CREATE A VNET AND IT'S SUBNETS AND LAUNCH A WINDOWS LINUX VM IN EACH SUBNET, VM SHOULD ABLE TO PING EACH OTHER. CREATE TWO VNETS AND CREATE A CONNECTION BETWEEN THEM USING VNET PEERING

1. Create VNET1 with Two Subnets

```
# Create Resource Group
az group create --name MyResourceGroup1 --location eastus

# Create VNET1
az network vnet create \
  --name VNET1 \
  --resource-group MyResourceGroup1 \
  --address-prefix 10.0.0.0/16 \
  --subnet-name Subnet1 \
  --subnet-prefix 10.0.1.0/24

# Create Subnet2 in VNET1
az network vnet subnet create \
  --vnet-name VNET1 \
  --resource-group MyResourceGroup1 \
  --name Subnet2 \
  --address-prefix 10.0.2.0/24
```

2) Create VNET2 with Two Subnets

```
# Create Resource Group
az group create --name MyResourceGroup2 --location
westus

# Create VNET2
az network vnet create \
  --name VNET2 \
  --resource-group MyResourceGroup2 \
  --address-prefix 10.1.0.0/16 \
  --subnet-name Subnet1 \
  --subnet-prefix 10.1.1.0/24

# Create Subnet2 in VNET2
az network vnet subnet create \
  --vnet-name VNET2 \
  --resource-group MyResourceGroup2 \
  --name Subnet2 \
  --address-prefix 10.1.2.0/24
```

3) Launch a Windows VM in Each Subnet of VNET1

```
# Create Windows VM in Subnet1 of VNET1
az vm create \
  --resource-group MyResourceGroup1 \
  --name WinVM1 \
```

```
  --image Win2019Datacenter \
  --vnet-name VNET1 \
  --subnet Subnet1 \
  --admin-username azureuser \
  --admin-password YourPassword123!

# Create Windows VM in Subnet2 of VNET1
az vm create \
  --resource-group MyResourceGroup1 \
  --name WinVM2 \
  --image Win2019Datacenter \
  --vnet-name VNET1 \
  --subnet Subnet2 \
  --admin-username azureuser \
  --admin-password YourPassword123!
```

4) Launch a Linux VM in Each Subnet of VNET2

```
# Create Linux VM in Subnet1 of VNET2
az vm create \
  --resource-group MyResourceGroup2 \
  --name LinuxVM1 \
  --image UbuntuLTS \
  --vnet-name VNET2 \
  --subnet Subnet1 \
  --admin-username azureuser \
  --generate-ssh-keys
```

```
# Create Linux VM in Subnet2 of VNET2
az vm create \
  --resource-group MyResourceGroup2 \
  --name LinuxVM2 \
  --image UbuntuLTS \
  --vnet-name VNET2 \
  --subnet Subnet2 \
  --admin-username azureuser \
  --generate-ssh-keys
```

5) Enable VNet Peering between VNET1 and VNET2

```
# Create peering from VNET1 to VNET2
az network vnet peering create \
  --name VNET1-to-VNET2 \
  --resource-group MyResourceGroup1 \
  --vnet-name VNET1 \
  --remote-vnet VNET2 \
  --allow-vnet-access

# Create peering from VNET2 to VNET1
az network vnet peering create \
  --name VNET2-to-VNET1 \
  --resource-group MyResourceGroup2 \
  --vnet-name VNET2 \
  --remote-vnet VNET1 \
```

```
  --allow-vnet-access
```

6) **Configure Network Security Groups (NSGs) to Allow ICMP Traffic**

```
# Create NSG rules to allow ICMP traffic
# Create NSG rule in VNET1
az network nsg rule create \
  --resource-group MyResourceGroup1 \
  --nsg-name MyNSG \
  --name Allow-ICMP \
  --protocol Icmp \
  --priority 1000 \
  --direction Inbound \
  --source-address-prefixes '*' \
  --source-port-ranges '*' \
  --destination-address-prefixes '*' \
  --destination-port-ranges '*' \
  --access Allow

# Associate NSG with VNET1 subnets
az network vnet subnet update \
  --vnet-name VNET1 \
  --name Subnet1 \
  --resource-group MyResourceGroup1 \
  --network-security-group MyNSG
```

```
az network vnet subnet update \
  --vnet-name VNET1 \
  --name Subnet2 \
  --resource-group MyResourceGroup1 \
  --network-security-group MyNSG

# Create NSG rule in VNET2
az network nsg rule create \
  --resource-group MyResourceGroup2 \
  --nsg-name MyNSG \
  --name Allow-ICMP \
  --protocol Icmp \
  --priority 1000 \
  --direction Inbound \
  --source-address-prefixes '*' \
  --source-port-ranges '*' \
  --destination-address-prefixes '*' \
  --destination-port-ranges '*' \
  --access Allow

# Associate NSG with VNET2 subnets
az network vnet subnet update \
  --vnet-name VNET2 \
  --name Subnet1 \
  --resource-group MyResourceGroup2 \
  --network-security-group MyNSG
```

```
az network vnet subnet update \
  --vnet-name VNET2 \
  --name Subnet2 \
  --resource-group MyResourceGroup2 \
  --network-security-group MyNSG
```

Verification process

From a Windows VM:

ping <Linux_VM_Private_IP>

From a Linux VM:

ping <Windows_VM_Private_IP>