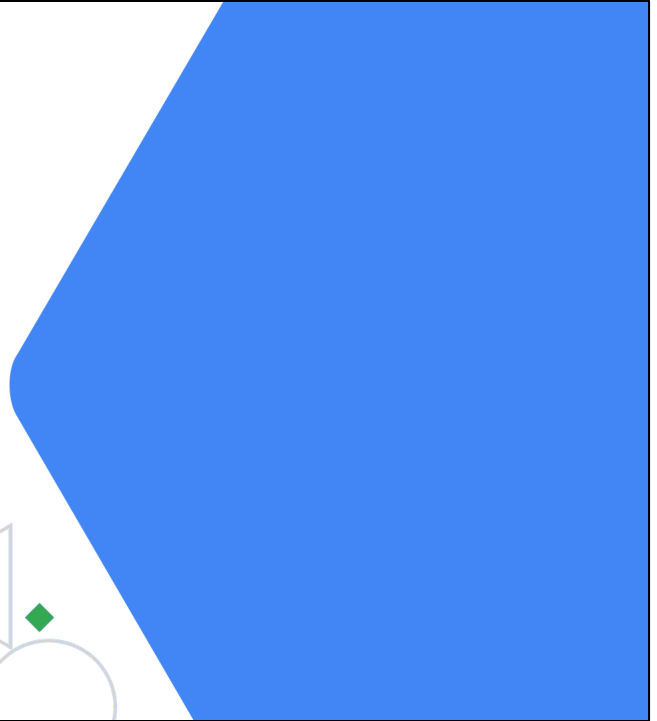




## Resources and Next Steps



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## Course agenda

Module 1: Understanding the Professional Cloud Architect Certification

Module 2: Sample Case Studies for the Professional Cloud Architect Exam

Module 3: Designing and Implementing (Review and Preparation Tips)

Module 4: Optimizing and Operating (Review and Preparation Tips)

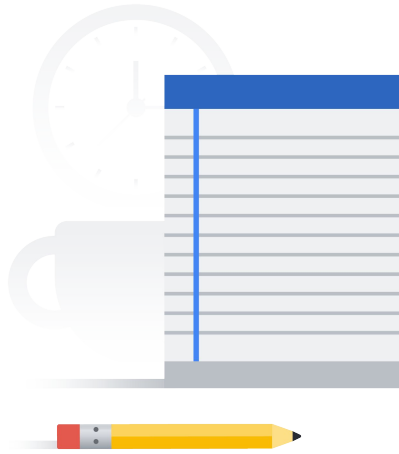
[Module 5: Resources and Next Steps](#)



## Debrief



## Quiz



Please continue in Module 6, Sample Exam Questions.

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# Preparation resources

## Exam Guide

<https://cloud.google.com/certification/guides/cloud-architect/>

## Case Studies

- Mountkirk Games:  
<https://cloud.google.com/certification/guides/cloud-architect/casestudy-mountkirkgames-rev2>
- Dress4Win:  
<https://cloud.google.com/certification/guides/cloud-architect/casestudy-dress4win-rev2>
- TerramEarth:  
<https://cloud.google.com/certification/guides/cloud-architect/casestudy-terramearth-rev2>

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## Training resources

<https://cloud.google.com/training/>

<https://cloud.google.com/training/cloud-infrastructure>

<https://qwiklabs.com/>

<https://qwiklabs.com/catalog>

## All sections of the exam are covered in the Cloud Infrastructure curriculum

### On-demand training

#### Architecting with Google Cloud

**Classes**

Google Cloud Fundamentals: Core Infrastructure  
Essential Cloud Infrastructure: Foundation  
Essential Cloud Infrastructure: Core Services  
Elastic Cloud Infrastructure: Scaling and Automation  
Reliable Cloud Infrastructure: Design and Process

#### Networking in Google Cloud

**Classes**

Google Cloud Fundamentals: Core Infrastructure  
Networking in Google Cloud: Defining and implementing networks  
Networking in Google Cloud: Hybrid Connectivity and Network Management

### Instructor-led training

#### Google Cloud Architect Track

**Classes**

Google Cloud Fundamentals: Core Infrastructure  
Architecting with Google Cloud: Infrastructure  
Introduction to Cloud Identity (On Demand)  
Architecting with Google Cloud: Design and Process

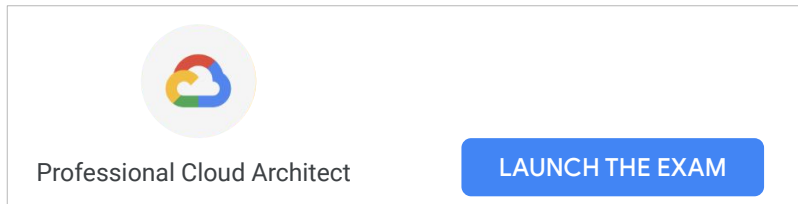
#### Network Engineer Track

**Classes**

Google Cloud Fundamentals: Core Infrastructure Networking in Google Cloud



## Cloud Architect practice exam



<https://cloud.google.com/certification/practice-exam/cloud-architect>



The Cloud Architect practice exam will familiarize you with types of questions you may encounter on the certification exam and help you determine your readiness or if you need more preparation and/or experience.

Successful completion of the practice exam does not guarantee you will pass the certification exam as the actual exam is longer and covers a wider range of topics.

For a full list of the topics you could be tested on, see the Exam Guide.

- There is no limit to the number of times you can take this practice exam.
- You can't save your progress. If you close the practice exam window, you must start from the beginning.
- There is no time limit for the practice exam, but we recommend completion in 45 minutes or less.
- This practice exam is available in English and Japanese.



## Cloud Architecture - Quest



- Orchestrating the Cloud with Kubernetes
- Deployment Manager - Full Production
- Continuous Delivery Pipelines with Spinnaker and Kubernetes Engine
- Multiple VPC Networks
- Site Reliability Troubleshooting with Cloud Monitoring APM



<https://www.qwiklabs.com/quests/24>

FUNDAMENTAL · 5 LABS · 41 CREDITS · 8H

This fundamental-level quest is unique amongst the other Qwiklabs offerings. The labs have been curated to give IT professionals hands-on practice with topics and services that appear in the Google Cloud Certified Professional Cloud Architect Certification. From IAM, to networking, to Kubernetes engine deployment, this quest is composed of specific labs that will put your Google Cloud knowledge to the test. Be aware that while practice with these labs will increase your skills and abilities, we recommend that you also review the exam guide and other available preparation resources.

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# Cloud Architecture - Recommended Quests

## Google Cloud Essentials

- A Tour of Qwiklabs and Google Cloud
- Creating a Virtual Machine OR Compute Engine: Qwik Start - Windows
- Getting Started with Cloud Shell & gcloud
- Kubernetes Engine: Qwik Start
- Set Up Network and HTTP Load Balancers

## Baseline: Infrastructure

- Cloud Storage: Qwik Start (Cloud Console or CLI/SDK)
- Cloud IAM: Qwik Start
- Cloud Monitoring: Qwik Start
- Cloud Functions: Qwik Start (Console or Command Line)
- Google Cloud Pub/Sub: Qwik Start (Console or Command Line or Python)



## Google Cloud Essentials

<https://qwiklabs.com/quests/23>

Introductory, 5 Labs, 4 hours, 8 credits

## Baseline: Infrastructure

<https://google.qwiklabs.com/quests/33>

Introductory, 5 Labs, 3 hours, 4 credits

# Cloud Architecture - Useful Quests

## Security & Identity Fundamentals

- Cloud IAM: Qwik Start \*
- IAM Custom Roles
- Service Accounts and Roles: Fundamentals
- VPC Network Peering
- User Authentication: Identity-Aware Proxy
- Getting Started with Cloud KMS
- Setting up a Private Kubernetes Cluster

## Kubernetes in Google Cloud

- Introduction to Docker
- Kubernetes: Qwik Start \*
- Orchestrating the Cloud with Kubernetes \*
- Managing Deployments Using Kubernetes Engine
- Continuous Delivery with Jenkins in Kubernetes Engine

*\* Lab exists as part of an earlier Quest.*



## Security & Identity Fundamentals

<https://google.qwiklabs.com/quests/40>

Fundamental, 7 Labs, 7 hours, 35 credits

## Kubernetes in Google Cloud

<https://google.qwiklabs.com/quests/29>

Advanced, 5 labs, 5 hours, 25 credits

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## Challenge Labs Quest

- Deploy a Compute Instance with a Remote Startup Script
- Configure a Firewall and a Startup Script with Deployment Manager
- Configure Secure RDP Using a Windows Bastion Host
- Build and Deploy a Docker Image to a Kubernetes Cluster
- Scale Out and Update a Containerized Application on a Kubernetes Cluster
- Migrate a MySQL Database to Google Cloud SQL



Deploy a Compute Instance with a Remote Startup Script

<https://www.qwiklabs.com/focuses/1735?parent=catalog>

1h 30m, 7 credits

Configure a Firewall and a Startup Script with Deployment Manager

<https://www.qwiklabs.com/focuses/1736?parent=catalog>

1h 30m, 7 credits

Configure Secure RDP Using a Windows Bastion Host

<https://www.qwiklabs.com/focuses/1737?parent=catalog>

1h, 7 credits

Build and Deploy a Docker Image to a Kubernetes Cluster

<https://www.qwiklabs.com/focuses/1738?parent=catalog>

1h 30m, 7 credits

Scale Out and Update a Containerized Application on a Kubernetes Cluster

<https://www.qwiklabs.com/focuses/1739?parent=catalog>

1h, 7 credits

Migrate a MySQL Database to Google Cloud SQL

<https://www.qwiklabs.com/focuses/1740?parent=catalog>

1h 15m, 9 credits

