

# Exam Questions Professional-Cloud-Architect

Google Certified Professional - Cloud Architect (GCP)

<https://www.2passeasy.com/dumps/Professional-Cloud-Architect/>



### NEW QUESTION 1

- (Exam Topic 1)

For this question, refer to the Mountkirk Games case study.

Mountkirk Games wants to set up a real-time analytics platform for their new game. The new platform must meet their technical requirements. Which combination of Google technologies will meet all of their requirements?

- A. Container Engine, Cloud Pub/Sub, and Cloud SQL
- B. Cloud Dataflow, Cloud Storage, Cloud Pub/Sub, and BigQuery
- C. Cloud SQL, Cloud Storage, Cloud Pub/Sub, and Cloud Dataflow
- D. Cloud Dataproc, Cloud Pub/Sub, Cloud SQL, and Cloud Dataflow
- E. Cloud Pub/Sub, Compute Engine, Cloud Storage, and Cloud Dataproc

**Answer: B**

#### Explanation:

A real time requires Stream / Messaging so Pub/Sub, Analytics by Big Query.

Ingest millions of streaming events per second from anywhere in the world with Cloud Pub/Sub, powered by Google's unique, high-speed private network. Process the streams with Cloud Dataflow to ensure reliable, exactly-once, low-latency data transformation. Stream the transformed data into BigQuery, the cloud-native data warehousing service, for immediate analysis via SQL or popular visualization tools.

From scenario: They plan to deploy the game's backend on Google Compute Engine so they can capture streaming metrics, run intensive analytics.

Requirements for Game Analytics Platform

- > Dynamically scale up or down based on game activity
- > Process incoming data on the fly directly from the game servers
- > Process data that arrives late because of slow mobile networks
- > Allow SQL queries to access at least 10 TB of historical data
- > Process files that are regularly uploaded by users' mobile devices
- > Use only fully managed services

References: <https://cloud.google.com/solutions/big-data/stream-analytics/>

### NEW QUESTION 2

- (Exam Topic 1)

For this question, refer to the Mountkirk Games case study.

Mountkirk Games wants to set up a continuous delivery pipeline. Their architecture includes many small services that they want to be able to update and roll back quickly. Mountkirk Games has the following requirements:

- Services are deployed redundantly across multiple regions in the US and Europe.
- Only frontend services are exposed on the public internet.
- They can provide a single frontend IP for their fleet of services.
- Deployment artifacts are immutable. Which set of products should they use?

- A. Google Cloud Storage, Google Cloud Dataflow, Google Compute Engine
- B. Google Cloud Storage, Google App Engine, Google Network Load Balancer
- C. Google Kubernetes Registry, Google Container Engine, Google HTTP(S) Load Balancer
- D. Google Cloud Functions, Google Cloud Pub/Sub, Google Cloud Deployment Manager

**Answer: C**

### NEW QUESTION 3

- (Exam Topic 2)

For this question, refer to the TerramEarth case study.

The TerramEarth development team wants to create an API to meet the company's business requirements. You want the development team to focus their development effort on business value versus creating a custom framework. Which method should they use?

- A. Use Google App Engine with Google Cloud Endpoint
- B. Focus on an API for dealers and partners.
- C. Use Google App Engine with a JAX-RS Jersey Java-based framework
- D. Focus on an API for the public.
- E. Use Google App Engine with the Swagger (open API Specification) framework
- F. Focus on an API for the public.
- G. Use Google Container Engine with a Django Python container
- H. Focus on an API for the public.
- I. Use Google Container Engine with a Tomcat container with the Swagger (Open API Specification) framework
- J. Focus on an API for dealers and partners.

**Answer: A**

#### Explanation:

[https://cloud.google.com/endpoints/docs/openapi/about-cloud-endpoints?hl=en\\_US&\\_ga=2.21787131.-1712523](https://cloud.google.com/endpoints/docs/openapi/about-cloud-endpoints?hl=en_US&_ga=2.21787131.-1712523)

<https://cloud.google.com/endpoints/docs/openapi/architecture-overview> <https://cloud.google.com/storage/docs/gsutil/commands/test>

Develop, deploy, protect and monitor your APIs with Google Cloud Endpoints. Using an Open API Specification or one of our API frameworks, Cloud Endpoints gives you the tools you need for every phase of API development.

From scenario: Business Requirements

Decrease unplanned vehicle downtime to less than 1 week, without increasing the cost of carrying surplus inventory

Support the dealer network with more data on how their customers use their equipment to better position new products and services

Have the ability to partner with different companies – especially with seed and fertilizer suppliers in the fast-growing agricultural business – to create compelling joint offerings for their customers.

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

#### NEW QUESTION 4

- (Exam Topic 2)

For this question, refer to the TerramEarth case study

You analyzed TerramEarth's business requirement to reduce downtime, and found that they can achieve a majority of time saving by reducing customers' wait time for parts. You decided to focus on reduction of the 3 weeks aggregate reporting time. Which modifications to the company's processes should you recommend?

- A. Migrate from CSV to binary format, migrate from FTP to SFTP transport, and develop machine learning analysis of metrics.
- B. Migrate from FTP to streaming transport, migrate from CSV to binary format, and develop machine learning analysis of metrics.
- C. Increase fleet cellular connectivity to 80%, migrate from FTP to streaming transport, and develop machine learning analysis of metrics.
- D. Migrate from FTP to SFTP transport, develop machine learning analysis of metrics, and increase dealer local inventory by a fixed factor.

**Answer:** C

#### Explanation:

The Avro binary format is the preferred format for loading compressed data. Avro data is faster to load because the data can be read in parallel, even when the data blocks are compressed.

Cloud Storage supports streaming transfers with the gsutil tool or boto library, based on HTTP chunked transfer encoding. Streaming data lets you stream data to and from your Cloud Storage account as soon as it becomes available without requiring that the data be first saved to a separate file. Streaming transfers are useful if you have a process that generates data and you do not want to buffer it locally before uploading it, or if you want to send the result from a computational pipeline directly into Cloud Storage.

References: <https://cloud.google.com/storage/docs/streaming> <https://cloud.google.com/bigquery/docs/loading-data>

#### NEW QUESTION 5

- (Exam Topic 2)

For this question, refer to the TerramEarth case study.

To speed up data retrieval, more vehicles will be upgraded to cellular connections and be able to transmit data to the ETL process. The current FTP process is error-prone and restarts the data transfer from the start of the file when connections fail, which happens often. You want to improve the reliability of the solution and minimize data transfer time on the cellular connections. What should you do?

- A. Use one Google Container Engine cluster of FTP server
- B. Save the data to a Multi-Regional bucket
- C. Run the ETL process using data in the bucket.
- D. Use multiple Google Container Engine clusters running FTP servers located in different regions
- E. Save the data to Multi-Regional buckets in us, eu, and asi
- F. Run the ETL process using the data in the bucket.
- G. Directly transfer the files to different Google Cloud Multi-Regional Storage bucket locations in us, eu, and asia using Google APIs over HTTP(S). Run the ETL process using the data in the bucket.
- H. Directly transfer the files to a different Google Cloud Regional Storage bucket location in us, eu, and asia using Google APIs over HTTP(S). Run the ETL process to retrieve the data from each Regional bucket.

**Answer:** D

#### Explanation:

<https://cloud.google.com/storage/docs/locations>

#### NEW QUESTION 6

- (Exam Topic 2)

For this question refer to the TerramEarth case study

Operational parameters such as oil pressure are adjustable on each of TerramEarth's vehicles to increase their efficiency, depending on their environmental conditions. Your primary goal is to increase the operating efficiency of all 20 million cellular and unconnected vehicles in the field. How can you accomplish this goal?

- A. Have your engineers inspect the data for patterns, and then create an algorithm with rules that make operational adjustments automatically.
- B. Capture all operating data, train machine learning models that identify ideal operations, and run locally to make operational adjustments automatically.
- C. Implement a Google Cloud Dataflow streaming job with a sliding window, and use Google Cloud Messaging (GCM) to make operational adjustments automatically.
- D. Capture all operating data, train machine learning models that identify ideal operations, and host in Google Cloud Machine Learning (ML) Platform to make operational adjustments automatically.

**Answer:** B

#### NEW QUESTION 7

- (Exam Topic 2)

For this question refer to the TerramEarth case study.

Which of TerramEarth's legacy enterprise processes will experience significant change as a result of increased Google Cloud Platform adoption.

- A. Opex/capex allocation, LAN changes, capacity planning
- B. Capacity planning, TCO calculations, opex/capex allocation
- C. Capacity planning, utilization measurement, data center expansion
- D. Data Center expansion, TCO calculations, utilization measurement

**Answer:** B

#### Explanation:

Capacity planning, TCO calculations, opex/capex allocation From the case study, it can be concluded that Management (CXO) all concern rapid provision of resources (infrastructure) for growing as well as cost management, such as Cost optimization in Infrastructure, trade up front capital expenditures (Capex) for ongoing operating expenditures (Opex), and Total cost of ownership (TCO)

#### NEW QUESTION 8

- (Exam Topic 3)

For this question, refer to the JencoMart case study.

JencoMart wants to move their User Profiles database to Google Cloud Platform. Which Google Database should they use?

- A. Cloud Spanner
- B. Google BigQuery
- C. Google Cloud SQL
- D. Google Cloud Datastore

**Answer:** D

**Explanation:**

<https://cloud.google.com/datastore/docs/concepts/overview> Common workloads for Google Cloud Datastore:

- > User profiles
- > Product catalogs
- > Game state

References: <https://cloud.google.com/storage-options/> <https://cloud.google.com/datastore/docs/concepts/overview>

**NEW QUESTION 9**

- (Exam Topic 3)

For this question, refer to the JencoMart case study.

JencoMart has built a version of their application on Google Cloud Platform that serves traffic to Asia. You want to measure success against their business and technical goals. Which metrics should you track?

- A. Error rates for requests from Asia
- B. Latency difference between US and Asia
- C. Total visits, error rates, and latency from Asia
- D. Total visits and average latency for users in Asia
- E. The number of character sets present in the database

**Answer:** D

**NEW QUESTION 10**

- (Exam Topic 4)

For this question, refer to the Dress4Win case study.

Dress4Win has asked you to recommend machine types they should deploy their application servers to. How should you proceed?

- A. Perform a mapping of the on-premises physical hardware cores and RAM to the nearest machine types in the cloud.
- B. Recommend that Dress4Win deploy application servers to machine types that offer the highest RAM to CPU ratio available.
- C. Recommend that Dress4Win deploy into production with the smallest instances available, monitor them over time, and scale the machine type up until the desired performance is reached.
- D. Identify the number of virtual cores and RAM associated with the application server virtual machines align them to a custom machine type in the cloud, monitor performance, and scale the machine types up until the desired performance is reached.

**Answer:** C

**NEW QUESTION 10**

- (Exam Topic 4)

For this question, refer to the Dress4Win case study.

Dress4Win has asked you for advice on how to migrate their on-premises MySQL deployment to the cloud. They want to minimize downtime and performance impact to their on-premises solution during the migration. Which approach should you recommend?

- A. Create a dump of the on-premises MySQL master server, and then shut it down, upload it to the cloud environment, and load into a new MySQL cluster.
- B. Setup a MySQL replica server/slave in the cloud environment, and configure it for asynchronous replication from the MySQL master server on-premises until cutover.
- C. Create a new MySQL cluster in the cloud, configure applications to begin writing to both on-premises and cloud MySQL masters, and destroy the original cluster at cutover.
- D. Create a dump of the MySQL replica server into the cloud environment, load it into: Google Cloud Datastore, and configure applications to read/write to Cloud Datastore at cutover.

**Answer:** B

**NEW QUESTION 11**

- (Exam Topic 4)

For this question, refer to the Dress4Win case study.

Dress4Win has configured a new uptime check with Google Stackdriver for several of their legacy services. The Stackdriver dashboard is not reporting the services as healthy. What should they do?

- A. Install the Stackdriver agent on all of the legacy web servers.
- B. In the Cloud Platform Console download the list of the uptime servers' IP addresses and create an inbound firewall rule
- C. Configure their load balancer to pass through the User-Agent HTTP header when the value matches GoogleStackdriverMonitoring-UptimeChecks (<https://cloud.google.com/monitoring>)
- D. Configure their legacy web servers to allow requests that contain user-Agent HTTP header when the value matches GoogleStackdriverMonitoring—UptimeChecks (<https://cloud.google.com/monitoring>)

**Answer:** B

#### NEW QUESTION 15

- (Exam Topic 4)

For this question, refer to the Dress4Win case study.

The Dress4Win security team has disabled external SSH access into production virtual machines (VMs) on Google Cloud Platform (GCP). The operations team needs to remotely manage the VMs, build and push Docker containers, and manage Google Cloud Storage objects. What can they do?

- A. Grant the operations engineers access to use Google Cloud Shell.
- B. Configure a VPN connection to GCP to allow SSH access to the cloud VMs.
- C. Develop a new access request process that grants temporary SSH access to cloud VMs when an operations engineer needs to perform a task.
- D. Have the development team build an API service that allows the operations team to execute specific remote procedure calls to accomplish their tasks.

**Answer:** A

#### NEW QUESTION 19

- (Exam Topic 5)

Your applications will be writing their logs to BigQuery for analysis. Each application should have its own table.

Any logs older than 45 days should be removed. You want to optimize storage and follow Google recommended practices. What should you do?

- A. Configure the expiration time for your tables at 45 days
- B. Make the tables time-partitioned, and configure the partition expiration at 45 days
- C. Rely on BigQuery's default behavior to prune application logs older than 45 days
- D. Create a script that uses the BigQuery command line tool (bq) to remove records older than 45 days

**Answer:** B

#### Explanation:

<https://cloud.google.com/bigquery/docs/managing-partitioned-tables>

#### NEW QUESTION 21

- (Exam Topic 5)

You have an application deployed on Kubernetes Engine using a Deployment named echo-deployment. The deployment is exposed using a Service called echo-service. You need to perform an update to the application with minimal downtime to the application. What should you do?

- A. Use `kubectl set image deployment/echo-deployment <new-image>`
- B. Use the rolling update functionality of the Instance Group behind the Kubernetes cluster
- C. Update the deployment yaml file with the new container image
- D. Use `kubectl delete deployment/echo-deployment` and `kubectl create -f <yaml-file>`
- E. Update the service yaml file with the new container image
- F. Use `kubectl delete service/echoservice` and `kubectl create -f <yaml-file>`

**Answer:** A

#### Explanation:

[https://cloud.google.com/kubernetes-engine/docs/how-to/updating-apps#updating\\_an\\_application](https://cloud.google.com/kubernetes-engine/docs/how-to/updating-apps#updating_an_application)

#### NEW QUESTION 24

- (Exam Topic 5)

You deploy your custom Java application to Google App Engine. It fails to deploy and gives you the following stack trace.

```
java.lang.SecurityException: SHA1 digest error for
com/Altostrat/CloakedServlet.class
    at com.google.appengine.runtime.Request.process
-d36f818a24b8cf1d (Request.java)
    at
sun.security.util.ManifestEntryVerifier.verify
(ManifestEntryVerifier.java:210)
    at java.util.jar.JarVerifier.processEntry
(JarVerifier.java:218)
    at java.util.jar.JarVerifier.update
(JarVerifier.java:205)
    at
java.util.jar.JarVerifiersVerifierStream.read
(JarVerifier.java:428)
    at sun.misc.Resource.getBytes
(Resource.java:124)
    at java.net.URL.ClassLoader.defineClass
(URLClassLoader.java:273)
    at sun.reflect.GeneratedMethodAccessor5.invoke
(Unknown Source)
    at
sun.reflect.DelegatingMethodAccessorImpl.invoke
(DelegatingMethodAccessorImpl.java:43)
    at java.lang.reflect.Method.invoke
(Method.java:616)
    at java.lang.ClassLoader.loadClass
(ClassLoader.java:266)
```

What should you do?

- A. Upload missing JAR files and redeploy your application.
- B. Digitally sign all of your JAR files and redeploy your application
- C. Recompile the CLoakedServlet class using and MD5 hash instead of SHA1

**Answer: B**

#### NEW QUESTION 29

- (Exam Topic 5)

A lead engineer wrote a custom tool that deploys virtual machines in the legacy data center. He wants to migrate the custom tool to the new cloud environment. You want to advocate for the adoption of Google Cloud Deployment Manager. What are two business risks of migrating to Cloud Deployment Manager? Choose 2 answers.

- A. Cloud Deployment Manager uses Python.
- B. Cloud Deployment Manager APIs could be deprecated in the future.
- C. Cloud Deployment Manager is unfamiliar to the company's engineers.
- D. Cloud Deployment Manager requires a Google APIs service account to run.
- E. Cloud Deployment Manager can be used to permanently delete cloud resources.
- F. Cloud Deployment Manager only supports automation of Google Cloud resources.

**Answer: CF**

#### Explanation:

<https://cloud.google.com/deployment-manager/docs/deployments/deleting-deployments>

#### NEW QUESTION 33

- (Exam Topic 5)

Your company has successfully migrated to the cloud and wants to analyze their data stream to optimize operations. They do not have any existing code for this analysis, so they are exploring all their options. These options include a mix of batch and stream processing, as they are running some hourly jobs and live-processing some data as it comes in. Which technology should they use for this?

- A. Google Cloud Dataproc
- B. Google Cloud Dataflow
- C. Google Container Engine with Bigtable
- D. Google Compute Engine with Google BigQuery

**Answer:** B

**Explanation:**

Dataflow is for processing both the Batch and Stream.

Cloud Dataflow is a fully-managed service for transforming and enriching data in stream (real time) and batch (historical) modes with equal reliability and expressiveness -- no more complex workarounds or compromises needed.

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

**NEW QUESTION 38**

- (Exam Topic 5)

You are using Cloud SQL as the database backend for a large CRM deployment. You want to scale as usage increases and ensure that you don't run out of storage, maintain 75% CPU usage cores, and keep replication lag below 60 seconds. What are the correct steps to meet your requirements?

A. 1) Enable automatic storage increase for the instance.2) Create a Stackdriver alert when CPU usage exceeds 75%, and change the instance type to reduce CPU usage.3) Create a Stackdriver alert for replication lag, and shard the database to reduce replication time.

B. 1) Enable automatic storage increase for the instance.2) Change the instance type to a 32-core machine type to keep CPU usage below 75%.3) Create a Stackdriver alert for replication lag, and shard the database to reduce replication time.

C. 1) Create a Stackdriver alert when storage exceeds 75%, and increase the available storage on the instance to create more space.2) Deploy memcached to reduce CPU load.3) Change the instance type to a 32-core machine type to reduce replication lag.

D. 1) Create a Stackdriver alert when storage exceeds 75%, and increase the available storage on the instance to create more space.2) Deploy memcached to reduce CPU load.3) Create a Stackdriver alert for replication lag, and change the instance type to a 32-core machine type to reduce replication lag.

**Answer:** A

**NEW QUESTION 39**

- (Exam Topic 5)

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

B. Protect the bucket with a password that expires after 24 hours.

C. Have users upload the images to Cloud Storage using a signed URL that expires after 24 hours.

D. Create an App Engine web application where users can upload image

E. Configure App Engine to disable the application after 24 hour

F. Authenticate users via Cloud Identity.

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

**Answer:** A

**Explanation:**

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

**NEW QUESTION 43**

- (Exam Topic 5)

Your customer wants to capture multiple GBs of aggregate real-time key performance indicators (KPIs) from their game servers running on Google Cloud Platform and monitor the KPIs with low latency. How should they capture the KPIs?

A. Store time-series data from the game servers in Google Bigtable, and view it using Google Data Studio.

B. Output custom metrics to Stackdriver from the game servers, and create a Dashboard in Stackdriver Monitoring Console to view them.

C. Schedule BigQuery load jobs to ingest analytics files uploaded to Cloud Storage every ten minutes, and visualize the results in Google Data Studio.

D. Insert the KPIs into Cloud Datastore entities, and run ad hoc analysis and visualizations of them in Cloud Datalab.

**Answer:** A

**Explanation:**

<https://cloud.google.com/monitoring/api/v3/metrics-details#metric-kinds>

**NEW QUESTION 46**

- (Exam Topic 5)

You are monitoring Google Kubernetes Engine (GKE) clusters in a Cloud Monitoring workspace. As a Site Reliability Engineer (SRE), you need to triage incidents quickly. What should you do?

A. Navigate the predefined dashboards in the Cloud Monitoring workspace, and then add metrics and create alert policies.

B. Navigate the predefined dashboards in the Cloud Monitoring workspace, create custom metrics, and install alerting software on a Compute Engine instance.

C. Write a shell script that gathers metrics from GKE nodes, publish these metrics to a Pub/Sub topic, export the data to BigQuery, and make a Data Studio dashboard.

D. Create a custom dashboard in the Cloud Monitoring workspace for each incident, and then add metrics and create alert policies.

**Answer:** A

**Explanation:**

<https://cloud.google.com/stackdriver/docs/solutions/gke/legacy-stackdriver/monitoring>

**NEW QUESTION 51**

- (Exam Topic 5)

You are using a single Cloud SQL instance to serve your application from a specific zone. You want to introduce high availability. What should you do?

- A. Create a read replica instance in a different region
- B. Create a failover replica instance in a different region
- C. Create a read replica instance in the same region, but in a different zone
- D. Create a failover replica instance in the same region, but in a different zone

**Answer:** B

**Explanation:**

<https://cloud.google.com/sql/docs/mysql/high-availability>

**NEW QUESTION 55**

- (Exam Topic 5)

A recent audit that a new network was created in Your GCP project. In this network, a GCE instance has an SSH port open the world. You want to discover this network's origin. What should you do?

- A. Search for Create VM entry in the Stackdriver alerting console.
- B. Navigate to the Activity page in the Home section
- C. Set category to Data Access and search for Create VM entry.
- D. In the logging section of the console, specify GCE Network as the logging section
- E. Search for the Create Insert entry.
- F. Connect to the GCE instance using project SSH Key
- G. Identify previous logins in system logs, and match these with the project owners list.

**Answer:** C

**NEW QUESTION 60**

- (Exam Topic 5)

Your company has multiple on-premises systems that serve as sources for reporting. The data has not been maintained well and has become degraded over time. You want to use Google-recommended practices to detect anomalies in your company data. What should you do?

- A. Upload your files into Cloud Storage
- B. Use Cloud Datalab to explore and clean your data.
- C. Upload your files into Cloud Storage
- D. Use Cloud Dataprep to explore and clean your data.
- E. Connect Cloud Datalab to your on-premises system
- F. Use Cloud Datalab to explore and clean your data.
- G. Connect Cloud Dataprep to your on-premises system
- H. Use Cloud Dataprep to explore and clean your data.

**Answer:** B

**Explanation:**

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

**NEW QUESTION 61**

- (Exam Topic 5)

Your BigQuery project has several users. For audit purposes, you need to see how many queries each user ran in the last month.

- A. Connect Google Data Studio to BigQuery
- B. Create a dimension for the users and a metric for the amount of queries per user.
- C. In the BigQuery interface, execute a query on the JOBS table to get the required information.
- D. Use 'bq show' to list all jobs
- E. Per job, use 'bq ls' to list job information and get the required information.
- F. Use Cloud Audit Logging to view Cloud Audit Logs, and create a filter on the query operation to get the required information.

**Answer:** C

**Explanation:**

<https://cloud.google.com/bigquery/docs/managing-jobs>

**NEW QUESTION 64**

- (Exam Topic 5)

Your company has sensitive data in Cloud Storage buckets. Data analysts have Identity Access Management (IAM) permissions to read the buckets. You want to prevent data analysts from retrieving the data in the buckets from outside the office network. What should you do?

- A. \* 1. Create a VPC Service Controls perimeter that includes the projects with the buckets.\* 2. Create an access level with the CIDR of the office network.
- B. \* 1. Create a firewall rule for all instances in the Virtual Private Cloud (VPC) network for source range.\* 2. Use the Classless Inter-domain Routing (CIDR) of the office network.
- C. \* 1. Create a Cloud Function to remove IAM permissions from the buckets, and another Cloud Function to add IAM permissions to the buckets.\* 2. Schedule the Cloud Functions with Cloud Scheduler to add permissions at the start of business and remove permissions at the end of business.
- D. \* 1. Create a Cloud VPN to the office network.\* 2. Configure Private Google Access for on-premises hosts.

**Answer:** A

**Explanation:**

For all Google Cloud services secured with VPC Service Controls, you can ensure that: Resources within a perimeter are accessed only from clients within authorized VPC networks using Private Google Access with either Google Cloud or on-premises. <https://cloud.google.com/vpc-service-controls/docs/overview>  
<https://cloud.google.com/vpc-service-controls/docs/overview>. You create a service control across your VPC and any cloud bucket or any project resource to restrict access. Anything outside of it can't access the resources within service control perimeter

#### NEW QUESTION 69

- (Exam Topic 5)

Your company is designing its data lake on Google Cloud and wants to develop different ingestion pipelines to collect unstructured data from different sources. After the data is stored in Google Cloud, it will be processed in several data pipelines to build a recommendation engine for end users on the website. The structure of the data retrieved from the source systems can change at any time. The data must be stored exactly as it was retrieved for reprocessing purposes in case the data structure is incompatible with the current processing pipelines. You need to design an architecture to support the use case after you retrieve the data. What should you do?

- A. Send the data through the processing pipeline, and then store the processed data in a BigQuery table for reprocessing.
- B. Store the data in a BigQuery table
- C. Design the processing pipelines to retrieve the data from the table.
- D. Send the data through the processing pipeline, and then store the processed data in a Cloud Storage bucket for reprocessing.
- E. Store the data in a Cloud Storage bucket
- F. Design the processing pipelines to retrieve the data from the bucket

**Answer:** D

#### NEW QUESTION 70

- (Exam Topic 5)

Your company acquired a healthcare startup and must retain its customers' medical information for up to 4 more years, depending on when it was created. Your corporate policy is to securely retain this data, and then delete it as soon as regulations allow. Which approach should you take?

- A. Store the data in Google Drive and manually delete records as they expire.
- B. Anonymize the data using the Cloud Data Loss Prevention API and store it indefinitely.
- C. Store the data using the Cloud Storage and use lifecycle management to delete files when they expire.
- D. Store the data in Cloud Storage and run a nightly batch script that deletes all expired data.

**Answer:** C

#### Explanation:

<https://cloud.google.com/storage/docs/lifecycle>

#### NEW QUESTION 75

- (Exam Topic 5)

You are developing a globally scaled frontend for a legacy streaming backend data API. This API expects events in strict chronological order with no repeat data for proper processing.

Which products should you deploy to ensure guaranteed-once FIFO (first-in, first-out) delivery of data?

- A. Cloud Pub/Sub alone
- B. Cloud Pub/Sub to Cloud DataFlow
- C. Cloud Pub/Sub to Stackdriver
- D. Cloud Pub/Sub to Cloud SQL

**Answer:** B

#### Explanation:

Reference <https://cloud.google.com/pubsub/docs/ordering>

#### NEW QUESTION 77

- (Exam Topic 5)

Your company is moving 75 TB of data into Google Cloud. You want to use Cloud Storage and follow Google-recommended practices. What should you do?

- A. Move your data onto a Transfer Appliance
- B. Use a Transfer Appliance Rehydrator to decrypt the data into Cloud Storage.
- C. Move your data onto a Transfer Appliance
- D. Use Cloud Dataprep to decrypt the data into Cloud Storage.
- E. Install gsutil on each server that contains data
- F. Use resumable transfers to upload the data into Cloud Storage.
- G. Install gsutil on each server containing data
- H. Use streaming transfers to upload the data into Cloud Storage.

**Answer:** A

#### Explanation:

<https://cloud.google.com/transfer-appliance/docs/2.0/faq>

#### NEW QUESTION 82

- (Exam Topic 5)

Your company uses the Firewall Insights feature in the Google Network Intelligence Center. You have several firewall rules applied to Compute Engine instances. You need to evaluate the efficiency of the applied firewall ruleset. When you bring up the Firewall Insights page in the Google Cloud Console, you notice that there are no log rows to display. What should you do to troubleshoot the issue?

- A. Enable Virtual Private Cloud (VPC) flow logging.
- B. Enable Firewall Rules Logging for the firewall rules you want to monitor.
- C. Verify that your user account is assigned the compute.networkAdmin Identity and Access Management (IAM) role.
- D. Install the Google Cloud SDK, and verify that there are no Firewall logs in the command line output.

**Answer:** B

**Explanation:**

Reference: <https://cloud.google.com/network-intelligence-center/docs/firewall-insights/how-to/using-firewall-insights>

**NEW QUESTION 84**

- (Exam Topic 5)

The database administration team has asked you to help them improve the performance of their new database server running on Google Compute Engine. The database is for importing and normalizing their performance statistics and is built with MySQL running on Debian Linux. They have an n1-standard-8 virtual machine with 80 GB of SSD persistent disk. What should they change to get better performance from this system?

- A. Increase the virtual machine's memory to 64 GB.
- B. Create a new virtual machine running PostgreSQL.
- C. Dynamically resize the SSD persistent disk to 500 GB.
- D. Migrate their performance metrics warehouse to BigQuery.
- E. Modify all of their batch jobs to use bulk inserts into the database.

**Answer:** C

**NEW QUESTION 88**

- (Exam Topic 5)

You are designing a Data Warehouse on Google Cloud and want to store sensitive data in BigQuery. Your company requires you to generate encryption keys outside of Google Cloud. You need to implement a solution. What should you do?

- A. Generate a new key in Cloud Key Management Service (Cloud KMS). Store all data in Cloud Storage using the customer-managed key option and select the created key
- B. Set up a Dataflow pipeline to decrypt the data and to store it in a BigQuery dataset.
- C. Generate a new key in Cloud Key Management Service (Cloud KMS). Create a dataset in BigQuery using the customer-managed key option and select the created key
- D. Import a key in Cloud KM
- E. Store all data in Cloud Storage using the customer-managed key option and select the created key
- F. Set up a Dataflow pipeline to decrypt the data and to store it in a new BigQuery dataset.
- G. Import a key in Cloud KM
- H. Create a dataset in BigQuery using the customer-supplied key option and select the created key.

**Answer:** D

**Explanation:**

<https://cloud.google.com/bigquery/docs/customer-managed-encryption>

**NEW QUESTION 90**

- (Exam Topic 5)

You are implementing the infrastructure for a web service on Google Cloud. The web service needs to receive and store the data from 500,000 requests per second. The data will be queried later in real time, based on exact matches of a known set of attributes. There will be periods where the web service will not receive any requests. The business wants to keep costs low. Which web service platform and database should you use for the application?

- A. Cloud Run and BigQuery
- B. Cloud Run and Cloud Bigtable
- C. A Compute Engine autoscaling managed instance group and BigQuery
- D. A Compute Engine autoscaling managed instance group and Cloud Bigtable

**Answer:** B

**Explanation:**

<https://cloud.google.com/run/docs/about-instance-autoscaling> <https://cloud.google.com/blog/topics/developers-practitioners/bigtable-vs-bigquery-whats-difference>

**NEW QUESTION 94**

- (Exam Topic 5)

You need to develop procedures to test a disaster plan for a mission-critical application. You want to use Google-recommended practices and native capabilities within GCP.

What should you do?

- A. Use Deployment Manager to automate service provisionin
- B. Use Activity Logs to monitor and debug your tests.
- C. Use Deployment Manager to automate provisionin
- D. Use Stackdriver to monitor and debug your tests.
- E. Use gcloud scripts to automate service provisionin
- F. Use Activity Logs monitor and debug your tests.
- G. Use automated scripts to automate service provisionin
- H. Use Activity Logs monitor and debug your tests.

**Answer:** B

**Explanation:**

<https://cloud.google.com/solutions/dr-scenarios-planning-guide>

**NEW QUESTION 98**

- (Exam Topic 5)

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 service
- C. The Stackdriver Logging agent must be installed on each instance to collect system logs.
- D. Launch a custom syslogd compute instance and configure your GCP project and VMs to forward all logs to it.
- E. Install the Stackdriver Logging agent on a single compute instance and let it collect all audit and access logs for your environment.

**Answer: B**

**Explanation:**

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

#### NEW QUESTION 99

- (Exam Topic 5)

Your company has a Google Cloud project that uses BigQuery for data warehousing. They have a VPN tunnel between the on-premises environment and Google Cloud that is configured with Cloud VPN. The security team wants to avoid data exfiltration by malicious insiders, compromised code, and accidental oversharing. What should they do?

- A. Configure Private Google Access for on-premises only.
- B. Perform the following tasks: 1) Create a service account. 2) Give the BigQuery JobUser role and Storage Reader role to the service account. 3) Remove all other IAM access from the project.
- C. Configure VPC Service Controls and configure Private Google Access.
- D. Configure Private Google Access.

**Answer: C**

**Explanation:**

<https://cloud.google.com/vpc-service-controls/docs/overview>

VPC Service Controls improves your ability to mitigate the risk of data exfiltration from Google Cloud services such as Cloud Storage and BigQuery.

#### NEW QUESTION 102

- (Exam Topic 5)

You need to evaluate your team readiness for a new GCP project. You must perform the evaluation and create a skills gap plan that incorporates the business goal of cost optimization. Your team has deployed two GCP projects successfully to date. What should you do?

- A. Allocate budget for team training
- B. Set a deadline for the new GCP project.
- C. Allocate budget for team training
- D. Create a roadmap for your team to achieve Google Cloud certification based on job role.
- E. Allocate budget to hire skilled external consultant
- F. Set a deadline for the new GCP project.
- G. Allocate budget to hire skilled external consultant
- H. Create a roadmap for your team to achieve Google Cloud certification based on job role.

**Answer: B**

**Explanation:**

[https://services.google.com/fh/files/misc/cloud\\_center\\_of\\_excellence.pdf](https://services.google.com/fh/files/misc/cloud_center_of_excellence.pdf)

#### NEW QUESTION 104

- (Exam Topic 5)

Your company is using Google Cloud. You have two folders under the Organization: Finance and Shopping. The members of the development team are in a Google Group. The development team group has been assigned the Project Owner role on the Organization. You want to prevent the development team from creating resources in projects in the Finance folder. What should you do?

- A. Assign the development team group the Project Viewer role on the Finance folder, and assign the development team group the Project Owner role on the Shopping folder.
- B. Assign the development team group only the Project Viewer role on the Finance folder.
- C. Assign the development team group the Project Owner role on the Shopping folder, and remove the development team group Project Owner role from the Organization.
- D. Assign the development team group only the Project Owner role on the Shopping folder.

**Answer: C**

**Explanation:**

<https://cloud.google.com/resource-manager/docs/cloud-platform-resource-hierarchy>

"Roles are always inherited, and there is no way to explicitly remove a permission for a lower-level resource that is granted at a higher level in the resource hierarchy. Given the above example, even if you were to remove the Project Editor role from Bob on the "Test GCP Project", he would still inherit that role from the "Dept Y" folder, so he would still have the permissions for that role on "Test GCP Project"."

Reference: <https://cloud.google.com/resource-manager/docs/creating-managing-folders>

#### NEW QUESTION 107

- (Exam Topic 5)

You are managing an application deployed on Cloud Run for Anthos, and you need to define a strategy for deploying new versions of the application. You want to evaluate the new code with a subset of production traffic to decide whether to proceed with the rollout. What should you do?

- A. Deploy a new revision to Cloud Run with the new versio
- B. Configure traffic percentage between revisions.
- C. Deploy a new service to Cloud Run with the new versio
- D. Add a Cloud Load Balancing instance in front of both services.
- E. In the Google Cloud Console page for Cloud Run, set up continuous deployment using Cloud Build for the development branc
- F. As part of the Cloud Build trigger, configure the substitution variable TRAFFIC\_PERCENTAGE with the percentage of traffic you want directed to a new version.
- G. In the Google Cloud Console, configure Traffic Director with a new Service that points to the newversion of the application on Cloud Ru
- H. Configure Traffic Director to send a small percentage of traffic to the new version of the application.

**Answer:** A

**Explanation:**

<https://cloud.google.com/run/docs/rollouts-rollbacks-traffic-migration>

**NEW QUESTION 109**

- (Exam Topic 5)

A small number of API requests to your microservices-based application take a very long time. You know that each request to the API can traverse many services. You want to know which service takes the longest in those cases. What should you do?

- A. Set timeouts on your application so that you can fail requests faster.
- B. Send custom metrics for each of your requests to Stackdriver Monitoring.
- C. Use Stackdriver Monitoring to look for insights that show when your API latencies are high.
- D. Instrument your application with Stackdriver Trace in order to break down the request latencies at each microservice.

**Answer:** D

**Explanation:**

<https://cloud.google.com/trace/docs/overview>

**NEW QUESTION 114**

- (Exam Topic 5)

Your company has a stateless web API that performs scientific calculations. The web API runs on a single Google Kubernetes Engine (GKE) cluster. The cluster is currently deployed in us-central1. Your company has expanded to offer your API to customers in Asia. You want to reduce the latency for the users in Asia. What should you do?

- A. Use a global HTTP(s) load balancer with Cloud CDN enabled
- B. Create a second GKE cluster in asia-southeast1, and expose both API's using a Service of type Load Balance
- C. Add the public Ips to the Cloud DNS zone
- D. Increase the memory and CPU allocated to the application in the cluster
- E. Create a second GKE cluster in asia-southeast1, and use kubemci to create a global HTTP(s) load balancer

**Answer:** D

**Explanation:**

[https://cloud.google.com/kubernetes-engine/docs/concepts/multi-cluster-ingress#how\\_works](https://cloud.google.com/kubernetes-engine/docs/concepts/multi-cluster-ingress#how_works)

<https://github.com/GoogleCloudPlatform/k8s-multicloud-ingress> <https://cloud.google.com/blog/products/gcp/how-to-deploy-geographically-distributed-services-on-kubernetes-e>

**NEW QUESTION 116**

- (Exam Topic 5)

Your web application must comply with the requirements of the European Union's General Data Protection Regulation (GDPR). You are responsible for the technical architecture of your web application. What should you do?

- A. Ensure that your web application only uses native features and services of Google Cloud Platform, because Google already has various certifications and provides "pass-on" compliance when you use native features.
- B. Enable the relevant GDPR compliance setting within the GCPConsole for each of the services in use within your application.
- C. Ensure that Cloud Security Scanner is part of your test planning strategy in order to pick up any compliance gaps.
- D. Define a design for the security of data in your web application that meets GDPR requirements.

**Answer:** D

**Explanation:**

<https://cloud.google.com/security/gdpr/?tab=tab4>

Reference: <https://www.mobiloud.com/blog/gdpr-compliant-mobile-app/>

**NEW QUESTION 119**

- (Exam Topic 5)

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

**Answer:** D

**Explanation:**

<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-functio>

**NEW QUESTION 121**

- (Exam Topic 5)

You are using Cloud CDN to deliver static HTTP(S) website content hosted on a Compute Engine instance group. You want to improve the cache hit ratio. What should you do?

- A. Customize the cache keys to omit the protocol from the key.
- B. Shorten the expiration time of the cached objects.
- C. Make sure the HTTP(S) header "Cache-Region" points to the closest region of your users.
- D. Replicate the static content in a Cloud Storage bucket
- E. Point CloudCDN toward a load balancer on that bucket

**Answer:** A

**Explanation:**

Reference [https://cloud.google.com/cdn/docs/bestpractices#using\\_custom\\_cache\\_keys\\_to\\_improve\\_cache\\_hit\\_ratio](https://cloud.google.com/cdn/docs/bestpractices#using_custom_cache_keys_to_improve_cache_hit_ratio)

**NEW QUESTION 123**

- (Exam Topic 5)

Your company places a high value on being responsive and meeting customer needs quickly. Their primary business objectives are release speed and agility. You want to reduce the chance of security errors being accidentally introduced. Which two actions can you take? Choose 2 answers

- A. Ensure every code check-in is peer reviewed by a security SME.
- B. Use source code security analyzers as part of the CI/CD pipeline.
- C. Ensure you have stubs to unit test all interfaces between components.
- D. Enable code signing and a trusted binary repository integrated with your CI/CD pipeline.
- E. Run a vulnerability security scanner as part of your continuous-integration /continuous-delivery (CI/CD) pipeline.

**Answer:** BE

**Explanation:**

<https://docs.microsoft.com/en-us/vsts/articles/security-validation-cicd-pipeline?view=vsts>

**NEW QUESTION 124**

- (Exam Topic 5)

You want to allow your operations team to store logs from all the production projects in your Organization, without duplicating logs from other projects. All of the production projects are contained in a folder. You want to ensure that all logs for existing and new production projects are captured automatically. What should you do?

- A. Create an aggregated export on the Production folder
- B. Set the log sink to be a Cloud Storage bucket in an operations project
- C. Create an aggregated export on the Organization resource
- D. Set the log sink to be a Cloud Storage bucket in an operations project.
- E. Create log exports in the production project
- F. Set the log sinks to be a Cloud Storage bucket in an operations project.
- G. Create log exports in the production project
- H. Set the log sinks to be BigQuery datasets in the production projects and grant IAM access to the operations team to run queries on the datasets

**Answer:** B

**NEW QUESTION 127**

- (Exam Topic 5)

You are designing a large distributed application with 30 microservices. Each of your distributed microservices needs to connect to a database back-end. You want to store the credentials securely. Where should you store the credentials?

- A. In the source code
- B. In an environment variable
- C. In a secret management system
- D. In a config file that has restricted access through ACLs

**Answer:** C

**Explanation:**

[https://cloud.google.com/docs/authentication/production#providing\\_credentials\\_to\\_your\\_application](https://cloud.google.com/docs/authentication/production#providing_credentials_to_your_application)

**NEW QUESTION 128**

- (Exam Topic 5)

Your company is planning to perform a lift and shift migration of their Linux RHEL 6.5+ virtual machines. The virtual machines are running in an on-premises VMware environment. You want to migrate them to Compute Engine following Google-recommended practices. What should you do?

- A. \* 1. Define a migration plan based on the list of the applications and their dependencies.\* 2. Migrate all virtual machines into Compute Engine individually with Migrate for Compute Engine.

- B. \* 1. Perform an assessment of virtual machines running in the current VMware environment.\* 2. Create images of all disk  
 C. Import disks on Compute Engine.\* 3. Create standard virtual machines where the boot disks are the ones you have imported.  
 D. \* 1. Perform an assessment of virtual machines running in the current VMware environment.\* 2. Define a migration plan, prepare a Migrate for Compute Engine migration RunBook, and execute the migration.  
 E. \* 1. Perform an assessment of virtual machines running in the current VMware environment.\* 2. Install a third-party agent on all selected virtual machine  
 F. 3.Migrate all virtual machines into Compute Engine.

**Answer:** C

**Explanation:**

The framework illustrated in the preceding diagram has four phases:

- Assess. In this phase, you assess your source environment, assess the workloads that you want to migrate to Google Cloud, and assess which VMs support each workload.
- Plan. In this phase, you create the basic infrastructure for Migrate for Compute Engine, such as provisioning the resource hierarchy and setting up network access.
- Deploy. In this phase, you migrate the VMs from the source environment to Compute Engine.
- Optimize. In this phase, you begin to take advantage of the cloud technologies and capabilities.

Reference: <https://cloud.google.com/architecture/migrating-vms-migrate-for-compute-engine-getting-started>

**NEW QUESTION 133**

- (Exam Topic 5)

Your company pushes batches of sensitive transaction data from its application server VMs to Cloud Pub/Sub for processing and storage. What is the Google-recommended way for your application to authenticate to the required Google Cloud services?

- A. Ensure that VM service accounts are granted the appropriate Cloud Pub/Sub IAM roles.
- B. Ensure that VM service accounts do not have access to Cloud Pub/Sub, and use VM access scopes to grant the appropriate Cloud Pub/Sub IAM roles.
- C. Generate an OAuth2 access token for accessing Cloud Pub/Sub, encrypt it, and store it in Cloud Storage for access from each VM.
- D. Create a gateway to Cloud Pub/Sub using a Cloud Function, and grant the Cloud Function service account the appropriate Cloud Pub/Sub IAM roles.

**Answer:** A

**NEW QUESTION 138**

- (Exam Topic 5)

You need to deploy a stateful workload on Google Cloud. The workload can scale horizontally, but each instance needs to read and write to the same POSIX filesystem. At high load, the stateful workload needs to support up to 100 MB/s of writes. What should you do?

- A. Use a persistent disk for each instance.
- B. Use a regional persistent disk for each instance.
- C. Create a Cloud Filestore instance and mount it in each instance.
- D. Create a Cloud Storage bucket and mount it in each instance using gcsfuse.

**Answer:** C

**Explanation:**

<https://cloud.google.com/storage/docs/gcs-fuse#notes>

Cloud Filestore: Cloud Filestore is a scalable and highly available shared file service fully managed by

Google. Cloud Filestore provides persistent storage ideal for shared workloads. It is best suited for enterprise applications requiring persistent, durable, shared storage which is accessed by NFS or requires a POSIX compliant file system.

Reference: <https://cloud.google.com/storage/docs/gcs-fuse>

**NEW QUESTION 140**

- (Exam Topic 5)

Your company plans to migrate a multi-petabyte data set to the cloud. The data set must be available 24hrs a day. Your business analysts have experience only with using a SQL interface. How should you store the data to optimize it for ease of analysis?

- A. Load data into Google BigQuery.
- B. Insert data into Google Cloud SQL.
- C. Put flat files into Google Cloud Storage.
- D. Stream data into Google Cloud Datastore.

**Answer:** A

**Explanation:**

Google Big Query is for multi peta byte storage , HA(High availability) which means 24 hours, SQL interface.

<https://medium.com/google-cloud/the-12-components-of-google-bigquery-c2b49829a7c7> <https://cloud.google.com/solutions/bigquery-data-warehouse>

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

BigQuery is Google's serverless, highly scalable, low cost enterprise data warehouse designed to make all your data analysts productive. Because there is no infrastructure to manage, you can focus on analyzing data to find meaningful insights using familiar SQL and you don't need a database administrator.

BigQuery enables you to analyze all your data by creating a logical data warehouse over managed, columnar storage as well as data from object storage, and spreadsheets.

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

**NEW QUESTION 144**

- (Exam Topic 5)

Your company has an application running on Compute Engine that allows users to play their favorite music. There are a fixed number of instances. Files are stored in Cloud Storage and data is streamed directly to users. Users are reporting that they sometimes need to attempt to play popular songs multiple times before they are successful. You need to improve the performance of the application. What should you do?

- A. \* 1. Copy popular songs into CloudSQL as a blob\* 2. Update application code to retrieve data from CloudSQL when Cloud Storage is overloaded

- B. \* 1. Create a managed instance group with Compute Engine instances\* 2. Create a global load balancer and configure it with two backends\* Managed instance group\* Cloud Storage bucket\* 3. Enable Cloud CDN on the bucket backend
- C. \* 1. Mount the Cloud Storage bucket using gcsfuse on all backend Compute Engine instances\* 2. Serve music files directly from the backend Compute Engine instance
- D. \* 1. Create a Cloud Filestore NFS volume and attach it to the backend Compute Engine instances\* 2. Download popular songs in Cloud Filestore\* 3. Serve music files directly from the backend Compute Engine instance

**Answer:** B

#### NEW QUESTION 146

- (Exam Topic 5)

To reduce costs, the Director of Engineering has required all developers to move their development infrastructure resources from on-premises virtual machines (VMs) to Google Cloud Platform. These resources go through multiple start/stop events during the day and require state to persist. You have been asked to design the process of running a development environment in Google Cloud while providing cost visibility to the finance department. Which two steps should you take? Choose 2 answers

- A. Use the --no-auto-delete flag on all persistent disks and stop the VM.
- B. Use the -auto-delete flag on all persistent disks and terminate the VM.
- C. Apply VM CPU utilization label and include it in the BigQuery billing export.
- D. Use Google BigQuery billing export and labels to associate cost to groups.
- E. Store all state into local SSD, snapshot the persistent disks, and terminate the VM.
- F. Store all state in Google Cloud Storage, snapshot the persistent disks, and terminate the VM.

**Answer:** AD

#### Explanation:

<https://cloud.google.com/billing/docs/how-to/export-data-bigquery>

#### NEW QUESTION 149

- (Exam Topic 5)

You are deploying a PHP App Engine Standard service with SQL as the backend. You want to minimize the number of queries to the database. What should you do?

- A. Set the memcache service level to dedicate
- B. Create a key from the hash of the query, and return database values from memcache before issuing a query to Cloud SQL.
- C. Set the memcache service level to share
- D. Create a cron task that runs every minute to populate the cache with keys containing query results.
- E. Set the memcache service level to share
- F. Create a cron task that runs every minute to save all expected queries to a key called "cached-queries".
- G. Set the memcache service level to share
- H. Create a key called "cached-queries", and return database values from the key before using a query to Cloud SQL.

**Answer:** A

#### Explanation:

<https://cloud.google.com/appengine/docs/standard/php/memcache/using>

#### NEW QUESTION 150

- (Exam Topic 5)

Your company has an application running on multiple Compute Engine instances. You need to ensure that the application can communicate with an on-premises service that requires high throughput via internal IPs, while minimizing latency. What should you do?

- A. Use OpenVPN to configure a VPN tunnel between the on-premises environment and Google Cloud.
- B. Configure a direct peering connection between the on-premises environment and Google Cloud.
- C. Use Cloud VPN to configure a VPN tunnel between the on-premises environment and Google Cloud.
- D. Configure a Cloud Dedicated Interconnect connection between the on-premises environment and Google Cloud.

**Answer:** C

#### Explanation:

Reference <https://cloud.google.com/architecture/setting-up-private-access-to-cloud-apis-through-vpn-tunnels>

#### NEW QUESTION 154

- (Exam Topic 5)

Your solution is producing performance bugs in production that you did not see in staging and test environments. You want to adjust your test and deployment procedures to avoid this problem in the future. What should you do?

- A. Deploy fewer changes to production.
- B. Deploy smaller changes to production.
- C. Increase the load on your test and staging environments.
- D. Deploy changes to a small subset of users before rolling out to production.

**Answer:** C

#### NEW QUESTION 155

- (Exam Topic 5)

All compute Engine instances in your VPC should be able to connect to an Active Directory server on specific ports. Any other traffic emerging from your instances is not allowed. You want to enforce this using VPC firewall rules.

How should you configure the firewall rules?

- A. Create an egress rule with priority 1000 to deny all traffic for all instance
- B. Create another egress rule with priority 100 to allow the Active Directory traffic for all instances.
- C. Create an egress rule with priority 100 to deny all traffic for all instance
- D. Create another egress rule with priority 1000 to allow the Active Directory traffic for all instances.
- E. Create an egress rule with priority 1000 to allow the Active Directory traffi
- F. Rely on the implied deny egress rule with priority 100 to block all traffic for all instances.
- G. Create an egress rule with priority 100 to allow the Active Directory traffi
- H. Rely on the implied deny egress rule with priority 1000 to block all traffic for all instances.

**Answer:** B

**Explanation:**

<https://cloud.google.com/vpc/docs/firewalls>

#### NEW QUESTION 158

- (Exam Topic 5)

Your web application uses Google Kubernetes Engine to manage several workloads. One workload requires a consistent set of hostnames even after pod scaling and relaunches.

Which feature of Kubernetes should you use to accomplish this?

- A. StatefulSets
- B. Role-based access control
- C. Container environment variables
- D. Persistent Volumes

**Answer:** A

**Explanation:**

<https://kubernetes.io/docs/tutorials/stateful-application/basic-stateful-set/>

#### NEW QUESTION 162

- (Exam Topic 5)

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 click-throughs 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.

**Answer:** AC

**Explanation:**

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

#### NEW QUESTION 165

- (Exam Topic 5)

A production database virtual machine on Google Compute Engine has an ext4-formatted persistent disk for data files. The database is about to run out of storage space. How can you remediate the problem with the least amount of downtime?

- A. In the Cloud Platform Console, increase the size of the persistent disk and use the `resize2fs` command in Linux.
- B. Shut down the virtual machine, use the Cloud Platform Console to increase the persistent disk size, then restart the virtual machine.
- C. In the Cloud Platform Console, increase the size of the persistent disk and verify the new space is ready to use with the `fdisk` command in Linux.
- D. In the Cloud Platform Console, create a new persistent disk attached to the virtual machine, format and mount it, and configure the database service to move the files to the new disk.
- E. In the Cloud Platform Console, create a snapshot of the persistent disk, restore the snapshot to a new larger disk, unmount the old disk, mount the new disk, and restart the database service.

**Answer:** A

**Explanation:**

On Linux instances, connect to your instance and manually resize your partitions and file systems to use the additional disk space that you added.

Extend the file system on the disk or the partition to use the added space. If you grew a partition on your disk, specify the partition. If your disk does not have a partition table, specify only the disk ID.

```
sudo resize2fs /dev/[DISK_ID][PARTITION_NUMBER]
```

where [DISK\_ID] is the device name and [PARTITION\_NUMBER] is the partition number for the device where you are resizing the file system.

References: <https://cloud.google.com/compute/docs/disks/add-persistent-disk>

#### NEW QUESTION 170

- (Exam Topic 5)

You need to design a solution for global load balancing based on the URL path being requested. You need to ensure operations reliability and end-to-end in-transit encryption based on Google best practices.

What should you do?

- A. Create a cross-region load balancer with URL Maps.
- B. Create an HTTPS load balancer with URL maps.

- C. Create appropriate instance groups and instance
- D. Configure SSL proxy load balancing.
- E. Create a global forwarding rule
- F. Configure SSL proxy balancing.

**Answer:** B

**Explanation:**

Reference <https://cloud.google.com/load-balancing/docs/https/url-map>

**NEW QUESTION 174**

- (Exam Topic 5)

Your company is developing a new application that will allow globally distributed users to upload pictures and share them with other selected users. The application will support millions of concurrent users. You want to allow developers to focus on just building code without having to create and maintain the underlying infrastructure. Which service should you use to deploy the application?

- A. App Engine
- B. Cloud Endpoints
- C. Compute Engine
- D. Google Kubernetes Engine

**Answer:** A

**Explanation:**

Reference: <https://cloud.google.com/terms/services> <https://cloud.google.com/appengine/docs/standard/go/how-requests-are-handled>

**NEW QUESTION 179**

- (Exam Topic 5)

You are working at a sports association whose members range in age from 8 to 30. The association collects a large amount of health data, such as sustained injuries. You are storing this data in BigQuery. Current legislation requires you to delete such information upon request of the subject. You want to design a solution that can accommodate such a request. What should you do?

- A. Use a unique identifier for each individual
- B. Upon a deletion request, delete all rows from BigQuery with this identifier.
- C. When ingesting new data in BigQuery, run the data through the Data Loss Prevention (DLP) API to identify any personal information
- D. As part of the DLP scan, save the result to Data Catalog
- E. Upon a deletion request, query Data Catalog to find the column with personal information.
- F. Create a BigQuery view over the table that contains all data
- G. Upon a deletion request, exclude the rows that affect the subject's data from this view
- H. Use this view instead of the source table for all analysis tasks.
- I. Use a unique identifier for each individual
- J. Upon a deletion request, overwrite the column with the unique identifier with a salted SHA256 of its value.

**Answer:** B

**Explanation:**

Current legislation requires you to delete "SUCH" information upon request of the subject. " So from that point of view the question is not to delete the entire user records but specific data related to personal health data. With DLP you can use InfoTypes and InfoType detectors to specifically scan for those entries and how to act upon them (link <https://cloud.google.com/dlp/docs/concepts-infotypes>)  
<https://cloud.google.com/dlp#section-6>

**NEW QUESTION 184**

- (Exam Topic 5)

Your company has a networking team and a development team. The development team runs applications on Compute Engine instances that contain sensitive data. The development team requires administrative permissions for Compute Engine. Your company requires all network resources to be managed by the networking team. The development team does not want the networking team to have access to the sensitive data on the instances. What should you do?

- A. \* 1. Create a project with a standalone VPC and assign the Network Admin role to the networking team.\* 2. Create a second project with a standalone VPC and assign the Compute Admin role to the development team.\* 3. Use Cloud VPN to join the two VPCs.
- B. \* 1. Create a project with a standalone Virtual Private Cloud (VPC), assign the Network Admin role to the networking team, and assign the Compute Admin role to the development team.
- C. \* 1. Create a project with a Shared VPC and assign the Network Admin role to the networking team.\* 2. Create a second project without a VPC, configure it as a Shared VPC service project, and assign the Compute Admin role to the development team.
- D. \* 1. Create a project with a standalone VPC and assign the Network Admin role to the networking team.\* 2. Create a second project with a standalone VPC and assign the Compute Admin role to the development team.\* 3. Use VPC Peering to join the two VPCs.

**Answer:** C

**Explanation:**

In this scenario, a large organization has a central team that manages security and networking controls for the entire organization. Developers do not have permissions to make changes to any network or security settings defined by the security and networking team but they are granted permission to create resources such as virtual machines in shared subnets. To facilitate this the organization makes use of a shared VPC (Virtual Private Cloud). A shared VPC allows creation of a VPC network of RFC 1918 IP spaces that associated projects (service projects) can then use. Developers using the associated projects can create VM instances in the shared VPC network spaces. The organization's network and security admins can create subnets, VPNs, and firewall rules usable by all the projects in the VPC network.

[https://cloud.google.com/iam/docs/job-functions/networking#single\\_team\\_manages\\_security\\_network\\_for\\_orga](https://cloud.google.com/iam/docs/job-functions/networking#single_team_manages_security_network_for_orga)

Reference: <https://cloud.google.com/vpc/docs/shared-vpc>

**NEW QUESTION 187**

- (Exam Topic 5)

Your company has a Kubernetes application that pulls messages from Pub/Sub and stores them in Firestore. Because the application is simple, it was deployed as a single pod. The infrastructure team has analyzed Pub/Sub metrics and discovered that the application cannot process the messages in real time. Most of them wait for minutes before being processed. You need to scale the elaboration process that is I/O-intensive. What should you do?

- A. Configure a Kubernetes autoscaling based on the subscription/push\_request metric.
- B. Use the `--enable-autoscaling` flag when you create the Kubernetes cluster
- C. Configure a Kubernetes autoscaling based on the subscription/num\_undelivered message metric.
- D. Use `kubectl autoscale deployment APP_NAME --max 6 --min 2 --cpu-percent 50` to configure Kubernetes autoscaling deployment

**Answer:** A

**Explanation:**

[https://cloud.google.com/kubernetes-engine/docs/concepts/custom-and-external-metrics#external\\_metrics](https://cloud.google.com/kubernetes-engine/docs/concepts/custom-and-external-metrics#external_metrics)

#### NEW QUESTION 189

- (Exam Topic 5)

Your customer wants to do resilience testing of their authentication layer. This consists of a regional managed instance group serving a public REST API that reads from and writes to a Cloud SQL instance. What should you do?

- A. Engage with a security company to run web scrapes that look your users' authentication data on malicious websites and notify you if any is found.
- B. Deploy intrusion detection software to your virtual machines to detect and log unauthorized access.
- C. Schedule a disaster simulation exercise during which you can shut off all VMs in a zone to see how your application behaves.
- D. Configure a red replica for your Cloud SQL instance in a different zone than the master, and then manually trigger a failover while monitoring KPIs for our REST API.

**Answer:** C

#### NEW QUESTION 193

- (Exam Topic 5)

You want your Google Kubernetes Engine cluster to automatically add or remove nodes based on CPU load. What should you do?

- A. Configure a HorizontalPodAutoscaler with a target CPU usage
- B. Enable the Cluster Autoscaler from the GCP Console.
- C. Configure a HorizontalPodAutoscaler with a target CPU usage
- D. Enable autoscaling on the managed instance group for the cluster using the `gcloud` command.
- E. Create a deployment and set the `maxUnavailable` and `maxSurge` properties
- F. Enable the Cluster Autoscaler using the `gcloud` command.
- G. Create a deployment and set the `maxUnavailable` and `maxSurge` properties
- H. Enable autoscaling on the cluster managed instance group from the GCP Console.

**Answer:** B

#### NEW QUESTION 198

- (Exam Topic 5)

You are implementing a single Cloud SQL MySQL second-generation database that contains business-critical transaction data. You want to ensure that the minimum amount of data is lost in case of catastrophic failure. Which two features should you implement? (Choose two.)

- A. Sharding
- B. Read replicas
- C. Binary logging
- D. Automated backups
- E. Semisynchronous replication

**Answer:** CD

**Explanation:**

Backups help you restore lost data to your Cloud SQL instance. Additionally, if an instance is having a problem, you can restore it to a previous state by using the backup to overwrite it. Enable automated backups for any instance that contains necessary data. Backups protect your data from loss or damage.

Enabling automated backups, along with binary logging, is also required for some operations, such as clone and replica creation.

Reference: <https://cloud.google.com/sql/docs/mysql/backup-recovery/backups>

#### NEW QUESTION 199

- (Exam Topic 5)

Your company captures all web traffic data in Google Analytics 260 and stores it in BigQuery. Each country has its own dataset. Each dataset has multiple tables. You want analysts from each country to be able to see and query only the data for their respective countries. How should you configure the access rights?

- A. Create a group per country
- B. Add analysts to their respective country-group
- C. Create a single group 'all\_analysts', and add all country-groups as member
- D. Grant the 'all-analysis' group the IAM role of BigQuery jobUser
- E. Share the appropriate dataset with view access with each respective analyst country-group.
- F. Create a group per country
- G. Add analysts to their respective country-group
- H. Create a single group 'all\_analysts', and add all country-groups as member
- I. Grant the 'all-analysis' group the IAM role of BigQuery jobUser
- J. Share the appropriate tables with view access with each respective analystcountrygroup.

- K. Create a group per countr
- L. Add analysts to their respective country-group
- M. Create a single group 'all\_analysts', and add all country-groups as member
- N. Grant the 'all-analysis' group the IAM role of BigQuery dataViewe
- O. Share the appropriate dataset with view access with each respective analyst country-group.
- P. Create a group per countr
- Q. Add analysts to their respective country-group
- R. Create a single group 'all\_analysts', and add all country-groups as member
- S. Grant the 'all-analysis' group the IAM role of BigQuery dataViewe
- T. Share the appropriate table with view access with each respective analyst countrygroup.

**Answer: A**

#### NEW QUESTION 201

- (Exam Topic 5)

You want to store critical business information in Cloud Storage buckets. The information is regularly changed but previous versions need to be referenced on a regular basis. You want to ensure that there is a record of all changes to any information in these buckets. You want to ensure that accidental edits or deletions can be easily roiled back. Which feature should you enable?

- A. Bucket Lock
- B. Object Versioning
- C. Object change notification
- D. Object Lifecycle Management

**Answer: B**

#### NEW QUESTION 202

- (Exam Topic 5)

You are moving an application that uses MySQL from on-premises to Google Cloud. The application will run on Compute Engine and will use Cloud SQL. You want to cut over to the Compute Engine deployment of the application with minimal downtime and no data loss to your customers. You want to migrate the application with minimal modification. You also need to determine the cutover strategy. What should you do?

- A. \* 1. Set up Cloud VPN to provide private network connectivity between the Compute Engine application and the on-premises MySQL server.\* 2. Stop the on-premises application.\* 3. Create a mysqldump of the on-premises MySQL serve
- B. \* 4.Upload the dump to a Cloud Storage bucket.\* 5. Import the dump into Cloud SQL.\* 6. Modify the source code of the application to write queries to both databases and read from its local database.\* 7. Start the Compute Engine applicatio
- C. 8.Stop the on-premises application.
- D. \* 1. Set up Cloud SQL proxy and MySQL proxy.\* 2. Create a mysqldump of the on-premises MySQL serve
- E. \* 3. Upload the dump to a Cloud Storage bucket.\* 4. Import the dump into Cloud SQ
- F. \* 5. Stop the on-premises applicatio
- G. \* 6. Start the Compute Engine application.
- H. \* 1. Set up Cloud VPN to provide private network connectivity between the Compute Engine applicationand the on-premises MySQL serve
- I. \* 2. Stop the on-premises application.\* 3. Start the Compute Engine application, configured to read and write to the on-premises MySQL serve
- J. \* 4. Create the replication configuration in Cloud SQL.\* 5. Configure the source database server to accept connections from the Cloud SQL replic
- K. \* 6. Finalize the Cloud SQL replica configuration.\* 7. When replication has been completed, stop the Compute Engine applicatio
- L. \* 8. Promote the Cloud SQL replica to a standalone instance.\* 9. Restart the Compute Engine application, configured to read and write to the Cloud SQL standalone instance.
- M. \* 1. Stop the on-premises application.\* 2. Create a mysqldump of the on-premises MySQL serve
- N. \* 3. Upload the dump to a Cloud Storage bucket.\* 4. Import the dump into Cloud SQL.\* 5. Start the application on Compute Engine.

**Answer: C**

#### Explanation:

External replica promotion migration In the migration strategy of external replica promotion, you create an external database replica and synchronize the existing data to that replica. This can happen with minimal downtime to the existing database. When you have a replica database, the two databases have different roles that are referred to in this document as primary and replica. After the data is synchronized, you promote the replica to be the primary in order to move the management layer with minimal impact to database uptime. In Cloud SQL, an easy way to accomplish the external replica promotion is to use the automated migration workflow. This process automates many of the steps that are needed for this type of migration.

<https://cloud.google.com/architecture/migrating-mysql-to-cloudsql-concept>

- The best option for migrating your MySQL database is to use an external replica promotion. In this strategy, you create a replica database and set your existing database as the primary. You wait until the two databases are in sync, and you then promote your MySQL replica database to be the primary. This process minimizes database downtime related to the database migration. [https://cloud.google.com/architecture/migrating-mysql-to-cloudsql-concept#external\\_replica\\_promotion\\_migrat](https://cloud.google.com/architecture/migrating-mysql-to-cloudsql-concept#external_replica_promotion_migrat)

#### NEW QUESTION 207

- (Exam Topic 5)

Your organization has a 3-tier web application deployed in the same network on Google Cloud Platform. Each tier (web, API, and database) scales independently of the others Network traffic should flow through the web to the API tier and then on to the database tier. Traffic should not flow between the web and the database tier. How should you configure the network?

- A. Add each tier to a different subnetwork.
- B. Set up software based firewalls on individual VMs.
- C. Add tags to each tier and set up routes to allow the desired traffic flow.
- D. Add tags to each tier and set up firewall rules to allow the desired traffic flow.

**Answer: D**

#### Explanation:

<https://aws.amazon.com/blogs/aws/building-three-tier-architectures-with-security-groups/>

Google Cloud Platform(GCP) enforces firewall rules through rules and tags. GCP rules and tags can be defined once and used across all regions.

References: <https://cloud.google.com/docs/compare/openstack/> <https://aws.amazon.com/it/blogs/aws/building-three-tier-architectures-with-security-groups/>

### NEW QUESTION 208

- (Exam Topic 5)

Your company and one of its partners each have a Google Cloud project in separate organizations. Your company's project (prj-a) runs in Virtual Private Cloud (vpc-a). The partner's project (prj-b) runs in vpc-b. There are two instances running on vpc-a and one instance running on vpc-b. Subnets defined in both VPCs are not overlapping. You need to ensure that all instances communicate with each other via internal IPs minimizing latency and maximizing throughput. What should you do?

- A. Set up a network peering between vpc-a and vpc-b
- B. Set up a VPN between vpc-a and vpc-b using Cloud VPN
- C. Configure IAP TCP forwarding on the instance in vpc-b and then launch the following gcloud command from one of the instances in vpc-a:  
\* 1. Create an additional instance in vpc-a\* 2. Create an additional instance in vpc-b\* 3. Install OpenVPN in newly created instances\* 4. Configure a VPN tunnel between vpc-a and vpc-b with the help of OpenVPN

**Answer: C**

### NEW QUESTION 212

- (Exam Topic 5)

Your company is forecasting a sharp increase in the number and size of Apache Spark and Hadoop jobs being run on your local datacenter. You want to utilize the cloud to help you scale this upcoming demand with the least amount of operations work and code change. Which product should you use?

- A. Google Cloud Dataflow
- B. Google Cloud Dataproc
- C. Google Compute Engine
- D. Google Container Engine

**Answer: B**

#### Explanation:

Google Cloud Dataproc is a fast, easy-to-use, low-cost and fully managed service that lets you run the Apache Spark and Apache Hadoop ecosystem on Google Cloud Platform. Cloud Dataproc provisions big or small clusters rapidly, supports many popular job types, and is integrated with other Google Cloud Platform services, such as Google Cloud Storage and Stackdriver Logging, thus helping you reduce TCO.

References: <https://cloud.google.com/dataproc/docs/resources/faq>

### NEW QUESTION 213

- (Exam Topic 5)

You want to optimize the performance of an accurate, real-time, weather-charting application. The data comes from 50,000 sensors sending 10 readings a second, in the format of a timestamp and sensor reading. Where should you store the data?

- A. Google BigQuery
- B. Google Cloud SQL
- C. Google Cloud Bigtable
- D. Google Cloud Storage

**Answer: C**

#### Explanation:

It is time-series data, so Big Table. <https://cloud.google.com/bigtable/docs/schema-design-time-series>

Google Cloud Bigtable is a scalable, fully-managed NoSQL wide-column database that is suitable for both real-time access and analytics workloads.

Good for:

- > Low-latency read/write access
- > High-throughput analytics
- > Native time series support
- > Common workloads:
- > IoT, finance, adtech
- > Personalization, recommendations
- > Monitoring
- > Geospatial datasets
- > Graphs

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

### NEW QUESTION 216

- (Exam Topic 5)

You are developing your microservices application on Google Kubernetes Engine. During testing, you want to validate the behavior of your application in case a specific microservice should suddenly crash. What should you do?

- A. Add a taint to one of the nodes of the Kubernetes cluster
- B. For the specific microservice, configure a pod anti-affinity label that has the name of the tainted node as a value.
- C. Use Istio's fault injection on the particular microservice whose faulty behavior you want to simulate.
- D. Destroy one of the nodes of the Kubernetes cluster to observe the behavior.
- E. Configure Istio's traffic management features to steer the traffic away from a crashing microservice.

**Answer: B**

#### Explanation:

Microservice runs on all nodes. The Micro service runs on Pod, Pod runs on Nodes. Nodes is nothing but Virtual machines. Once deployed the application microservices will get deployed across all Nodes. Destroying one node may not mimic the behaviour of microservice crashing as it may be running in other nodes.  
link: <https://istio.io/latest/docs/tasks/traffic-management/fault-injection/>

#### NEW QUESTION 221

- (Exam Topic 6)

For this question, refer to the Dress4Win case study. To be legally compliant during an audit, Dress4Win must be able to give insights in all administrative actions that modify the configuration or metadata of resources on Google Cloud.

What should you do?

- A. Use Stackdriver Trace to create a trace list analysis.
- B. Use Stackdriver Monitoring to create a dashboard on the project's activity.
- C. Enable Cloud Identity-Aware Proxy in all projects, and add the group of Administrators as a member.
- D. Use the Activity page in the GCP Console and Stackdriver Logging to provide the required insight.

**Answer:** A

#### Explanation:

<https://cloud.google.com/logging/docs/audit/>

#### NEW QUESTION 223

- (Exam Topic 6)

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
- B. Deploy a Cloud SQL server to replace MySQL
- C. Deploy Jenkins using Cloud Deployment Manager.
- D. Deploy Nginx and Tomcat using Cloud Launcher
- E. Deploy a MySQL server using Cloud Launcher. Deploy Jenkins to Compute Engine using Cloud Deployment Manager scripts.
- F. Migrate Nginx and Tomcat to App Engine
- G. Deploy a Cloud Datastore server to replace the MySQL server in a high-availability configuration
- H. Deploy Jenkins to Compute Engine using Cloud Launcher.
- I. Migrate Nginx and Tomcat to App Engine
- J. Deploy a MySQL server using Cloud Launcher
- K. Deploy Jenkins to Compute Engine using Cloud Launcher.

**Answer:** A

#### NEW QUESTION 227

- (Exam Topic 7)

For this question, refer to the TerramEarth case study. Considering the technical requirements, how should you reduce the unplanned vehicle downtime in GCP?

- A. Use BigQuery as the data warehouse
- B. Connect all vehicles to the network and stream data into BigQuery using Cloud Pub/Sub and Cloud Dataflow
- C. Use Google Data Studio for analysis and reporting.
- D. Use BigQuery as the data warehouse
- E. Connect all vehicles to the network and upload gzip files to a Multi-Regional Cloud Storage bucket using gcloud
- F. Use Google Data Studio for analysis and reporting.
- G. Use Cloud Dataproc Hive as the data warehouse
- H. Upload gzip files to a MultiRegional Cloud Storage bucket
- I. Upload this data into BigQuery using gcloud
- J. Use Google data Studio for analysis and reporting.
- K. Use Cloud Dataproc Hive as the data warehouse
- L. Directly stream data into partitioned Hive table
- M. Use Pig scripts to analyze data.

**Answer:** A

#### NEW QUESTION 228

- (Exam Topic 7)

TerramEarth has about 1 petabyte (PB) of vehicle testing data in a private data center. You want to move the data to Cloud Storage for your machine learning team. Currently, a 1-Gbps interconnect link is available for you. The machine learning team wants to start using the data in a month. What should you do?

- A. Request Transfer Appliances from Google Cloud, export the data to appliances, and return the appliances to Google Cloud.
- B. Configure the Storage Transfer service from Google Cloud to send the data from your data center to Cloud Storage
- C. Make sure there are no other users consuming the 1 Gbps link, and use multi-thread transfer to upload the data to Cloud Storage.
- D. Export files to an encrypted USB device, send the device to Google Cloud, and request an import of the data to Cloud Storage

**Answer:** A

#### NEW QUESTION 232

- (Exam Topic 7)

You are migrating a Linux-based application from your private data center to Google Cloud. The TerramEarth security team sent you several recent Linux vulnerabilities published by Common Vulnerabilities and Exposures (CVE). You need assistance in understanding how these vulnerabilities could impact your migration. What should you do?

- A. Open a support case regarding the CVE and chat with the support engineer.

- B. Read the CVEs from the Google Cloud Status Dashboard to understand the impact.
- C. Read the CVEs from the Google Cloud Platform Security Bulletins to understand the impact
- D. Post a question regarding the CVE in Stack Overflow to get an explanation
- E. Post a question regarding the CVE in a Google Cloud discussion group to get an explanation

**Answer:** AC

**Explanation:**

<https://cloud.google.com/support/bulletins>

#### NEW QUESTION 237

- (Exam Topic 7)

For this question, refer to the TerramEarth case study. To be compliant with European GDPR regulation, TerramEarth is required to delete data generated from its European customers after a period of 36 months when it contains personal data. In the new architecture, this data will be stored in both Cloud Storage and BigQuery. What should you do?

- A. Create a BigQuery table for the European data, and set the table retention period to 36 month
- B. For Cloud Storage, use gsutil to enable lifecycle management using a DELETE action with an Age condition of 36 months.
- C. Create a BigQuery table for the European data, and set the table retention period to 36 month
- D. For Cloud Storage, use gsutil to create a SetStorageClass to NONE action when with an Age condition of 36 months.
- E. Create a BigQuery time-partitioned table for the European data, and set the partition expiration period to 36 month
- F. For Cloud Storage, use gsutil to enable lifecycle management using a DELETE action with an Age condition of 36 months.
- G. Create a BigQuery time-partitioned table for the European data, and set the partition period to 36 month
- H. For Cloud Storage, use gsutil to create a SetStorageClass to NONE action with an Age condition of 36 months.

**Answer:** C

**Explanation:**

<https://cloud.google.com/bigquery/docs/managing-partitioned-tables#partition-expiration> <https://cloud.google.com/storage/docs/lifecycle>

#### NEW QUESTION 241

- (Exam Topic 8)

For this question, refer to the Mountkirk Games case study. You are in charge of the new Game Backend Platform architecture. The game communicates with the backend over a REST API.

You want to follow Google-recommended practices. How should you design the backend?

- A. Create an instance template for the backen
- B. For every region, deploy it on a multi-zone managed instance grou
- C. Use an L4 load balancer.
- D. Create an instance template for the backen
- E. For every region, deploy it on a single-zone managed instance grou
- F. Use an L4 load balancer.
- G. Create an instance template for the backen
- H. For every region, deploy it on a multi-zone managed instance grou
- I. Use an L7 load balancer.
- J. Create an instance template for the backen
- K. For every region, deploy it on a single-zone managed instance grou
- L. Use an L7 load balancer.

**Answer:** C

**Explanation:**

[https://cloud.google.com/solutions/gaming/cloud-game-infrastructure#dedicated\\_game\\_server](https://cloud.google.com/solutions/gaming/cloud-game-infrastructure#dedicated_game_server)

#### NEW QUESTION 246

- (Exam Topic 8)

You need to implement a network ingress for a new game that meets the defined business and technical requirements. Mountkirk Games wants each regional game instance to be located in multiple Google Cloud regions. What should you do?

- A. Configure a global load balancer connected to a managed instance group running Compute Engine instances.
- B. Configure kubemci with a global load balancer and Google Kubernetes Engine.
- C. Configure a global load balancer with Google Kubernetes Engine.
- D. Configure Ingress for Anthos with a global load balancer and Google Kubernetes Engine.

**Answer:** A

#### NEW QUESTION 251

- (Exam Topic 8)

You are implementing Firestore for Mountkirk Games. Mountkirk Games wants to give a new game programmatic access to a legacy game's Firestore database. Access should be as restricted as possible. What should you do?

- A. Create a service account (SA) in the legacy game's Google Cloud project, add this SA in the new game's IAM page, and then give it the Firebase Admin role in both projects
- B. Create a service account (SA) in the legacy game's Google Cloud project, add a second SA in the new game's IAM page, and then give the Organization Admin role to both SAs
- C. Create a service account (SA) in the legacy game's Google Cloud project, give it the Firebase Admin role, and then migrate the new game to the legacy game's project.
- D. Create a service account (SA) in the legacy game's Google Cloud project, give the SA the Organization Admin rule and then give it the Firebase Admin role in both projects

Answer: B

#### NEW QUESTION 255

- (Exam Topic 9)

For this question, refer to the Helicopter Racing League (HRL) case study. Recently HRL started a new regional racing league in Cape Town, South Africa. In an effort to give customers in Cape Town a better user experience, HRL has partnered with the Content Delivery Network provider, Fastly. HRL needs to allow traffic coming from all of the Fastly IP address ranges into their Virtual Private Cloud network (VPC network). You are a member of the HRL security team and you need to configure the update that will allow only the Fastly IP address ranges through the External HTTP(S) load balancer. Which command should you use?

- A. `gcloud compute firewall rules update hlr-policy --priority 1000 --target tags-sourceip:fastly --allow tcp:443`
- B. `gcloud compute security policies rules update 1000 --security-policy hlr-policy --expression "evaluatePreconfiguredExpr('sourceip:fastly')" --action "allow"`
- C. `gcloud compute firewall rules update sourceip:fastly --priority 1000 --allow tcp: 443`
- D. `gcloud compute priority-policies rules update 1000 --security-policy from fastly--src- ip-ranges-- action " allow"`

Answer: B

#### Explanation:

Reference: <https://cloud.google.com/load-balancing/docs/https/D18912E1457D5D1DDCBD40AB3BF70D5D>

#### NEW QUESTION 258

- (Exam Topic 9)

For this question, refer to the Helicopter Racing League (HRL) case study. A recent finance audit of cloud infrastructure noted an exceptionally high number of Compute Engine instances are allocated to do video encoding and transcoding. You suspect that these Virtual Machines are zombie machines that were not deleted after their workloads completed. You need to quickly get a list of which VM instances are idle. What should you do?

- A. Log into each Compute Engine instance and collect disk, CPU, memory, and network usage statistics for analysis.
- B. Use the `gcloud compute instances list` to list the virtual machine instances that have the `idle: true` label set.
- C. Use the `gcloud recommender` command to list the idle virtual machine instances.
- D. From the Google Console, identify which Compute Engine instances in the managed instance groups are no longer responding to health check probes.

Answer: C

#### Explanation:

Reference: <https://cloud.google.com/compute/docs/instances/viewing-and-applying-idle-vm-recommendations>

#### NEW QUESTION 259

- (Exam Topic 9)

For this question, refer to the Helicopter Racing League (HRL) case study. Your team is in charge of creating a payment card data vault for card numbers used to bill tens of thousands of viewers, merchandise consumers, and season ticket holders. You need to implement a custom card tokenization service that meets the following requirements:

- It must provide low latency at minimal cost.
- It must be able to identify duplicate credit cards and must not store plaintext card numbers.
- It should support annual key rotation.

Which storage approach should you adopt for your tokenization service?

- A. Store the card data in Secret Manager after running a query to identify duplicates.
- B. Encrypt the card data with a deterministic algorithm stored in Firestore using Datastore mode.
- C. Encrypt the card data with a deterministic algorithm and shard it across multiple Memorystore instances.
- D. Use column-level encryption to store the data in Cloud SQL.

Answer: B

#### NEW QUESTION 260

- (Exam Topic 10)

For this question, refer to the EHR Healthcare case study. EHR has single Dedicated Interconnect connection between their primary data center and Google's network. This connection satisfies EHR's network and security policies:

- On-premises servers without public IP addresses need to connect to cloud resources without public IP addresses
- Traffic flows from production network mgmt. servers to Compute Engine virtual machines should never traverse the public internet.

You need to upgrade the EHR connection to comply with their requirements. The new connection design must support business critical needs and meet the same network and security policy requirements. What should you do?

- A. Add a new Dedicated Interconnect connection
- B. Upgrade the bandwidth on the Dedicated Interconnect connection to 100 G
- C. Add three new Cloud VPN connections
- D. Add a new Carrier Peering connection

Answer: A

#### Explanation:

The case does not call out the throughput being an issue. However, to achieve 99.99%, you need to have 4 connections as per Google recommendations. However, in the options only A has the option to add an additional Interconnect connection.

<https://cloud.google.com/network-connectivity/docs/interconnect/concepts/dedicated-overview#availability>

#### NEW QUESTION 261

- (Exam Topic 10)

For this question, refer to the EHR Healthcare case study. You need to define the technical architecture for securely deploying workloads to Google Cloud. You also need to ensure that only verified containers are deployed using Google Cloud services. What should you do? (Choose two.)

- A. Enable Binary Authorization on GKE, and sign containers as part of a CI/CD pipeline.
- B. Configure Jenkins to utilize Kritis to cryptographically sign a container as part of a CI/CD pipeline.
- C. Configure Container Registry to only allow trusted service accounts to create and deploy containers from the registry.
- D. Configure Container Registry to use vulnerability scanning to confirm that there are no vulnerabilities before deploying the workload.

**Answer:** A

**Explanation:**

Binary Authorization to ensure only verified containers are deployed To ensure deployment are secure and and consistent, automatically scan images for vulnerabilities with container analysis ([https://cloud.google.com/docs/ci-cd/overview?hl=en&skip\\_cache=true](https://cloud.google.com/docs/ci-cd/overview?hl=en&skip_cache=true))

**NEW QUESTION 262**

- (Exam Topic 10)

For this question, refer to the EHR Healthcare case study. You are responsible for designing the Google Cloud network architecture for Google Kubernetes Engine. You want to follow Google best practices. Considering the EHR Healthcare business and technical requirements, what should you do to reduce the attack surface?

- A. Use a private cluster with a private endpoint with master authorized networks configured.
- B. Use a public cluster with firewall rules and Virtual Private Cloud (VPC) routes.
- C. Use a private cluster with a public endpoint with master authorized networks configured.
- D. Use a public cluster with master authorized networks enabled and firewall rules.

**Answer:** A

**Explanation:**

<https://cloud.google.com/kubernetes-engine/docs/concepts/private-cluster-concept#overview>

**NEW QUESTION 266**

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