

# Monitor your Azure virtual machines with Azure Monitor

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## 1. Introduction

<https://learn.microsoft.com/en-us/training/modules/monitor-azure-vm-using-diagnostic-data/1-introduction>

## Introduction

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Suppose you're the IT administrator for a musical group's website hosted on Azure virtual machines (VMs). The website runs mission-critical services for the group, including ticket booking, venue information, and tour updates. The website must respond quickly and remain accessible during frequent updates and spikes in traffic.

You need to maintain sufficient VM size and memory to effectively host the website without incurring unnecessary costs. You also need to proactively prevent and quickly respond to any access, security, and performance issues. To help achieve these objectives, you want to quickly and easily monitor your VMs' traffic, health, performance, and events.

Azure Monitor provides built-in and customizable monitoring abilities. You can use these to track the health, performance, and behavior of the VM host and the operating system, workloads, and applications running on your VM. This learning module shows you how to view VM host monitoring data, set up recommended alert rules, and use VM insights and custom data collection rules (DCRs) to collect and analyze monitoring data from inside your VMs.

## Prerequisites

To complete this module, you need the following prerequisites:

- Familiarity with virtualization, Azure portal navigation, and Azure VMs.
- Access to an Azure subscription with at least **Contributor** role. If you don't have an Azure subscription, create a [free account](#) and add a subscription before you begin. If you're a student, you can take advantage of the [Azure for students](#) offer.

## Learning objectives

- Understand which monitoring data you need to collect from your VM.
- Enable and view recommended alerts and diagnostics.
- Use Azure Monitor to collect and analyze VM host data.
- Use Azure Monitor Agent to collect VM client performance metrics and event logs.

## 2. Monitoring for Azure VMs

<https://learn.microsoft.com/en-us/training/modules/monitor-azure-vm-using-diagnostic-data/2-monitor-vm-health>

# Monitoring for Azure VMs

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## 3. Monitor VM host data

<https://learn.microsoft.com/en-us/training/modules/monitor-azure-vm-using-diagnostic-data/3-exercise-create-virtual-machine>

# Monitor VM host data

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## 4. Use Metrics Explorer to view detailed host metrics

<https://learn.microsoft.com/en-us/training/modules/monitor-azure-vm-using-diagnostic-data/4-view-host-metrics>

## Use Metrics Explorer to view detailed host metrics

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### 5. Collect client performance counters by using VM insights

<https://learn.microsoft.com/en-us/training/modules/monitor-azure-vm-using-diagnostic-data/5-enable-vm-insights>

## Collect client performance counters by using VM insights

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### 6. Collect VM client event logs

<https://learn.microsoft.com/en-us/training/modules/monitor-azure-vm-using-diagnostic-data/6-collect-log-data>

## Collect VM client event logs

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### 7. Summary

# Summary

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Azure Monitor helps you collect, analyze, and alert on various types of host and client monitoring data from your Azure VMs.

- Azure Monitor provides a set of VM host logs and performance and usage metrics for all Azure VMs.
- You can enable recommended alert rules when you create VMs or afterwards to alert on important VM host metrics.
- Azure Monitor Metrics Explorer lets you graph and analyze metrics for Azure VMs and other resources.
- VM insights provides a simple way to monitor important VM client performance counters and processes running on your VM.
- You can create data collection rules to collect other metrics and logs from your VM client.
- You can use Log Analytics to query and analyze log data.

Now that you understand these tools, you're confident that Azure Monitor can effectively monitor your Azure VMs and help you keep your website running effectively.

## Clean up resources

In this module, you created a VM in your Azure subscription. To prevent further charges for this VM, you can delete it or the resource group that contains it.

To delete the resource group that contains the VM and its resources:

1. Select the **Resource group** link at the top of the **Essentials** section on the VM's **Overview** page.
2. At the top of the resource group page, select **Delete resource group**.
3. On the delete screen, select the checkbox next to **Apply force delete for selected virtual machines and virtual machine scale sets**. Enter the resource group name in the field, and then select **Delete**.

## Learn more

To learn more about monitoring your VMs with Azure Monitor, see the following resources:

- [Azure Monitor documentation](#)
- [Monitor virtual machines with Azure Monitor](#)

- [Supported metrics with Azure Monitor](#)
- [Send Azure Monitor Activity log data](#)
- [Supported metrics for Microsoft.Compute/virtualMachines](#)
- [Overview of VM insights](#)
- [Create interactive reports with VM insights workbooks](#)
- [Use the Map feature of VM insights to understand application components](#)
- [Azure Monitor Agent overview](#)
- [Collect data with Azure Monitor Agent](#)
- [Tutorial: Collect guest logs and metrics from an Azure virtual machine](#)