

# Google

## Exam Questions Professional-Cloud-Architect

Google Certified Professional - Cloud Architect (GCP)



#### NEW QUESTION 1

- (Topic 1)

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

Mountkirk Games wants you to design their new testing strategy. How should the test coverage differ from their existing backends on the other platforms?

- A. Tests should scale well beyond the prior approaches.
- B. Unit tests are no longer required, only end-to-end tests.
- C. Tests should be applied after the release is in the production environment.
- D. Tests should include directly testing the Google Cloud Platform (GCP) infrastructure.

**Answer:** A

#### Explanation:

From Scenario:

A few of their games were more popular than expected, and they had problems scaling their application servers, MySQL databases, and analytics tools.

Requirements for Game Analytics Platform include: Dynamically scale up or down based on game activity

#### NEW QUESTION 2

- (Topic 2)

For this question, refer to the TerramEarth case study.

TerramEarth plans to connect all 20 million vehicles in the field to the cloud. This increases the volume to 20 million 600 byte records a second for 40 TB an hour.

How should you design the data ingestion?

- A. Vehicles write data directly to GCS.
- B. Vehicles write data directly to Google Cloud Pub/Sub.
- C. Vehicles stream data directly to Google BigQuery.
- D. Vehicles continue to write data using the existing system (FTP).

**Answer:** B

#### Explanation:

<https://cloud.google.com/solutions/data-lifecycle-cloud-platform> <https://cloud.google.com/solutions/designing-connected-vehicle-platform>

#### NEW QUESTION 3

- (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 conclude 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 4

- (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 5

- (Topic 3)

For this question, refer to the JencoMart case study

A few days after JencoMart migrates the user credentials database to Google Cloud Platform and shuts down the old server, the new database server stops responding to SSH connections. It is still serving database requests to the application servers correctly. What three steps should you take to diagnose the problem? Choose 3 answers

- A. Delete the virtual machine (VM) and disks and create a new one.
- B. Delete the instance, attach the disk to a new VM, and investigate.
- C. Take a snapshot of the disk and connect to a new machine to investigate.
- D. Check inbound firewall rules for the network the machine is connected to.

- E. Connect the machine to another network with very simple firewall rules and investigate.
- F. Print the Serial Console output for the instance for troubleshooting, activate the interactive console, and investigate.

**Answer:** CDF

**Explanation:**

<https://cloud.google.com/compute/docs/troubleshooting/troubleshooting-ssh>

D: Handling "Unable to connect on port 22" error message Possible causes include:

There is no firewall rule allowing SSH access on the port. SSH access on port 22 is enabled on all Compute Engine instances by default. If you have disabled access, SSH from the Browser will not work. If you run sshd on a port other than 22, you need to enable the access to that port with a custom firewall rule.

The firewall rule allowing SSH access is enabled, but is not configured to allow connections from GCP Console services. Source IP addresses for browser-based SSH sessions are dynamically allocated by GCP Console and can vary from session to session.

References: <https://cloud.google.com/compute/docs/ssh-in-browser> <https://cloud.google.com/compute/docs/ssh-in-browser>

**NEW QUESTION 6**

- (Topic 4)

For this question, refer to the Dress4Win case study.

Dress4Win would like to become familiar with deploying applications to the cloud by successfully deploying some applications quickly, as is. They have asked for your recommendation. What should you advise?

- A. Identify self-contained applications with external dependencies as a first move to the cloud.
- B. Identify enterprise applications with internal dependencies and recommend these as a first move to the cloud.
- C. Suggest moving their in-house databases to the cloud and continue serving requests to on-premise applications.
- D. Recommend moving their message queuing servers to the cloud and continue handling requests to on-premise applications.

**Answer:** A

**Explanation:**

<https://cloud.google.com/blog/products/gcp/the-five-phases-of-migrating-to-google-cloud-platform>

**NEW QUESTION 7**

- (Topic 4)

Dress4win has end to end tests covering 100% of their endpoints.

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

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

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

**Answer:** B

**NEW QUESTION 8**

- (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 countr
- 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 jobUse
- E. Share the appropriate dataset with view access with each respective analyst country-group.
- F. Create a group per countr
- 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 jobUse
- J. Share the appropriate tables with view access with each respective analyst countrygroup.
- 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 analystcountry-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 9**

- (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

A.

**Answer: B**

### NEW QUESTION 10

- (Topic 5)

Your company is planning to upload several important files to Cloud Storage. After the upload is completed, they want to verify that the upload content is identical to what they have on-premises. You want to minimize the cost and effort of performing this check. What should you do?

A.

1) Use gsutil -m to upload all the files to Cloud Storage.

2) Use gsutil cp to download the uploaded files

3) Use Linux diff to compare the content of the files

B.

1) Use gsutil -m to upload all the files to Cloud Storage.

2) Develop a custom Java application that computes CRC32C hashes

3) Use gsutil ls -L gs://[YOUR\_BUCKET\_NAME] to collect CRC32C hashes of the uploaded files

4) Compare the hashes

C.

1) Use Linux shasum to compute a digest of files you want to upload

2) Use gsutil -m to upload all the files to the Cloud Storage

3) Use gsutil cp to download the uploaded files

4) Use Linux shasum to compute a digest of the downloaded files 5) Compare the hashes

D.

1) Use gsutil -m to upload all the files to Cloud Storage.

2) Use gsutil hash -c FILE\_NAME to generate CRC32C hashes of all on-premises files 3) Use gsutil ls -L gs://[YOUR\_BUCKET\_NAME] to collect CRC32C hashes of the uploaded files

4) Compare the hashes

A.

**Answer: D**

#### Explanation:

<https://cloud.google.com/storage/docs/gsutil/commands/hash>

### NEW QUESTION 10

- (Topic 5)

You have a Python web application with many dependencies that requires 0.1 CPU cores and 128 MB of memory to operate in production. You want to monitor and maximize machine utilization. You also want to reliably deploy new versions of the application. Which set of steps should you take?

A. Perform the following: 1) Create a managed instance group with f1-micro type machines. 2) Use a startup script to clone the repository, check out the production branch, install the dependencies, and start the Python app. 3) Restart the instances to automatically deploy new production releases.

B. Perform the following: 1) Create a managed instance group with n1-standard-1 type machines. 2) Build a Compute Engine image from the production branch that contains all of the dependencies and automatically starts the Python app. 3) Rebuild the Compute Engine image, and update the instance template to deploy new production releases.

C. Perform the following: 1) Create a Kubernetes Engine cluster with n1-standard-1 type machines. 2) Build a Docker image from the production branch with all of the dependencies, and tag it with the version number. 3) Create a Kubernetes Deployment with the imagePullPolicy set to "IfNotPresent" in the staging namespace, and then promote it to the production namespace after testing.

D. Perform the following: 1) Create a Kubernetes Engine (GKE) cluster with n1-standard-4 type machines. 2) Build a Docker image from the master branch with all of the dependencies, and tag it with "latest". 3) Create a Kubernetes Deployment in the default namespace with the imagePullPolicy set to "Always". Restart the pods to automatically deploy new production releases.

**Answer: D**

#### Explanation:

<https://cloud.google.com/compute/docs/instance-templates>

### NEW QUESTION 11

- (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 14**

- (Topic 5)

You are helping the QA team to roll out a new load-testing tool to test the scalability of your primary cloud services that run on Google Compute Engine with Cloud Bigtable. Which three requirements should they include? Choose 3 answers

- A. Ensure that the load tests validate the performance of Cloud Bigtable.
- B. Create a separate Google Cloud project to use for the load-testing environment.
- C. Schedule the load-testing tool to regularly run against the production environment.
- D. Ensure all third-party systems your services use are capable of handling high load.
- E. Instrument the production services to record every transaction for replay by the load-testing tool.
- F. Instrument the load-testing tool and the target services with detailed logging and metrics collection.

**Answer:** ABF

**NEW QUESTION 17**

- (Topic 5)

You are tasked with building an online analytical processing (OLAP) marketing analytics and reporting tool.

This requires a relational database that can operate on hundreds of terabytes of data. What is the Google recommended tool for such applications?

- A. Cloud Spanner, because it is globally distributed
- B. Cloud SQL, because it is a fully managed relational database
- C. Cloud Firestore, because it offers real-time synchronization across devices
- D. BigQuery, because it is designed for large-scale processing of tabular data

**Answer:** A

**Explanation:**

Reference: <https://cloud.google.com/files/BigQueryTechnicalWP.pdf>

**NEW QUESTION 22**

- (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 dedicate
- 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 25**

- (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 30**

- (Topic 5)

Your application needs to process credit card transactions. You want the smallest scope of

Payment Card Industry (PCI) compliance without compromising the ability to analyze transactional data and trends relating to which payment methods are used.

How should you design your architecture?

- A. Create a tokenizer service and store only tokenized data.
- B. Create separate projects that only process credit card data.
- C. Create separate subnetworks and isolate the components that process credit card data.
- D. Streamline the audit discovery phase by labeling all of the virtual machines (VMs) that process PCI data.
- E. Enable Logging export to Google BigQuery and use ACLs and views to scope the data shared with the auditor.

**Answer:** A

**Explanation:**

<https://cloud.google.com/solutions/pci-dss-compliance-in-gcp>

**NEW QUESTION 32**

- (Topic 5)

Your operations team currently stores 10 TB of data in an object storage service from a third-party provider. They want to move this data to a Cloud Storage bucket as quickly as possible, following Google-recommended practices. They want to minimize the cost of this data migration. What approach should they use?

- A. Use the `gsutil mv` command to move the data
- B. Use the Storage Transfer Service to move the data
- C. Download the data to a Transfer Appliance and ship it to Google
- D. Download the data to the on-premises data center and upload it to the Cloud Storage bucket

**Answer:** B

**Explanation:**

<https://cloud.google.com/architecture/migration-to-google-cloud-transferring-your-large-datasets#transfer-options>  
<https://cloud.google.com/storage-transfer-service>

**NEW QUESTION 37**

- (Topic 5)

Your organization has stored sensitive data in a Cloud Storage bucket. For regulatory reasons, your company must be able to rotate the encryption key used to encrypt the data in the bucket. The data will be processed in Dataproc. You want to follow Google-recommended practices for security. What should you do?

- A. Create a key with Cloud Key Management Service (KMS). Encrypt the data using the `encrypt` method of Cloud KMS.
- B. Create a key with Cloud Key Management Service (KMS). Set the encryption key on the bucket to the Cloud KMS key.
- C. Generate a GPG key pair
- D. Encrypt the data using the GPG key
- E. Upload the encrypted data to the bucket.
- F. Generate an AES-256 encryption key
- G. Encrypt the data in the bucket using the customer-supplied encryption keys feature.

**Answer:** AD

**Explanation:**

<https://cloud.google.com/storage/docs/encryption/using-customer-managed-keys#add-object-key>  
<https://cloud.google.com/storage/docs/encryption/using-customer-managed-keys>

**NEW QUESTION 39**

- (Topic 5)

You need to set up Microsoft SQL Server on GCP. Management requires that there's no downtime in case of a data center outage in any of the zones within a GCP region. What should you do?

- A. Configure a Cloud SQL instance with high availability enabled.
- B. Configure a Cloud Spanner instance with a regional instance configuration.
- C. Set up SQL Server on Compute Engine, using Always On Availability Groups using Windows Failover Cluster in
- D. Place nodes in different subnets.
- E. Set up SQL Server Always On Availability Groups using Windows Failover Cluster in
- F. Place nodes in different zones.

**Answer:** D

**Explanation:**

<https://cloud.google.com/sql/docs/sqlserver/configure-ha>

**NEW QUESTION 42**

- (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 45

- (Topic 5)

You are deploying an application on App Engine that needs to integrate with an on- premises database. For security purposes, your on-premises database must not be accessible through the public Internet. What should you do?

- A. Deploy your application on App Engine standard environment and use App Engine firewall rules to limit access to the open on-premises database.
- B. Deploy your application on App Engine standard environment and use Cloud VPN to limit access to the onpremises database.
- C. Deploy your application on App Engine flexible environment and use App Engine firewall rules to limit access to the on-premises database.
- D. Deploy your application on App Engine flexible environment and use Cloud VPN to limit access to the on-premises database.

**Answer: D**

**Explanation:**

<https://cloud.google.com/appengine/docs/flexible/python/using-third-party-databases>

#### NEW QUESTION 50

- (Topic 5)

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

- A. Create the Key object for each Entity and run a batch get operation
- B. Create the Key object for each Entity and run multiple get operations, one operation for each entity
- C. Use the identifiers to create a query filter and run a batch query operation
- D. Use the identifiers to create a query filter and run multiple query operations, one operation for each entity

**Answer: C**

**Explanation:**

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

#### NEW QUESTION 54

- (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: A**

#### Explanation:

? An aggregated export is a type of sink that combines and routes log entries from the Google Cloud resources contained by an organization or folder. By creating an aggregated export on the Production folder, you can capture all the logs from the existing and new production projects in that folder automatically. ? A log sink is a destination for log entries that match a filter. By setting the log sink to be a Cloud Storage bucket in an operations project, you can store the log entries in Cloud Storage and allow your operations team to access them.

#### NEW QUESTION 58

- (Topic 5)

You are running a cluster on Kubernetes Engine to serve a web application. Users are reporting that a specific part of the application is not responding anymore. You notice that all pods of your deployment keep restarting after 2 seconds. The application writes logs to standard output. You want to inspect the logs to find the cause of the issue. Which approach can you take?

- A. Review the Stackdriver logs for each Compute Engine instance that is serving as a node in the cluster.
- B. Review the Stackdriver logs for the specific Kubernetes Engine container that is serving the unresponsive part of the application.
- C. Connect to the cluster using gcloud credentials and connect to a container in one of the pods to read the logs.
- D. Review the Serial Port logs for each Compute Engine instance that is serving as a node in the cluster.

**Answer: B**

#### NEW QUESTION 62

- (Topic 5)

Your development team has installed a new Linux kernel module on the batch servers in Google Compute Engine (GCE) virtual machines (VMs) to speed up the nightly batch process. Two days after the installation, 50% of web application deployed in the same nightly batch run. You want to collect details on the failure to pass back to the development team. Which three actions should you take? Choose 3 answers

- A. Use Stackdriver Logging to search for the module log entries.
- B. Read the debug GCE Activity log using the API or Cloud Console.
- C. Use gcloud or Cloud Console to connect to the serial console and observe the logs.
- D. Identify whether a live migration event of the failed server occurred, using the activity log.
- E. Adjust the Google Stackdriver timeline to match the failure time, and observe the batch server metrics.
- F. Export a debug VM into an image, and run the image on a local server where kernel log messages will be displayed on the native screen.

**Answer: ACE**

#### Explanation:

<https://www.flexera.com/blog/cloud/2013/12/google-compute-engine-live-migration-passes-the-test/>  
 "With live migration, the virtual machines are moved without any downtime or noticeable service degradation"

#### NEW QUESTION 65

- (Topic 5)

You are configuring the cloud network architecture for a newly created project in Google Cloud that will host applications in Compute Engine. Compute Engine virtual machine instances will be created in two different subnets (sub-a and sub-b) within a single region

- Instances in sub-a will have public IP addresses
- Instances in sub-b will have only private IP addresses

To download updated packages, instances must connect to a public repository outside the boundaries of Google Cloud. You need to allow sub-b to access the external repository. What should you do?

- A. Enable Private Google Access on sub-b
- B. Configure Cloud NAT and select sub-b in the NAT mapping section
- C. Configure a bastion host instance in sub-a to connect to instances in sub-b
- D. Enable Identity Aware Proxy for TCP forwarding for instances in sub-b

**Answer: B**

#### Explanation:

? Cloud NAT (network address translation) lets Google Cloud virtual machine (VM) instances without external IP addresses and private Google Kubernetes Engine (GKE) clusters send outbound packets to the internet and receive any corresponding established inbound response packets. By configuring Cloud NAT and selecting sub-b in the NAT mapping section, you can allow instances in sub-b to access the external repository without exposing them to the internet.

#### NEW QUESTION 68

- (Topic 5)

Your company is building a new architecture to support its data-centric business focus. You are responsible for setting up the network. Your company's mobile

and web-facing applications will be deployed on-premises, and all data analysis will be conducted in GCP. The plan is to process and load 7 years of archived .csv files totaling 900 TB of data and then continue loading 10 TB of data daily. You currently have an existing 100-MB internet connection. What actions will meet your company's needs?

- A. Compress and upload both archived files and files uploaded daily using the `gsutil -m` option.
- B. Lease a Transfer Appliance, upload archived files to it, and send it, and send it to Google to transfer archived data to Cloud Storage
- C. Establish a connection with Google using a Dedicated Interconnect or Direct Peering connection and use it to upload files daily.
- D. Lease a Transfer Appliance, upload archived files to it, and send it, and send it to Google to transfer archived data to Cloud Storage
- E. Establish one Cloud VPN Tunnel to VPC networks over the public internet, and compress and upload files daily using the `gsutil -m` option.
- F. Lease a Transfer Appliance, upload archived files to it, and send it to Google to transfer archived data to Cloud Storage
- G. Establish a Cloud VPN Tunnel to VPC networks over the public internet, and compress and upload files daily.

**Answer: B**

**Explanation:**

<https://cloud.google.com/interconnect/docs/how-to/direct-peering>

**NEW QUESTION 71**

- (Topic 5)

Your company is running a stateless application on a Compute Engine instance. The application is used heavily during regular business hours and lightly outside of business hours. Users are reporting that the application is slow during peak hours. You need to optimize the application's performance. What should you do?

- A. Create a snapshot of the existing disk
- B. Create an instance template from the snapshot. Create an autoscaled managed instance group from the instance template.
- C. Create a snapshot of the existing disk
- D. Create a custom image from the snapshot
- E. Create an autoscaled managed instance group from the custom image.
- F. Create a custom image from the existing disk
- G. Create an instance template from the custom image
- H. Create an autoscaled managed instance group from the instance template.
- I. Create an instance template from the existing disk
- J. Create a custom image from the instance template. Create an autoscaled managed instance group from the custom image.

**Answer: B**

**Explanation:**

<https://cloud.google.com/compute/docs/instance-templates/create-instance-templates>

**NEW QUESTION 72**

- (Topic 5)

Your company wants to track whether someone is present in a meeting room reserved for a scheduled meeting. There are 1000 meeting rooms across 5 offices on 3 continents. Each room is equipped with a motion sensor that reports its status every second. The data from the motion detector includes only a sensor ID and several different discrete items of information. Analysts will use this data, together with information about account owners and office locations. Which database type should you use?

- A. Flat file
- B. NoSQL
- C. Relational
- D. Blobstore

**Answer: B**

**Explanation:**

Relational databases were not designed to cope with the scale and agility challenges that face modern applications, nor were they built to take advantage of the commodity storage and processing power available today.

NoSQL fits well for:

– Developers are working with applications that create massive volumes of new, rapidly changing data types — structured, semi-structured, unstructured and polymorphic data.

**NEW QUESTION 74**

- (Topic 5)

You set up an autoscaling instance group to serve web traffic for an upcoming launch. After configuring the instance group as a backend service to an HTTP(S) load balancer, you notice that virtual machine (VM) instances are being terminated and re-launched every minute. The instances do not have a public IP address. You have verified the appropriate web response is coming from each instance using the `curl` command. You want to ensure the backend is configured correctly. What should you do?

- A. Ensure that a firewall rule exists to allow source traffic on HTTP/HTTPS to reach the load balancer.
- B. Assign a public IP to each instance and configure a firewall rule to allow the load balancer to reach the instance public IP.
- C. Ensure that a firewall rule exists to allow load balancer health checks to reach the instances in the instance group.
- D. Create a tag on each instance with the name of the load balancer
- E. Configure a firewall rule with the name of the load balancer as the source and the instance tag as the destination.

**Answer: C**

**Explanation:**

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

The best practice when configuring a health check is to check health and serve traffic on the same port. However, it is possible to perform health checks on one port, but serve traffic on another. If you do use two different ports, ensure that firewall rules and services running on instances are configured appropriately. If you run health checks and serve traffic on the same port, but decide to switch ports at some point, be sure to update both the backend service and the health check.

Backend services that do not have a valid global forwarding rule referencing it will not be health checked and will have no health status.  
 References: <https://cloud.google.com/compute/docs/load-balancing/http/backend-service>

**NEW QUESTION 75**

- (Topic 5)

A news feed web service has the following code running on Google App Engine. During peak load, users report that they can see news articles they already viewed. What is the most likely cause of this problem?

```
import news
from flask import Flask, redirect, request
from flask.ext.api import status
from google.appengine.api import users

app = Flask(__name__)
sessions = {}

@app.route("/")
def homepage():
    user = users.get_current_user()
    if not user:
        return "Invalid login",
        status.HTTP_401_UNAUTHORIZED

    if user not in sessions:
        sessions[user] = {"viewed": []}

    news_articles = news.get_new_news (user, sessions [user]
["viewed"])
    sessions [user] ["viewed"] += [n["id"] for n
in news_articles]

    return news.render(news_articles)

if __name__ == "__main__":
    app.run()
```

- A. The session variable is local to just a single instance.
- B. The session variable is being overwritten in Cloud Datastore.
- C. The URL of the API needs to be modified to prevent caching.
- D. The HTTP Expires header needs to be set to -1 to stop caching.

**Answer:** A

**Explanation:**

<https://stackoverflow.com/questions/3164280/google-app-engine-cache-list-in-session-variable?rq=1>

**NEW QUESTION 76**

- (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 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 79**

- (Topic 5)

One of your primary business objectives is being able to trust the data stored in your application. You want to log all changes to the application data. How can you design your logging system to verify authenticity of your logs?

- A. Write the log concurrently in the cloud and on premises.
- B. Use a SQL database and limit who can modify the log table.
- C. Digitally sign each timestamp and log entry and store the signature.
- D. Create a JSON dump of each log entry and store it in Google Cloud Storage.

**Answer:** C

**Explanation:**

<https://cloud.google.com/storage/docs/access-logs>

References: <https://cloud.google.com/logging/docs/reference/tools/gcloud-logging>

**NEW QUESTION 80**

- (Topic 5)

Your company has an enterprise application running on Compute Engine that requires high availability and high performance. The application has been deployed on two instances in two zones in the same region in active passive mode. The application writes data to a persistent disk in the case of a single zone outage that data should be immediately made available to the other instance in the other zone. You want to maximize performance while minimizing downtime and data loss. What should you do?

A.

- \* 1. Attach a persistent SSD disk to the first instance
- \* 2. Create a snapshot every hour
- \* 3. In case of a zone outage, recreate a persistent SSD disk in the second instance where data is coming from the created snapshot

B.

- \* 1. Create a Cloud Storage bucket
- \* 2. Mount the bucket into the first instance with gcs-fuse
- \* 3. In case of a zone outage, mount the Cloud Storage bucket to the second instance with gcs-fuse

C.

- \* 1. Attach a local SSD to the first instance disk
- \* 2. Execute an rsync command every hour where the target is a persistent SSD disk attached to the second instance
- \* 3. In case of a zone outage, use the second instance

D.

- \* 1. Attach a regional SSD persistent disk to the first instance
- \* 2. In case of a zone outage, force-attach the disk to the other instance

A.

**Answer:** D

**NEW QUESTION 85**

- (Topic 5)

Your company has an application running on App Engine that allows users to upload music files and share them with other people. You want to allow users to upload files directly into Cloud Storage from their browser session. The payload should not be passed through the backend. What should you do?

A.

- \* 1. Set a CORS configuration in the target Cloud Storage bucket where the base URL of the App Engine application is an allowed origin.
- \* 2. Use the Cloud Storage Signed URL feature to generate a POST URL.

B.

- \* 1. Set a CORS configuration in the target Cloud Storage bucket where the base URL of the App Engine application is an allowed origin.
- \* 2. Assign the Cloud Storage WRITER role to users who upload files.

C.

- \* 1. Use the Cloud Storage Signed URL feature to generate a POST URL.
- \* 2. Use App Engine default credentials to sign requests against Cloud Storage.

D.

- \* 1. Assign the Cloud Storage WRITER role to users who upload files.
- \* 2. Use App Engine default credentials to sign requests against Cloud Storage.

A.

**Answer:** B

**NEW QUESTION 86**

- (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 91**

- (Topic 5)

Your company has an application running on a deployment in a GKE cluster. You have a separate cluster for development, staging and production. You have discovered that the team is able to deploy a Docker image to the production cluster without first testing the deployment in development and then staging. You want to allow the team to have autonomy but want to prevent this from happening. You want a Google Cloud solution that can be implemented quickly with minimal effort. What should you do?

- A. Create a Kubernetes admission controller to prevent the container from starting if it is not approved for usage in the given environment
- B. Configure a Kubernetes lifecycle hook to prevent the container from starting if it is not approved for usage in the given environment
- C. Implement a corporate policy to prevent teams from deploying Docker image to an environment unless the Docker image was tested in an earlier environment
- D. Configure the binary authorization policies for the development, staging and production cluster
- E. Create attestations as part of the continuous integration pipeline”

**Answer:** D

**Explanation:**

<https://cloud.google.com/architecture/prep-kubernetes-engine-for-prod#binary-authorization>

The most common Binary Authorization use cases involve attestations. An attestation certifies that a specific image has completed a previous stage, as described previously. You configure the Binary Authorization policy to verify the attestation before allowing the image to be deployed. At deploy time, instead of redoing activities that were completed in earlier stages, Binary Authorization only needs to verify the attestation. <https://cloud.google.com/binary-authorization/docs/overview>

**NEW QUESTION 94**

- (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 97**

- (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 101**

- (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 102**

- (Topic 5)

You want to establish a Compute Engine application in a single VPC across two regions. The application must communicate over VPN to an on-premises network. How should you deploy the VPN?

- A. Use VPC Network Peering between the VPC and the on-premises network.
- B. Expose the VPC to the on-premises network using IAM and VPC Sharing.
- C. Create a global Cloud VPN Gateway with VPN tunnels from each region to the on-premises peer gateway.
- D. Deploy Cloud VPN Gateway in each region.
- E. Ensure that each region has at least one VPN tunnel to the on-premises peer gateway.

**Answer:** C

**Explanation:**

<https://cloud.google.com/vpn/docs/how-to/creating-static-vpns>

**NEW QUESTION 104**

- (Topic 5)

Your company wants to try out the cloud with low risk. They want to archive approximately 100 TB of their log data to the cloud and test the analytics features available to them there, while also retaining that data as a long-term disaster recovery backup. Which two steps should they take? Choose 2 answers

- A. Load logs into Google BigQuery.
- B. Load logs into Google Cloud SQL.
- C. Import logs into Google Stackdriver.
- D. Insert logs into Google Cloud Bigtable.
- E. Upload log files into Google Cloud Storage.

**Answer:** AE

**NEW QUESTION 108**

- (Topic 5)

You want to enable your running Google Kubernetes Engine cluster to scale as demand for your application changes. What should you do?

- A. Add additional nodes to your Kubernetes Engine cluster using the following command: `gcloud container clusters resize CLUSTER_Name --size 10`
- B. Add a tag to the instances in the cluster with the following command: `gcloud compute instances add-tags INSTANCE --tags enable-autoscaling max-nodes=10`
- C. Update the existing Kubernetes Engine cluster with the following command: `gcloud alpha container clusters update mycluster --enable-autoscaling --min-nodes=1 --max-nodes=10`
- D. Create a new Kubernetes Engine cluster with the following command: `gcloud alpha container clusters create mycluster --enable-autoscaling --min-nodes=1 --max-nodes=10` and redeploy your application

**Answer:** C

**Explanation:**

<https://cloud.google.com/kubernetes-engine/docs/concepts/cluster-autoscaler> To enable autoscaling for an existing node pool, run the following command:  
`gcloud container clusters update [CLUSTER_NAME] --enable-autoscaling --min-nodes 1 --max-nodes 10 --zone [COMPUTE_ZONE] --node-pool default-pool`

**NEW QUESTION 111**

- (Topic 5)

Your company wants to migrate their 10-TB on-premises database export into Cloud Storage. You want to minimize the time it takes to complete this activity, the overall cost and database load. The bandwidth between the on-premises environment and Google Cloud is 1 Gbps. You want to follow Google-recommended practices. What should you do?

- A. Use the Data Transfer appliance to perform an offline migration.
- B. Use a commercial partner ETL solution to extract the data from the on-premises database and upload it into Cloud Storage.
- C. Develop a Dataflow job to read data directly from the database and write it into Cloud Storage.
- D. Compress the data and upload it with `gsutil -m` to enable multi-threaded copy.

**Answer:** A

**Explanation:**

The Data Transfer appliance is a Google-provided hardware device that can be used to transfer large amounts of data from on-premises environments to Cloud Storage. It is suitable for scenarios where the bandwidth between the on-premises environment and Google Cloud is low or insufficient, and the data size is large. The Data Transfer appliance can minimize the time it takes to complete the migration, the overall cost and database load, by avoiding network bottlenecks and reducing bandwidth consumption. The Data Transfer appliance also encrypts the data at rest and in transit, ensuring data security and privacy. The other options are not optimal for this scenario, because they either require a high-bandwidth network connection (B, C, D), or incur additional costs and complexity (B, C). References:

? <https://cloud.google.com/data-transfer-appliance/docs/overview>

? <https://cloud.google.com/blog/products/storage-data-transfer/introducing-storage-transfer-service-for-on-premises-data>

**NEW QUESTION 114**

- (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, 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 118

- (Topic 5)

Your company provides a recommendation engine for retail customers. You are providing retail customers with an API where they can submit a user ID and the API returns a list of recommendations for that user. You are responsible for the API lifecycle and want to ensure stability for your customers in case the API makes backward-incompatible changes. You want to follow Google-recommended practices. What should you do?

- A. Create a distribution list of all customers to inform them of an upcoming backward- incompatible change at least one month before replacing the old API with the new API.
- B. Create an automated process to generate API documentation, and update the public API documentation as part of the CI/CD process when deploying an update to the API.
- C. Use a versioning strategy for the APIs that increases the version number on every backward-incompatible change.
- D. Use a versioning strategy for the APIs that adds the suffix "DEPRECATED" to the current API version number on every backward-incompatible change.
- E. Use the current version number for the new API.

**Answer:** C

#### Explanation:

<https://cloud.google.com/apis/design/versioning>

All Google API interfaces must provide a major version number, which is encoded at the end of the protobuf package, and included as the first part of the URI path for REST APIs. If an API introduces a breaking change, such as removing or renaming a field, it must increment its API version number to ensure that existing user code does not suddenly break.

#### NEW QUESTION 120

- (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 CloudStorage.

**Answer:** A

#### Explanation:

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

#### NEW QUESTION 121

- (Topic 5)

Your company's user-feedback portal comprises a standard LAMP stack replicated across two zones. It is deployed in the us-central1 region and uses autoscaled managed instance groups on all layers, except the database. Currently, only a small group of select customers have access to the portal. The portal meets a 99.99% availability SLA under these conditions. However, next quarter, your company will be making the portal available to all users, including unauthenticated users. You need to develop a resiliency testing strategy to ensure the system maintains the SLA once they introduce additional user load. What should you do?

- A. Capture existing users input, and replay captured user load until autoscale is triggered on all layer
- B. At the same time, terminate all resources in one of the zones.
- C. Create synthetic random user input, replay synthetic load until autoscale logic is triggered on at least one layer, and introduce "chaos" to the system by terminating random resources on both zones.
- D. Expose the new system to a larger group of users, and increase group ' size each day until autoscale logic is triggered on all layer
- E. At the same time, terminate random resources on both zones.
- F. Capture existing users input, and replay captured user load until resource utilization crosses 80%. Also, derive estimated number of users based on existing users usage of the app, and deploy enough resources to handle 200% of expected load.

**Answer:** A

#### NEW QUESTION 125

- (Topic 5)

Your company has just recently activated Cloud Identity to manage users. The Google Cloud Organization has been configured as well. The security team needs to secure protects that will be part of the Organization. They want to prohibit IAM users outside the domain from gaining permissions from now on. What should they do?

- A. Configure an organization policy to restrict identities by domain
- B. Configure an organization policy to block creation of service accounts
- C. Configure Cloud Scheduler to trigger a Cloud Function every hour that removes all users that don't belong to the Cloud identity domain from all projects.

**Answer:** A

#### Explanation:

? An organization policy is a mechanism to configure constraints across your entire resource hierarchy<sup>1</sup>. By configuring an organization policy to restrict identities by domain, you can specify which domains are allowed or denied when granting IAM roles to users, groups, or service accounts<sup>2</sup>. This way, you can prohibit IAM users outside the domain from gaining permissions from now on<sup>2</sup>.

#### NEW QUESTION 126

- (Topic 5)

Your company has a support ticketing solution that uses App Engine Standard. The project that contains the App Engine application already has a Virtual Private Cloud(VPC) network fully connected to the company's on-premises environment through a Cloud VPN tunnel. You want to enable App Engine application to communicate with a database that is running in the company's on-premises environment. What should you do?

- A. Configure private services access
- B. Configure private Google access for on-premises hosts only
- C. Configure serverless VPC access
- D. Configure private Google access

**Answer: A**

**Explanation:**

<https://cloud.google.com/appengine/docs/standard/python3/connecting-vpc> [https://cloud.google.com/appengine/docs/flexible/python/using-third-party-databases#on\\_premises](https://cloud.google.com/appengine/docs/flexible/python/using-third-party-databases#on_premises)

#### NEW QUESTION 127

- (Topic 5)

Your company's test suite is a custom C++ application that runs tests throughout each day on Linux virtual machines. The full test suite takes several hours to complete, running on a limited number of on premises servers reserved for testing. Your company wants to move the testing infrastructure to the cloud, to reduce the amount of time it takes to fully test a change to the system, while changing the tests as little as possible. Which cloud infrastructure should you recommend?

- A. Google Compute Engine unmanaged instance groups and Network Load Balancer
- B. Google Compute Engine managed instance groups with auto-scaling
- C. Google Cloud Dataproc to run Apache Hadoop jobs to process each test
- D. Google App Engine with Google Stackdriver for logging

**Answer: B**

**Explanation:**

<https://cloud.google.com/compute/docs/instance-groups/>

Google Compute Engine enables users to launch virtual machines (VMs) on demand. VMs can be launched from the standard images or custom images created by users.

Managed instance groups offer autoscaling capabilities that allow you to automatically add or remove instances from a managed instance group based on increases or decreases in load. Autoscaling helps your applications gracefully handle increases in traffic and reduces cost when the need for resources is lower.

#### NEW QUESTION 129

- (Topic 6)

For this question, refer to the Dress4Win case study. Dress4Win is expected to grow to 10 times its size in 1 year with a corresponding growth in data and traffic that mirrors the existing patterns of usage. The CIO has set the target of migrating production infrastructure to the cloud within the next 6 months. How will you configure the solution to scale for this growth without making major application changes and still maximize the ROI?

- A. Migrate the web application layer to App Engine, and MySQL to Cloud Datastore, and NAS to Cloud Storage
- B. Deploy RabbitMQ, and deploy Hadoop servers using Deployment Manager.
- C. Migrate RabbitMQ to Cloud Pub/Sub, Hadoop to BigQuery, and NAS to Compute Engine with Persistent Disk storage
- D. Deploy Tomcat, and deploy Nginx using Deployment Manager.
- E. Implement managed instance groups for Tomcat and Ngin
- F. Migrate MySQL to Cloud SQL, RabbitMQ to Cloud Pub/Sub, Hadoop to Cloud Dataproc, and NAS to Compute Engine with Persistent Disk storage.
- G. Implement managed instance groups for the Tomcat and Ngin
- H. Migrate MySQL to Cloud SQL, RabbitMQ to Cloud Pub/Sub, Hadoop to Cloud Dataproc, and NAS to Cloud Storage.

**Answer: D**

#### NEW QUESTION 134

- (Topic 6)

For this question, refer to the Dress4Win case study. You are responsible for the security of data stored in

Cloud Storage for your company, Dress4Win. You have already created a set of Google Groups and assigned the appropriate users to those groups. You should use Google best practices and implement the simplest design to meet the requirements.

Considering Dress4Win's business and technical requirements, what should you do?

- A. Assign custom IAM roles to the Google Groups you created in order to enforce security requirements. Encrypt data with a customer-supplied encryption key when storing files in Cloud Storage.
- B. Assign custom IAM roles to the Google Groups you created in order to enforce security requirements. Enable default storage encryption before storing files in Cloud Storage.
- C. Assign predefined IAM roles to the Google Groups you created in order to enforce security requirements. Utilize Google's default encryption at rest when storing files in Cloud Storage.
- D. Assign predefined IAM roles to the Google Groups you created in order to enforce security requirement
- E. Ensure that the default Cloud KMS key is set before storing files in Cloud Storage.

**Answer: D**

**Explanation:**

<https://cloud.google.com/iam/docs/understanding-service-accounts>

#### NEW QUESTION 138

- (Topic 8)

For this question, refer to the Mountkirk Games case study. Which managed storage option meets Mountkirk's technical requirement for storing game activity in a

time series database service?

- A. Cloud Bigtable
- B. Cloud Spanner
- C. BigQuery
- D. Cloud Datastore

**Answer:** A

**Explanation:**

<https://cloud.google.com/blog/products/databases/getting-started-with-time-series-trend-predictions-using-gcp>

#### NEW QUESTION 141

- (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 142

- (Topic 8)

You need to optimize batch file transfers into Cloud Storage for Mountkirk Games' new Google Cloud solution. The batch files contain game statistics that need to be staged in Cloud Storage and be processed by an extract transform load (ETL) tool. What should you do?

- A. Use gsutil to batch move files in sequence.
- B. Use gsutil to batch copy the files in parallel.
- C. Use gsutil to extract the files as the first part of ETL.
- D. Use gsutil to load the files as the last part of ETL.

**Answer:** B

**Explanation:**

Reference: <https://cloud.google.com/storage/docs/gsutil/commands/cp>

#### NEW QUESTION 146

- (Topic 9)

For this question, refer to the Helicopter Racing League (HRL) case study. HRL is looking for a cost-effective approach for storing their race data such as telemetry. They want to keep all historical records, train models using only the previous season's data, and plan for data growth in terms of volume and information collected. You need to propose a data solution. Considering HRL business requirements and the goals expressed by CEO S. Hawke, what should you do?

- A. Use Firestore for its scalable and flexible document-based databas
- B. Use collections to aggregate race databy season and event.
- C. Use Cloud Spanner for its scalability and ability to version schemas with zero downtime.Split race datausing season as a primary key.
- D. Use BigQuery for its scalability and ability to add columns to a schem
- E. Partition race data based onseason.
- F. Use Cloud SQL for its ability to automatically manage storage increases and compatibility with MySQL
- G. Useseparate database instances for each season.

**Answer:** C

**Explanation:**

Reference: <https://cloud.google.com/bigquery/public-data>

#### NEW QUESTION 151

- (Topic 10)

For this question, refer to the EHR Healthcare case study. You are a developer on the EHR customer portal team. Your team recently migrated the customer portal application to Google Cloud. The load has increased on the application servers, and now the application is logging many timeout errors. You recently incorporated Pub/Sub into the application architecture, and the application is not logging any Pub/Sub publishing errors. You want to improve publishing latency. What should you do?

- A. Increase the Pub/Sub Total Timeout retry value.
- B. Move from a Pub/Sub subscriber pull model to a push model.
- C. Turn off Pub/Sub message batching.
- D. Create a backup Pub/Sub message queue.

**Answer:** C

**Explanation:**

<https://cloud.google.com/pubsub/docs/publisher?hl=en#batching>

**NEW QUESTION 156**

- (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 157**

- (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 159**

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