Module 15 - Lab 2: Implementing Azure Monitor

Lab Overview

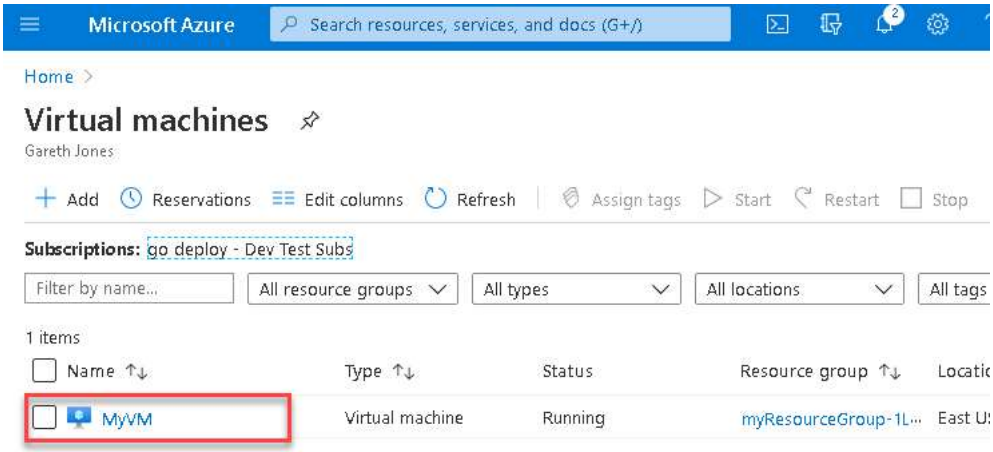
In this lab, you will be deploying a test Virtual Machine and configuring Azure Monitor on that Virtual Machine by applying some condition and action items. If the Virtual Machine reaches the defined condition thresholds, Azure Monitor will generate alerts.

Learning Objectives

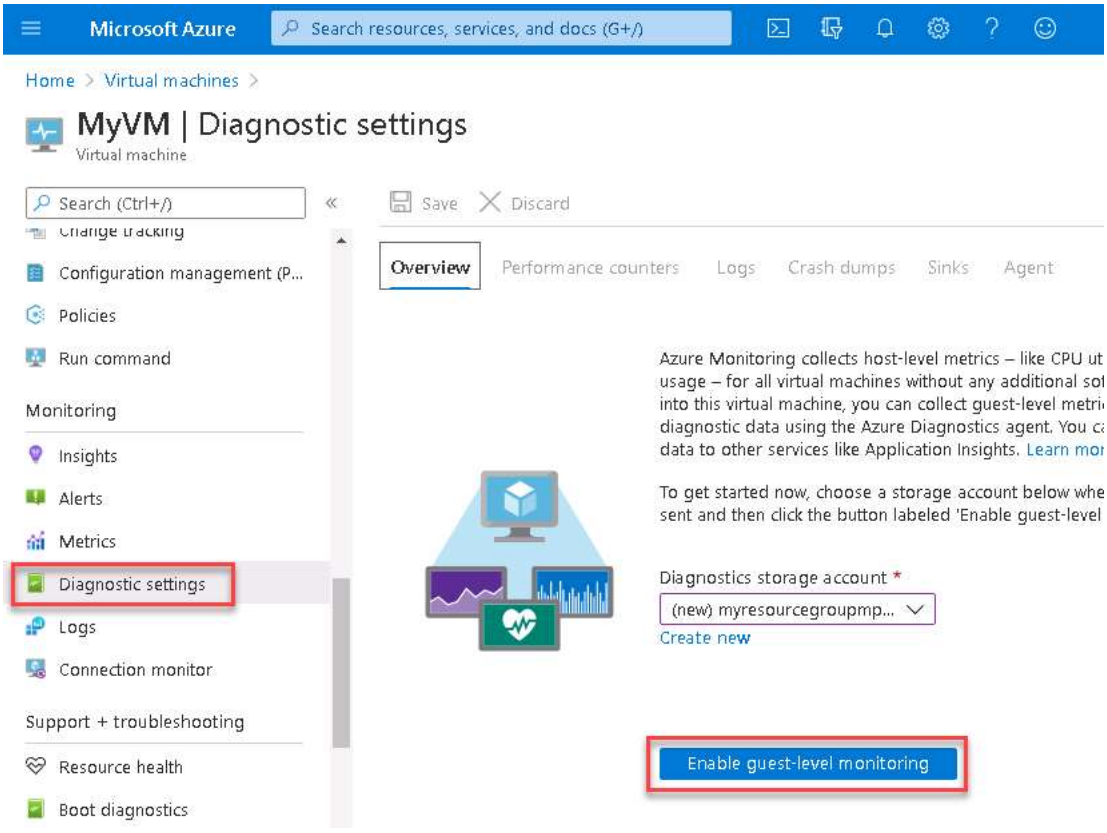
- Deploy a test Virtual Machine
- Configure Azure Monitor
- Test the Alerts triggered by Azure Monitor

Exercise 1: Configure Azure Monitor

- [ ] 1. Login to the **Azure Portal** https://portal.azure.com using the username sheikhnasirPS6HG@gdcs4.com and password 851VSFh8Q0O0susw
- [ ] 2. In the **Azure Portal** navigate to **Virtual Machines** and select **MyVM**.

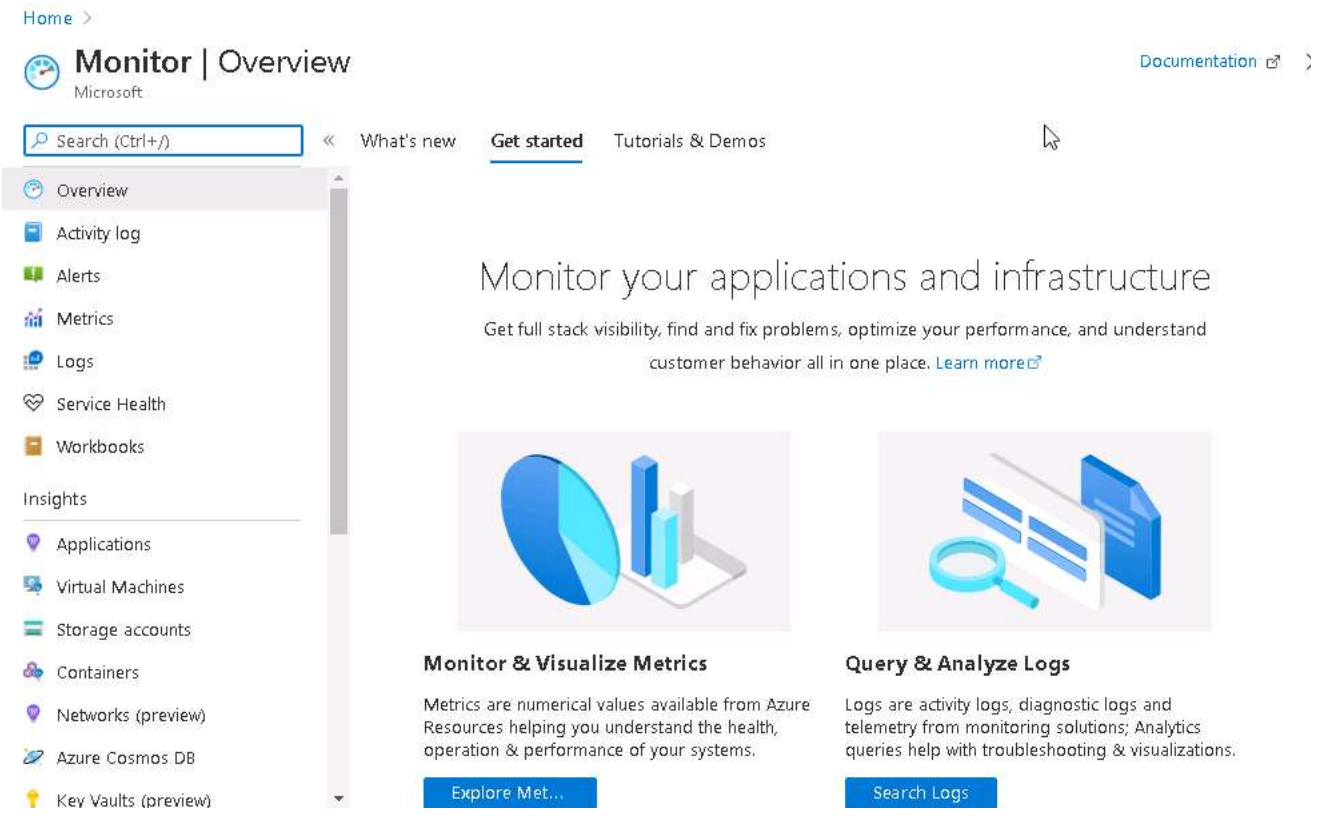


- [ ] 3. Select **Diagnostic settings** under the Monitoring section.
- [ ] 4. Click **Enable guest level monitoring**.

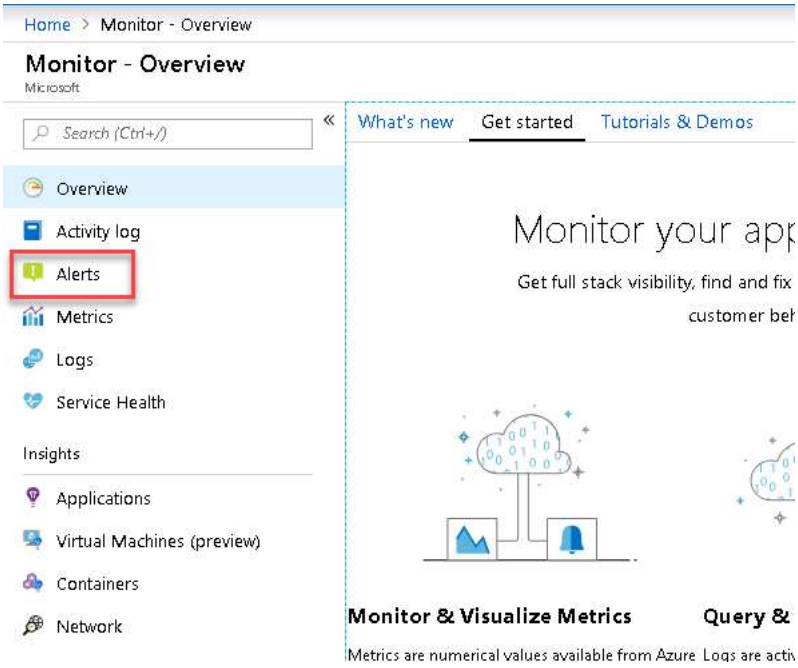


- [ ] 5. In the Azure Portal, search for and select **Monitor**

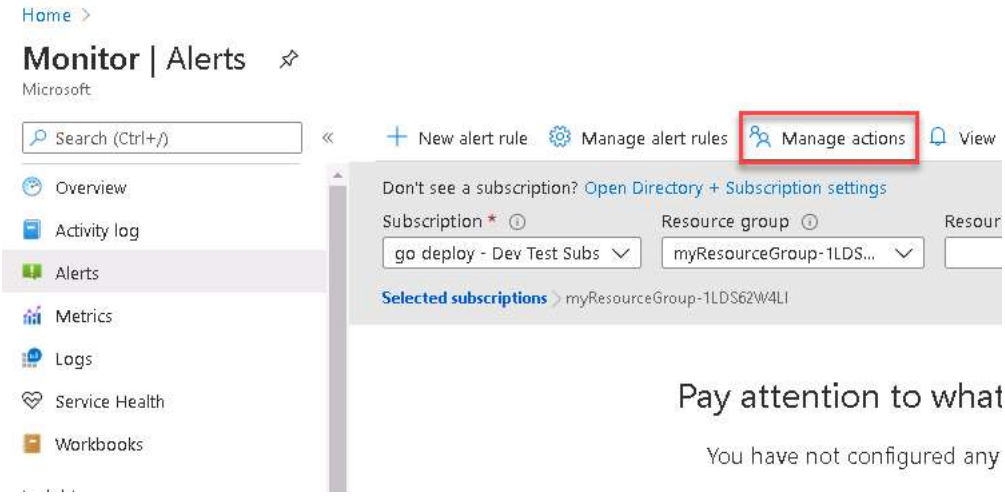
- [ ] 6. This page brings together all your monitoring settings and data into one consolidated view. It first opens to the **Overview** section. The Overview shows you a rollup of all monitoring alerts, errors, and service health advisories that relate to resources in your subscription.



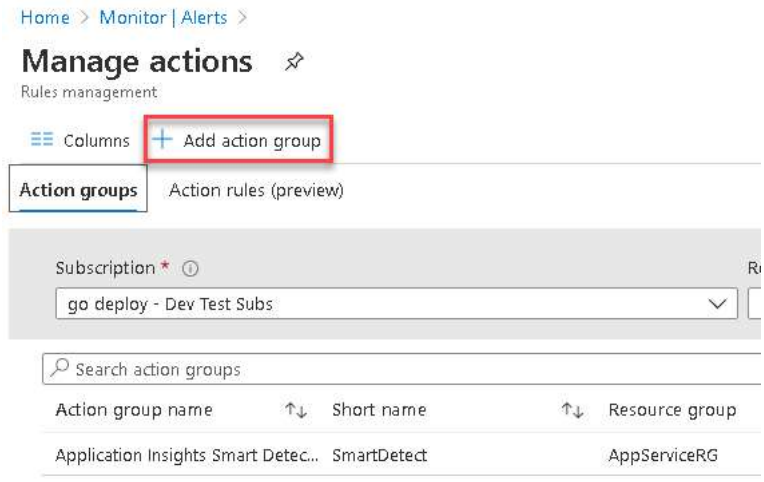
- [ ] 7. Click **Alerts** on the left.



- [ ] 8. Click **Manage Actions**



- [ ] 9. Click **+ Add Action Group**

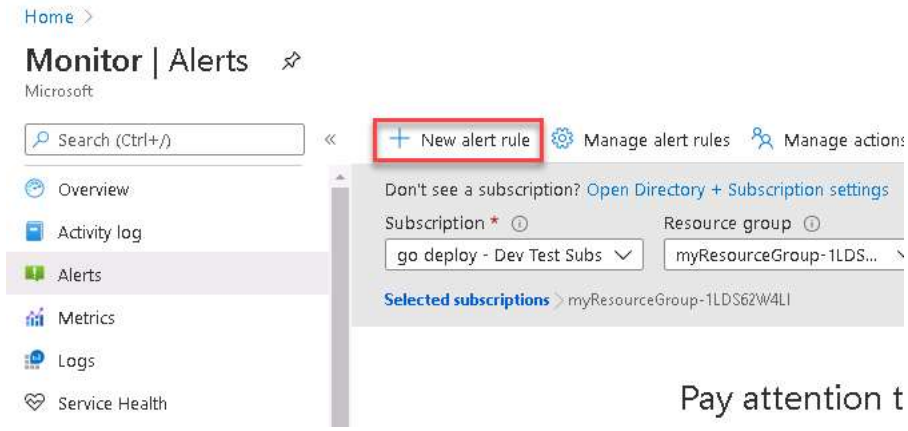


- [ ] 10. In the **Add action group** blade, use the following values:
    - Action group name: RestartVM
    - Short name: Restart
    - Subscription: **Select you subscription**

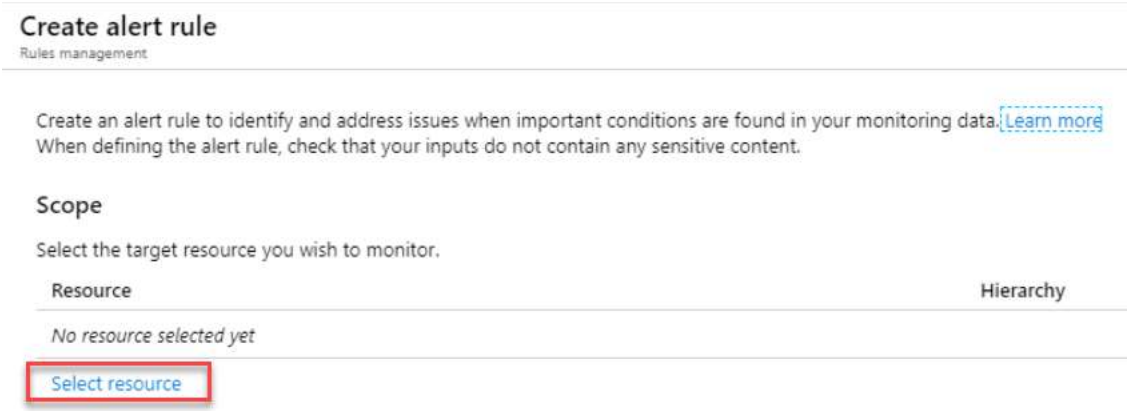
- Resource group: **myResourceGroup-7PCQ9EMYV7**

11. In the **Notifications** section, add an action with the following configuration:
    - Action name: **Email123**
    - Notification Type: **Email/SMS/Push/Voice**
12. In the details pane for **Email/SMS/Push/Voice** that appears on the right, check the box for **Email** and enter a valid email address. Check the box for **SMS** and enter a valid phone number where you would to receive text notifications.

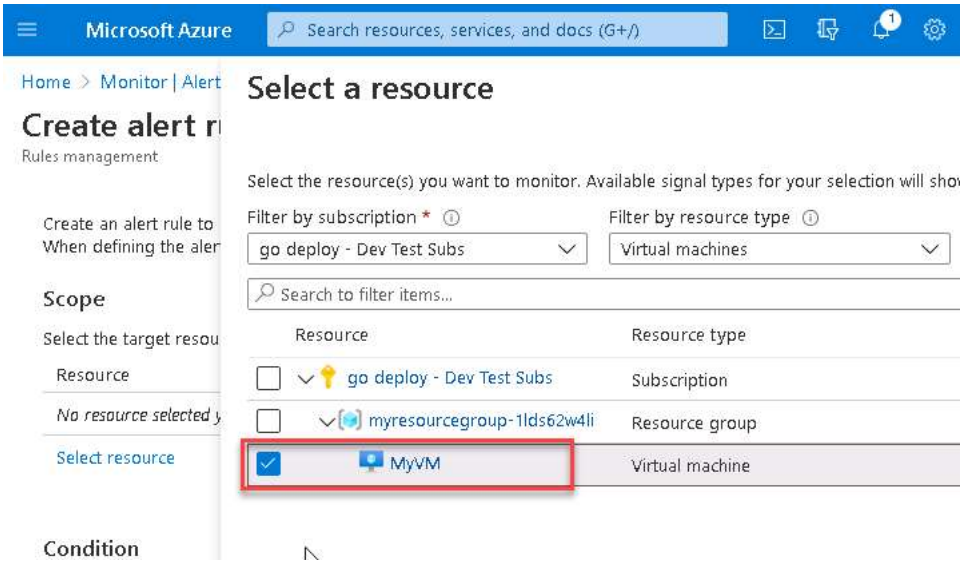
    If you have the Azure App installed on your phone, check the box for **Azure App Notifications** and enter the email address associated with the Azure app. Finally, check the box for **Voice** and enter a phone number where you would like to receive a call notifying you when your alert is triggered.
13. Click **OK** when you are done then click **Review + Create** then **Create**.
14. Return to the **Monitor-Alerts** service page.
15. Click **+ New Alert rule**.



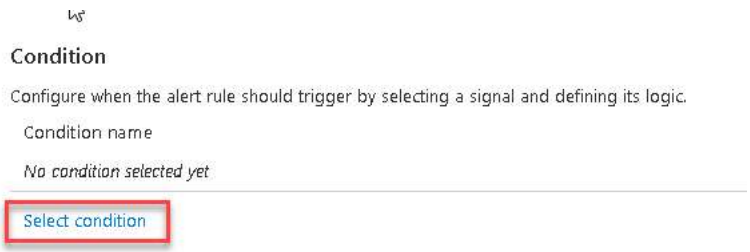
16. In the **Create rule** blade, click **Select resource** under the **Scope** section.



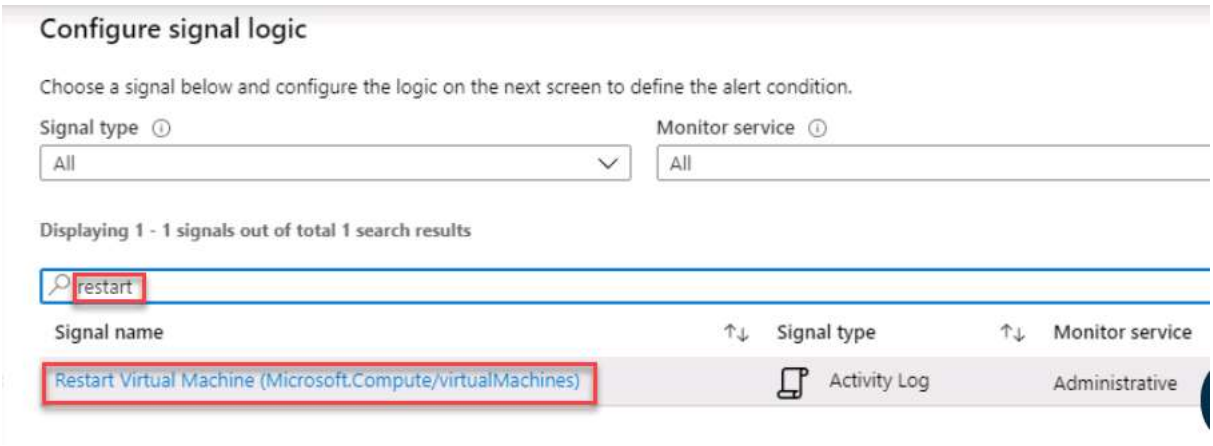
17. On the **Select a resource page** in the **Filter by resource type** dropdown, choose Virtual machines. Then select **myVM** and click **Done**.



- [ ] 18. Click **Add condition** in the Conditions section to open the **Configure signal logic** blade on the right.

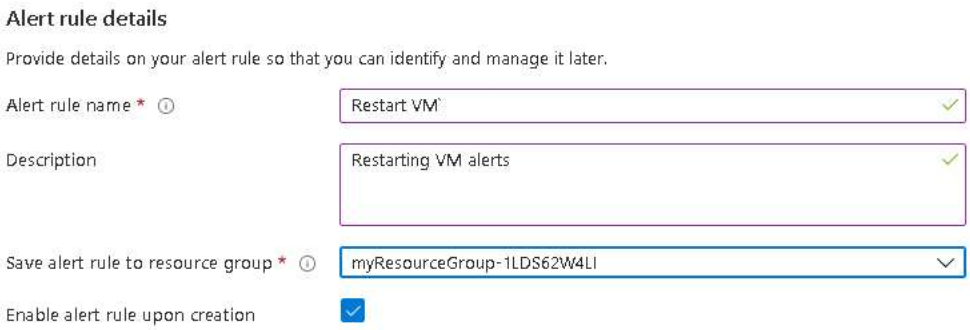


- [ ] 19. In the **Configure signal logic** blade, search for and select the signal type **Restart Virtual Machine (Microsoft.Compute/virtualMachines)** in the **Administrative** Monitor service then click **Done**.



> ⚠ **Note**: Do not enter a value in the **Event initiated by** field.

- [ ] 20. In the **Action group** section, click **Add action group** and select the **RestartVM** action group you created earlier in the exercise. Then click **Select**.
- [ ] 21. In the **Alert Details** section, enter the following values then make sure **Enable rule upon creation** is set to **Yes** and click **Create alert rule** to finally create the rule.
    - Alert rule name: **Restart VM**
    - Description: **Restarting VM alerts**
    - Save alert to resource group : **myResourceGroup**

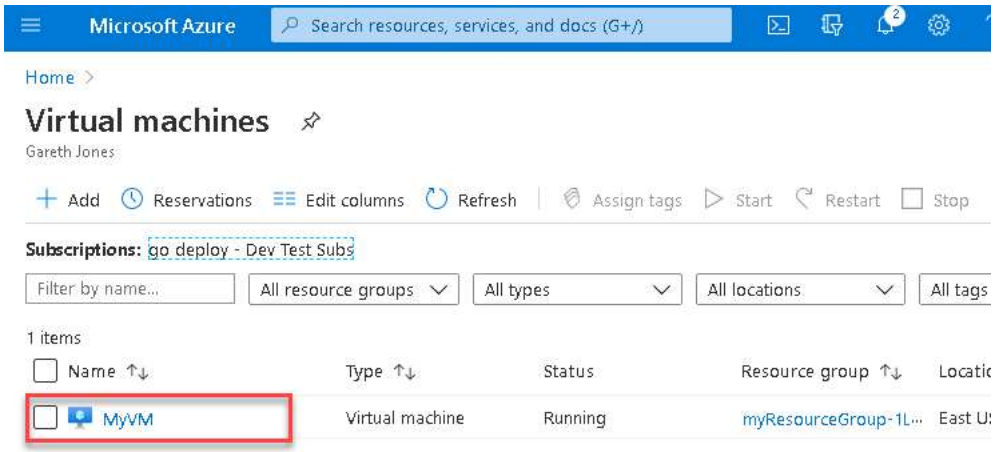


Summary

You have successfully configured Azure Monitor to alert you when the MyVM virtual machine is restarted.

Exercise 2: Test the Alert

- [ ] 1. In the Azure Portal navigate to **Virtual Machines** and select **MyVM**.



- [ ] 2. In the **myVM** blade, click **Restart** and click **Yes** in the confirmation dialog.

- [ ] 3. You should receive an SMS text message, email, phone call, and an Azure app push notification (if configured) regarding the restart of the virtual machine within about 5 minutes. Here is an example of an email alert:

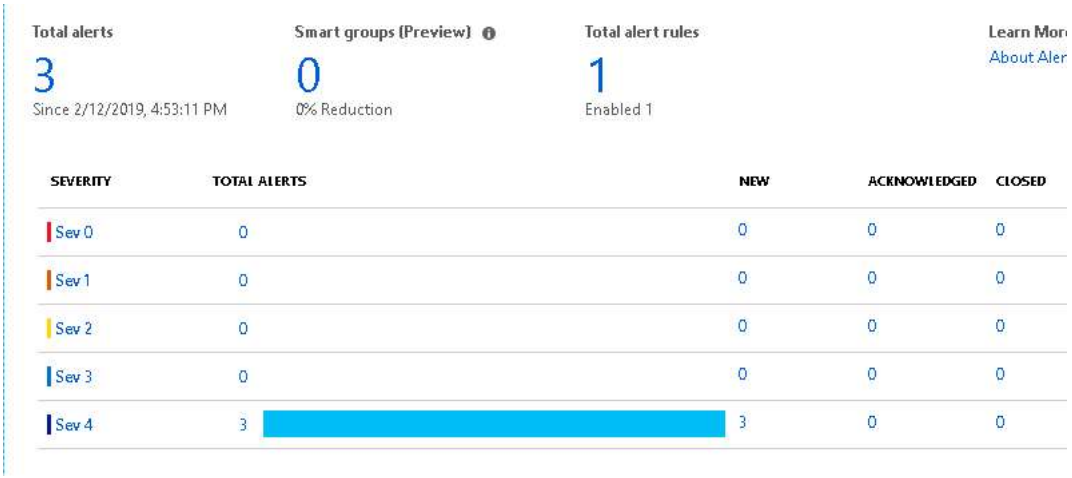
Microsoft Azure

Azure Monitor alert 'Restart VM`' was activated for 'MyVM' at June 28, 2020 16:40 UTC

You're receiving this notification as a member of the restart action group because an Azure Monitor alert was activated.

Activity log alert	Restart VM`
Time	June 28, 2020 16:40 UTC
Category	Administrative
Operation name	Microsoft.Compute/virtualMachines/restart/action
Correlation ID	98383f93-8be6-4665-806a-97ca749265f2
Level	Informational
Resource ID	/subscriptions/[redacted]9/resourceGroups/myResourceGroup-1LDS62W4LI/providers/Microsoft.Compute/virtualMachines/MyVM
Caller	[redacted]

- [ ] 4. On the portal's left navigation, click **Monitor** then click **Alerts**.
- [ ] 5. You should see that the alert rule you created earlier has fired multiple times, once for each notification method you configured earlier.



✓ **Summary**

You have successfully tested alerting in Azure Monitor by creating an alert rule with custom targets, conditional logic, and delivery mechanisms for the alert itself.