

Lab 7

CST8912\_011

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Submitted to :

Prof. Tanishq Bansal

## Lab Report Format

### Title

Azure Monitoring & Alert Management

### Introduction or Purpose

This course helps Cloud Architects analyze cloud expenditures and choose the most cost-effective service model—IaaS, PaaS, or SaaS. It introduces built-in cloud tools to track costs across different areas like Compute, Network, and Storage. By exploring cost-saving strategies, the course provides practical methods to optimize expenses with minimal changes or strategic shifts in deployment.

### Steps covered in the lab

#### *Task 1: Deploy a Virtual Machine Using a Template*

1. Download the az104-11-vm-template.json file.
2. Sign in to the [Azure portal](#).
3. Search for **Deploy a custom template** and select **Build your own template in the editor**.
4. Load the downloaded JSON file, save it, and fill in the required fields:
  - **Subscription:** Your Azure subscription
  - **Resource Group:** CST8912 (Create new if needed)
  - **Region:** Canada Central
  - **Username:** localadmin
  - **Password:** Set a complex password
5. Click **Review + Create**, then **Create**.
6. Once deployed, go to the resource group and verify that a virtual network and VM were created.

#### *Task 2: Create an Alert for VM Deletion*

1. In **Azure Monitor**, go to **Alerts > Create Alert Rule**.
2. Select the resource group and apply it to all VMs.
3. Under **Condition**, search for **Delete Virtual Machine** and apply it.
4. Keep default event level and status selections.
5. Leave the alert rule pane open for the next step.

#### *Task 3: Configure Alert Notifications*

1. In the alert rule settings, go to **Next: Actions > Create action group**.
2. Set details:
  - **Action Group Name:** Alert the operations team
  - **Display Name:** AlertOpsTeam

3. In **Next: Notifications**, choose **Email/SMS**, name it **VM was deleted**, and enter your email.
4. In **Next: Details**, set:
  - **Alert Rule Name**: VM was deleted
  - **Description**: A VM in your resource group was deleted
5. Click **Review + Create**, then **Create**.

#### *Task 4: Trigger and Verify the Alert*

1. In **Virtual Machines**, select **az104-vm0** and delete it with **Apply force delete**.
2. Check **Notifications** for deletion confirmation.
3. Verify the alert email from [azure-noreply@microsoft.com](mailto:azure-noreply@microsoft.com).
4. In **Azure Monitor**, go to **Alerts** to review triggered alerts.

#### *Task 5: Suppress Alerts During Maintenance*

1. In **Alerts**, go to **Alert Processing Rules > Create**.
2. Select the resource group and apply the rule.
3. Under **Rule Settings**, choose **Suppress notifications**.
4. Under **Scheduling**, set:
  - **Start**: Today, 10 PM
  - **End**: Tomorrow, 7 AM
  - **Time zone**: Local time
5. Name the rule **Planned Maintenance**, add a description, and create it.

#### *Task 6: Use Azure Monitor Log Queries*

1. In **Azure Monitor**, go to **Logs** and select your resource group.
2. In **Queries**, select **Virtual Machines** and run the **Count heartbeats** query.
3. Replace the query with:

```
InsightsMetrics
| where TimeGenerated > ago(1h)
| where Name == "UtilizationPercentage"
| summarize avg(Val) by bin(TimeGenerated, 5m), Computer
| render timechart
```

4. Run and analyze the query results.
5. Clean up resources and document the steps.

## **Results**

**Task 1 - Use a template to provision an infrastructure**

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Home > Custom deployment ...

Custom deployment ...

Deploy from a custom template

Select a template Basics Review + create

Automate deploying resources with Azure Resource Manager templates in a single, coordinated operation. Create or select a template below to get started. [Learn more about template deployment](#)

Build your own template in the editor

Common templates

- Create a Linux virtual machine
- Create a Windows virtual machine
- Create a web app
- Create a SQL database
- Azure landing zone

Start with a quickstart template or template spec

Template source  Quickstart template  Template spec

Quickstart template (disclaimer) ... ▼

...

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Home > Custom deployment >

Edit template ...

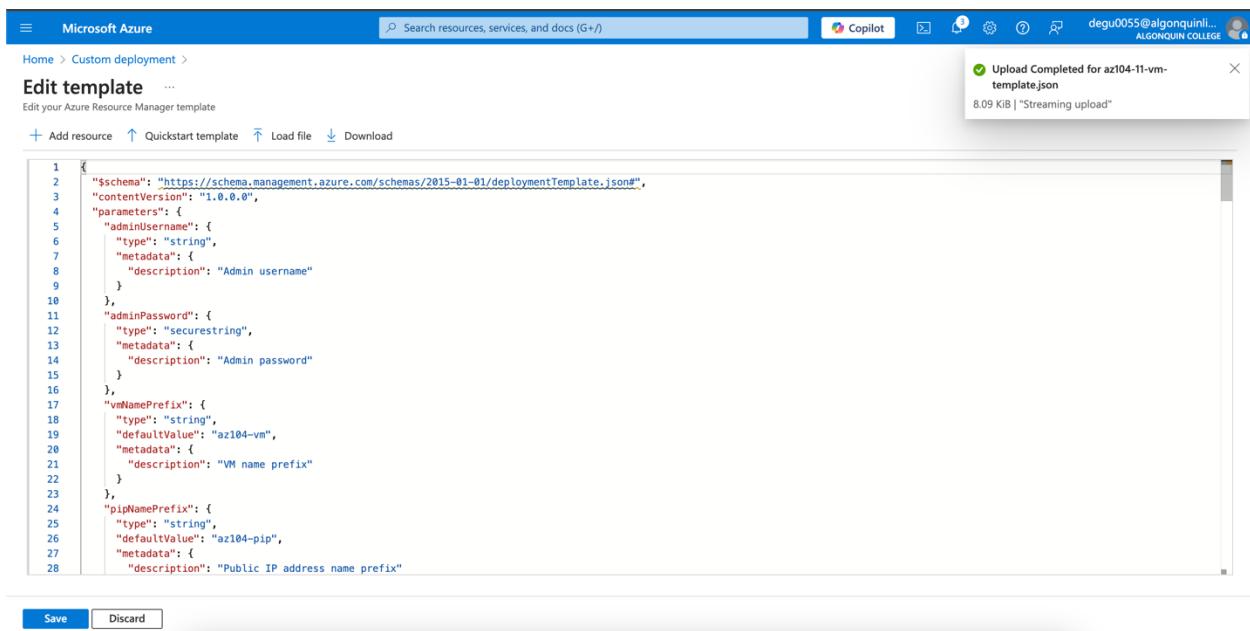
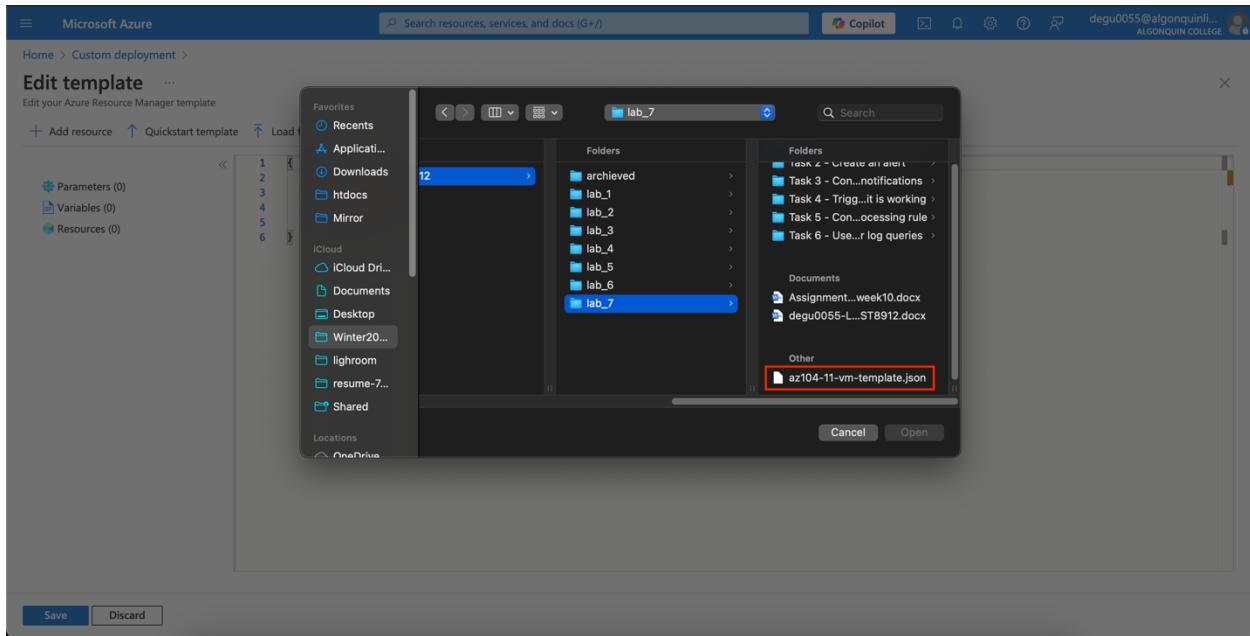
Edit your Azure Resource Manager template

+ Add resource ↑ Quickstart template Load file Download

Parameters (0) Variables (0) Resources (0)

```
1 {
2   "$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",
3   "contentVersion": "1.0.0.0",
4   "parameters": {},
5   "resources": []
6 }
```

Save Discard



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Home > [Custom deployment](#) >

### Edit template

Edit your Azure Resource Manager template

[+ Add resource](#) [Quickstart template](#) [Load file](#) [Download](#)

```

1  {
2   "$schema": "https://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",
3   "contentVersion": "1.0.0.0",
4   "parameters": {
5     "adminUsername": {
6       "type": "string",
7       "metadata": {
8         "description": "Admin username"
9       }
10    },
11    "adminPassword": {
12      "type": "securestring",
13      "metadata": {
14        "description": "Admin password"
15      }
16    },
17    "vmNamePrefix": {
18      "type": "string",
19      "defaultValue": "az104-vm",
20      "metadata": {
21        "description": "VM name prefix"
22      }
23    },
24    "pipNamePrefix": {
25      "type": "string",
26      "defaultValue": "az104-pip",
27      "metadata": {
28        "description": "Public IP address name prefix"
29      }
30  }
31 }

```

[Save](#) [Discard](#)

<https://portal.azure.com/#create/Microsoft.Template>

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Home > [Custom deployment](#) >

### Custom deployment

Deploy from a custom template

[New! Deployment Stacks let you manage the lifecycle of your deployments. Try it now →](#)

Subscription \* [Azure for Students](#) [\(New\) Lab7](#) [Create new](#)

Resource group \* [\(New\) Lab7](#)

Instance details

Region \* [Canada Central](#)

Admin Username \* [localadmin](#)

Admin Password \* [password@123](#)

Vm Name Prefix [az104-vm](#)

Pip Name Prefix [az104-pip](#)

Nic Name Prefix [az104-nic](#)

Image Publisher [MicrosoftWindowsServer](#)

Image Offer [WindowsServer](#)

Image SKU [2019-Datacenter](#)

Vm Size [Standard\\_D2s\\_v3](#)

Virtual Network Name [az104-vnet](#)

[Previous](#) [Next](#) [Review + create](#)

Microsoft Azure Search resources, services, and docs (G+) Copilot Home Microsoft.Template-20250306004349 | Overview ...

Deployment Search Delete Cancel Redeploy Download Refresh

**Overview**

**Your deployment is complete**

Deployment name : Microsoft.Template-20250306004349  
Subscription : Azure for Students  
Resource group : Lab7

Start time : 3/6/2025, 12:43:51 AM  
Correlation ID : 280b1f77-af85-4830-b4b3-8aa79cb0de6f

**Deployment details**

**Next steps**

**Go to resource group** Red box

Give feedback Feedback icon  
Tell us about your experience with deployment Feedback icon

**Cost management**  
Get notified to stay within your budget and prevent unexpected charges on your bill.  
Set up cost alerts >

**Microsoft Defender for Cloud**  
Secure your apps and infrastructure  
Go to Microsoft Defender for Cloud >

**Free Microsoft tutorials**  
Start learning today >

**Work with an expert**  
Azure experts are service provider partners who can help manage your assets on Azure and be your first line of support.  
Find an Azure expert >

Microsoft Azure Search resources, services, and docs (G+) Copilot Home Microsoft.Template-20250306004349 | Overview > Lab7 Resource group ...

**Overview**

**Essentials**

**Resources** **Recommendations**

Filter for any field... Type equals all × Location equals all × Add filter

Showing 1 to 7 of 7 records.  Show hidden types ...

No grouping ... List view

	Name	Type	Location	...
<input type="checkbox"/>	az104-nic0	Network Interface	Canada Central	...
<input type="checkbox"/>	az104-nsg01	Network security group	Canada Central	...
<input type="checkbox"/>	az104-pip0	Public IP address	Canada Central	...
<input type="checkbox"/>	az104-vm0	Virtual machine	Canada Central	...
<input type="checkbox"/>	az104-vm0_disk1_3bcc3fc145b447fd850054b92da3645a	Disk	Canada Central	...
<input type="checkbox"/>	az104-vnet	Virtual network	Canada Central	...
<input type="checkbox"/>	az10411tv2xm7bdcpsfws	Storage account	Canada Central	...

Give feedback

Microsoft Azure

Home > Monitor | Overview

Search

Change Analysis

Service health

Workbooks

Investigator (preview)

Insights

- Applications
- Virtual Machines
- Storage accounts
- Containers
- Networks
- Azure Cosmos DB
- Key Vaults
- Azure Cache for Redis
- Azure Data Explorer Clusters
- Log Analytics workspaces
- Azure Local
- Service Bus (preview)
- ... Insights Hub

https://portal.azure.com/#

Search resources, services, and docs (G+)

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Monitor | Overview

Overview Tutorials

1 The Log Analytics agents, used by VM Insights, won't be supported as of August 31, 2024. Plan to migrate to VM Insights on Azure Monitor agent prior to this date.

Insights

Use curated monitoring views for specific Azure resources. [View all insights](#)

Application insights Container Insights VM Insights Network Insights

Metrics Alerts Logs Workbooks

Change Analysis Diagnostic Settings Azure Monitor SCOM managed instance Managed Prometheus

View More View More View More View More

Detection, triage, and diagnosis

Visualize, analyze, and respond to monitoring data and events. [Learn more about monitoring](#)

Metrics Create charts to monitor and investigate the usage and performance of your Azure resources.

Alerts Get notified and respond using alerts and actions.

Logs Analyze and diagnose issues with log queries.

Workbooks View, create and share interactive reports.

Change Analysis Investigate what changed to triage incidents.

Diagnostic Settings Route monitoring metrics and logs to selected locations.

Azure Monitor SCOM managed instance SCOM managed instance monitors workloads running on cloud and on-prem.

Managed Prometheus Collect Prometheus metrics from your containerized workloads to monitor their health and performance.

Microsoft Azure

Home > Monitor

Search

Change Analysis

Service health

Workbooks

Investigator (preview)

Insights

Applications

Virtual Machines

Storage accounts

Containers

Networks

Azure Cosmos DB

Key Vaults

Azure Cache for Redis

Azure Data Explorer Clusters

Log Analytics workspaces

Azure Local

Service Bus (preview)

... Insights Hub

Google Chrome

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Monitor | Virtual Machines

Get started Overview Performance Map

Monitor the health and performance of virtual machines

VM insights monitors the performance and health of your virtual machines and virtual machine scale sets, including their running processes and dependencies on other resources. It can help deliver predictable performance and availability of vital applications by identifying performance bottlenecks and network issues. [Learn more](#)

Enable VM Insights

Implement complete monitoring of your Azure and hybrid virtual machine environment. [Learn more](#)

Analyze data

Analyze the health and performance for a single machine or multiple machines and drill into logs for troubleshooting. [Learn more](#)

Create alerts

Alerts in Azure Monitor proactively notify you of interesting data and patterns in your monitoring data and potentially take automated actions based on triggers. [Learn more](#)

Configure Insights

Analyze data

Microsoft Azure

Home > Monitor

## Monitor | Virtual Machines

Search Refresh Provide Feedback

Get started Overview Performance Map

Filter by name... Subscription : 2 subscriptions Resource group : All resource groups Type : All types Location : All locations

Group by : Subscription, Resource group

Monitored (0) Not monitored (1) Workspace configuration Other onboarding options

Name	Monitor Coverage	Workspace
✓ Azure for Students	1 of 1	
✓ lab7	1 of 1	
az104-vm0	Not enabled	<b>Enable</b>

Messenger

Microsoft Azure

Home > Monitor

## Monitor | Virtual Machines

Search Refresh Provide Feedback

Get started Overview Performance Map

Filter by name... Subscription : 2 subscriptions

Group by : Subscription, Resource group

Monitored (0) Not monitored (1) Workspace configuration

Name
✓ Azure for Students
✓ lab7
az104-vm0

### Azure Monitor

Insights Onboarding

**Get more visibility into the health and performance of your virtual machine**

With an Azure virtual machine you get host CPU, disk and up/down state of your VMs out of the box. Enabling additional monitoring capabilities provides insights into the performance and dependencies for your virtual machines.

You will be billed based on the amount of data ingested and your data retention settings. It can take between 5-10 minutes to configure the virtual machine and the monitoring data to appear.



**Enable**

**Having difficulties enabling Azure Monitors for VM? [Troubleshoot](#)**

**Have more questions?**  
[Learn more about virtual machine monitoring](#) [What is VM Insights?](#)

<https://aka.ms/vminsights/uflinks/mapOverview>

Microsoft Azure

Home > Monitor

Monitor | Virtual Machines

Search Refresh Provide Feedback

Get started Overview Performance Map

Filter by name... Subscription : 2 subscriptions

Group by : Subscription, Resource group

Monitored (0) Not monitored (1) Workspace config

Name

- ✓ Azure for Students
- ✓ lab7
  - az104-vm0

Subscription \* Azure for Students

Data collection rule (new) MSVMI-DefaultWorkspace-cdb9bdf3-e7ee-43e9-8f6c-ba7327868df1-EUS

Create New MSVMI-DefaultWorkspace-cdb9bdf3-e7ee-43e9-8f6c-ba7327868df1-EUS

Guest performance Enabled

Processes and dependencies (Map) Disabled

Log Analytics workspace DefaultWorkspace-cdb9bdf3-e7ee-43e9-8f6c-ba7327868df1-EUS

This will also enable System Assigned Managed Identity, in addition to existing User Assigned identities (if any). Note: Unless specified in the request, the machine will default to using System Assigned Identity. Learn More

Currently, only resources in certain regions are supported. Learn More

Configure Cancel

Microsoft Azure

Home > Monitor

Monitor | Virtual Machines

Search Refresh Provide Feedback

Get started Overview Performance Map

Filter by name... Subscription : 2 subscriptions

Group by : Subscription, Resource group

Monitored (0) Not monitored (1) Workspace config

Name

- ✓ Azure for Students
- ✓ lab7
  - az104-vm0

Azure Monitor

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You will be billed based on the amount of data ingested and your data retention settings. It can take between 5-10 minutes to configure the virtual machine and the monitoring data to appear.

The map data set collected with Azure Monitor for VMs is intended to be infrastructure data about the resources being deployed and monitored. For details on data collected please [click here](#).

Enable

Having difficulties enabling Azure Monitors for VM? [Troubleshoot](#)

Have more questions?

Learn more about virtual machine monitoring [Learn more](#) What is VM Insights? [What is VM Insights?](#)

Microsoft Azure

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Home > Monitor

## Monitor | Virtual Machines

Search Refresh Provide Feedback

Overview Activity log Alerts Metrics Logs Change Analysis Service health Workbooks Investigator (preview) Insights Applications Virtual Machines Storage accounts Containers Networks Azure Cosmos DB Key Vaults Azure Cache for Redis

Get started Overview Performance Map

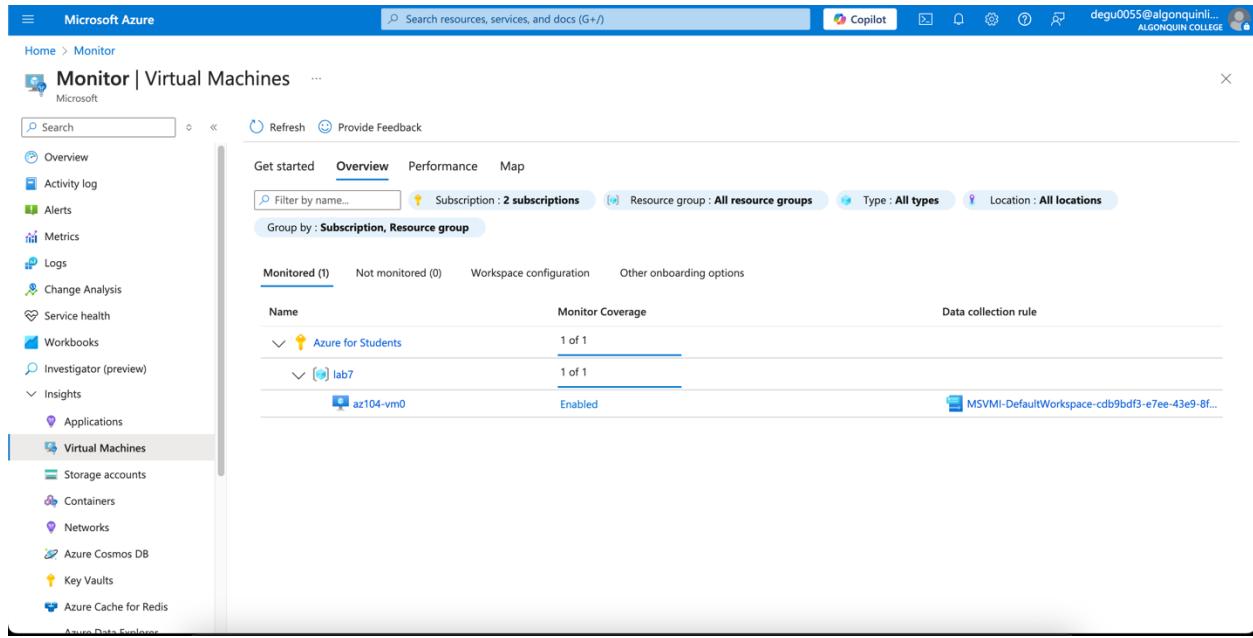
Filter by name... Subscription : 2 subscriptions Resource group : All resource groups Type : All types Location : All locations

Group by : Subscription, Resource group

Monitored (1) Not monitored (0) Workspace configuration Other onboarding options

Name	Monitor Coverage	Data collection rule
✓ Azure for Students	1 of 1	MSVMI-DefaultWorkspace-cdb9bd3-e7ee-43e9-8f...
✓ lab7	1 of 1	
az104-vm0	Enabled	

Azure Data Explorer



### Task 2 - Create an alert

Microsoft Azure

Home > Monitor

## Monitor | Alerts

Search

Overview

Activity log

Alerts

Metrics

Logs

Change Analysis

Service health

Workbooks

Investigator (preview)

Insights

Applications

Virtual Machines

Storage accounts

Containers

Networks

Azure Cosmos DB

Key Vaults

Azure Cache for Redis

Azure Data Explorer

View as timeline (preview)

+ Create

Alert rules

Action groups

Alert processing rules

Prometheus rule groups

Change user response

Actions

Alert rule

New: We value your feedback!

Action group

Alert rule

Alert processing rule

Subscription: 2 selected

Time range: Past 24 hours

Alert condition: Fired

Severity: all

Add filter

Total alerts

Critical

Error

Warning

Informational

Verbose

Name ↑

Severity ↑

Affected resource ↑

Alert condition ↑↓

User response ↑↓

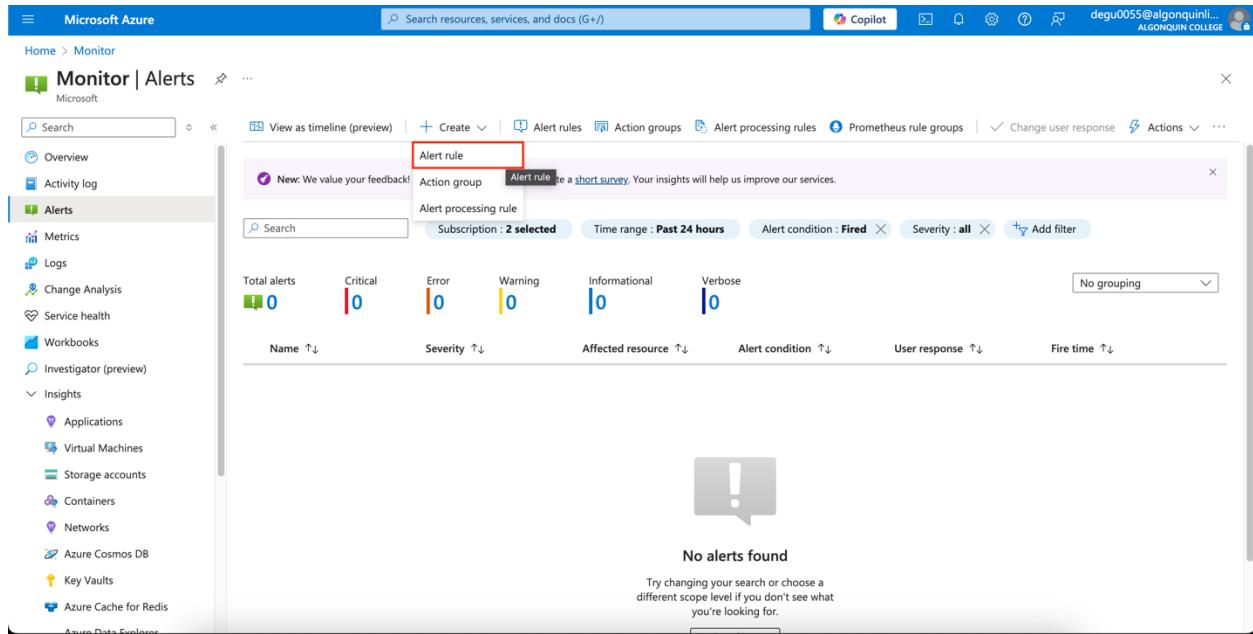
Fire time ↑↓

No grouping

!

No alerts found

Try changing your search or choose a different scope level if you don't see what you're looking for.



Microsoft Azure

Home > Monitor | Alerts >

## Create an alert rule

Scope Condition Actions Details Tags Review + create

Create an alert rule to identify and address issues when important conditions are found in your monitoring data.

+ Select scope

Resource Hierarchy

No resource selected yet

Subscription

Resource types

Locations

All subscriptions

All resource types

All locations

Search to filter items...

Resource	Resource type	Location
<input type="checkbox"/> AVD-Prod	Subscription	-
<input checked="" type="checkbox"/> Azure for Students	Subscription	-

Metric and Log signals might not be available if the scope includes multiple resources.

Refine scope

Resource type

Location

Select a resource type

Select a location

Selected resources 1 scope

Azure for Students

Subscription

Apply

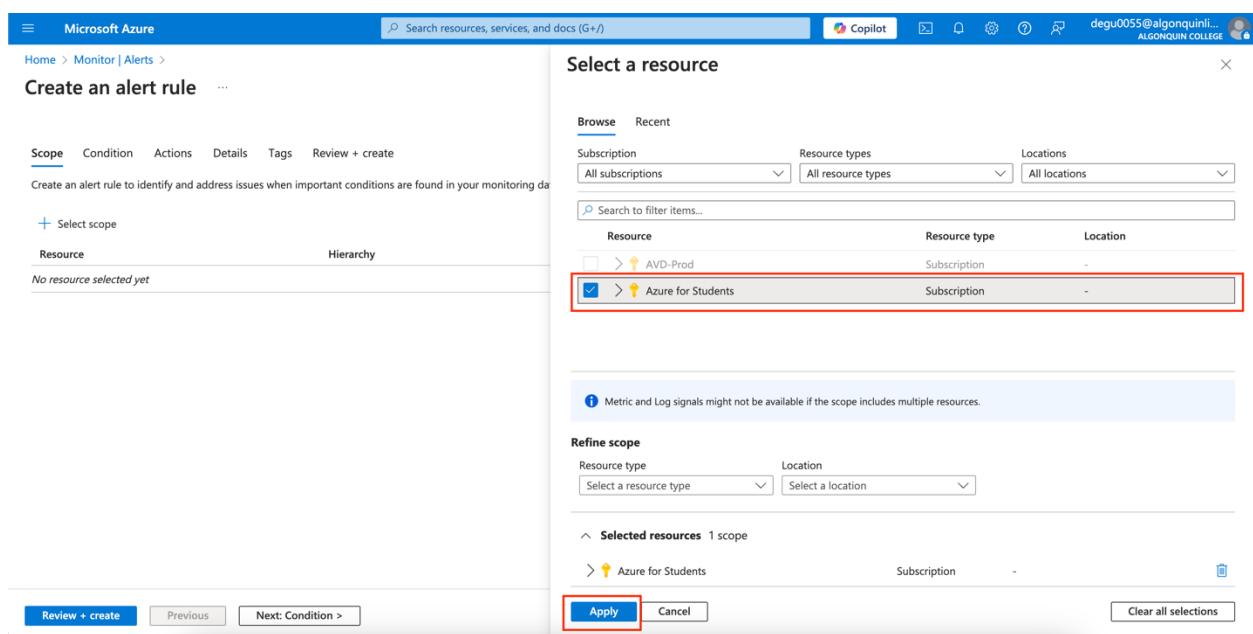
Cancel

Clear all selections

Review + create

Previous

Next: Condition >



Microsoft Azure

Search resources, services, and docs (G+)

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Home > Monitor | Alerts >

## Create an alert rule

Scope Condition Actions Details Tags Review + create

Configure when the alert rule should trigger by selecting a signal and defining its logic.

Signal name \*

[See all signals](#)

[Review + create](#) [Previous](#) [Next: Actions >](#)

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Home > Monitor | Alerts >

## Create an alert rule

Scope Condition Actions Details Tags Review + create

Configure when the alert rule should trigger by selecting a signal and defining its logic.

Signal name \*

[See all signals](#)

### Select a signal

Signal name: Delete Virtual Machine

Signal type: All Signal source: All

Signal name	Signal source
Activity log	
<input checked="" type="checkbox"/> Delete Virtual Machine (Virtual Machines)	Administrative
<input type="checkbox"/> Delete Virtual Machine and Virtual Machine scale sets in a Azure Fleet resource (Fle...	Administrative
<input type="checkbox"/> Delete Virtual Machine Associated Network Security Group (Virtual Machine Associ...	Administrative
<input type="checkbox"/> Delete Virtual Machine Extension (Virtual Machine Extensions)	Administrative
<input type="checkbox"/> Delete Virtual Machine Image (Virtual Machine Image)	Administrative
<input type="checkbox"/> Delete Virtual Machine in a Virtual Machine Scale Set (Virtual Machine in Scale Set)	Administrative
<input type="checkbox"/> Delete virtual machine pools (Virtual Machine Pools)	Administrative
<input type="checkbox"/> Delete Virtual Machine run command (Virtual Machine RunCommands)	Administrative
<input type="checkbox"/> Delete Virtual Machine Scale Set (Virtual Machine Scale Sets)	Administrative
<input type="checkbox"/> Delete Virtual Machine Scale Set Extension (Virtual Machine Scale Set Extensions)	Administrative
<input type="checkbox"/> Delete Virtual Machines in a Virtual Machine Scale Set (Virtual Machine Scale Sets)	Administrative

[Review + create](#) [Previous](#) [Next: Actions >](#) [Apply](#) [Cancel](#)

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Home > Monitor | Alerts > Create an alert rule ...

No data available

activityLogHistoryBarSeries 7 PM

View events in Azure Monitor - Activity Log

Alert logic

Event Level: All selected Status: All selected Event initiated by: \* (All services and users)

Condition preview: Whenever the Activity Log has an event with Category='Administrative', Signal name='Delete Virtual Machine (Virtual Machines)'

Review + create Previous Next: Actions >

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Home > Monitor | Alerts > Create an alert rule ...

No data available

activityLogHistoryBarSeries 7 PM

View events in Azure Monitor - Activity Log

Alert logic

Event Level: All selected Status: All selected Event initiated by: \* (All services and users)

Condition preview: Whenever the Activity Log has an event with Category='Administrative', Signal name='Delete Virtual Machine (Virtual Machines)'

Select all Failed Started Succeeded

Add event initiator

Review + create Previous Next: Actions >

Microsoft Azure

Search resources, services, and docs (G+)

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Home > Monitor | Alerts > Create an alert rule ...

No data available

Select all

Critical

Error

Warning

Informational

Verbose

All selected

Status: All selected

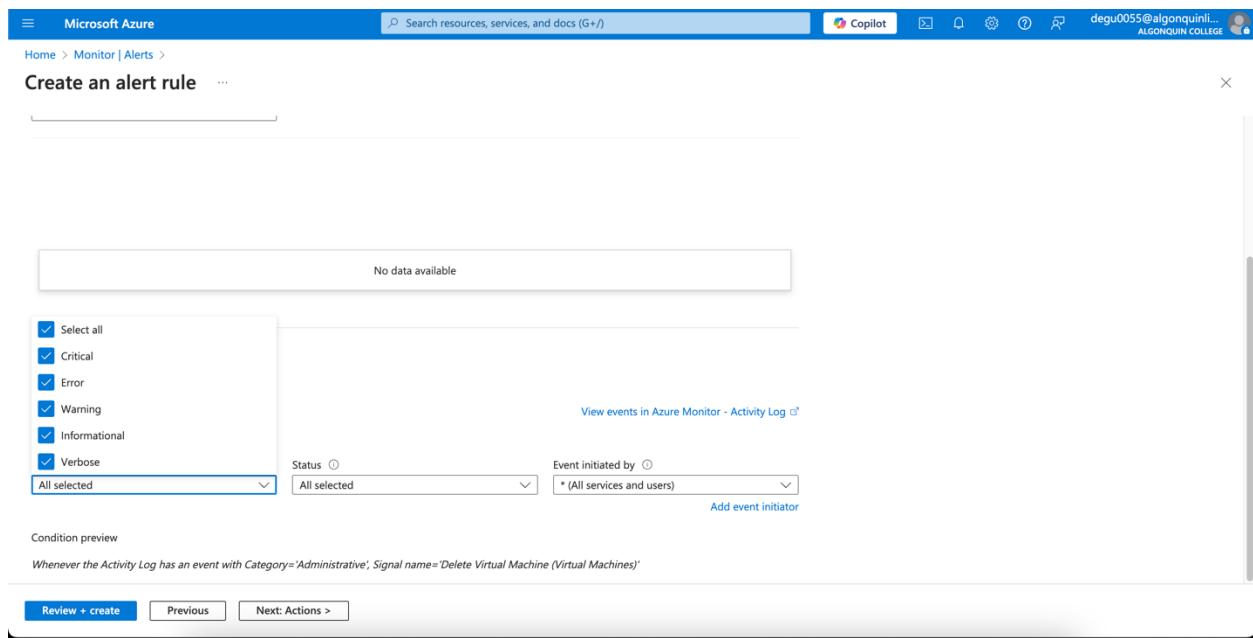
Event initiated by: \* (All services and users)

View events in Azure Monitor - Activity Log

Condition preview

Whenever the Activity Log has an event with Category='Administrative', Signal name='Delete Virtual Machine (Virtual Machines)'

Review + create Previous Next: Actions >



### Task 3 - Configure action group notifications

Microsoft Azure

Home > Monitor | Alerts > Create an alert rule

Scope Condition Actions Details Tags Review + create

An action group is a set of actions that can be applied to an alert rule. [Learn more](#)

Select actions

Use quick actions (preview)  
Select one or more of the quick actions.

Use action groups  
Add an existing action group or create a new one.

None

Action groups

Action group name	Contains
No action group selected yet	

Select action groups

Review + create Previous Next: Details > Select

Select action groups

Select up to five action groups to attach to this rule.

Create action group

Subscription  Create action group

Azure for Students

Search

Action group name ↑ Resource group ↑ Contains actions Location ↑

No results to display

Microsoft Azure

Home > Monitor | Alerts > Create an alert rule > Create action group

Basics Notifications Actions Tags Review + create

An action group invokes a defined set of notifications and actions when an alert is triggered. [Learn more](#)

Project details

Select a subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription  Resource group \*

Azure for Students

Lab7

Create new

Global

Region \*

Instance details

Action group name \*  lab7 alert

Display name \*  AlertOpsTeam

The display name is limited to 12 characters

Review + create Previous Next: Notifications >

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Home > Monitor | Alerts > Create an alert rule > Create action group ...

Basics Notifications Actions Tags Review + create

Choose how to get notified when the action group is triggered. This step is optional.

Notification type  Name  Selected   
Email/SMS message/Push/Voice  VM was deleted  Please configure the notification by clicking the edit button.

Email  deg0055@algonquinlive.com

SMS (Carrier charges may apply)  
Country code

Phone number

Azure mobile app notification  
Azure account email

Voice  
Country code    
Phone number

Enable the common alert schema. [Learn more](#)  
Yes  No

OK

Review + create  Previous  Next: Actions >

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Home > Monitor | Alerts > Create an alert rule ...

Scope Condition Actions Details Tags Review + create

Project details  
Select the subscription and resource group in which to save the alert rule.

Subscription  Azure for Students  Lab7  Create new  Global

Resource group  Lab7  Create new  Global

Region

Alert rule details  
Alert rule name  VM was deleted   
Alert rule description  A VM in your resource group was deleted

Advanced options

Review + create  Previous  Next: Tags >

Microsoft Azure

Search resources, services, and docs (G+)

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Home > Monitor

Monitor | Alerts

Search

View as timeline (preview) | Create | Alert rules | Action groups | Alert processing rules | Prometheus rule groups | Change user response | Actions | ...

Alert rule created

Alert rule VM was deleted successfully created. It might take a few minutes for changes to be shown.

Overview

Activity log

Alerts

Metrics

Logs

Change Analysis

Service health

Workbooks

Investigator (preview)

Insights

Applications

Virtual Machines

Storage accounts

Containers

Networks

Azure Cosmos DB

Key Vaults

Azure Cache for Redis

Search

Subscription : 2 selected

Time range : Past 24 hours

Alert condition : Fired

Severity : all

Add filter

Total alerts

Critical

Error

Warning

Informational

Verbose

No grouping

Name ↑

Severity ↑

Affected resource ↑

Alert condition ↑↓

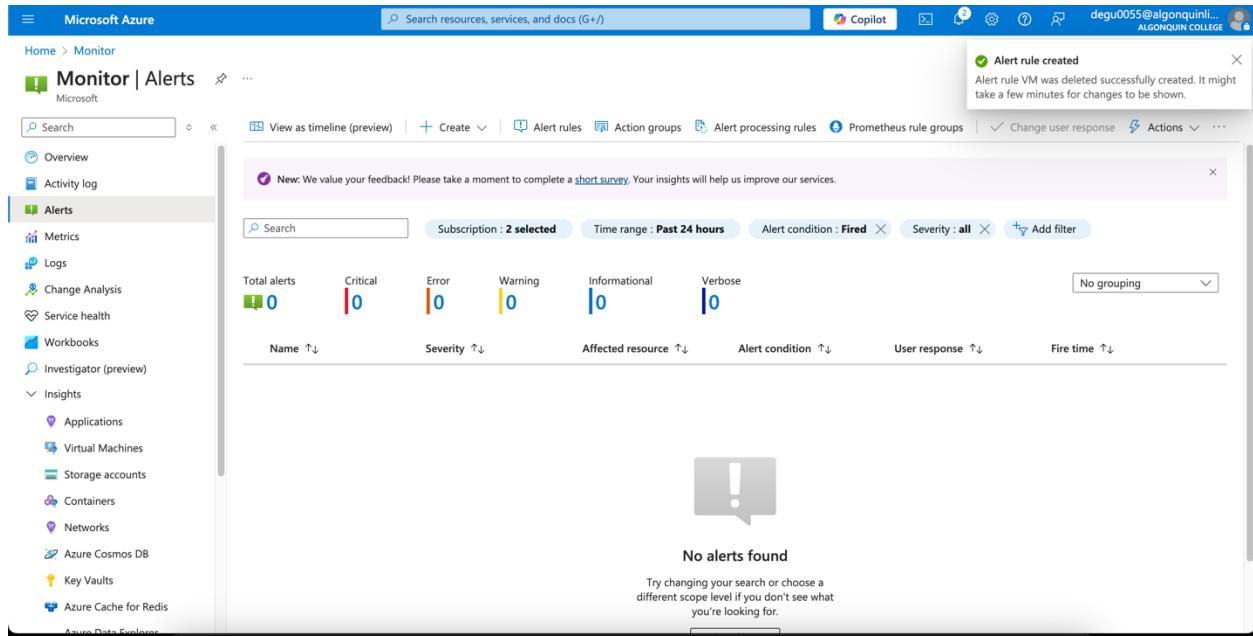
User response ↑↓

Fire time ↑↓

!

No alerts found

Try changing your search or choose a different scope level if you don't see what you're looking for.



Task 4 - Trigger an alert and confirm it is working

Microsoft Azure

Virtual machines

az104-vm0

Subscription equals all

Type equals all

Resource group equals all

Location equals all

Filter for any field...

Subscription

Resource group

Location

Status

Operating system

Size

Public IP address

Disk

Upd.

Upd.

az104-vm0

Azure for Students

lab7

Canada Central

Running

Windows

Standard\_D2s\_v3

13.88.233.93

1

Enable

Previous Page 1 of 1 Next >

Give feedback

Microsoft Azure

Virtual machines

az104-vm0

Subscription equals all

Type equals all

Resource group equals all

Location equals all

Filter for any field...

Subscription

Resource group

Location

Status

Operating system

az104-vm0

Azure for Students

lab7

Canada Central

Running

Windows

VirtualMachine

Remove

Delete Resources

The selected resources along with their related resources and contents will be permanently deleted. If you are unsure of the selected resource dependencies, navigate to the individual resource page to perform the delete operation. More details of the resource dependencies are available in the manage experience.

Resources to be deleted (1)

az104-vm0

VirtualMachine

Remove

Apply force delete for selected Virtual machines and Virtual machine scale sets

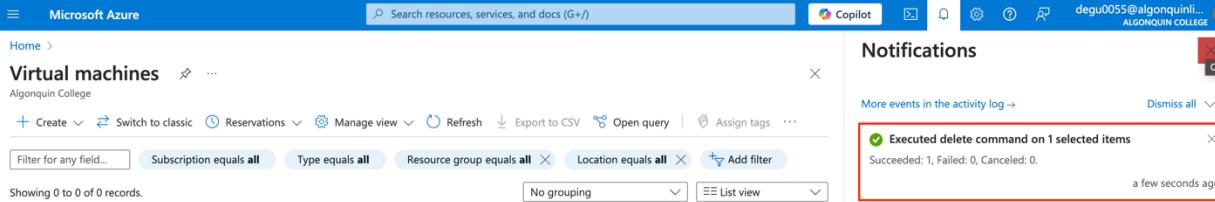
Enter "delete" to confirm deletion

delete

Delete

Cancel

Previous Page 1 of 1 Next >



The screenshot shows the Microsoft Azure Virtual machines dashboard. At the top, there's a search bar and a notifications sidebar on the right. The main area displays a message: "No virtual machines to display" with a "Create" button. The notifications sidebar shows several recent events, including one that failed (highlighted with a red box).

Notifications

- Executed delete command on 1 selected items (Succeeded: 1, Failed: 0, Canceled: 0) - a few seconds ago
- Alert rule created (Alert rule VM was deleted successfully created. It might take a few minutes for changes to be shown.) - 5 minutes ago
- Create action group (Action group created successfully) - 7 minutes ago

Microsoft Azure Search resources, services, and docs (G+) Copilot Home Activity log ...

Activity Edit columns Refresh Export Activity Logs Download as CSV Insights Feedback Pin current filters Reset filters

Looking for Log Analytics? In Log Analytics you can search for performance, diagnostics, health logs, and more. [Visit Log Analytics](#)

Search Quick Insights

Management Group : **None** Subscription : **2 selected** Event severity : **All** Timespan : **Last 6 hours** Event initiated by : **Romeo De Guzman II (degu0055@algonquinlive...** Add Filter

32 items.

Operation name	Status	Time	Time stamp	Subscription	Event initiated by
Delete Virtual Machine	Succeeded	3 minutes a...	Thu Mar 06 ...	Azure for Students	degu0055@algonquinlive...
Delete Virtual Machine	Started	3 minutes a...	Thu Mar 06 ...	Azure for Students	degu0055@algonquinlive...
Delete Virtual Machine	Accepted	3 minutes a...	Thu Mar 06 ...	Azure for Students	degu0055@algonquinlive...
Create or update activity log alert	Succeeded	8 minutes a...	Thu Mar 06 ...	Azure for Students	degu0055@algonquinlive...
Create or update action group	Succeeded	9 minutes a...	Thu Mar 06 ...	Azure for Students	degu0055@algonquinlive...
Create or update data collection rule	Succeeded	24 minutes ...	Thu Mar 06 ...	Azure for Students	degu0055@algonquinlive...
Register subscription	Succeeded	24 minutes ...	Thu Mar 06 ...	Azure for Students	degu0055@algonquinlive...
Register subscription	Succeeded	25 minutes ...	Thu Mar 06 ...	Azure for Students	degu0055@algonquinlive...
'auditIfNotExists' Policy action.	Succeeded	25 minutes ...	Thu Mar 06 ...	Azure for Students	degu0055@algonquinlive...
Create Deployment	Succeeded	33 minutes ...	Thu Mar 06 ...	Azure for Students	degu0055@algonquinlive...
Validate Deployment	Succeeded	33 minutes ...	Thu Mar 06 ...	Azure for Students	degu0055@algonquinlive...

The screenshot shows an email in Microsoft Outlook. The subject of the email is "Important notice: Azure Monitor alert VM was deleted was activated". The email is from "Microsoft Azure <azure-noreply@microsoft.com>". The recipient is "Romeo De Guzman II". The email content includes a Microsoft Azure logo and the text: "Azure Monitor alert 'VM was deleted' was activated for 'az104-vm0' at March 6, 2025 6:27 UTC". A red box highlights this activation message. Below the message, there is a note: "You're receiving this notification as a member of the AlertOpsTeam action group because an Azure Monitor alert was activated." The email also includes an "Activity log alert" table and a "Properties" section with a JSON object.

The screenshot shows the "Monitor | Alerts" page in Microsoft Azure. The left sidebar shows navigation options: Overview, Activity log, Alerts (selected), Metrics, Logs, Change Analysis, Service health, Workbooks, Investigator (preview), Insights, Applications, Virtual Machines, Storage accounts, Containers, Networks, Azure Cosmos DB, Key Vaults, and Azure Cache for Redis. The main area displays a table of alerts. The table has columns: Name, Severity, Affected resource, Alert condition, User response, and Fire time. The table shows 3 total alerts, all of which are Critical (Severity: 4 - Verbose) and affected the resource "az104-vm0". All alerts are in the "Fired" state, with a new user response of "New" and occurred on 3/6/2025, 1:32 AM.

Microsoft Azure

Home > Monitor

## Monitor | Alerts

Search

Overview

Activity log

Alerts

Metrics

Logs

Change Analysis

Service health

Workbooks

Investigator (preview)

Insights

Applications

Virtual Machines

Storage accounts

Containers

Networks

Azure Cosmos DB

Key Vaults

Azure Cache for Redis

Azure Data Explorer

View as timeline (preview)

Create

Alerts

Subscription : 2 selected

Total alerts

Critical

Error

Warning

Name ↑

Severity ↑

VM was deleted

VM was deleted

VM was deleted

4 - Verbose

4 - Verbose

4 - Verbose

Showing 1 - 3 of 3 results.

### VM was deleted

Activity log alert details

Copy link Go to alert rule Investigate (preview)

Summary History

General details

Severity	Fired time	Affected resource	Monitor service	Alert condition	User response
4 - Verbose	3/6/2025, 1:32 AM	az104-vm0	ActivityLog Administrative	Fired	New

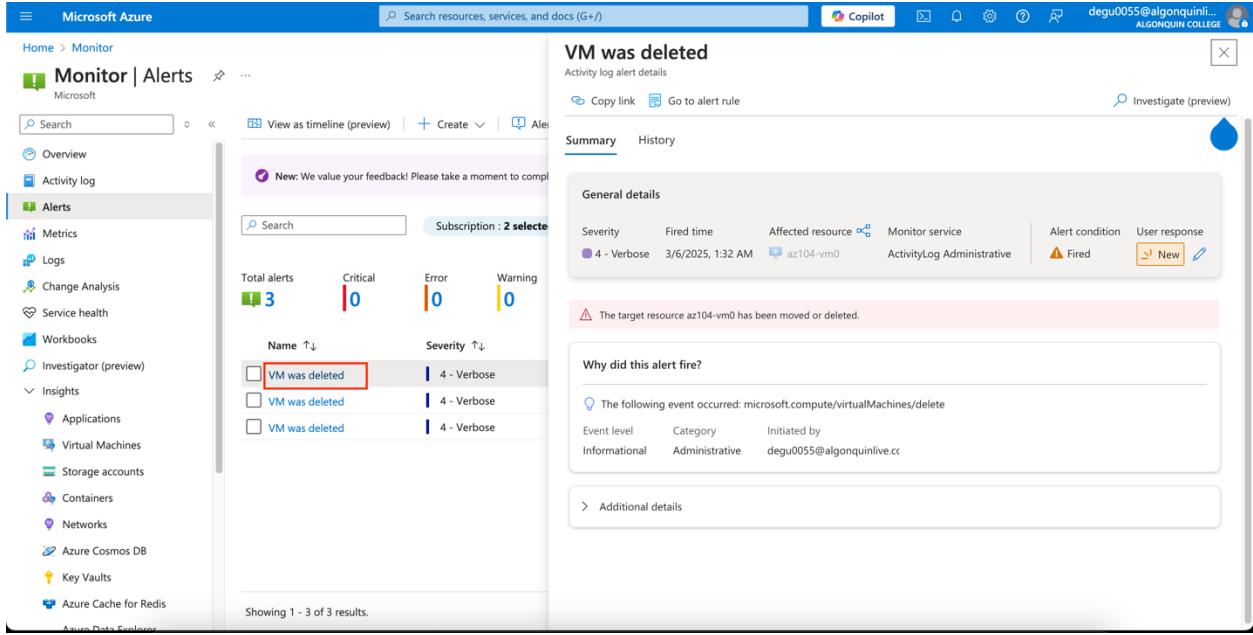
The target resource az104-vm0 has been moved or deleted.

Why did this alert fire?

The following event occurred: microsoft.compute/virtualMachines/delete

Event level	Category	Initiated by
Informational	Administrative	degu0055@algonquinlive.cc

Additional details



### Task 5 - Configure an alert processing rule

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

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Home > Monitor

## Monitor | Alerts

Search

View as timeline (preview) | Create | Alert rules | Action groups | Alert processing rules | Prometheus rule groups | Change user response | Actions | ...

New: We value your feedback! Please take a moment to complete a [short survey](#). Your insights will help us improve our services.

Search

Subscription: 2 selected | Time range: Past 24 hours | Alert condition: Fired | Severity: all | Add filter

Total alerts

	Critical	Error	Warning	Informational	Verbose
VM was deleted	0	0	0	0	3

Name ↑ Severity ↑ Affected resource ↑ Alert condition ↑ User response ↑ Fire time ↑

VM was deleted	4 - Verbose	az104-vm0	Fired	New	3/6/2025, 1:32 AM
VM was deleted	4 - Verbose	az104-vm0	Fired	New	3/6/2025, 1:32 AM
VM was deleted	4 - Verbose	az104-vm0	Fired	New	3/6/2025, 1:32 AM

Showing 1 - 3 of 3 results.

Give feedback

Microsoft Azure

Search resources, services, and docs (G+)

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Home > Monitor | Alerts >

## Alert processing rules

+ Create | Columns | Refresh | Open query | Delete | Enable | Disable

Search

Subscription: 2 selected | Resource group: all | Target scope: all | Status: Enabled | Rule type: all | Add tag filter

Name ↑ Scope Filter Rule type ↑ Scheduling Status ↑↓

!

No alert processing rules found

Try changing your search or choose a different scope level if you don't see what you're looking for.

Clear filters

Microsoft Azure

Search resources, services, and docs (G+)

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Home > Alert processing rules >

## Create an alert processing rule

Scope Rule settings Scheduling Details Tags Review + create

Use alert processing rules to decide what happens when an alert is triggered, like suppressing notifications or Learn more

**Scope**

This rule will apply to alerts that are triggered on the resources you select.

+ Select scope

**Resource** **Hierarchy**

No resource selected yet

**Filter**

Filters Operator Value

Review + create Previous Next: Rule settings >

Select a scope

Browse

⚠ You may only choose items from the same subscription.

Subscription: All subscriptions Resource types: All resource types

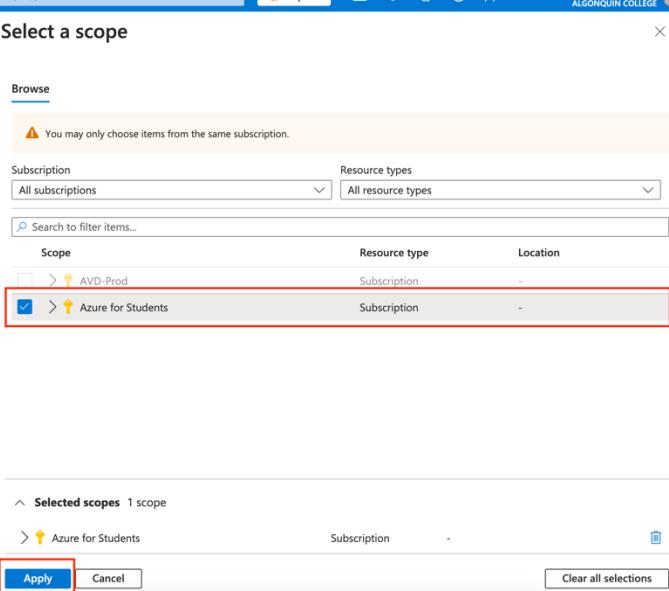
Search to filter items...

Scope	Resource type	Location
<input type="checkbox"/> > AVD-Prod	Subscription	-
<input checked="" type="checkbox"/> > Azure for Students	Subscription	-

Selected scopes: 1 scope

> Azure for Students Subscription

Apply Cancel Clear all selections



Microsoft Azure

Search resources, services, and docs (G+)

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Home > Alert processing rules >

## Create an alert processing rule

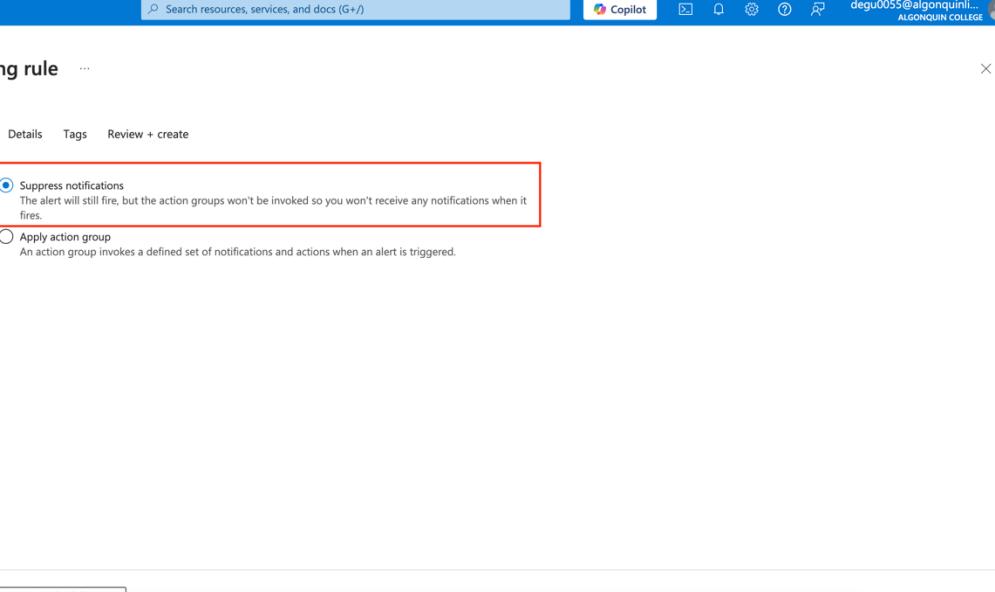
Scope Rule settings Scheduling Details Tags Review + create

**Rule type \***

**Suppress notifications**  
The alert will still fire, but the action groups won't be invoked so you won't receive any notifications when it fires.

**Apply action group**  
An action group invokes a defined set of notifications and actions when an alert is triggered.

Review + create Previous Next: Scheduling >



Microsoft Azure Search resources, services, and docs (G+) Copilot deg0055@algonquinli... ALGONQUIN COLLEGE

Home > Alert processing rules > Create an alert processing rule ...

Scope Rule settings **Scheduling** Details Tags Review + create

Define when you'd like to apply this rule.

**Apply the rule**

Always  At a specific time  Recurring

Start

End

Time zone

Preview From 03/06/2025 at 10:00 PM to 03/07/2025 at 7:00 AM (UTC-05:00 Eastern Time US & Canada)

**Review + create** **Previous** **Next: Details >**

Microsoft Azure Search resources, services, and docs (G+) Copilot deg0055@algonquinli... ALGONQUIN COLLEGE

Home > Alert processing rules > Create an alert processing rule ...

Scope Rule settings **Details** Tags Review + create

Select the subscription and resource group in which to save the alert processing rule.

**Project details**

Subscription

Resource group

**Alert processing rule details**

Rule name

Description

Enable rule upon creation

**Review + create** **Previous** **Next: Tags >**

Microsoft Azure Search resources, services, and docs (G+) Copilot deg0055@algonquinli... ALGONQUIN COLLEGE

Home > Alert processing rules > Create an alert processing rule ...

Scope Rule settings Scheduling Details Tags **Review + create**

Here's a summary of your alert processing rule.  
When you review it, keep our [Privacy statement](#) in mind.

**Scope**  
Resource  Azure for Students

**Rule settings**  
Rule type Suppress notifications

**Scheduling**  
Apply the rule At a specific time  
Schedule From 03/06/2025 at 10:00 PM to 03/07/2025 at 7:00 AM (UTC-05:00 Eastern Time US & Canada)

**Details**  
Subscription Azure for Students

**Buttons:** Create Previous

Microsoft Azure Search resources, services, and docs (G+) Copilot deg0055@algonquinli... ALGONQUIN COLLEGE (ALGON...)

Home > Alert processing rules ...

+ Create Columns Refresh Open query | Delete Enable Disable

Search Subscription : 2 selected Resource group : all Target scope : all Status : Enabled Rule type : all Add tag filter

Name ↑↓	Scope	Filter	Rule type ↑↓	Scheduling	Status ↑↓	...
<input type="checkbox"/> <b>Planned Maintenance</b>	Azure for Students		Suppression	At a specific time	 Enabled	<span>...</span>

Showing 1 - 1 of 1 results. Give feedback

## Task 6 - Use Azure Monitor log queries

Microsoft Azure

Search resources, services, and docs (G+)

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## Monitor | Overview

Overview Tutorials

**Insights**

Use curated monitoring views for specific Azure resources. [View all insights](#)

<b>Application insights</b> Monitor your app's availability, performance, errors, and usage. <a href="#">View</a> <a href="#">More</a>	<b>Container Insights</b> Gain visibility into the performance and health of your controllers, nodes, and containers. <a href="#">View</a> <a href="#">More</a>	<b>VM Insights</b> Monitor the health, performance, and dependencies of your VMs and VM scale sets. <a href="#">View</a> <a href="#">More</a>	<b>Network Insights</b> View the health and metrics for all deployed network resources. <a href="#">View</a> <a href="#">More</a>
--	---	---	---

**Detection, triage, and diagnosis**

Visualize, analyze, and respond to monitoring data and events. [Learn more about monitoring](#)

<b>Metrics</b> Create charts to monitor and investigate the usage and performance of your Azure resources. <a href="#">View</a> <a href="#">More</a>	<b>Alerts</b> Get notified and respond using alerts and actions. <a href="#">View</a> <a href="#">More</a>	<b>Logs</b> Analyze and diagnose issues with log queries. <a href="#">View</a> <a href="#">More</a>	<b>Workbooks</b> View, create and share interactive reports. <a href="#">View</a> <a href="#">More</a>
<b>Change Analysis</b> Investigate what changed to triage. <a href="#">View</a> <a href="#">More</a>	<b>Diagnostic Settings</b> Route monitoring metrics and logs to <a href="#">View</a> <a href="#">More</a>	<b>Azure Monitor SCOM managed instance</b> <a href="#">View</a> <a href="#">More</a>	<b>Managed Prometheus</b> Collect Prometheus metrics from your <a href="#">View</a> <a href="#">More</a>

Azure Data Explorer

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

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## Monitor | Logs

Overview Activity log Alerts Metrics **Logs** Change Analysis Service health Workbooks Investigator (preview) Insights Applications Virtual Machines Storage accounts Containers Networks Azure Cosmos DB Key Vaults Azure Cache for Redis Azure Data Explorer

New Query 1 Select scope Run

Select a scope

Browse Recent

Scope	Resource type	Location
<input type="checkbox"/> > AVD-Prod	Subscription	-
<input checked="" type="checkbox"/> > Azure for Students	Subscription	-

Selected scopes 1 scope

> Azure for Students Subscription

**Apply** Cancel Clear all selections

Microsoft Azure

Home > Monitor

## Monitor | Logs

New Query 1

Azure for Students

Time range: Last 24 hours

Run

1 Type your query here or click one of the queries to start

Tables Queries Functions ...

Search

1 Filter Group by: Resource type

Collapsible sidebar:

- Overview
- Activity log
- Alerts
- Metrics
- Logs**
- Change Analysis
- Service health
- Workbooks
- Investigator (preview)
- Insights
- Applications
- Virtual Machines
- Storage accounts
- Containers
- Networks
- Azure Cosmos DB
- Key Vaults
- Azure Cache for Redis
- Azure Data Explorer Clusters
- Log Analytics

Count heartbeats

Description: Count all computers heartbeats from the last hour.

Information: Example query - Created by Microsoft

Tags: Resource type: Virtual machines, Category: Azure Monitor, Topic: Availability, Query type: Example queries

Run

Load to editor

Start a new query

Search history

Run a query

Start a new query

Search history

Run a query

Microsoft Azure

Home > Monitor

## Monitor | Logs

New Query 1\*

Azure for Students

Time range: Set in query

Run

1 // Count heartbeats

2 // Count all computers heartbeats from the last hour.

3 // Count computers heartbeats in the last hour.

4 // Normally, agents on VMs generate Heartbeat event every minute.

5 Heartbeat

6 | where TimeGenerated > ago(1h)

7 | summarize count() by Computer

Results

Computer	count_
az104-vm0	28

1s 558ms | Display time (UTC+00:00) | 1 - 1 of 1

Query details | Columns

Microsoft Azure

Home > Monitor

## Monitor | Logs

New Query 1\*

Azure for Students Select scope

Run Time range: Set in query

Try the new Log Analytics... Feedback Queries hub Export Pin to ...

Search

Tables Queries Functions ...

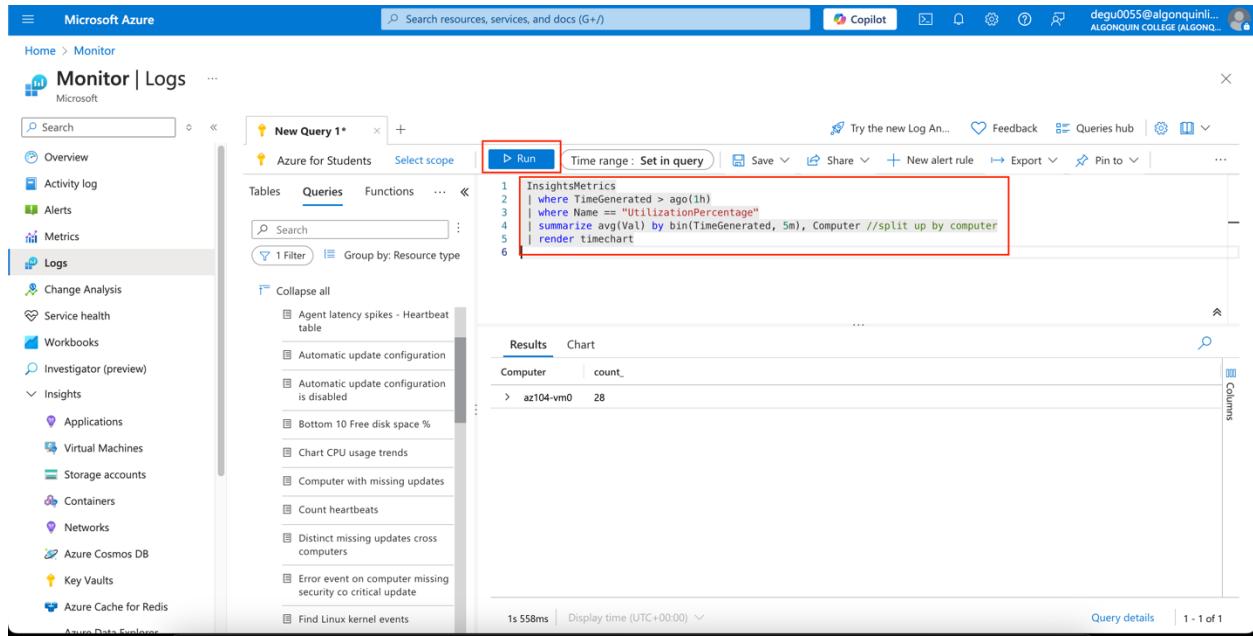
1 InsightsMetrics  
2 | where TimeGenerated > ago(1h)  
3 | where Name == "UtilizationPercentage"  
4 | summarize avg(Val) by bin(TimeGenerated, 5m), Computer //split up by computer  
5 | render timechart  
6

Results Chart

Computer count\_

> az104-vm0 28

1s 558ms | Display time (UTC+0:00) | Query details | 1 - 1 of 1



Microsoft Azure

Home > Monitor

## Monitor | Logs

New Query 1\*

Azure for Students Select scope

Run Time range: Set in query

Try the new Log Analytics... Feedback Queries hub Export Pin to ...

Search

Tables Queries Functions ...

1 InsightsMetrics  
2 | where TimeGenerated > ago(1h)  
3 | where Name == "UtilizationPercentage"  
4 | summarize avg(Val) by bin(TimeGenerated, 5m), Computer //split up by computer  
5 | render timechart  
6

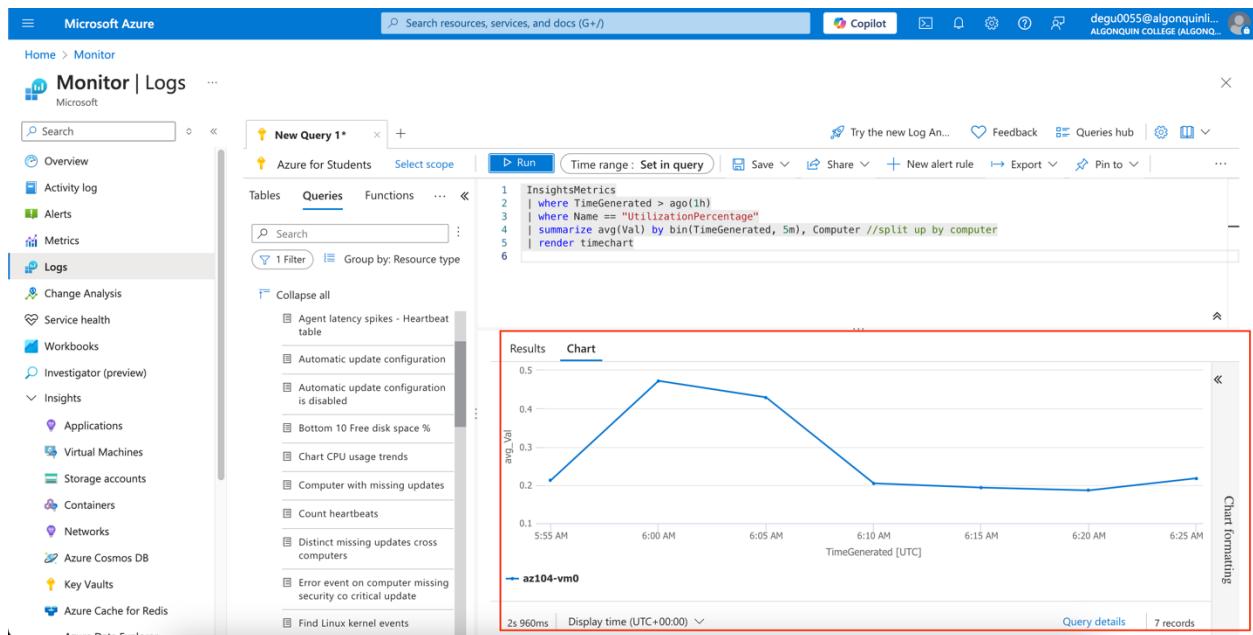
Results Chart

az104-vm0

TimeGenerated [UTC]

Chart formatting

2s 960ms | Display time (UTC+0:00) | Query details | 7 records



Microsoft Azure

Home > Resource groups >

### Resource groups

Algonquin College (AlgonquinLive.com.onmicrosoft.com)

+ Create Manage view ...

Filter for any field...

Name	...
DefaultResourceGroup-EUS	...
Lab7	...
NetworkWatcherRG	...

Page 1 of 1

**Lab7** Resource group

Search

+ Create Manage view Delete resource

Overview

Essentials

Activity log

Access control (IAM)

Tags

Resource visualizer

Events

Settings

Cost Management

Monitoring

Automation

Help

Resources Recommendations (2)

Filter for any field... Type equals all

Showing 1 to 9 of 9 records.  Show hidden types

Name	Resource type
az104-nic0	
az104-nsg01	
az104-pip0	
az104-vm0	
az104-vnet	
az1041v2xm7bdc5fws	
lab7 alert	Action group
Planned Maintenance	Alert processing rule
VM was deleted	Activity log alert rule

Dependent resources to be deleted (9)  
All dependent resources, including hidden types, are shown

Name Resource type

az104-nic0

az104-nsg01

az104-pip0

az104-vm0

az104-vnet

az1041v2xm7bdc5fws

lab7 alert

Planned Maintenance

VM was deleted

Delete Go back

Delete confirmation  
Deleting this resource group and its dependent resources is a permanent action and cannot be undone.

Enter resource group name to confirm deletion \*  
Lab7

Delete Cancel

Delete a resource group

The following resource group and all its dependent resources will be permanently deleted.

Resource group to be deleted

Lab7

Dependent resources to be deleted (9)  
All dependent resources, including hidden types, are shown

Name Resource type

az104-nic0

az104-nsg01

az104-pip0

az104-vm0

az104-vnet

az1041v2xm7bdc5fws

lab7 alert

Planned Maintenance

VM was deleted

Delete Go back

Microsoft Azure

Home >

### Resource groups

Algonquin College (AlgonquinLive.com.onmicrosoft.com)

+ Create Manage view Refresh Export to CSV Open query Assign tags

Filter for any field... Subscription equals all Location equals all Add filter

Showing 0 to 0 of 0 records.

Name ↑ Subscription ↑ Location ↑

No grouping List view

No resource groups to display

Resource groups provide a logical container to manage and organize Azure resources, simplifying administration and enabling efficient resource management.

+ Create

Learn more

Give feedback