CST 8912- Cloud Solution Architecture

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These are all the following steps that I completed for this lab followed by screenshots of everything to prove their completion.

- 1. I created a new instance of the resource (Azure Virtual Machine) and selected the Ubuntu Server 18.04 LTS image from the marketplace. Azure refused to use Ubuntu Server 18.04 LTS on the student account and so I was forced to use Ubuntu Server 24.04 LTS instead to complete this lab. This does not have any effect on anything for this lab other than using a newer version. I included the error message
- 2. I configured and launched a VM for the Canada Central region with SKU size Standard_B1s (1 vCPU, 1 GiB memory) and used an SSH public key as the authentication type.
- 3. I configured the disk type as Premium SSD.
- 4. I configured networking to create a virtual network and kept the default settings.
- 5.I kept the default options on the management, advanced, and tags tabs.
- 6. I performed basic VM controls (start, stop, restart, delete).
- 7. I created a Log Analytics workspace and configured it with the same region as the existing resources.
- 8. I connected my virtual machine to Log Analytics to monitor the virtual machine's health:
- a. I created a data collection rule and selected the VM created in scope.
- b. In the collect and deliver tab, I selected "Linux syslog" as the data source.
- c. I went to "Insights" and saw monitoring information from the VM selected.
- d. I switched to the health/agents tabs to get more details on the VM monitored.
- 9. After the demo, I deleted all the resources created during the lab and documented all the steps performed in the lab in a report.

Errors

Summary Raw Error

ERROR DETAILS



Offer with PublisherId: 'bansirllc1619470302579', OfferId: 'vmban-lin-ubuntu-1804' cannot be purchased due to validation errors. For more information see details. Correlation Id: '40724000-fc97-4aac-a495-633fab83cd1d' The 'nopi_check' payment instrument(s) is not supported for offer with OfferId: 'vm-banlin-ubuntu-1804', PlanId 'ubuntu1804'. Correlation Id '40724000fc97-4aac-a495-633fab83cd1d'. The offer with PublisherId: 'bansirllc1619470302579', OfferId: 'vm-ban-lin-ubuntu-1804' and PlanId: 'ubuntu1804' cannot be used on selected subscription to purchase paid marketplace offers. Please choose another subscription or update this one to allow purchases. Learn more https://aka.ms/UpgradeFreeSub ☑, https://aka.ms/Switch-Azure-Offer ♂ and https://aka.ms/Change-Credit-Card ♂ about updating subscriptions in Azure, Correlation Id: '40724000-fc97-4aac-a495-633fab83cd1d'.[{"The 'nopi_check' payment instrument(s) is not supported for offer with OfferId: 'vm-ban-lin-ubuntu-1804', PlanId 'ubuntu1804'. Correlation Id '40724000-fc97-4aac-a495-633fab83cd1d'.":"StoreApi"},{"The offer with PublisherId: $"bansirllc1619470302579", \ OfferId: \ "vm-ban-lin-ubuntu-1804" \ and$ PlanId: 'ubuntu1804' cannot be used on selected subscription to purchase paid marketplace offers. Please choose another subscription or update this one to allow purchases. Learn more https://aka.ms/UpgradeFreeSub ☑, https://aka.ms/Switch-Azure-Offer □ and https://aka.ms/Change-Credit-Card □ about updating subscriptions in Azure, Correlation Id: '40724000-fc97-4aac-a495-633fab83cd1d'.":"StoreApi"}]

(Code: BadRequest)

WAS THIS HELPFUL? 🖒 👨



Figure 1: error for using old ubuntu

Basics

Subscription Azure for Students

Resource group CST8912

Virtual machine name CST8912-VM

Region Canada Central

Availability options No infrastructure redundancy required

Zone options Self-selected zone

Security type Standard

Image Ubuntu Server 24.04 LTS - Gen2

VM architecture x64

Size Standard B1s (1 vcpu, 1 GiB memory)

Enable Hibernation No

Authentication type SSH public key

Username azureuser

SSH Key format RSA

Key pair name CST8912-VM_key

Public inbound ports SSH
Azure Spot No

Figure 2: completed steps

Disks

OS disk size Image default

OS disk type Premium SSD LRS

Use managed disks Yes

Delete OS disk with VM Enabled

Ephemeral OS disk No

Networking

Virtual network vnet-canadacentral

Subnet snet-canadacentral-1

Public IP (new) CST8912-VM-ip

No

Accelerated networking Off

Place this virtual machine behind an

existing load balancing solution?

Delete public IP and NIC when VM is Disabled

deleted

Management

Microsoft Defender for Cloud Basic (free)

System assigned managed identity Off

Login with Microsoft Entra ID Off

Auto-shutdown Off

Backup Disabled

Enable periodic assessment Off

Enable hotpatch Off

Patch orchestration options Image Default

Monitoring

Alerts Off
Boot diagnostics On
Enable OS guest diagnostics Off
Enable application health monitoring Off

Advanced

Extensions None

VM applications None

Cloud init No

User data No

Disk controller type SCSI

Proximity placement group None

Capacity reservation group None

Figure 4: completed setup

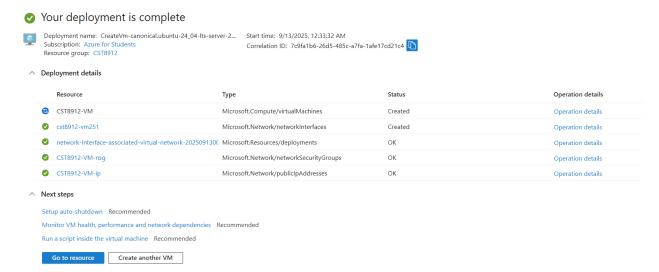


Figure 5: deployment completed

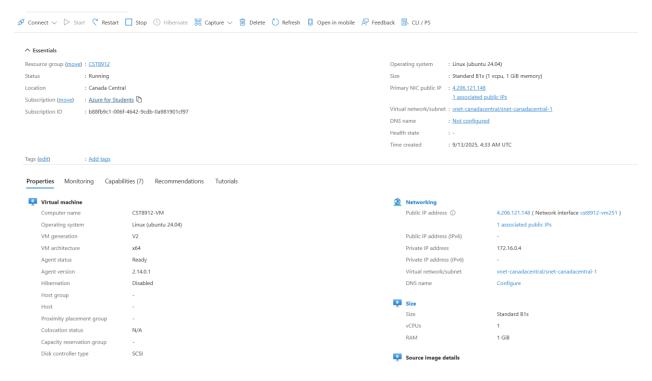


Figure 6: Starting for VM

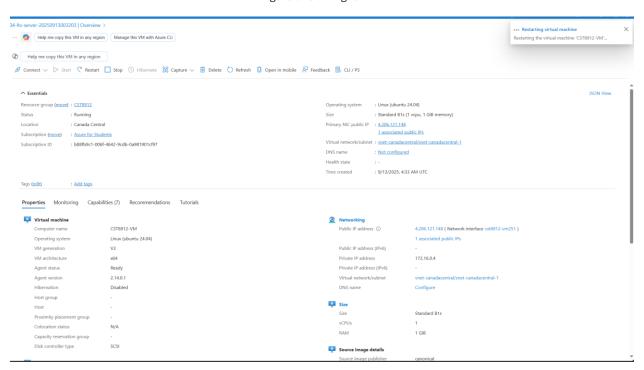


Figure 7: restarting VM

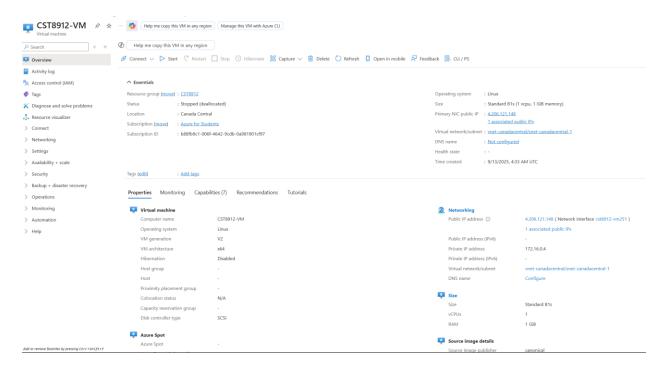


Figure 8: Stopping VM

Create Log Analytics workspace

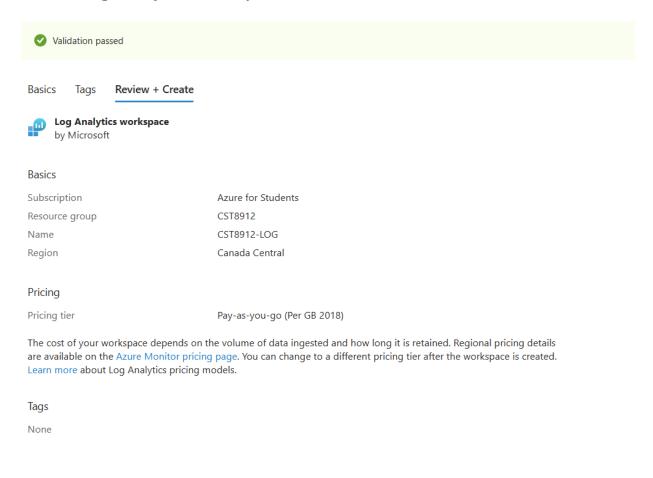


Figure 9: creating log analytics



Figure 10:deployment of LOG

Create Data Collection Rule

Data collection rule management



Basics	Resources	Collect and deliver	Tags	Review + create
Basic	cs			
Data rule name				CST8912-RULE
Subscription				Azure for Students
Resource Group				CST8912
Selec	cted resources	:		

cst8912-vm microsoft.compute/virtualmachines

Type

Showing 1 - 1 of 1 results.

Configurations

Resources

Data source	Destination(s)
Linux Syslog	Azure Monitor Logs

Platform Type

Platform Linux

Figure 11:data collection rule settings

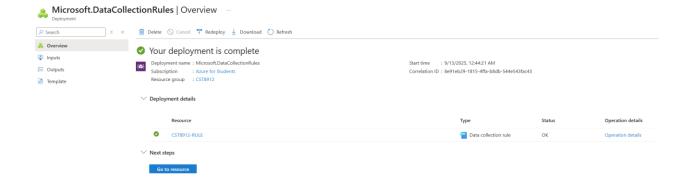
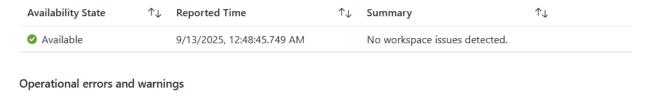


Figure 12:deployment of rule

Resource Health (not affected by the time range)



No operational errors or warnings

Figure 13: Health tab

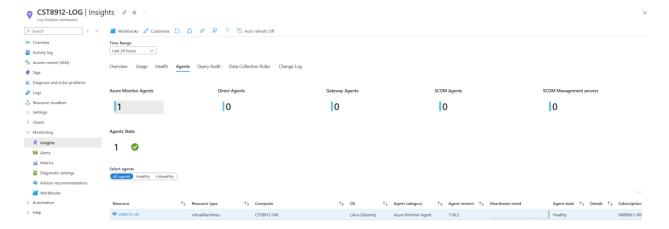


Figure 14: Monitor agents

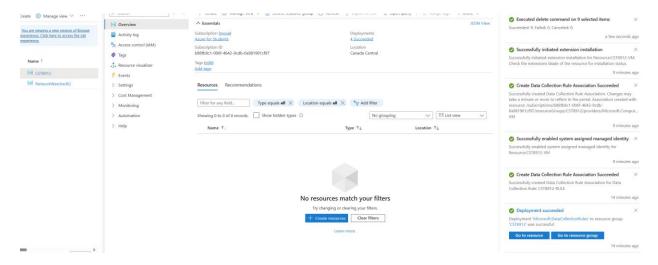


Figure 15: Deleting all resources