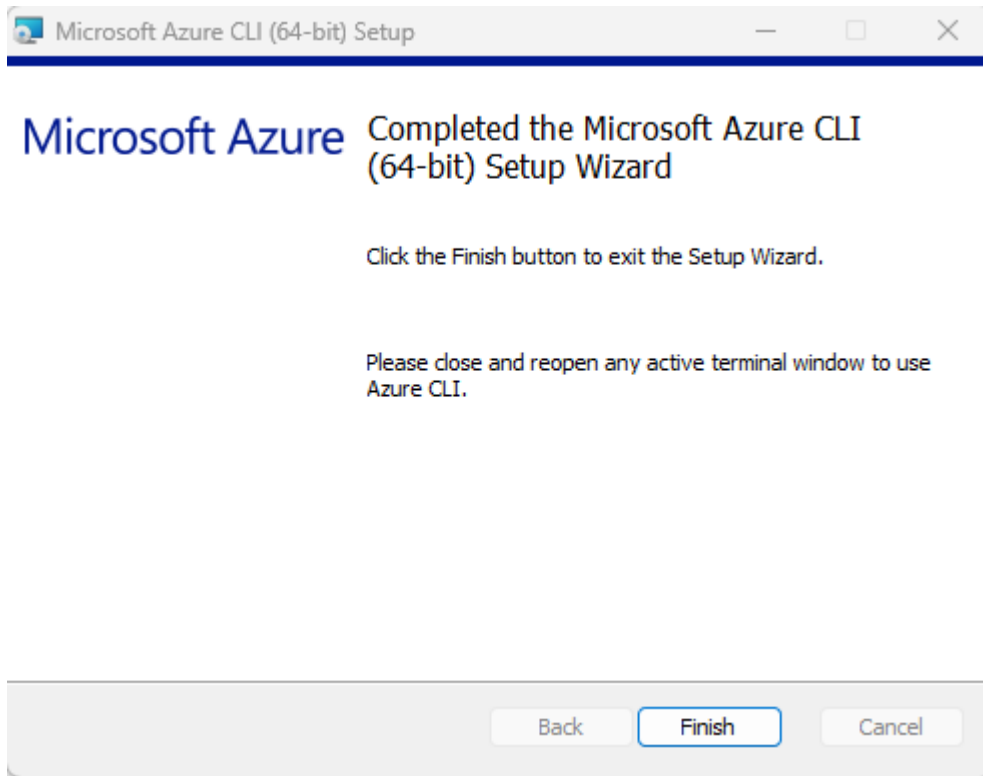# 3.Install Azure CLI on your machine to list resources,get information about virtual machines.

**Install Azure CLI on Windows**

- ➢ Download the Azure CLI Installer for Windows from the official Microsoft website

- ➢ Install the latest release of the Azure CLI. When the installer asks if it can make changes to your computer, select the "Yes" box.

- ➢ Once the installation is complete, open a new Command Prompt or PowerShell window.
- ➢ Log in to your Azure account using the following command:

    az login
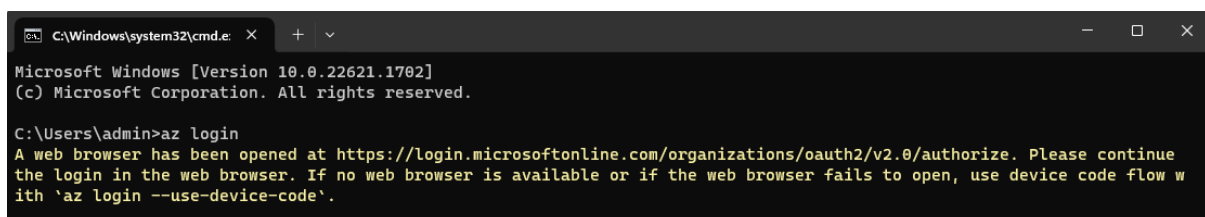
➢ Follow the instructions to open a web page, enter the provided code, and authenticate.


```
Microsoft Windows [Version 10.0.22621.1702]
(c) Microsoft Corporation. All rights reserved.

C:\Users\admin>az login
A web browser has been opened at https://login.microsoftonline.com/organizations/oauth2/v2.0/authorize. Please continue
the login in the web browser. If no web browser is available or if the web browser fails to open, use device code flow w
ith `az login --use-device-code`.
[
  {
    "cloudName": "AzureCloud",
    "homeTenantId": "629ea6f9-fadd-4580-8cd8-c9380b1bedd0",
    "id": "7bde45ec-4211-4bec-97d8-cc8f1520e309",
    "isDefault": true,
    "managedByTenants": [],
    "name": "Free Trial",
    "state": "Enabled",
    "tenantId": "629ea6f9-fadd-4580-8cd8-c9380b1bedd0",
    "user": {
      "name": "krsureshit@live.com",
      "type": "user"
    }
  }
]
```

➢ After logging in, you can use the Azure CLI commands.

List Resources:

➢ To list Azure resources, you can use the following command:

az resource list --output table


```
C:\Users\admin>az resource list --output table
Name                                                              ResourceGroup            Location      Type
    Status
---------                                                         ------------------------ ------------  ------------------------------------------
--- --------
MSVMI-DefaultWorkspace-7bde45ec-4211-4bec-97d8-cc8f1520e309-EUS   DefaultResourceGroup-EUS eastus        Microsoft.Insights/dataCollectionRules
DefaultWorkspace-7bde45ec-4211-4bec-97d8-cc8f1520e309-EUS         DefaultResourceGroup-EUS eastus        Microsoft.OperationalInsights/workspaces
NetworkWatcher_centralindia                                       NetworkWatcherRG         centralindia  Microsoft.Network/networkWatchers
windowsvm_OsDisk_1_3c3dfd04503e498db40b7d06ba1a5051               VMRG                     centralindia  Microsoft.Compute/disks
windowsvm                                                         vmrg                     centralindia  Microsoft.Compute/virtualMachines
windowsvm/AzureMonitorWindowsAgent                                vmrg                     centralindia  Microsoft.Compute/virtualMachines/extensi
ons
NotificationActionGroup                                           Vmrg                     global        microsoft.insights/actiongroups
CPU35Percent                                                      Vmrg                     global        microsoft.insights/metricalerts
windowsvm202                                                      Vmrg                     centralindia  Microsoft.Network/networkInterfaces
windowsvm-nsg                                                     Vmrg                     centralindia  Microsoft.Network/networkSecurityGroups
windowsvm-ip                                                      Vmrg                     centralindia  Microsoft.Network/publicIPAddresses
windowsvm-vnet                                                    Vmrg                     centralindia  Microsoft.Network/virtualNetworks
asmonitor                                                         Vmrg                     centralindia  Microsoft.Storage/storageAccounts
```

Get Information about Virtual Machines:

➢ To get information about virtual machines, you can use the following command:
➢ This command lists all virtual machines across all resource groups in your subscription.

az vm list --output table


```
C:\Users\admin>az vm list --output table
Name        ResourceGroup   Location        Zones
---------   -------------   -------------   -------
windowsvm   VMRG            centralindia
```

List all virtual machines in a resource group:

➤ az vm list --resource-group <resource-group-name> --output table

```
C:\Users\admin>az vm list --resource-group vmrg --output table
Name        ResourceGroup    Location        Zones
---------   ---------------  -------------   -------
windowsvm   vmrg             centralindia
```

Show details about a specific virtual machine:

➤ az vm show --resource-group <resource-group-name> --name <vm-name> --output table

```
C:\Users\admin>az vm show --resource-group vmrg --name windowsvm --output table
Name        ResourceGroup    Location        Zones
---------   ---------------  -------------   -------
windowsvm   vmrg             centralindia
```

Get IP address of a specific virtual machine

➤ az vm show --resource-group <resource-group-name> --name <vm-name> --query 'publicIps' --output tsv

```
C:\Users\admin>az vm show --resource-group vmrg --name windowsvm --query 'privateIps' --output tsv
privateIps

C:\Users\admin>az vm show --resource-group vmrg --name windowsvm --query 'publicIps' --output tsv
publicIps
```

List VM sizes available in a specific region:

➤ az vm list-sizes --location <region-name> --output table

```
C:\Users\admin>az vm list-sizes --location centralindia --output table
MaxDataDiskCount    MemoryInMB    Name                 NumberOfCores    OsDiskSizeInMB    ResourceDiskSizeInMB
------------------  ------------  -------------------  ---------------  ----------------  ----------------------
4                   4096          Standard_F2s_v2      2                1047552           16384
8                   8192          Standard_F4s_v2      4                1047552           32768
16                  16384         Standard_F8s_v2      8                1047552           65536
32                  32768         Standard_F16s_v2     16               1047552           131072
32                  65536         Standard_F32s_v2     32               1047552           262144
32                  98304         Standard_F48s_v2     48               1047552           393216
32                  131072        Standard_F64s_v2     64               1047552           524288
32                  147456        Standard_F72s_v2     72               1047552           589824
4                   8192          Standard_DC2as_v5    2                1047552           0
8                   16384         Standard_DC4as_v5    4                1047552           0
16                  32768         Standard_DC8as_v5    8                1047552           0
32                  65536         Standard_DC16as_v5   16               1047552           0
32                  131072        Standard_DC32as_v5   32               1047552           0
32                  196608        Standard_DC48as_v5   48               1047552           0
32                  262144        Standard_DC64as_v5   64               1047552           0
32                  393216        Standard_DC96as_v5   96               1047552           0
4                   8192          Standard_DC2ads_v5   2                1047552           76800
8                   16384         Standard_DC4ads_v5   4                1047552           153600
16                  32768         Standard_DC8ads_v5   8                1047552           307200
32                  65536         Standard_DC16ads_v5  16               1047552           614400
32                  131072        Standard_DC32ads_v5  32               1047552           1228800
32                  196608        Standard_DC48ads_v5  48               1047552           1843200
```