

**100%** Money Back  
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**Vendor:**Google

**Exam Code:**PROFESSIONAL-CLOUD-ARCHITECT

**Exam Name:**Professional Cloud Architect on Google  
Cloud Platform

**Version:**Demo

### QUESTION 1

Your marketing department wants to send out a promotional email campaign. The development team wants to minimize direct operation management. They project a wide range of possible customer responses, from 100 to 500,000 clickthroughs per day. The link leads to a simple website that explains the promotion and collects user information and preferences. Which infrastructure should you recommend? (CHOOSE TWO)

- A. Use Google App Engine to serve the website and Google Cloud Datastore to store user data.
- B. Use a Google Container Engine cluster to serve the website and store data to persistent disk.
- C. Use a managed instance group to serve the website and Google Cloud Bigtable to store user data.
- D. Use a single compute Engine virtual machine (VM) to host a web server, backed by Google Cloud SQL.

Correct Answer: AC

<https://cloud.google.com/storage-options/>

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### QUESTION 2

Your company wants you to build a highly reliable web application with a few public APIs as the backend. You don't expect a lot of user traffic, but traffic could spike occasionally. You want to leverage Cloud Load Balancing, and the solution must be cost-effective for users. What should you do?

- A. Store static content such as HTML and images in Cloud CDN. Host the APIs on App Engine and store the user data in Cloud SQL.
- B. Store static content such as HTML and images in a Cloud Storage bucket. Host the APIs on a zonal Google Kubernetes Engine cluster with worker nodes in multiple zones, and save the user data in Cloud Spanner.
- C. Store static content such as HTML and images in Cloud CDN. Use Cloud Run to host the APIs and save the user data in Cloud SQL.
- D. Store static content such as HTML and images in a Cloud Storage bucket. Use Cloud Functions to host the APIs and save the user data in Firestore.

Correct Answer: D

<https://cloud.google.com/load-balancing/docs/https/setting-up-https-serverless#gcloud:-cloud-functions>  
<https://cloud.google.com/blog/products/networking/better-load-balancing-for-app-engine-cloud-run-and-functions>

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### QUESTION 3

You have developed an application using Cloud ML Engine that recognizes famous paintings from uploaded images. You want to test the application and allow specific people to upload images for the next 24 hours. Not all users have a Google Account. How should you have users upload images?

- A. Have users upload the images to Cloud Storage. Protect the bucket with a password that expires after 24 hours.
- B. Have users upload the images to Cloud Storage using a signed URL that expires after 24 hours.

C. Create an App Engine web application where users can upload images. Configure App Engine to disable the application after 24 hours. Authenticate users via Cloud Identity.

D. Create an App Engine web application where users can upload images for the next 24 hours. Authenticate users via Cloud Identity.

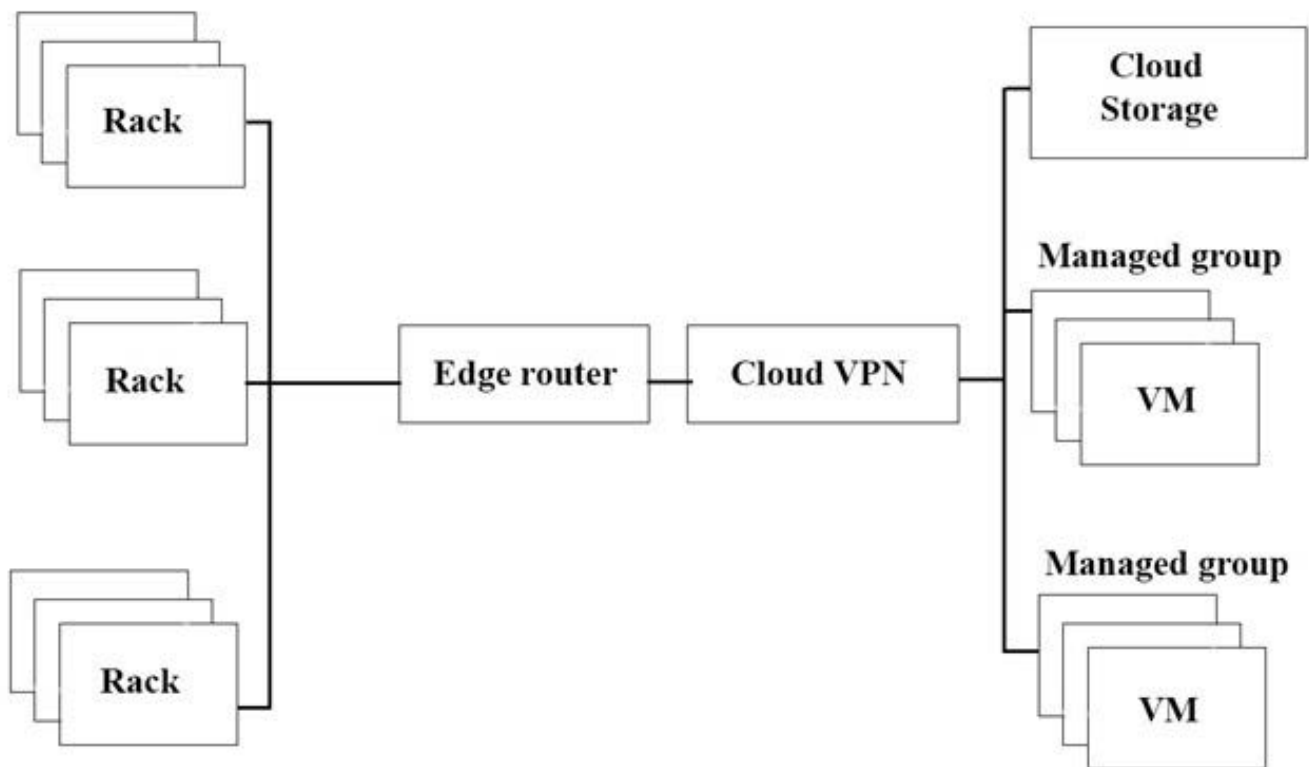
Correct Answer: A

<https://cloud.google.com/blog/products/storage-data-transfer/uploading-images-directly-to-cloud-storage-by-using-signed-url>

#### QUESTION 4

##### On-premises infrastructure

##### Google



The migration of JencoMart's application to Google Cloud Platform (GCP) is progressing too slowly. The infrastructure is shown in the diagram. You want to maximize throughput. What are three potential bottlenecks? Choose 3 answers.

- A. A single VPN tunnel, which limits throughput
- B. A tier of Google Cloud Storage that is not suited for this task
- C. A copy command that is not suited to operate over long distances
- D. Fewer virtual machines (VMs) in GCP than on-premises machines
- E. A separate storage layer outside the VMs, which is not suited for this task

F. Complicated internet connectivity between the on-premises infrastructure and GCP

Correct Answer: ACF

Single VPN tunnel limits throughput. Copying 20TB across long distances is a big bottleneck. VPN across internet cannot be relied upon for high performance

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### QUESTION 5

Your customer is receiving reports that their recently updated Google App Engine application is taking approximately 30 seconds to load for some of their users. This behavior was not reported before the update. What strategy should you take?

- A. Work with your ISP to diagnose the problem.
- B. Open a support ticket to ask for network capture and flow data to diagnose the problem, then roll back your application.
- C. Roll back to an earlier known good release initially, then use Stackdriver Trace and logging to diagnose the problem in a development/test/staging environment.
- D. Roll back to an earlier known good release, then push the release again at a quieter period to investigate. Then use Stackdriver Trace and logging to diagnose the problem.

Correct Answer: C

Stackdriver Logging allows you to store, search, analyze, monitor, and alert on log data and events from Google Cloud Platform and Amazon Web Services (AWS). Our API also allows ingestion of any custom log data from any source.

Stackdriver Logging is a fully managed service that performs at scale and can ingest application and system log data from thousands of VMs. Even better, you can analyze all that log data in real time.

References: <https://cloud.google.com/logging/>

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### QUESTION 6

You are deploying an application to Google Cloud. The application is part of a system. The application in Google Cloud must communicate over a private network with applications in a non-Google Cloud environment. The expected average throughput is 200 kbps.

The business requires:

1.  
99.99% system availability
2.  
cost optimization

You need to design the connectivity between the locations to meet the business requirements. What should you provision?

- A. A Classic Cloud VPN gateway connected with one tunnel to an on-premises VPN gateway.
- B. A Classic Cloud VPN gateway connected with two tunnels to an on-premises VPN gateway.
- C. An HA Cloud VPN gateway connected with two tunnels to an on-premises VPN gateway.
- D. Two HA Cloud VPN gateways connected to two on-premises VPN gateways. Configure each HA Cloud VPN gateway to have two tunnels, each connected to different on-premises VPN gateways.

Correct Answer: C

[https://cloud.google.com/network-connectivity/docs/vpn/concepts/topologies#configurations\\_that\\_support\\_9999\\_availability](https://cloud.google.com/network-connectivity/docs/vpn/concepts/topologies#configurations_that_support_9999_availability)

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### QUESTION 7

Your architecture calls for the centralized collection of all admin activity and VM system logs within your project.

How should you collect these logs from both VMs and services?

- A. All admin and VM system logs are automatically collected by Stackdriver.
- B. Stackdriver automatically collects admin activity logs for most services. The Stackdriver Logging agent must be installed on each instance to collect system logs.
- C. Launch a custom syslogd compute instance and configure your GCP project and VMs to forward all logs to it.
- D. Install the Stackdriver Logging agent on a single compute instance and let it collect all audit and access logs for your environment.

Correct Answer: B

<https://cloud.google.com/logging/docs/agent/default-logs>

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### QUESTION 8

Dress4Win has end-to-end tests covering 100% of their endpoints.

They want to ensure that the move to the cloud does not introduce any new bugs.

Which additional testing methods should the developers employ to prevent an outage?

- A. They should enable Google Stackdriver Debugger on the application code to show errors in the code.
- B. They should add additional unit tests and production scale load tests on their cloud staging environment.
- C. They should run the end-to-end tests in the cloud staging environment to determine if the code is working as intended.
- D. They should add canary tests so developers can measure how much of an impact the new release causes to latency.

Correct Answer: B

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## QUESTION 9

Your company has a Google Workspace account and Google Cloud Organization. Some developers in the company have created Google Cloud projects outside of the Google Cloud Organization.

You want to create an Organization structure that allows developers to create projects, but prevents them from modifying production projects. You want to manage policies for all projects centrally and be able to set more restrictive policies for production projects.

You want to minimize disruption to users and developers when business needs change in the future. You want to follow Google-recommended practices. How should you design the Organization structure?

A. 1. Create a second Google Workspace account and Organization. 2. Grant all developers the Project Creator IAM role on the new Organization. 3. Move the developer projects into the new Organization. 4. Set the policies for all projects on both Organizations. 5. Additionally set the production policies on the original Organization.

B. 1. Create a folder under the Organization resource named "Production". 2. Grant all developers the Project Creator IAM role on the Organization. 3. Move the developer projects into the Organization. 4. Set the policies for all projects on the Organization. 5. Additionally set the production policies on the "Production" folder.

C. 1. Create folders under the Organization resource named "Development" and "Production". 2. Grant all developers the Project Creator IAM role on the "Development" folder. 3. Move the developer projects into the "Development" folder. 4. Set the policies for all projects on the Organization. 5. Additionally set the production policies on the "Production" folder.

D. 1. Designate the Organization for production projects only. 2. Ensure that developers do not have the Project Creator IAM role on the Organization. 3. Create development projects outside of the Organization using the developer Google Workspace accounts. 4. Set the policies for all projects on the Organization. 5. Additionally set the production policies on the individual production projects.

Correct Answer: C

This option can help create an organization structure that allows developers to create projects, but prevents them from modifying production projects. Folders are containers for projects and other folders within Google Cloud organizations. Folders allow resources to be structured hierarchically and inherit policies from their parent resources. By creating folders under the organization resource named "Development" and "Production", you can organize your projects by environment and apply different policies to them. By granting all developers the Project Creator IAM role on the "Development" folder, you can allow them to create projects under that folder, but not under the "Production" folder. By moving the developer projects into the "Development" folder, you can ensure that they are subject to the policies set on that folder. By setting the policies for all projects on the organization, you can manage policies centrally and efficiently. By additionally setting the production policies on the "Production" folder, you can enforce more restrictive policies for production projects and prevent developers from modifying them. The other options are not optimal for this scenario, because they either create a second Google Workspace account and organization, which increases complexity and cost (A), or do not use folders to organize projects by environment, which makes it harder to manage policies and permissions (B, D). References: <https://cloud.google.com/resource-manager/docs/creating-managing-folders> <https://cloud.google.com/architecture/framework/system-design>

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## QUESTION 10

For this question, refer to the Dress4Win case study. Considering the given business requirements, how would you automate the deployment of web and transactional data layers?

A. Deploy Nginx and Tomcat using Cloud Deployment Manager to Compute Engine. Deploy a Cloud SQL server to replace MySQL. Deploy Jenkins using Cloud Deployment Manager.

B. Deploy Nginx and Tomcat using Cloud Launcher. Deploy a MySQL server using Cloud Launcher. Deploy Jenkins to Compute Engine using Cloud Deployment Manager scripts.

C. Migrate Nginx and Tomcat to App Engine. Deploy a Cloud Datastore server to replace the MySQL server in a high-availability configuration. Deploy Jenkins to Compute Engine using Cloud Launcher.

D. Migrate Nginx and Tomcat to App Engine. Deploy a MySQL server using Cloud Launcher. Deploy Jenkins to Compute Engine using Cloud Launcher.

Correct Answer: A

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### QUESTION 11

You are creating an App Engine application that uses Cloud Datastore as its persistence layer. You need to retrieve several root entities for which you have the identifiers. You want to minimize the overhead in operations performed by Cloud Datastore. What should you do?

A. Create the Key object for each Entity and run a batch get operation

B. Create the Key object for each Entity and run multiple get operations, one operation for each entity

C. Use the identifiers to create a query filter and run a batch query operation

D. Use the identifiers to create a query filter and run multiple query operations, one operation for each entity

Correct Answer: C

<https://cloud.google.com/datastore/docs/concepts/entities#datastore-datastore-batch-upsert-nodejs>

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### QUESTION 12

You want to enable your running Google Container Engine cluster to scale as demand for your application changes.

What should you do?

A. Add additional nodes to your Container Engine cluster using the following command: `gcloud container clusters resize CLUSTER_NAME--size 10`

B. Add a tag to the instances in the cluster with the following command: `gcloud compute instances add-tags INSTANCE--tags enable--autoscaling max-nodes-10`

C. Update the existing Container Engine cluster with the following command: `gcloud alpha container clusters update mycluster--enable-autoscaling--min-nodes=1--max-nodes=10`

D. Create a new Container Engine cluster with the following command: `gcloud alpha container clusters create mycluster--enable-autocaling--min-nodes=1--max-nodes=10` and redeploy your application.

Correct Answer: B

<https://cloud.google.com/kubernetes-engine/docs/concepts/cluster-autoscaler>

## Cluster autoscaling

`--enable-autoscaling`

Enables autoscaling for a node pool.

Enables autoscaling in the node pool specified by `--node-pool` or the default node pool if `--node-pool` is not provided.

Where:

`--max-nodes=MAX_NODES`

Maximum number of nodes in the node pool.

Maximum number of nodes to which the node pool specified by `--node-pool` (or default node pool if unspecified) can scale.