Day2

Create Azure key vault

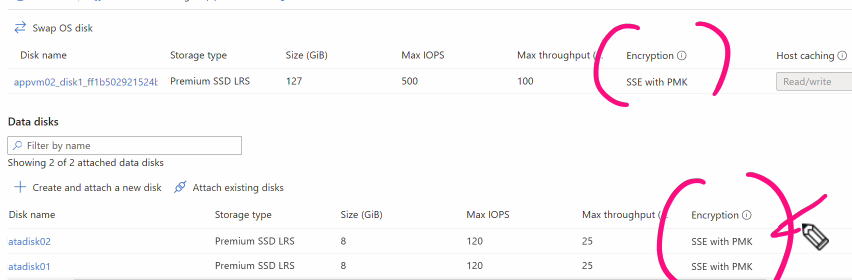
Lab - Azure Key Vault Service

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Disk Encryption Sets

**SSE with PMk** – server side encryption with Platform manage key



Lab Disk Encryption Sets

1.Create key vault

2.Role based access control set for key vault

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Create key encryption

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Now cre

ate disk encryption set

Add resource group, disk encryption name, kevault name, key and version and create

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Once disk encryption created –

On overview its shows grant permission -> click on it and provide permission

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Permission assigned

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Now goto appvm02-> disk and detach **datadisk02** -> click on apply

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Goto data disk encryption set -> encryption -> and select key management “customer-managed key:encryptionset “

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 Lab - Azure Disk Encryption

How to change encryption setting(os and disk )

1.click on datadisk02 and click on additional settings-> add kevault name, key and version and click on save

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Once deployment completed ->login to vm and check data valume encryption

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**Custom script extensions**

This feature can be used to download and run scripts on azure virtual machines

Now will create powershell script fill that will automate the installation on internet information services

Lab - Custom Script Extensions

1. Create storage account to stotoring powershell script
2. A screenshot of a computer

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Upload powershell

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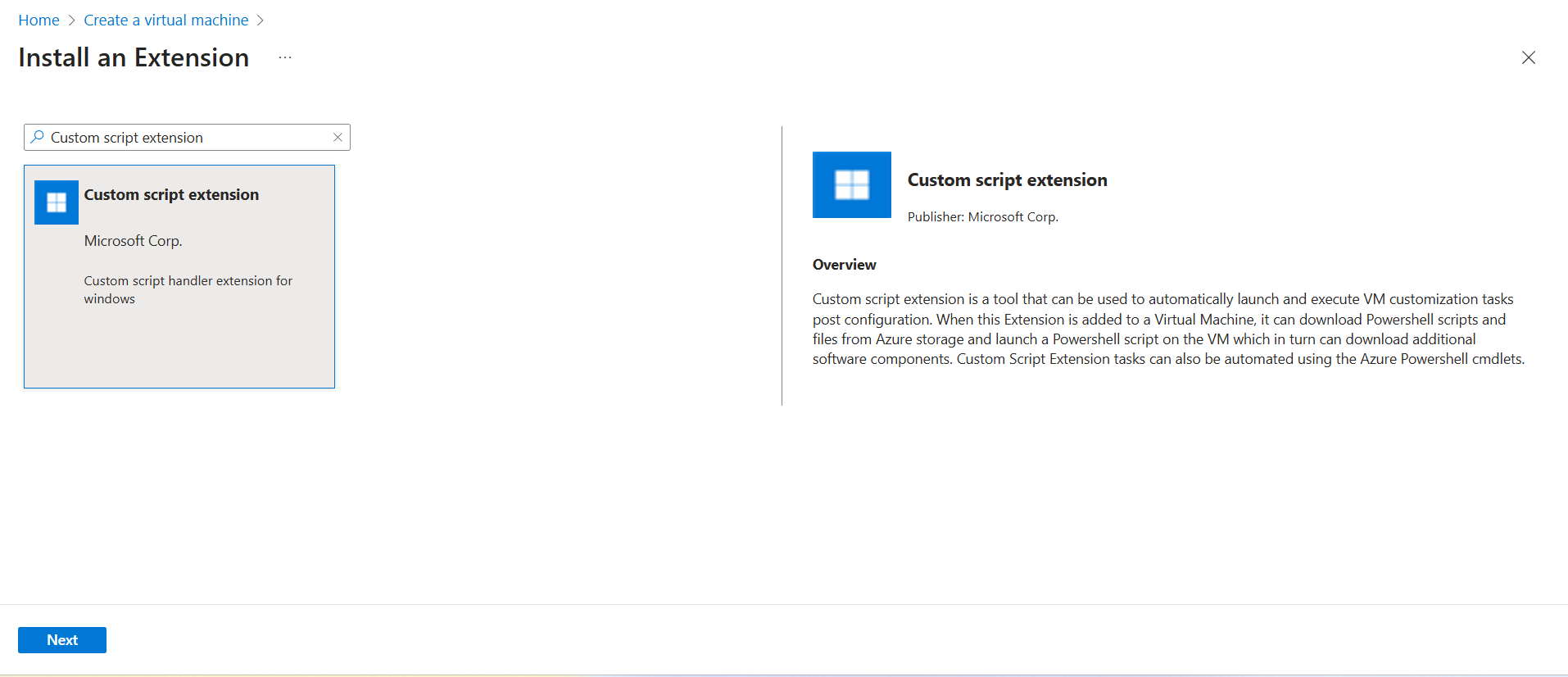
Create vm

Add information -> click on advanced -> select an extension to install

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Search “Custom script extension” and brows file storage account name and container



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Create vm

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Once deployment completed copy public ip of windows vm machin and check

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Lab - Custom Script Extensions for Linux Virtual Machines

1.upload script on storage account

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2 create linuxvm -> add extension A screenshot of a computer

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Once deployment complete – goto linux machin and copy public ip and check on browser, it will shows below output

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 Lab - Linux Virtual Machines - Cloud init

Create linuxvm -> add required details

Add below script in advanced tab “**Custom data and cloud init”** click and review click on create

#cloud-config

package\_upgrade: true

packages:

  - nginx

Once deployment completed -> goto linuxvm -> copy publicip and browse A screenshot of a computer

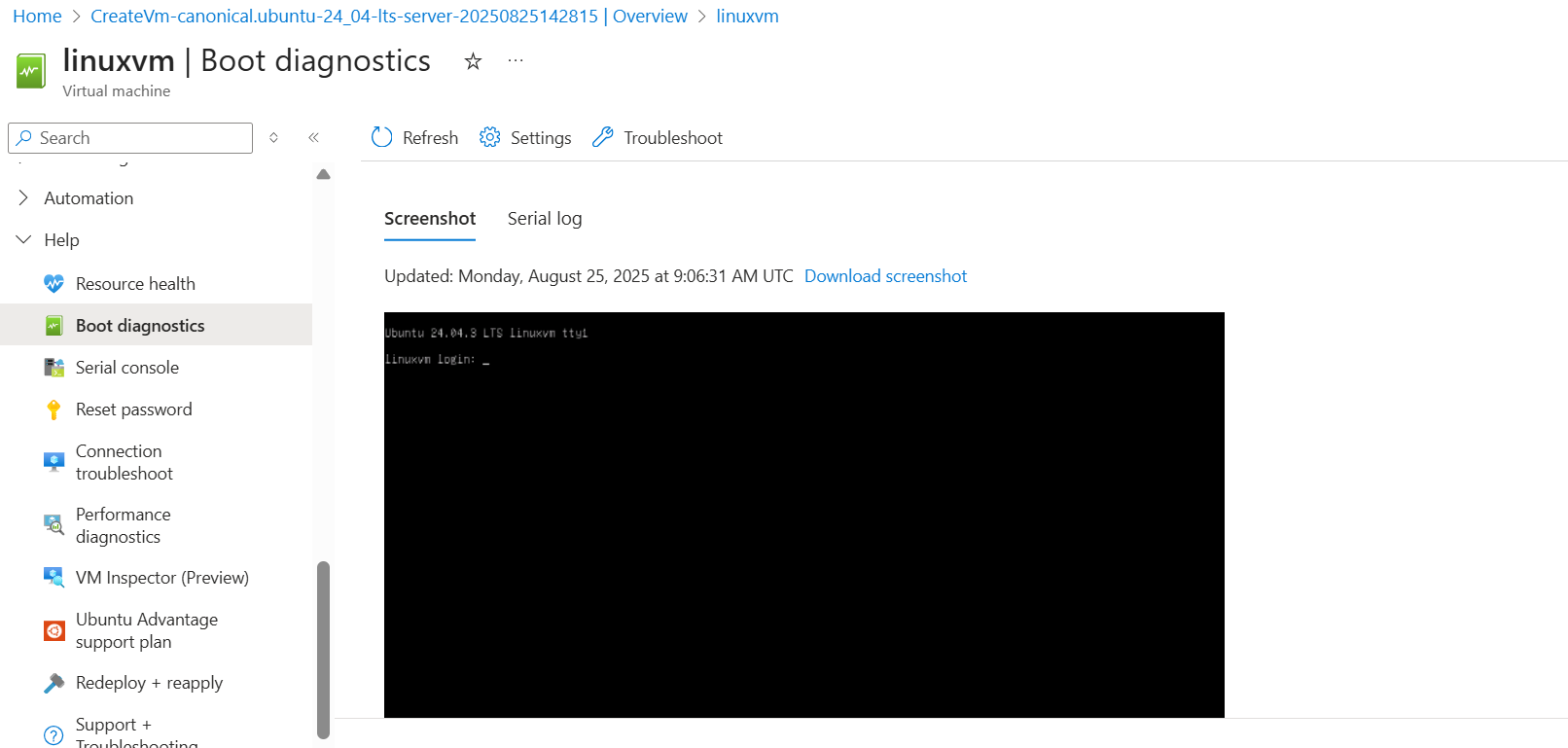
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Virtual Machine - Boot Diagnostics

boot diagnostics to check logs for vm to check why vm is not starting

we can check details boot diagnostics->

[Azure boot diagnostics - Azure Virtual Machines | Microsoft Learn](https://learn.microsoft.com/en-us/azure/virtual-machines/boot-diagnostics)

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Lab - Virtual Machine - Run command

We can execute command from operations -run command

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Can't connect to your virtual machine?

Redeploy vm

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Availability Sets

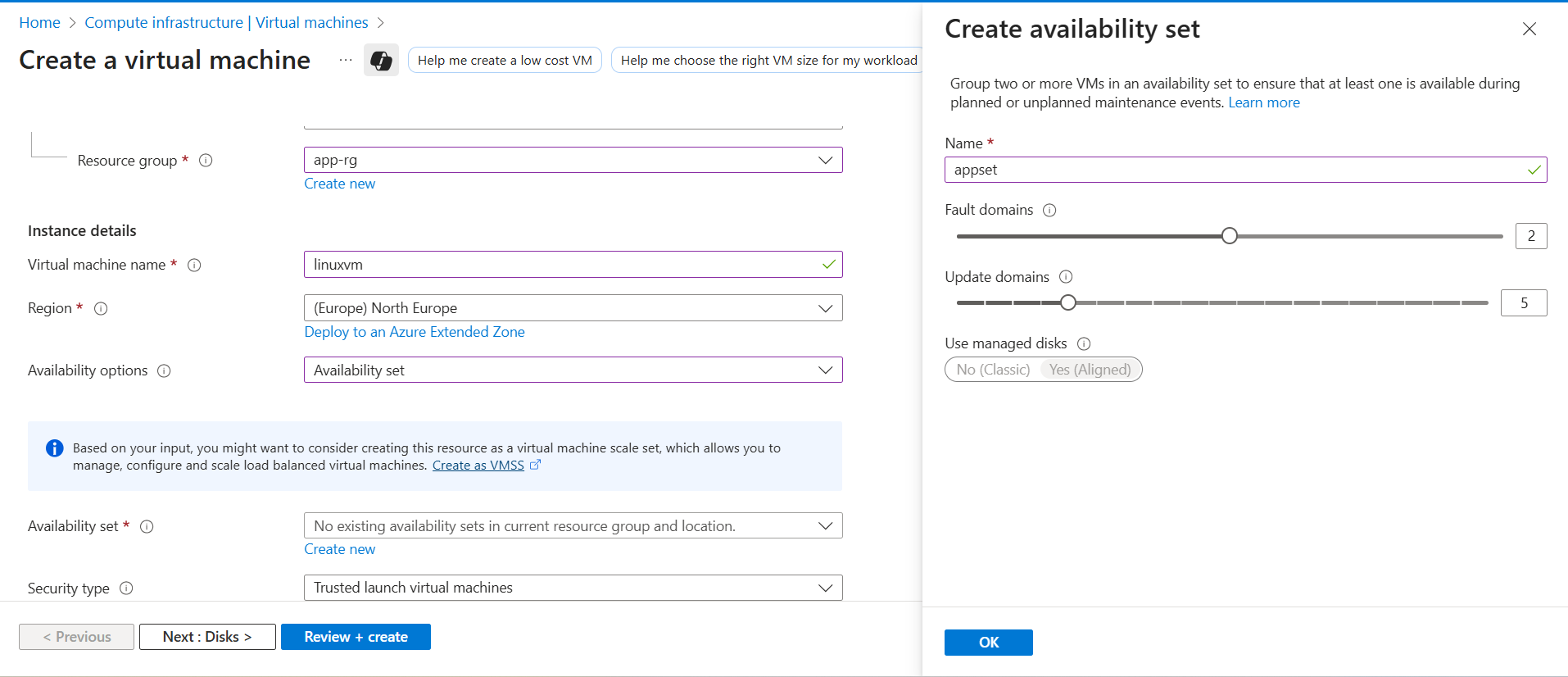
This is logical grouping of machines that helps to reduce the chances of multiple vm’s going down

because of hardware issues

**Fault domains** are used to define the group of virtual machines that share a common source and network switch. You can have up to 3 fault domains.

**Update domains** are used to group virtual machines and physical hardware that can be rebooted at the same time. You can have up to 20 update domains.

Lab - Availability Sets



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Availability Zones

Avaibility zone is a group of data centers there are fast links across availability zones to ensure low latency

Azure region has multiple avaibility zones

**Availability Zones Review**

* This features help provides better availability for your application by protecting them from datacenter failures.
* Each Availability zone is a unique physical location in an Azure region.
* Each zone comprises of one or more data centers that has independent power, cooling, and networking
* Hence the physical separation of the Availability Zones helps protect applications against data center failures
* Using Availability Zones, you can be guaranteed an availability of 99.99% for your virtual machines. You need to ensure that you have 2 or more virtual machines running across multiple availability zones.

Lab - Azure Virtual Machine Scale Sets

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