

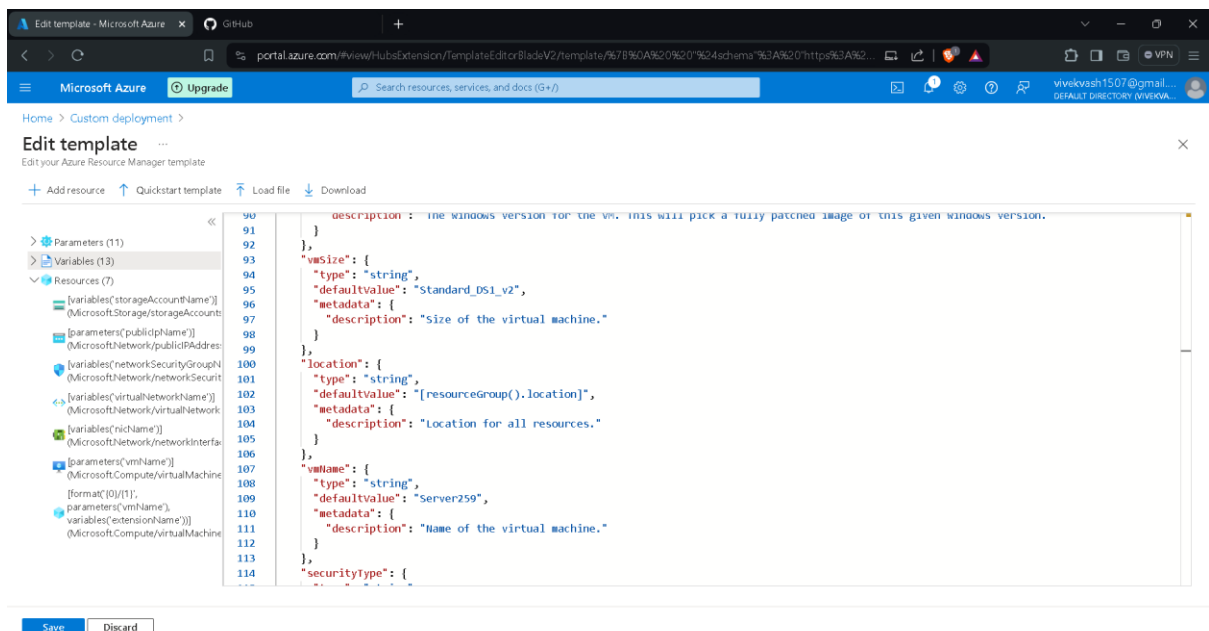
Lab: JSON and Bicep

Student Name: Vivek Vashisht

Student ID: 000907246

Screenshots

- Edited JSON template



Custom deployment - Microsoft

GitHub

portal.azure.com/#create/Microsoft.Template

Search resources, services, and docs (G+I)

Microsoft Azure

Upgrade

vivekvash1507@gmail.com

DEFAULT DIRECTORY (VIVEKVA)

Home >

Custom deployment

Deploy from a custom template

New! Deployment Stacks let you manage the lifecycle of your deployments. Try it now →

Basics

Review + create

Template

Customized template 7 resources

Edit template

Edit parameters

Visualize

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * Azure subscription 1

Resource group * (New) RG1

Create new

Instance details

Region * Canada Central

Admin Username * vivek.vashisht

Admin Password *

Previous

Next

Review + create

Custom deployment - Microsoft

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Custom deployment

Deploy from a custom template

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Region * Canada Central

Admin Username * vivek.vashisht

Admin Password *

Dns Label Prefix [toLower(format('{0}-{1}', parameters('vmName'), uniqueString(resourceGr...

Public Ip Name myPublicIP

Public IP Allocation Method Dynamic

Public Ip Sku Basic

OS Version 2022-datacenter-azure-edition

Vm Size Standard_DS1_v2

Location [resourceGroup().location]

Vm Name Server259

Security Type Standard

Previous

Next

Review + create

Microsoft.Template-20240529174242 | Overview

Your deployment is complete

Deployment name : Microsoft.Template-20240529174242
Subscription : Azure subscription 1
Resource group : RG1

Start time : 5/29/2024, 5:42:47 PM
Correlation ID : 6bee7b6-7d7b-49d5-b5b0-f55639f4274

Deployment details

Resource	Type	Status	Operation details
Server259	Virtual machine	OK	Operation details
bootdiags5zhkh5tuegkuy	Storage account	OK	Operation details
myVMNIC	Network interface	Created	Operation details
myPublicIP	Public IP address	OK	Operation details
bootdiags5zhkh5tuegkuy	Storage account	OK	Operation details
MyVNET	Virtual network	OK	Operation details
myPublicIP	Public IP address	OK	Operation details
default-NSG	Network security group	OK	Operation details

Next steps

Cost management
Get notified to stay within your budget and prevent unexpected charges on your bill.
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RG1 - Microsoft Azure

Overview

Resources

Filter for any field... Type equals all Location equals all Add filter

Showing 1 to 8 of 8 records. Show hidden types

Name	Type	Location
bootdiags5zhkh5tuegkuy	Storage account	Canada Central
default-NSG	Network security group	Canada Central
myPublicIP	Public IP address	Canada Central
myVMNIC	Network interface	Canada Central
MyVNET	Virtual network	Canada Central
Server259	Virtual machine	Canada Central
Server259_disk2_7325d3d28a940c0907f4f5f9c3eb6f2	Disk	Canada Central
Server259_OsDisk_1_9cc657f086e2476f97552856fde49f83	Disk	Canada Central

Give feedback

- All steps of creating a virtual machine with the CLI

- Overview and prerequisites

```

Command Prompt
C:\Users\bpaz login
Please select the account you want to log in with.

Retrieving tenants and subscriptions for the selection...

[Tenant and subscription selection]

He Subscription name Subscription ID Tenant
[1] * Azure subscription 1 ee9ea311-d6f1-4e0b-ba5e-b29361568bae Default Directory

The default is marked with an *: the default tenant is 'Default Directory' and subscription is 'Azure subscription 1' (ee9ea311-d6f1-4e0b-ba5e-b29361568bae).

Select a subscription and tenant (Type a number or Enter for no changes):

Tenant: Default Directory
Subscription: Azure subscription 1 (ee9ea311-d6f1-4e0b-ba5e-b29361568bae)

[Announcement]
With the new Azure CLI login experience, you can select the subscription you want to use more easily. Learn more about it and its configuration at https://go.microsoft.com/fwlink/?linkid=271236

If you encounter any problem, please open an issue at https://aka.ms/azclibug

[Warning] The login output has been updated. Please be aware that it no longer displays the full list of available subscriptions by default.

C:\Users\bpaz group
The following arguments are required: _subcommand

Examples from AI knowledge base:
az group create --location westus --resource-group MyResourceGroup
Create a new resource group in the West US region.

az group delete --resource-group MyResourceGroup
Delete a resource group.

az group list --query "[?location=='westus']"
List all resource groups located in the West US region.

https://docs.microsoft.com/en-us/cli/azure/group#az_group_list
Read more about the command in reference docs.

C:\Users\bpaz group list
{
  "id": "/subscriptions/ee9ea311-d6f1-4e0b-ba5e-b29361568bae/resourceGroups/RG1",
  "location": "canadacentral",
  "managedBy": null,
  "name": "RG1",
  "properties": {
    "provisioningState": "Succeeded"
  },
  "tags": null,
  "type": "Microsoft.Resources/resourceGroups"
},
{
  "id": "/subscriptions/ee9ea311-d6f1-4e0b-ba5e-b29361568bae/resourceGroups/NetworkMatcherRG",
  "location": "canadacentral",
  "managedBy": null,
  "name": "NetworkMatcherRG",
  "properties": {
    "provisioningState": "Succeeded"
  },
  "tags": null,
  "type": "Microsoft.Resources/resourceGroups"
}

```

[illegible]

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portal.azure.com/#home

Microsoft Azure | Upgrade | Search resources, services, and docs (G+)

Hi Vivek, see what more you can get from your Azure free account

View remaining credit to...

Take a free online Microsoft Learn course

Azure subscription 1 Default Directory

```
PS C:\Users\hnp> Connect-AzAccount
Please select the account you want to login with.

Retrieving subscriptions for the selection...

[Announcements]
With the new Azure PowerShell login experience, you can select the subscription you want to use more easily. Learn more about it and its configuration at https://go.microsoft.com/fwlink/?linkid=2271989.
If you encounter any problem, please open an issue at: https://aka.ms/azpsissue

Subscription name      Tenant
-----
Azure subscription 1 Default Directory

PS C:\Users\hnp> |
```

Name	Type	Last Viewed
------	------	-------------

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Microsoft Azure | Upgrade | Search resources, services, and docs (G+)

Hi Vivek, see what more you can get from your Azure free account

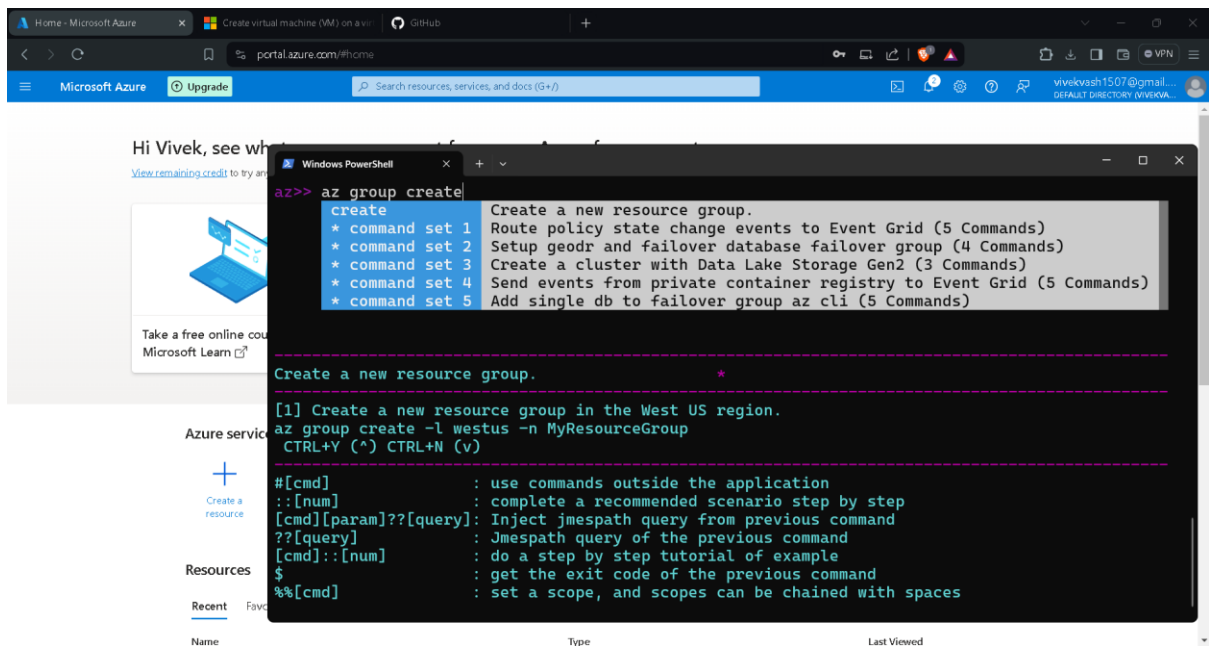
View remaining credit to...

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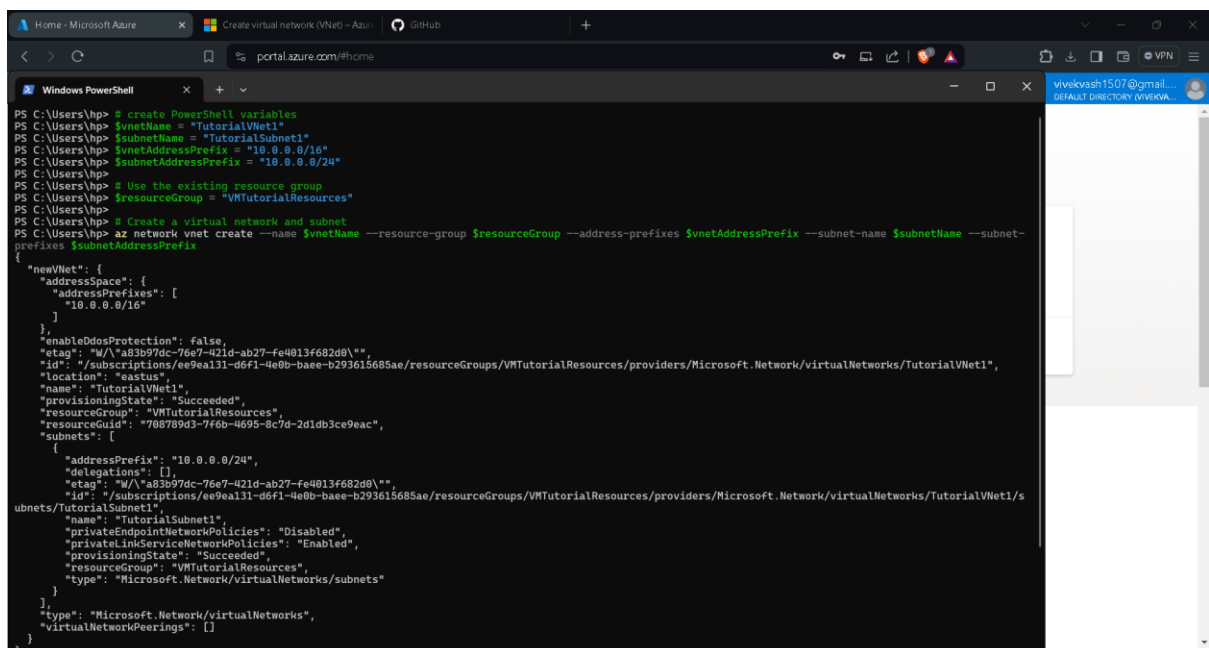
Azure subscription 1 Default Directory

```
PS C:\Users\hnp> # Create PowerShell variables
PS C:\Users\hnp> $resourceGroup = "VMTutorialResources"
PS C:\Users\hnp> $location = "eastus"
PS C:\Users\hnp> az group create --name $resourceGroup --location $location
{
  "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources",
  "location": "eastus",
  "managedBy": null,
  "name": "VMTutorialResources",
  "properties": {
    "provisioningState": "Succeeded"
  },
  "tags": null,
  "type": "Microsoft.Resources/resourceGroups"
}
PS C:\Users\hnp> |
```

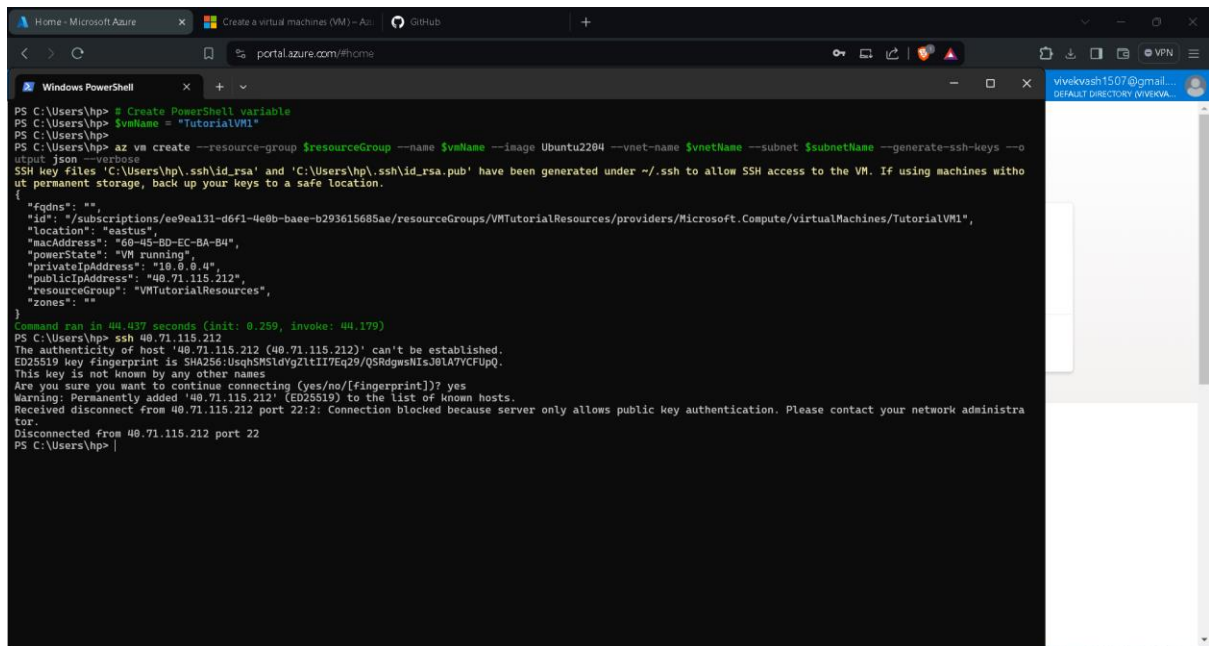
Name	Type	Last Viewed
------	------	-------------



- Create a virtual network

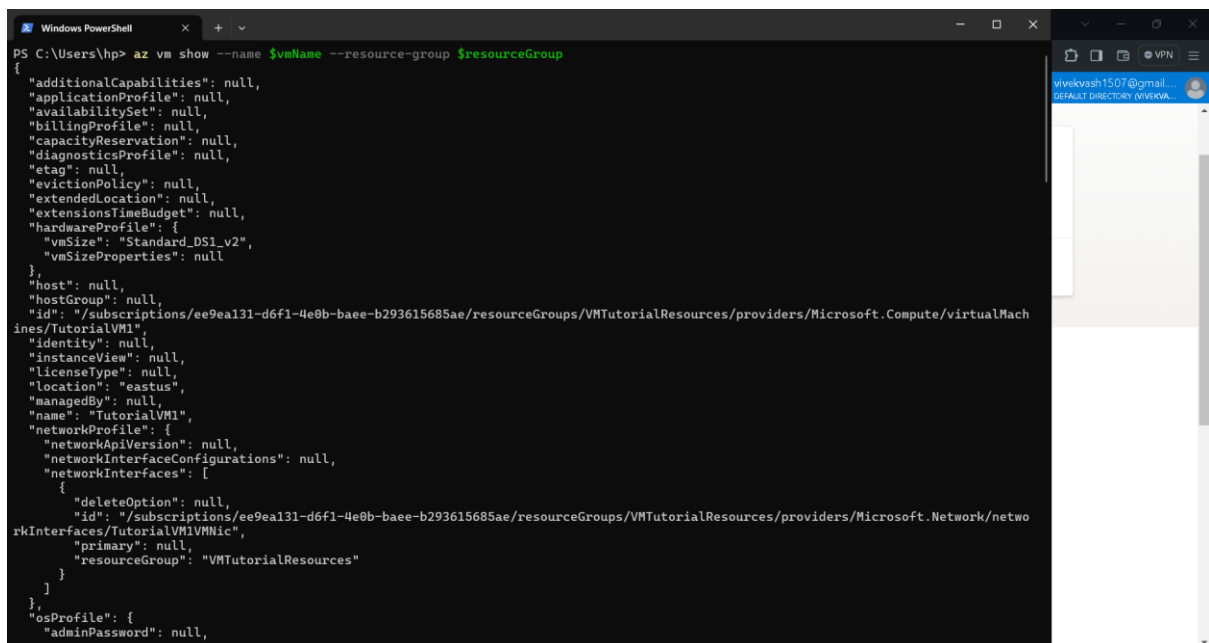


- Create a virtual machine



```
PS C:\Users\hp> # Create PowerShell variable
PS C:\Users\hp> $vmName = "TutorialVM1"
PS C:\Users\hp> az vm create --resource-group $resourceGroup --name $vmName --image Ubuntu2204 --vnet-name $vnetName --subnet $subnetName --generate-ssh-keys --output json --verbose
SSH key files 'C:\Users\hp\.ssh\id_rsa' and 'C:\Users\hp\.ssh\id_rsa.pub' have been generated under ~/.ssh to allow SSH access to the VM. If using machines without permanent storage, back up your keys to a safe location.
{
  "fqdns": "",
  "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources/providers/Microsoft.Compute/virtualMachines/TutorialVM1",
  "location": "eastus",
  "macAddress": "68-45-BD-EC-BA-B4",
  "powerState": "VM running",
  "privateIpAddress": "10.0.0.4",
  "publicIpAddress": "40.71.115.212",
  "resourceGroup": "VMTutorialResources",
  "zones": ""
}
Command ran in 44.437 seconds (init: 0.259, invoke: 44.179)
PS C:\Users\hp> ssh 40.71.115.212
The authenticity of host '40.71.115.212 (40.71.115.212)' can't be established.
ED25519 key fingerprint is SHA256:UshSM5ldgZltII7Eq29/qSRdgsNisJ0LA7YCFUpQ.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '40.71.115.212' (ED25519) to the list of known hosts.
Received disconnect from 40.71.115.212 port 22:2: Connection blocked because server only allows public key authentication. Please contact your network administrator.
Disconnected from 40.71.115.212 port 22
PS C:\Users\hp>
```

- Get VM information with queries



```
PS C:\Users\hp> az vm show --name $vmName --resource-group $resourceGroup
{
  "additionalCapabilities": null,
  "applicationProfile": null,
  "availabilitySet": null,
  "billingProfile": null,
  "capacityReservation": null,
  "diagnosticsProfile": null,
  "etag": null,
  "evictionPolicy": null,
  "extendedLocation": null,
  "extensionsTimeBudget": null,
  "hardwareProfile": {
    "vmSize": "Standard_DS1_v2",
    "vmSizeProperties": null
  },
  "host": null,
  "hostGroup": null,
  "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources/providers/Microsoft.Compute/virtualMachines/TutorialVM1",
  "identity": null,
  "instanceView": null,
  "licenseType": null,
  "location": "eastus",
  "managedBy": null,
  "name": "TutorialVM1",
  "networkProfile": {
    "networkApiVersion": null,
    "networkInterfaceConfigurations": null,
    "networkInterfaces": [
      {
        "deleteOption": null,
        "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources/providers/Microsoft.Network/networkInterfaces/TutorialVM1VMNic",
        "primary": null,
        "resourceGroup": "VMTutorialResources"
      }
    ]
  },
  "osProfile": {
    "adminPassword": null,

```

```
Windows PowerShell
},
"osProfile": {
  "adminPassword": null,
  "adminUsername": "hp",
  "allowExtensionOperations": true,
  "computerName": "TutorialVM1",
  "customData": null,
  "linuxConfiguration": {
    "disablePasswordAuthentication": true,
    "enableVmAgentPlatformUpdates": null,
    "patchSettings": {
      "assessmentMode": "ImageDefault",
      "automaticByPlatformSettings": null,
      "patchMode": "ImageDefault"
    }
  },
  "provisionVmAgent": true,
  "ssh": {
    "publicKeys": [
      {
        "keyData": "ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQCYa4sH6Y112XPCvF2EsWovLu9Jfj9eNsNncKwp0ZttVI5fzw4VvYGLC1Av3S08Gw02GS5VNQ6NODSh4m3wDBJU3RB2JaaEUiallwaA+cLN2jnn64/MPLcFBOxGnqFXsy/xHT0vl4kv++b1hu39fV6hpKzRMSI3HSW1gdSFzwjiQnEPKwL26xngRKPpEgyCsJEvttFTIOLYj5VvhqjPYhu5tNNRHzIzMrqeBuEAkenp9VQLwaKx/zh4CX3ovewf0ya8u5Axxk9Qvp9rL1yN3Scgg5gGnva24lk02aY3W3LwQRhqtTtEjQab8qPwGCsRhtugFP0A0gkV/CuaijZBUQDE9J"
      }
    ]
  },
  "path": "/home/hp/.ssh/authorized_keys"
},
},
"requireGuestProvisionSignal": true,
"secrets": [],
"windowsConfiguration": null
},
},
"plan": null,
"platformFaultDomain": null,
"priority": null,
"provisioningState": "Succeeded",
"proximityPlacementGroup": null,
"resourceGroup": "VMTutorialResources",
"resources": null,
"scheduledEventsPolicy": null,
"scheduledEventsProfile": null,

```

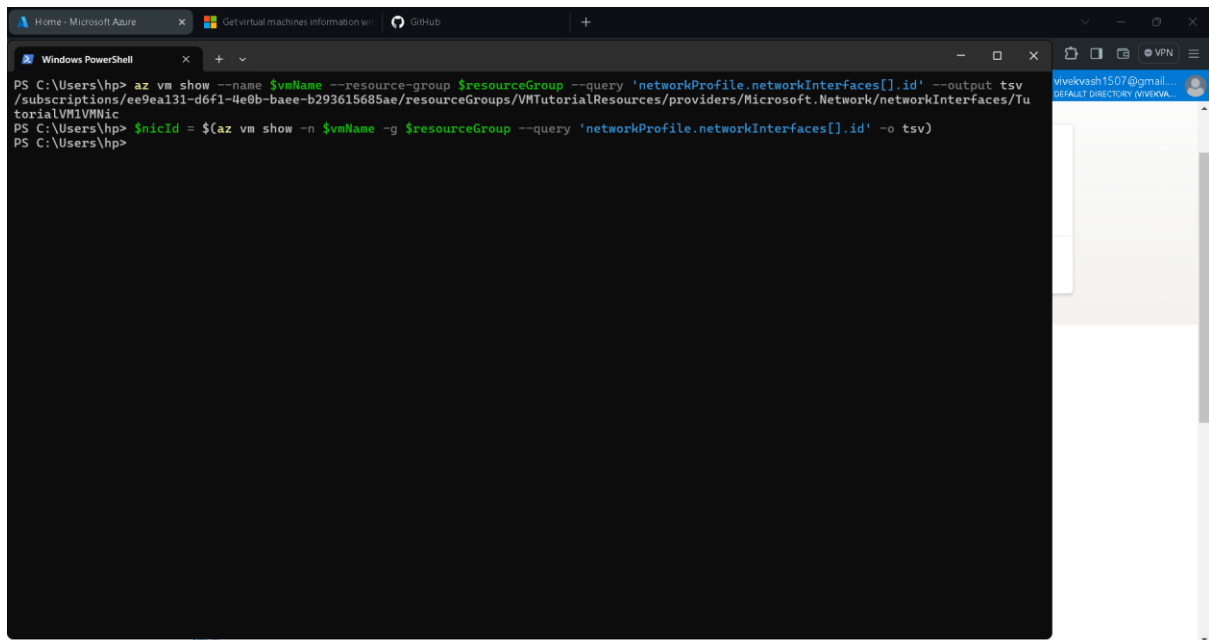
```
Windows PowerShell
"scheduledEventsProfile": null,
"securityProfile": {
  "encryptionAtHost": null,
  "encryptionIdentity": null,
  "proxyAgentSettings": null,
  "securityType": "TrustedLaunch",
  "uefiSettings": {
    "secureBootEnabled": true,
    "vTpmEnabled": true
  }
},
"storageProfile": {
  "dataDisks": [],
  "diskControllerType": "SCSI",
  "imageReference": {
    "communityGalleryImageId": null,
    "exactVersion": "22.04.202405140",
    "id": null,
    "offer": "0001-com-ubuntu-server-jammy",
    "publisher": "Canonical",
    "sharedGalleryImageId": null,
    "sku": "22_04-lts-gen2",
    "version": "latest"
  },
  "osDisk": {
    "caching": "ReadWrite",
    "createOption": "FromImage",
    "deleteOption": "Detach",
    "diffDiskSettings": null,
    "diskSizeGb": 30,
    "encryptionSettings": null,
    "image": null,
    "managedDisk": {
      "diskEncryptionSet": null,
      "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources/providers/Microsoft.Compute/diskEncryptionSets/Canonical/ubuntu-22.04-lts",
      "name": "TutorialVM1_disk1_0c97a6534b4e435cb5123f2093f041f8",
      "resourceGroup": "VMTutorialResources",
      "securityProfile": null,
      "storageAccountType": "Premium_LRS"
    },
    "name": "TutorialVM1_disk1_0c97a6534b4e435cb5123f2093f041f8",
  },

```



```
Windows PowerShell
" caching": "ReadWrite",
" createOption": "FromImage",
" deleteOption": "Detach",
" diffDiskSettings": null,
" diskSizeGb": 30,
" encryptionSettings": null,
" image": null,
" managedDisk": {
  " diskEncryptionSet": null,
  " id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources/providers/Microsoft.Compute/disks/TutorialVM1_disk1_0c97a6534b4e435cb5123f2093f041f8",
  " resourceGroup": "VMTutorialResources",
  " securityProfile": null,
  " storageAccountType": "Premium_LRS"
},
" name": "TutorialVM1_disk1_0c97a6534b4e435cb5123f2093f041f8",
" osType": "Linux",
" vhd": null,
" writeAcceleratorEnabled": null
},
" tags": {},
" timeCreated": "2024-05-30T00:53:25.615038+00:00",
" type": "Microsoft.Compute/virtualMachines",
" userData": null,
" virtualMachineScaleSet": null,
" vmId": "3f661143-4f37-418a-8753-ef8e0fa5bc4c",
" zones": null
}
PS C:\Users\hnp> |
```

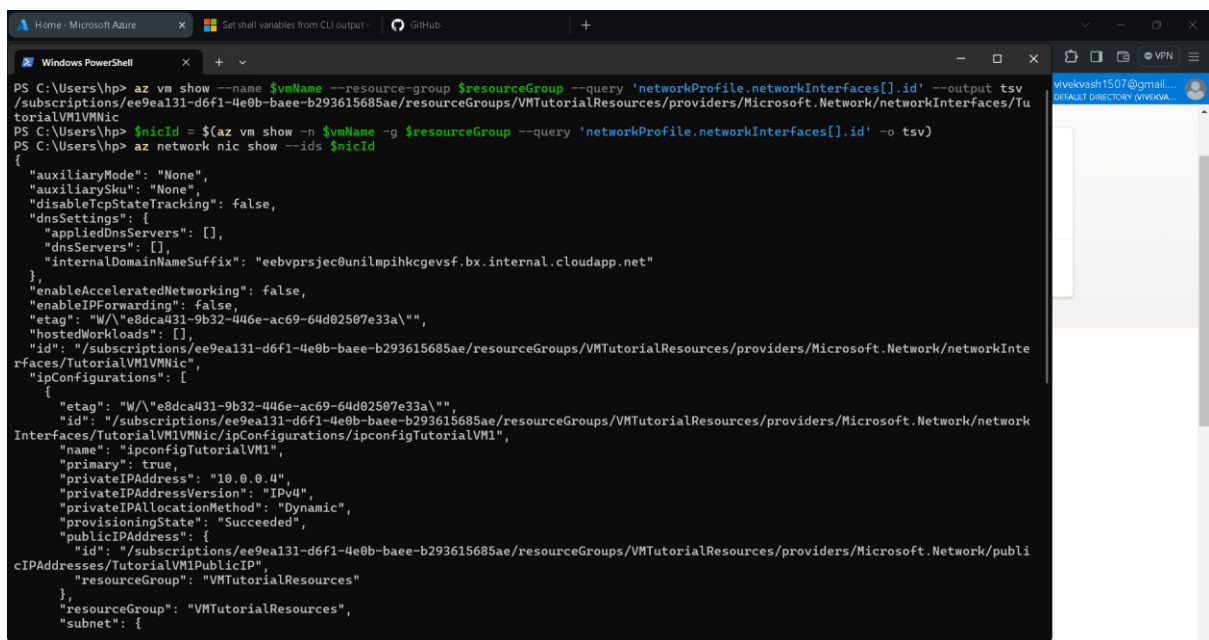
```
Home - Microsoft Azure | Get virtual machines information with | GitHub
Windows PowerShell
PS C:\Users\hnp> az vm show --name $vmName --resource-group $resourceGroup --query 'networkProfile.networkInterfaces[].id' --output tsv
/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources/providers/Microsoft.Network/networkInterfaces/TutorialVM1VMNic
PS C:\Users\hnp> |
```



The screenshot shows a Windows PowerShell terminal window with the following commands and output:

```
PS C:\Users\hnp> az vm show --name $vmName --resource-group $resourceGroup --query 'networkProfile.networkInterfaces[].id' --output tsv
/subscriptions/ee9eal31-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources/providers/Microsoft.Network/networkInterfaces/TutorialVM1VMNic
PS C:\Users\hnp> $nicId = $(az vm show -n $vmName -g $resourceGroup --query 'networkProfile.networkInterfaces[].id' -o tsv)
PS C:\Users\hnp>
```

- Set shell variables



The screenshot shows the output of the 'az network nic show' command, displaying detailed network interface configuration:

```
PS C:\Users\hnp> az network nic show --ids $nicId
{
  "auxiliaryMode": "None",
  "auxiliarySku": "None",
  "disableTcpStateTracking": false,
  "dnsSettings": {
    "appliedDnsServers": [],
    "dnsServers": [],
    "internalDomainNameSuffix": "eebvprsjec0unilmpihkcevsf.bx.internal.cloudapp.net"
  },
  "enableAcceleratedNetworking": false,
  "enableIPForwarding": false,
  "etag": "W/\"e8dca431-9b32-446e-ac69-64d02507e33a\"",
  "hostedWorkloads": [],
  "id": "/subscriptions/ee9eal31-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources/providers/Microsoft.Network/networkInterfaces/TutorialVM1VMNic",
  "ipConfigurations": [
    {
      "etag": "W/\"e8dca431-9b32-446e-ac69-64d02507e33a\"",
      "id": "/subscriptions/ee9eal31-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources/providers/Microsoft.Network/networkInterfaces/TutorialVM1VMNic/ipConfigurations/ipconfigTutorialVM1",
      "name": "ipconfigTutorialVM1",
      "primary": true,
      "privateIPAddress": "10.0.0.4",
      "privateIPAddressVersion": "IPv4",
      "privateIPAllocationMethod": "Dynamic",
      "provisioningState": "Succeeded",
      "publicIPAddress": {
        "id": "/subscriptions/ee9eal31-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources/providers/Microsoft.Network/publicIPAddresses/TutorialVM1PublicIP",
        "resourceGroup": "VMTutorialResources"
      },
      "resourceGroup": "VMTutorialResources",
      "subnet": {

```

```
Home - Microsoft Azure | Set shell variables from CLI output | GitHub | +
Windows PowerShell | + | - | □ | × | VPN |
vivekvash1507@gmail...
DEFAULT DIRECTORY (vivekva...

{"publicIpAddress": {
  "id": "/subscriptions/ee9eal31-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources/providers/Microsoft.Network/publicIPAddresses/TutorialVM1PublicIP",
  "resourceGroup": "VMTutorialResources"
},
"resourceGroup": "VMTutorialResources",
"subnet": {
  "id": "/subscriptions/ee9eal31-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources/providers/Microsoft.Network/virtualNetworks/TutorialVNet1/subnets/TutorialSubnet1",
  "resourceGroup": "VMTutorialResources"
},
"type": "Microsoft.Network/networkInterfaces/ipConfigurations"
},
"location": "eastus",
"macAddress": "00-0D-3A-18-C5-AD",
"name": "TutorialVM1VMNic",
"networkSecurityGroup": {
  "id": "/subscriptions/ee9eal31-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources/providers/Microsoft.Network/networkSecurityGroups/TutorialVM1NSG",
  "resourceGroup": "VMTutorialResources"
},
"nicType": "Standard",
"primary": true,
"provisioningState": "Succeeded",
"resourceGroup": "VMTutorialResources",
"resourceGuid": "b5c138b3-7278-49e9-a87b-d022f8d18f4a",
"tags": {},
"tapConfigurations": [],
"type": "Microsoft.Network/networkInterfaces",
"virtualMachine": {
  "id": "/subscriptions/ee9eal31-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources/providers/Microsoft.Compute/virtualMachines/TutorialVM1",
  "resourceGroup": "VMTutorialResources"
},
"vnetEncryptionSupported": false
}
PS C:\Users\hp> |
```

```
Home - Microsoft Azure | Set shell variables from CLI output | GitHub | +
Windows PowerShell | + | - | □ | × | VPN |
vivekvash1507@gmail...
DEFAULT DIRECTORY (vivekva...

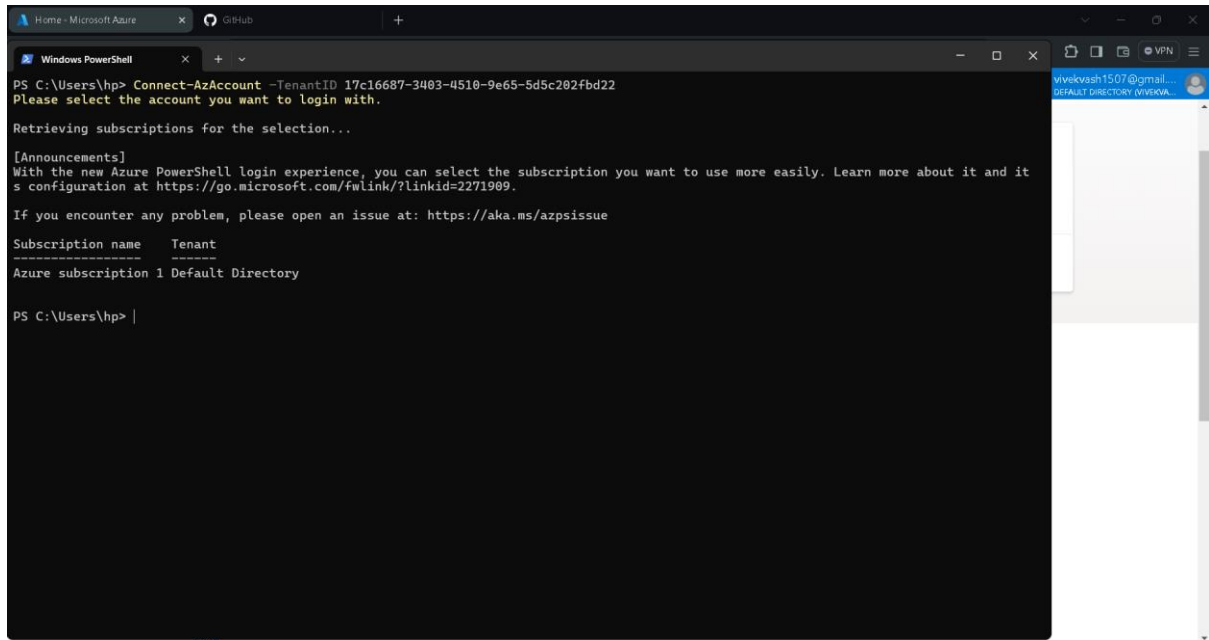
PS C:\Users\hp> az network nic show --ids $nicId --query '{IP:ipConfigurations[].publicIpAddress.id, Subnet:ipConfigurations[].subnet.id}' -o json
{
  "IP": [
    "/subscriptions/ee9eal31-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources/providers/Microsoft.Network/publicIPAddresses/TutorialVM1PublicIP"
  ],
  "Subnet": [
    "/subscriptions/ee9eal31-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources/providers/Microsoft.Network/virtualNetworks/TutorialVNet1/subnets/TutorialSubnet1"
  ]
}
PS C:\Users\hp> |
```

```
Windows PowerShell
PS C:\Users\hnp> az network nic show --ids $nicId --query '[IP:ipConfigurations[].publicIpAddress.id, Subnet:ipConfigurations[].subnet.id]' -o json
{
  "IP": [
    "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources/providers/Microsoft.Network/publicIPAddresses/TutorialVMIPublicIP"
  ],
  "Subnet": [
    "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/VMTutorialResources/providers/Microsoft.Network/virtualNetworks/TutorialVNet1/subnets/TutorialSubnet1"
  ]
}
PS C:\Users\hnp> $output = az network nic show --ids $nicId --query "[ipConfigurations[].publicIpAddress.id, ipConfigurations[].subnet.id]" -o tsv
PS C:\Users\hnp> # Split the output into two variables
PS C:\Users\hnp> $ipId, $subnetId = $output -split "`t"
PS C:\Users\hnp> $ipId = az network nic show --ids $nicId --query '[ipConfigurations[].publicIpAddress.id]' -o tsv
PS C:\Users\hnp> $subnetId = az network nic show --ids $nicId --query '[ipConfigurations[].subnet.id]' -o tsv
PS C:\Users\hnp> $vmIpAddress = $(az network public-ip show --ids $ipId --query ipAddress -o tsv)
PS C:\Users\hnp> echo $vmIpAddress
13.82.174.122
PS C:\Users\hnp>
```

- Cleanup

```
Windows PowerShell
PS C:\Users\hnp> # Split the output into two variables
PS C:\Users\hnp> $ipId, $subnetId = $output -split "`t"
PS C:\Users\hnp> $ipId = az network nic show --ids $nicId --query '[ipConfigurations[].publicIpAddress.id]' -o tsv
PS C:\Users\hnp> $subnetId = az network nic show --ids $nicId --query '[ipConfigurations[].subnet.id]' -o tsv
PS C:\Users\hnp>
PS C:\Users\hnp> $vmIpAddress = $(az network public-ip show --ids $ipId --query ipAddress -o tsv)
PS C:\Users\hnp> echo $vmIpAddress
13.82.174.122
PS C:\Users\hnp> az group delete --name $resourceGroup --no-wait
Are you sure you want to perform this operation? (y/n): y
PS C:\Users\hnp>
```

- All steps of creating a storage account with PowerShell



```
PS C:\Users\hnp> Connect-AzAccount -TenantID 17c16687-3403-4510-9e65-5d5c202fbd22
Please select the account you want to login with.

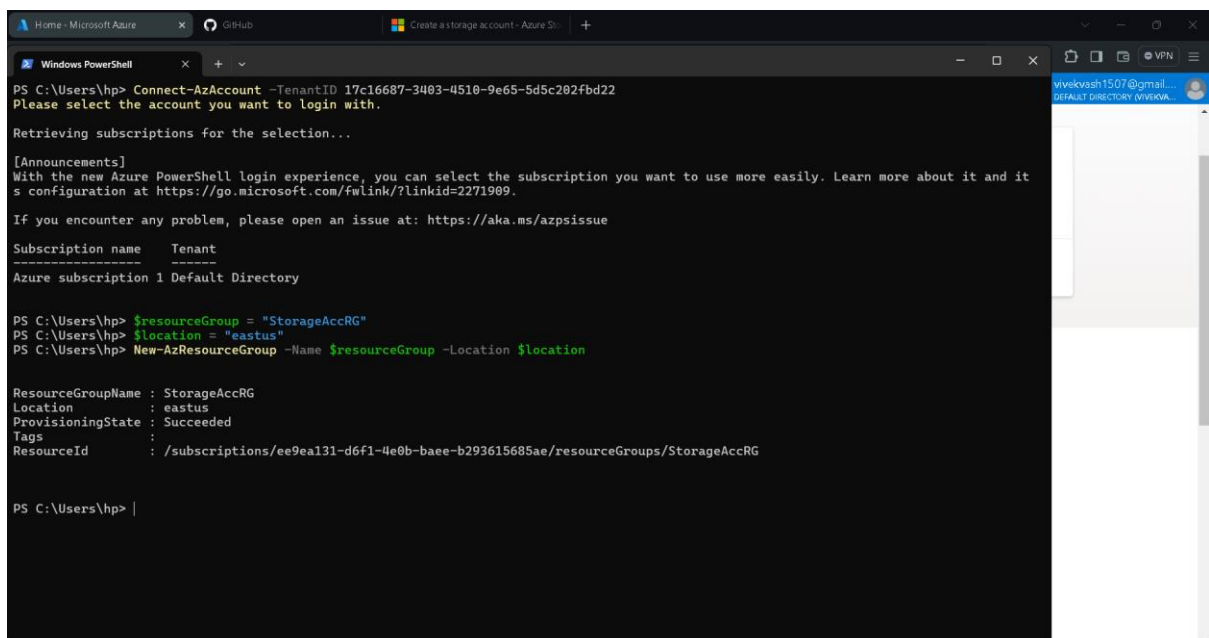
Retrieving subscriptions for the selection...

[Announcements]
With the new Azure PowerShell login experience, you can select the subscription you want to use more easily. Learn more about it and its configuration at https://go.microsoft.com/fwlink/?linkid=2271909.

If you encounter any problem, please open an issue at: https://aka.ms/azpsissue

Subscription name      Tenant
-----
Azure subscription 1   Default Directory

PS C:\Users\hnp> |
```



```
PS C:\Users\hnp> Connect-AzAccount -TenantID 17c16687-3403-4510-9e65-5d5c202fbd22
Please select the account you want to login with.

Retrieving subscriptions for the selection...

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Subscription name      Tenant
-----
Azure subscription 1   Default Directory

PS C:\Users\hnp> $resourceGroup = "StorageAccRG"
PS C:\Users\hnp> $location = "eastus"
PS C:\Users\hnp> New-AzResourceGroup -Name $resourceGroup -Location $location

ResourceGroupName : StorageAccRG
Location           : eastus
ProvisioningState  : Succeeded
Tags               :
ResourceId         : /subscriptions/ee9eal31-d6f1-4e0b-baee-b293615685ae/resourceGroups/StorageAccRG

PS C:\Users\hnp> |
```

```
PS C:\Users\hnp> New-AzStorageAccount -ResourceGroupName $resourceGroup -Name vivekvsacc -Location $location -SkuName Standard_RAGRS -Kind StorageV2 -AllowBlobPublicAccess $false
```

StorageAccountName	ResourceGroupName	PrimaryLocation	SkuName	Kind	AccessTier	CreationTime	ProvisioningState	EnableHttpsTrafficOnly
vivekvsacc	StorageAccRG	eastus	Standard_RAGRS	StorageV2	Hot	30-05-2024 01:29:15	Succeeded	True

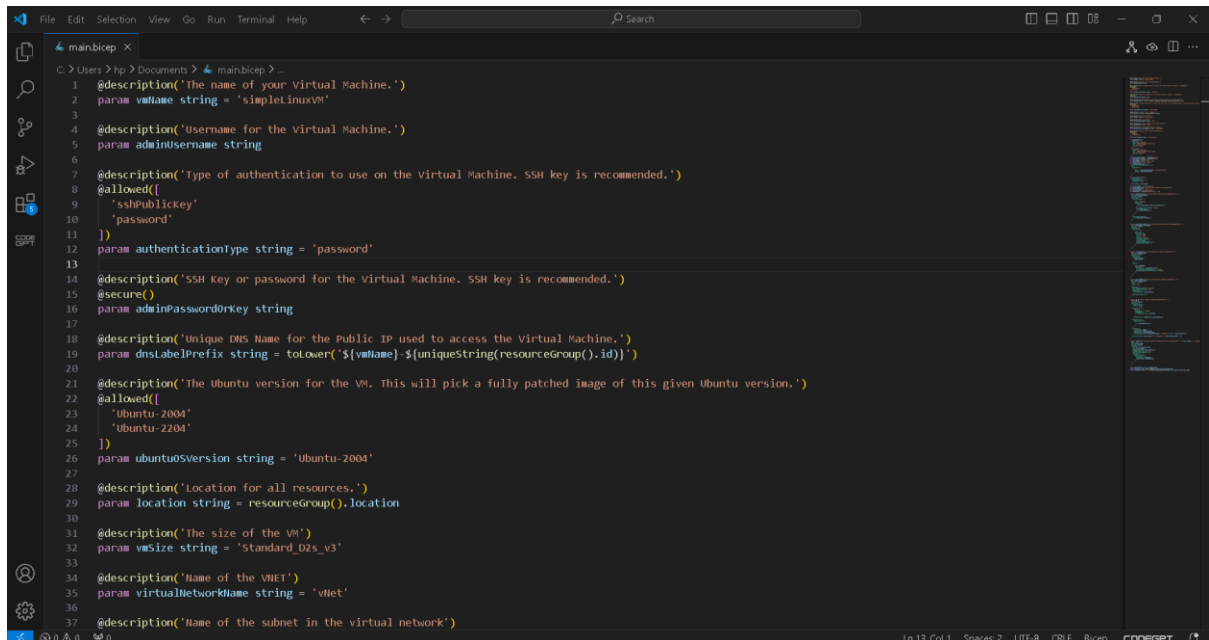
```
PS C:\Users\hnp> |
```

```
PS C:\Users\hnp> Remove-AzStorageAccount -Name vivekvsacc -ResourceGroupName StorageAccRG
```

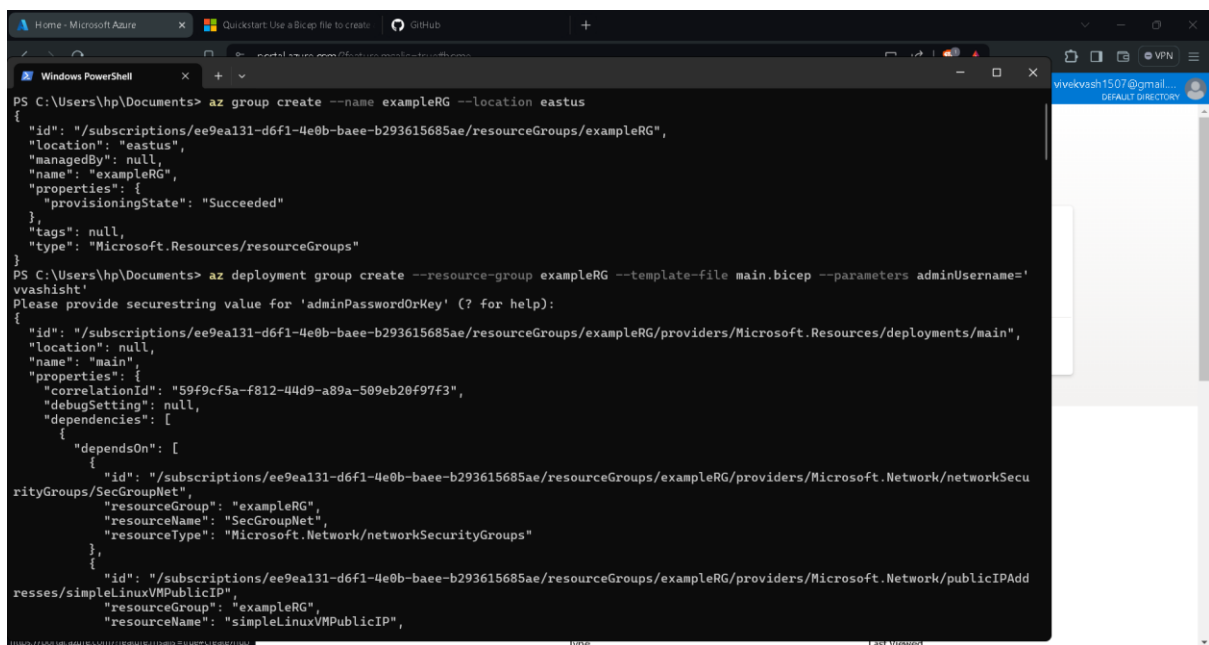
Confirm
Remove Storage Account 'vivekvsacc' and all content in it
[Y] Yes [N] No [S] Suspend [?] Help (default is "Y"): y

```
PS C:\Users\hnp> |
```

- Bicep file and screenshots of deployment



```
1 @description('The name of your virtual Machine.')
2 param vmName string = 'simplelinuxVM'
3
4 @description('Username for the Virtual Machine.')
5 param adminUsername string
6
7 @description('Type of authentication to use on the Virtual Machine. SSH key is recommended.')
8 allowed([
9   'sshPublicKey'
10  'password'
11 ])
12 param authenticationType string = 'password'
13
14 @description('SSH key or password for the Virtual Machine. SSH key is recommended.')
15 @secure()
16 param adminPasswordOrKey string
17
18 @description('Unique DNS Name for the Public IP used to access the Virtual Machine.')
19 param dnsLabelPrefix string = toLower('${vmName}-${uniqueString(resourceGroup().id)}')
20
21 @description('The Ubuntu version for the VM. This will pick a fully patched image of this given Ubuntu version.')
22 allowed([
23   'Ubuntu-2004'
24   'Ubuntu-2204'
25 ])
26 param ubuntuOSVersion string = 'Ubuntu-2004'
27
28 @description('Location for all resources.')
29 param location string = resourceGroup().location
30
31 @description('The size of the VM')
32 param vmSize string = 'Standard_D2s_v3'
33
34 @description('Name of the VNET')
35 param virtualNetworkName string = 'vNet'
36
37 @description('Name of the subnet in the virtual network')
```



```
PS C:\Users\hpl\Documents> az group create --name exampleRG --location eastus
{
  "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/exampleRG",
  "location": "eastus",
  "managedBy": null,
  "name": "exampleRG",
  "properties": {
    "provisioningState": "Succeeded"
  },
  "tags": null,
  "type": "Microsoft.Resources/resourceGroups"
}
PS C:\Users\hpl\Documents> az deployment group create --resource-group exampleRG --template-file main.bicep --parameters adminUsername='vvashtst'
Please provide securestring value for 'adminPasswordOrKey' (? for help):
{
  "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/exampleRG/providers/Microsoft.Resources/deployments/main",
  "location": null,
  "name": "main",
  "properties": {
    "correlationId": "59f9cf5a-f812-44d9-a89a-509eb20f97f3",
    "debugSetting": null,
    "dependencies": [
      {
        "dependsOn": [
          {
            "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/exampleRG/providers/Microsoft.Network/networkSecurityGroups/SecGroupNet",
            "resourceGroup": "exampleRG",
            "resourceName": "SecGroupNet",
            "resourceType": "Microsoft.Network/networkSecurityGroups"
          }
        ]
      },
      {
        "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/exampleRG/providers/Microsoft.Network/publicIPAddresses/simplelinuxVMPublicIP",
        "resourceGroup": "exampleRG",
        "resourceName": "simplelinuxVMPublicIP",

```

```
Windows PowerShell
{
  "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/exampleRG/providers/Microsoft.Network/virtualNetworks/vNet",
  "resourceGroup": "exampleRG",
  "resourceName": "vNet",
  "resourceType": "Microsoft.Network/virtualNetworks"
},
{
  "apiVersion": "2023-09-01",
  "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/exampleRG/providers/Microsoft.Network/virtualNetworks/vNet",
  "resourceGroup": "exampleRG",
  "resourceName": "vNet",
  "resourceType": "Microsoft.Network/virtualNetworks"
},
{
  "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/exampleRG/providers/Microsoft.Network/networkInterfaces/simpleLinuxVMNetInt",
  "resourceGroup": "exampleRG",
  "resourceName": "simpleLinuxVMNetInt",
  "resourceType": "Microsoft.Network/networkInterfaces"
},
{
  "dependsOn": [
    {
      "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/exampleRG/providers/Microsoft.Network/networkInterfaces/simpleLinuxVMNetInt",
      "resourceGroup": "exampleRG",
      "resourceName": "simpleLinuxVMNetInt",
      "resourceType": "Microsoft.Network/networkInterfaces"
    }
  ],
  "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/exampleRG/providers/Microsoft.Compute/virtualMachines/simpleLinuxVM",
  "resourceGroup": "exampleRG",
  "resourceName": "simpleLinuxVM",
  "resourceType": "Microsoft.Compute/virtualMachines"
}
Name                                     type                                     Last Viewed
```

```
Windows PowerShell
{
  "dependsOn": [
    {
      "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/exampleRG/providers/Microsoft.Compute/virtualMachines/simpleLinuxVM",
      "resourceGroup": "exampleRG",
      "resourceName": "simpleLinuxVM",
      "resourceType": "Microsoft.Compute/virtualMachines"
    }
  ],
  "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/exampleRG/providers/Microsoft.Compute/virtualMachines/simpleLinuxVM/extensions/GuestAttestation",
  "resourceGroup": "exampleRG",
  "resourceName": "simpleLinuxVM/GuestAttestation",
  "resourceType": "Microsoft.Compute/virtualMachines/extensions"
},
{
  "duration": "PT56.69011425",
  "error": null,
  "mode": "Incremental",
  "onErrorDeployment": null,
  "outputResources": [
    {
      "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/exampleRG/providers/Microsoft.Compute/virtualMachines/simpleLinuxVM",
      "resourceGroup": "exampleRG"
    },
    {
      "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/exampleRG/providers/Microsoft.Compute/virtualMachines/simpleLinuxVM/extensions/GuestAttestation",
      "resourceGroup": "exampleRG"
    },
    {
      "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/exampleRG/providers/Microsoft.Network/networkInterfaces/simpleLinuxVMNetInt",
      "resourceGroup": "exampleRG"
    },
    {
      "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/exampleRG/providers/Microsoft.Network/networkSecurityGroups/SecGroupNet",
      "resourceGroup": "exampleRG"
    },
    {
      "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/exampleRG/providers/Microsoft.Network/publicIPAddresses/simpleLinuxPublicIP",
      "resourceGroup": "exampleRG"
    },
    {
      "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/exampleRG/providers/Microsoft.Network/virtualNetworks/vNet",
      "resourceGroup": "exampleRG"
    }
  ],
  "outputs": {
    "adminUsername": {
      "type": "String",
      "value": "vivekshish"
    },
    "hostname": {
      "type": "String",
      "value": "simplelinuxvm-vtsajzmaths26.eastus.cloudapp.azure.com"
    },
    "sshCommand": {
      "type": "String",
      "value": ""
    }
  }
}
Name                                     type                                     Last Viewed
```


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Windows PowerShell

```

{
  "name": "vnet",
  "type": "Microsoft.Network/virtualNetworks",
  "location": "eastus",
  "apiVersion": "2018-10-01",
  "properties": {
    "addressSpace": {
      "addressPrefixes": [
        {
          "prefix": "10.0.0.0/16"
        }
      ]
    },
    "dhcpOptionsId": "vnet-dhcp",
    "dnsServers": [],
    "enableVmProtection": false,
    "encryption": {
      "encryption": false
    },
    "gateway": {
      "id": "[resourceId('Microsoft.Network/gateways', 'vnet-gw', 'Standard', 'Standard_V2')]"
    },
    "subnets": [
      {
        "name": "subnet",
        "type": "Microsoft.Network/virtualNetwork/subnets",
        "location": "eastus",
        "apiVersion": "2018-10-01",
        "properties": {
          "addressPrefix": "10.0.1.0/24",
          "gatewayId": "[resourceId('Microsoft.Network/gateways', 'vnet-gw', 'Standard', 'Standard_V2')]"
        }
      }
    ]
  }
}

```

Name | type | Last viewed

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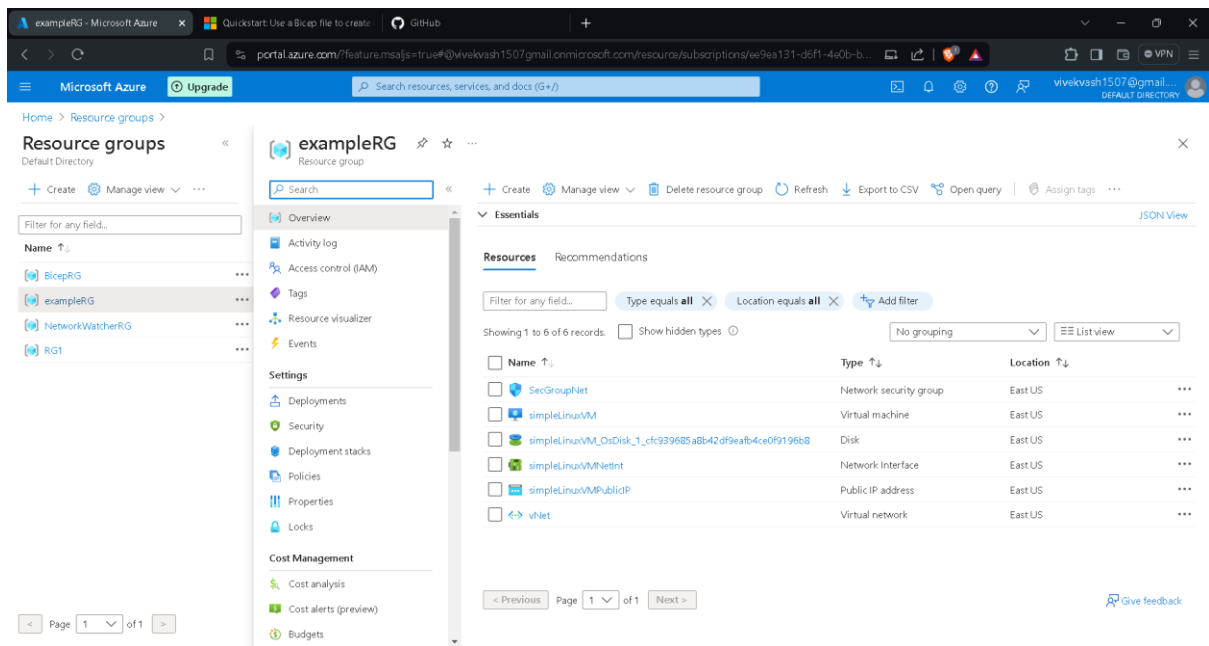
Windows PowerShell

```

{
  "name": "vnet",
  "type": "Microsoft.Network/virtualNetworks",
  "location": "eastus",
  "apiVersion": "2018-10-01",
  "properties": {
    "addressSpace": {
      "addressPrefixes": [
        {
          "prefix": "10.0.0.0/16"
        }
      ]
    },
    "dhcpOptionsId": "vnet-dhcp",
    "dnsServers": [],
    "enableVmProtection": false,
    "encryption": {
      "encryption": false
    },
    "gateway": {
      "id": "[resourceId('Microsoft.Network/gateways', 'vnet-gw', 'Standard', 'Standard_V2')]"
    },
    "subnets": [
      {
        "name": "subnet",
        "type": "Microsoft.Network/virtualNetwork/subnets",
        "location": "eastus",
        "apiVersion": "2018-10-01",
        "properties": {
          "addressPrefix": "10.0.1.0/24",
          "gatewayId": "[resourceId('Microsoft.Network/gateways', 'vnet-gw', 'Standard', 'Standard_V2')]"
        }
      }
    ]
  }
}

```

Name | type | Last viewed



simpleLinuxVM - Microsoft Azure

portal.azure.com/?feature.msajs=true#@vivekvash1507@gmail.com/resource/subscriptions/ee9ea131-d6f1-4e0b-b...

Home > Resource groups > exampleRG >

simpleLinuxVM

Virtual machine

Search resources, services, and docs (G+)

Connect Start Restart Stop Hibernate Capture Delete Refresh Open in mobile Feedback CLI / PS

Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems

Connect

- Connect
- Bastion

Networking

- Network settings
- Load balancing
- Application security groups
- Network manager

Settings

- Disks
- Extensions + applications
- Operating system

Essentials

Resource group (move) : [exampleRG](#)

Status : Running

Location : East US

Subscription (move) : [Azure subscription 1](#)

Subscription ID : ee9ea131-d6f1-4e0b-baee-b293615685ae

Operating system : Linux (ubuntu 20.04)

Size : Standard D2s v3 (2 vcpus, 8 GiB memory)

Public IP address : [4.246.173.77](#)

Virtual network/subnet : [vNet/Subnet](#)

DNS name : [simplelinuxvm-vtsajm26.eastus.cloudapp.azure.com](#)

Health state : -

Time created : 5/30/2024, 6:57 AM UTC

Tags (edit) : [Add tags](#)

JSON View

Properties

Monitoring Capabilities (7) Recommendations Tutorials

Virtual machine

Computer name	simpleLinuxVM
Operating system	Linux (ubuntu 20.04)
VM generation	V2
VM architecture	x64
Agent status	Ready
Agent version	2.11.1.4
Hibernation	Disabled

Networking

Public IP address	4.246.173.77 (Network interface simpleLinuxVMNetInt)
Public IP address (IPv6)	-
Private IP address	10.1.0.4
Private IP address (IPv6)	-
Virtual network/subnet	vNet/Subnet
DNS name	simplelinuxvm-vtsajm26.eastus.cloudapp.azure.com