Topics from 1910-01-sdc LAB

*****This doesn't include any relevant terminology, for the terms and definitions you can refer to the module itself online.*****

Wait for lab status to get ready

#1 Creation of virtual machine

- Login to chrome, using windows authentication.
- Click on home icon, select VMs and Templates
- Expand the vcsa-01a.corp.local tree to expose the "**DataCenter Site A"** object
- Click on "**DataCenter Site A**"
- Click "**Create a new virtual machine**" to start the new virtual machine wizard
- Select cluster, storage(datastore) and make other relevant changes
- Click finish

#2 Editing the settings of Virtual machine/ setting up image for virtual machine

- From the **Actions** menu, select **Edit Settings...**
- From the **CD/DVD drive 1** drop-down menu, select **Datastore ISO File**. This will open a file explorer to select that file.
- Expand the directories under **vmimges** and then click on **tools-isoimages.**
- Select **windows.iso** in the Content pane
- Click **OK**.
- Click the **Connected** check box next to **CD/DVD drive 1**.
- Click **OK**.

#3 Cloning virtual machine

- Select "**VMs and Templates**" from the Home menu
- Click the drop down arrows to expand the inventory tree
- Right-click the Virtual Machine "**TinyLinux-01**"
- Select "**Clone**"
- Select "**Clone to Template**"
- In the Clone Virtual Machine to Template wizard, provide a name for the Template "**TinyLinux Template**"
- Keep datacenter as site A
- Click next choose cluster and click datastore according to availability.
- Click Finish.

#4 deploying a clone

- Select the Template, "**TinyLinux Template**"
- Select the "**Getting Started**" tab
- Under Basic Tasks in the action pane, click "**Deploy to a new virtual machine**"
- Enter name, datacentre and click next
- Select cluster, storage and finish

#5 Using tags and user defined labels

- Click the **Home** Menu
- Select "**Tags and Custom Attributes**" to create tag categories and tags.
- Click "**New Category**"
- Enter "**web tier**" for the Category Name.
- Keep the default "**One tag per object**"
- Click "**OK**"
- Click '**New Tag**' to create
- To create a new tag enter "**Web Server version 2**"
- Click the tag category "**web tier**" in the drop down box.
- Select "**OK**"

#6 Configuring High availability in cluster

- First, go to the "**Home**" button
- Select "**Hosts and Clusters**"
- Click "**Cluster Site A**"
- Click "**Actions**" to bring up the drop down menu.
- Click "**Settings**"
- Click "**vSphere Availability**" under "**Services**" to bring up the settings for high
- availability. Note that you may need to scroll to the top of the list.
- Click "**Edit**"
- Check the box "**Turn ON vSphere HA**"
- Click '**Failures and Responses**'.
- From the VM Monitoring drop-down list, select '**VM and Application**
- **Monitoring**'.
- Click '**Admission Control** '.
- In the 'Define host failover capacity by' drop-down menu, select '**Cluster**
- **resource percentage**'.
- Click '**Heartbeat Datastores**'.
- Select '**Automatically select datastores accessible from the host'**.
- Click '**OK**' to enable vSphere HA.

#7 Enabling DRS

- Click on the '**Configure**' tab to start the process of enabling Distributed Resource
- Scheduler.
- Click '**vSphere DRS**'.
- Click on the '**Edit**' button to modify the DRS settings.
- Verify that the "**Turn ON vSphere DRS**" box is checked.
- Click the drop down box and select **"Fully Automated**"
- Click "**OK**"
- Click the '**Summary**' tab to display the current status of the cluster

#8 Creating Alarms

- Click on the '**Actions**' menu and select '**Alarms > New Alarm Definition**'.
- Enter "**Virtual Machine CPU Ready**"
- Click "**Next**" to move to the Triggers section.

- Click the "+" to add a new trigger action.
- Scroll down the list and select the "**VM CPU Ready Time**" and keep the default conditions.
- Click "**Next**"
- Click the "+" to add a new action
- Click the "**Migrate VM**" action
- Click the **Resource Pool; Host; Priority** in the Configuration column. Once you click it, it will change to **Click to Configure.** Click this link to configure the Resource Pool settings for when the VM migrates.

#9 Editing alarms

- Click the "**Home**" icon, Click the "**Events**" menu item
- Select the vCenter "**vcsa-01a.corp.local**"
- Click the "**Monitor**" tab
- Click the "**Alarm Definitions**" tab.
- Use the filter to find the "Host CPU usage" alarm definition by typing "**cpu**" in the
- search field and press **Enter**.
- Select the "**Host CPU usage**" alarm
- Click the "**Edit**" button
- Click on the "**Triggers**" portion of the alarm.
- Click "**80%**" usage for 5 minutes to trigger the alarm.
- click "**Next**"
- Click the "+" to add a new action.
- scroll on the list and click "**Enter maintenance mode**"
- Set the "**Alert State Change**" to "**Once**"
- Set the "**Alert State Change**" to "**Once**"
- Click "**Finish**"

#10 Create a graph of relevant

- Select **esx-01a.corp.local**
- Click the **Monitor** tab
- Click the **Performance** tab
- Select **Realtime** from the Time Range drop-down menu.

#11 Create a standard switch

- Under vcsa-01a.corp.local, expand **Datacenter Site A** and then **Cluster Site A**.
- Next, right-click on **esx-02a.corp.local** in the Navigator and select '**Add Networking**'.
- select **Standard Switch** and click Next
- choose **New Standard Switch** and click Next.
- Select '**Unused Adapters**' and click the green '+' button.
- Click '**Next** to continue.
- Do not change change the VLAN ID; leave this set to **None (0)**.

#12 Creating a distributed switch

- In the Navigator, right-click on Datacenter Site A and select Distributed Switch --> New Distributed Switch.

- Keep the default name for the new distributed switch then click **Next**.
- Make sure Distributed Switch: 6.5.0 is selected and click **Next**.

#13 Create an nfs datastore

- Select "**Datacenter Site A**"
- Select "**Actions**"
- Select "**Storage**"
- Select "**New Datastore**"
- Click the "**Next**" button to advance the wizard to the "**Type**" step.
- Verify type - NFS - is selected, and click "**Next**"
- Verify NFS Version - **NFS 3** - is selected, and click "**Next**"
- Give the new Datastore a name, "**ds-site-a-nfs02**"
- Enter the Folder "**/mnt/NFS02**" in the NFS Share Details area.
- Enter the Server "**10.10.20.60**" in the NFS Share Details area and click "Next"
- Select the "**check box**" to include all hosts and select "**Next**".

#14 Create a vmfs datastore

- Select "**Datacenter Site A**"
- Select "**Actions**"
- Select "**Storage**"
- Select "**New Datastore**"
- Verify type - VMFS - is selected, and click "Next"
- Give the new Datastore a name, "**ds-iscsi02**"
- Select a Host to view the accessible disks/LUNs and select **esx-01a.corp.local** in the drop-down box.
- Click "**Next**"

Topics from 1901-03-cmp LAB

#15 Reclaim resources

- Open google chrome
- Click the **vRealize Operations - Historical Instance**
- **choose local users,** Enter user credentials. Username is **admin** and password is **VMware1! and login**
- Select Reclaim on the Quick Start Page
- Click Reclaim for the datacentre
- Select from the given action, power off, delete or snapshot, accordingly.

#16 Workload scenario for capacity planning

- Open google chrome
- Click the **vRealize Operations - Live Instance**
- Select **VMware Identity Manager,** USER: **hol** PASSWORD: **VMware1!**
- Click the Plan link to go into workload, New Rainpole Project
- 2. Select the Datacenter RegionA01 (vcsa-01a.corp.local)
- 3. Allow this workload to be on Any cluster
- build out the configuration

- Select ADVANCED CONFIGURATION
- Click the radio button for '**Thin**'.
- Click Save so we can come back to this scenario.

Topics from 1911-06-cmp LAB

#17 Accessing the API explorer

- Launch Google Chrome by clicking the **"Chrome"**
- change the url to, https://vcsa-01a.corp.local/apiexplorer
- Select vCenter from API Drop Down.
- Click on **Cluster**
- Click on **/vcenter/cluster**
- Scroll all the way down until you see the "Try it out button"
- Try out the API from the ex