

14. Demonstrate Infrastructure as a Service (IaaS) by establishing the remote connection, launch the created VM image and run in your desktop.....

AT FIRST YOU NEED TO CREATE AN ACCOUNT OF MICROSOFT AZURE....

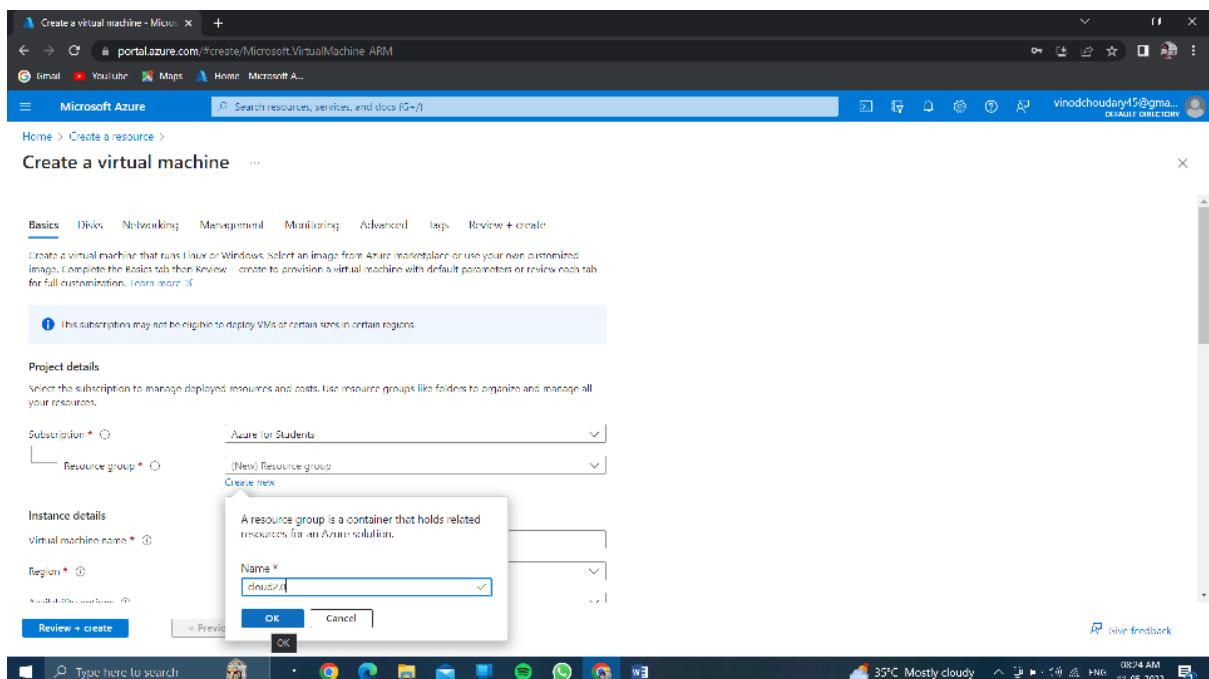
The screenshot shows the Microsoft Azure portal's home page. At the top, there's a navigation bar with links for Home, portal.azure.com/home, Gmail, YouTube, Maps, Home, Microsoft A..., Microsoft Azure, and a search bar. Below the navigation bar is a main menu titled "Azure services" with various service icons like Create a resource, Quickstart Center, App Services, Storage accounts, SQL databases, Azure Cosmos DB, Kubernetes services, Function App, and More services. Under "Resources", there's a table listing recent resources: "vinod" (Virtual machine), "cloud" (Resource group), "cloud_computing" (Resource group), "vinod15" (Virtual machine), and "vinod" (Virtual machine). At the bottom, there's a "Navigate" section with links for Subscriptions, Resource groups, All resources, and Dashboard. The status bar at the bottom shows the URL https://portal.azure.com/#home, the date 11-05-2023, and the time 08:21 AM.

CLICK ON CREATE A RESOURCE.....

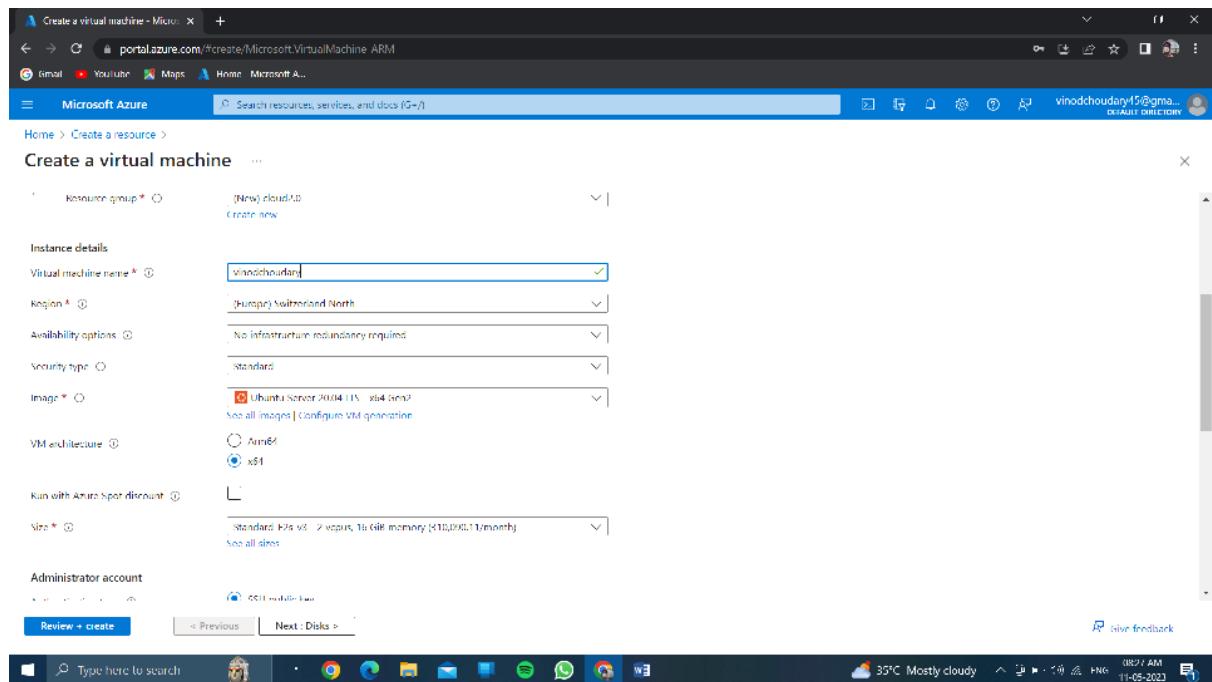
The screenshot shows the Microsoft Azure "Create a resource" hub page. At the top, there's a navigation bar with links for Home, portal.azure.com/create/hub, Gmail, YouTube, Maps, Home, Microsoft A..., Microsoft Azure, and a search bar. Below the navigation bar is a main menu titled "Create a resource" with a "Get Started" tab selected. On the left, there's a sidebar with categories: Recently created, Categories (AI + Machine Learning, Analytics, Blockchain, Compute, Containers, Databases, DevOps, Identity, Integration, Internet of Things, IT & Management Tools, Media, Migration), and Popular Azure services (Virtual machine, Web App, SQL Database, Function App, Key Vault, Data Factory, Template deployment (deploy using custom templates)). On the right, there are sections for "Popular Azure services" (Virtual machine, Web App, SQL Database, Function App, Key Vault, Data Factory, Template deployment) and "Popular Marketplace products" (Windows Server 2019 Datacenter, Windows 10 Pro, version 21H2, Windows 11 Pro, version 21H2, Ubuntu Server 20.04 LTS, Ubuntu Server 22.04 LTS, Windows 7 Enterprise, Ubuntu Server 18.04 LTS, Red Hat Enterprise Linux 7.4). The status bar at the bottom shows the URL https://portal.azure.com/#create/hub, the date 11-05-2023, and the time 08:21 AM.

CLICK ON CREATE OF VIRTUAL MACHINE....

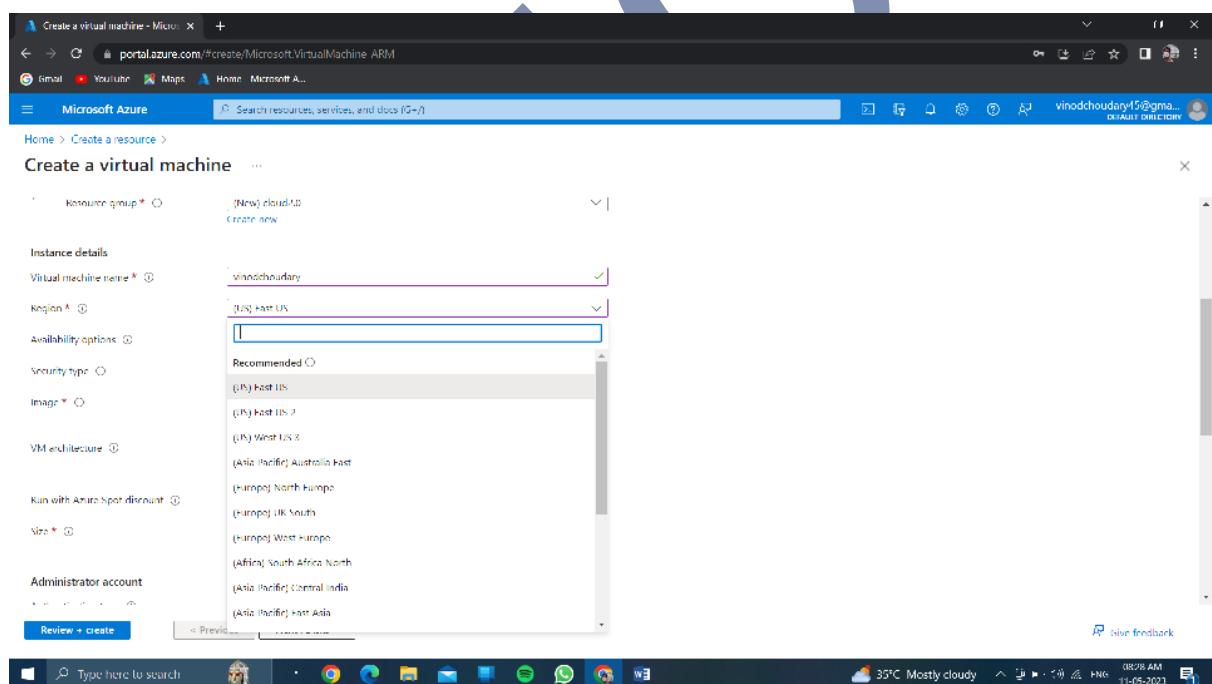
CREATE A RESOURCE GROUP.....



Give the name of virtual machine....

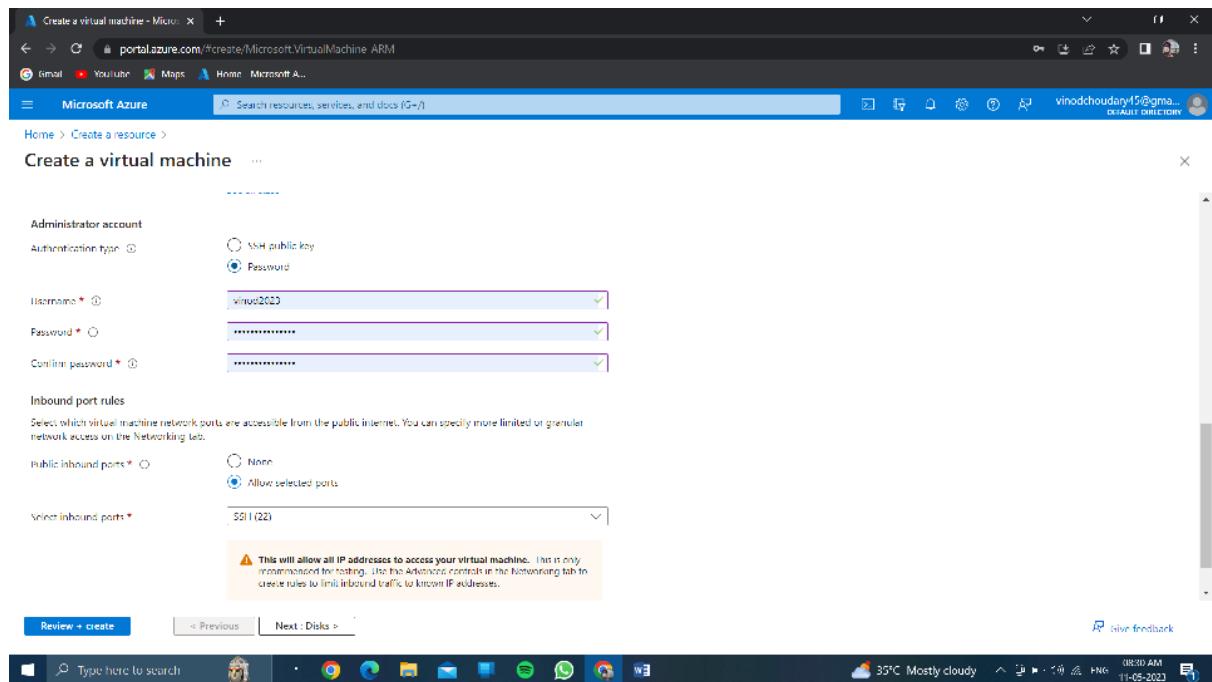


Choose any region.....based on cpu & ram configuration of size....

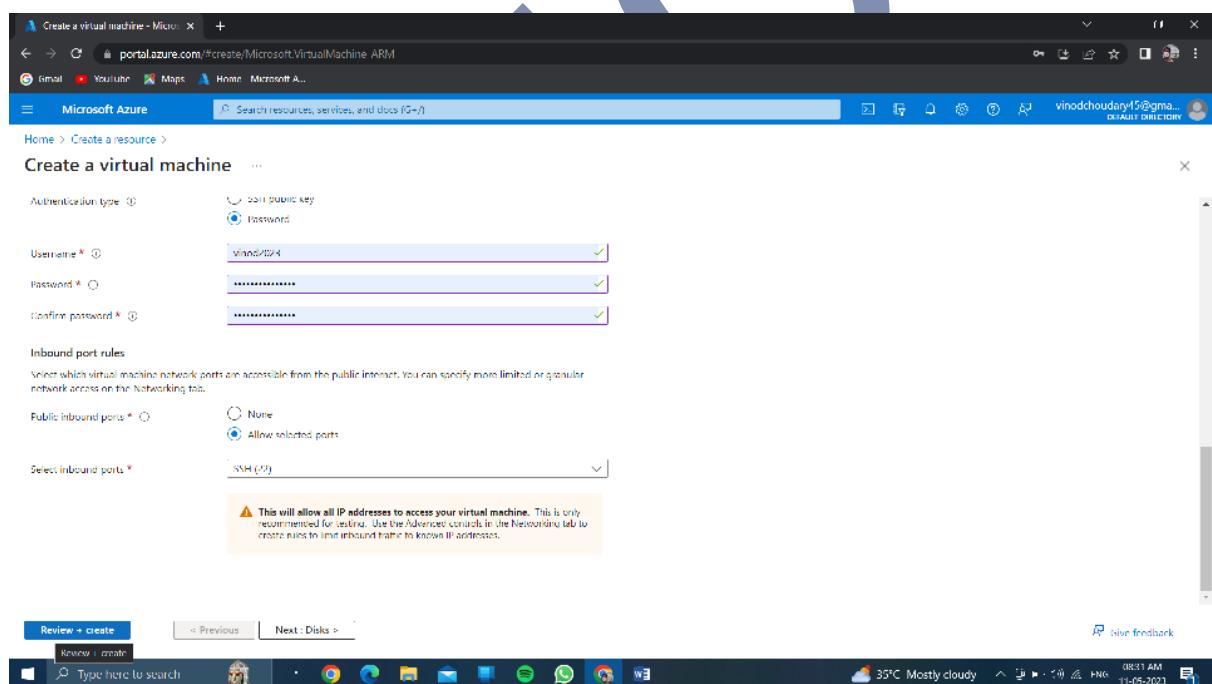


Click on authenticated type //and choose >>password<<

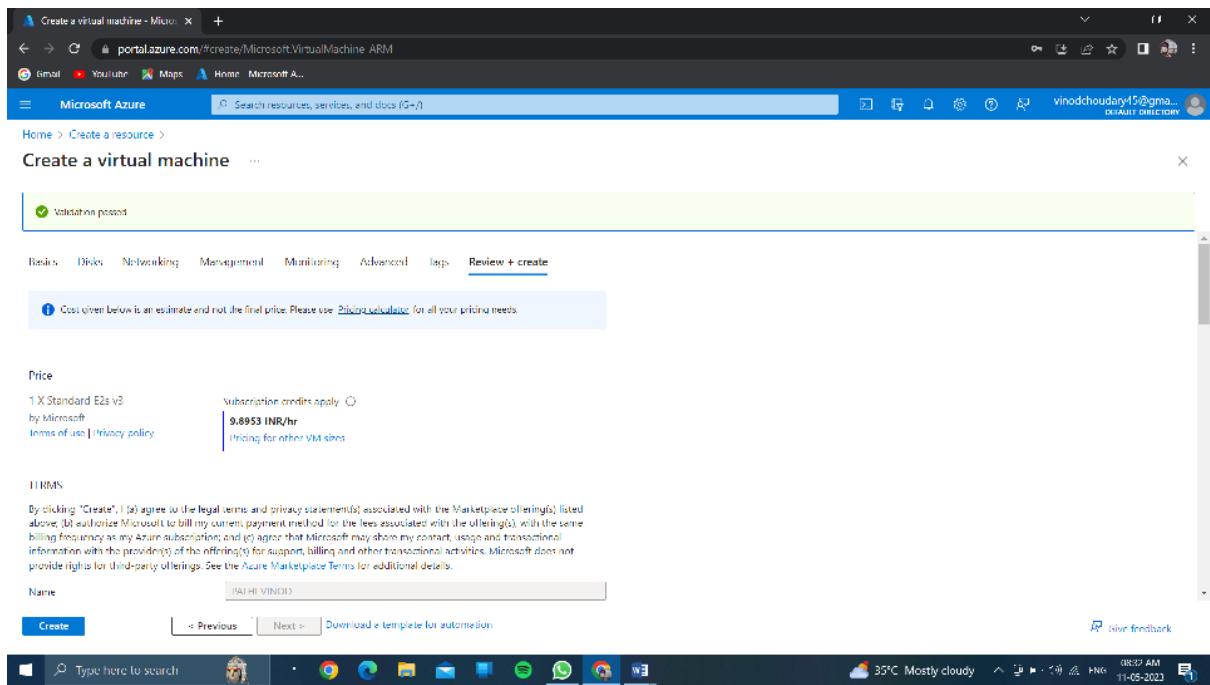
And create your own username and password.....



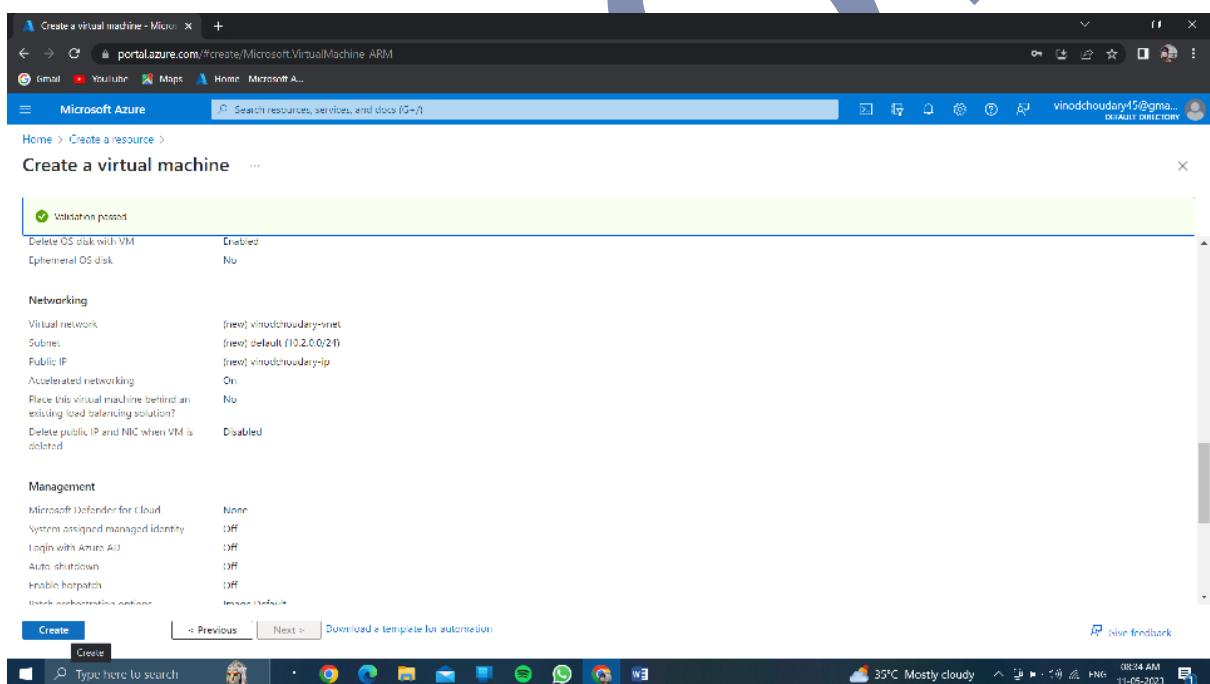
Click on<<review and create>>



And wait few minutes for getting the validation passed.....



Click on create.....



And wait for few minutes for completion of deployment process>>

The screenshot shows the Microsoft Azure portal with a deployment overview for a virtual machine named 'CreateVm-canonical.0001-com-ubuntu-server-focal-2-20230511082149'. The status is 'Your deployment is complete'. The deployment details table lists several resources: 'vinodchoudary' (Microsoft.Compute/virtualMachines), 'vinodchoudary123' (Microsoft.Network/networkInterfaces), 'vinodchoudary_ip' (Microsoft.Network/publicIPAddresses), 'vinodchoudary-vnet' (Microsoft.Network/virtualNetworks), and 'vinodchoudary-nsg' (Microsoft.Network/networkSecurityGroups). All resources are in 'OK' status. The deployment started at 5/11/2023, 03:43 AM. The sidebar on the right provides links to Cost Management, Microsoft Defender for Cloud, Free Microsoft tutorials, and Work with an expert.

Then after click on <<resource>>....

Then after click on <<create>>then see your resource group is created and virtual machine also....

The screenshot shows the Microsoft Azure portal with the details of a virtual machine named 'vinodchoudary'. The 'Essentials' section displays the following information: Resource group (move), Status (Running), Location (East US), Subscription (Azure for Students), and Tags (None). The 'Virtual machine' properties include Computer name (vinodchoudary), Operating system (Linux (Ubuntu 20.04)), Publisher (canonical), Offer (0001-com-ubuntu-server-focal), Plan (20_04-ls-gen2), and VM generation (6). The 'Networking' section shows Public IP address (71.235.175.2), Private IP address (10.0.0.4), and DNS name (vinodchoudary-vnet.default). The status bar at the bottom indicates the URL as https://portal.azure.com/#@vinodchouday15@gmail.com/resource/subscriptions/3b4fb3b-ccc6-4257-8f12-75b8d7b2a1b0/resourceGroups/cloud2.0/providers/Microsoft.Compute/... and the time as 08:40 AM on 11-05-2023.

And click on << back to home >>

vinodchoudary

Resource group (new): cloud2.0

Status: Running

Location: East US

Subscription (new): core-for-students

Subscription ID: 4b4fbbeb-4247-8f12-75b8d7b2a1b9

Tags (0): Click here to add tags

Properties Monitoring Capabilities (7) Recommendations Tutorials

Virtual machine

Computer name: vinodchoudary

Operating system: Linux (Ubuntu 20.04)

Publisher: canonical

Offer: 0001-com Canonical Server - Local

Plan: 2024-1s-gen2

VM generation: v2

VM architecture: x64

Networking

Public IP address: 74.235.175.2 (Network interface vinodchoudary (73))

Public IP address (IPv6):

Private IP address: 10.0.5.4

Private IP address (IPv6):

Virtual network/subnet: vinodchoudary-vnet/default

DNS name: Configure

Now see your resource group and virtual machine is created....

Azure services

Create a resource

Virtual machines

Quickstart Center

App Services

Storage accounts

SQL databases

Azure Cosmos DB

Kubernetes services

Function App

More services

Resources

Recent

vineodchoudary

cloud2.0

vino

cloud

cloud.com

vinod5

vino

See all

Navigate

https://portal.azure.com/#@vinodchoudary15@gmail.onmicrosoft.com/resource/subscriptions/3b1fb4bbeb-4247-8f12-75b8d7b2a1b9/resourceGroups/cloud2.0...

Click on name of the virtual machine.....

Azure services

Resources

Recent

Name	Type	Last Viewed
vinodchoudary	Virtual machine	8 minutes ago
cloud2.0	Resource group	19 minutes ago
vms	Virtual machine	24 hours ago
cloud	Resource group	24 hours ago
cloud_computing	Resource group	24 hours ago
virus15	Virtual machine	6 days ago
wind	Virtual machine	6 days ago

Navigate

https://portal.azure.com/#@vinodchoudary15@gmail.onmicrosoft.com/resource/Subscriptions/0b4fb3b-cc6-1257-9f12-75b8d7b2a1b0/resourceGroups/cloud2.0/providers/Microsoft.Compute/virtualMachines/vinodchoudary

Now you can see your name of your virtual machine....

vinodchoudary - Microsoft Azure

vinodchoudary

Properties

Virtual machine	
Computer name	vinodchoudary
Operating system	Linux (Ubuntu 20.04)
Publisher	canonical
Offer	0001-com-ubuntu-server-cloud
Plan	2021-lab-gen2
VM generation	V2
VM architecture	x64
Agent status	Ready
Agent version	2.9.0.1
Host group	None
Proximity placement group	-
Colocation status	N/A
Capacity reservation group	-
Disk controller type	SCSI

Networking

Public IP address	74.235.175.2 (Network interface vinodchoudary (73))
Public IP address (IPv6)	-
Private IP address	10.0.0.4
Private IP address (IPv6)	-
Virtual network/subnet	vinodchoudary-vnet/default
DNS name	Configure

Size

Size	Standard ERS v3
vCPUs	2
RAM	16 GB

Disk

OS disk	vinodchoudary disk 8004110fbfb44b107dbabfbfbfe
Encryption at host	Disabled
Azure disk encryption	Not enabled

Click on <<connect>>

Azure portal screenshot showing a virtual machine named 'vinodchoudary'. The 'Connect' tab is selected. Key details shown:

- Resource group: cloud2
- Status: Running
- Location: East US
- Subscription: Core for Students
- Subscription ID: 4b4fb6bb-ccc6-4257-8f12-75b8d7b2a1b0
- Public IP address: 71.235.175.2
- Private IP address: 10.0.5.4
- Virtual network/subnet: vinodchoudary-vnet/default
- DNS name: Not configured
- Health state: Green

And wait for few minutes for checking the network security of client ip –address in ssh....

Connect page for 'vinodchoudary' VM. The 'SSH' tab is selected. A warning message says: "To improve security, enable just-in-time access on this VM." Below it, a list of prerequisites is shown:

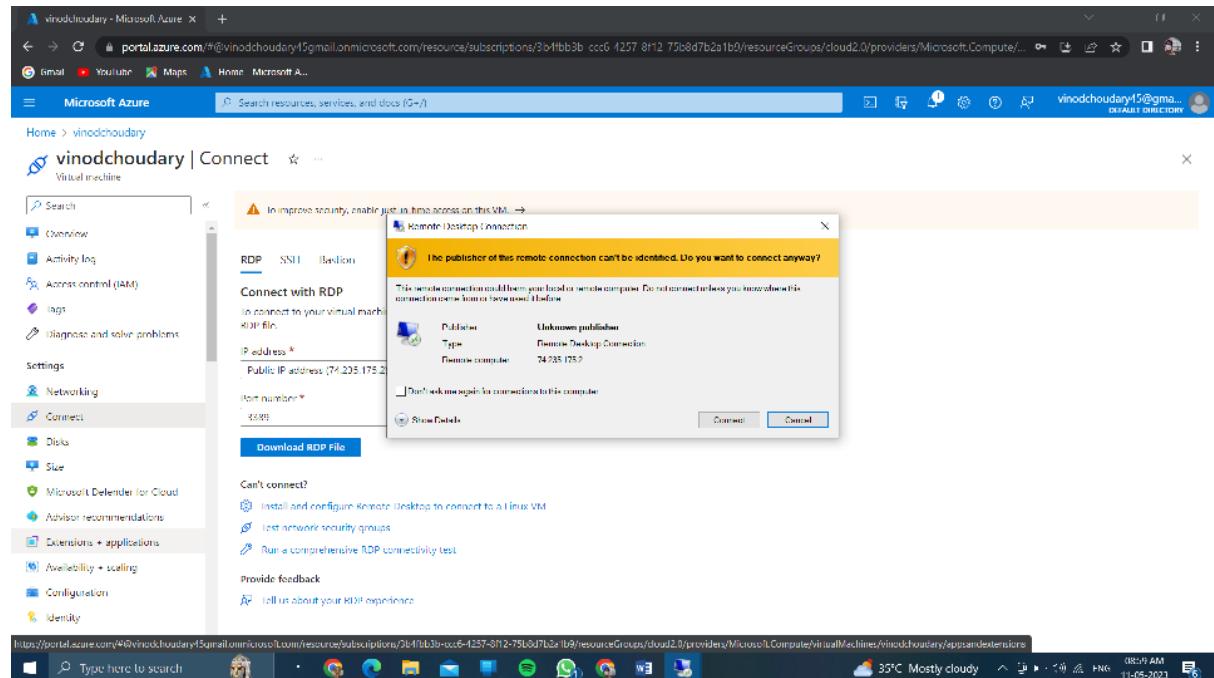
- An inbound network security group rule has been created and your client IP address can access port 22.
- The VM's network interface has a Public IP address.
- The VM is running.

Below the prerequisites, steps for connecting via SSH are listed:

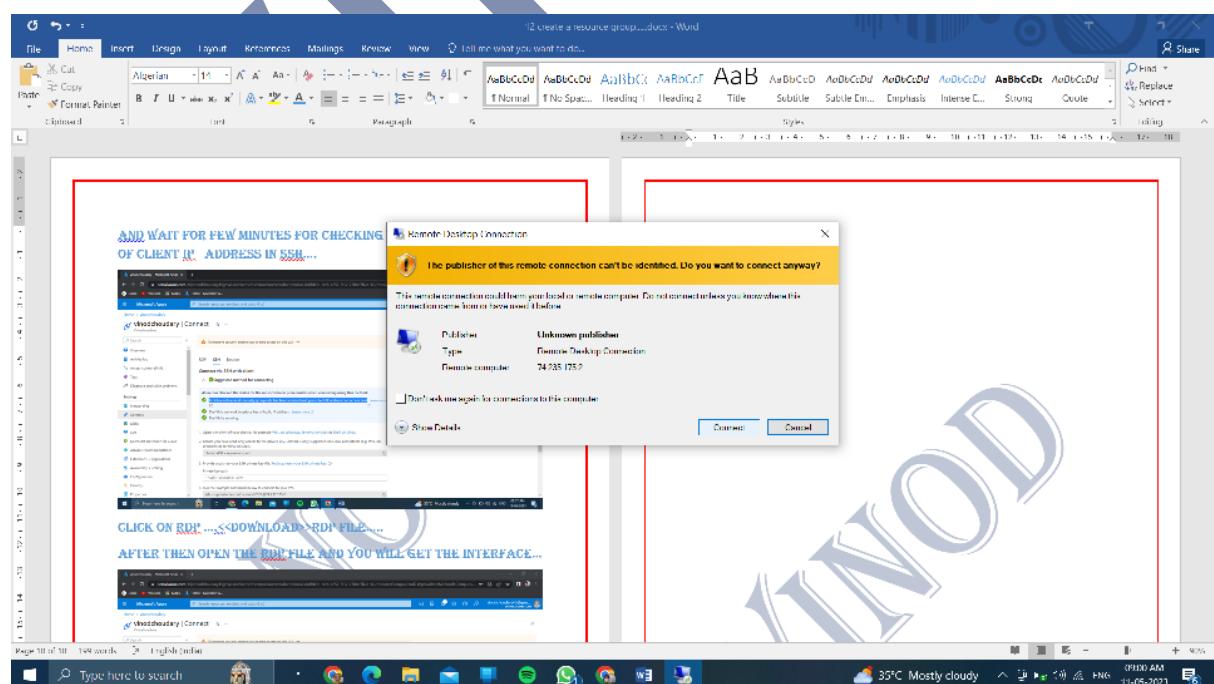
- Open the client of your choice, for example WSL on Windows, Terminal on Mac or Shell on Linux.
- Create you have read-only access to the private key. (Client is only supported on Linux subsystems (e.g. WSL) on Windows or Terminal on Mac.)
ssh -i /path/to/privatekeyname.pem
- Provide a path to your SSH private key file. Replace/reset your SSH private key.
Private key path:
/path/to/privatekeyname.pem
- Run the example command below to connect to your VM.
ssh -i /path/to/privatekeyfile vinod2023071235175.2

Click on rdp<<download>>RDP file.....

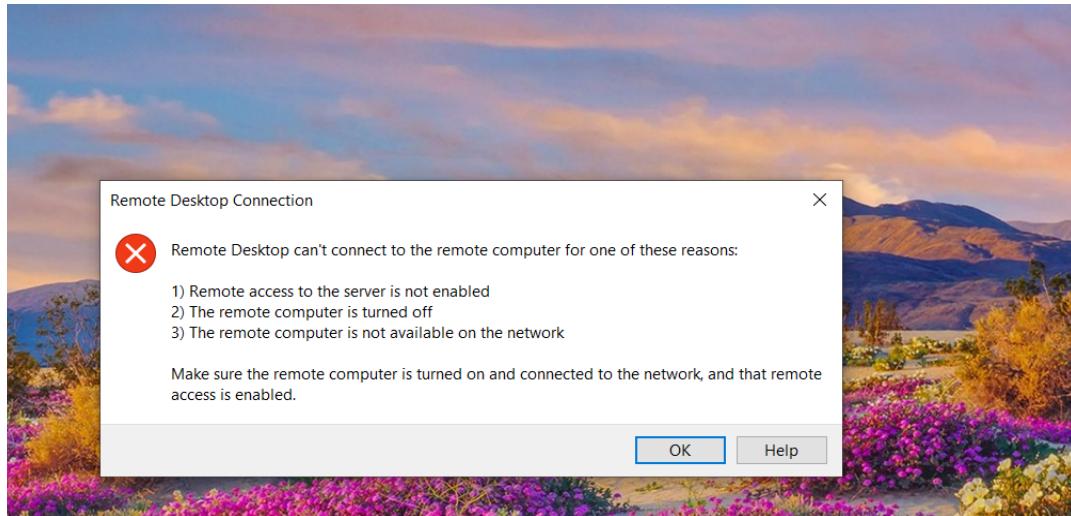
After then open the rdp file and you will get the interface...



Then click on connect....



Then after you will get outputor otherwise you will get
The remote connect desktop...



VINNOV