**CLOUD AZURE ADMIN L1 (TOP-GEAR ASSIGNMNET)**

**Topic: User and Group Management**

**Assignment 1:**

* Create user TRHOL<candidate AD ID name> user using IAM
* Add user to default roles (owner, contributor, reader & custom roles)
* Login to Azure console using TRHOL<Candidate AD ID Name>

**Answers:**

1. Login to the azure portal (https://portal.azure.com/) and click on azure active directory.
2. Then select users and select create new user.
3. On the user page provide username like [MA20115639@wipro.com](mailto:MA20115639@wipro.com) and name like MA20115639.
4. Copy the auto generated provided in the password box or create your own password.
5. And we can add the user to one or more groups then click on roles.
6. Directory role: - if require we can make the user as AD azure admin role or permission.
7. Then click on create button.
8. For adding user to default roles go to user’s page and select the user MA20115639.
9. On the MA20115639 user page, administrative roles page appears.
10. Select add assignments; select the role to assign to MA20115639 (for example owner, contributor, reader and custom roles as per the requirement).
11. Now verify login to the azure portal using created user TRHOL<Ma20115639> using password.

**Assignment 2:**

1. Remove user from assigned roles(owner, contributor, reader & custom roles)
2. User deletion TRHOL<Candidate AD ID Name>

**Answers:**

1. Login to the azure portal and click on azure active directory menu.
2. Now select users and then search for and select user(MA20115639)
3. Select assigned roles & select all the roles assigned to user like owner, contributor, reader & custom roles) and click on remove to remove selected roles.
4. To delete TRHOL (MA20115639) user.
5. On the active directory page select users and then search for and select user(MA20115639)
6. Search and select the user you want delete<MA20115639> from azure.
7. Then select delete user.
8. Now refresh the page and check the user is deleted and that user can be seen on the deleted user’s page and can be restored for the next 30 days.

**Topic2: compute:**

**Assignment 1:**

1. Create VM (General purpose B or D series) with tag “TRHOL<Candidate AD ID Name> VM” using Azure Linux image from market place.
2. Login with using SSH

**Answers:**

1. Login to azure portal then select virtual machines from left-side azure blade.
2. Select + add or click on create virtual machine to open the create virtual machine screen.
3. Select the Linux image from the dropdown list or select browse all public and private images to search or browse all available virtual machine image.
4. Provide the other required details to the VM (like name, vm, disktype, username & password & subscription), then click ok
5. Select review + create to review your choices, when the validation message appears, select create.
6. To Connect to your Linux VM with an SSH client, In the SSH window, enter following command

ssh -i ~/.ssh/id\_rsa.pub azureuserMA20115639@10.0.0.77

**Assignment 2:**

* Create VM (General purpose B or D series) with tag “TRHOL<candidate ADID>VM” using “Microsoft Windows Server 2016 Base)
* Login to VM as administrator.

**Answers:**

1. Login to azure portal then select virtual machines from left-side azure blade.
2. Select + add or create virtual machine to open the create virtual machine screen.
3. Select the Microsoft Windows server 2016 image from the dropdown list or select browse all public and private images to search or browse all available virtual machine image.
4. Provide the other required details to the VM (like name, vm, disktype, username & password & subscription), then click ok.
5. Select review + create to review your choices, when the validation message appears, select create.

**To connect or login to VM as Administrator.**

1. Open virtual machines page on azure portal and select created windows server2016 VM and click on connect button.
2. Click on download remote desktop file button and click on connect.
3. Now enter the admin username and password and click on yes on next screen, and wait for a while and verify.

**Topic: Networking:**

**Assignment 1:**

* Create VM (General purpose B or D series) with tag “TRHO L<candidate ADID>VM” using Azure Linux image from Azure market place
* Enable SSH and ICMP services
* Attach EIP
* Ping and SSH to “TRHOL<candidate ADID>VM
* Disable services
* Remove VM

**Answers:**

1. Login to azure portal then select virtual machines from left-side azure blade.
2. Select + add or click on create virtual machine to open the create virtual machine screen.
3. Select the Linux image from the dropdown list or select browse all public and private images to search or browse all available virtual machine image.
4. Provide the other required details to the VM (like name, vm, disktype, username & password & subscription), then click ok
5. On the Inbound port Rules select SSH and icmp services
6. Select review + create to review your choices, when the validation message appears, select create.
7. To Enable EIP (elastic ip) search for network interface in azure portal.
8. Then select the NIC for the MA20115639 VM then click on Ip configurations, now in the public ip settings page change the ip from dynamic to STATIC and enter the private ip like 10.0.0.77 the click on save button.
9. Ping ssh -i ~/.ssh/id\_rsa.pub azureuserMA20115639@10.0.0.77
10. Properly shutdown azure vm and stop and delete the vm.

**Topic: Storage**

**Assignment 1:**

Exercise 1: Use the Azure Portal to create a storage account

Exercise 2: Create a container and upload blobs

Exercise 3: Use the Azure Portal to download a blob

Exercise 4: Share blobs using public containers

Exercise 5: Share blobs using shared-access signatures

Exercise 6: Delete the resource group

**Answers:**

**Excercise1:**

1. Login to azure portal and select storage accounts then click on create storage account.
2. Provide details like resource group and storage account name (should be unique) & location.
3. Fill remaining basic details and click on review+ create.

**Exercise 2:**

1. Navigate to you new storage account in the azure portal.
2. In the left side menu select blob storage then containers
3. Type the container name and set the level of public access to the container (default is private).
4. Select ok to create the container.
5. Now Navigate to the container to upload the blob
6. Select the Upload button to add the files from your local device.
7. Expand the advanced section to configure other settings.
8. Click on upload button to upload the blob.

Exercise 3:

1. Now go to the storage accounts and containers in the containers you can find the list of blobs you have uploaded.
2. Select the blob you want to download and right click and click on download option.

Exercise 4:

1. While creating the container only we have changed the public level access to the container (default is private), if not done.
2. Go to storage accounts and select the container then click on configuration settings of the particular container.
3. Now under the change access level button to display the public access settings.
4. Select the public level access from the drop down list and click ok.

Exercise 5:

Share blobs using shared-access signatures

1. Login to azure powershell

New-AzStorageContainerStoredAccessPolicy

-Container $Ma20115639

-Policy $policy

-Permission "rl"

-Expiry Time "12/31/2025 08:00:00"

-Context $storage Context

Exercise 6:

1. To delete resource group login to azure portal and select resource groups from the left size azure blade.
2. Select the resource group which you want to delete and click on delete resource group
3. Then it will prompt for confirmation here type resource group name and click on delete.

**Assignment 2:**

* Create VM (General purpose B or D series) with tag “TRHOL<Candidate AD ID Name> VM” using Azure Linux Image
* Login with using SSH
* Add internal disks to the VM “TRHOL<Candidate AD ID Name> VM”
* Remove disks from VM “TRHOL<Candidate AD ID Name>VM”
* Delete VM “TRHOL<Candidate AD ID Name>VM”

**Answers**

1. Login to azure portal then select virtual machines from left-side azure blade.
2. Select + add or click on create virtual machine to open the create virtual machine screen.
3. Select the Linux image from the dropdown list or select browse all public and private images to search or browse all available virtual machine image.
4. Provide the other required details to the VM (like name, vm, disktype, username & password & subscription), then click ok
5. Select review + create to review your choices, when the validation message appears, select create.
6. To Connect to your Linux VM with an SSH client.

In the SSH window, enter following command

ssh -i ~/.ssh/id\_rsa.pub azureuserMA20115639@10.0.0.77.

1. Now to create & add internal disks to the VM navigate to virtual machines page then goto settings.
2. Under settings select disks.
3. On disks page select data disks and click on create data and attach new disk.
4. Now provide the disk name and the basic settings like storage type and size encryption, host caching etc then click on save button.
5. Now new disk is attached to the VM.
6. To remove disks from a VM go to disks page under virtual machines settings.
7. Select the disk which you want to delete and click on detach button.
8. Select yes to detach or remove the disk from that VM.
9. TO delete a VM go to Virtual Machines page in the portal.
10. Select the VM and its dependencies like nic and disks etc click on delete and the type yes for confirmation now VM and its dependencies are deleted.

**Topic: Management & Monitoring**

**Assignment 1:** Create VM (General purpose B or D series) with tag “TRHOL•VM” using Azure Linux Image

1. Login to azure portal then select virtual machines from left-side azure blade.
2. Select + add or click on create virtual machine to open the create virtual machine screen.
3. Select the Linux image from the dropdown list or select browse all public and private images to search or browse all available virtual machine image.
4. Provide the other required details to the VM (like name, vm, disktype, username & password & subscription), then click ok
5. Select review + create to review your choices, when the validation message appears, select create.
6. Then go to all services and search for Log Analytics.
7. Now select create button to create a workspace and provide a name for it like AzureHOLworkspace.
8. Provide details like subscription, Resource group, location etc then click OK.
9. While the information is verified and the workspace is created, you can track its progress under notifications from the menu.
10. Now we have to enable the log analytics VM extension
11. Navigate to Log Analytics workspace and AzureHOLworkspace, on this page under workspace data sources, select virtual machines.
12. Select the VM to get the log analytics connection status for the VM indicates that it is not connected.
13. In this page for the virtual machine click on Connect, then the agent will installed and configured for your Log analytics workspace.
14. After install and connect the agent, the log analytics connection status will be updated the workspace.
15. Now collect data from VM
16. On the workspace page select advanced settings
17. Then select data and then select windows event logs.
18. In the table, check it will show error and warning.
19. Now click on save button.
20. Then select windows performance data to enable collection of performance counters on a windows computer.
21. When we first configure windows performance counters for a new Log Analytics workspace, we are gien the option to quickly create several common counters, they are listed with a checkbox next to each.
22. Then select add the selected performance counters.
23. Now save the configuration.

Thanks & Regards,

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