

How to crack Google Cloud Certification

Associate Cloud Engineer

<https://cloud.google.com/certification/cloud-engineer>

Today, we will discuss...

Our Focus today is

- What do I study?
- How do I prepare?
- How do I handle exam and pass?

Our Focus today is NOT around these

- Reimbursement process?
- Will I get project once I become GCP certified?
- GCP vs. AWS

Review the exam guide!

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

1. Setting up a cloud solution environment
 - IAM, Projects, Billing Accounts, CLIs
 2. Planning and configuring a cloud solution
 - Understand which service to use where:
 - Compute Options (GCE, GKE, GAE, Cloud Functions)
 - Data Storage Options (SQL, NoSQL, Analytics Engine, Object Storage)
 - Which Load Balancer in which scenarios
 - Understand these services very well and do hands-on:
 - GCE, GKE
 - Cloud SQL, Cloud Storage
 - Load Balancer, Firewall
 - VPC
 - Autoscaling
 - Instance Group
 - Understand where is Big Query used.
 - Commands – gsutil, gcloud, bq
 - Stackdriver – all 5 options – what they do and how to use them.
- Other Common Scenarios, tested in exam:
 - **[Scale]** In case of increase in traffic / load / qps, what will you do. It will refer to a service and you need to know the autoscaling part.
 - **[New User]** You are on-boarding a new user, how will you give access? (least privileges)
 - **[HA]** How will you configure high availability – if an instance or DB goes down – how will you recover? (replicas, multi zone config. etc.)
 - **[Performance]** Your app / instance has performance issues, how will you know and how will you fix? (stackdriver for monitoring, Autoscaling, Managed Instance Group)
 - **[Cost]** Simple questions on billing, exporting billing data to Big query.

Review the exam guide!

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

- Few Other Common Scenarios, tested in exam:
 - **[Audit]** Stackdriver Logs
 - **[GKE]** few commands like resize and update – difference. Concepts of Node, Pod, Containers.
 - **[Failure]** If you roll out a new version of App, and defect is identified – roll back? How? Which compute service is mentioned?
 - **[Automation]** Understand deployment manager at high level. Able to read YAML file. Some Python syntax would be awesome!
 - **[Producers & Consumers]** Just understand which services produces and which consumes.
 - **[Migration from one region or zone to other]** How will you do? Instance & DB.
- What is not tested in the exam (probably):
 - Nothing on Data Prep, Data Lab, AI / ML services, IoT, Firebase Suite, Apigee,
 - Coding knowledge is not required
 - Big Query, Cloud Spanner, Cloud Functions, Data store (one or two basic question... just know what it does!)

Review the exam guide!

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

3. Deploying and implementing a cloud solution

- Deployment Manager – some basic questions
- Configuration scripts while configuring instance
- Instance Template
- Difference between managed and un-managed instance group

4. Ensuring successful operation of a cloud solution

- Stackdriver
- Understand these services very well and do hands-on:
 - GCE, GKE
 - Cloud SQL, Cloud Storage
 - Load Balancer, Firewall
 - VPC
 - Autoscaling
 - Instance Group

5. Configuring access and security

- Service Accounts
- Understand, what is users, role, permissions.
- How do you create a user and provide access / role / permission
- [lab] Create an Instance using Service account
- [lab] Create an instance and later create SA, upload JSON file and authorize.
- ACLs in storage buckets. Setting permissions on files.
- How do you securely connect on-prem with Cloud (VPN, Direct Connect, InterConnect, etc.)
- Some information about how to SSL termination at LB, preventing DDos attack
- See if you can read these two:
 - <https://cloud.google.com/security/encryption-in-transit/>
 - <https://cloud.google.com/security/encryption-at-rest/>

How do I prepare?

- Complete these two parts 100% - two times – end-to-end; and do all the labs RELIGIOUSLY:
 - ✓ **Google Certified Professional - Cloud Architect - Part 1**
<https://linuxacademy.com/google-cloud-platform/training/course/name/google-cloud-platform-architect-essentials>
 - ✓ **Google Certified Professional - Cloud Architect - Part 2**
<https://linuxacademy.com/google-cloud-platform/training/course/name/google-certified-professional-cloud-architect-part-2>
- If possible:
 - ✓ <https://linuxacademy.com/google-cloud-platform/training/course/name/google-cloud-certified-associate-cloud-engineer>
- Qwik Labs: [Cloud Architecture](#), [GCP Essentials](#), [Networking in the Google Cloud](#), [Kubernetes in the Google Cloud](#), [Stackdriver](#)
- Interact with your fellow batchmates on Yammer, ask questions, share your knowledge

Use Google Free Tier Account and Qwik Labs

- Sign-up here:
<https://cloud.google.com/free/>
- You will get 1 year free access and \$300 credit... it is enough to do tons of hands-on! If it's exhausted, use another email ID.
 - It will ask for credit card for verification. It doesn't charge you.
 - Shut down services after you are done experimenting.
- Just sign up on Qwik labs. Use resources in your free tier account.

Read steps at <https://qwiklabs.com/> , and go and execute them on <https://console.cloud.google.com> using your free tier!

Use Qwik Labs as lab manual. **Do not click** on Start Lab button

30m access · 30m completion

★★★★☆ Rate Lab Lab Details

Student Resources

■ Get Started with Cloud Shell, GCP Essentials

Connection Details

Open Google Console

Username

Password

GCP Project ID

Start Lab

1 Credit ⓘ

00:30:00

Getting Started with Cloud Shell & gcloud

Score -/10

Overview

Setup

Use the

Use yo

Using g

Managi

Congra

How do I handle exam?

- **[Relax]** Eat Well & sleep well! Don't worry!
- **[Eliminate all wrong choices]** Use elimination to choose right answer. You will see confusing statements.
- **[Read question carefully]** One or two words will give away answer or will help you to discard wrong ones.
- **[Apply criteria]** Exam will give you criteria ...
 - As per Google Best Practice?
 - Achieve XYZ in lowest cost?
 - Performance?
 - If nothing is there, and you still see two correct answer – optimize your answer for cost!
- **[Mark for review]** You can mark for review and handle them at last. Move on!
- **[Notes]** Maintain your own notes, refer them on last day.

I have questions, where do I ask?

- Yammer
 - https://www.yammer.com/wipro.com/#/threads/inGroup?type=in_group&feedId=15641555&view=all
- Post exam – please help others. Post reviews / what you saw in the exam, what were those nasty questions that you handled?
- You can refer other reviews posted there.

I want to refer to more material

- Tons of other material is with us...
but Linux Academy alone, along with Qwik Labs is enough.

- If you are still curious, refer here:

<https://wipro365.sharepoint.com/sites/GoogleCloudEngineer-Associate-Prep-Material/Shared%20Documents/Forms/AllItems.aspx>

Practice Questions

- <https://cloud.google.com/certification/practice-exam/cloud-engineer>
- Ensure that you are getting 90+ % marks while answering the questions at the end of each chapter in Linux Academy. Review the gap in your knowledge.
- Don't use question bank sold on Udemy – they are useless.
- There are no dumps. Don't search and waste time.

On the day of exam

- Carry ID proof (1 Government issued, one credit card or anything else)
- There is a activation code in email that exam center guy will ask you
- They will not give you anything to write – scratch pad etc.
- Don't plan for water breaks etc. there may or may not be enough time

Thanks