

Azure Virtual Machines and Advance Azure Virtual Machines

Assignment 1:

1. Create a VM in the west US region
2. Select the Ubuntu image for creating the VM

^ Essentials	
Resource group (move) :	linux-vm-group
Status :	Running
Location :	West US 3
Subscription (move) :	Pay-As-You-Go
Subscription ID :	38bd44d5-d91c-4f34-8f1e-c946d6697ae4
Operating system :	Linux (ubuntu 24.04)
Size :	Standard D2s v3 (2 vcpus, 8 GiB memory)
Public IP address :	20.171.97.133
Virtual network/subnet :	linux-vm-vnet/default
DNS name :	Not configured

3. Open the SSH port
4. Connect to the Linux VM using the terminal

```
to update your account to use zsh, please run 'chsh -s /bin/zsh'.
For more details, please visit https://support.apple.com/kb/HT208050.
macbooks-MacBook-Air:~ macbookair$ ssh azureuser@20.171.97.133
azureuser@20.171.97.133's password:
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-1021-azure x86_64)
```

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

System information as of Thu Mar 20 13:28:25 UTC 2025

```
System load:  0.0      Processes:            129
Usage of /:   5.4% of 28.02GB Users logged in:       0
Memory usage: 3%      IPv4 address for eth0: 10.0.0.4
Swap usage:   0%
```

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

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

The list of available updates is more than a week old.
To check for new updates run: `sudo apt update`

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@linux-vm:~$ █
```

Azure Virtual Machines and Advance Azure Virtual Machines

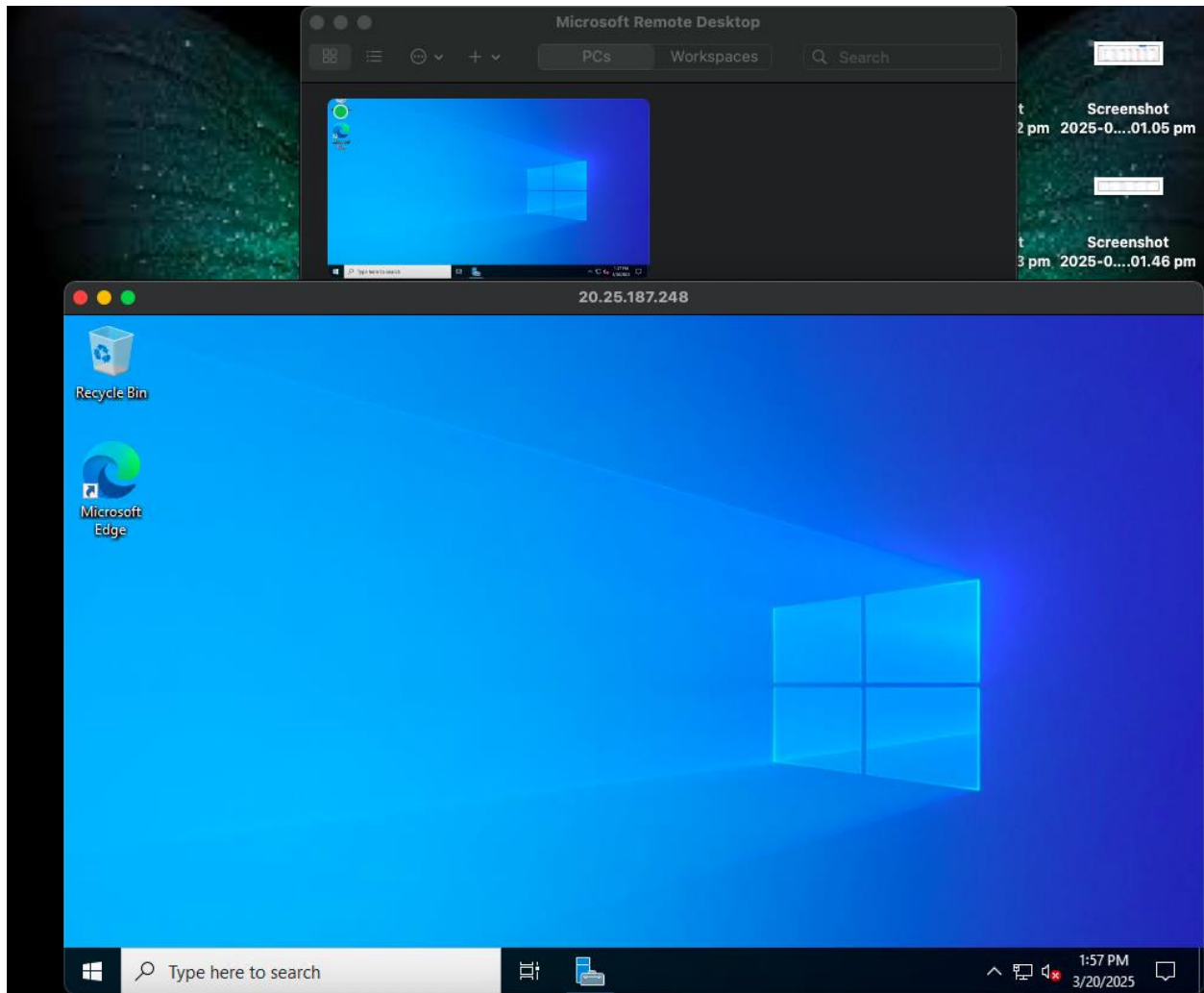
Assignment 2:

1. Create a Windows VM in west US region

^ Essentials JSON View	
Resource group (move) :	linux-vm_group
Status :	Running
Location :	West US 3
Subscription (move) :	Pay-As-You-Go
Subscription ID :	38bd44d5-d91c-4f34-8f1e-c946d6697ae4
Operating system :	Windows (Windows Server 2022 Datacenter Azure Editi...
Size :	Standard D2s v3 (2 vcpus, 8 GiB memory)
Public IP address :	20.25.187.248
Virtual network/subnet :	linux-vm-vnet/default
DNS name :	Not configured
Health state :	-
Time created :	20/03/2025, 13:46 UTC

2. Open the RDP port

3. Connect to it using Windows Remote Desktop



Assignment 3:

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1. Create a VM scale set with Ubuntu as OS
2. Give min VM's as 1 and maximum as 5
3. For scale-out CPU % is 75 and increase by 1 VM
4. For scale-in CPU % is 25 increase by 1 VM

 Autoscaling. Scaling based on a CPU metric, on any schedule.

Default instance count * ⓘ

Instance limit

Minimum * ⓘ

The minimum count of instances this condition will scale down to is 1.

Maximum * ⓘ

The maximum count of instances this condition will scale up to is 5.

Scale out

CPU threshold greater than * ⓘ

Every time the average CPU usage is greater than 75%.

Increase instance count by * ⓘ

The condition will increase the instance count by 1 instances

Scale in

CPU threshold less than * ⓘ

^ Essentials

Resource group (move) : [linux-vm_group](#)

Status : [1 out of 1 succeeded](#)

Location : West US 3

Subscription (move) : [Pay-As-You-Go](#)

Subscription ID : 38bd44d5-d91c-4f34-8f1e-c946d6697ae4

Operating system : Linux

Size : Standard_D2s_v3 (1 instance)

Public IP address : _

Public IP address (IPv6) : _

Virtual network/subnet : [vnet-westus3/snet-westus3-1](#)

Orchestration mode : Flexible

Time created : 20/03/2025, 14:23 UTC

Assignment 4:

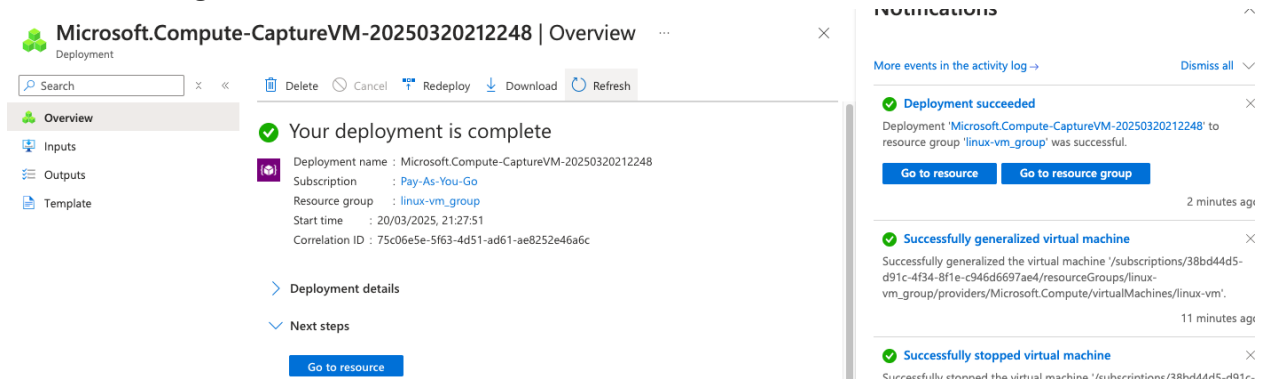
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1. Create a Linux VM with Ubuntu OS

2. Install Apache2 software



3. Create image out of VM



Assignment 5:

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1. Deploy a VM from the previously created image

Microsoft Azure

Home > Microsoft.Compute-CaptureVM-20250320212248 | Overview > 0.0.1 (newone/def/0.0.1) >

Create a virtual machine

Help me create a low cost VM | Help me create a VM optimized for high availability | Help me choose the right VM size for my workload

Virtual machine name: copyVM

Region: (US) West US 3

Availability options: No infrastructure redundancy required

Security type: Trusted launch virtual machines

Image: newone/def/0.0.1 - x64 Gen2

VM architecture: x64

Run with Azure Spot discount: ☒

Size: Standard_D2s_v3 - 2 vcpus, 8 GiB memory (₹5,830.28/month)

Enable Hibernation: ☐

Administrator account

Estimated monthly costs

Virtual machine	₹5,830.28
Image	₹0.00
Size	₹5,830.28
Disks	₹399.34
Estimated monthly cost	₹6,229.63

Home > CreateVm-0.0.1-20250320214716 | Overview

Deployment

Search

Delete Cancel Redeploy Download Refresh

Overview

Inputs

Outputs

Template

Your deployment is complete

Deployment name: CreateVm-0.0.1-20250320214716

Subscription: Pay-As-You-Go

Resource group: linux-vm_group

Start time: 20/03/2025, 21:51:58

Correlation ID: 7d3c23d6-3f3a-4624-b545-09717dff14c9

Deployment details

Next steps

Go to resource

2. Open port 80 in NSG

Inbound port rules (5)						
300	SSH	22	TCP	Any	Any	Allow
320	HTTP	80	TCP	Any	Any	Allow

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3. Start the Apache2 service in the VM

4. Verify if you are able to access the website

