Networking Lab 3

Using Azure CLI

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

A screenshot of a cell phone

Description automatically generated

Start Cloud Shell

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



1. Select a subscription to create a storage account and Microsoft Azure Files share.
2. Select "Create storage"
3. 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