Original page: https://cloudskillsboost.google/paths/15 (https://cloudskillsboost.google/paths/15)

Google Cloud

Google Cloud (/)

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Apply your skills in Google Cloud console

Security Engineer Learning Path

A Security Engineer develops, implements, and monitors their organization's security infrastructure to protect sensitive information against cybercrime.

school 20 activities   update Last updated about 1 year   person Managed by Google Cloud

A Security Engineer develops, implements, and monitors their organization's security infrastructure to protect sensitive information against cybercrime. This learning path guides you through a curated collection of on-demand courses, labs, and skill badges that provide you with real-world, hands-on experience using Google Cloud technologies essential to the Security Engineer role. Once you complete the path, check out the Google Cloud Security Engineer certification to take the next steps in your professional journey.

Start learning path
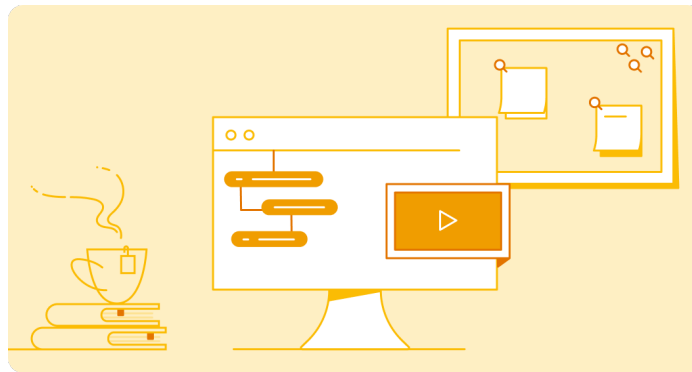
(/focuses/2794?parent=catalog&path=15)

01 A Tour of Google Cloud Hands-on Labs

book Lab
access_time 45 minutes
show_chart Introductory

In this first hands-on lab you will access the Google Cloud console and use these basic Google Cloud features: Projects, Resources, IAM Users, Roles, Permissions, and APIs.

Start lab

(/paths/15/course_templates/397)

## 02 Preparing for Your Professional Cloud Security Engineer Journey

book Course

access_time 8 hours 30 minutes

show_chart Introductory

This course helps learners prepare for the Professional Cloud Security Engineer (PCSE) Certification exam. Learners will be exposed to and engage with exam topics through a series of lectures, diagnostic questions, and knowledge checks. After completing this course, learners will...

Start course
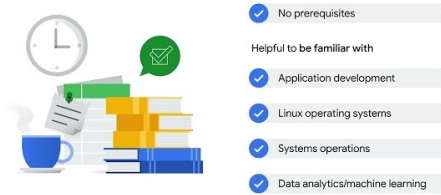
03 Google Cloud Fundamentals: Core Infrastructure

book Course
access_time 5 hours
show_chart Introductory

Google Cloud Fundamentals: Core Infrastructure introduces important concepts and terminology for working with Google Cloud. Through videos and hands-on labs, this course presents and compares many of Google Cloud's computing and storage services, along with important resource and policy management...

Start course

Learning Objective #02

Control administrative access to VPC objects.

04 Networking in Google Cloud: Fundamentals

book Course
access_time 5 hours
show_chart Intermediate

Networking in Google cloud is a 6 part course series. Welcome to the first course of our six part course series, Networking in Google Cloud: Fundamentals. This course provides a comprehensive overview of core networking concepts, including networking fundamentals, virtual...

Start course

(/paths/15/course_templates/36)

05 Networking in Google Cloud: Routing and Addressing

book Course
access_time 5 hours
show_chart Intermediate

Welcome to the second course in the networking and Google Cloud series routing and addressing. In this course, we'll cover the central routing and addressing concepts that are relevant to Google Cloud's networking capabilities. Module one will lay the foundation...

Start course

(/paths/15/course_templates/1144)

06 Networking in Google Cloud: Network Architecture

book Course

access_time 2 hours 30 minutes

show_chart Intermediate

Welcome to the third course of the "Networking in Google Cloud" series: Network Architecture! In this course, you will explore the fundamentals of designing efficient and scalable network architectures within Google Cloud. In the first module, Introduction to Network Architecture,...

Start course

(/paths/15/course_templates/1142)

07 Networking in Google Cloud: Network Security

book Course

access_time 6 hours 15 minutes

show_chart Intermediate

Welcome to the fourth course of the "Networking in Google Cloud" series: Network Security! In this course, you'll dive into the services for safeguarding your Google Cloud network infrastructure. The first module, Distributed Denial of Service (DDoS) Protection, covers how...

Start course

(/paths/15/course_templates/1143)

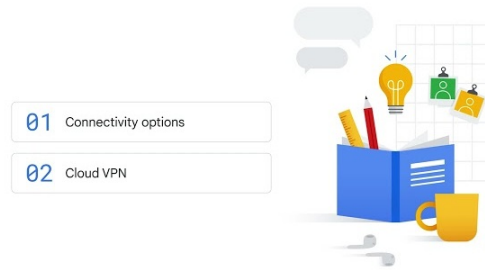# 08 Networking in Google Cloud: Load Balancing

book Course
access_time 3 hours
show_chart Intermediate

This training course builds on the concepts covered in the Networking in Google Cloud: Fundamentals course. Through presentations, demonstrations, and labs, participants explore and implement Cloud Load Balancing.

Start course

09 Networking in Google Cloud: Hybrid and Multicloud

book Course

access_time 2 hours 45 minutes

show_chart Intermediate

Welcome to the sixth course in our Networking and Google Cloud series, Hybrid and Multicloud. The first module will walk you through various cloud connectivity options, with a deep dive into Cloud Interconnect, exploring its different types and functionalities. In…

Start course

10 Managing Security in Google Cloud

book Course

access_time 8 hours 30 minutes

show_chart Intermediate

This self-paced training course gives participants broad study of security controls and techniques on Google Cloud. Through recorded lectures, demonstrations, and hands-on labs, participants explore and deploy the components of a secure Google Cloud solution, including Cloud Identity, Resource Manager,...

Start course

# 11 Security Best Practices in Google Cloud

book Course

access_time 11 hours 15 minutes

show_chart Intermediate

This self-paced training course gives participants broad study of security controls and techniques on Google Cloud. Through recorded lectures, demonstrations, and hands-on labs, participants explore and deploy the components of a secure Google Cloud solution, including Cloud Storage access control...

Start course
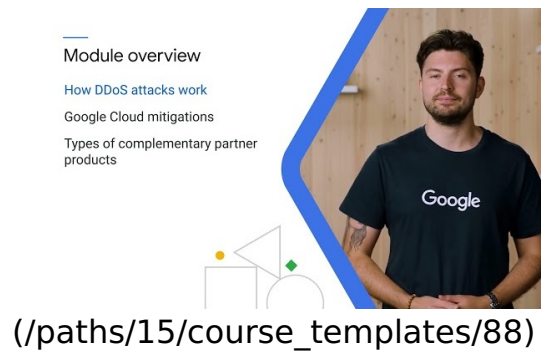
12 Mitigating Security Vulnerabilities on Google Cloud
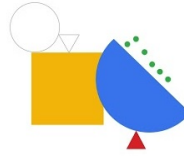
book Course
access_time 5 hours
show_chart Introductory

In this self-paced training course, participants learn mitigations for attacks at many points in a Google Cloud-based infrastructure, including Distributed Denial-of-Service attacks, phishing attacks, and threats involving content classification and use. They also learn about the Security Command Center, cloud...

Start course

Google Cloud

Logging and Monitoring
in Google Cloud

13 Logging and Monitoring in Google Cloud

book Course

access_time 8 hours 30 minutes

show_chart Introductory

This course teaches participants techniques for monitoring and improving infrastructure and application performance in Google Cloud. Using a combination of presentations, demos, hands-on labs, and real-world case studies, attendees gain experience with full-stack monitoring, real-time log management and analysis, debugging...

Start course

Objectives

01 Install and manage Ops Agent to collect logs for Compute Engine

02 Use Google Cloud Managed Service for Prometheus

03 Analyze VPC Flow logs and Firewall Rules logs

04 Analyze resource utilization cost for monitoring related components within Google Cloud

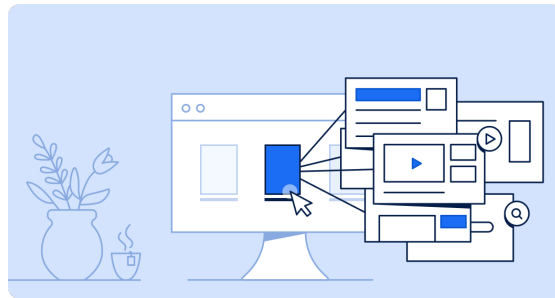(/paths/15/course_templates/864)

14 Observability in Google Cloud

book Course

access_time 6 hours 30 minutes

show_chart Introductory

Welcome to the second part of the two part course, Observability in Google Cloud. This course is all about application performance management tools, including Error Reporting, Cloud Trace, and Cloud Profiler.

Start course

(/paths/15/course_templates/654)

# 15 Build a Secure Google Cloud Network

book Course

access_time 6 hours 45 minutes

show_chart Intermediate

Earn a skill badge by completing the Build and Secure Networks in Google Cloud course, where you will learn about multiple networking-related resources to build, scale, and secure your applications on Google Cloud. A skill badge is an exclusive digital...

Start course
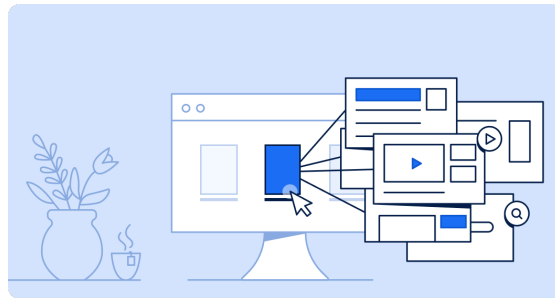
(/paths/15/course_templates/645)

# 16 Implement Cloud Security Fundamentals on Google Cloud

book Course

access_time 8 hours 15 minutes

show_chart Intermediate

Complete the intermediate Implement Cloud Security Fundamentals on Google Cloud skill badge to demonstrate skills in the following: creating and assigning roles with Identity and Access Management (IAM); creating and managing service accounts; enabling private connectivity across virtual private cloud...

Start course
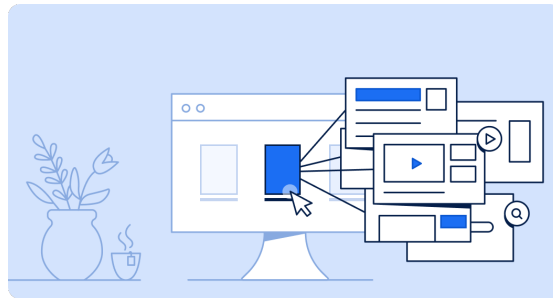
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# 17 Google Kubernetes Engine Best Practices: Security

book Course

access_time 4 hours 45 minutes

show_chart Intermediate

Get Anthos Ready. This Google Kubernetes Engine-centric quest of best practice hands-on labs focuses on security at scale when deploying and managing production GKE environments -- specifically role-based access control, hardening, VPC networking, and binary authorization.

Start course
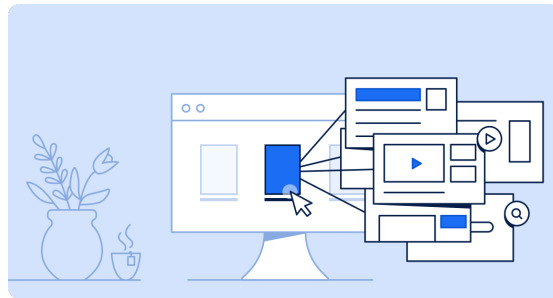
# 18 Using DevSecOps in your Google Cloud Environment

book Course

access_time 4 hours 45 minutes

show_chart Intermediate

In this course, you will learn the basic skills to implement secure and efficient DevSecOps practices on Google Cloud. You'll learn how to secure your development pipeline with Google Cloud services like Artifact Registry, Cloud Build, Cloud Deploy, and Binary...

Start course
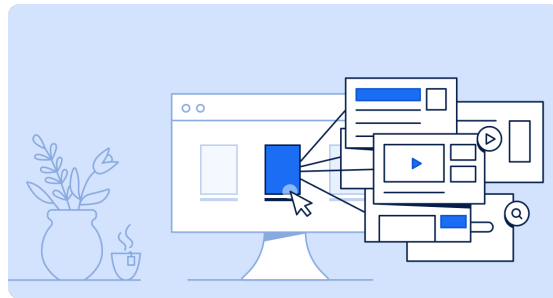
19 Securing your Network with Cloud Armor

book Course

access_time 6 hours 15 minutes

show_chart Introductory

Learn to secure your deployments on Google Cloud, including: how to use Cloud Armor bot management to mitigate bot risk and control access from automated clients; use Cloud Armor denylists to restrict or allow access to your HTTP(S) load balancer...

Start course