**Create an Azure Resource using scripts in Azure PowerShell**

**Create a Linux VM with Azure PowerShell**

1. Use the New-AzVm cmdlet to create a VM.
   * Use the **learn-57d0903f-1427-465f-8886-6619607ec708** resource group.
   * Give the VM a name: "testvm-eus-01" for "Test VM in East US, instance 1."
   * Selected a close location that was available in the Azure sandbox: east-us.
   * Use "Canonical:0001-com-ubuntu-server-focal:20\_04 - This image is Ubuntu Linux.
   * Use the Get-Credential cmdlet and feed the results into the Credential parameter.
   * Add the -OpenPorts parameter and pass "22" as the port. This port lets us SSH into the machine.
   * Create a public IP address name. You use this name to create and find your static IP address to sign into the machine.

A computer screen shot of a blue screen

Description automatically generated

New-AzVm -ResourceGroupName learn-57d0903f-1427-465f-8886-6619607ec708 -Name "testvm-eus-01" -Credential (Get-Credential) -Location "east-us" -Image Canonical:0001-com-ubuntu-server-focal:20\_04-lts:latest -OpenPorts 22 -PublicIpAddressName "testvm-eus-01"

1. Create a username and password, then press Enter. PowerShell starts creating your VM.
2. The VM creation takes a few minutes to complete. When it's done, you can query it and assign the VM object to a variable ($vm).

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* Query $vm = (Get-AzVM -Name "testvm-eus-01" -ResourceGroupName learn-57d0903f-1427-465f-8886-6619607ec708).
* Query the value to dump out the information about the VM.

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Description automatically generated

1. You can query various commands to find information:

Run: $vm.HardwareProfile

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Run: $vm.StorageProfile.OsDisk

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Run: $vm | Get-AzVMSize

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Run: Get-AzPublicIpAddress -ResourceGroupName learn-57d0903f-1427-465f-8886-6619607ec708 -Name "testvm-eus-01"

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**Delete a VM**

* Run: Stop-AzVM -Name $vm.Name -ResourceGroupName $vm.ResourceGroupName
* Run: Remove-AzVM -Name $vm.Name -ResourceGroupName $vm.ResourceGroupName

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* Run: Get-AzResource -ResourceGroupName $vm.ResourceGroupName | Format-Table

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Description automatically generated

You can see several resources (disks, virtual networks, and so on) that all still exist.

The Remove-AzVM command *just deletes the VM*. It doesn't clean up any of the other resources. At this point, we can delete the resource group which will clear everything or do it manually. Manually use the following commands.

* Delete the network interface: $vm | Remove-AzNetworkInterface –Force
* Delete the managed OS disks: Get-AzDisk -ResourceGroupName $vm.ResourceGroupName -DiskName $vm.StorageProfile.OSDisk.Name | Remove-AzDisk -Force
* Delete the virtual network: Get-AzVirtualNetwork -ResourceGroupName $vm.ResourceGroupName | Remove-AzVirtualNetwork -Force
* Delete the network security group: Get-AzNetworkSecurityGroup -ResourceGroupName $vm.ResourceGroupName | Remove-AzNetworkSecurityGroup -Force
* Delete the public IP address: Get-AzPublicIpAddress -ResourceGroupName $vm.ResourceGroupName | Remove-AzPublicIpAddress -Force

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