

Essentials of Monitoring Critical Systems

This course provides an overview of Google Cloud Monitoring, focusing on how to effectively monitor cloud systems. Participants will learn to use Cloud Monitoring to view metrics across multiple cloud projects, understand different dashboard and chart types, and create uptime checks.

**DURATION**

2-3 hours

**LEVEL**

200 - Intermediate

**FORMAT**

Instructor-led

**SCALABLE**

1-50, scaled to 1000

What you'll learn

- Use Cloud Monitoring to view metrics for multiple cloud projects.
- Explain the different types of dashboards and charts that can be built in Cloud Monitoring.
- Create uptime checks to monitor resource availability.
- Explain the purpose of using Prometheus Query Language (PromQL) for monitoring.

Overview	5 modules
Who this course is for	• Cloud Engineers, Site Reliability Engineers, System Administrators, anyone responsible for monitoring Google Cloud environments
Products	• Google Cloud Managed Service for Prometheus • Google Cloud Observability
Prerequisites	• Basic understanding of Google Cloud Platform concepts

Module 01 [Monitoring Overview](#)

Topics	• Introduction to Cloud Monitoring • Cloud Monitoring architecture patterns (platform monitoring, application monitoring for GKE and Compute Engine, hybrid monitoring)
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Module 02 [Monitoring Multiple Projects](#)

Topics	• Understanding metrics scopes • Monitoring project configurations
Objectives	• Use Cloud Monitoring to view metrics for multiple cloud projects.

Module 03 [Data Model and Dashboards](#)

Topics	• Cloud Monitoring data model (time series data, metrics, resources, etc.) • Predefined and custom dashboards • Dashboard builder • Metrics Explorer • Chart display options and configurations
Objectives	• Explain the different types of dashboards and charts that can be built in Cloud Monitoring.

Module 04 Query Metrics

- Topics
- Querying metrics using PromQL
 - Google Cloud Managed Service for Prometheus
- Objectives
- Explain the purpose of using Prometheus Query Language (PromQL) for monitoring.
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Module 05 Uptime Checks

- Topics
- Purpose and creation of uptime checks
 - Uptime check configurations and options
 - Relating uptime checks to alerting policies
- Objectives
- Create uptime checks to monitor resource availability.