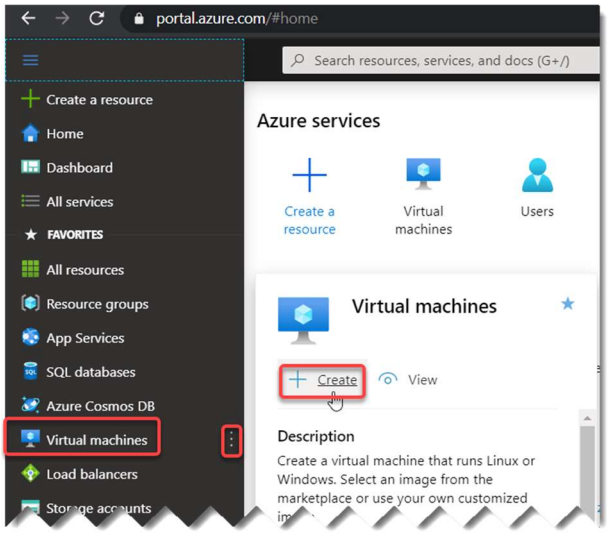
Lab 1: Create Azure Virtual Machine (Window VM)

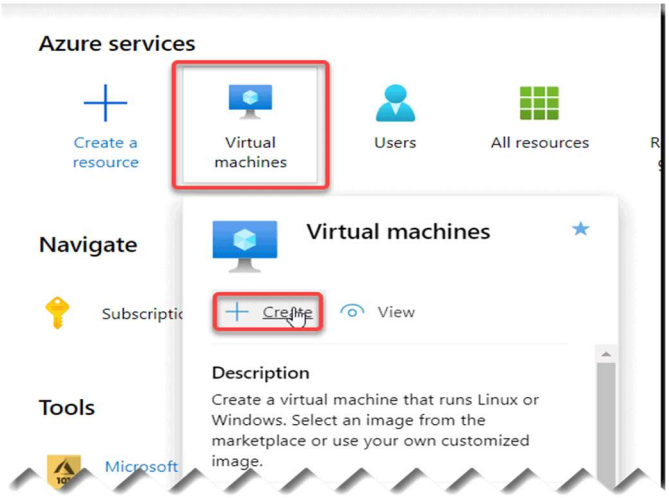
Objective:

In this Exercise, we will be creating the Azure Windows and Linux VM in Azure subscription which can be used for your test, development, and production environments. Configuring the high availability will help you to reduce the downtime of the Azure VMs. We have also explained how to set up the monitoring, storage, VM size, and configure the disk encryption in Azure VM, which will help to encrypt the disk and secure the disk data.

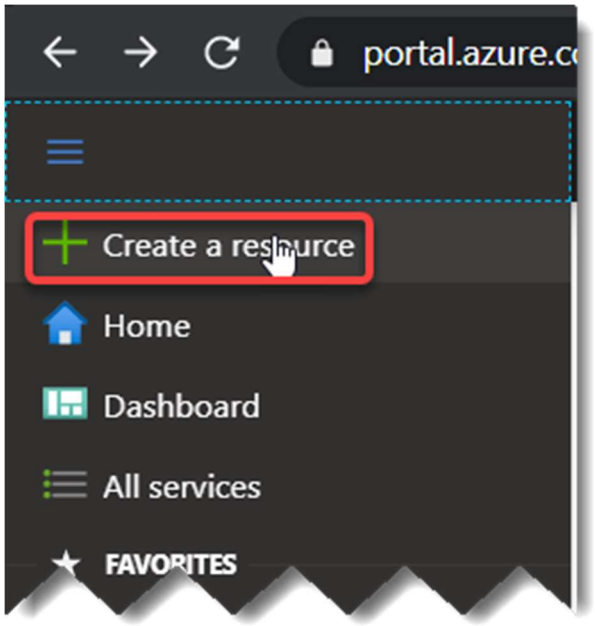
Step-1: Login to https://portal.azure.com.

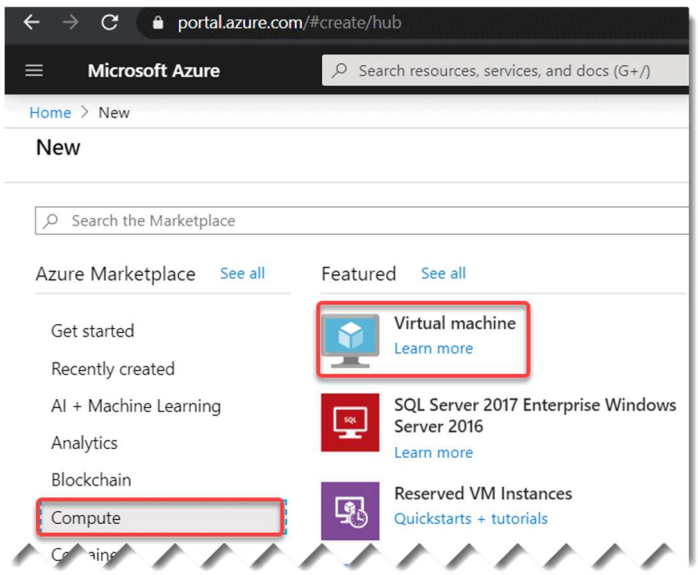
Step-2: Now click on **"Virtual machines"** option from the left side Menu and then click on **"Create"** link. **Or** go to **"Virtual machines"** option from the **"Azure services"** section.





One more way is to go to the same option from the **"Create a resource"** link from the left side menu and then select the **"Compute"** and **"Virtual machine"**.





Or else for the same option you can go to the **"Create a resource"** link from the **"Azureservices"** section and then select the **"Compute"** and **"Virtual machine"**.

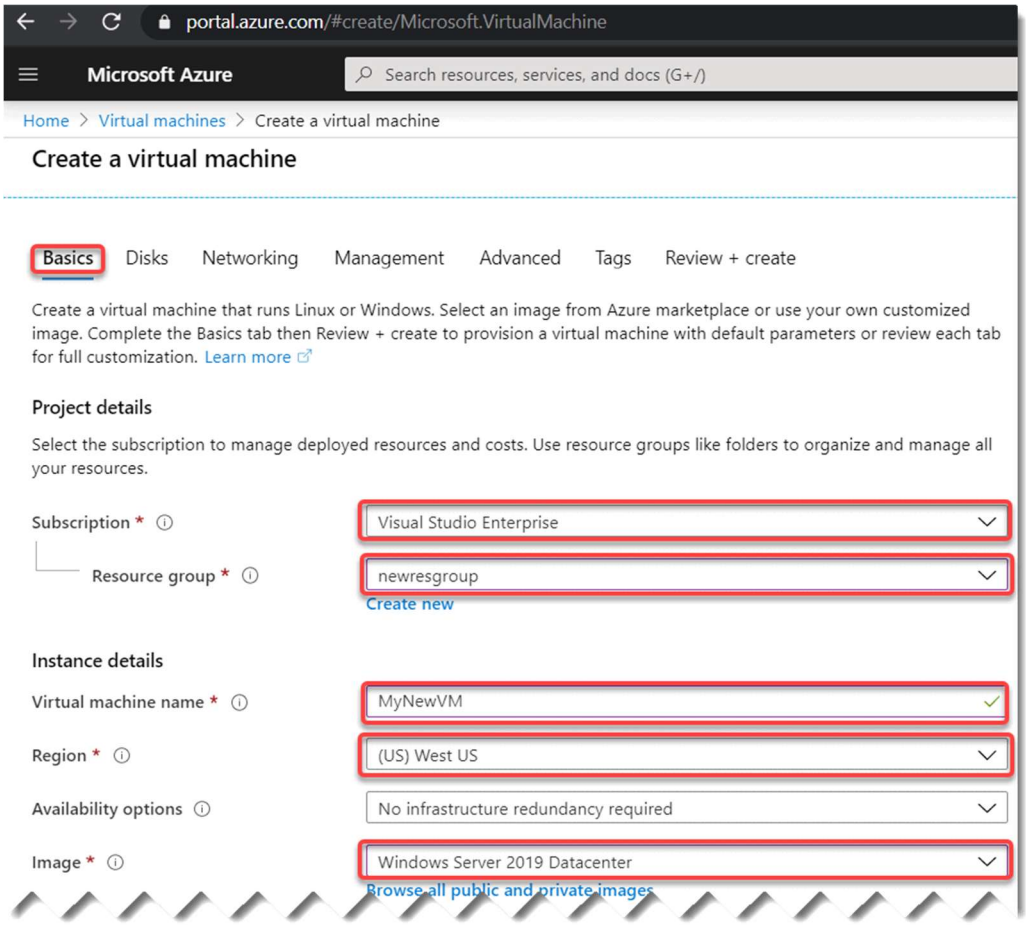
Step- 3: Fill the details required. A few of the options you can keep as it is but based on your business need you can change those.

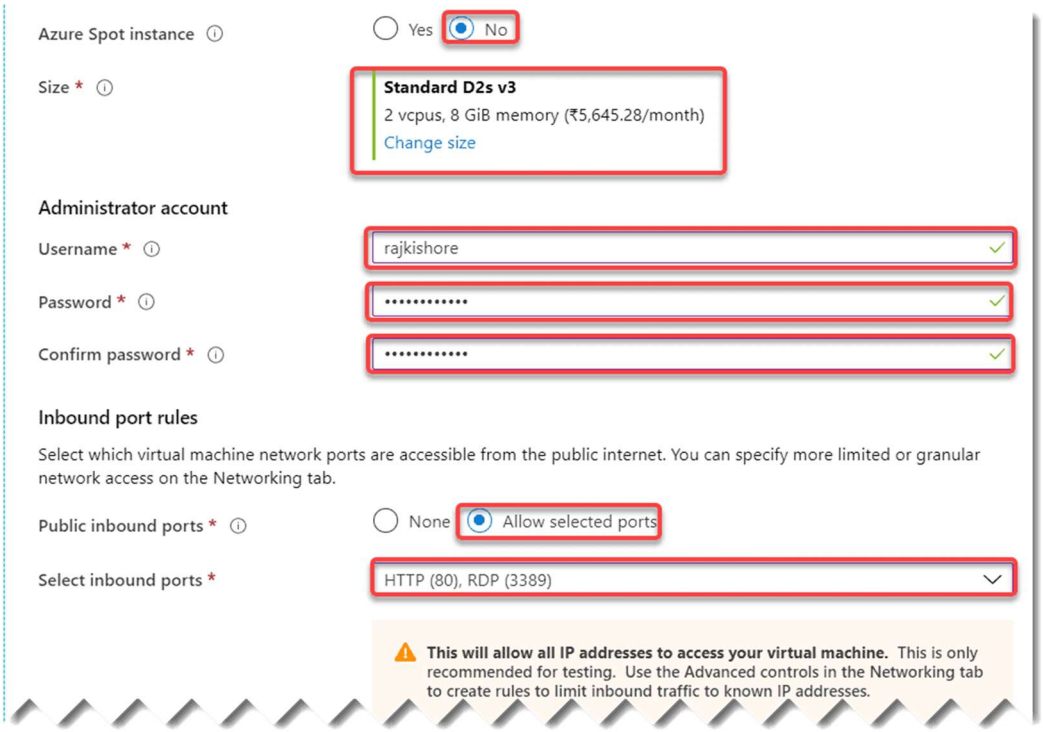
- **Subscription**: Choose your correct subscription.
- **Resource group**: You can choose the existing resource group or you can create a new one by clicking the "**Create New**" option. It acts like a container that stores the resources related to an Azure solution.
- **Virtual machine name**: Provide a name for your virtual machine.
- **Region**: This the location where you are going to create all the resources related to the virtual machine.
- **Image**: Choose the **Windows Server 2019 Datacenter**. You can change it based on your business need.
- **Size**: The size you want to assign based on your requirement. I have chosen **Standard D2s v3** as per my business requirement.

In the Administrator account section, Choose a **Username, Password** that you will use to login to the VM once created.

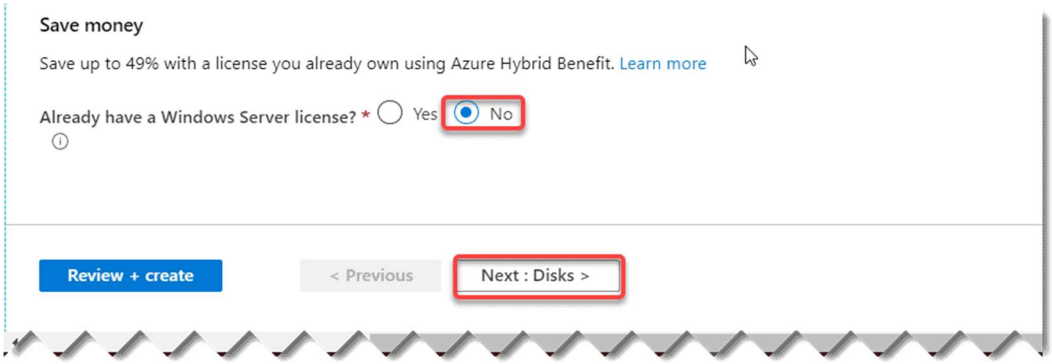
Select Inbound port: Choose **HTTP(80),RDP(3389)**. This is a very important option.

All other options you can keep as it is. Now click on "**Next:Disks >**" button.

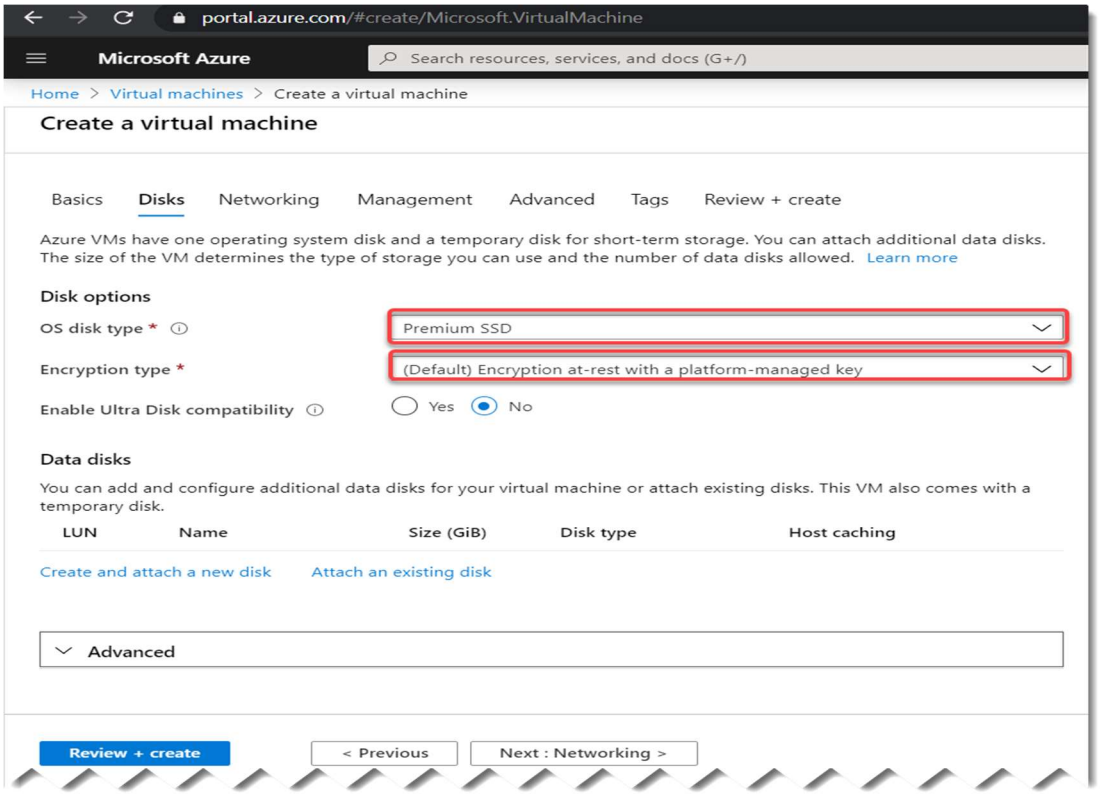




Since, I do not have a windows server license, you can select **No** license.

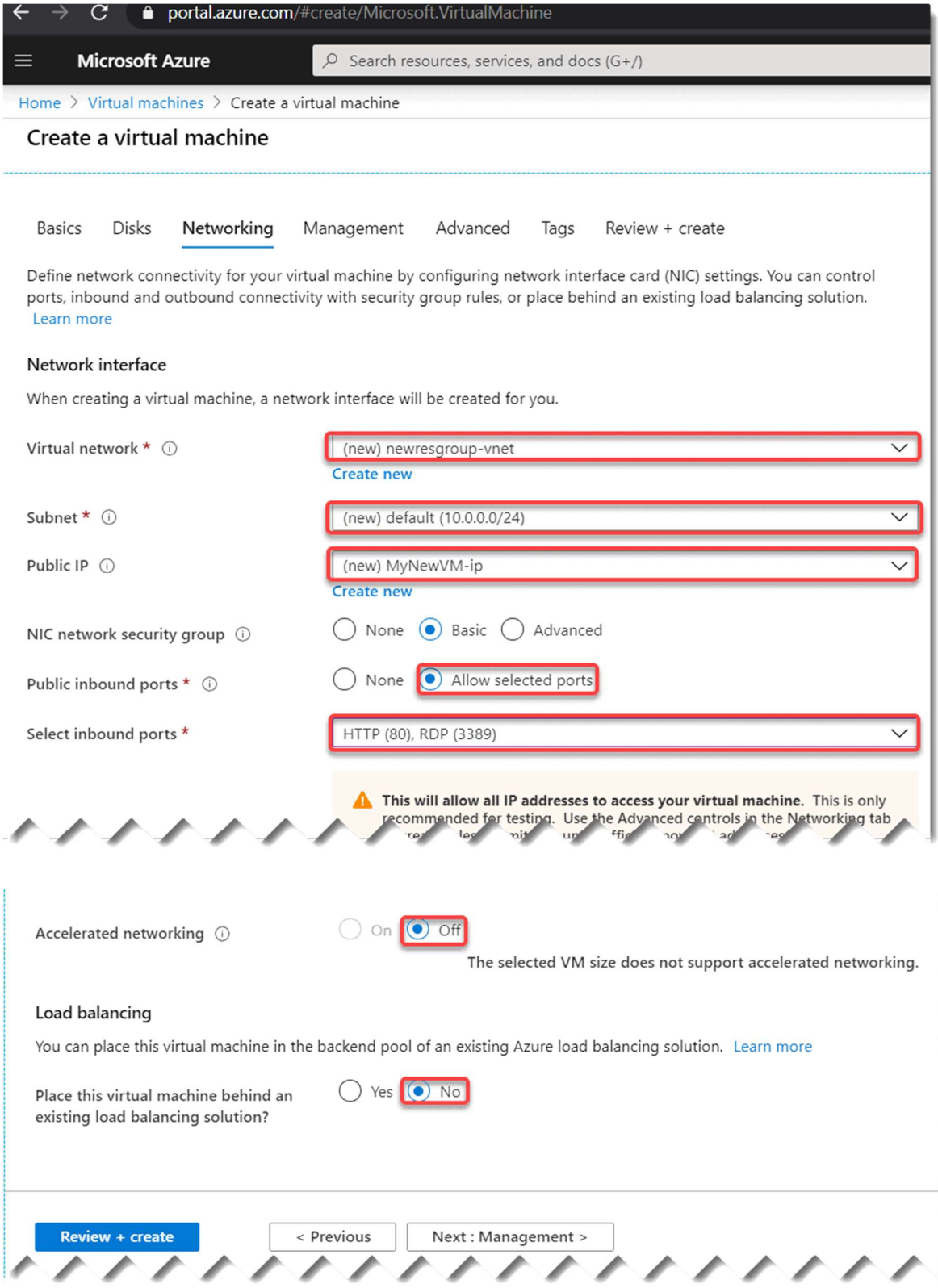


In the next screen **(Disks)**, you can add the disk architecture that you want. I kept the default option as it is. You can change it based on your business need. Click on **Next: Networking** button.

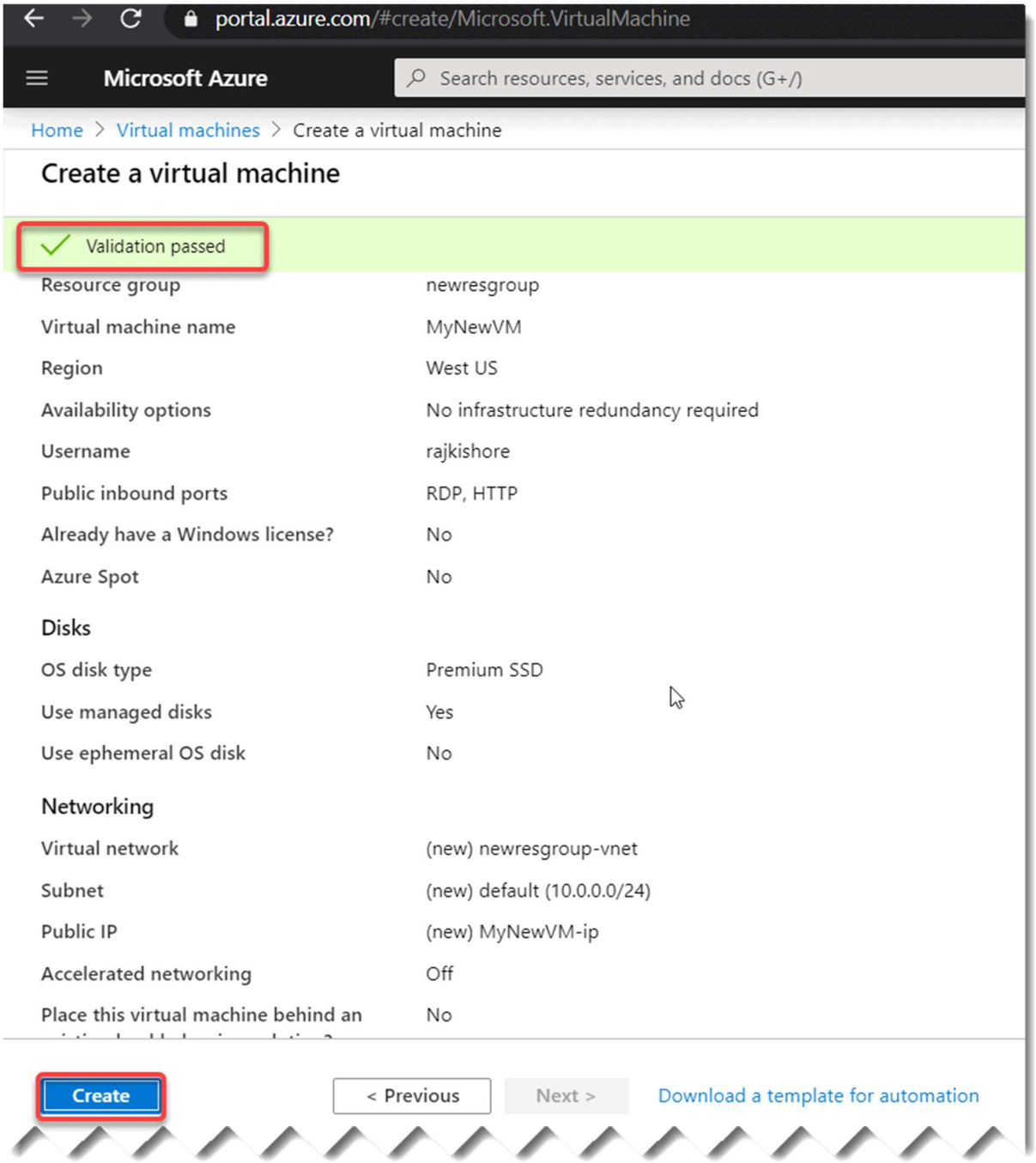


Now you can fill the below details in the Networking screen.

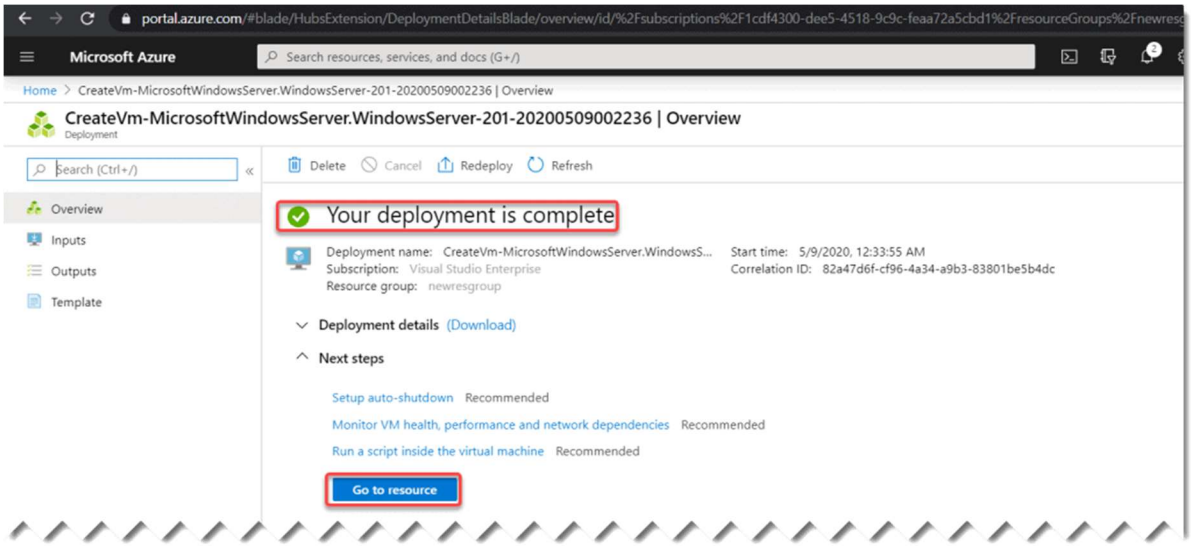
- **Virtual Network**: Choose a **virtual network** or else you can create a new one by clicking the **"Create New"** link.
- **Subnet:** You can keep the default option as it is.
- **Public inbound ports**: choose **Allow selected ports**.
- **Select inbound ports**: This is a very important option. Choose the option as **HTTP(80), RDP(3389)** here. Once you choose this option in the Basics tab it will automatically show the same option here. Keep the option as it is.


portal.azure.com/#create/Microsoft.VirtualMachine
Microsoft Azure
Search resources, services, and docs (G+/)
Home > Virtual machines > Create a virtual machine
Create a virtual machine
Basics
Disks
Networking
Management
Advanced
Tags
Review + create
Define network connectivity for your virtual machine by configuring network interface card (NIC) settings. You can control ports, inbound and outbound connectivity with security group rules, or place behind an existing load balancing solution.
Learn more
Network interface
When creating a virtual machine, a network interface will be created for you.
Virtual network *
(new) newresgroup-vnet
Create new
Subnet *
(new) default (10.0.0.0/24)
Public IP
(new) MyNewVM-ip
Create new
NIC network security group
None
Basic
Advanced
Public inbound ports *
None
Allow selected ports
Select inbound ports *
HTTP (80), RDP (3389)
This will allow all IP addresses to access your virtual machine. This is only recommended for testing. Use the Advanced controls in the Networking tab
Accelerated networking
On
Off
The selected VM size does not support accelerated networking.
Load balancing
You can place this virtual machine in the backend pool of an existing Azure load balancing solution. Learn more
Place this virtual machine behind an existing load balancing solution?
Yes
No
Review + create
< Previous
Next : Management >

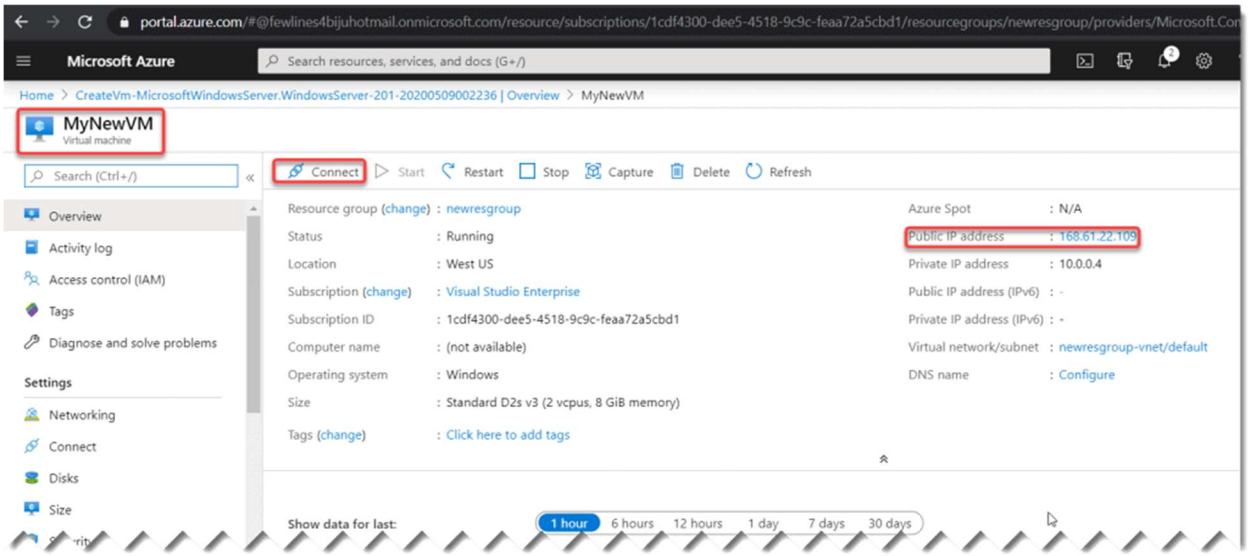
Now for other tabs all the options you can keep as it is. Once you fill all the above details click on the **"Review + Create"** button. Azure will validates the above details internally and will show a message **"Validation passed"**.



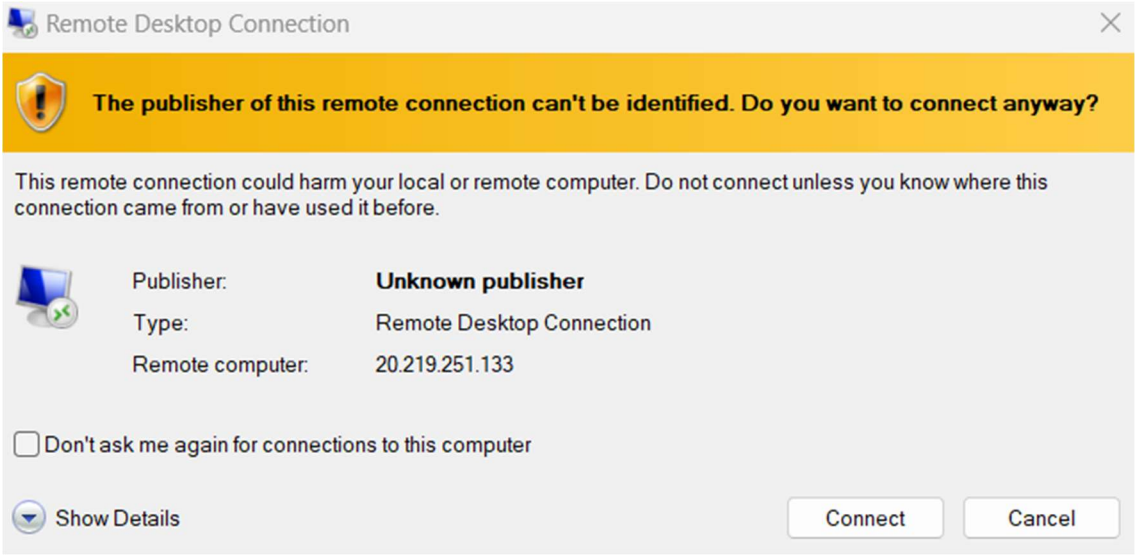
Step- 4: Now click on the "**Create**" button. It will show you "**Your deployment is complete**".Now click on **"Go to resource"**



Step- 5: Congratulations, Now you have created the VM successfully. Click on the **Connect button** to connect to the VM.



Step-6 Click on the **Connect button** to connect to the VM and download RDP , enter username and password of your virtual machine.


Remote Desktop Connection
The publisher of this remote connection can't be identified. Do you want to connect anyway?
This remote connection could harm your local or remote computer. Do not connect unless you know where this connection came from or have used it before.
Publisher:
Unknown publisher
Type:
Remote Desktop Connection
Remote computer:
20.219.251.133
Don't ask me again for connections to this computer
Show Details
Connect
Cancel

Lab 2: Create Azure Virtual Machine (Linux VM)

Now let's discuss here, **how to create Linux Virtual Machine in Azure.**

Step-1: Follow the **step-1 to Step-2** from the above section.

Step-2: On the **Create a Virtual Machine** page, Provide the below details

- **Subscription**: Select a **valid subscription** that you want to use here to create a **Linux virtual machine**.
- **Resource group**: Choose the existing resource group or you can create a new one by clicking the "**Create New**" option.
- **Virtual machine name**: You need to provide a name for your virtual machine.
- **Region**: Select the **region** or **location**.
- **Image**: Choose the **Ubuntu Server 20.04 LTS – Gen1** as the **image** option.
- **Size**: Select the size based on your business requirement. Click on the **see all sizes** link to check all the options available.
- **Authentication Type:** Select the **authentication type** based on your need.
- **Username**: Provide a username.
- **SSH public key source:** Select the default option **Generate new key pair**.
- **Key Pair Name:** Provide a name for the key pair.
- **Public inbound Ports:** Select the **Allow selected ports** option.
- **Select Inbound Ports:** Select the **HTTP (80), SSH (22)** option.

Keep the other tab values as it is, Finally click on the **Review + Create** button.

Create a virtual machine ...

Basics | Disks | Networking | Management | 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

Project details

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

Subscription * : Visual Studio Enterprise

Resource group * : Demo123
Create new

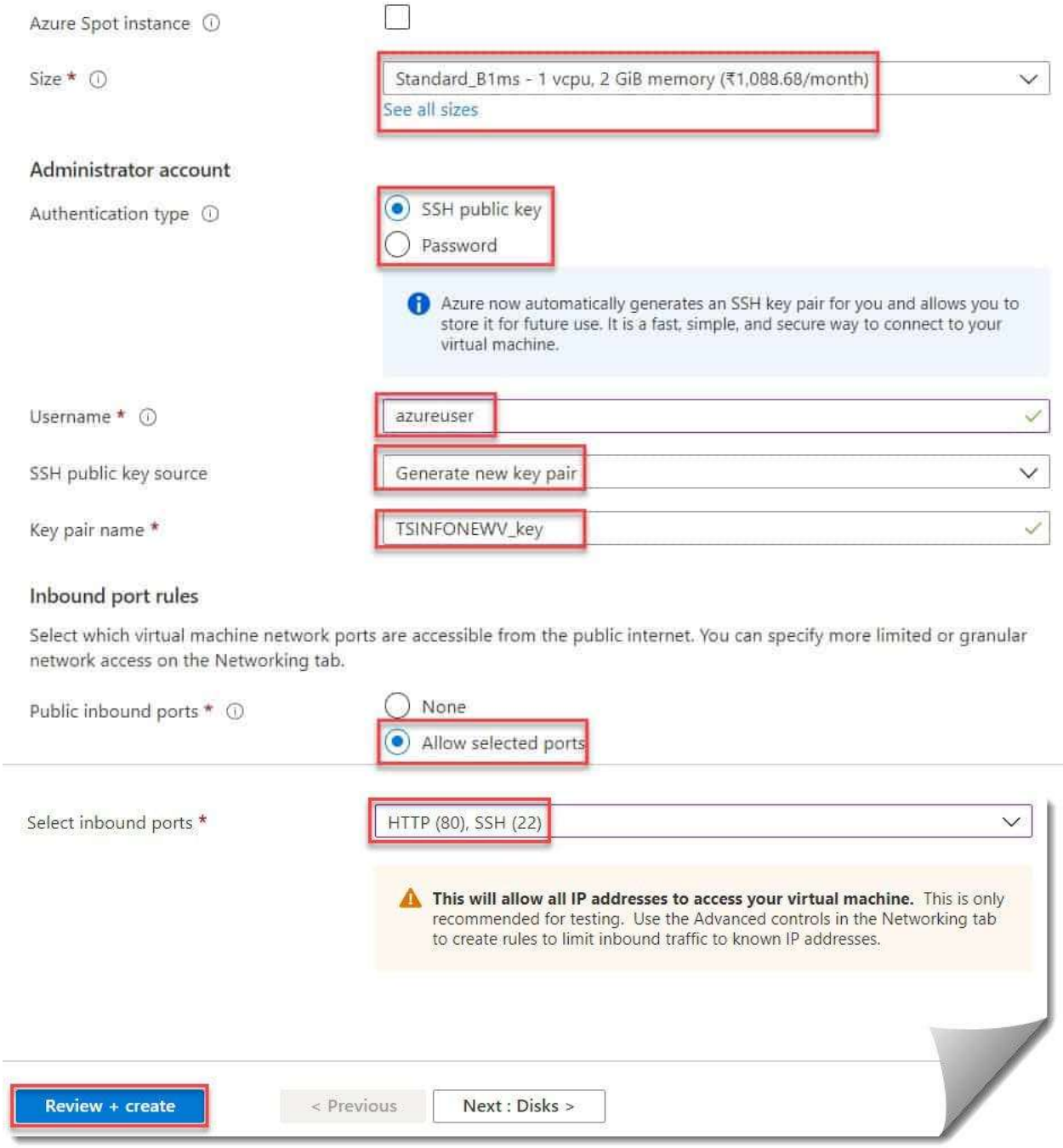
Instance details

Virtual machine name * : TSINFONEWVM

Region * : (US) East US

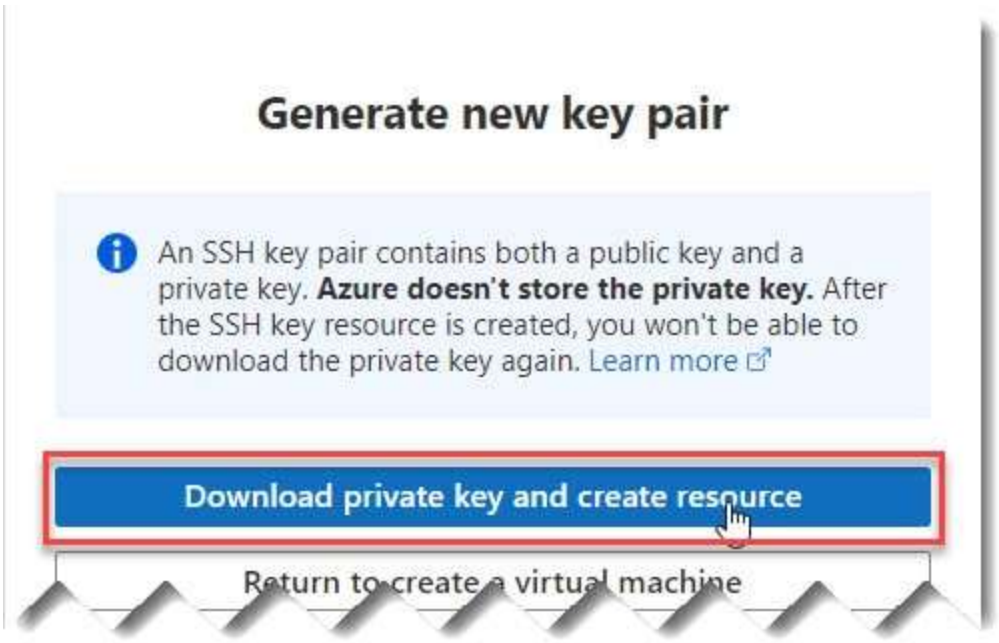
Availability options : No infrastructure redundancy required

Image * : Ubuntu Server 20.04 LTS - Gen1
See all images



Step-3: Now, it will validate all the details provided by you and will show you **Validation Passed**. Click on the **Create** button to create the **Azure Linux Virtual Machine**.

Step-4: Click on the **Download private key and create resource** button to download the key details that you need while connecting the virtual machine.



Step-5: It will take a few minutes and then will show you that **Your deployment is complete**. Click on the **Go to Resource** button to navigate to the **Linux Virtual Machine** that you have created.