ITAS 233 LAB 03

Chapter 3

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Introduction

The lab is basically about setting up the **server pool** and **SCSI** server .We will also learn how to use the server pool using the server manager and also create a virtual disk in the server pool in the server manager in the server SA1. This also helped me to know about different types of the disk that can be created using the server manager in the server pool.

Part 2: GUI Storage Spaces

Make sure you have added a three 30 GB thin provision hard disk into the server.

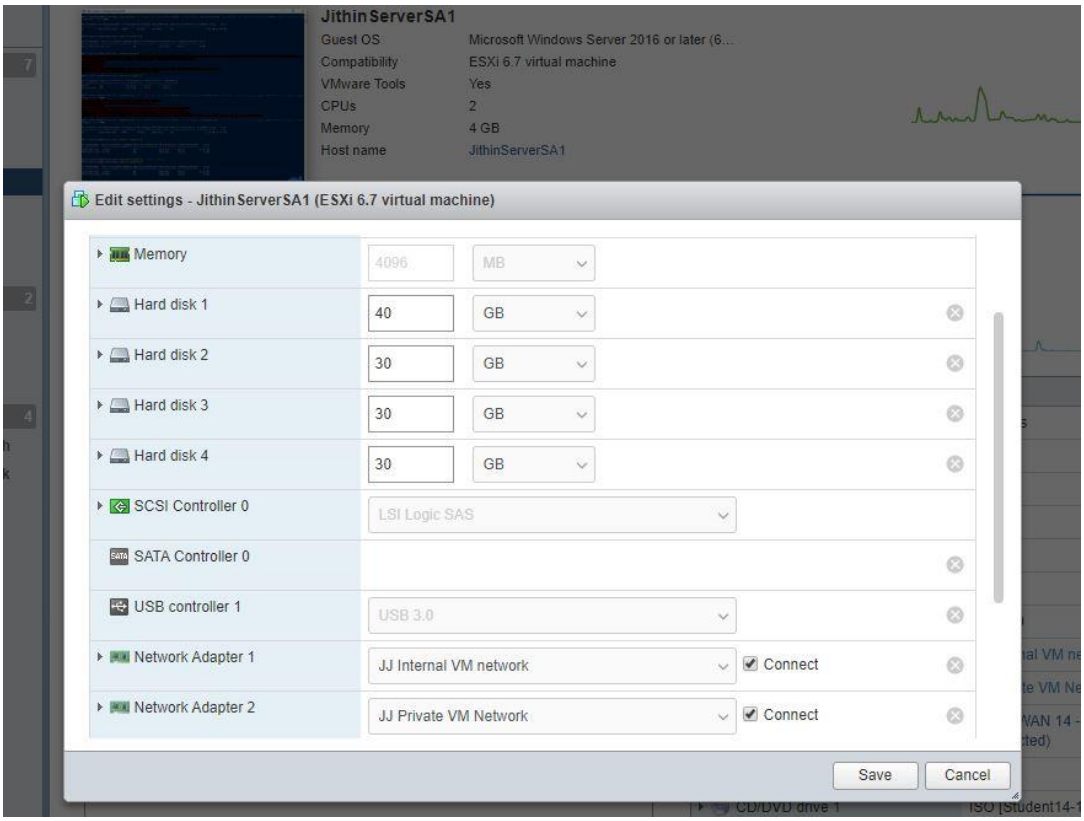

Figure 1: Adding new 30 GB thin provision drive into the serverSA1

- In that server, Under the Server Manager – File and Storage Service – Create a Storage Pool named pool1 under the **Storage pool Name** option.
- Under the Physical Disk tab, select first 2 Virtual hard drive with size 30 GB.
- Click **Next, till the confirmation tab** and click **Create.**

Creating a virtual disk named virt1 under the pool1

- Right-Click on **Pool1,** Create a **New-Virtual Disk**

- Select the **pool1** and click **OK.**
- On Virtual Disk Name, Type **Virt1**
- Under the Storage Layout Tab, select the **simple** and click **next**.
- Under the provisioning Tab, Select **Fixed**.
- Type 5GB under the **Size tab.**
- **Confirm and Create**

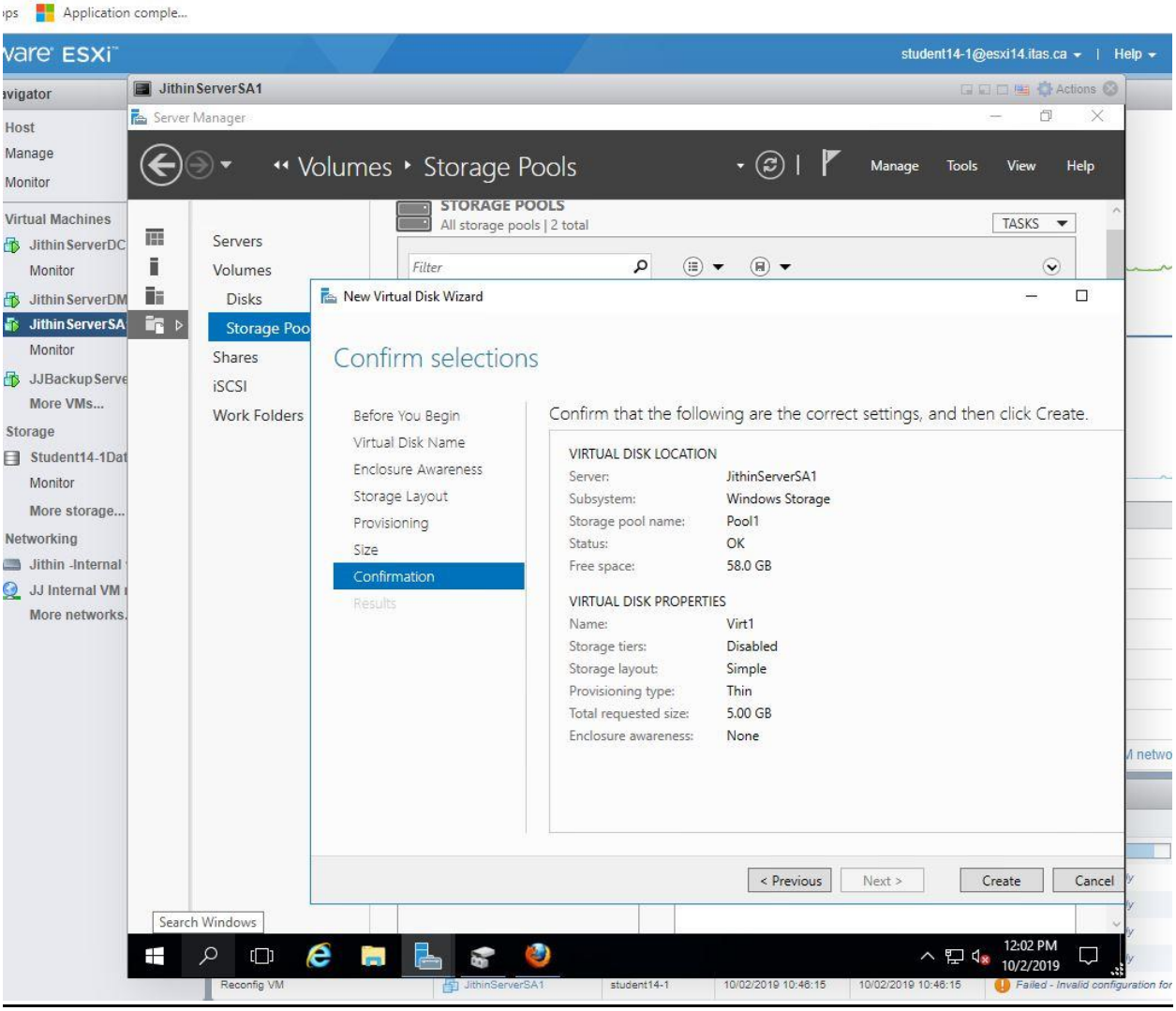

Figure 2: Confirmation tab of the simple virtual disk

Note: Confirm the virtual disk in the disk management before you go the next step.

Creating a Mirror virtual disk named virt2 under the pool1

- Right-Click on **Pool1,** Create a **New-Virtual Disk**
- Select the **pool1** and click **OK.**

- On Virtual Disk Name, Type **Virt2**
- Under the Storage Layout Tab, select the **mirror** and click **next**.
- Under the provisioning Tab, Select **Fixed**.
- Type 5GB under the **Size tab.**
- **Confirm and Create**

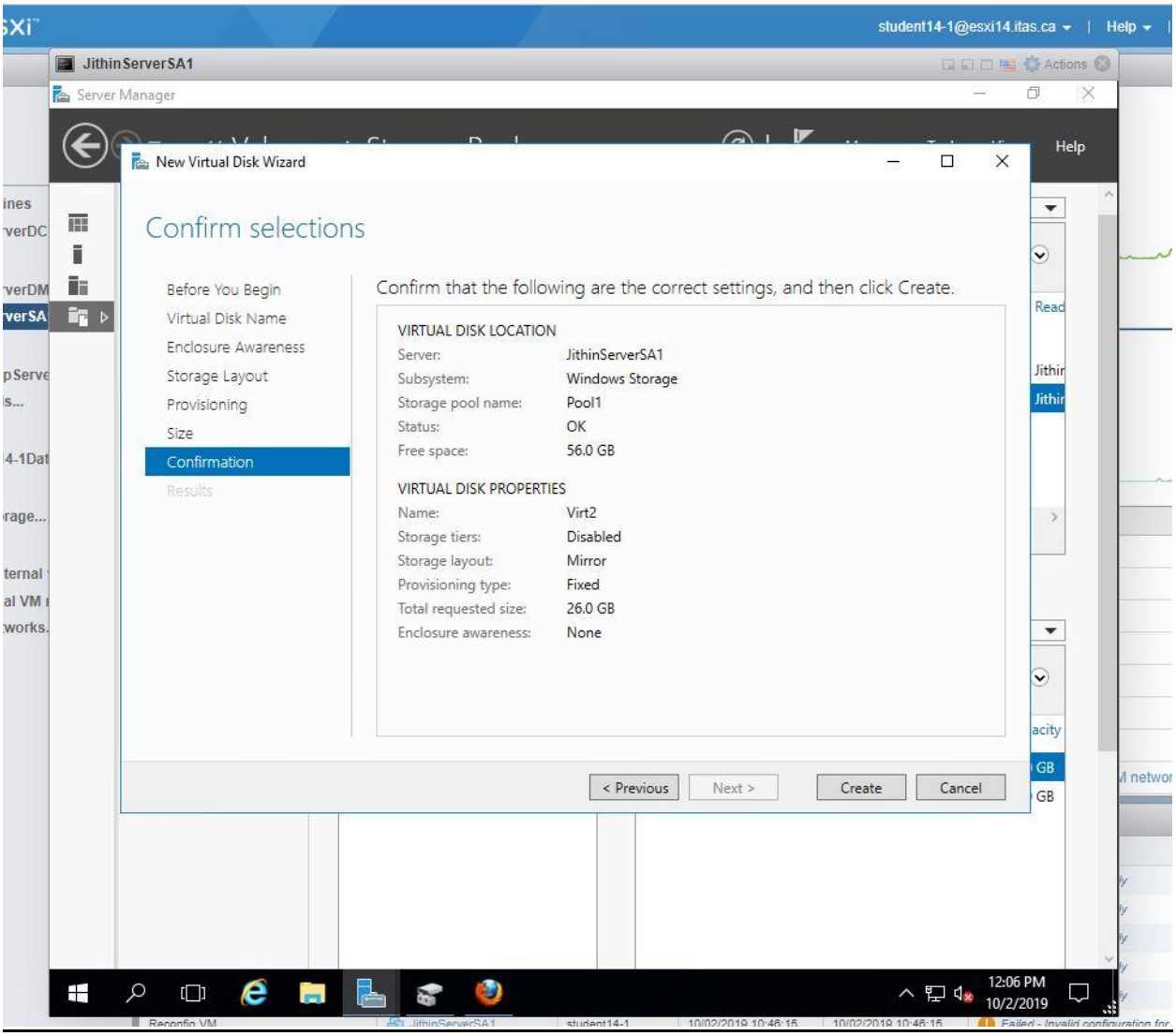

Figure 3: Confirmation tab of the mirror virtual disk 2

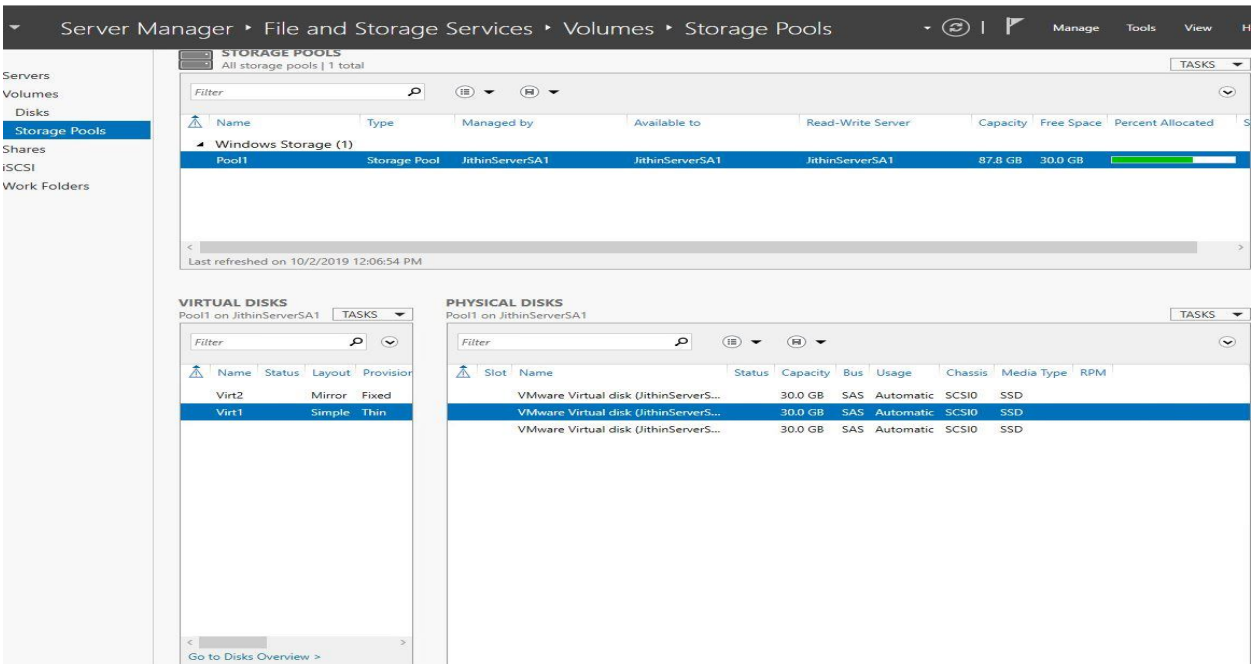

Figure 4: Server Pool after adding the two new virtual disk.

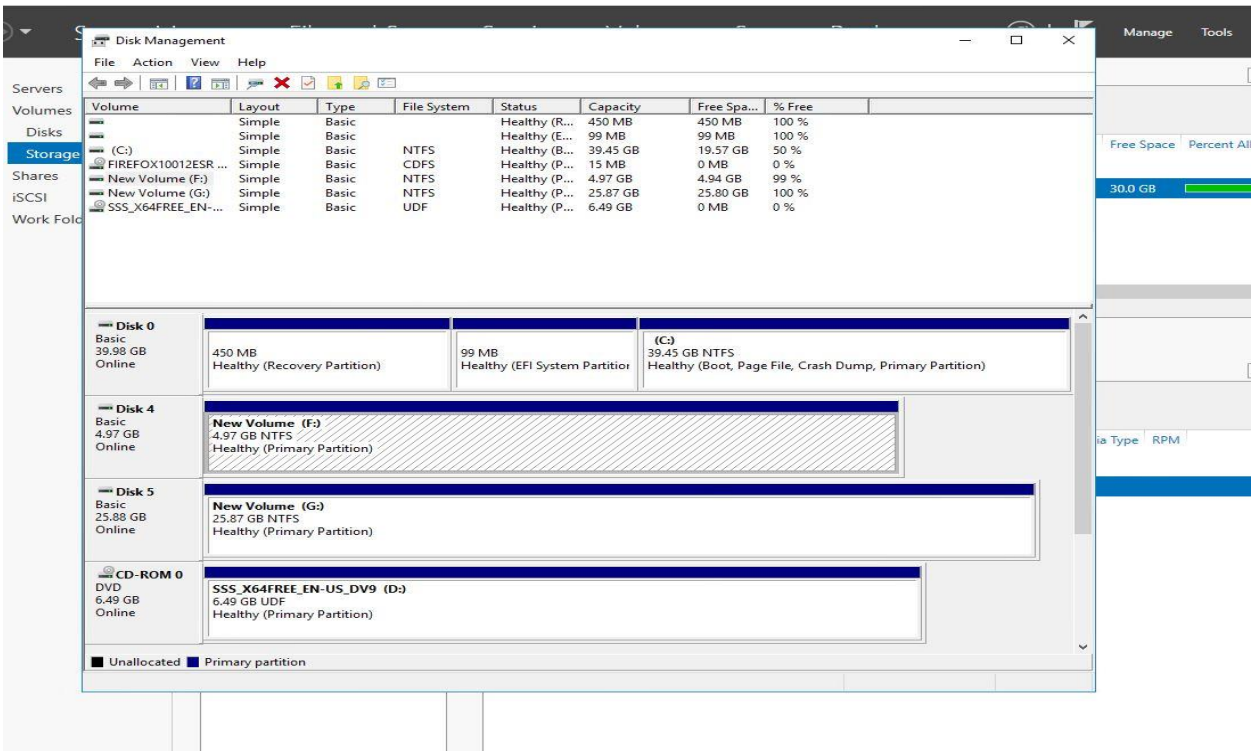

Figure 5:Disk managament after adding virtual disk

Playing with the created virtual disk

Before adding the new pool to the drive

I was not able to extend the virtual disk named virt1 to 7GB because there were no enough free space on the pool. I also noticed that after creating a mirror virtual disk , I got a notification from the server saying that some disk is out of the storage spaces.

Adding a new pool to the drive

- Right-Click on **Pool1,** add a **New-Physical Disk.**
- Select the third pool, Click **Confirm and create.**

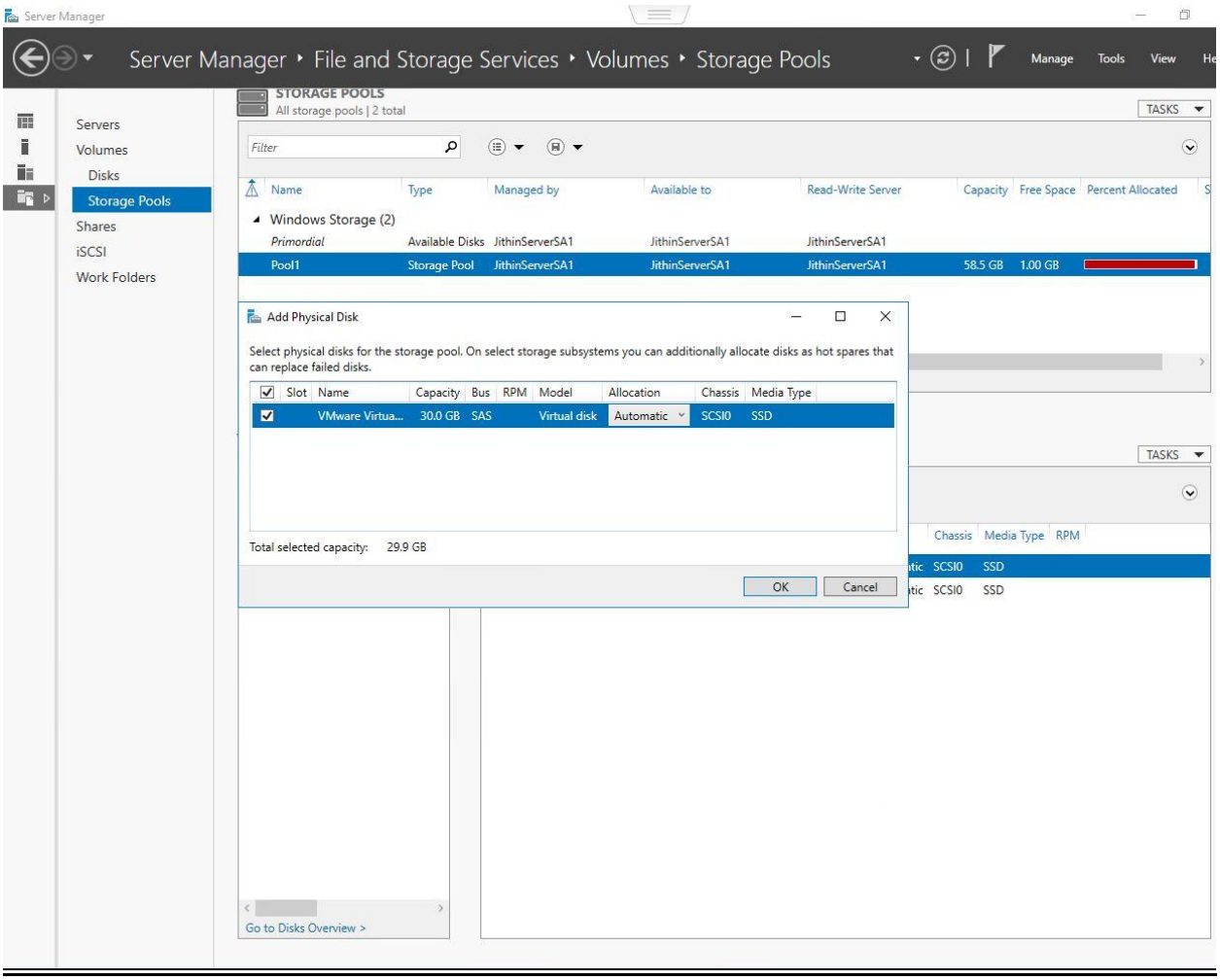

Figure 6:Adding a new physical disk to the pool1

After adding a new pool

I was able to extend the virtual disk with simple partition up to 8GB. But , I was not able to extend the virt2 which is formatted with the mirror partition. I could extend the volume now because I have space in the pool after adding a new physical disk into the pool. Virt1 was not unable to use because the new 3 gb were unallocated in the disk management. So , I have to extend the drive the disk management in order to make it usable.

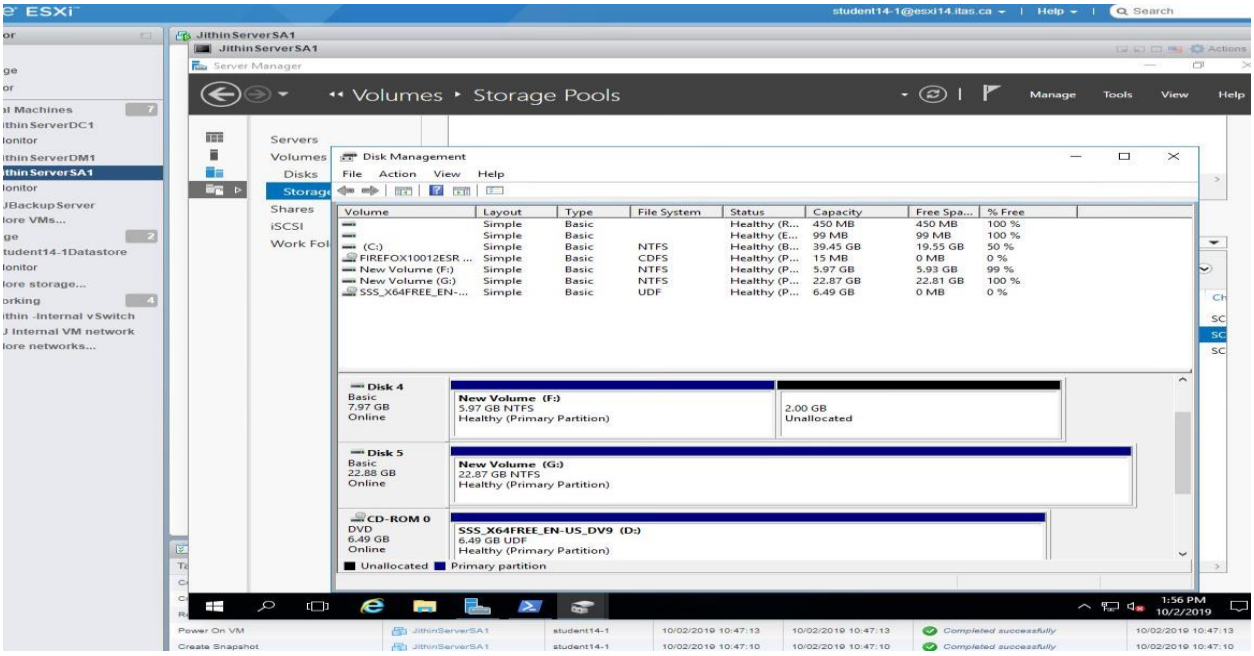

Figure 7: Extending the disk using the server manager

Part 3:PowerShell Storage Spaces

Creating a Parity Virtual Disk with 8GB Fixed

Cmmands Used:

- $PoolDsiks= Get-PhysicalDisk -CAnPool $True
- New-StoragePool -FriendlyName -Pool1 -PhysicalDisk $PoolDisk -StorageSubSystemFriendlyName “windows*”
- New-Volume -StoragePoolFriendlyName -Pool1 -FriendlyName ParityVirtual -DriveLetter V -ProvisioningType Fixed -ResiliencySettingName Parity -Size 8GB
- Remove-VirtualDisk ParityVirtuall
- Remove-StoragePool Pool1

- Get-Physicaldisk -CanPool $True

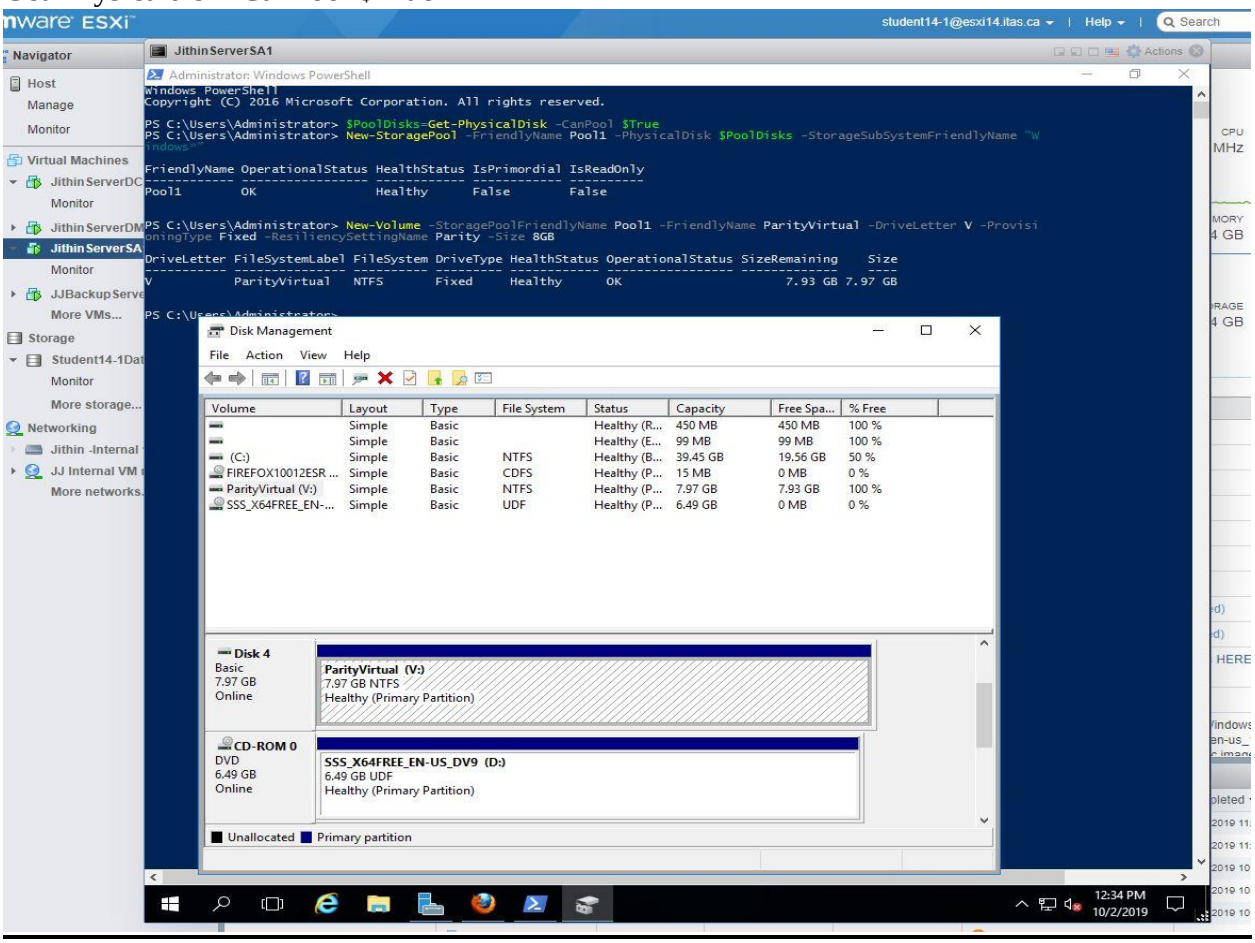

Figure 8: Adding a PArity drive using the powershell commands

Creating a Fixed Mirror and Thin Simple Virtual Disk

Cmmands Used:

- $PoolDsiks= Get-PhysicalDisk -CAnPool $True
- New-StoragePool -FriendlyName -Pool1 -PhysicalDisk $PoolDisk -StorageSubSystemFriendlyName “windows*”
- New-Volume -StoragePoolFriendlyName **-Pool1** -FriendlyName ParityVirtual -DriveLetter **V** -ProvisioningType **Fixed** -ResiliencySettingName **Mirror** -Size 8GB
- New-Volume -StoragePoolFriendlyName **-Pool1** -FriendlyName ParityVirtual -DriveLetter **S** -ProvisioningType **Thin** -ResiliencySettingName **Simple** -Size 8GB

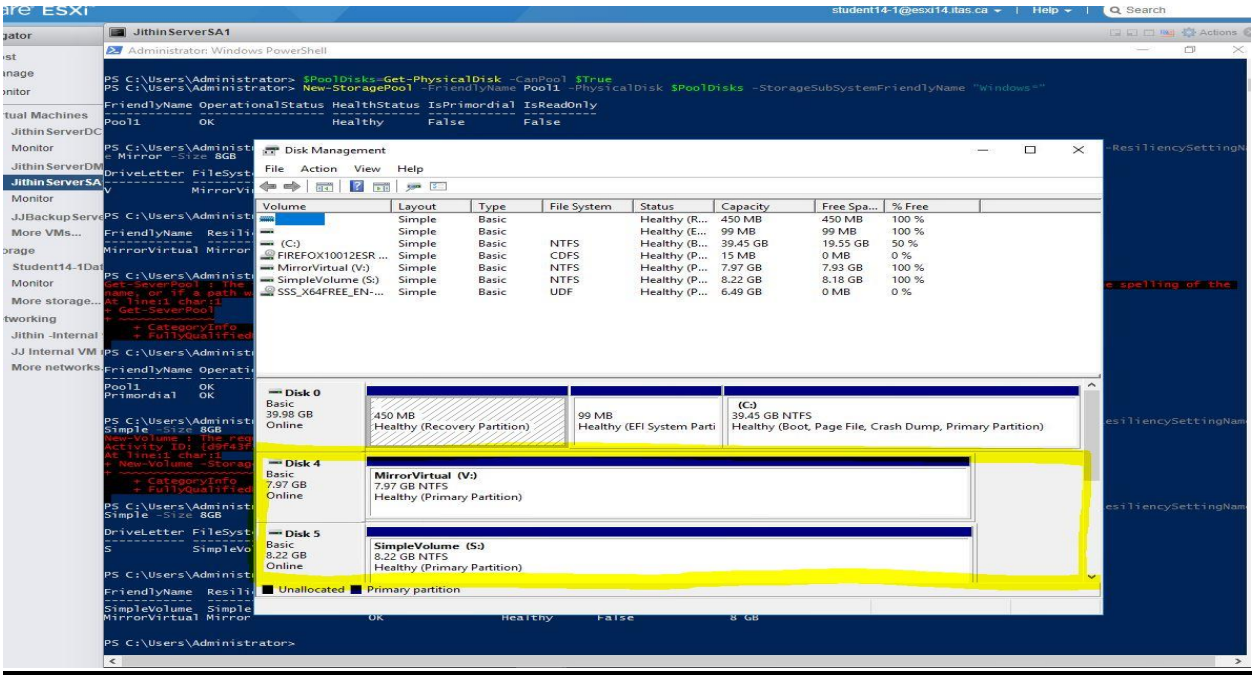

Figure 9: Disk shown in the disk management

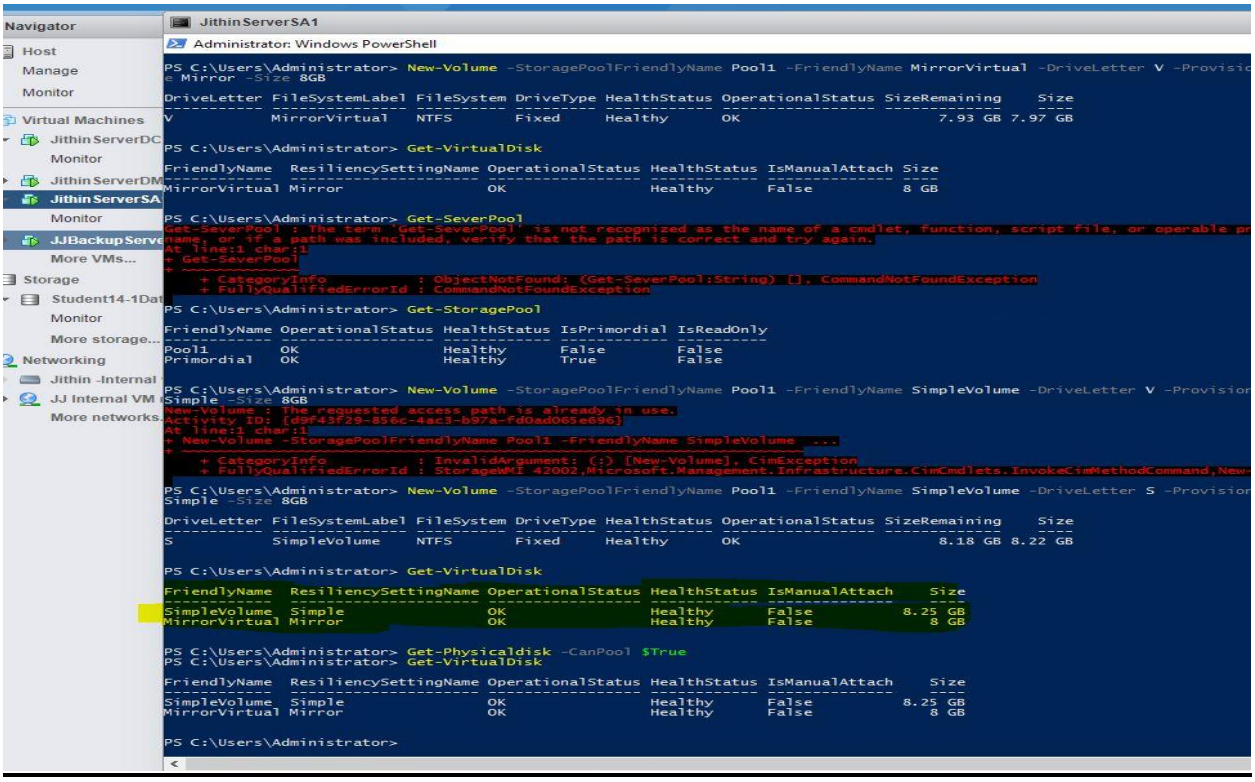

Figure 10: Virtual disks viewed in the power shell

Conclusion

This lab helped me to know more about the server pool and SCSI server. This lab also teach us how to make a server pool using the server manager. Creation of server pool and virtual disk using the power shell was much easier than the creation of the server pool using the GUI . It helped ne different type of provisioning and storage layout that can be created using the power shell. This also taught me a lot of commands that can be used in the power shell which can be used in the creation of the server pool .