

MICROSOFT AZURE

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DEPARTMENT: CSBS-III

GITHUB: <https://github.com/MadhanSivakumar/azure>

REQUESTING A CLOUD SHELL SUCCEEDED.

CONNECTING TERMINAL...

Welcome to Azure Cloud Shell

- `az vm create --resource-group "learn-1dd151f8-37c6-44cc-a975-8f08e65c30c2" --name my-vm --public-ip-sku Standard --image Ubuntu2204 --admin-username azureuser --generate-ssh-keys`
- `az vm extension set --resource-group "learn-1dd151f8-37c6-44cc-a975-8f08e65c30c2" --vm-name my-vm --name customScript --publisher Microsoft.Azure.Extensions --version 2.1 --settings '{"fileUri":["https://raw.githubusercontent.com/MicrosoftDocs/mslearn-welcome-to-azure/master/configure-nginx.sh"]}' --protected-settings '{"commandToExecute": "./configure-nginx.sh"}'`
- `sudo apt-get update`
- `ssh azureuser@52.160.43.40`
- `echo "sudo apt-get update -y"`
- `sudo apt-get install nginx -y`
- `sudo systemctl start nginx`

- `sudo systemctl enable nginx" > setup_nginx.sh`
- `chmod +x setup_nginx.sh`
- `./setup_nginx.sh`
- `echo "<html><body><h2>Welcome to Azure! My name is $(hostname).</h2></body></html>" | sudo tee -a /var/www/html/index.html`
- `sudo systemctl status nginx`
- `az vm open-port --resource-group "learn-1dd151f8-37c6-44cc-a975-8f08e65c30c2" --name my-vm --port 80`
- `az vm list-ip-addresses --resource-group "learn-1dd151f8-37c6-44cc-a975-8f08e65c30c2" --name my-vm --output table`
- `ssh azureuser@52.160.43.40`
- `sudo apt-get update`
- `git clone https://github.com/revanth-004/pet-first.git .`
- `sudo cp -r html/* /var/www/html/`
- `sudo chown -R www-data:www-data /var/www/html`
- `sudo chmod -R 755 /var/www/html`
- `sudo systemctl restart nginx`

CLOUD SHELL

Exercise - Create an Azure virtual machine

10 minutes

Sandbox activated! Time remaining: 30 min

You have used 3 of 10 sandboxes for today. More sandboxes will be available tomorrow.

In this exercise, you create an Azure virtual machine (VM) and install Nginx, a popular web server.

You could use the Azure portal, the Azure CLI, Azure PowerShell, or an Azure Resource Manager (ARM) template.

In this instance, you're going to use the Azure CLI.

Task 1: Create a Linux virtual machine and install Nginx

Azure Cloud Shell

Switch to PowerShell Restart Manage files New session Editor

```
az vm list-ip-addresses --resource-group MyResourceGroup --name MyVm
Get the IP addresses for a VM.

https://docs.microsoft.com/en-US/cli/azure/vm#az_vm_list_ip_addresses
Read more about the command in reference docs
madhansivakumar0073 [ ~ ]$ az vm list-ip-addresses --resource-group "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5" --name my-vm --output table
-----
VirtualMachine  PublicIPAddresses  PrivateIPAddresses
-----
my-vm          52.160.43.40        10.0.0.4
madhansivakumar0073 [ ~ ]$ ssh azureuser@52.160.43.40
Welcome to Ubuntu 22.04.4 LTS (GNU/Linux 6.5.0-1025-azure x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Fri Aug 9 08:31:50 UTC 2024

System load: 0.0          Processes:              106
Usage of /:  6.0% of 28.89GB Users logged in:        0
Memory usage: 5%          IPv4 address for eth0: 10.0.0.4
Swap usage:  0%

Expanded Security Maintenance for Applications is not enabled.

10 updates can be applied immediately.
10 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable
```

Exercise - Create an Azure virtual machine

10 minutes

Sandbox activated! Time remaining: 19 min

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Task 1: Create a Linux virtual machine and install Nginx

Azure Cloud Shell

Switch to PowerShell Restart Manage files New session Editor

```
Requesting a Cloud Shell.Succeeded.
Connecting terminal...

Welcome to Azure Cloud Shell

Type "az" to use Azure CLI
Type "help" to learn about Cloud Shell

madhansivakumar0073 [ ~ ]$ az vm create --resource-group "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5" --name my-vm --public-ip-sku Standard --image Ubuntu2204 --admin-username azureuser --generate-ssh-keys
SSH key files '/home/madhansivakumar0073/.ssh/id_rsa' and '/home/madhansivakumar0073/.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/9d9bf5f6-2cad-4cbb-84e1-11eb71d2236b/resourceGroups/learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5/providers/Microsoft.Compute/virtualMachines/my-vm",
  "location": "westus",
  "name": "my-vm",
  "powerState": "VM running",
  "privateIpAddress": "10.0.0.4",
  "publicIpAddress": "52.160.43.40",
  "resourceGroup": "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5",
  "zones": ""
}
madhansivakumar0073 [ ~ ]$ az vm extension set --resource-group "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5" --vm-name my-vm --name customScript --publisher Microsoft.Azure.Extensions --version 2.1 --settings '[{"fileUri": "https://raw.githubusercontent.com/MicrosoftDocs/mslearn-welcome-to-azure/master/configure-nginx.sh"}]' --protected-settings '{"commandToExecute": "sudo /configure-nginx.sh"}'
```


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10 updates can be applied immediately.
10 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

azureuser@my-vm:~\$ echo "sudo apt-get update -y
sudo apt-get install nginx -y
sudo systemctl start nginx
sudo systemctl enable nginx" > setup_nginx.sh
chmod +x setup_nginx.sh
./setup_nginx.sh
Hit:1 http://azure.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://azure.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://azure.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:4 http://azure.archive.ubuntu.com/ubuntu jammy-security InRelease
Reading package lists... Done

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Reading package lists... Done
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
nginx is already the newest version (1.18.0-6ubuntu14.4).
0 upgraded, 0 newly installed, 0 to remove and 13 not upgraded.
Synchronizing state of nginx.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable nginx
azureuser@my-vm:~\$ echo "<html><body><h2>Welcome to Azure! My name is \$(hostname).</h2></body></html>" | sudo tee -a /var/www/html/index.html
azureuser@my-vm:~\$ sudo systemctl status nginx
● nginx.service - A high performance web server and a reverse proxy server
Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset: enabled)
Active: active (running) since Fri 2024-08-09 08:18:01 UTC; 6min ago
Docs: man:nginx(8)
Main PID: 2362 (nginx)
Tasks: 2 (limit: 4811)
Memory: 4.6M
CPU: 36ms
CGroup: /system.slice/nginx.service
└─2362 "nginx: master process /usr/sbin/nginx -g daemon on; master_process on;"
└─2365 "nginx: worker process"

Aug 09 08:18:01 my-vm systemd[1]: Starting A high performance web server and a reverse proxy.
Aug 09 08:18:01 my-vm systemd[1]: Started A high performance web server and a reverse proxy.
lines 1-14/14 (END)
azureuser@my-vm:~\$ exit
logout
Connection to 52.160.43.40 closed.

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Aug 09 08:18:01 my-vm systemd[1]: Starting A high performance web server and a reverse proxy
Aug 09 08:18:01 my-vm systemd[1]: Started A high performance web server and a reverse proxy
lines 1-14/14 (END)
azuser@my-vm:~\$ exit
logout
Connection to 52.160.43.40 closed.
madhansivakumar0073 [~]\$ az vm open-port --resource-group "[[200-learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5]" --name my-vm --port 80
Operation returned an invalid status 'Bad Request'
madhansivakumar0073 [~]\$ az vm open-port --resource-group "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5" --name my-vm --port 80
{
 "defaultSecurityRules": [
 {
 "access": "Allow",
 "description": "Allow inbound traffic from all VMs in VNET",
 "destinationAddressPrefix": "VirtualNetwork",
 "destinationAddressPrefixes": [],
 "destinationPortRange": "*",
 "destinationPortRanges": [],
 "direction": "Inbound",
 "etag": "W/\"bd2b6165-534a-4e15-ac74-5da9768b9286\"\"",
 "id": "/subscriptions/9d9bf5f6-2cad-4cbb-84e1-11ab71d2236b/resourceGroups/learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5/providers/Microsoft.Network/networkSecurityGroups/my-vm/defa
ultSecurityRules/AllowVnetInBound",
 "name": "AllowVnetInBound",
 "priority": 65000,
 "protocol": "*",
 "provisioningState": "Succeeded",
 "resourceGroup": "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5",
 "sourceAddressPrefix": "VirtualNetwork",
 "sourceAddressPrefixes": [],
 "sourcePortRange": "*",
 "sourcePortRanges": [],
 "type": "Microsoft.Network/networkSecurityGroups/defaultSecurityRules"
 },
 {
 "access": "Allow",
 "description": "Allow inbound traffic from azure load balancer",
 "destinationAddressPrefix": "*",
 "destinationAddressPrefixes": [],
 "destinationPortRange": "*",
 "destinationPortRanges": [],
 "direction": "Inbound",
 "etag": "W/\"bd2b6165-534a-4e15-ac74-5da9768b9286\"\"",
 "id": "/subscriptions/9d9bf5f6-2cad-4cbb-84e1-11ab71d2236b/resourceGroups/learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5/providers/Microsoft.Network/networkSecurityGroups/my-vm/defa
ultSecurityRules/AllowAzureLoadBalancerInBound",
 "name": "AllowAzureLoadBalancerInBound",
 "priority": 65001,
 "protocol": "*",
 "provisioningState": "Succeeded",
 "resourceGroup": "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5",
 "sourceAddressPrefix": "AzureLoadBalancer",
 "sourceAddressPrefixes": [],
 "sourcePortRange": "*",
 "sourcePortRanges": [],
 "type": "Microsoft.Network/networkSecurityGroups/defaultSecurityRules"
 },
 {
 "access": "Deny",
 "description": "Deny all inbound traffic",
 "destinationAddressPrefix": "*",
 "destinationAddressPrefixes": [],
 "destinationPortRange": "*",
 "destinationPortRanges": [],
 "direction": "Inbound",
 "etag": "W/\"bd2b6165-534a-4e15-ac74-5da9768b9286\"\"",
 "id": "/subscriptions/9d9bf5f6-2cad-4cbb-84e1-11ab71d2236b/resourceGroups/learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5/providers/Microsoft.Network/networkSecurityGroups/my-vm/defa
ultSecurityRules/DenyAllInbound",
 "name": "DenyAllInbound",
 "priority": 65500,
 "protocol": "*",
 "provisioningState": "Succeeded",
 "resourceGroup": "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5",
 "sourceAddressPrefix": "Any",
 "sourceAddressPrefixes": [],
 "sourcePortRange": "*",
 "sourcePortRanges": [],
 "type": "Microsoft.Network/networkSecurityGroups/defaultSecurityRules"
 }
]
}

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Task 1: Create a Linux virtual machine and install Nginx

Azure Cloud Shell

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"sourceAddressPrefixes": [],
"sourcePortRange": "*",
"sourcePortRanges": [],
"type": "Microsoft.Network/networkSecurityGroups/defaultSecurityRules"
},
{
 "access": "Allow",
 "description": "Allow inbound traffic from azure load balancer",
 "destinationAddressPrefix": "*",
 "destinationAddressPrefixes": [],
 "destinationPortRange": "*",
 "destinationPortRanges": [],
 "direction": "Inbound",
 "etag": "W/\"bd2b6165-534a-4e15-ac74-5da9768b9286\"\"",
 "id": "/subscriptions/9d9bf5f6-2cad-4cbb-84e1-11ab71d2236b/resourceGroups/learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5/providers/Microsoft.Network/networkSecurityGroups/my-vm/defa
ultSecurityRules/AllowAzureLoadBalancerInBound",
 "name": "AllowAzureLoadBalancerInBound",
 "priority": 65001,
 "protocol": "*",
 "provisioningState": "Succeeded",
 "resourceGroup": "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5",
 "sourceAddressPrefix": "AzureLoadBalancer",
 "sourceAddressPrefixes": [],
 "sourcePortRange": "*",
 "sourcePortRanges": [],
 "type": "Microsoft.Network/networkSecurityGroups/defaultSecurityRules"
},
{
 "access": "Deny",
 "description": "Deny all inbound traffic",
 "destinationAddressPrefix": "*",
 "destinationAddressPrefixes": [],
 "destinationPortRange": "*",
 "destinationPortRanges": [],
 "direction": "Inbound",
 "etag": "W/\"bd2b6165-534a-4e15-ac74-5da9768b9286\"\"",
 "id": "/subscriptions/9d9bf5f6-2cad-4cbb-84e1-11ab71d2236b/resourceGroups/learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5/providers/Microsoft.Network/networkSecurityGroups/my-vm/defa
ultSecurityRules/DenyAllInbound",
 "name": "DenyAllInbound",
 "priority": 65500,
 "protocol": "*",
 "provisioningState": "Succeeded",
 "resourceGroup": "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5",
 "sourceAddressPrefix": "Any",
 "sourceAddressPrefixes": [],
 "sourcePortRange": "*",
 "sourcePortRanges": [],
 "type": "Microsoft.Network/networkSecurityGroups/defaultSecurityRules"
}

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Task 1: Create a Linux virtual machine and install Nginx

Azure Cloud Shell

Switch to PowerShell Restart Manage files New session Editor

```
1-f8dc-4923-bd4b-dd007e3af2e5/providers/Microsoft.Network/networkSecurityGroups/my-vmNSG/defaultSecurityRules/AllowVnetOutBound",
  "name": "AllowVnetOutBound",
  "priority": 65000,
  "protocol": "*",
  "provisioningState": "Succeeded",
  "resourceGroup": "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5",
  "sourceAddressPrefix": "VirtualNetwork",
  "sourceAddressPrefixes": [],
  "sourcePortRange": "*",
  "sourcePortRanges": [],
  "type": "Microsoft.Network/networkSecurityGroups/defaultSecurityRules"
},
{
  "access": "Allow",
  "description": "Allow outbound traffic from all VMs to Internet",
  "destinationAddressPrefix": "Internet",
  "destinationAddressPrefixes": [],
  "destinationPortRange": "*",
  "destinationPortRanges": [],
  "direction": "Outbound",
  "etag": "W/\"bd2b6165-534a-4e15-ac74-5da9768b9286\"\"",
  "id": "/subscriptions/9d9bf5f6-2cad-4cbb-84e1-11eb71d2236b/resourceGroups/learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5/providers/Microsoft.Network/networkSecurityGroups/my-vmNSG/defaultSecurityRules/AllowInternetOutBound",
  "name": "AllowInternetOutBound",
  "priority": 65001,
  "protocol": "*",
  "provisioningState": "Succeeded",
  "resourceGroup": "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5",
  "sourceAddressPrefix": "*",
  "sourcePortRange": "*",
```

Exercise - Create an Azure virtual machine

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Task 1: Create a Linux virtual machine and install Nginx

Azure Cloud Shell

Switch to PowerShell Restart Manage files New session Editor

```
"sourcePortRange": "*",
"sourcePortRanges": [],
"type": "Microsoft.Network/networkSecurityGroups/defaultSecurityRules"
},
{
  "access": "Deny",
  "description": "Deny all outbound traffic",
  "destinationAddressPrefix": "*",
  "destinationAddressPrefixes": [],
  "destinationPortRange": "*",
  "destinationPortRanges": [],
  "direction": "Outbound",
  "etag": "W/\"bd2b6165-534a-4e15-ac74-5da9768b9286\"\"",
  "id": "/subscriptions/9d9bf5f6-2cad-4cbb-84e1-11eb71d2236b/resourceGroups/learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5/providers/Microsoft.Network/networkSecurityGroups/my-vmNSG/defaultSecurityRules/DenyAllOutBound",
  "name": "DenyAllOutBound",
  "priority": 65008,
  "protocol": "*",
  "provisioningState": "Succeeded",
  "resourceGroup": "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5",
  "sourceAddressPrefix": "*",
  "sourceAddressPrefixes": [],
  "sourcePortRange": "*",
  "sourcePortRanges": [],
  "type": "Microsoft.Network/networkSecurityGroups/defaultSecurityRules"
}
],
"etag": "W/\"bd2b6165-534a-4e15-ac74-5da9768b9286\"\"",
"id": "/subscriptions/9d9bf5f6-2cad-4cbb-84e1-11eb71d2236b/resourceGroups/learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5/providers/Microsoft.Network/networkSecurityGroups/my-vmNSG",
```


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Task 1: Create a Linux virtual machine and install Nginx

Azure Cloud Shell

```
"name": "my-vmNSG",
"networkInterfaces": [
  {
    "id": "/subscriptions/9d9bf5f6-2cad-4cbb-84e1-11ab71d2236b/resourceGroups/learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5/providers/Microsoft.Network/networkInterfaces/my-vmNIC",
    "resourceGroup": "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5"
  }
],
"provisioningState": "Succeeded",
"resourceGroup": "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5",
"resourceId": "b92846f1-eb41-4d0e-82eb-14d1ba3c063b",
"securityRules": [
  {
    "access": "Allow",
    "destinationAddressPrefix": "*",
    "destinationAddressPrefixes": [],
    "destinationPortRange": "22",
    "destinationPortRanges": [],
    "direction": "Inbound",
    "etag": "/subscriptions/9d9bf5f6-2cad-4cbb-84e1-11ab71d2236b/resourceGroups/learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5/providers/Microsoft.Network/networkSecurityGroups/my-vmNSG/securityRules/default-allow-ssh",
    "name": "default-allow-ssh",
    "priority": 1000,
    "protocol": "Tcp",
    "provisioningState": "Succeeded",
    "resourceGroup": "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5",
    "sourceAddressPrefix": "*",
    "sourceAddressPrefixes": [],
    "sourcePortRange": "*",
```

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Azure Cloud Shell

```
"sourcePortRange": "*",
"sourcePortRanges": [],
"type": "Microsoft.Network/networkSecurityGroups/securityRules"
},
{
  "access": "Allow",
  "destinationAddressPrefix": "*",
  "destinationAddressPrefixes": [],
  "destinationPortRange": "80",
  "destinationPortRanges": [],
  "direction": "Inbound",
  "etag": "/subscriptions/9d9bf5f6-2cad-4cbb-84e1-11ab71d2236b/resourceGroups/learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5/providers/Microsoft.Network/networkSecurityGroups/my-vmNSG/securityRules/open-port-80",
  "name": "open-port-80",
  "priority": 900,
  "protocol": "*",
  "provisioningState": "Succeeded",
  "resourceGroup": "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5",
  "sourceAddressPrefix": "*",
  "sourceAddressPrefixes": [],
  "sourcePortRange": "*",
  "sourcePortRanges": [],
  "type": "Microsoft.Network/networkSecurityGroups/securityRules"
}
],
"tags": {},
"type": "Microsoft.Network/networkSecurityGroups"
}
madhansivakumar0073 [ ~ ]$ az vm list-ip-addresses --resource-group learn-ce5a9d91-f8dc-4923-
```


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Switch to PowerShell Restart Manage files New session Editor

```
madhansivakumar0073 [ ~ ]$ az vm list-ip-addresses --resource-group "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5" --name my-vm --output table
unrecognized arguments: --resource-group learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5

Examples from AI knowledge base:
az vm list-ip-addresses --resource-group MyResourceGroup
List IP addresses associated with a VM. (autogenerated)

az vm list-ip-addresses --resource-group MyResourceGroup --name MyVm
Get the IP addresses for a VM.

https://docs.microsoft.com/en-US/cli/azure/vm#az_vm_list_ip_addresses
Read more about the command in reference docs
madhansivakumar0073 [ ~ ]$ az vm list-ip-addresses --resource-group "learn-ce5a9d91-f8dc-4923-bd4b-dd007e3af2e5" --name my-vm --output table
VirtualMachine  PublicIPAddresses  PrivateIPAddresses
-----
my-vm           52.160.43.40           10.0.0.4
madhansivakumar0073 [ ~ ]$ ssh azureuser@52.160.43.40
Welcome to Ubuntu 22.04.4 LTS (GNU/Linux 6.5.0-1025-azure x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Fri Aug 9 08:31:50 UTC 2024

System load: 0.0      Processes:           186
Usage of /:  6.0% of 28.89GB  Users logged in:    0
Memory usage: 9%      IPv4 address for eth0: 10.0.0.4
Swap usage: 0%
```

Exercise - Create an Azure virtual machine

10 minutes

Sandbox activated! Time remaining: 18 min

You have used 3 of 10 sandboxes for today. More sandboxes will be available tomorrow.

In this exercise, you create an Azure virtual machine (VM) and install Nginx, a popular web server.

You could use the Azure portal, the Azure CLI, Azure PowerShell, or an Azure Resource Manager (ARM) template.

In this instance, you're going to use the Azure CLI.

Task 1: Create a Linux virtual machine and install Nginx

Azure Cloud Shell

Switch to PowerShell Restart Manage files New session Editor

```
System load: 0.0      Processes:           186
Usage of /:  6.0% of 28.89GB  Users logged in:    0
Memory usage: 9%      IPv4 address for eth0: 10.0.0.4
Swap usage: 0%

Expanded Security Maintenance for Applications is not enabled.

10 updates can be applied immediately.
10 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Last login: Fri Aug 9 08:22:07 2024 from 4.144.154.61
azureuser@my-vm:~$ sudo apt-get update
Hit:1 http://azure.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://azure.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://azure.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:4 http://azure.archive.ubuntu.com/ubuntu jammy-security InRelease
Reading package lists... Done
azureuser@my-vm:~$ sudo apt-get update
sudo apt-get install git -y
Hit:1 http://azure.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://azure.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://azure.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:4 http://azure.archive.ubuntu.com/ubuntu jammy-security InRelease
Reading package lists... Done
```

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Task 1: Create a Linux virtual machine and install Nginx

```
Hit:4 http://azure.archive.ubuntu.com/ubuntu jammy-security InRelease
Reading package lists... Done
azureuser@my-vm:~$ sudo apt-get update
sudo apt-get install git -y
Hit:1 http://azure.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://azure.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://azure.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:4 http://azure.archive.ubuntu.com/ubuntu jammy-security InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
git is already the newest version (1:2.34.1-1ubuntu1.11).
git set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 13 not upgraded.
azureuser@my-vm:~$ git clone https://github.com/revanth-004/pet-first.git
Cloning into 'pet-first'...
remote: Enumerating objects: 101, done.
remote: Counting objects: 100% (50/50), done.
remote: Compressing objects: 100% (36/36), done.
remote: Total 101 (delta 22), reused 50 (delta 13), pack-reused 51
Receiving objects: 100% (101/101), 2.31 MiB | 16.68 MiB/s, done.
Resolving deltas: 100% (23/23), done.
azureuser@my-vm:~$ sudo cp -r pet-first/* /var/www/html/
azureuser@my-vm:~$ sudo chown -R pet-first/var/www/html
chown: missing operand after 'pet-first/var/www/html'
Try 'chown --help' for more information.
azureuser@my-vm:~$ sudo chown -R www-data:www-data /var/www/html
sudo chmod -R 755 /var/www/html
azureuser@my-vm:~$ sudo systemctl restart nginx
azureuser@my-vm:~$
```

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