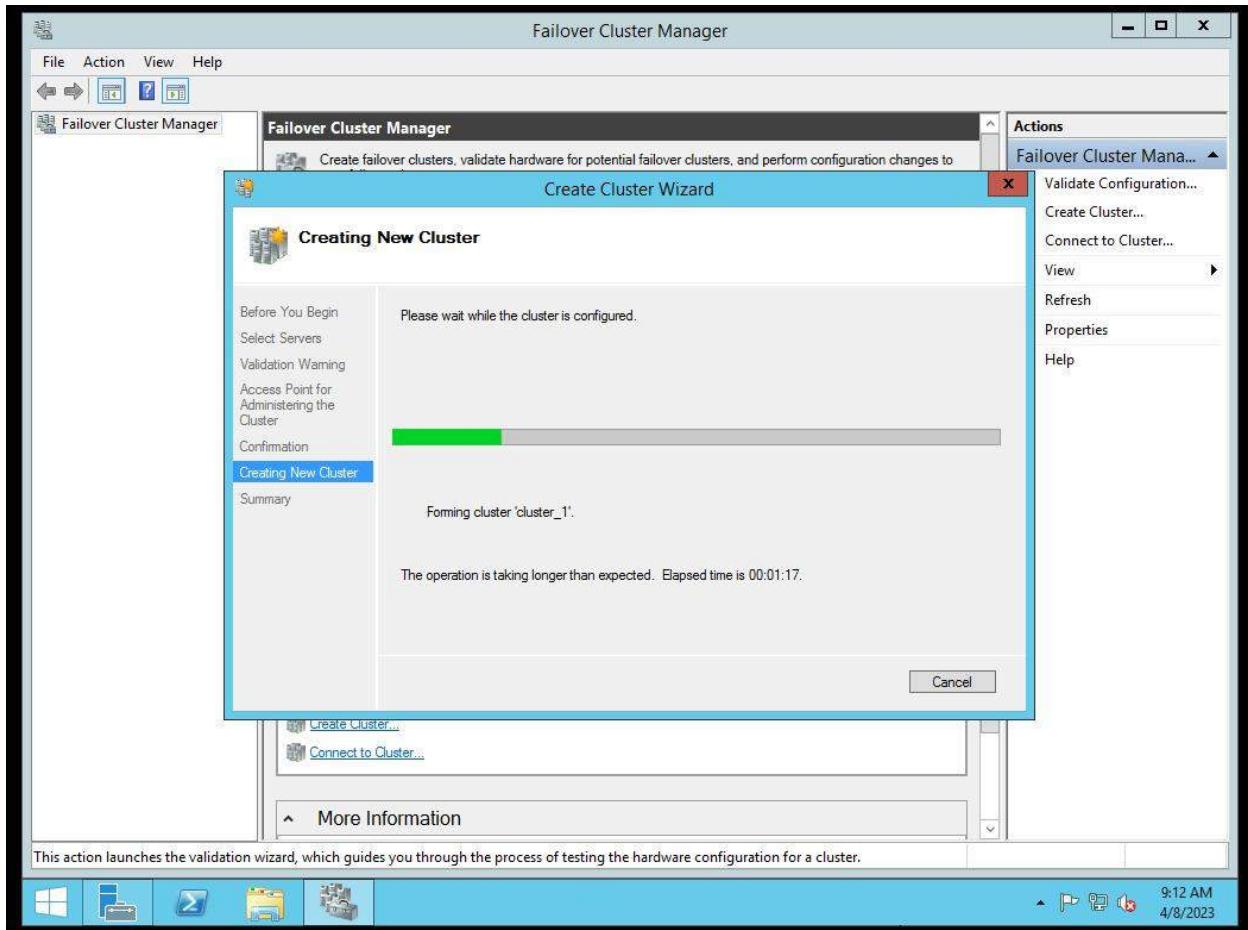
**Step 28:** Type the name of the cluster of User's choice and click Next.



**Step 29:** In the Confirmation window of a Create Cluster wizard click next



**Step 30:** In Creating New Cluster window it will show the progress for forming the newly created cluster.



**Step 31:** After creating the cluster it will show the summary. If we want to have a report of it then clicks View Report



## Practical No: 4

To create a storage account in Microsoft Azure and upload data in it.

**Step 1:** Open the dashboard of the Microsoft azure portal.

The screenshot shows the Microsoft Azure portal dashboard. At the top, there are three browser tabs: '31011120122\_Cloud computing...', 'Cloud Computing Practical Jour...', and 'Home - Microsoft Azure'. The main content area has a blue header bar with the text 'Microsoft Azure' and a search bar 'Search resources, services, and docs (0+ /)'. Below this is the 'Azure services' section with various icons: 'Create a resource' (plus sign), 'Storage accounts' (two stacked bars), 'Virtual machines' (monitor), 'Subscriptions' (key), 'Help + support' (person), 'Quickstart Center' (rocket), 'App Services' (globe), 'SQL databases' (database), 'Azure Cosmos DB' (globe), and 'More...' (ellipsis). The 'Resources' section follows, with a 'Recent' tab selected. It lists three items: 'NetworkWatcherRG' (Resource group), 'Azure for Students' (Subscription), and 'ubuntu1\_group\_03030910' (Resource group). A 'See all' link is at the bottom of this list. The 'Navigate' section includes links for 'Subscriptions' (yellow arrow), 'Resource groups' (blue square), 'All resources' (green grid), and 'Dashboard' (blue square with chart). The 'Tools' section contains links to 'Microsoft Learn' (blue square), 'Azure Monitor' (blue circle), 'Microsoft Defender for Cloud' (blue shield), and 'Cost Management' (blue dollar sign). The 'Useful links' section includes 'Technical Documentation' (blue link), 'Azure Migration Tools' (blue link), 'Azure Services' (blue link), 'Find an Azure expert' (blue link), 'Recent Azure Updates' (blue link), and 'Quickstart Center' (blue link). At the bottom right, there are download links for the 'Azure mobile app' from the App Store and Google Play.

**Step 2:** Click on the storage accounts option on the dashboard.

The screenshot shows the Microsoft Azure portal interface for creating a new storage account. The top navigation bar includes tabs for 'Cloud computing' (active), 'Cloud Computing Practical Journal', and 'Create a storage account - Microsoft Storage Account - ARM'. The main title is 'Create a storage account' under 'Storage accounts'. Below the title, there are tabs for 'Basics' (selected), 'Advanced', 'Networking', 'Data protection', 'Encryption', 'Tags', and 'Review'. A search bar is located at the top right.

**Project details**

Select the subscription in which to create the new storage account. Choose a new or existing resource group to organize and manage your storage account together with other resources.

Subscription: Azure for Students

Resource group: ubuntu1\_group

**Instance details**

If you need to create a legacy storage account type, please click [here](#).

Storage account name: st12

Region: (Asia Pacific) Central India

Performance: Standard: Recommended for most scenarios (general-purpose v2 account) (selected)

Redundancy: Geo-redundant storage (GRS)

Make read access to data available in the event of regional unavailability.

Buttons at the bottom: Review, < Previous, Next : Advanced >

Step 3: Click on Create storage account and create your storage account.

Cloud computing | Cloud Computing Practical Journal | Create a storage account - Microsoft Azure | +

portal.azure.com/home/Microsoft.StorageAccount-ARM

Microsoft Azure

Home > Storage accounts >

## Create a storage account

Basics Advanced Networking Data protection Encryption Tags Review

**Project details**

Select the subscription in which to create the new storage account. Choose a new or existing resource group to organize and manage your storage account together with other resources.

Subscription: Azure for Students

Resource group: ubuntu1\_group

**Instance details**

If you need to create a legacy storage account type, please click here.

Storage account name: st12

Region: (Asia Pacific) Central India

Deploy to an edge zone

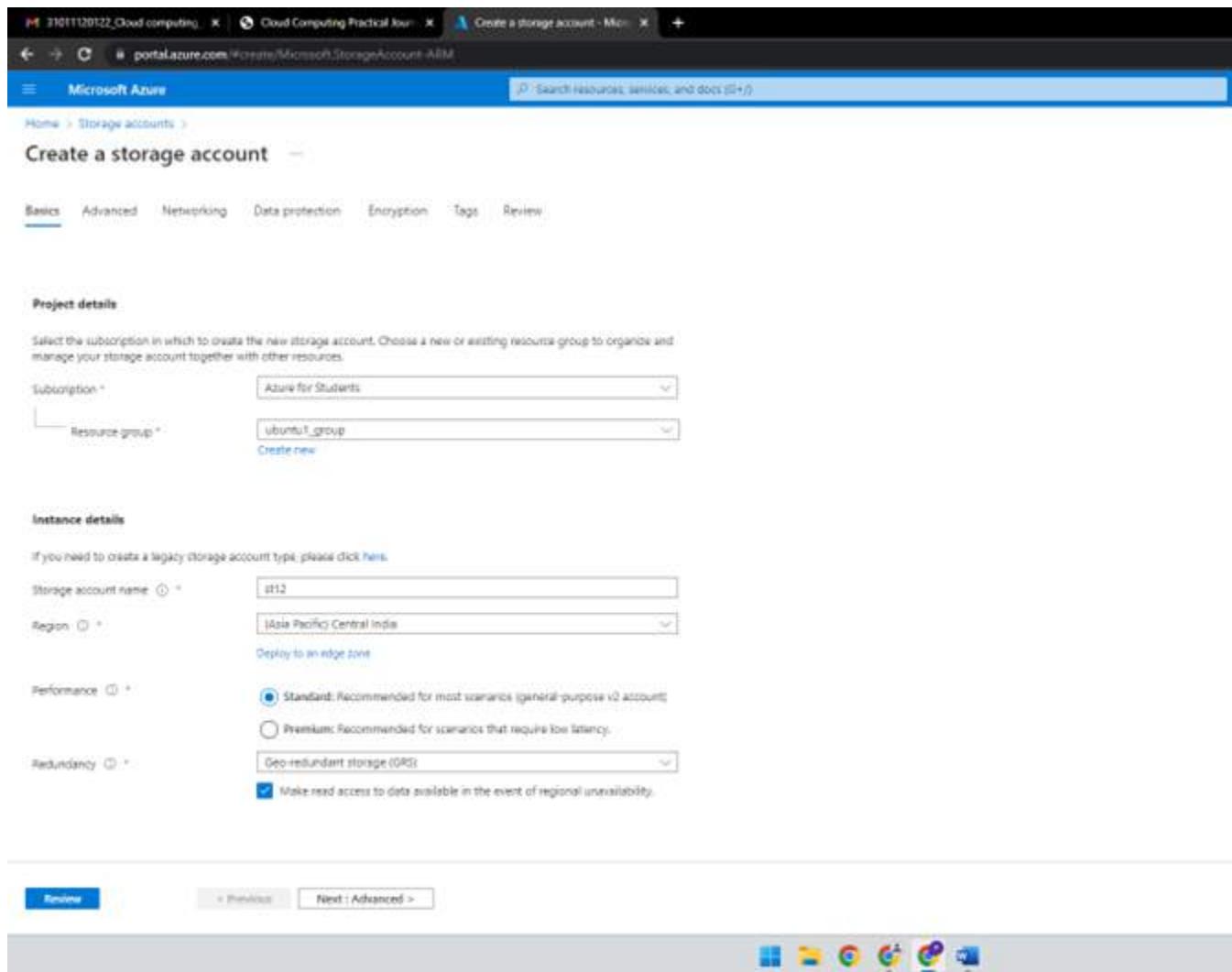
Performance: Standard: Recommended for most scenarios (general-purpose v2 account)

Premium: Recommended for scenarios that require low latency.

Redundancy: Geo-redundant storage (GRS)

Make read access to data available in the event of regional unavailability.

Review < Previous Next : Advanced >



The screenshot shows the Microsoft Azure portal interface for creating a storage account. The title bar includes tabs for 'Cloud computing', 'Cloud Computing Practical Journal', 'Create a storage account - Microsoft Storage Account - ARM', and a '+' button. The main header says 'Microsoft Azure' and has a search bar. Below it, the breadcrumb navigation shows 'Home > Storage accounts > Create a storage account'. The main content area is titled 'Create a storage account' and shows a progress bar indicating 'Running final validation...'. The 'Review' tab is selected from a row of tabs: Basics, Advanced, Networking, Data protection, Encryption, Tags, and Review. The 'Basics' section contains the following configuration:

Subscription	Azure for Students
Resource Group	Ubuntu_group
Location	centralindia
Storage account name	0112
Deployment model	Resource manager
Performance	Standard
Replication	Read-access geo-redundant storage (RA-GRS)

The 'Advanced' section contains the following settings:

Enable hierarchical namespace	Disabled
Enable network file system v1	Disabled
Allow cross-tenant replication	Enabled
Access tier	Hot
Enable SFTP	Disabled
Large file shares	Disabled

The 'Networking' section includes:

Network connectivity	Public endpoint (all networks)
Default routing tier	Microsoft network routing
Endpoint type	Standard

At the bottom of the page are buttons for 'Create', '< Previous', 'Next >', and 'Download a template for automation'. There is also a toolbar with icons for various Azure services.

Step 4: After finally providing all the required information click on the review tab.

Step 5: After reviewing the tab a create option will be visible on the bottom of the dashboard

31011120122\_Cloud computing\_ | Cloud Computing Practical Journal | Create a storage account - Microsoft Azure | +

portal.azure.com/#create/Microsoft.StorageAccount-AZM

Microsoft Azure

Home > Storage accounts >

## Create a storage account

Running Email validation...

Basics Advanced Networking Data protection Encryption Tags Review

**Basics**

Subscription	Azure for Students
Resource Group	ubuntu1_group
Location	centralindia
Storage account name	st12
Deployment model	Resource manager
Performance	Standard
Replication	Read-access geo-redundant storage (RA-GRS)

**Advanced**

Enable hierarchical namespace	Disabled
Enable network file system v3	Disabled
Allow cross-tenant replication	Enabled
Access tier	Hot
Enable SFTP	Disabled
Large file shares	Disabled

**Networking**

Network connectivity	Public endpoint (all networks)
Default routing tier	Microsoft network routing
Endpoint type	Standard

Create < Previous Next > Download a template for automation



Step 6: Once you create the storage account, a notification will appear on the top-right corner regarding the resource or storage account you have just created.

The screenshot shows the Microsoft Azure Storage account overview for 'st12'. The left sidebar contains navigation links for Overview, Activity log, Tags, Diagnose and solve problems, Access Control (IAM), Data migration, Events, Storage browser, and Storage Mover. Under Data storage, there are links for Containers, File shares, Queues, and Tables. Security + networking includes Networking, Azure CDN, Access keys, Shared access signature, Encryption, and Microsoft Defender for Cloud. Data management links Redundancy and Data protection. The main content area displays the storage account's properties, including its resource group (shurut1\_group), location (Central India), primary/secondary location (Primary: Central India; Secondary: South India), subscription (Azure for Students), subscription ID (70c27259-bc0e-43ff-ba2d-4010e5195695), disk state (Primary: Available, Secondary: Available), and tags. The Properties tab is selected, showing Blob service and File service configurations. The Blob service section includes Hierarchical namespace (Disabled), Default access tier (Hot), Blob public access (Enabled), Blob soft delete (Enabled (7 days)), Container soft delete (Enabled (7 days)), Versioning (Disabled), Change feed (Disabled), NFS v3 (Disabled), and Allow cross-tenant replication (Enabled). The File service section includes Large file share (Disabled), Active Directory (Not configured), Default share-level permissions (Disabled), Soft delete (Enabled (7 days)), and Share capacity (5 TiB). On the right side, there are sections for Security (Require secure transfer for REST API operations, Storage account key access, Minimum TLS version, Infrastructure encryption) and Networking (Allow access from, Number of private endpoint connections, Network routing, Access for trusted Microsoft services, Endpoint type). The top navigation bar includes links for Home, Overview, Upload, Open in Explorer, Delete, Move, Refresh, Open in mobile, CLI / PS, and Feedback.

Step 7: Go to the dashboard and then click on upload.

Step 8: Click on the upload button and The following options will be shown to you.

31011120122\_Cloud computing | Cloud Computing Practical Journal | Uploaded blob - Microsoft Azure | portal.azure.com

Microsoft Azure | Search resources, services, and docs (G+)

Home > st12\_1681882304679 | Overview >

st12 Storage account

Upload Open in Explorer Delete Move Refresh Open in mobile CLI / PS Feedback

Search

Overview

Activity log Tags Diagnose and solve problems Access Control (IAM) Data migration Events Storage browser Storage Mover

Data storage

Containers File shares Queues Tables

Security + networking

Networking Azure CDN Access keys Shared access signature Encryption Microsoft Defender for Cloud

Data management

Redundancy Data protection

Essentials

Resource group: ubuntu1\_group Location: Central India Primary/Secondary Location: Primary: Central India, Secondary: South India Subscription: Azure for Students Subscription ID: 70c27259-bc0e-43ff-ba2d-4010e5195683 Disk state: Primary: Available, Secondary: Available Tags (edit): Click here to add tags

Performance: Standard Replication: Read-access geo-redundant Account kind: StorageV2 (general purpose) Provisioning state: Succeeded Created: 4/19/2023, 11:01:48 AM

Properties Monitoring Capabilities (7) Recommendations (0) Tutorials Tools + SDKs

Blob service

Hierarchical namespace	Disabled
Default access tier	Hot
Blob public access	Enabled
Blob soft delete	Enabled (7 days)
Container soft delete	Enabled (7 days)
Versioning	Disabled
Change feed	Disabled
NFS v3	Disabled
Allow cross-tenant replication	Enabled

File service

Large file share	Disabled
Active Directory	Not configured
Default share-level permissions	Disabled
Soft delete	Enabled (7 days)
Share capacity	5 TB

Security

Require secure transfer for REST API operations Storage account key access Minimum TLS version Infrastructure encryption

Networking

Allow access from Number of private endpoint connections Network routing Access for trusted Microsoft services Endpoint type

Upload

Select an existing file Create new file Overwrite file Advanced file settings

Step 9: Enter the file which has to be uploaded and then create a container inside which you want to store that file

The screenshot shows the Microsoft Azure Storage Account Overview page for a storage account named 'st12'. The left sidebar lists various services: Activity log, Tags, Diagnose and solve problems, Access Control (IAM), Data migration, Events, Storage browser, and Storage Mover. Under Data storage, it lists Containers, File shares, Queues, and Tables. Security + networking includes Networking, Azure CDN, Access keys, Shared access signature, Encryption, and Microsoft Defender for Cloud. Data management includes Redundancy and Data protection.

**Essentials**

Setting	Value
Resource group	ubuntu1_group
Location	Central India
Primary/Secondary Location	Primary: Central India, Secondary: South India
Subscription (move)	Azure for Students
Subscription ID	70c27259-bc0e-43ff-ba2d-4010e5195695
Disk state	Primary: Available, Secondary: Available
Tags (edit)	Click here to add tags

**Blob service**

Setting	Value
Hierarchical namespace	Disabled
Default access tier	Hot
Blob public access	Enabled
Blob soft delete	Enabled (7 days)
Container soft delete	Enabled (7 days)
Versioning	Disabled
Change feed	Disabled
NFS v3	Disabled
Allow cross-tenant replication	Enabled

**File service**

Setting	Value
Large file share	Disabled
Active Directory	Not configured
Default share-level permissions	Disabled
Soft delete	Enabled (7 days)
Share capacity	5 Tb

**Security**

- Require secure transfer for REST API operations
- Storage account key access
- Minimum TLS version
- Infrastructure encryption

**Networking**

- Allow access from
- Number of private endpoint connections
- Network routing
- Access for trusted Microsoft services
- Endpoint type

**Upload**

Select an existing storage account  
abc  
Create new  
Overwrite  
Advanced

Step 10: Click on upload button and your file will be uploaded which can be seen on the storage account option from the left dashboard services.

Step 11: Click on Storage accounts > Containers > cont > You can see all your uploaded files here

st12 | Containers

Name	Last modified	Public access level
Logs	4/19/2023, 11:02:16 AM	Private
abc	4/19/2023, 11:09:17 AM	Private

# Practical 5

## Aim: SQL Database using Azure

### Steps

1. Login to Azure Portal
2. Select SQL Databases from the Resources section



Virtual  
machines



SQL databases



Quickstart  
Center

## 1. Create SQL database”

Home >

### SQL databases

somaiya.edu (somaiya.edu)

+ Create    Reservations    Manage view    Refresh    Export to CSV    Open query    Assign tags    Delete

Filter for any field...    Subscription equals all    Resource group equals all    Location equals all    Add filter

Showing 0 to 0 of 0 records.

Name ↑    Server ↑↓    Replica type ↑↓    Pricing tier ↑↓    Location ↑↓



No SQL databases to display

Try changing or clearing your filters.

[Create SQL database](#)

[Learn more](#)

4. Select the Resource group and give a database name.

Microsoft Azure

Search resources, services, and docs (G+ /)

Home > SQL databases >

## Create SQL Database

Microsoft

Basics Networking Security Additional settings Tags Review + create

Create a SQL database with your preferred configurations. Complete the Basics tab then go to Review + Create to provision with smart defaults, or visit each tab to customize. [Learn more](#)

**Did you know?** Did you know that new users in Azure can create a free Azure SQL Database and use it for 12 months using Azure free account? [Learn more](#)

**Project details**

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription \*  Resource group \*  [Create new](#)

**Database details**

Enter required settings for this database, including picking a logical server and configuring the compute and storage resources.

Database name \*  Server \*  [Create new](#)

**Cost summary**

**General Purpose (GP\_Gen5\_2)**

Cost per vCore (in INR)	15330.38
vCores selected	x 2

Cost per GB (in INR) 10.30  
Max storage selected (in GB) x 41.6  
ESTIMATED COST / MONTH 31089.06 INR

Home > SQL databases >

## Create SQL Database

Microsoft

Want to use SQL elastic pool?  Yes  No

Workload environment  Development  Production

**Default settings provided for Production workloads. Configurations can be modified as needed.**

Compute + storage \*  **General Purpose**  
Standard-series (Gen5), 2 vCores, 32 GB storage  
[Configure database](#)

Backup storage redundancy   
Choose how your PITR and LTR backups are replicated. Geo restore or ability to recover from regional outage is only available when geo-redundant storage is selected.

Backup storage redundancy  Locally-redundant backup storage  
 Zone-redundant backup storage  
 Geo-redundant backup storage

**Selected value for backup storage redundancy is Geo-redundant backup storage. Database backups will be geo-replicated which might impact your data residency requirements. [Learn more](#)**

5.Create a new Server and give it a name.

[Home](#) > [SQL databases](#) > [Create SQL Database](#) >

## Create SQL Database Server

Microsoft

### Server details

Enter required settings for this server, including providing a name and location. This server will be created in the same subscription and resource group as your database.

Server name \*

halosugar



.database.windows.net

Location \*

(Asia Pacific) Central India



### Authentication

Select your preferred authentication methods for accessing this server. Create a server admin login and password to access your server with SQL authentication, select only Azure AD authentication [Learn more](#) using an existing Azure AD user, group, or application as Azure AD admin [Learn more](#), or select both SQL and Azure AD authentication.

Authentication method

- Use only Azure Active Directory (Azure AD) authentication
- Use both SQL and Azure AD authentication
- Use SQL authentication

Set Azure AD admin

deep15@somaiya.edu

Admin Object/App ID: e1a262d8-c459-4a1a-a1d4-b92e4b8f75c0

[Set admin](#)

Server admin login \*

HaloSugar



Password \*

\*\*\*\*\*



Confirm password \*

\*\*\*\*\*

[OK](#)

6. Leave all other options default and click Review and Create.

## Create SQL Database

Microsoft

[Basics](#) [Networking](#) [Security](#) [Additional settings](#) [Tags](#) [Review + create](#)

Configure network access and connectivity for your server. The configuration selected below will apply to the selected server 'halosugar' and all databases it manages. [Learn more](#)

### Network connectivity

Choose an option for configuring connectivity to your server via public endpoint or private endpoint. Choosing no access creates with defaults and you can configure connection method after server creation. [Learn more](#)

Connectivity method \*

- No access
- Public endpoint
- Private endpoint

### Connection policy

Configure how clients communicate with your SQL database server. [Learn more](#)

Connection policy

- Default - Uses Redirect policy for all client connections originating inside of Azure and Proxy for all client connections originating outside Azure
- Proxy - All connections are proxied via the Azure SQL Database gateways
- Redirect - Clients establish connections directly to the node hosting the database

	Cost summary
<b>General Purpose (GP_Gen5_2)</b>	
Cost per vCore (in INR)	15330.38
vCores selected	x 2
Cost per GB (in INR)	10.30
Max storage selected (in GB)	x 41.6
ESTIMATED COST / MONTH	31089.06 INR

### Encrypted connections

[Review + create](#)
[< Previous](#)
[Next : Security >](#)

## Create SQL Database

Microsoft

[Basics](#) [Networking](#) [Security](#) [Additional settings](#) [Tags](#) [Review + create](#)

### Microsoft Defender for SQL

Protect your data using Microsoft Defender for SQL, a unified security package including vulnerability assessment and advanced threat protection for your server. [Learn more](#)

Get started with a 30 day free trial period, and then 1178.0175 INR/server/month.

Enable Microsoft Defender for SQL \*   Start free trial  
 Not now

### Ledger

Ledger cryptographically verifies the integrity of your data and detects any tampering that might have occurred. [Learn more](#)

Ledger Not configured [Configure ledger](#)

### Identity

Use system-assigned and user-assigned managed identities to enable central access management between this database and other Azure resources. [Learn more](#)

Identity

Not enabled [Configure identities](#)

### Transparent data encryption

Transparent data encryption (TDE) encrypts your databases, backups, and logs at rest without any changes to your

	Cost summary
<b>General Purpose (GP_Gen5_2)</b>	
Cost per vCore (in INR)	15330.38
vCores selected	x 2
Cost per GB (in INR)	10.30
Max storage selected (in GB)	x 41.6
ESTIMATED COST / MONTH	31089.06 INR

[Review + create](#)
[< Previous](#)
[Next : Additional settings >](#)

## Create SQL Database

Microsoft

[Basics](#) [Networking](#) [Security](#) [Additional settings](#) [Tags](#) [Review + create](#)

Customize additional configuration parameters including collation &amp; sample data.

**Data source**

Start with a blank database, restore from a backup or select sample data to populate your new database.

Use existing data \*

[None](#) [Backup](#) [Sample](#)**Database collation**Database collation defines the rules that sort and compare data, and cannot be changed after database creation. The default database collation is SQL\_Latin1\_General\_CI\_AS. [Learn more](#)

Collation \*

SQL\_Latin1\_General\_CI\_AS

[Find a collation](#)**Maintenance window**Select a preferred maintenance window from the drop down. Please note, during a maintenance event, Azure SQL Database are fully available and accessible but some of the maintenance updates require a failover as Azure takes SQL DB instances offline for a short time to apply the maintenance updates. If the database is part of elastic pool, the maintenance configuration of elastic pool will be applied. [Learn more](#)

Maintenance window

System default (5pm to 8am)

[Review + create](#)[< Previous](#)[Next : Tags >](#)

## Create SQL Database

Microsoft

[Basics](#) [Networking](#) [Security](#) [Additional settings](#) [Tags](#) [Review + create](#)Tags are name/value pairs that enable you to categorize and view consolidated billing by applying the same tag to multiple resources and resource groups. [Learn more](#)

Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.

Name

Value

Resource

2 selected

[Review + create](#)[< Previous](#)[Next : Review + create >](#)

## Create SQL Database

...

Microsoft

[Basics](#) [Networking](#) [Security](#) [Additional settings](#) [Tags](#) [Review + create](#)

### Product details

SQL database  
by Microsoft  
[Terms of use](#) | [Privacy policy](#)

#### Estimated cost per month

31089.06 INR

### Terms

By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (b) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), with the same billing frequency as my Azure subscription; and (c) agree that Microsoft may share my contact, usage and transactional information with the provider(s) of the offering(s) for support, billing and other transactional activities. Microsoft does not provide rights for third-party offerings. For additional details see [Azure Marketplace Terms](#).

### Basics

Subscription	Azure for Students
Resource group	SK_Somaiya
Region	Central India
Database name	HaloSugar
Server	(new) halosugar
Authentication method	SQL and Azure Active Directory authentication
Server admin login	HaloSugar
Azure AD Admin	deep15@somaiya.edu
Compute + storage	General Purpose: Standard-series (Gen5), 2 vCores, 32 GB storage
Backup storage redundancy	Geo-redundant backup storage

1. click on Getting started on the left pane and select “configure” (Networking)

**halosugar | Networking**

**Public access**

**Public network access**

Public Endpoints allow access to this resource through the internet using a public IP address. An application or resource that is granted access with the following network rules still requires proper authentication.

Disable

Selected networks

Connections from the IP addresses configured in the Firewall rules section below will have access to this database. By default, no public IP addresses are allowed.

**Virtual networks**

Allow virtual networks to connect to your resource using service endpoints. [Learn more](#)

+ Add a virtual network rule

Rule	Virtual network	Subnet	Address range	Endpoint status	Resource group	Subscription	State
No virtual network rules found.							

**Firewall rules**

Allow certain public internet IP addresses to access your resource. [Learn more](#)

+ Add your client IPv4 address (103.16.34.169) + Add a firewall rule

Rule name	Start IPv4 address	End IPv4 address
ClientIPAddress_2023-2-22_21-38-17	103.16.34.169	103.16.34.169

**Save** **Discard**

8. Select “Selected networks” option and click “Add your client IPv4 address” under Firewall rules section. Also check the “Allow Azure services and resources to access this server” option

+ Add your client IPv4 address (103.16.34.169) + Add a firewall rule

Rule name	Start IPv4 address	End IPv4 address
ClientIPAddress_2023-2-22_21-38-17	103.16.34.169	103.16.34.169

**Exceptions**

Allow Azure services and resources to access this server [\(i\)](#)

9. Go to Microsoft SQL Server Management Studio and enter the following credentials.



Connect to Server



# SQL Server

Server type:

Database Engine



Server name:

halosugar.database.windows.net



Authentication:

SQL Server Authentication



Login:

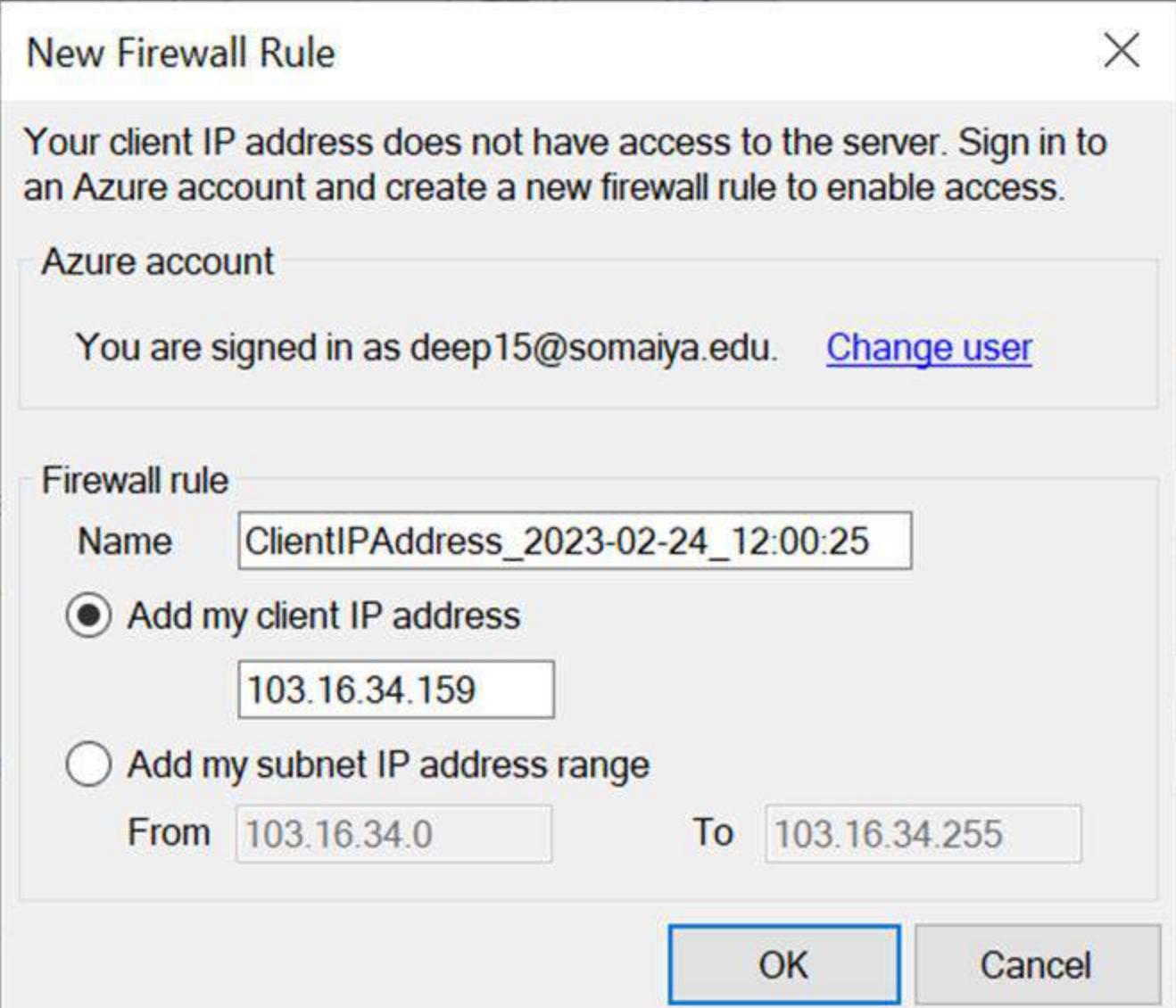
halosugar



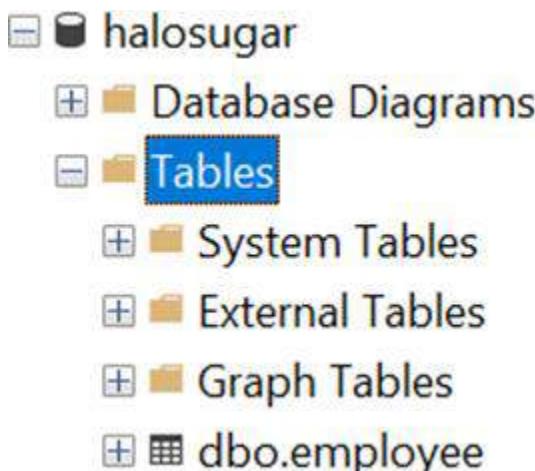
Password:

\*\*\*\*\*

 Remember passwordConnectCancelHelpOptions >>



10. After successful login, create a new table and insert data into it.



The screenshot shows two separate query windows in SQL Server Management Studio.

The top window, titled "SQLQuery1.sql - hal...ar (halosugar (69))\*

```
insert into employee values (1, 'HaloSugar', 900000);
insert into employee values (2, 'HaloPepper', 15000);
```

The bottom window, also titled "SQLQuery1.sql - hal...ar (halosugar (69))\*

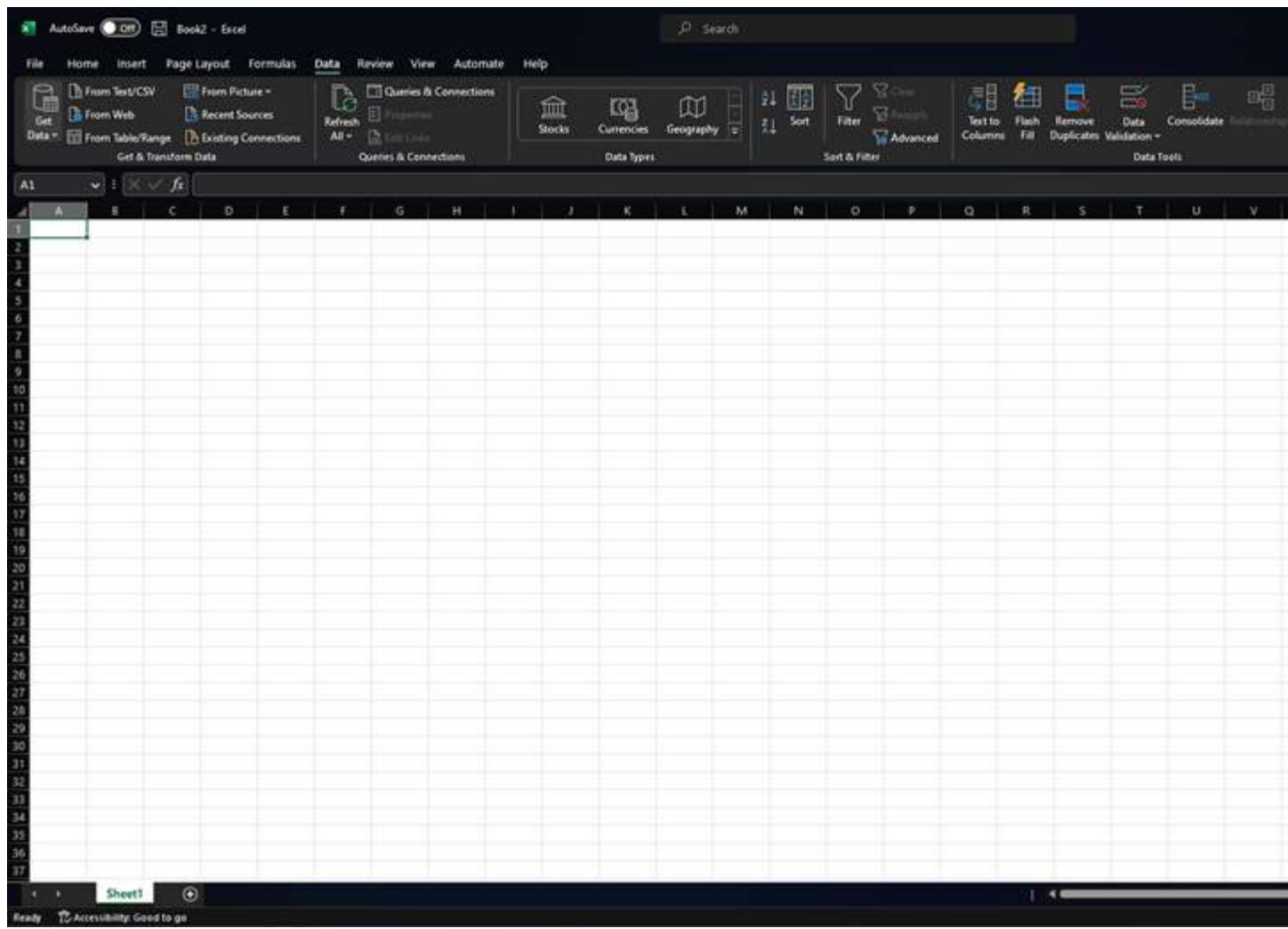
```
select * from employee;
```

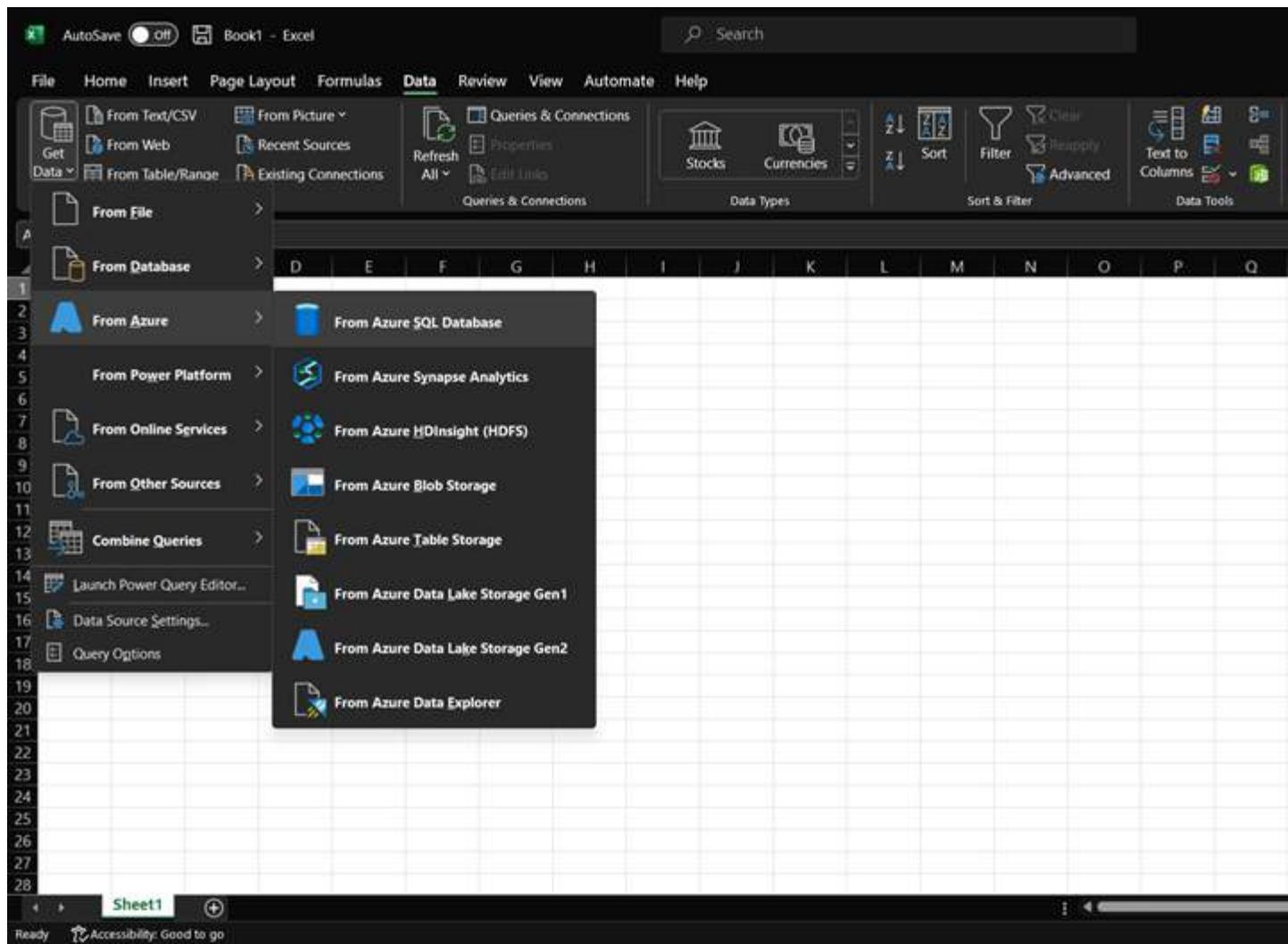
The results pane displays the following data:

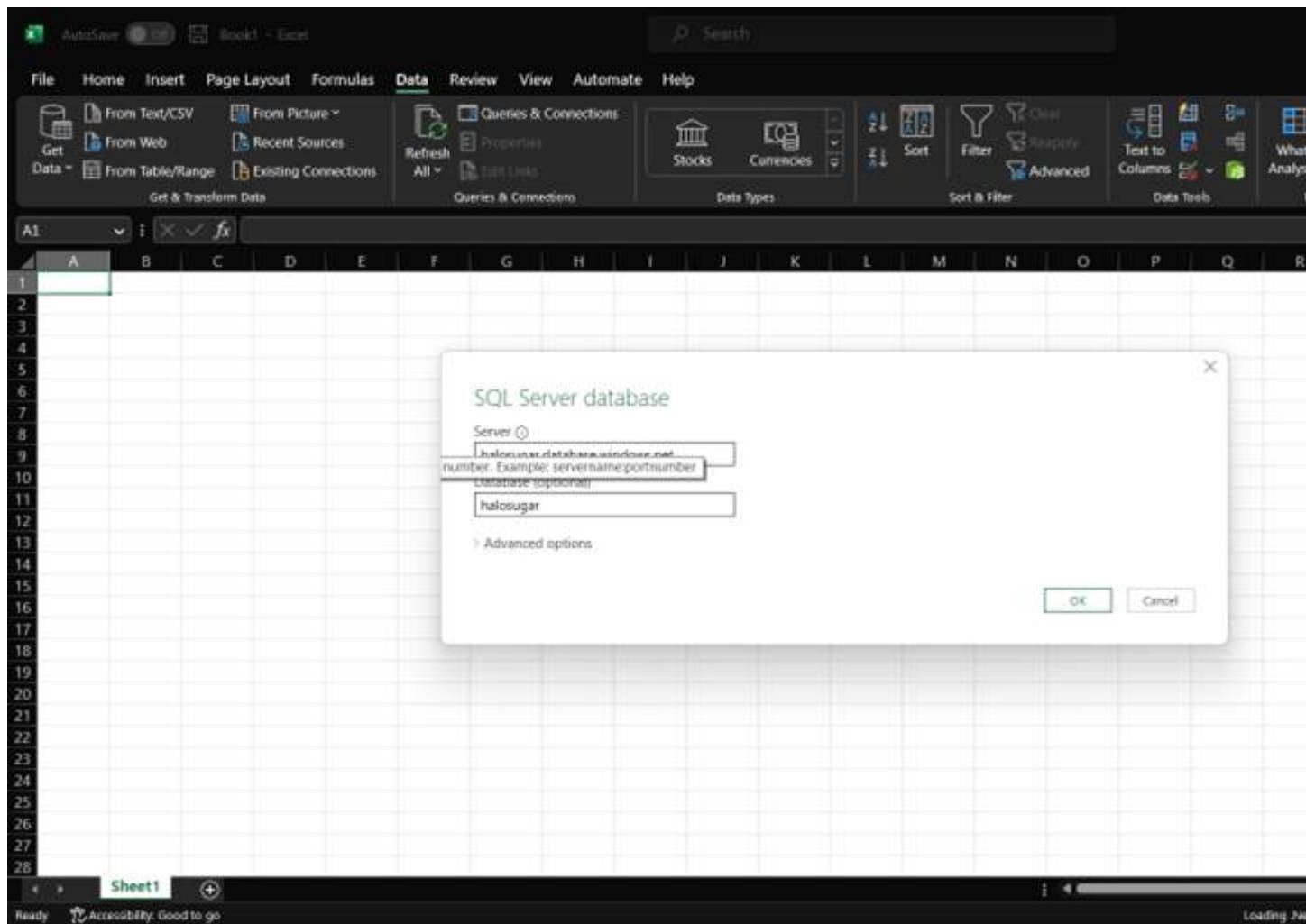
	id	name	salary
1	1	HaloSugar	900000.00
2	2	HaloPepper	15000.00

A status bar at the bottom indicates: "Query executed successfully." and "halosugar.database.windows.net".

11. Open excel and create a new blank workbook.
12. Go to Data Section and select “Get Data -> From Azure -> From Azure SQL Database”
13. Enter the valid credentials and click next.







SQL Server database

Windows

Database

Microsoft account

halosugar.database.windows.net;ha

User name

halosugar

Password

••••••••••|

Select which level to apply these settings to

halosugar.database.windows.net

Back

## Navigator

Select multiple items

Display Options ▾ 

◀  halosugar.database.windows.net [1]

◀  halosugar [1] 

 sys.database\_firewall\_rules

No item selected for

Select Related Tables

Load

File   Home   Insert   Page Layout   Formulas   Data

Table Name: **employee**

Summarize with PivotTable   Remove Duplicates   Convert to Range

Insert Slicer

Resize Table   Properties   Tools

A1

	A	B	C	D	E	F
1	id	name	salary			
2	1	HaloSugar	900000			
3	2	HaloPepper	15000			
4						
5						

### Practical No. 6

Aim: Power BI (Data Analytics)

Step 1: Open Microsoft Azure and Login into your account. Click on ‘Create a resource’ on home page.

The screenshot shows the Microsoft Azure portal homepage. At the top, there's a navigation bar with a search bar and several icons. Below it, the main content area is divided into sections:

- Azure services**: A grid of icons for various services: Create a resource (plus sign), Cost Management (dollar sign), All resources (grid), Virtual machines (monitor), Resource groups (cube), Subscriptions (key), Power BI Embedded (bar chart), and More services (arrow).
- Resources**: A table showing a single recent resource:

Name	Type
[User icon] pankajjj_group	Resource group

With "Recent" selected under "Recent" and "Favorite". There's also a "See all" link.
- Navigate**: A section with a URL bar containing <https://portal.azure.com/#blade/HubsExtension/BrowseReso...> and a taskbar with various icons.

Step 2: Then, click on ‘Analytics’ in Categories.

Step 3: From Analysis Services click on Create.

[portal.azure.com/#create/hub](https://portal.azure.com/#create/hub)

**Create a resource**

**Analytics**

Azure Synapse Analytics  
[Create](#) | [Docs](#) | [MS Learn](#)

MongoDB Atlas  
[Set up + sub](#)

Blockchain

Azure Machine Learning  
[Create](#) | [Docs](#)

Elastic Cloud

Compute

Event Hubs  
[Create](#) | [Docs](#) | [MS Learn](#)

Azure Cost

Containers

Azure Databricks  
[Create](#) | [Docs](#) | [MS Learn](#)

Confluent

Databases

Data Lake Storage Gen1  
[Create](#) | [Docs](#) | [MS Learn](#)

Azure SQL

Developer Tools

Event Grid System Topic  
[Create](#) | [Docs](#)

Data Science

DevOps

Azure Data Explorer  
[Create](#) | [Docs](#) | [MS Learn](#)

Data Science

Identity

Microsoft Purview  
[Create](#) | [Learn more](#) | [MS Learn](#)

azure\_sen\_r

Integration

Analysis Services  
[Create](#) | [Docs](#)

strim

Internet of Things

Networking

Storage

Web

16 Cores  
[Set up + sub](#)

https://portal.azure.com/#

Step 4: Fill in all the details in Analysis Services. Create new resource group.

Step 5: Select (B2 80 Query Processing Unit) in Pricing Tier. Click on create.

Analysis Services

Server name \*

hello

Subscription \*

Azure for Students

Resource group \*

pankajjj\_group

Create new

Location \*

Australia East

Pricing tier (View full pricing details) \*

B2 (80 Query Processing Units)

Administrator (Select) \*

p.pandey@somaiya.edu

Backup Storage Settings

Backup Storage: Not configured

Storage key expiration

Never

Create Automation options

Step 6: Wait till the deployment is complete.

Step 7: Click on 'Go to Resource'.

3 WhatsApp Microsoft AnalysisServices - Mic... +

← → C portal.azure.com/#view/HubsExtension/DeploymentDetailsBlade/~/overview/id/... G

Avengers (2018) Iss... EZ FilmyZilla Bollywood... Home Infosys Sprin... W3Schools Online... Thor (2020) Iss...

Microsoft Azure Search resources, services, and docs (G+/-)

Home >

## Microsoft.AnalysisServices | Overview

Deployment

Search Delete Cancel Redeploy Download Refresh

Overview Inputs Outputs Template

✓ Your deployment is complete

Deployment name: Microsoft.AnalysisServ... Start time: 4/19/2023, 8:35:55 PM  
Subscription: Azure for Students Correlation ID: 8b4f53ad-d48b-48ff-b33b-efe0317b  
Resource group: pankajj\_group

Deployment details Next steps

Go to resource

Windows Search File Explorer Microsoft Edge Microsoft Word 34

Step 8: Click on ‘New Model’.

The screenshot shows the Microsoft Azure Analysis Services blade for a resource named 'hello'. The left sidebar contains navigation links: Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Scale (with Pricing Tier and Replicas), Models (with Manage selected), Settings (with Quick Start, Analysis Services Admins, On-Premises Data Gateway, Backups, Connection Strings, Firewall, and Properties). The main content area is titled 'Models on Analysis Services Server' and shows a table with columns: Name, Compatibility, Date Modified, and Last Synced Time. A message 'No results' is displayed. At the top right of the main content area, there is a blue button labeled '+ New model'.

Step 9: Click on Add.

Microsoft Azure

Search resources, services, and docs (G+/)

Home > Microsoft.AnalysisServices | Overview > hello

hello | Manage

Analysis Services

DB

Search

New model

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Scale

Pricing Tier (Scale QPUs)

Replicas

Models

Manage

Settings

Quick Start

Analysis Services Admins

On-Premises Data Gateway

Backups

Connection Strings

Firewall

Properties

Models on Analysis Services Server

Name	Compatibility	Date Modified	Last Synced Time
adventureworks	1200	4/19/2023, 8:40 PM	

Step 10: Click on ‘Context Menu’ in Models on Analysis Services Server and click on ‘Open in Excel’ and ‘Open in Power BI’ and download it.

The screenshot shows the Microsoft Azure Analysis Services management interface for a resource named 'hello'. The left sidebar contains navigation links: Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Scale (with Pricing Tier and Replicas options), Models (with Manage selected), Settings, Quick Start, and Analysis Services Admins. The main content area displays 'Models on Analysis Services Server' with a table showing one model: 'adventureworks' (Compatibility: 1200, Date Modified: 4/19/2023, 8:40 PM). A search bar at the top and a 'New model' button are also visible.

Name	Compatibility	Date Modified	Last Synced Time
adventureworks	1200	4/19/2023, 8:40 PM	

## Practical No. 7

**Aim:** Develop App on Microsoft Azure

**Step :**

1. Login to Azure Portal.
2. Click On Create a Resource.

Home - Microsoft Azure WhatsApp Windows !

← → C portal.azure.com/#home

Microsoft Azure Search resources, services, and docs (G+/)

## Azure services



Create a  
resource



Virtual  
machines



Storage  
accounts

SQ

## Resources

Recent      Favorite

### Name

pratima1212

exam\_group

[See all](#)

## Navigate



Subscriptions



Resource

## Tools



Microsoft Learn

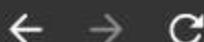
Learn Azure with free online



Azure

Monitor

**Step 3:** Click on web app



Home &gt;

## Create a resource

[Get Started](#)[Recently created](#)

### Categories

[AI + Machine Learning](#)[Analytics](#)[Blockchain](#)[Compute](#)[Containers](#)[Databases](#)[Developer Tools](#)[DevOps](#)[Identity](#)[Integration](#)[Internet of Things](#)[IT & Management Tools](#)[Media](#)[Migration](#)[Mixed Reality](#)[Search services and marketplace](#)[Popular Azure services](#) See more in All services[Virtual machine](#)[Create | Docs | MS Learn](#)[Web App](#)[Create | Docs | MS Learn](#)[SQL Database](#)[Create | Docs | MS Learn](#)[Function App](#)[Create | Docs](#)[Key Vault](#)[Create | Docs | MS Learn](#)[Data Factory](#)[Create | Docs | MS Learn](#)[Template deployment \(deploy using custo...](#)[Create | Docs | MS Learn](#)[Logic App](#)[Create | Docs | MS Learn](#)

**Step 4:** Fill in details such as Resource Group, Name and Runtime stack as :ASP.NETV4.8

[Home](#) > [Create a resource](#) >

## Create Web App

...

[Basics](#)   [Deployment](#)   [Networking](#)   [Monitoring](#)   [Tags](#)   [Review + create](#)

App Service Web Apps lets you quickly build, deploy, and scale enterprise-grade web, mobile, and any platform. Meet rigorous performance, scalability, security and compliance requirements while platform to perform infrastructure maintenance. [Learn more](#)

### Project Details

Select a subscription to manage deployed resources and costs. Use resource groups like folders all your resources.

Subscription \* ⓘ

Azure for Students



Resource Group \* ⓘ

exam\_group

[Create new](#)

### Instance Details

Need a database? [Try the new Web + Database experience.](#)

Name \*

Exam123

Publish \*

 Code  Docker Container  Static Web

Runtime stack \*

ASP.NET V4.8

Operating System \*

 Linux  Windows

Region \*

East US

[Review + create](#)[< Previous](#)[Next : Deployment >](#)

**Step 5:** click on Review+create

[Home](#) > [Create a resource](#) >

## Create Web App

...

Runtime stack \*

ASP.NET V4.8

Operating System \*

 Linux  Windows

Region \*

East US

Not finding your App Service Plan? Try a different App Service Environment.

### Pricing plans

App Service plan pricing tier determines the location, features, cost and compute resources associated with your app.

[Learn more ↗](#)

Windows Plan (East US) \* ⓘ

ASP-examgroup-8451 (F1)

[Create new](#)

Pricing plan

**Free F1** (Shared infrastructure)

### Zone redundancy

An App Service plan can be deployed as a zone redundant service in the regions that support it. This is a time only decision. You can't make an App Service plan zone redundant after it has been deployed.

Zone redundancy

 **Enabled:** Your App Service plan and the apps it hosts are deployed across multiple zones. This makes your app highly redundant. The minimum App Service plan instance count is 2. **Disabled:** Your App Service Plan and the apps it hosts are deployed in a single zone. This makes your app less redundant. The minimum App Service plan instance count is 1.

**Step 6:** click on create

Create Web App - Microsoft Azure WhatsApp Windows !

← → C portal.azure.com/#create/Microsoft.WebSite

Microsoft Azure Search resources, services, and docs (G+/)

Home > Create a resource >

## Create Web App ...

Basics Deployment Networking Monitoring Tags **Review + create**

Summary

 **Web App**  
by Microsoft

### Details

Subscription	70c27259-bc0e-43ff-ba2d-4010e5195695
Resource Group	exam_group
Name	Examm123
Publish	Code
Runtime stack	ASP.NET V4.8

### App Service Plan

Name	ASP-examgroup-8451
Operating System	Windows
Region	East US
SKU	Free
ACU	Shared infrastructure
Memory	1 GB memory

**Create** < Previous Next > Download a template for automation

**Step 7:** After completing deployment click on ‘Go to resource’

Microsoft.Web-WebApp-Portal-1 WhatsApp Windows !

← → C portal.azure.com/#view/HubsExtension/DeploymentDetailsBlade/~/ov

## Microsoft Azure

Search resources, services, and docs (G+/)

Home >

# Microsoft.Web-WebApp-Portal-189f741f-b38f | Deployment

Search Delete Cancel Redeploy

Overview Inputs Outputs Template

Your deployment is complete

Deployment name: Microsoft.Web-WebApp-Portal-189f741f-b38f  
Subscription: Azure for Students  
Resource group: exam\_group

Deployment details Next steps

Manage deployments for your app. Recommend Protect your app with authentication. Recommend

Go to resource

Give feedback

Tell us about your experience with deployment

**Step 8:** Then the Web app is created

Examm123 - Microsoft Azure WhatsApp Windows !

← → C portal.azure.com/#@somaia.edu/resource/subscriptions/70c27259-b0

## Microsoft Azure

Search resources, services, and docs (G+/)

Home > Microsoft.Web-WebApp-Portal-189f741f-b38f | Overview >

### Examm123

Web App

Search

Browse Stop Swap Restart

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Microsoft Defender for Cloud

Events (preview)

Deployment

Deployment slots

Deployment Center

Settings

Configuration

Authentication

Application Insights

Identity

Backups

Custom domains

Essentials

Resource group ([move](#)) : exam\_group

Status : Running

Location ([move](#)) : East US

Subscription ([move](#)) : Azure for Students

Subscription ID : 70c27259-bc0e-43ff-ba2

Tags ([edit](#)) : Click here to add tags

Properties Monitoring Logs Capabi

Web app

Name

Publishing model

Domains

Default domain

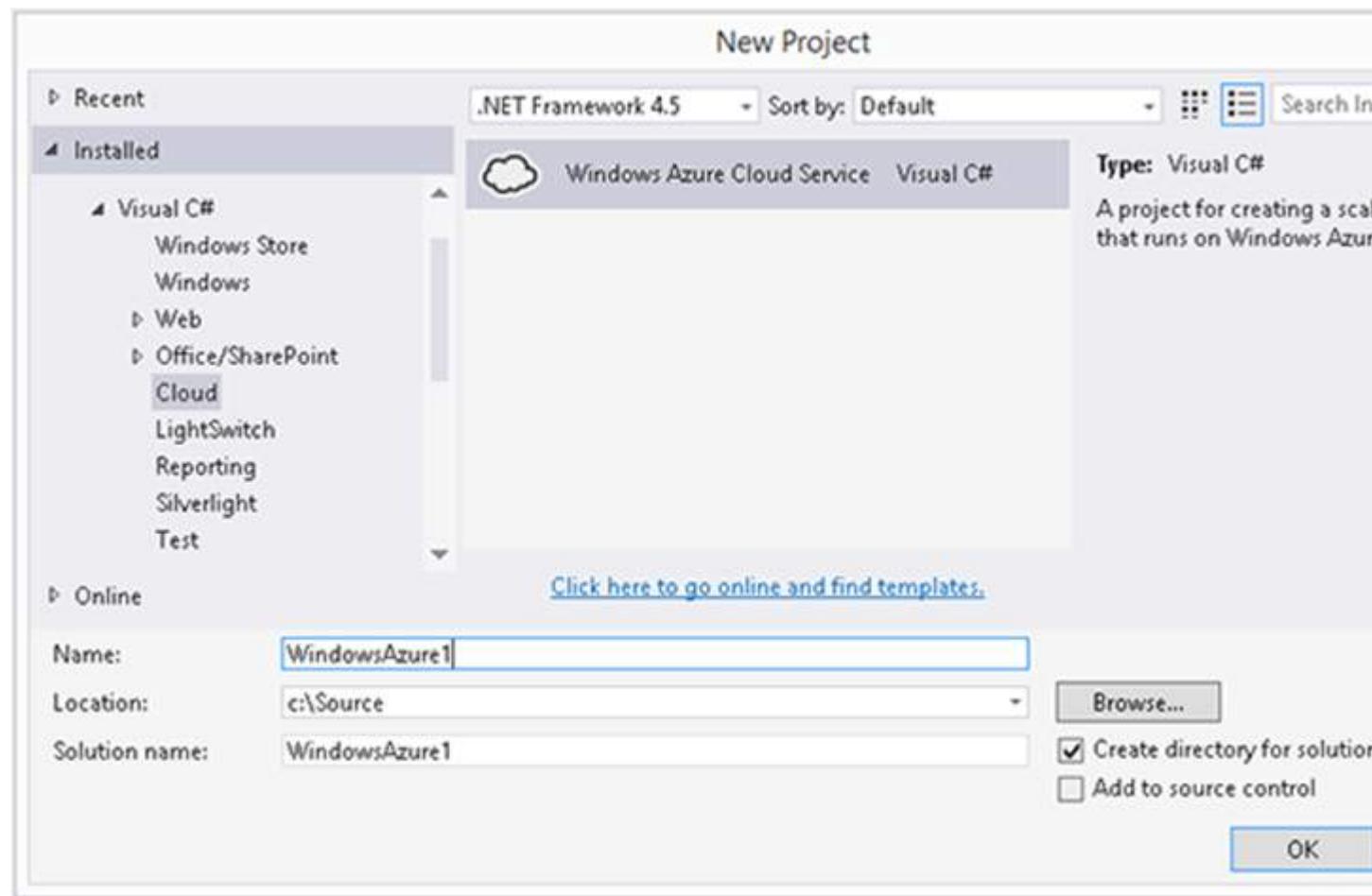
Custom domain

Hosting

## Practical No. 8

**Aim:** Developing application for Windows Azure.

**Step 1:** Create new project in visual studio and install the windows azure cloud service inside .net framework.



**Step 2:** After the installation showing the option of many packages select asp.net and start project

## New Windows Azure Cloud Service

### .NET Framework 4.5 roles:

- Visual Basic**
- Visual C#**
- ASP.NET Web Role**  
Service with a web user interface
- WCF Service Web Role**  
Web role for WCF services
- Worker Role**  
Background processing service
- Cache Worker Role**  
Background processing service that hosts a ca...
- Worker Role with Service Bus Queue**  
Worker role processing messages from a Servi...
- Visual F#**

### Windows Azure Cloud Service solution:



OK

## New ASP.NET Project - MyWebRole

Select a template:



Empty



Web Forms



MVC



Web API



Single Page  
Application



Facebook

A project template for creating ASP.NET Web applications. ASP.NET Web Forms lets you build websites using a familiar drag-and-drop, event model. A design surface and hundreds of controls and components let you rapidly build sophisticated UI-driven sites with data access.

[Learn more](#)

Add folders and core references for:

Web Forms    MVC    Web API

Add unit tests

Test project name:

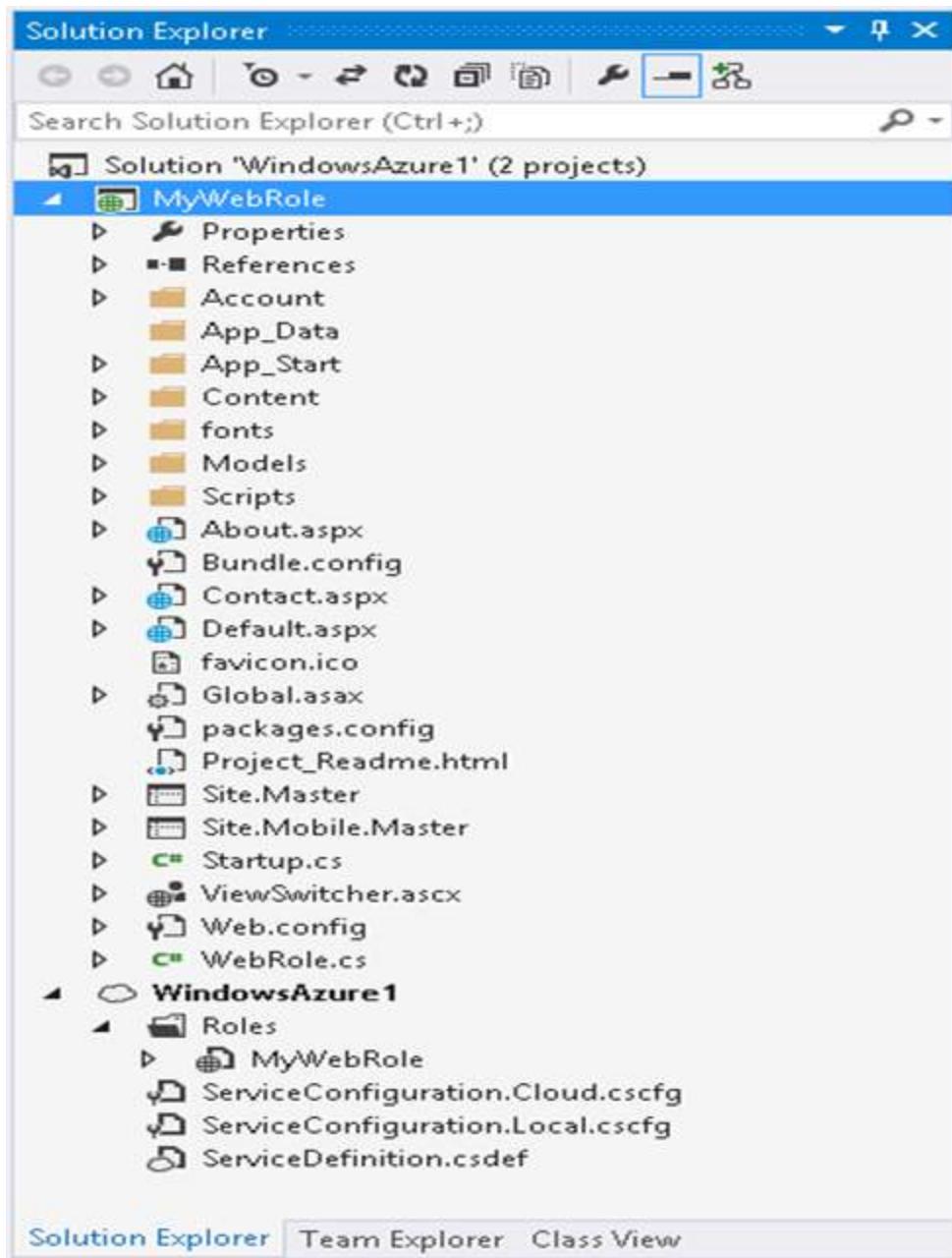
MyWebRole.Tests

[Change Authentication](#)

Authentication: **Individual User Accounts**

OK

**Step 4:** Creating Microsoft azure project



**Step 5:** Add button on form and write code for particular button.

Default.aspx

Application name

ScriptManager - Unnamed3

MainContent (Custom)

asp:button#Button1

Button ASP.NET

ASP.NET is a free web framework for building great Web sites and Web applications using HTML.

Learn more »

## Getting started

ASP.NET Web Forms lets you build dynamic websites using a familiar drag-and-drop, event-driven model. A design let you rapidly build sophisticated, powerful UI-driven sites with data access.

Learn more »

**Code:**

```
using Microsoft.WindowsAzure;  
  
using Microsoft.WindowsAzure.Storage;  
  
using Microsoft.WindowsAzure.ServiceRuntime;  
  
  
protected void Button1_Click(object sender, EventArgs e)  
{  
    var storageAccount =  
        CloudStorageAccount.Parse(RoleEnvironment.GetConfigurationSettingValue("MyConnectionString"));  
  
    var blobClient = storageAccount.CreateCloudBlobClient();  
  
    var blobContainer =  
        blobClient.GetContainerReference("quicklap");
```

```
blobContainer.CreateIfNotExists();  
  
var blob =  
blobContainer.GetBlockBlobReference(Guid.NewGuid().ToString()  
());  
  
byte[] data = new byte[] { 0, 1, 2, 3, 4, 5 };  
  
blob.UploadFromByteArray(data, 0, data.Length);  
  
System.Diagnostics.Trace.WriteLine("Added blob to Windows  
Azure Storage");  
  
}  
  
DiagnosticMonitorConfiguration diagObj =  
DiagnosticMonitor.GetDefaultInitialConfiguration();  
  
diagObj.Logs.ScheduledTransferPeriod = TimeSpan.FromMinutes(1);  
  
DiagnosticMonitor.Start("Microsoft.WindowsAzure.Plugins.Diagnostics.ConnectionString", diagObj);
```

## Step 6: Building and Debugging the Windows Azure Application

Solution Explorer

Search Solution Explorer (Ctrl + F)

- Project\_Readme.html
- Site.Master
- Site.Mobile.Master
- Startup.cs
- ViewSwitcher.aspx
- Web.config
- WebRole.cs

Window

- Build
- Rebuild
- Clean
- Package...
- Publish...
- Manage Configurations...
- Configure Remote Desktop...
- Scope to This
- New Solution Explorer View
- Build Dependencies
- New Web Role Project...
- New Worker Role Project...
- Manage NuGet Packages...
- Set as StartUp Project
- Debug
- Source Control
- Cut (Ctrl+X)
- Remove (Del)
- Rename

Solution Explorer

Properties

WindowsAzure1

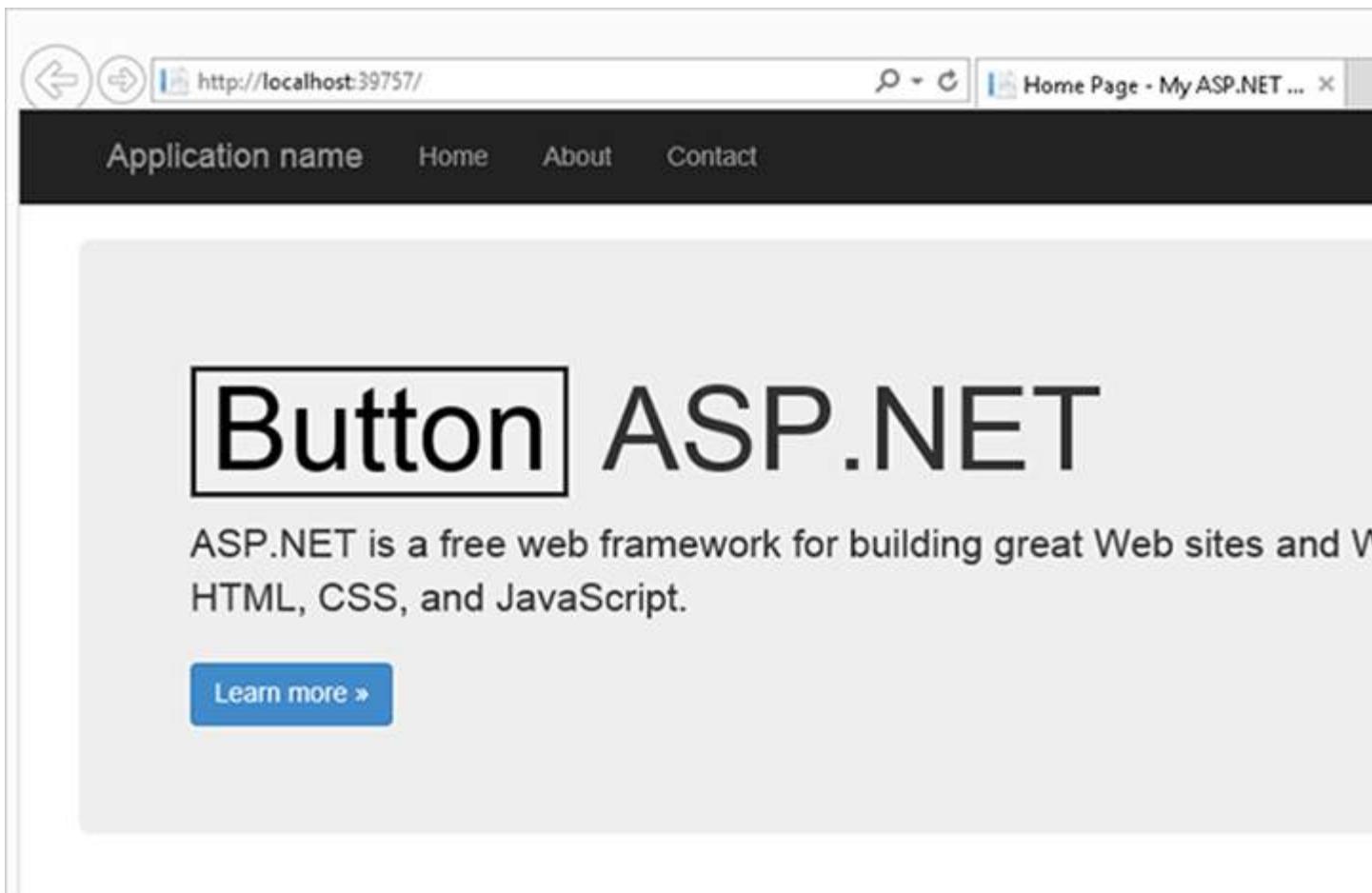
Misc

- Project File
- Project Folder

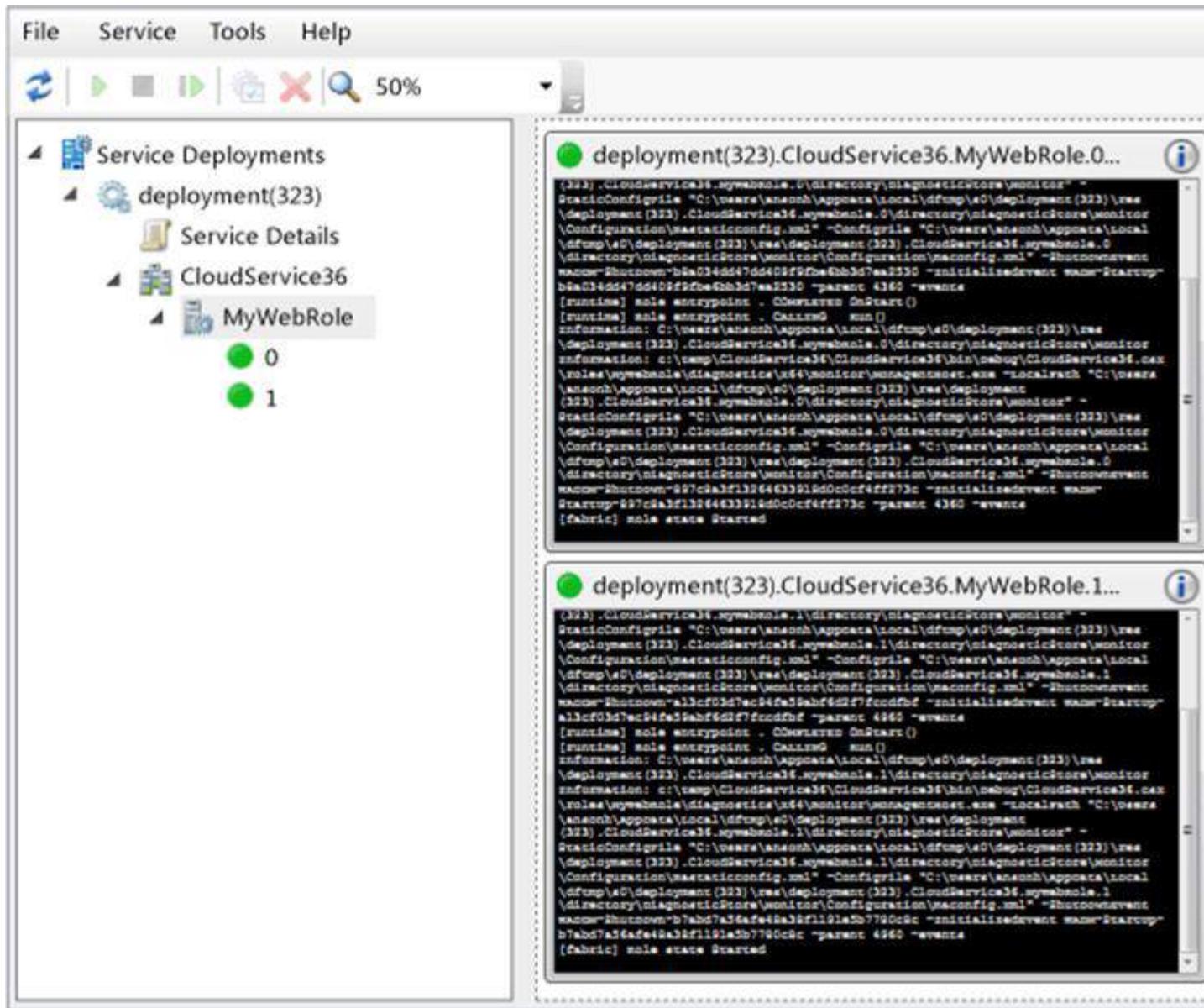
**Step 7:** After the opening project configure the setting.

The screenshot shows the 'Configuration' blade in the Azure portal. The 'Service Configuration' dropdown is set to 'All Configurations'. The 'Local Storage' section has an 'Instance count' of 2 and a 'VM size' of 'Small'. The 'Certificates' section is shown. Under 'Caching', the 'Startup action' is set to 'Launch browser for: HTTP endpoint'. In the 'Diagnostics' section, 'Enable Diagnostics' is checked, and 'Errors only' is selected. A note says 'Specify the storage account credentials for the Diagnostics results:' followed by a text input field containing 'UseDevelopmentStorage=true'. Under 'Connection strings', the checkbox 'Update development storage connection strings for Diagnostics and Caching with Windows Azure storage' is checked.

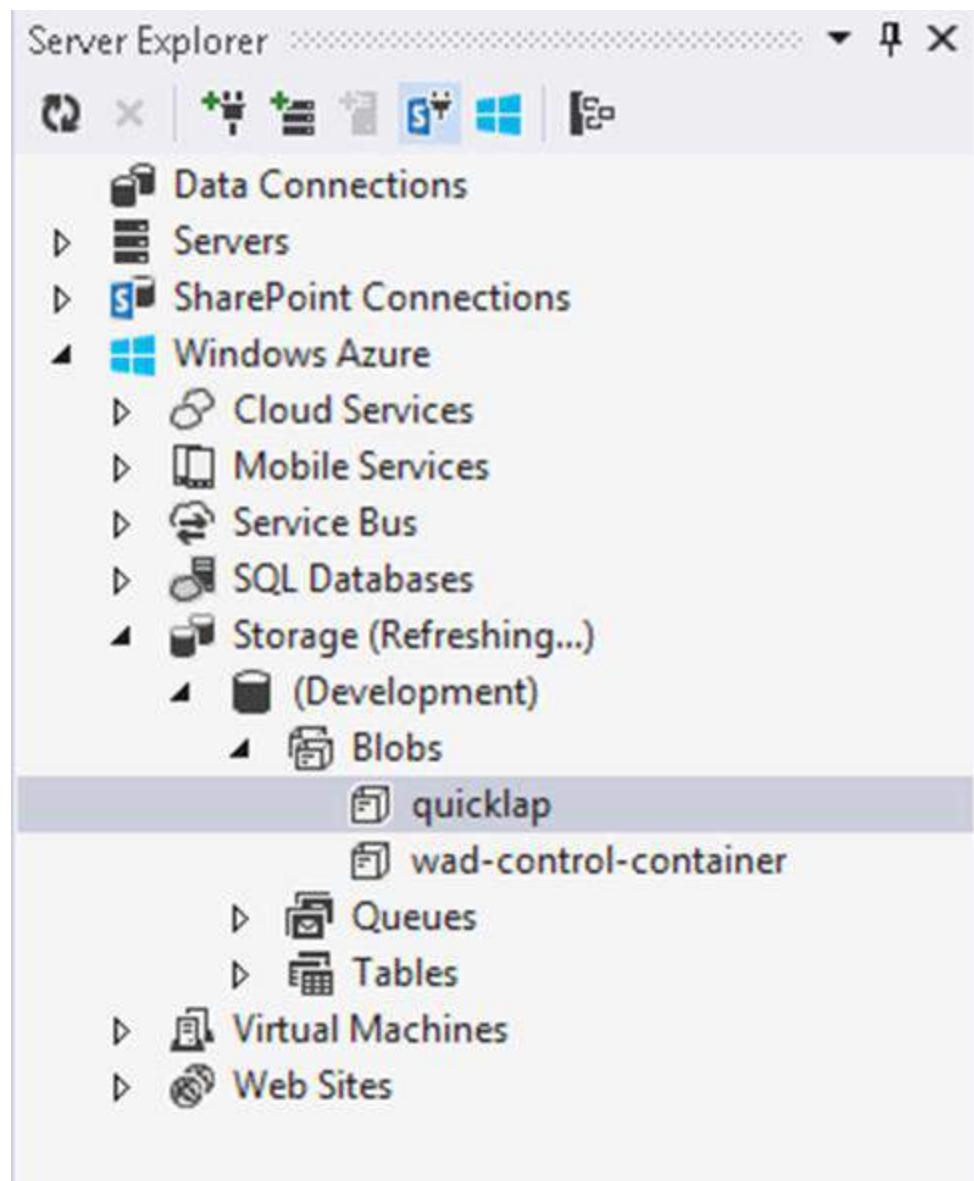
**Step 8:** After the project configuration run that project the local host window has been open



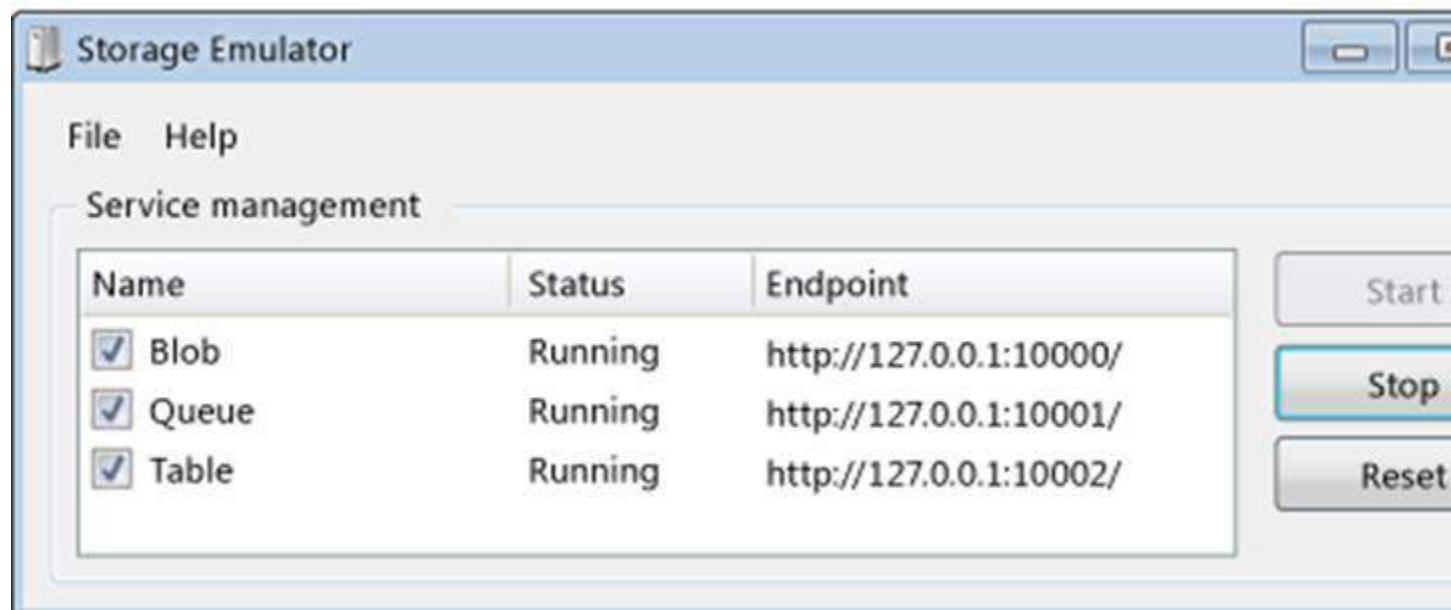
**Step 9:** Deploy the cloud services



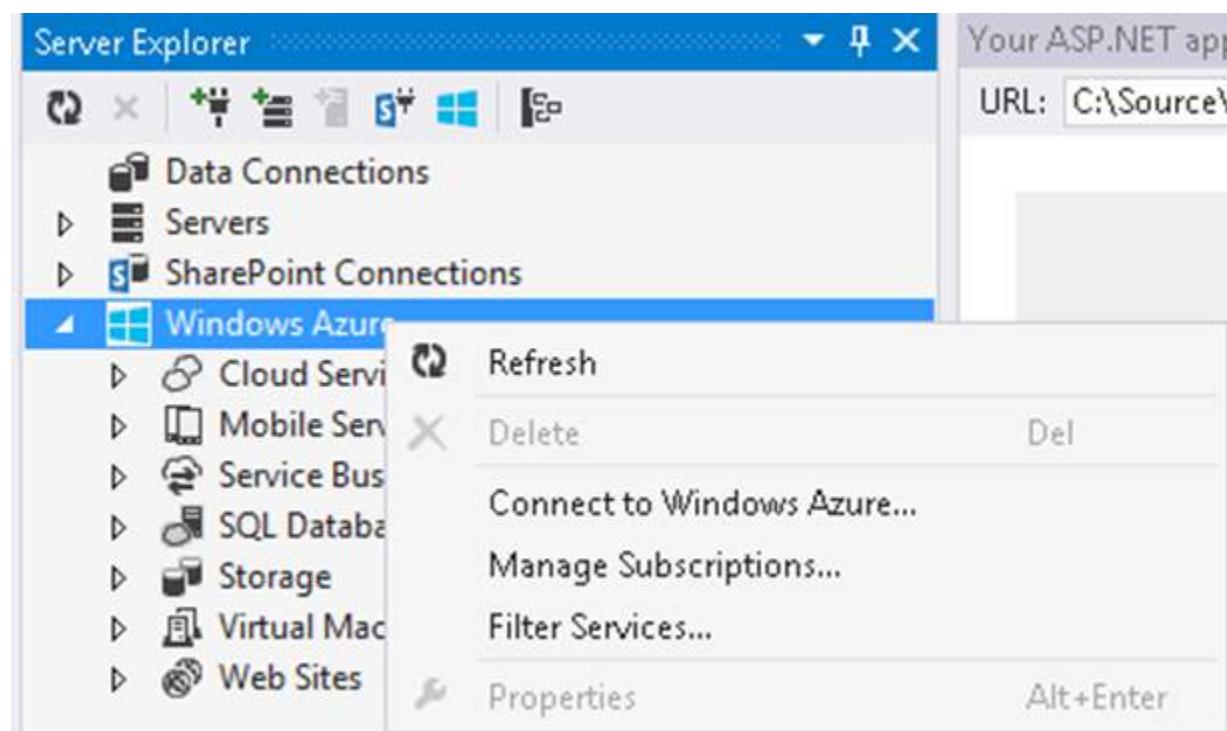
**Step 10:** open the sever explorer and enter blobs.



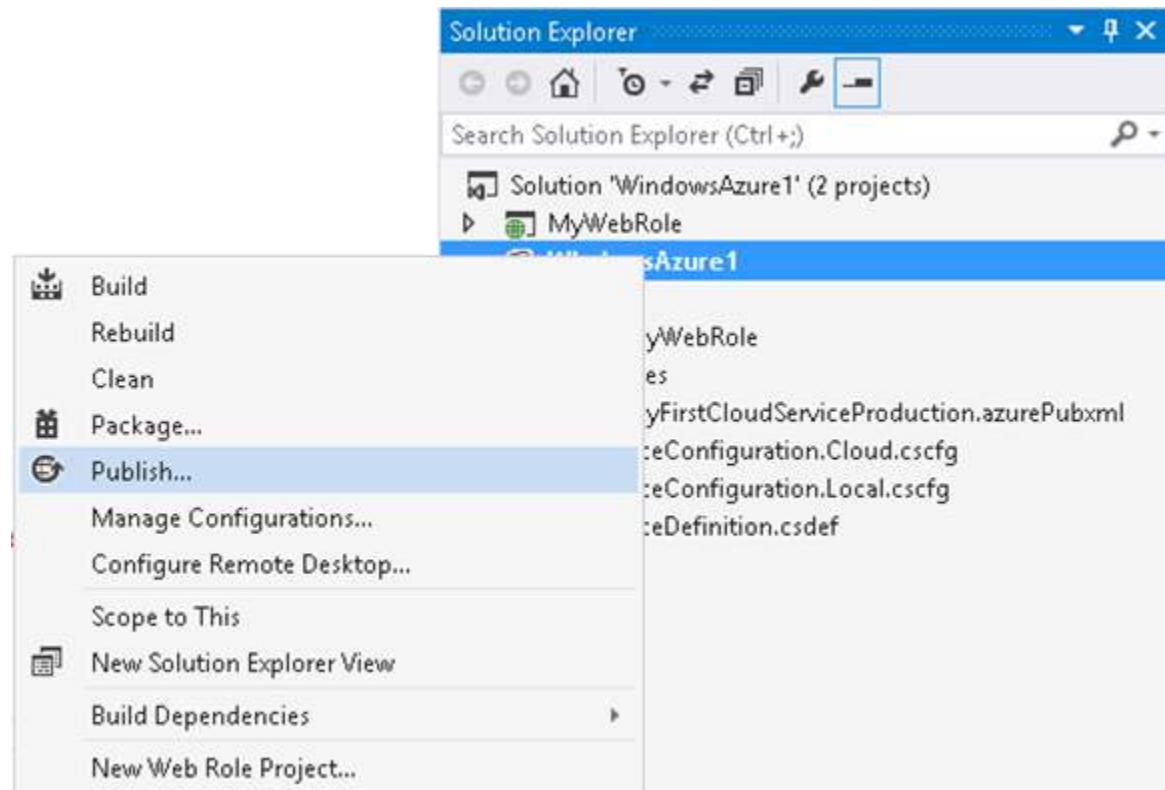
**Step 11:** Show Storage EmulatorUI to control the running storage services as well as reset all data.



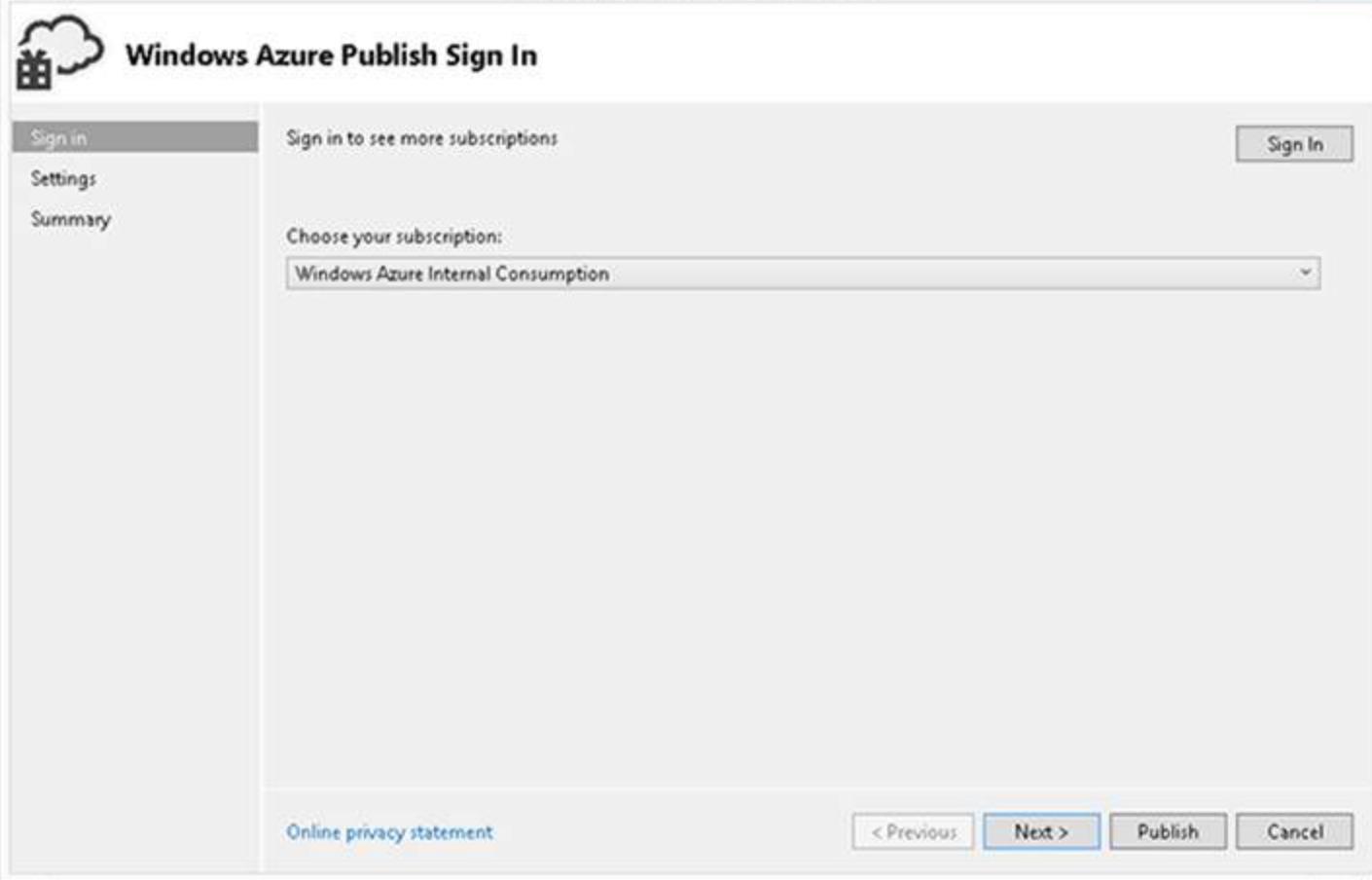
**Step 12:** Server Explorer, choose the Windows Azure node, open its shortcut menu, and choose **Connect to Windows Azure**.



**Step 13:** Publish the page.



**Step 14:** choose the **Sign In** button, provide your Windows Azure user name and password.



**Step 15:** choose the **Next** button to open the **Settings** page, and then choose the **Common Settings** tab.

## Windows Azure Publish Settings



Sign in

Settings

Summary

Common Settings Advanced Settings

Cloud Service:  
MyFirstCloudService (West US)

Environment:  
Production

Build configuration:  
Release

Service configuration:  
Cloud

Enable Remote Desktop for all roles [Settings...](#)

Enable Web Deploy for all web roles (requires Remote Desktop) !

[Online privacy statement](#)

< Previous

Next >

Publish

**Step 16:** Choose the Advanced Settings tab.



## Windows Azure Publish Settings

Sign in

Settings

Summary

Common Settings Advanced Settings

Deployment label:

WindowsAzure1

 Append current date and time

Storage account:

myfirstnewstorageaccount (West US)

 Delete deployment on failure Deployment update [Settings...](#) Enable IntelliTrace [Settings...](#) Enable profiling [Settings...](#) Enable Remote Debugger for all roles[Online privacy statement](#)

&lt; Previous

Next &gt;

Publish

Cancel

**Step 17:** Choose the **Next** button to review your settings.



## Windows Azure Publish Summary

[Sign in](#)[Settings](#)[Summary](#)Target profile: [New profile \\*](#)

<b>Deployment update:</b>	Enabled
<b>Subscription:</b>	Free Trial
<b>Cloud Service:</b>	MyFirstCloudService (West US)
<b>Environment:</b>	Production
<b>Build configuration:</b>	Release
<b>Service configuration:</b>	Cloud
<b>Remote Desktop:</b>	
<b>Web Deploy:</b>	
<b>Deployment label:</b>	WindowsAzure1 - 10/3/2013 4:18:07 PM
<b>Storage account:</b>	myfirstnewstorageaccount (West US)

[Online privacy statement](#)[< Previous](#)[Next >](#)[Publish](#)[Cancel](#)

## Practical No. 9

**Aim:** Implementing VMs on Xen Server.

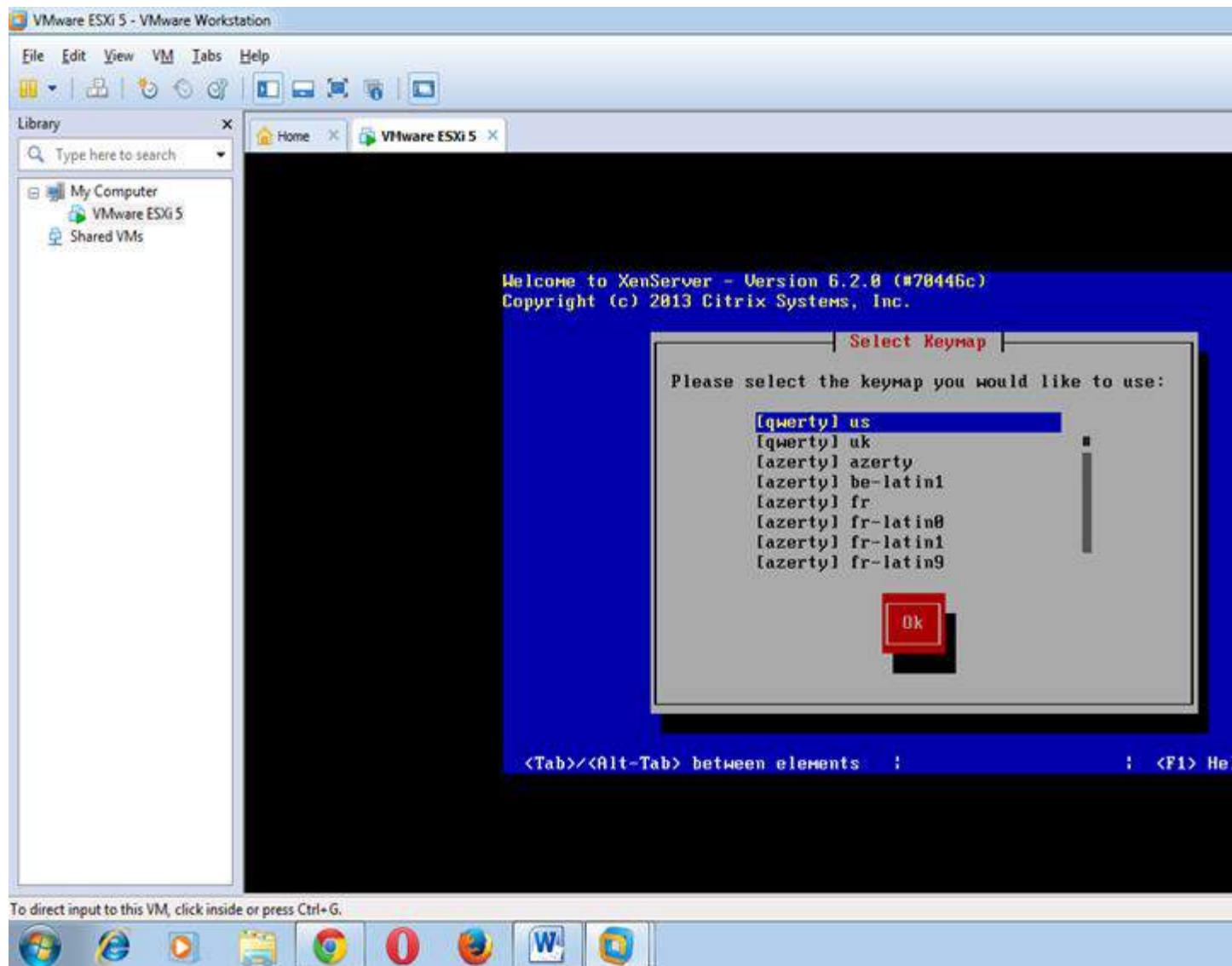


Welcome to XenServer.

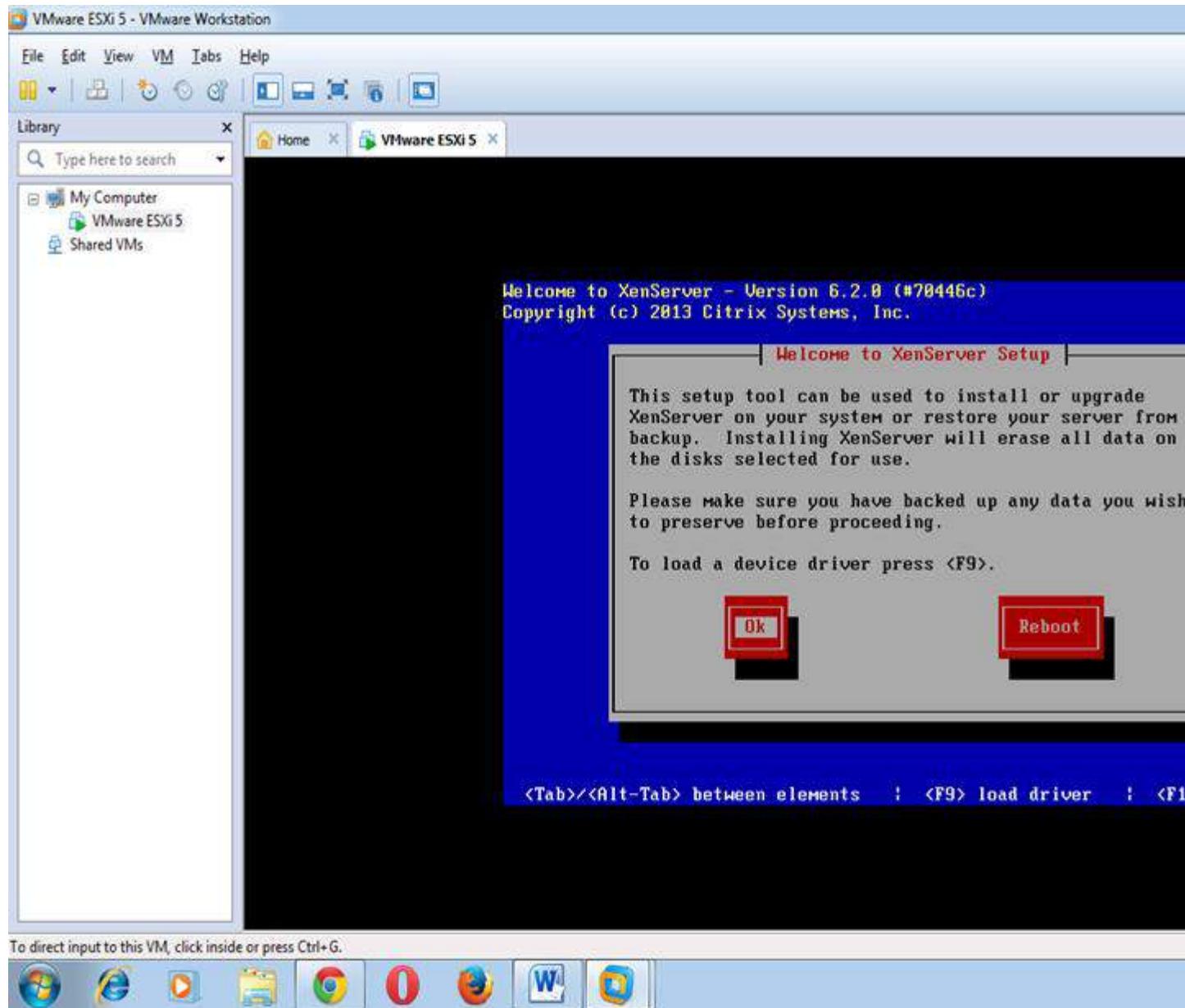
- To install or upgrade press the <ENTER> key.

```
[F1-Standard] [F2-Advanced] [F3-XCP mode]
boot:
Loading /boot/xen.gz... ok
Loading /boot/vmlinuz... ok
Loading /install.img...
```

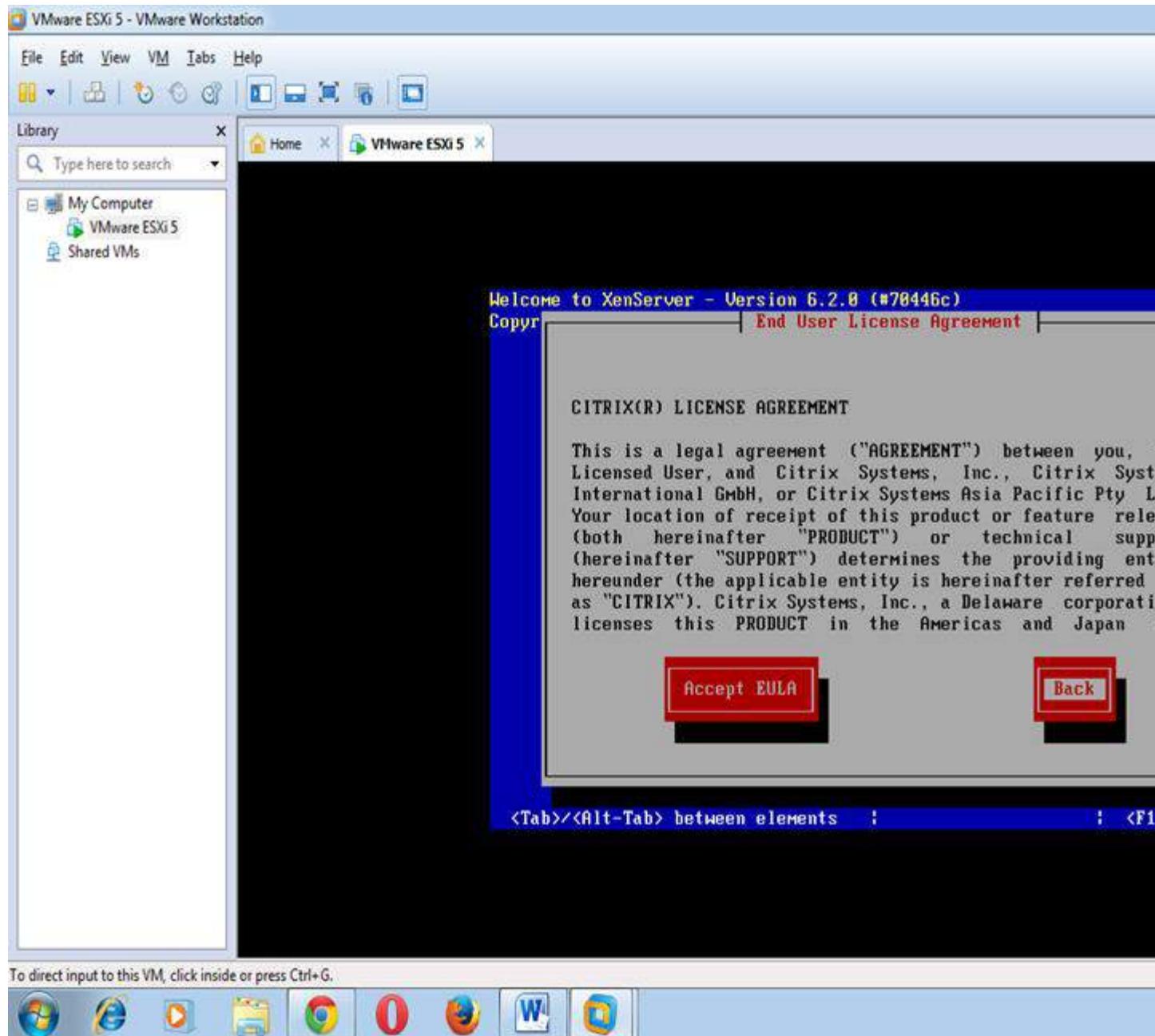
Step 1: Click >Ok



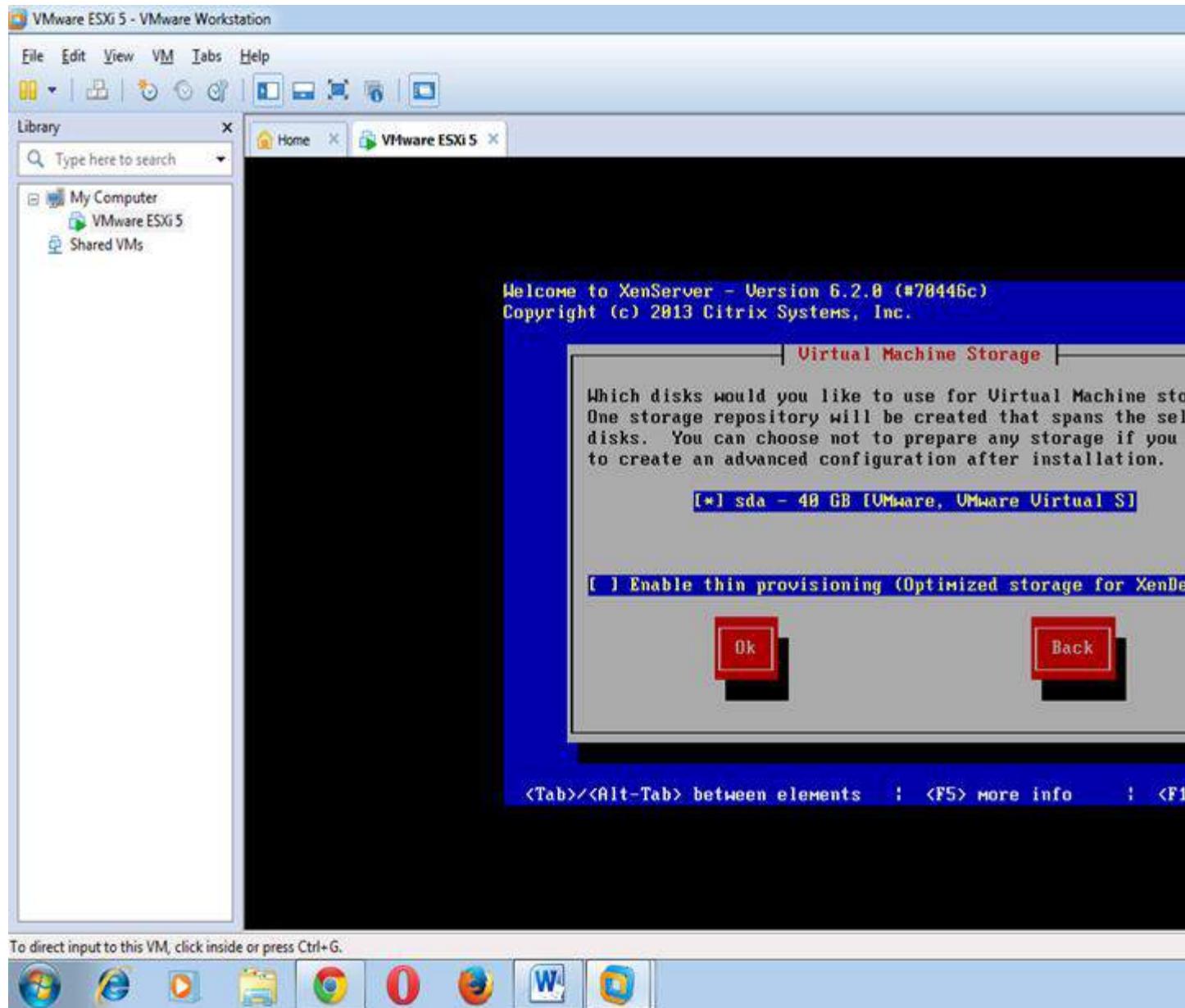
Step 2: Click >Ok



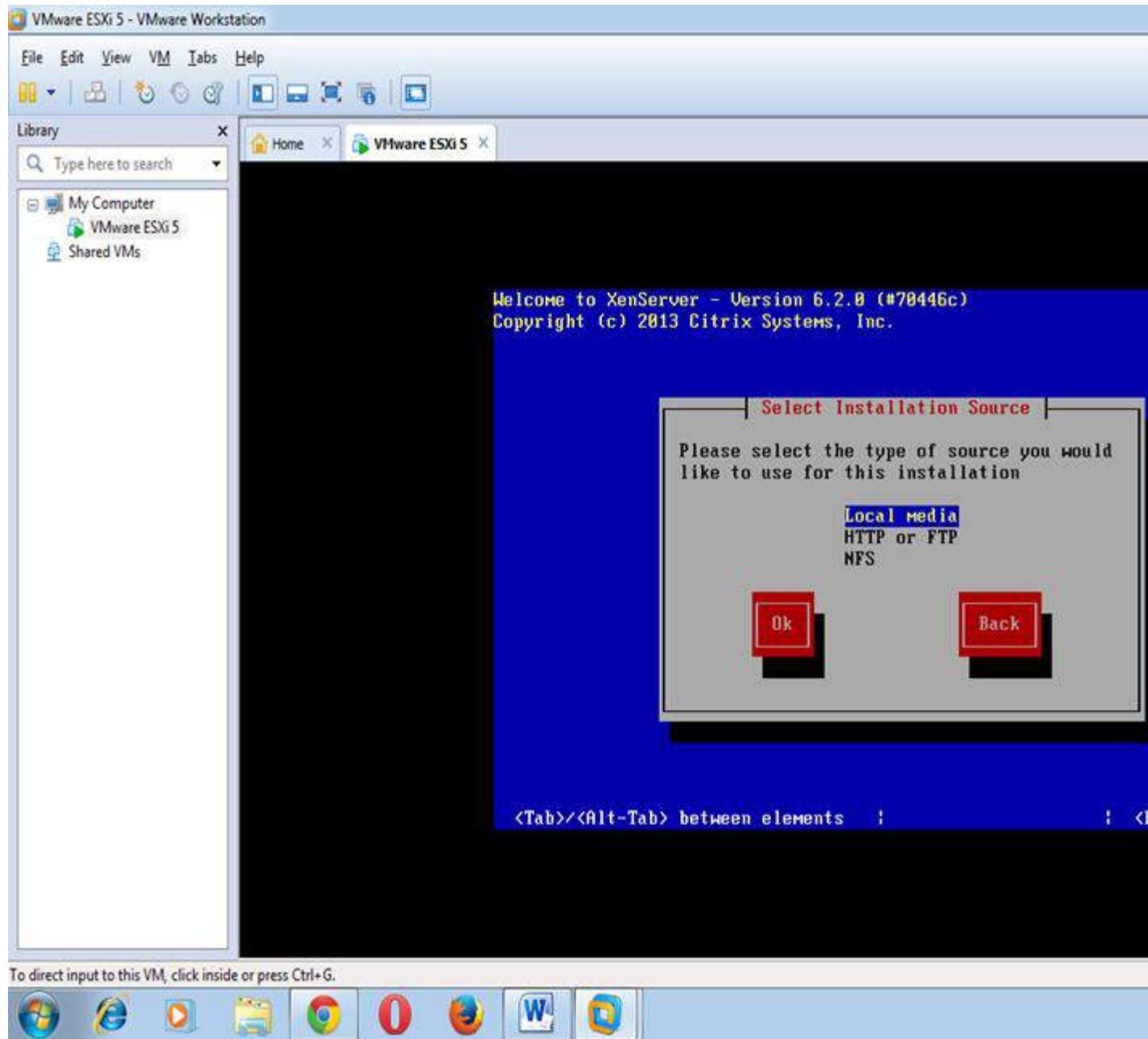
**Step 3:** Accept EULA license agreement



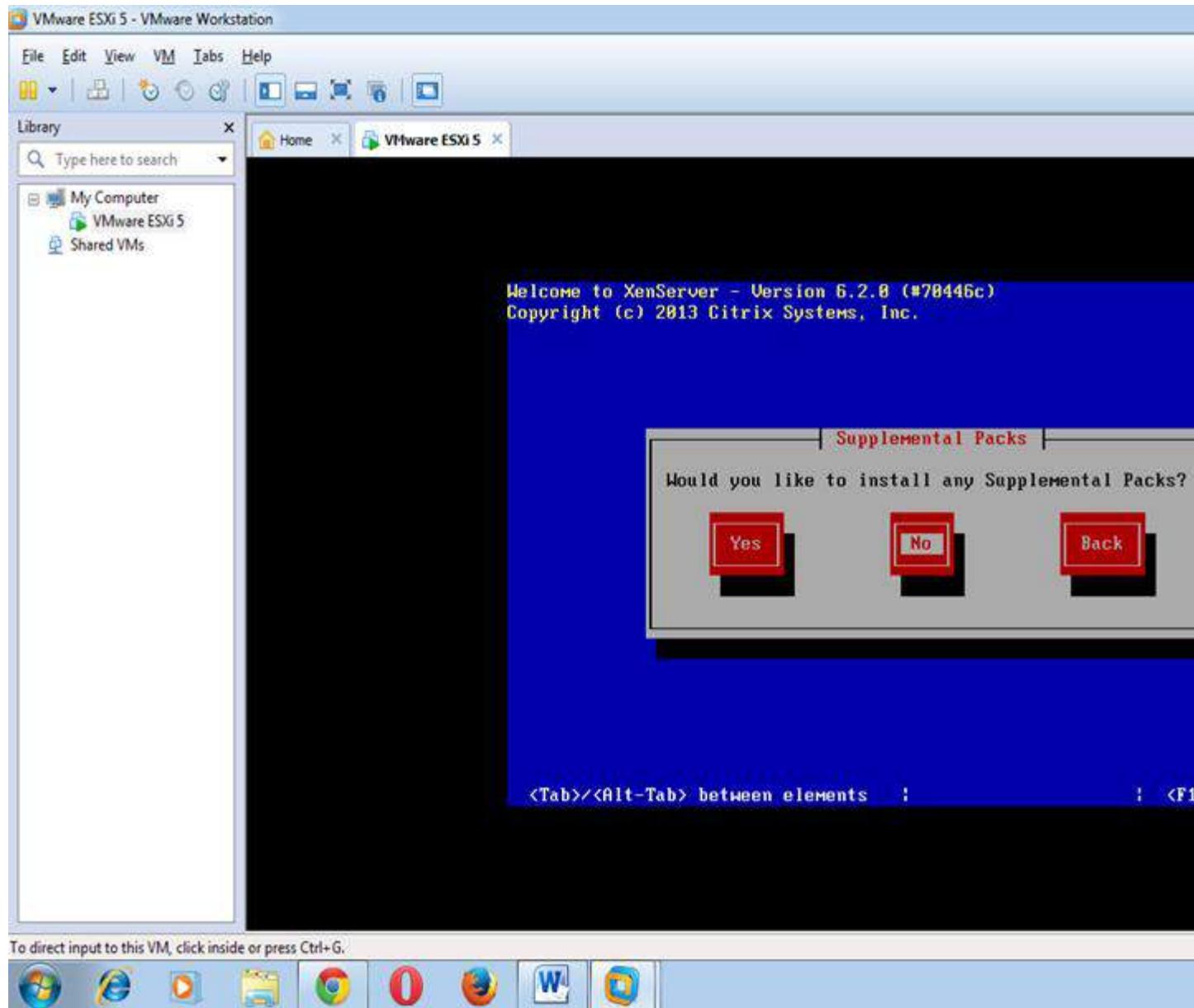
**Step 4:** Click > Ok



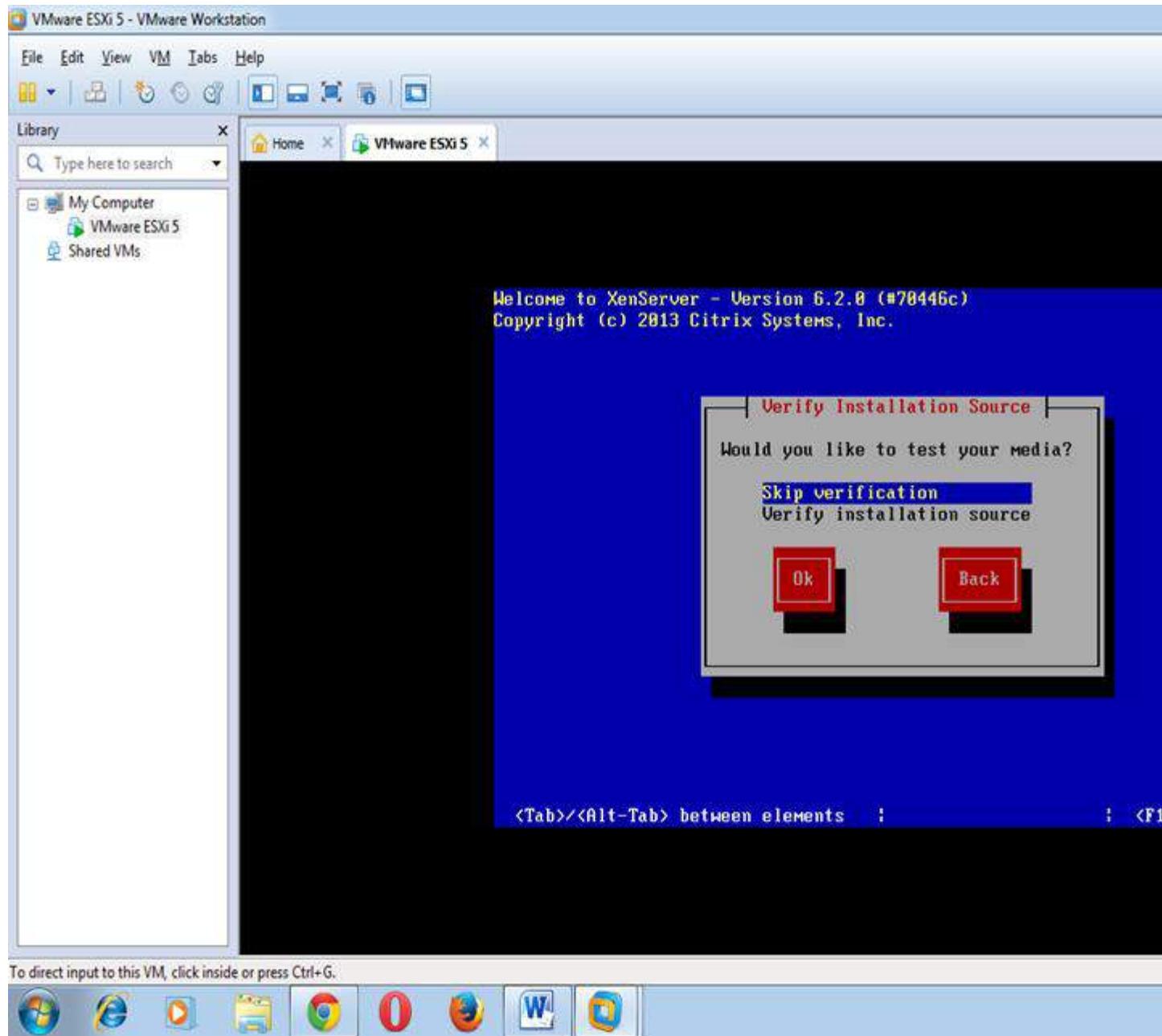
**Step 5:** Make sure “*Local Media*” is highlighted



**Step 6:** If you have any Supplemental Packs > Click Yes | If not you could Click > No



**Step 7:** Highlight > “Skip verification”



**Step 8:** Pick a root password for logging in via the console or via the XenServer client on Windows.

Welcome to XenServer - Version 6.2.0 (#70446c)  
Copyright (c) 2013 Citrix Systems, Inc.



**Step 9:** From here configure your IP Address or let DHCP assign one for you.

Welcome to XenServer - Version 6.2.0 (#70446c)  
Copyright (c) 2013 Citrix Systems, Inc.



<Tab>/<Alt-Tab> between elements |

**Step 10:** Give your XenServer a host name and assign a DNS, if you don't want to let your DHCP configure your DNS for you.

Welcome to XenServer - Version 6.2.0 (#70446c)  
Copyright (c) 2013 Citrix Systems, Inc.

**Hostname and DNS Configuration**

**Hostname Configuration**

Hostname: athena

**DNS Configuration**

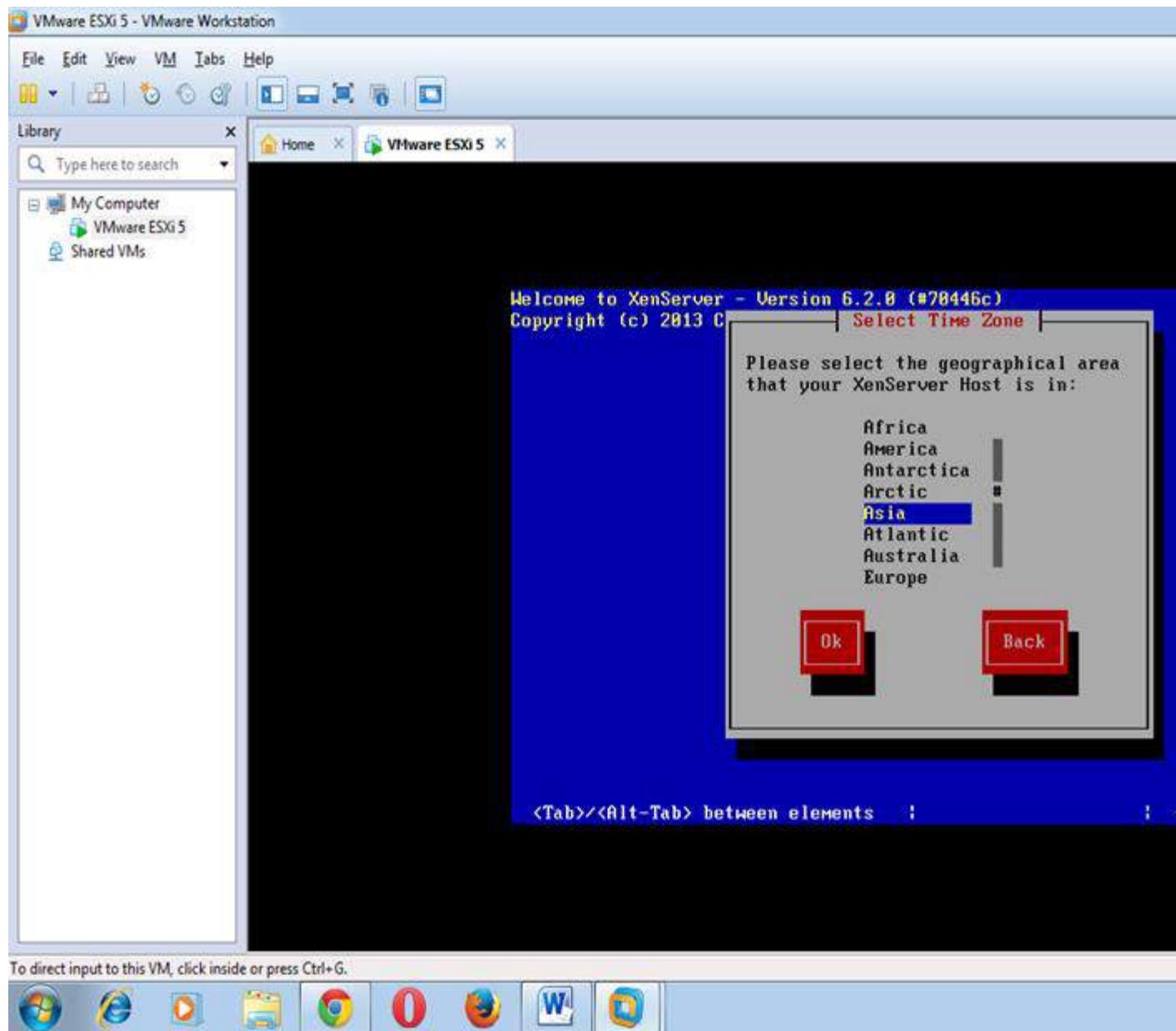
DNS Server 1: 10.1.1.1

DNS Server 2: \_\_\_\_\_

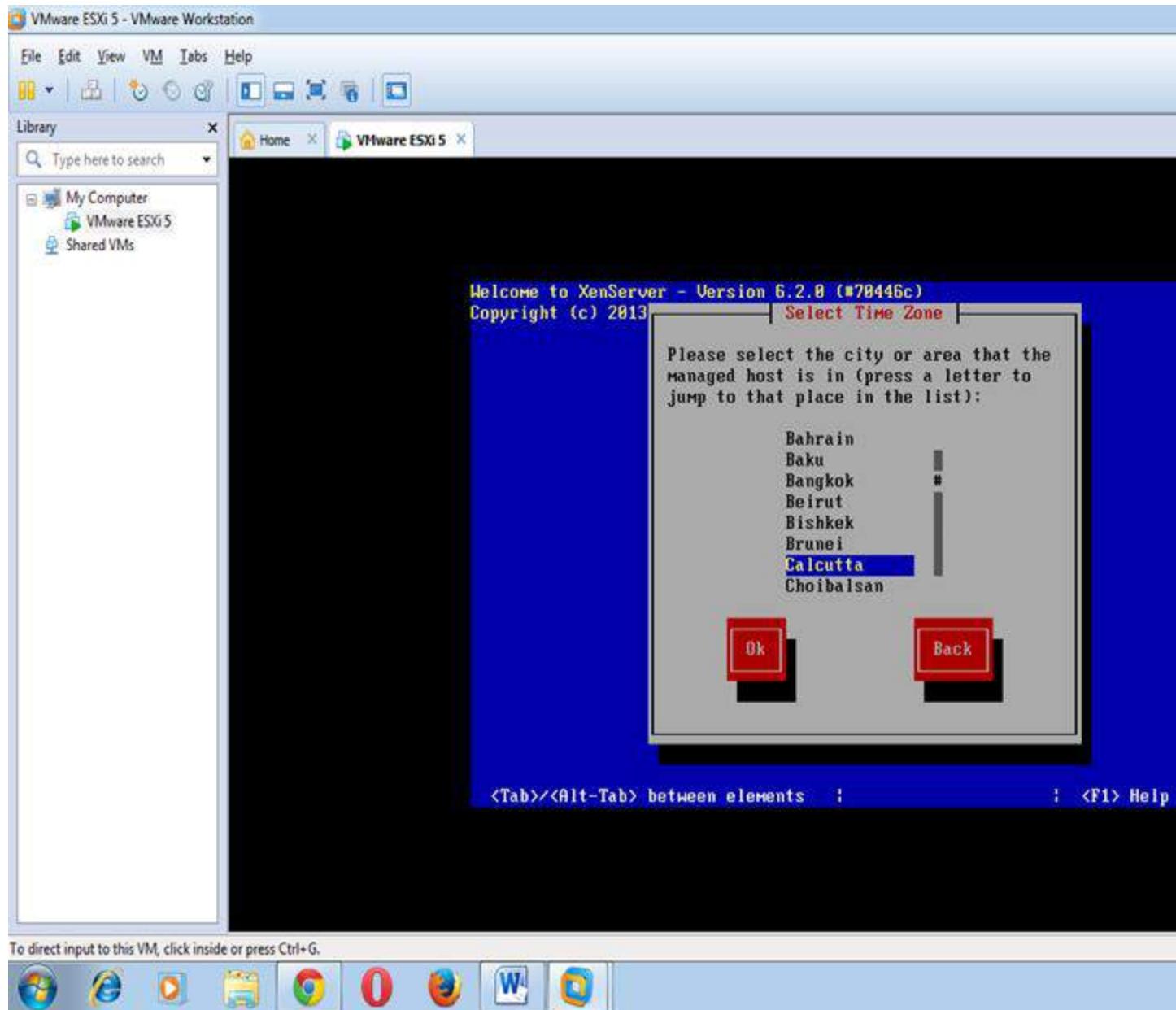
DNS Server 3: \_\_\_\_\_

<Tab>/<Alt-Tab> between elements |

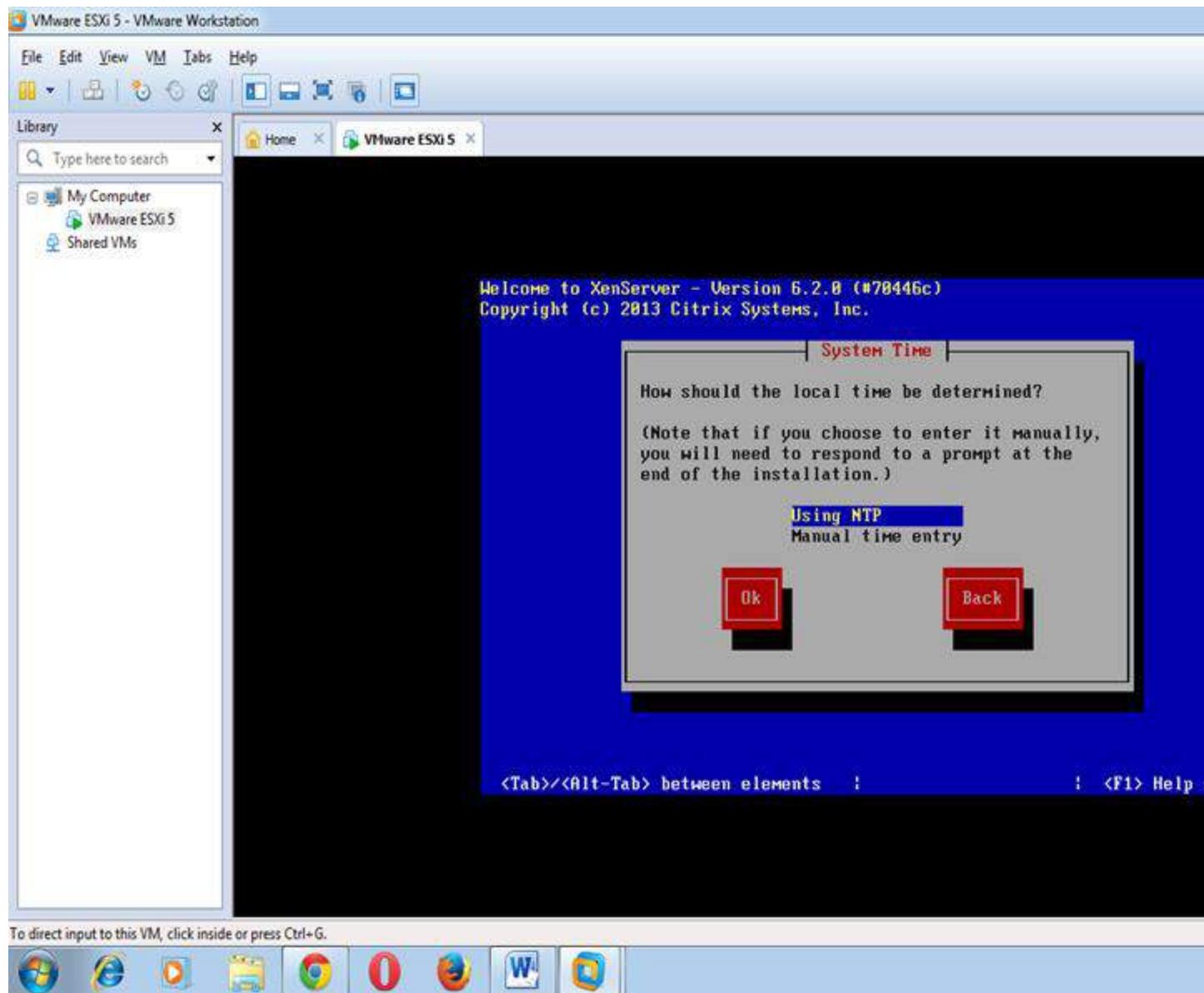
Step 11: Configure your Time Zone



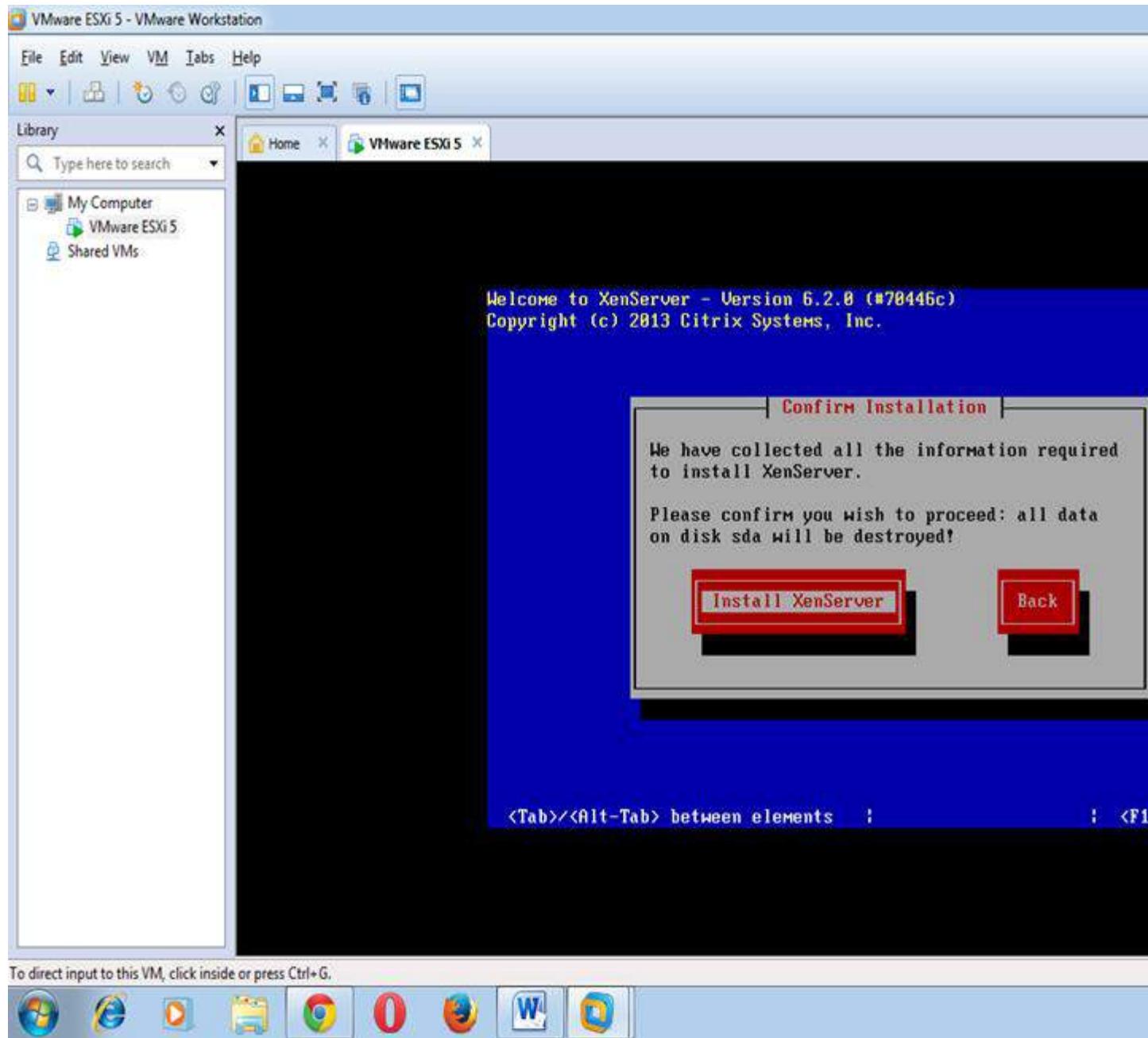
**Step 12:** Continue to configure your Time Zone



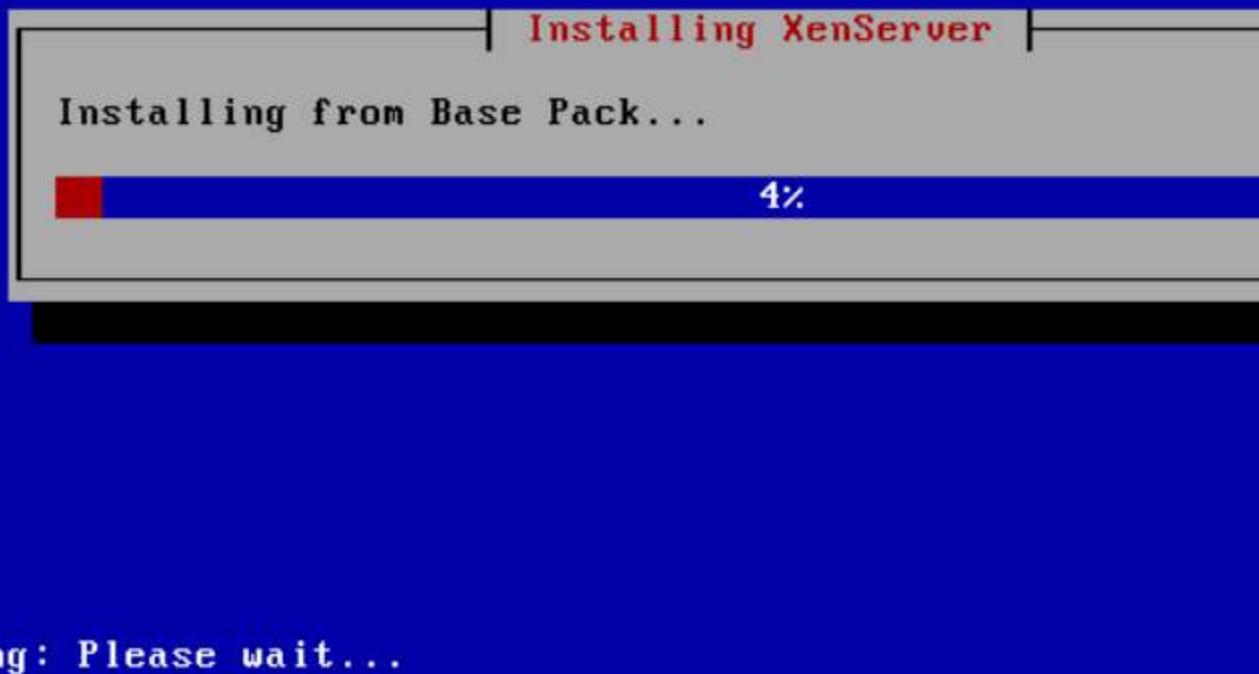
**Step 13:** Configure your NTP if you have, if not let your DHCP configure it for you



**Step 14:** Click on “*Install XenServer*“

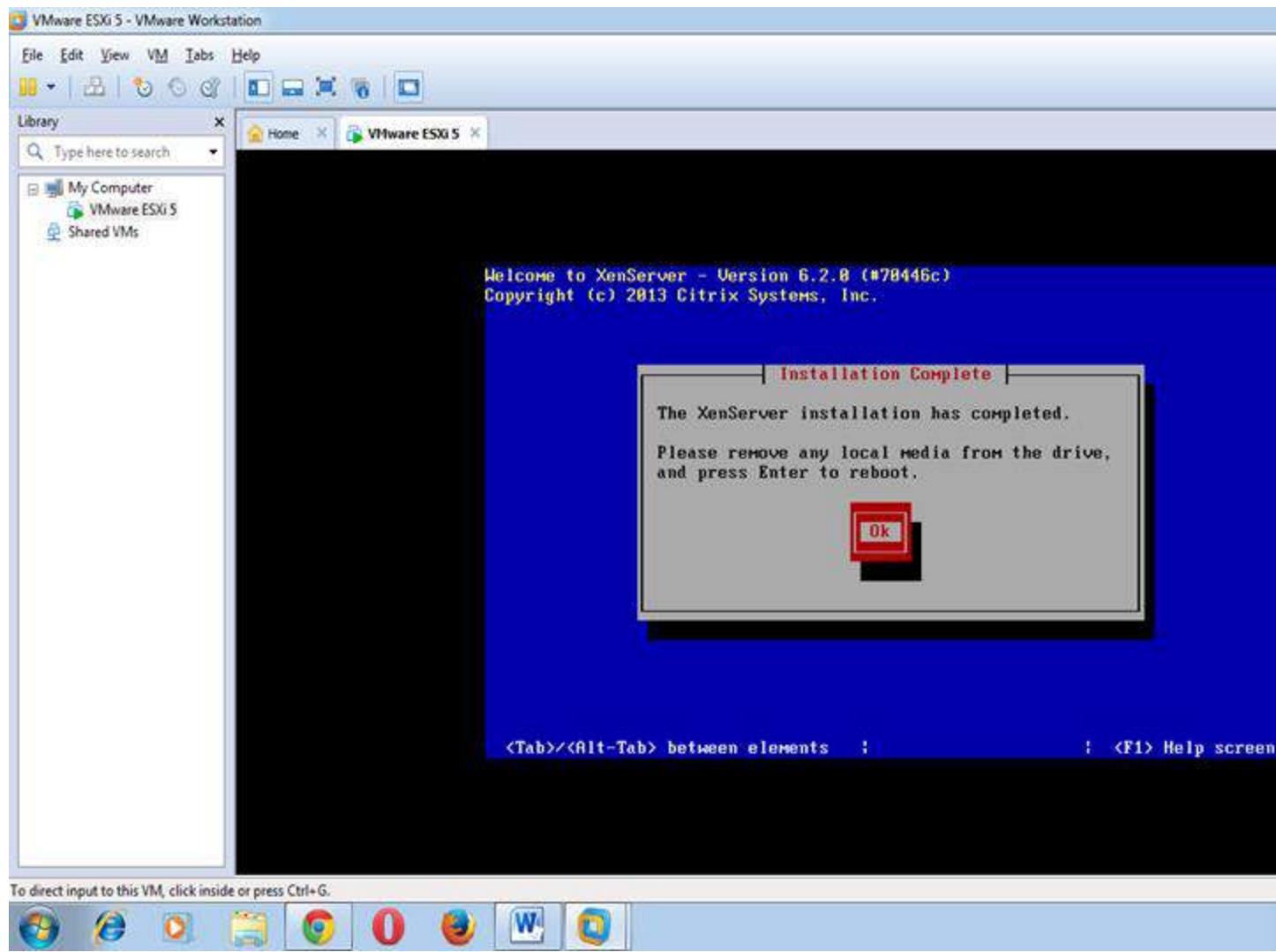


Welcome to XenServer - Version 6.2.0 (#70446c)  
Copyright (c) 2013 Citrix Systems, Inc.



Working: Please wait...

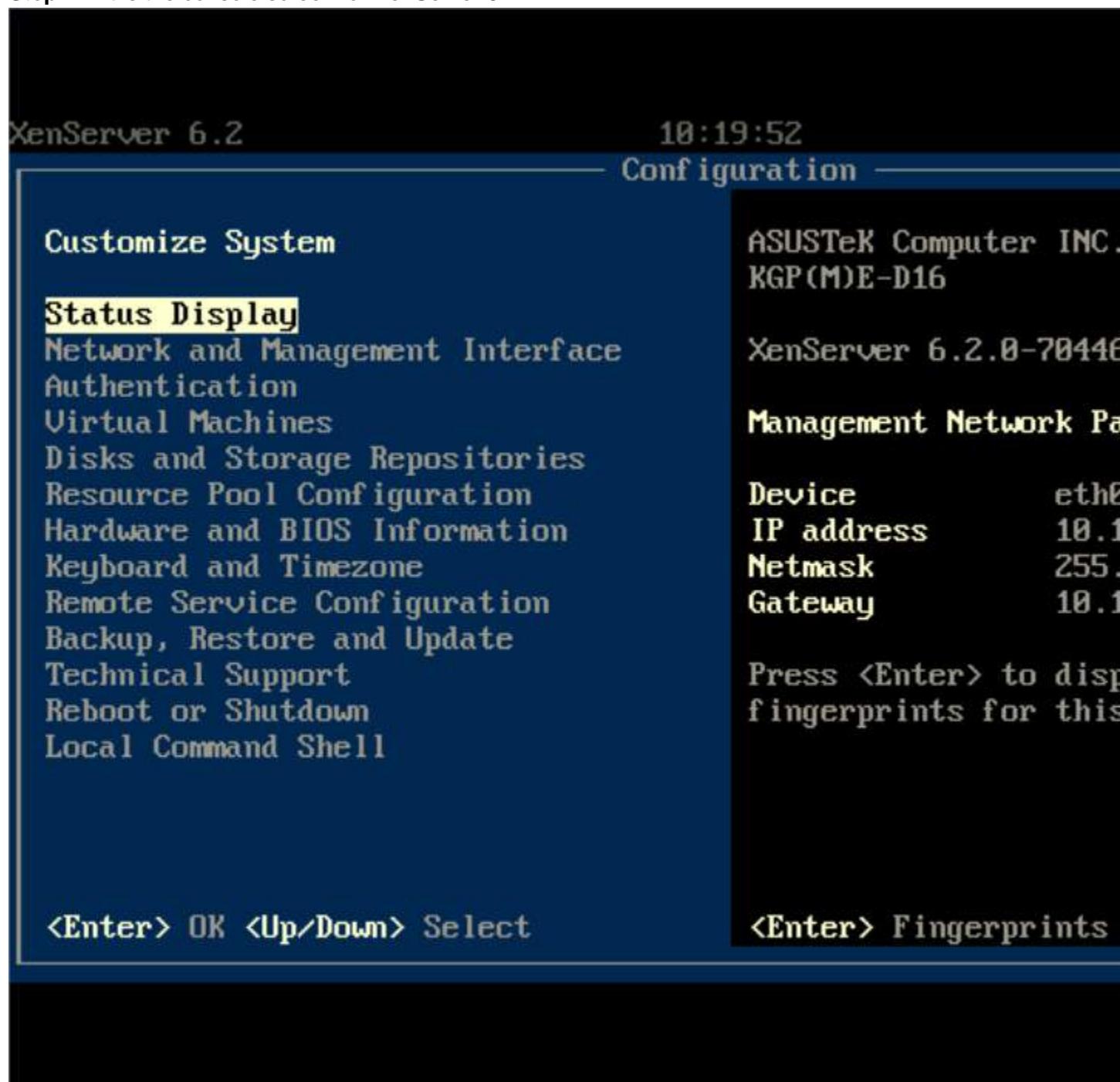
**Step 15:** Once the installation is completed, please remove the ISO or the CD and reboot your machine or Virtual Machine.



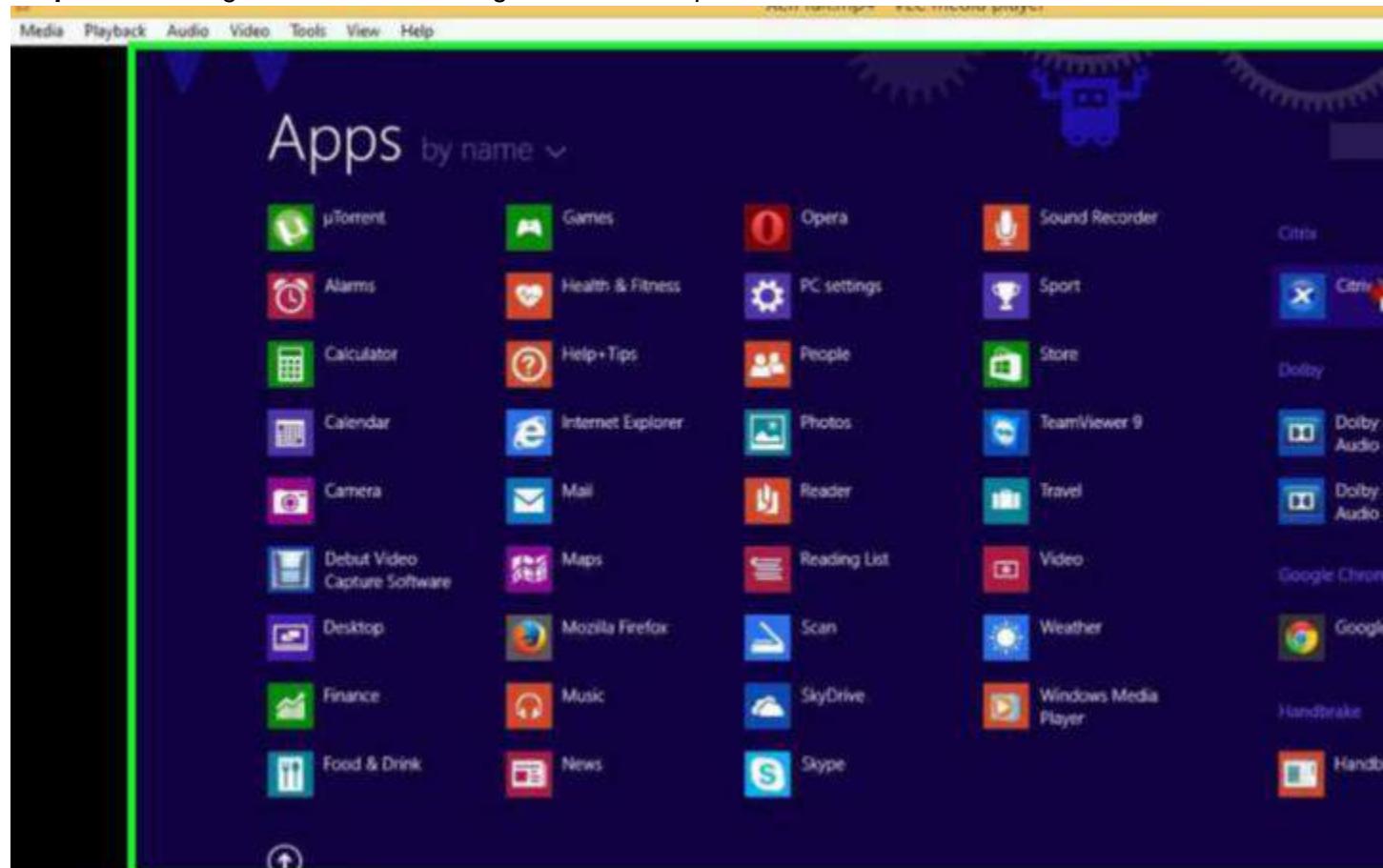
**Step 16:** reboot and start loading



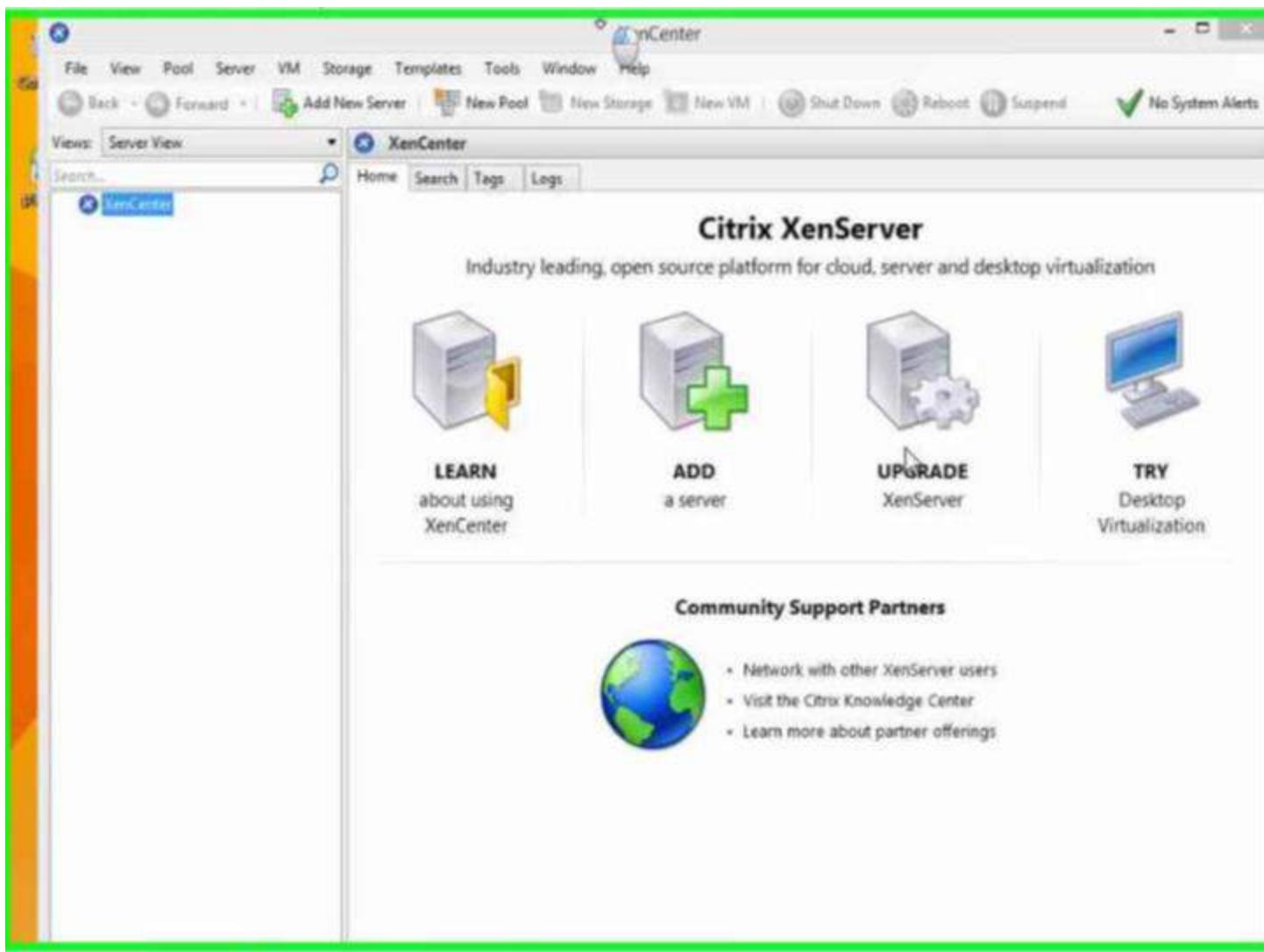
**Step 17:** It is the console screen for XenServer 6.2.



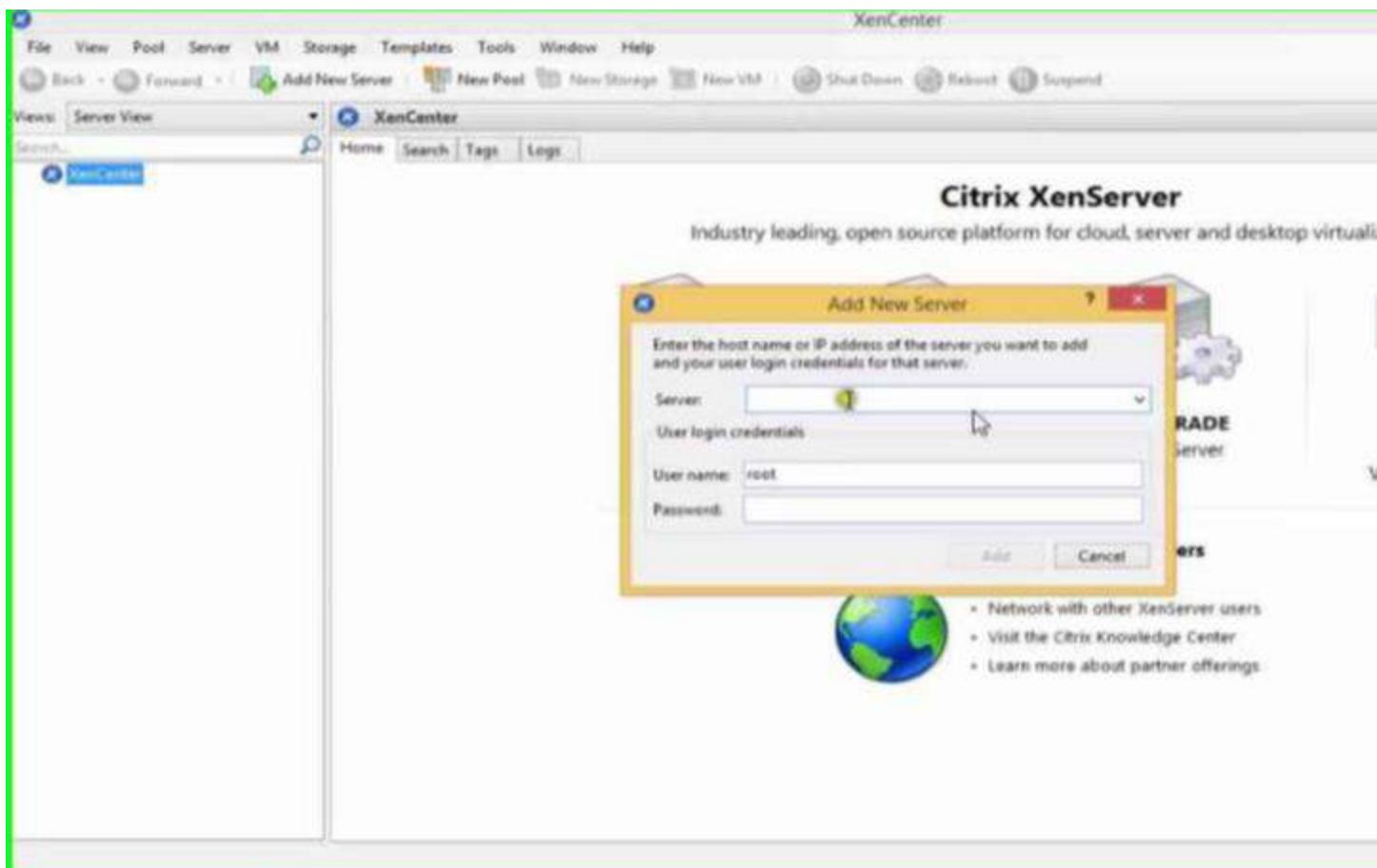
**Step 18:** Installing virtual machine using xencenter & Open Citrix XenCenter



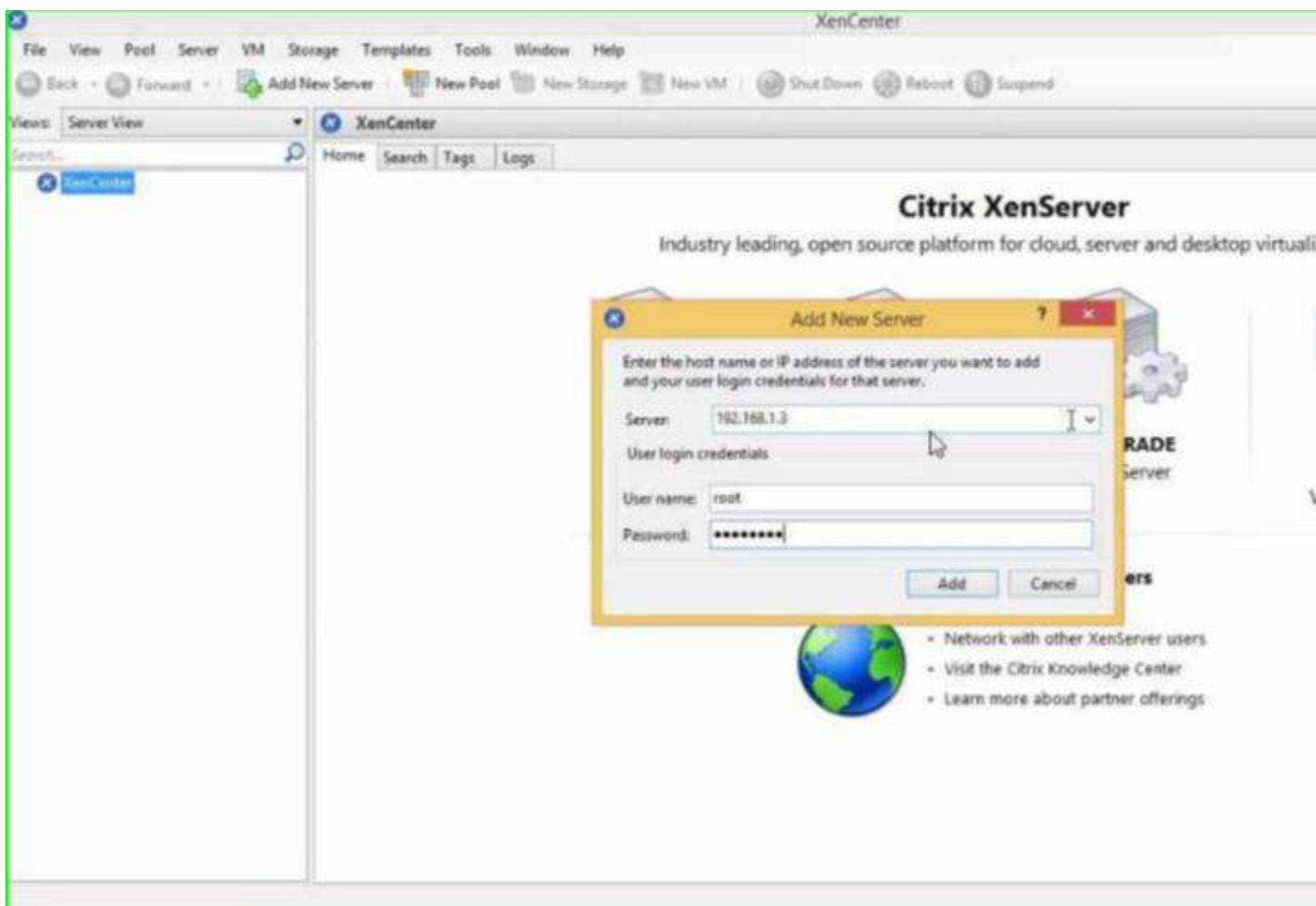
**Step 19:** Click on ADD a Server.



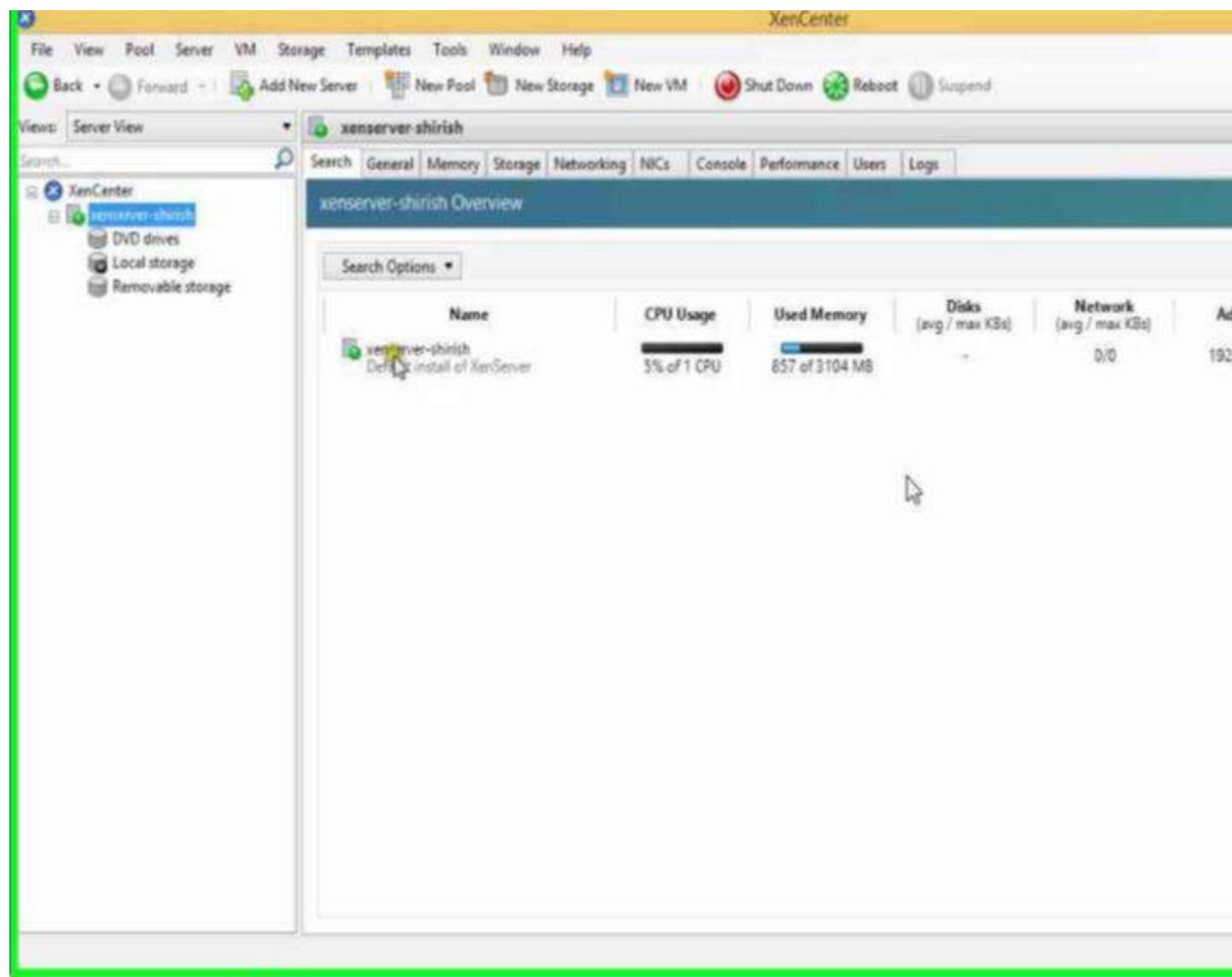
**Step 20:** Add new server window will popup.



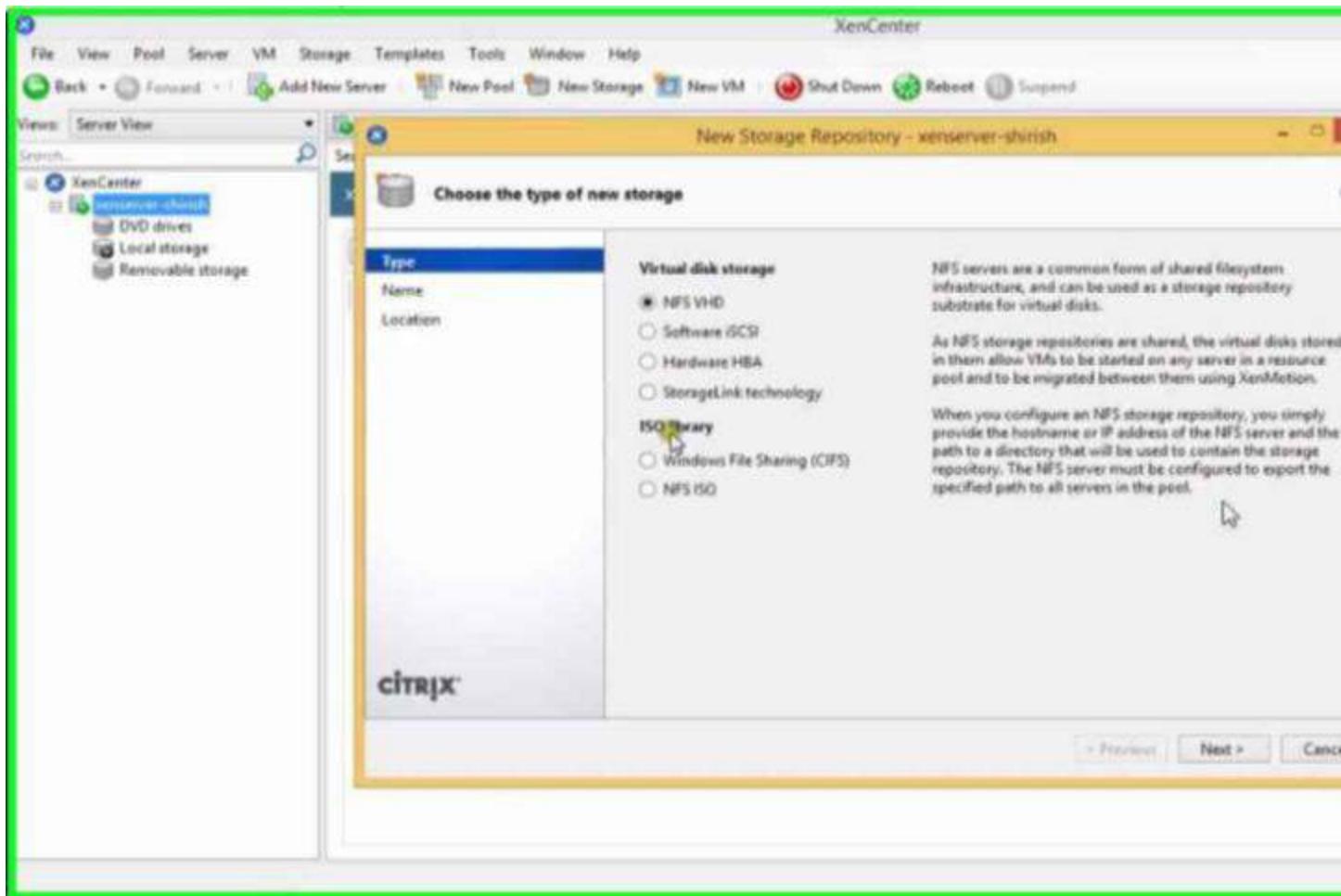
**Step 21:** Now here enter all the details and click on Add.



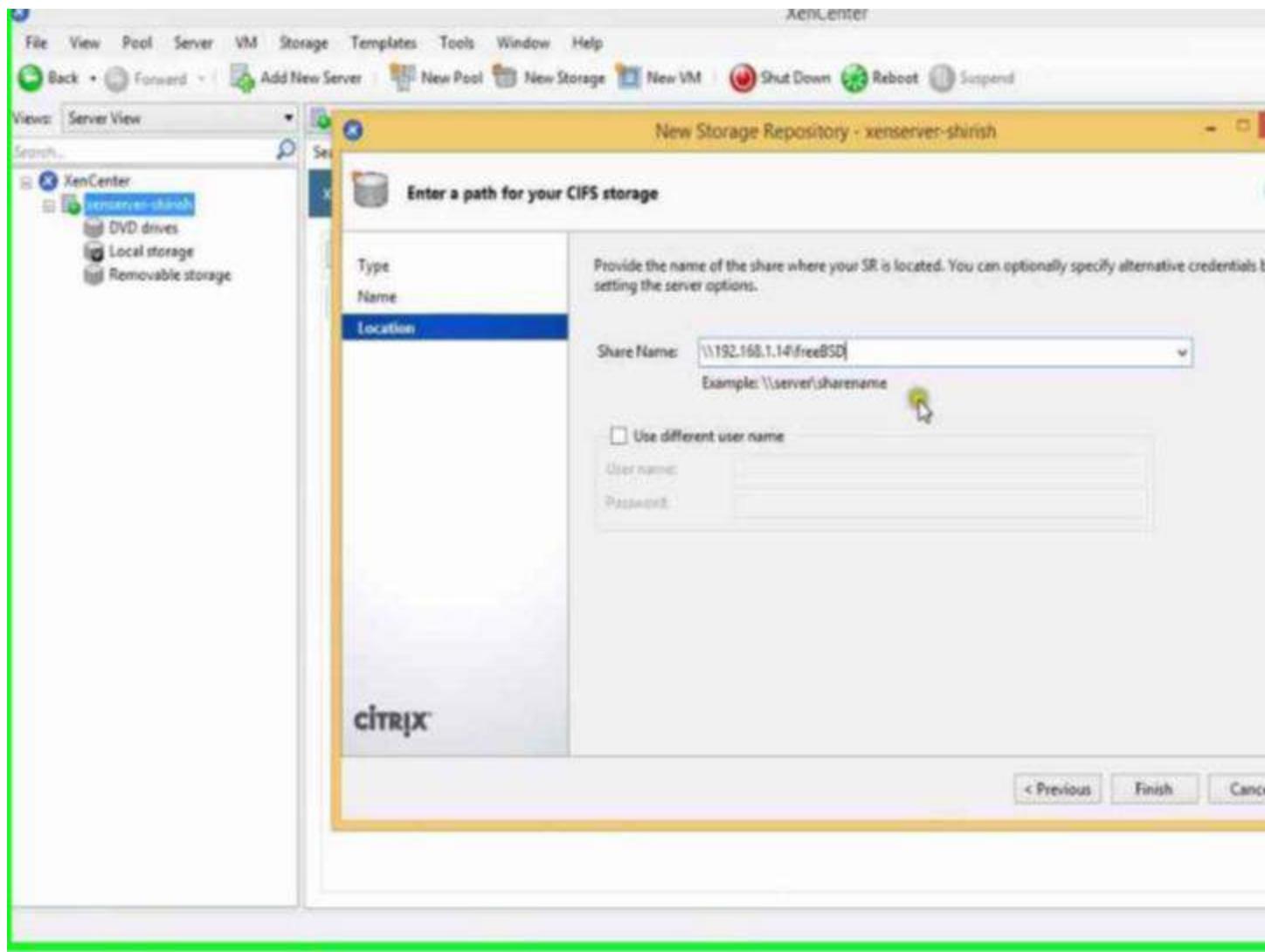
**Step 22:** Once server is added It will start virtual machine deployment process



**Step 23:** we need to create a storage repository where all the iso images of virtual machine are will store. So for that click on New Storage.

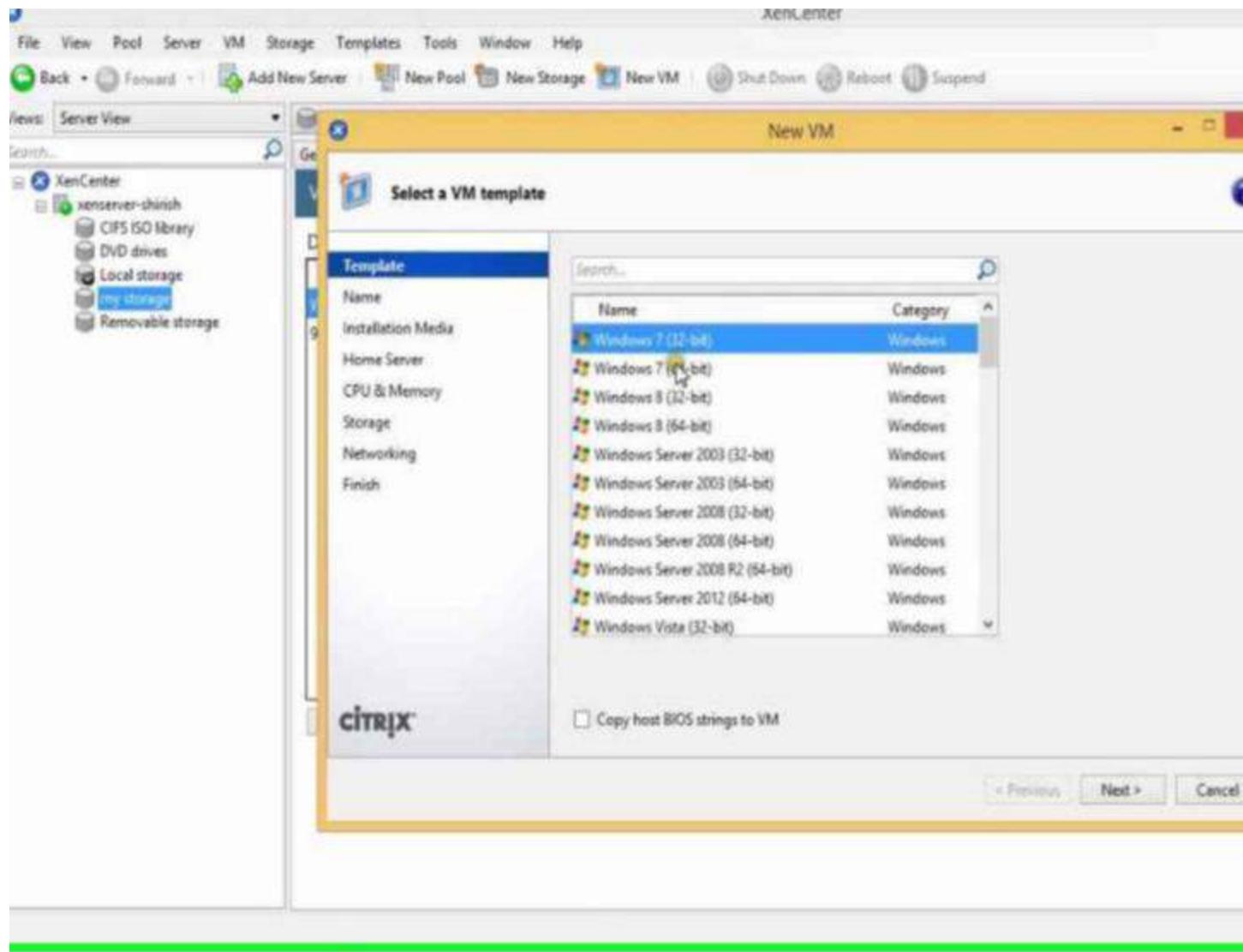


**Step 24:** In type select “CIFS”, in name you can give any name of your choice, in Location give the path of the shared folder which contains all the images of virtual machine & Click Finish.



**Step 25:** Now we have new storage in which we have all the iso files required for installation of VMs. So lets create new virtual machine.

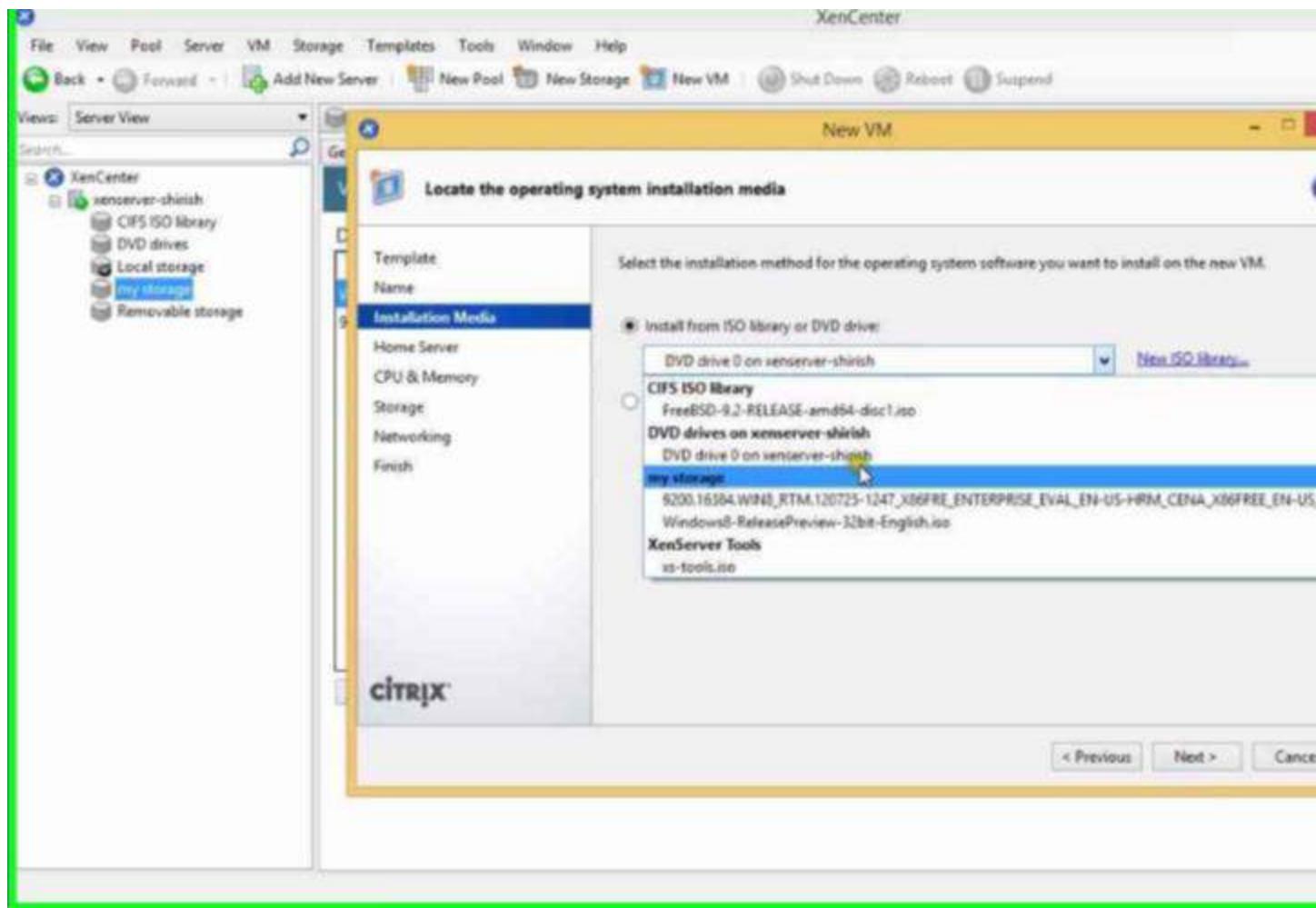
For that click on New VM.



In template field select the name of the virtual machine you want to install.

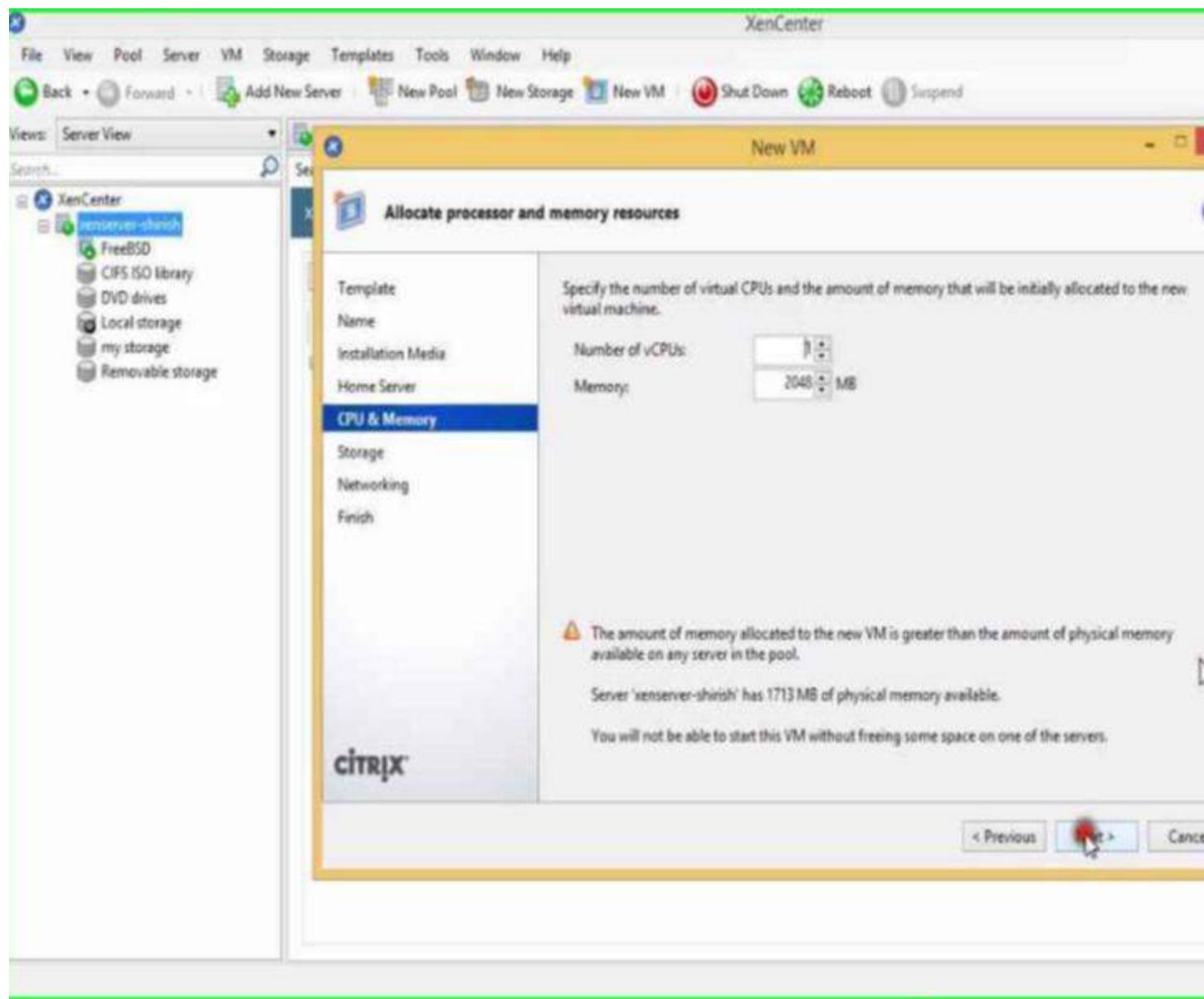
Then in name field provide name of the virtual machine of your choice. In the Installation Media field select the iso image of the vm from the storage repository we created earlier.

Keep Home

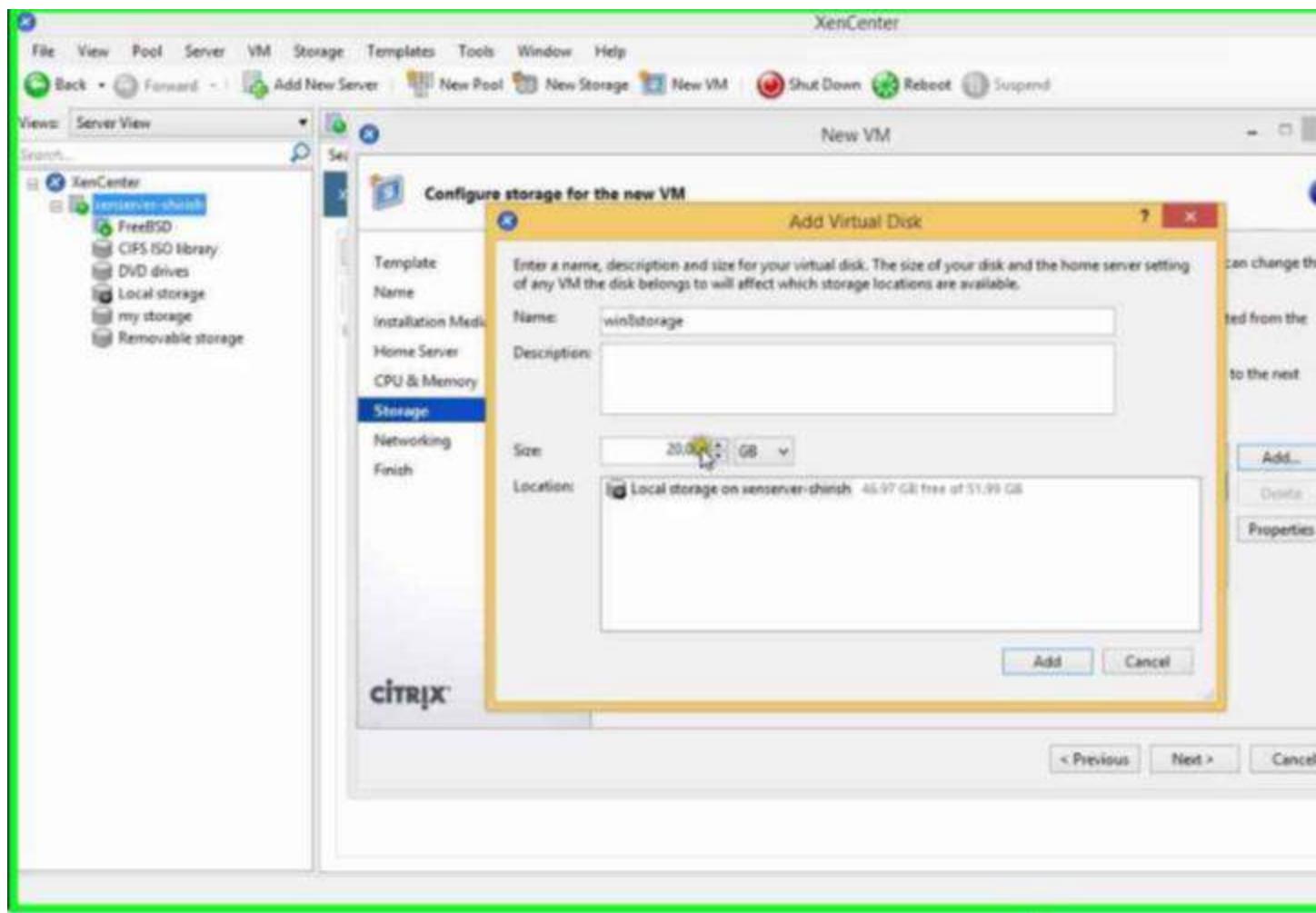


Keep Home Server field unchanged and click Next.

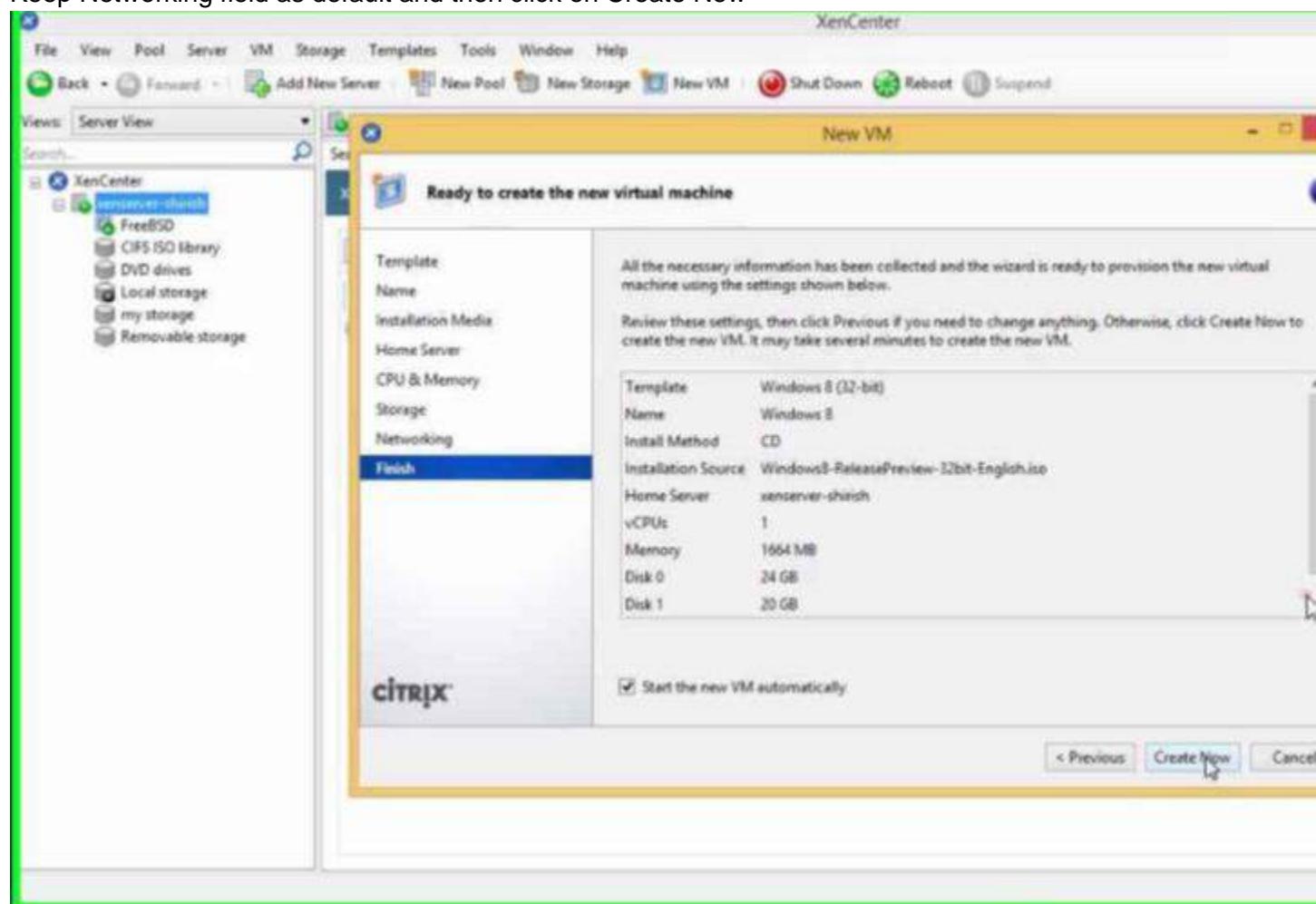
Provide CPU & Memory details.



Provide the Storage for VM.



Keep Networking field as default and then click on Create New



Once created it will automatically power on.

Sign in

