# Networking Lab 3

# Using Azure CLI

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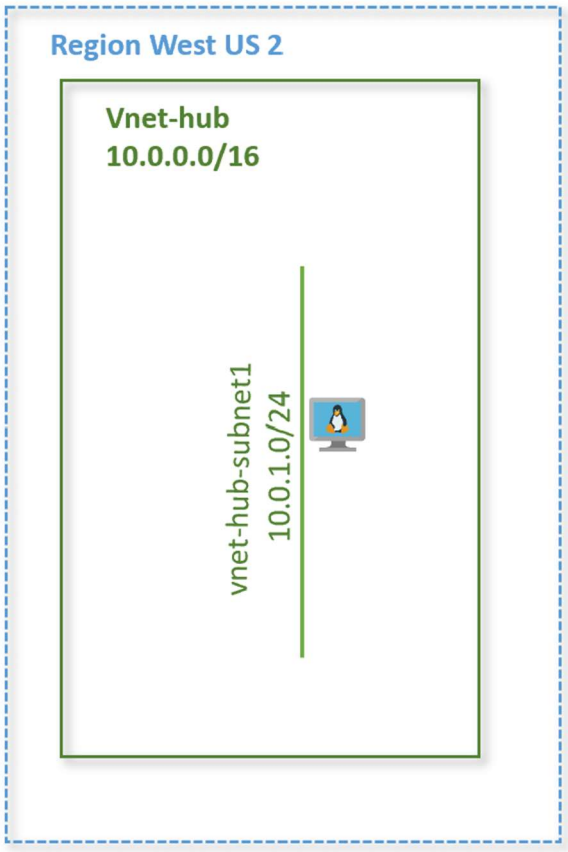
# Lab Overview

In this lab, we will learn how to use Azure CLI commands from the cloud shell to create a virtual network, create a virtual machine and attach a network security group to the new subnet. We will familiarize with Azure cloud shell and run CLI commands in Bash shell.

# Lab Diagram



# Start Cloud Shell

1. Launch **Cloud Shell** from the top navigation of the Azure portal.

2. Select a subscription to create a storage account and Microsoft Azure Files share.
3. Select "Create storage"
4. This should bring you to the cloud shell prompt. You can run Azure CLI commands from here.

# Select the Bash environment

Check that the environment drop-down from the left-hand side of shell window says Bash.


We are ready to run CLI commands to create our virtual network.

# Create a virtual network using Azure CLI commands

Define the following variables and run the command to create a virtual network vnet-hub, with one subnet vnet-hub-subnet1.

```
ResourceGroup=rg-lab
VnetName=vnet-hub
VnetPrefix=10.0.0.0/16
SubnetName=vnet-hub-subnet1
SubnetPrefix=10.0.1.0/24
Location=westus2

az network vnet create -g $ResourceGroup -n $VnetName --address-prefix $VnetPrefix --
subnet-name $SubnetName --subnet-prefix $SubnetPrefix -l $Location
```

# Create a network security group and add security rule

```
ResourceGroup=rg-lab
Nsg=nsg-hub
NsgRuleName=vnet-hub-allow-ssh
Location=westus2
DestinationAddressPrefix=10.0.1.0/24
```

DestinationPortRange=22

az network nsg create --name $Nsg --resource-group $ResourceGroup --location $Location

az network nsg rule create -g $ResourceGroup --nsg-name $Nsg --name $NsgRuleName --direction inbound --destination-address-prefix $DestinationAddressPrefix --destination-port-range $DestinationPortRange --access allow --priority 100

# Attach the network security group to vnet-hub-subnet1

Nsg=nsg-hub

az network vnet subnet update -g $ResourceGroup -n $SubnetName --vnet-name $VnetName --network-security-group $Nsg

# Create a virtual machine

VmName=vnet-hub-vm1
SubnetName=vnet-hub-subnet1
AdminUser=azureuser
AdminPassword=Azure123456!

az vm create --resource-group $ResourceGroup --name $VmName --image UbuntuLTS --vnet-name $VnetName --subnet $SubnetName --admin-username $AdminUser --admin-password $AdminPassword

az network vnet subnet list -g $ResourceGroup --vnet-name $VnetName -o table