Project: (Implement the Azure IaaS)

Requirements: -

- **Create virtual networks in the aforementioned region**
- **Create test virtual machines in both the virtual networks**
- **Establish the connectivity between both the networks via VNet peering**
- **Ensure connectivity is established properly**

Lab screenshots and explanation: -

Step – 1 -> Created 2 resource groups.

Headquarters Resource group name - OSS_RGH (Region - East US)
Branch Resource group name - OSS_RGB (Region - Southeast Asia)

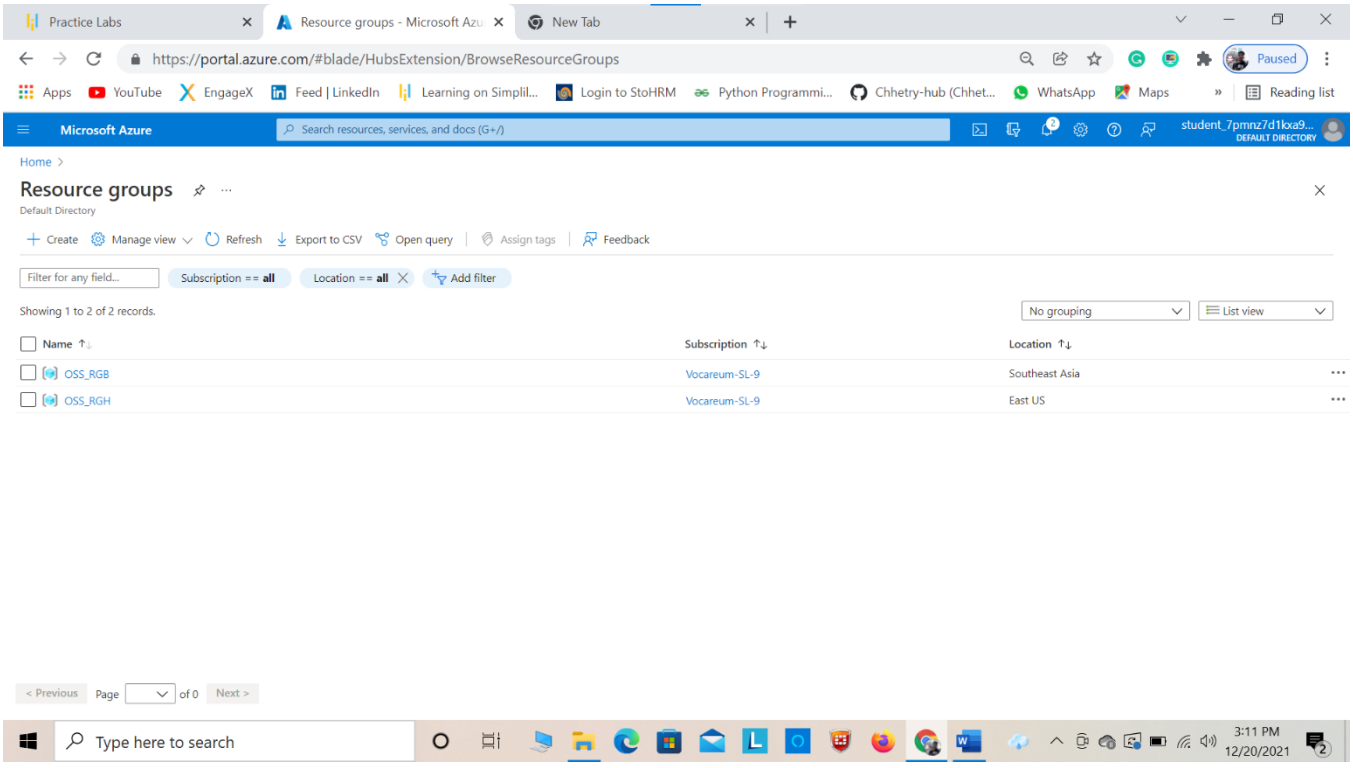


Fig 0.1: Resource groups

Project: (Implement the Azure IaaS)

Step – 2 -> Created Storage group

Headquarters storage group name – osshs1
Branch storage group name - ossbs2

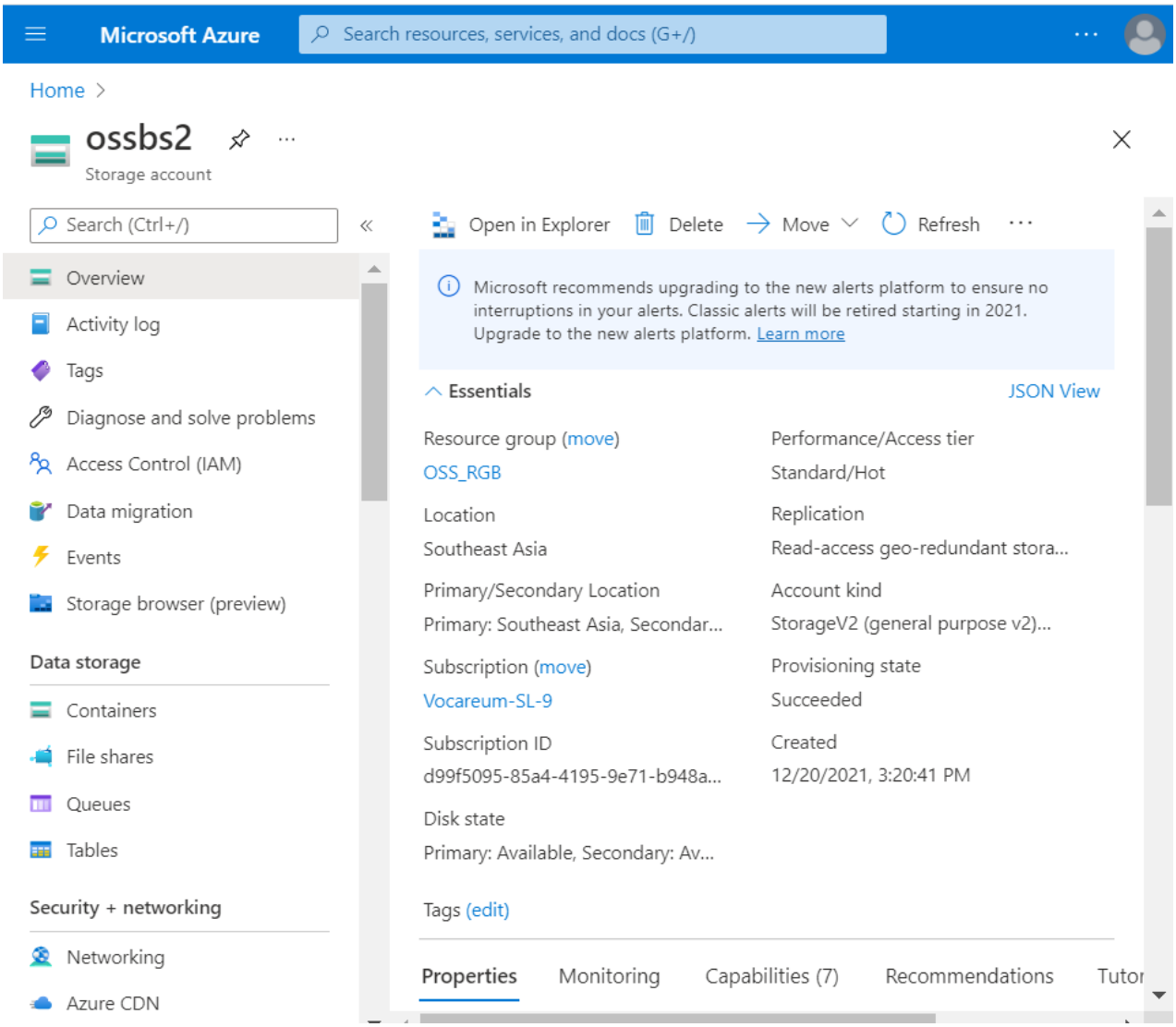


Fig: Storages account in branch sever

Project: (Implement the Azure IaaS)

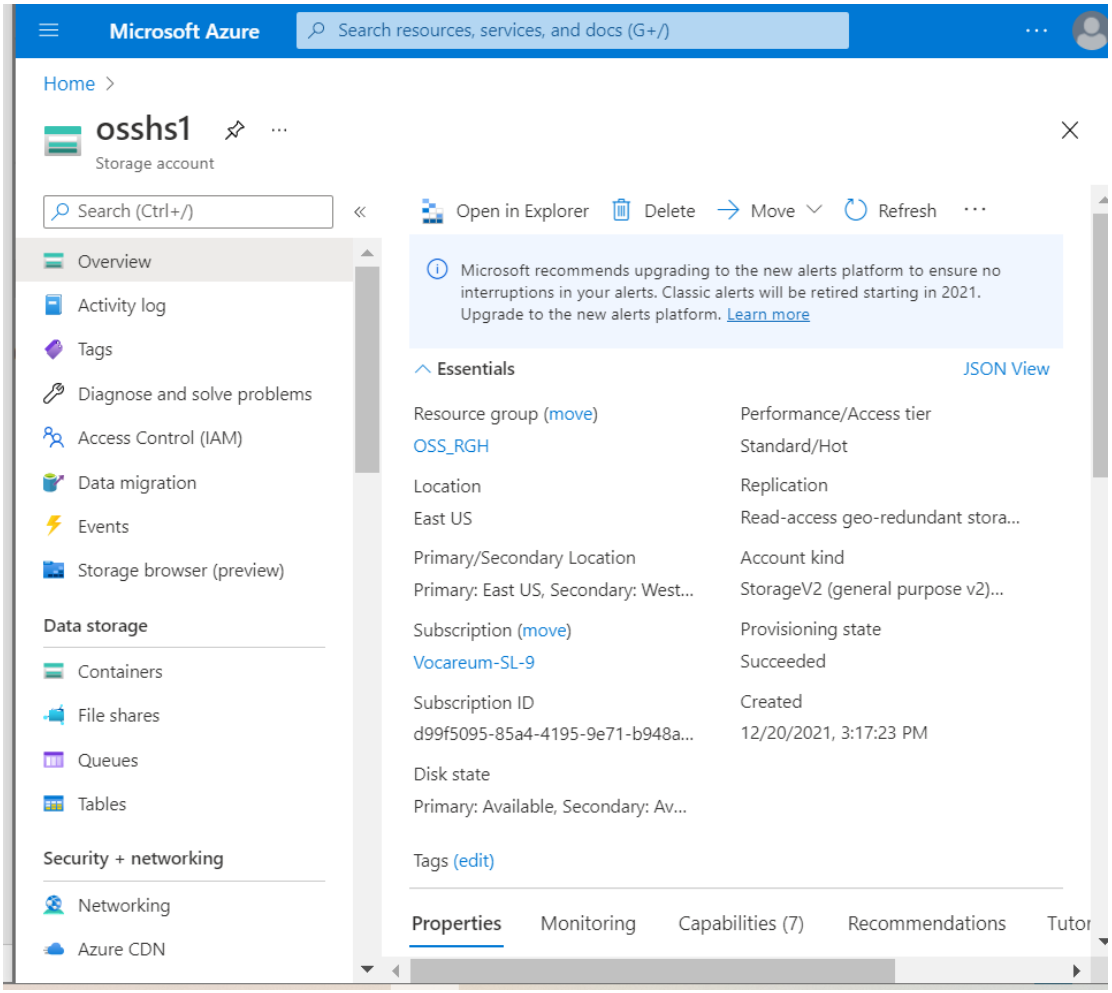


Fig: Storage account for Headquarter Sever

Step – 3 -> Created Virtual Network & Subnet

Headquarter Vnet details: -	**Branch Vnet details: -**
Name - OSS_VNET1 IP Range - 10.0.0.0/16 Subnet name - OSS_VNET1_subnet Subnet Range - 10.0.1.0/24	Name - OSS_VNET2 IP Range - 192.168.0.0/16 Subnet name - OSS_VNET2_subnet Subnet Range - 192.168.1.0/24

Project: (Implement the Azure IaaS)

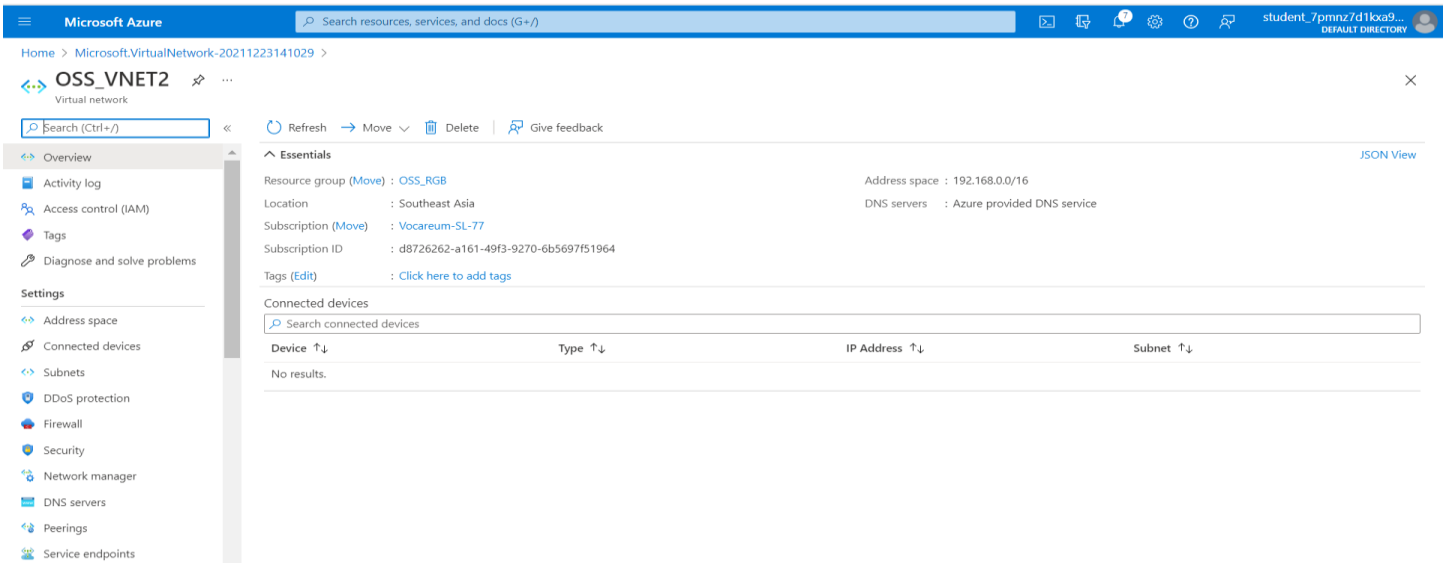


Fig: Vnet for Branch

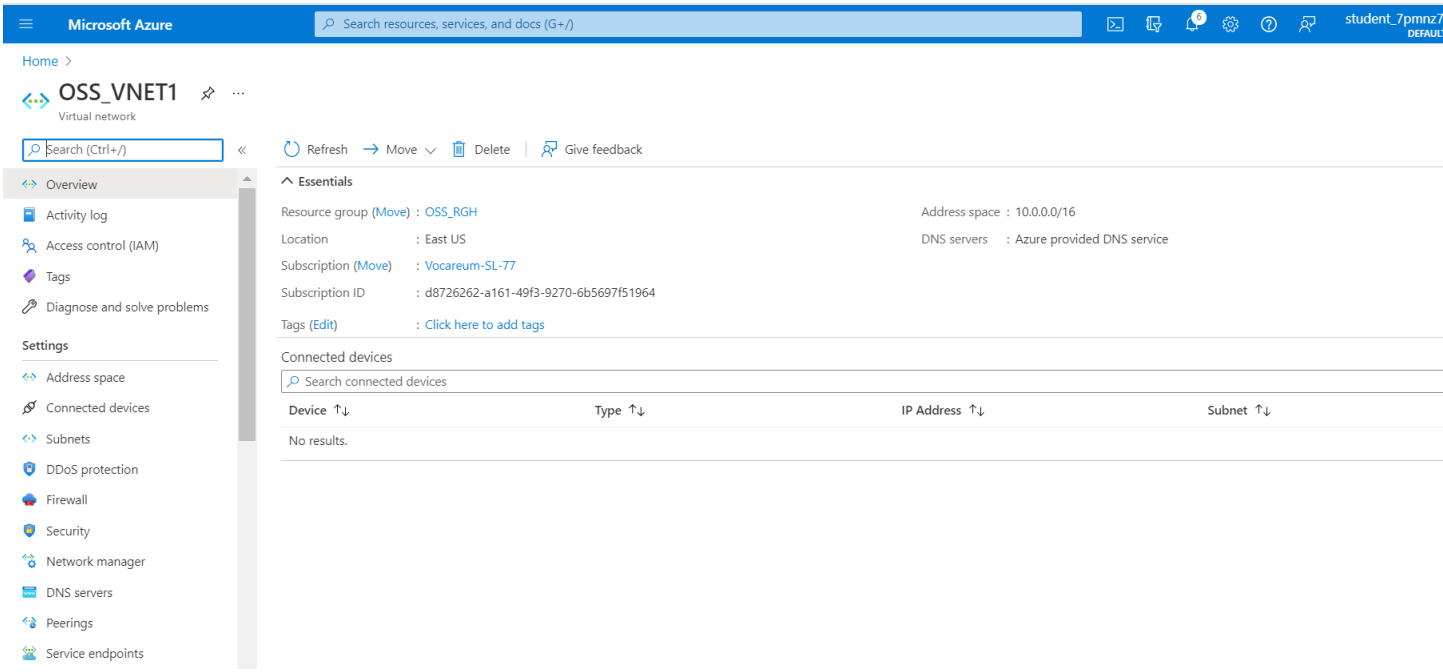


Fig: Vnet for Headquarter

Project: (Implement the Azure IaaS)

Step – 4 -> Created virtual machine

Headquarters	Branch
VM Name - OSSDB Public IP - OSSDB-pubip	VM Name - OSSAP Public IP - OSSAPP-pubip

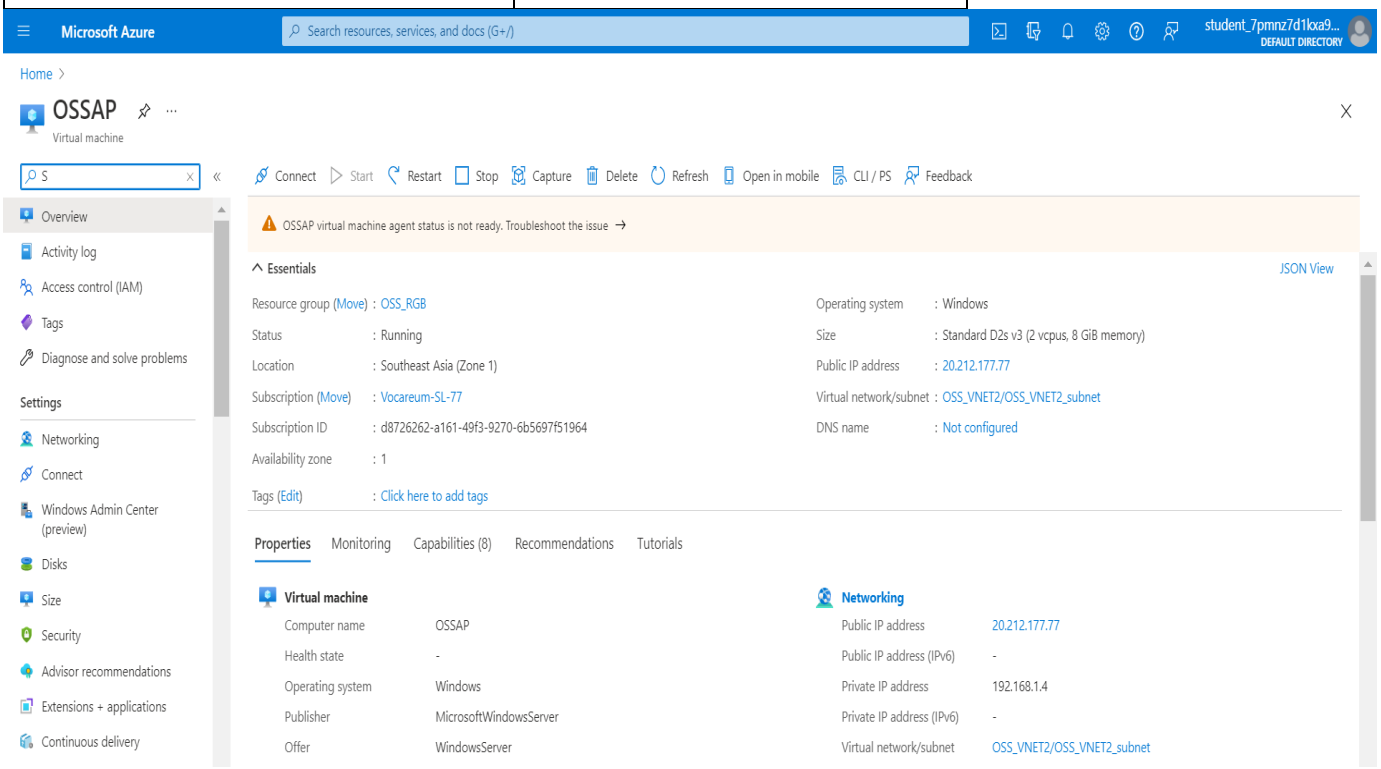


Fig: Virtual Machine for Brach application

Project: (Implement the Azure IaaS)

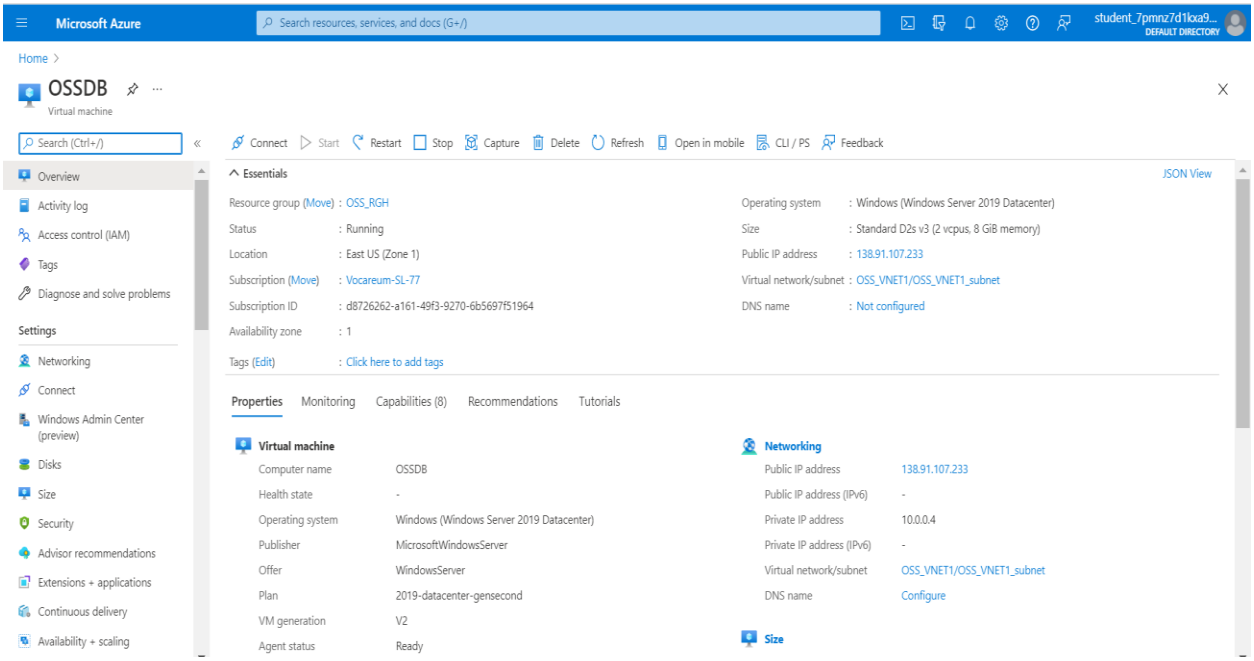


Fig: Virtual Machine for HQ-Database

Step – 5 -> Setup VNET Peering between both the locations

Created the VNET peering settings in Headquarters VNET

Project: (Implement the Azure IaaS)

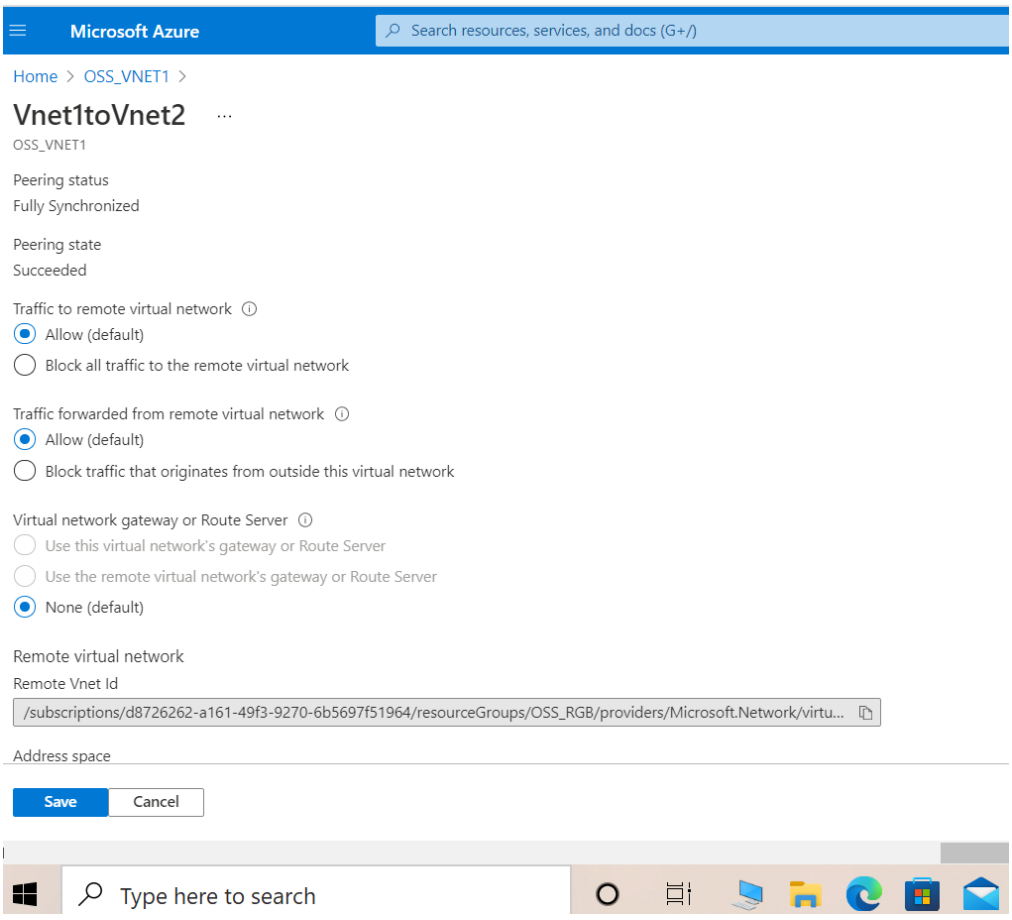
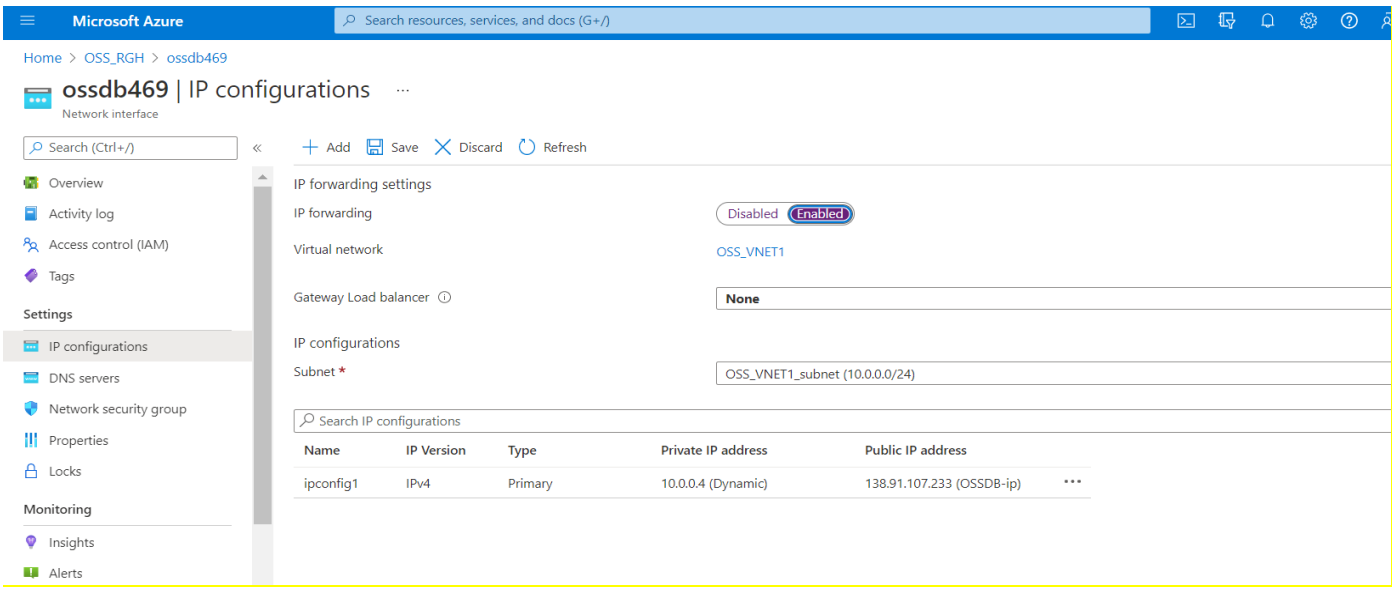


Fig: Vnet Peering Between Vnet1 & Vnet2

Step – 6 -> Enable IP forwarding on VM located in headquarters.



Project: (Implement the Azure IaaS)

Step – 7-> Create Routing in the VM created at Branch location

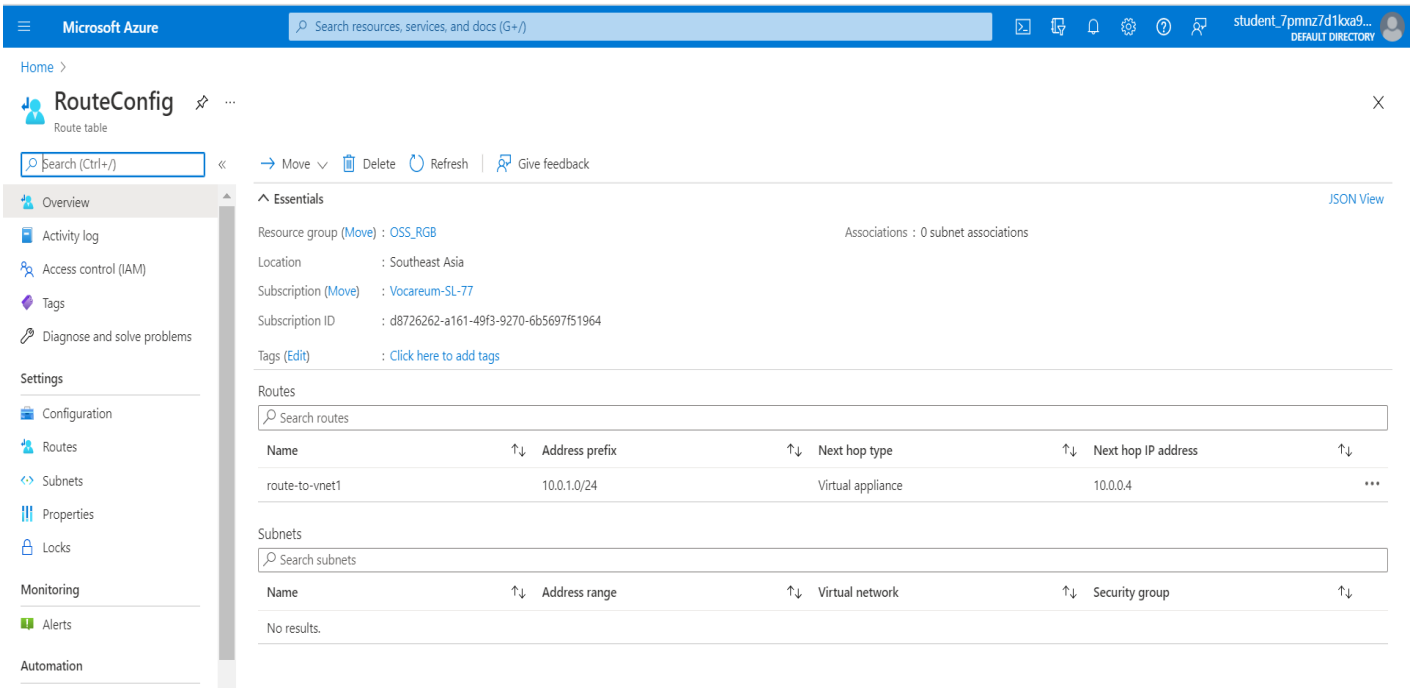


Fig: Routing Table

Step – 8-> In DB VM (Headquarters) install Remote access & Routing features / Enable LAN routing

Headquarter VM:

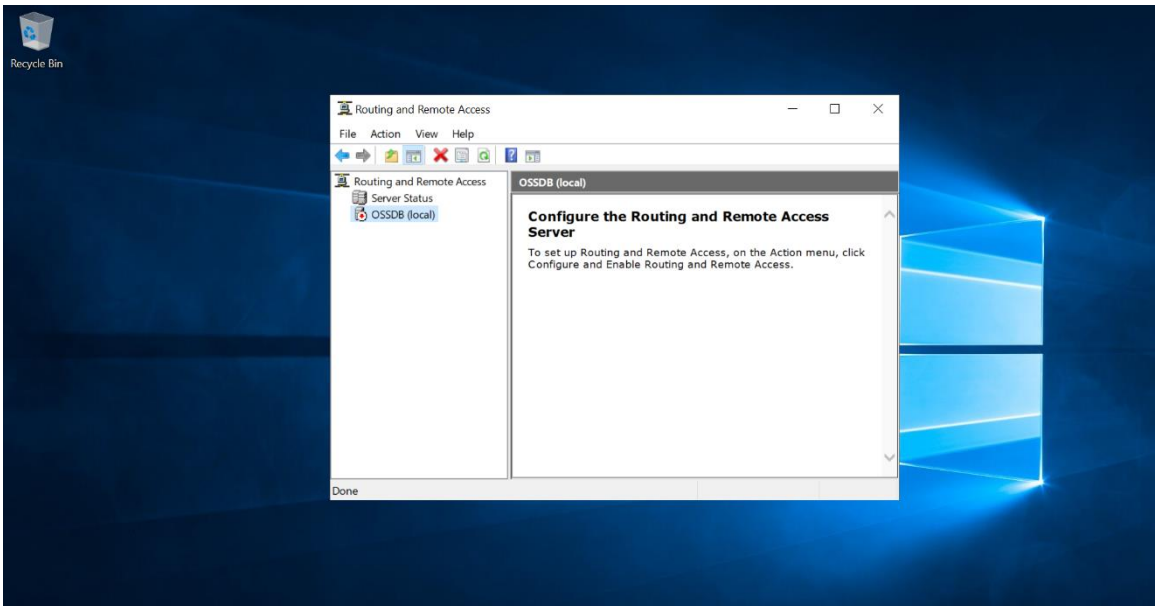


Fig: Routing and Remote Access

Project: (Implement the Azure IaaS)

Enable Inbound rules for both the VM's: -

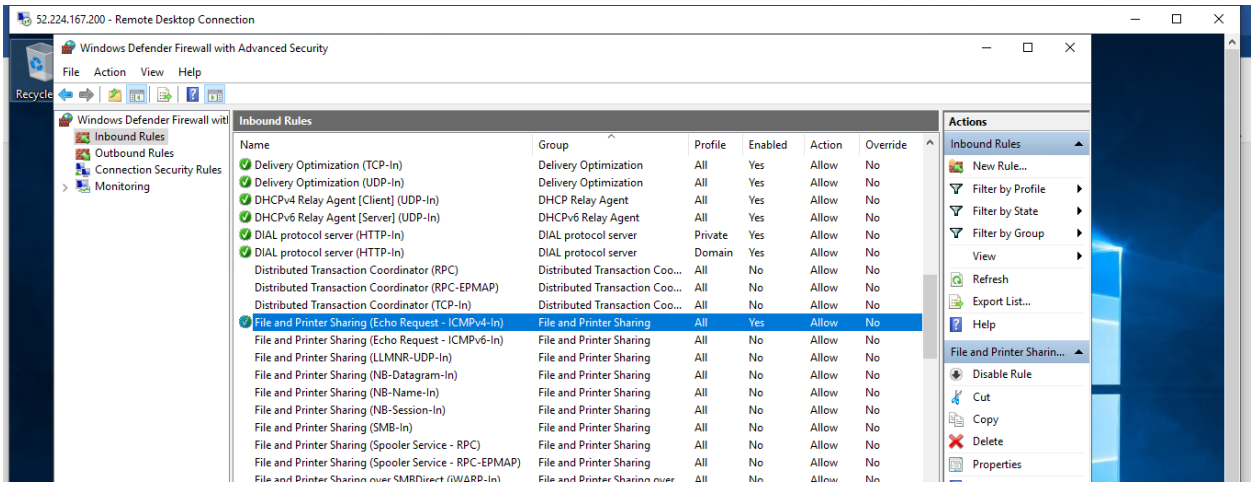


Fig: Windows defender > Inbound rules > File and Printer Sharing > Enabled

Step – 9-> Pinging Branch APP_VM from Headquarters DB_VM

```
Microsoft Windows [Version 10.0.17763.2366]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\HQ>ipconfig

Windows IP Configuration


Ethernet adapter Ethernet:

   Connection-specific DNS Suffix  . : drqt5fy5geeuhlvxozgqtdgy0e.bx.internal.cloudapp.net
   Link-local IPv6 Address . . . . . : fe80::8cd4:a17c:b981:cc7e%6
   IPv4 Address. . . . . . . . . . . : 10.0.0.4
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Default Gateway . . . . . . . . . : 10.0.0.1

C:\Users\HQ>ping 192.168.1.4

Pinging 192.168.1.4 with 32 bytes of data:
Reply from 192.168.1.4: bytes=32 time=218ms TTL=128
Reply from 192.168.1.4: bytes=32 time=217ms TTL=128
Reply from 192.168.1.4: bytes=32 time=217ms TTL=128
Reply from 192.168.1.4: bytes=32 time=217ms TTL=128

Ping statistics for 192.168.1.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 217ms, Maximum = 218ms, Average = 217ms

C:\Users\HQ>_
```

Project: (Implement the Azure IaaS)

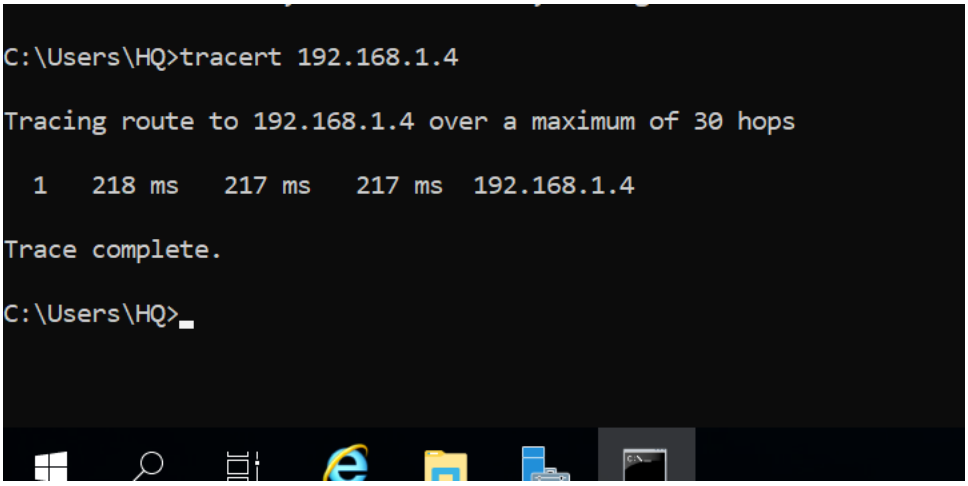
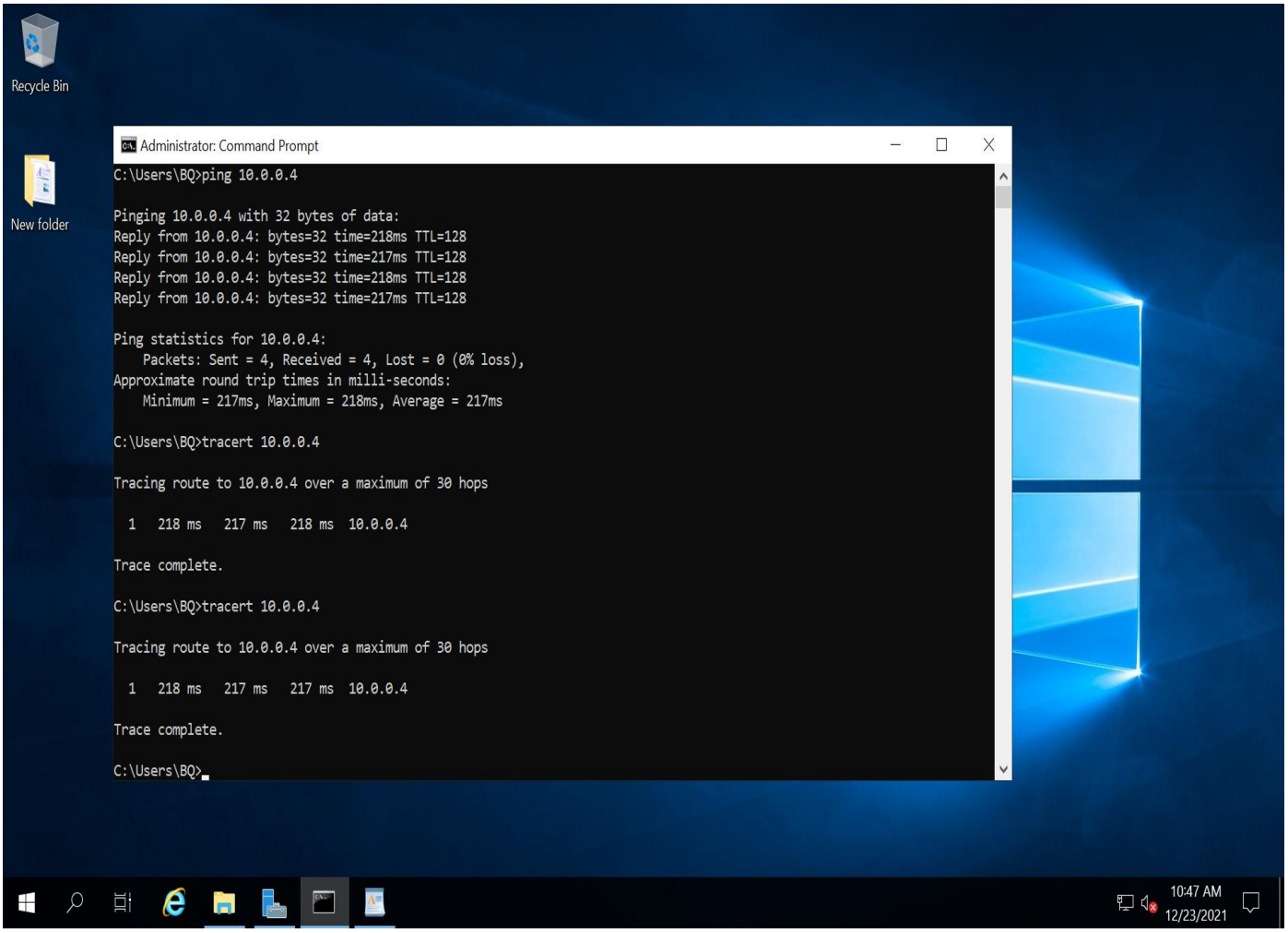


Fig: Pinging & Trace complete HQ to Branch VM

Pinging Headquarters DB_VM from Branch APP_VM:



Project: (Implement the Azure IaaS)

Successfully done