



**Google**

## **Exam Questions Associate-Cloud-Engineer**

Google Cloud Certified - Associate Cloud Engineer

#### NEW QUESTION 1

Your managed instance group raised an alert stating that new instance creation has failed to create new instances. You need to maintain the number of running instances specified by the template to be able to process expected application traffic. What should you do?

- A. Create an instance template that contains valid syntax which will be used by the instance group.
- B. Delete any persistent disks with the same name as instance names.
- C. Create an instance template that contains valid syntax that will be used by the instance group.
- D. Verify that the instance name and persistent disk name values are not the same in the template.
- E. Verify that the instance template being used by the instance group contains valid syntax.
- F. Delete any persistent disks with the same name as instance name.
- G. Set the disks.autoDelete property to true in the instance template.
- H. Delete the current instance template and replace it with a new instance template.
- I. Verify that the instance name and persistent disk name values are not the same in the template.
- J. Set the disks.autoDelete property to true in the instance template.

**Answer:** A

#### Explanation:

<https://cloud.google.com/compute/docs/troubleshooting/troubleshooting-migs> [https://cloud.google.com/compute/docs/instance-templates#how\\_to\\_update\\_instance\\_templates](https://cloud.google.com/compute/docs/instance-templates#how_to_update_instance_templates)

#### NEW QUESTION 2

You have created a new project in Google Cloud through the gcloud command line interface (CLI) and linked a billing account. You need to create a new Compute Engine instance using the CLI. You need to perform the prerequisite steps. What should you do?

- A. Create a Cloud Monitoring Workspace.
- B. Create a VPC network in the project.
- C. Enable the compute.googleapis.com API.
- D. Grant yourself the IAM role of Computer Admin.

**Answer:** C

#### NEW QUESTION 3

You create a new Google Kubernetes Engine (GKE) cluster and want to make sure that it always runs a supported and stable version of Kubernetes. What should you do?

- A. Enable the Node Auto-Repair feature for your GKE cluster.
- B. Enable the Node Auto-Upgrades feature for your GKE cluster.
- C. Select the latest available cluster version for your GKE cluster.
- D. Select "Container-Optimized OS (cos)" as a node image for your GKE cluster.

**Answer:** B

#### Explanation:

Creating or upgrading a cluster by specifying the version as latest does not provide automatic upgrades. Enable node auto-upgrades to ensure that the nodes in your cluster are up-to-date with the latest stable version.

<https://cloud.google.com/kubernetes-engine/versioning-and-upgrades>

Node auto-upgrades help you keep the nodes in your cluster up to date with the cluster master version when your master is updated on your behalf. When you create a new cluster or node pool with Google Cloud Console or the gcloud command, node auto-upgrade is enabled by default.

Ref: <https://cloud.google.com/kubernetes-engine/docs/how-to/node-auto-upgrades>

#### NEW QUESTION 4

You significantly changed a complex Deployment Manager template and want to confirm that the dependencies of all defined resources are properly met before committing it to the project. You want the most rapid feedback on your changes. What should you do?

- A. Use granular logging statements within a Deployment Manager template authored in Python.
- B. Monitor activity of the Deployment Manager execution on the Stackdriver Logging page of the GCP Console.
- C. Execute the Deployment Manager template against a separate project with the same configuration, and monitor for failures.
- D. Execute the Deployment Manager template using the --preview option in the same project, and observe the state of interdependent resources.

**Answer:** D

#### NEW QUESTION 5

You have developed an application that consists of multiple microservices, with each microservice packaged in its own Docker container image. You want to deploy the entire application on Google Kubernetes Engine so that each microservice can be scaled individually. What should you do?

- A. Create and deploy a Custom Resource Definition per microservice.
- B. Create and deploy a Docker Compose File.
- C. Create and deploy a Job per microservice.
- D. Create and deploy a Deployment per microservice.

**Answer:** D

#### NEW QUESTION 6

You have an object in a Cloud Storage bucket that you want to share with an external company. The object contains sensitive data. You want access to the content to be removed after four hours. The external company does not have a Google account to which you can grant specific user-based access privileges. You

want to use the most secure method that requires the fewest steps. What should you do?

- A. Create a signed URL with a four-hour expiration and share the URL with the company.
- B. Set object access to 'public' and use object lifecycle management to remove the object after four hours.
- C. Configure the storage bucket as a static website and furnish the object's URL to the compan
- D. Delete the object from the storage bucket after four hours.
- E. Create a new Cloud Storage bucket specifically for the external company to acces
- F. Copy the object to that bucke
- G. Delete the bucket after four hours have passed.

**Answer:** A

**Explanation:**

Signed URLs are used to give time-limited resource access to anyone in possession of the URL, regardless of whether they have a Google account.  
<https://cloud.google.com/storage/docs/access-control/signed-urls>

**NEW QUESTION 7**

You are operating a Google Kubernetes Engine (GKE) cluster for your company where different teams can run non-production workloads. Your Machine Learning (ML) team needs access to Nvidia Tesla P100 GPUs to train their models. You want to minimize effort and cost. What should you do?

- A. Ask your ML team to add the "accelerator: gpu" annotation to their pod specification.
- B. Recreate all the nodes of the GKE cluster to enable GPUs on all of them.
- C. Create your own Kubernetes cluster on top of Compute Engine with nodes that have GPU
- D. Dedicate this cluster to your ML team.
- E. Add a new, GPU-enabled, node pool to the GKE cluste
- F. Ask your ML team to add the cloud.google.com/gke -accelerator: nvidia-tesla-p100 nodeSelector to their pod specification.

**Answer:** D

**Explanation:**

This is the most optimal solution. Rather than recreating all nodes, you create a new node pool with GPU enabled. You then modify the pod specification to target particular GPU types by adding node selector to your workloads Pod specification. YOu still have a single cluster so you pay Kubernetes cluster management fee for just one cluster thus minimizing the

cost.Ref: <https://cloud.google.com/kubernetes-engine/docs/how-to/gpus>Ref: <https://cloud.google.com/kubern>

Example:

```
> apiVersion: v1
> kind: Pod
> metadata:
> name: my-gpu-pod
> spec:
> containers:
> name: my-gpu-container
> image: nvidia/cuda:10.0-runtime-ubuntu18.04
> command: [/bin/bash]
> resources:
> limits:
> nvidia.com/gpu: 2
> nodeSelector:
> cloud.google.com/gke-accelerator: nvidia-tesla-k80 # or nvidia-tesla-p100 or nvidia-tesla-p4 or nvidia-tesla-v100 or nvidia-tesla-t4
```

**NEW QUESTION 8**

You need to create a copy of a custom Compute Engine virtual machine (VM) to facilitate an expected increase in application traffic due to a business acquisition. What should you do?

- A. Create a Compute Engine snapshot of your base V
- B. Create your images from that snapshot.
- C. Create a Compute Engine snapshot of your base V
- D. Create your instances from that snapshot.
- E. Create a custom Compute Engine image from a snapsho
- F. Create your images from that image.
- G. Create a custom Compute Engine image from a snapsho
- H. Create your instances from that image.

**Answer:** D

**Explanation:**

A custom image belongs only to your project. To create an instance with a custom image, you must first have a custom image.

**NEW QUESTION 9**

Your company has a single sign-on (SSO) identity provider that supports Security Assertion Markup Language (SAML) integration with service providers. Your company has users in Cloud Identity. You would like users to authenticate using your company's SSO provider. What should you do?

- A. In Cloud Identity, set up SSO with Google as an identity provider to access custom SAML apps.
- B. In Cloud Identity, set up SSO with a third-party identity provider with Google as a service provider.
- C. Obtain OAuth 2.0 credentials, configure the user consent screen, and set up OAuth 2.0 for Mobile & Desktop Apps.

D. Obtain OAuth 2.0 credentials, configure the user consent screen, and set up OAuth 2.0 for Web Server Applications.

**Answer:** B

**Explanation:**

[https://support.google.com/cloudidentity/answer/6262987?hl=en&ref\\_topic=7558767](https://support.google.com/cloudidentity/answer/6262987?hl=en&ref_topic=7558767)

#### NEW QUESTION 10

Your customer has implemented a solution that uses Cloud Spanner and notices some read latency-related performance issues on one table. This table is accessed only by their users using a primary key. The table schema is shown below.

```
CREATE TABLE Persons (  
    person_id INT64 NOT NULL,    // sequential number based on number of registration  
    account_creation_date DATE,  // system date  
    birthdate DATE,             // customer birthdate  
    firstname STRING (255),      // first name  
    lastname STRING (255),       // last name  
    profile_picture BYTES (255)  // profile picture  
    ) PRIMARY KEY (person_id)
```

You want to resolve the issue. What should you do?

- A. Remove the profile\_picture field from the table.
- B. Add a secondary index on the person\_id column.
- C. Change the primary key to not have monotonically increasing values.
- D. Create a secondary index using the following Data Definition Language (DDL):

```
CREATE INDEX person_id_ix  
ON Persons (  
    person_id,  
    firstname,  
    lastname  
    ) STORING (  
    profile_picture  
    )
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer:** C

**Explanation:**

As mentioned in Schema and data model, you should be careful when choosing a primary key to not accidentally create hotspots in your database. One cause of hotspots is having a column whose value monotonically increases as the first key part, because this results in all inserts occurring at the end of your key space. This pattern is undesirable because Cloud Spanner divides data among servers by key ranges, which means all your inserts will be directed at a single server that will end up doing all the work. <https://cloud.google.com/spanner/docs/schema-design#primary-key-prevent-hotspots>

#### NEW QUESTION 10

You need to set up permissions for a set of Compute Engine instances to enable them to write data into a particular Cloud Storage bucket. You want to follow Google-recommended practices. What should you do?

- A. Create a service account with an access scop
- B. Use the access scope 'https://www.googleapis.com/auth/devstorage.write\_only'.
- C. Create a service account with an access scop
- D. Use the access scope 'https://www.googleapis.com/auth/cloud-platform'.
- E. Create a service account and add it to the IAM role 'storage.objectCreator' for that bucket.
- F. Create a service account and add it to the IAM role 'storage.objectAdmin' for that bucket.

**Answer:** C

**Explanation:**

[https://cloud.google.com/iam/docs/understanding-service-accounts#using\\_service\\_accounts\\_with\\_compute\\_eng](https://cloud.google.com/iam/docs/understanding-service-accounts#using_service_accounts_with_compute_eng) <https://cloud.google.com/storage/docs/access-control/iam-roles>

#### NEW QUESTION 12

You are analyzing Google Cloud Platform service costs from three separate projects. You want to use this information to create service cost estimates by service type, daily and monthly, for the next six months using standard query syntax. What should you do?

- A. Export your bill to a Cloud Storage bucket, and then import into Cloud Bigtable for analysis.



- B. Export your bill to a Cloud Storage bucket, and then import into Google Sheets for analysis.
- C. Export your transactions to a local file, and perform analysis with a desktop tool.
- D. Export your bill to a BigQuery dataset, and then write time window-based SQL queries for analysis.

**Answer:** D

**Explanation:**

"...we recommend that you enable Cloud Billing data export to BigQuery at the same time that you create a Cloud Billing account. "

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

<https://medium.com/google-cloud/analyzing-google-cloud-billing-data-with-big-query-30bae1c2aae4>

**NEW QUESTION 15**

You have an application that receives SSL-encrypted TCP traffic on port 443. Clients for this application are located all over the world. You want to minimize latency for the clients. Which load balancing option should you use?

- A. HTTPS Load Balancer
- B. Network Load Balancer
- C. SSL Proxy Load Balancer
- D. Internal TCP/UDP Load Balance
- E. Add a firewall rule allowing ingress traffic from 0.0.0.0/0 on the target instances.

**Answer:** C

**NEW QUESTION 16**

You are asked to set up application performance monitoring on Google Cloud projects A, B, and C as a single pane of glass. You want to monitor CPU, memory, and disk. What should you do?

- A. Enable API and then share charts from project A, B, and C.
- B. Enable API and then give the metrics.reader role to projects A, B, and C.
- C. Enable API and then use default dashboards to view all projects in sequence.
- D. Enable API, create a workspace under project A, and then add project B and C.

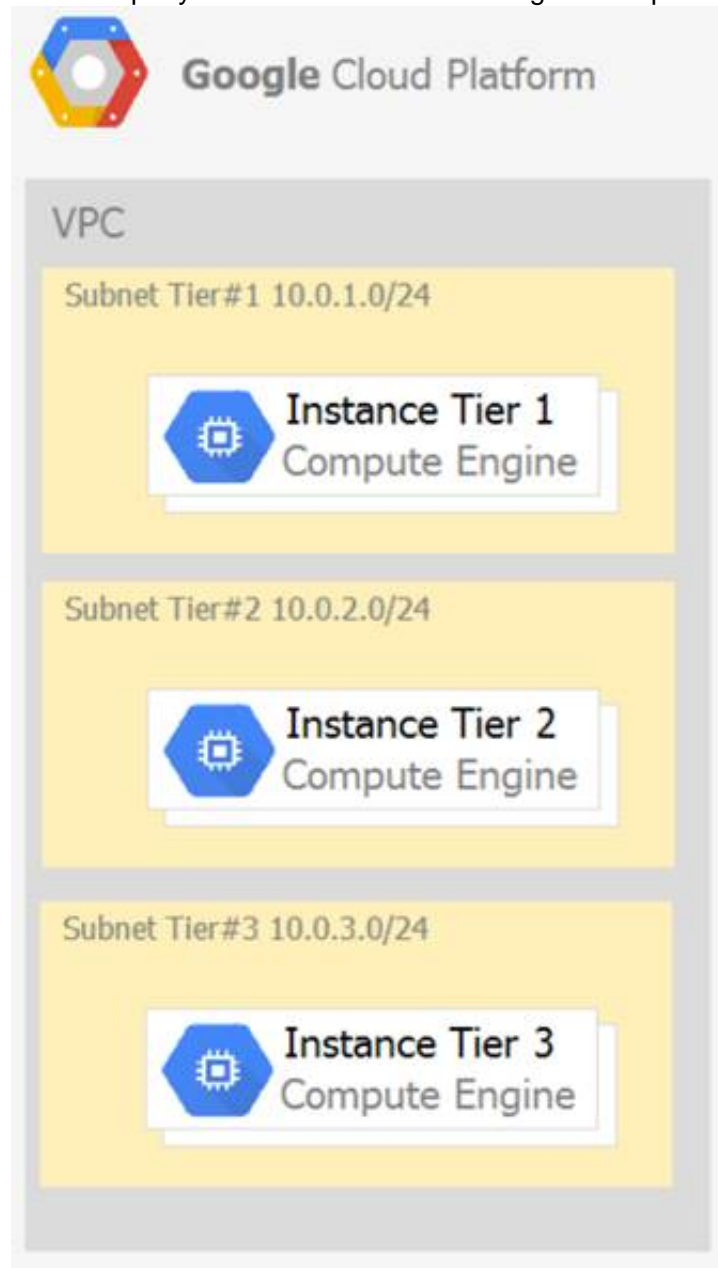
**Answer:** D

**Explanation:**

<https://cloud.google.com/monitoring/settings/multiple-projects> <https://cloud.google.com/monitoring/workspaces>

**NEW QUESTION 19**

Your company has a 3-tier solution running on Compute Engine. The configuration of the current infrastructure is shown below.



Each tier has a service account that is associated with all instances within it. You need to enable communication on TCP port 8080 between tiers as follows:

- Instances in tier #1 must communicate with tier #2.
- Instances in tier #2 must communicate with tier #3. What should you do?

- A. 1. Create an ingress firewall rule with the following settings:• Targets: all instances• Source filter: IP ranges (with the range set to 10.0.2.0/24)• Protocols: allow all2. Create an ingress firewall rule with the following settings:• Targets: all instances• Source filter: IP ranges (with the range set to 10.0.1.0/24)•Protocols: allow all
- B. 1. Create an ingress firewall rule with the following settings:• Targets: all instances with tier #2 service account• Source filter: all instances with tier #1 service account• Protocols: allow TCP:80802. Create an ingress firewall rule with the following settings:• Targets: all instances with tier #3 service account• Source filter: all instances with tier #2 service account• Protocols: allow TCP: 8080
- C. 1. Create an ingress firewall rule with the following settings:• Targets: all instances with tier #2 service account• Source filter: all instances with tier #1 service account• Protocols: allow all2. Create an ingress firewall rule with the following settings:• Targets: all instances with tier #3 service account• Source filter: all instances with tier #2 service account• Protocols: allow all
- D. 1. Create an egress firewall rule with the following settings:• Targets: all instances• Source filter: IP ranges (with the range set to 10.0.2.0/24)• Protocols: allow TCP: 80802. Create an egress firewall rule with the following settings:• Targets: all instances• Source filter: IP ranges (with the range set to 10.0.1.0/24)• Protocols: allow TCP: 8080

**Answer: B**

**Explanation:**

\* 1. Create an ingress firewall rule with the following settings: "¢ Targets: all instances with tier #2 service account "¢ Source filter: all instances with tier #1 service account "¢ Protocols: allow TCP:8080 2. Create an ingress firewall rule with the following settings: "¢ Targets: all instances with tier #3 service account "¢ Source filter: all instances with tier #2 service account "¢ Protocols: allow TCP: 8080

**NEW QUESTION 23**

You are the team lead of a group of 10 developers. You provided each developer with an individual Google Cloud Project that they can use as their personal sandbox to experiment with different Google Cloud solutions. You want to be notified if any of the developers are spending above \$500 per month on their sandbox environment. What should you do?

- A. Create a single budget for all projects and configure budget alerts on this budget.
- B. Create a separate billing account per sandbox project and enable BigQuery billing export
- C. Create a Data Studio dashboard to plot the spending per billing account.
- D. Create a budget per project and configure budget alerts on all of these budgets.
- E. Create a single billing account for all sandbox projects and enable BigQuery billing export
- F. Create a Data Studio dashboard to plot the spending per project.

**Answer: C**

**Explanation:**

Set budgets and budget alerts Overview Avoid surprises on your bill by creating Cloud Billing budgets to monitor all of your Google Cloud charges in one place. A budget enables you to track your actual Google Cloud spend against your planned spend. After you've set a budget amount, you set budget alert threshold rules that are used to trigger email notifications. Budget alert emails help you stay informed about how your spend is tracking against your budget. 2. Set budget scope Set the budget Scope and then click Next. In the Projects field, select one or more projects that you want to apply the budget alert to. To apply the budget alert to all the projects in the Cloud Billing account, choose Select all.  
<https://cloud.google.com/billing/docs/how-to/budgets#budget-scop>

**NEW QUESTION 26**

You need to immediately change the storage class of an existing Google Cloud bucket. You need to reduce service cost for infrequently accessed files stored in that bucket and for all files that will be added to that bucket in the future. What should you do?

- A. Use the gsutil to rewrite the storage class for the bucket Change the default storage class for the bucket
- B. Use the gsutil to rewrite the storage class for the bucket Set up Object Lifecycle management on the bucket
- C. Create a new bucket and change the default storage class for the bucket Set up Object Lifecycle management on lite bucket
- D. Create a new bucket and change the default storage class for the bucket import the files from the previous bucket into the new bucket

**Answer: B**

**NEW QUESTION 31**

Your organization has three existing Google Cloud projects. You need to bill the Marketing department for only their Google Cloud services for a new initiative within their group. What should you do?

- A. \* 1. Verify that you ace assigned the Billing Administrator IAM role tor your organization's Google Cloud Project for the Marketing department\* 2. Link the new project to a Marketing Billing Account
- B. \* 1. Verify that you are assigned the Billing Administrator IAM role for your organization's Google Cloud account\* 2. Create a new Google Cloud Project for the Marketing department\* 3. Set the default key-value project labels to department marketing for all services in this project
- C. \* 1. Verify that you are assigned the Organization Administrator IAM role for your organization's Google Cloud account\* 2. Create a new Google Cloud Project for the Marketing department 3. Link the new project to a Marketing Billing Account.
- D. \* 1. Verity that you are assigned the Organization Administrator IAM role for your organization's Google Cloud account\* 2. Create a new Google Cloud Project for the Marketing department\* 3. Set the default key value project labels to department marketing for all services in this protect

**Answer: A**

**NEW QUESTION 35**

The storage costs for your application logs have far exceeded the project budget. The logs are currently being retained indefinitely in the Cloud Storage bucket myapp-gcp-ace-logs. You have been asked to remove logs older than 90 days from your Cloud Storage bucket. You want to optimize ongoing Cloud Storage spend. What should you do?

- A. Write a script that runs gsutil ls -l -gs://myapp-gcp-ace-logs/\*\* to find and remove items older than 90 day
- B. Schedule the script with cron.
- C. Write a lifecycle management rule in JSON and push it to the bucket with gsutil lifecycle set config-json-file.
- D. Write a lifecycle management rule in XML and push it to the bucket with gsutil lifecycle set config-xml-file.
- E. Write a script that runs gsutil ls -l -gs://myapp-gcp-ace-logs/\*\* to find and remove items older than 90 day
- F. Repeat this process every morning.

**Answer:** B

**Explanation:**

You write a lifecycle management rule in XML and push it to the bucket with gsutil lifecycle set config-xml-file. is not right.

gsutil lifecycle set enables you to set the lifecycle configuration on one or more buckets based on the configuration file provided. However, XML is not a valid supported type for the configuration file.

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

➤ Write a script that runs `gsutil ls -lr gs://myapp-gcp-ace-logs/**` to find and remove items older than 90 days. Repeat this process every morning. is not right. This manual approach is error-prone, time-consuming and expensive. GCP Cloud Storage provides lifecycle management rules that let you achieve this with minimal effort.

➤ Write a script that runs `gsutil ls -l gs://myapp-gcp-ace-logs/**` to find and remove items older than 90 days. Schedule the script with cron. is not right.

This manual approach is error-prone, time-consuming and expensive. GCP Cloud Storage provides lifecycle management rules that let you achieve this with minimal effort.

➤ Write a lifecycle management rule in JSON and push it to the bucket with gsutil lifecycle set config-json-file. is the right answer.

You can assign a lifecycle management configuration to a bucket. The configuration contains a set of rules which apply to current and future objects in the bucket. When an object meets the criteria of one of the rules, Cloud Storage automatically performs a specified action on the object. One of the supported actions is to Delete objects. You can set up a lifecycle management to delete objects older than 90 days. gsutil lifecycle set enables you to set the lifecycle configuration on the bucket based on the configuration file. JSON is the only supported type for the configuration file. The config-json-file specified on the command line should be a path to a local file containing the lifecycle configuration JSON document.

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

**NEW QUESTION 38**

You created a Kubernetes deployment by running `kubectl run nginx image=nginx labels=app=prod`. Your Kubernetes cluster is also used by a number of other deployments. How can you find the identifier of the pods for this nginx deployment?

- A. `kubectl get deployments --output=pods`
- B. `gcloud get pods --selector="app=prod"`
- C. `kubectl get pods -l "app=prod"`
- D. `gcloud list gke-deployments -filter={pod }`

**Answer:** C

**Explanation:**

This command correctly lists pods that have the label `app=prod`. When creating the deployment, we used the label `app=prod` so listing pods that have this label retrieve the pods belonging to nginx deployments. You can list pods by using Kubernetes CLI `kubectl get pods`.

Ref: <https://kubernetes.io/docs/tasks/access-application-cluster/list-all-running-container-images/>

Ref: <https://kubernetes.io/docs/tasks/access-application-cluster/list-all-running-container-images/#list-containe>

**NEW QUESTION 39**

Your company has an internal application for managing transactional orders. The application is used exclusively by employees in a single physical location. The application requires strong consistency, fast queries, and ACID guarantees for multi-table transactional updates. The first version of the application is implemented in PostgreSQL, and you want to deploy it to the cloud with minimal code changes. Which database is most appropriate for this application?

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

**Answer:** B

**Explanation:**

<https://cloud.google.com/sql/docs/postgres>

**NEW QUESTION 41**

Your company's infrastructure is on-premises, but all machines are running at maximum capacity. You want to burst to Google Cloud. The workloads on Google Cloud must be able to directly communicate to the workloads on-premises using a private IP range. What should you do?

- A. In Google Cloud, configure the VPC as a host for Shared VPC.
- B. In Google Cloud, configure the VPC for VPC Network Peering.
- C. Create bastion hosts both in your on-premises environment and on Google Clou
- D. Configure both as proxy servers using their public IP addresses.
- E. Set up Cloud VPN between the infrastructure on-premises and Google Cloud.

**Answer:** D

**Explanation:**

"Google Cloud VPC Network Peering allows internal IP address connectivity across two Virtual Private Cloud (VPC) networks regardless of whether they belong to the same project or the same organization."

<https://cloud.google.com/vpc/docs/vpc-peering> while

"Cloud Interconnect provides low latency, high availability connections that enable you to reliably transfer data between your on-premises and Google Cloud Virtual Private Cloud (VPC) networks."

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

and "HA VPN is a high-availability (HA) Cloud VPN solution that lets you securely connect your on-premises network to your VPC network through an IPsec VPN connection in a single region."

<https://cloud.google.com/network-connectivity/docs/vpn/concepts/overview>

**NEW QUESTION 42**

You are storing sensitive information in a Cloud Storage bucket. For legal reasons, you need to be able to record all requests that read any of the stored data. You



want to make sure you comply with these requirements. What should you do?

- A. Enable the Identity Aware Proxy API on the project.
- B. Scan the bucket using the Data Loss Prevention API.
- C. Allow only a single Service Account access to read the data.
- D. Enable Data Access audit logs for the Cloud Storage API.

**Answer:** D

**Explanation:**

Logged information Within Cloud Audit Logs, there are two types of logs: Admin Activity logs: Entries for operations that modify the configuration or metadata of a project, bucket, or object. Data Access logs: Entries for operations that modify objects or read a project, bucket, or object. There are several sub-types of data access logs: ADMIN\_READ: Entries for operations that read the configuration or metadata of a project, bucket, or object. DATA\_READ: Entries for operations that read an object. DATA\_WRITE: Entries for operations that create or modify an object. <https://cloud.google.com/storage/docs/audit-logs#types>

**NEW QUESTION 45**

You have an application that looks for its licensing server on the IP 10.0.3.21. You need to deploy the licensing server on Compute Engine. You do not want to change the configuration of the application and want the application to be able to reach the licensing server. What should you do?

- A. Reserve the IP 10.0.3.21 as a static internal IP address using gcloud and assign it to the licensing server.
- B. Reserve the IP 10.0.3.21 as a static public IP address using gcloud and assign it to the licensing server.
- C. Use the IP 10.0.3.21 as a custom ephemeral IP address and assign it to the licensing server.
- D. Start the licensing server with an automatic ephemeral IP address, and then promote it to a static internal IP address.

**Answer:** A

**Explanation:**

IP 10.0.3.21 is internal by default, and to ensure that it will be static non-changing it should be selected as static internal ip address.

**NEW QUESTION 50**

You deployed an App Engine application using gcloud app deploy, but it did not deploy to the intended project. You want to find out why this happened and where the application deployed. What should you do?

- A. Check the app.yaml file for your application and check project settings.
- B. Check the web-application.xml file for your application and check project settings.
- C. Go to Deployment Manager and review settings for deployment of applications.
- D. Go to Cloud Shell and run gcloud config list to review the Google Cloud configuration used for deployment.

**Answer:** D

**Explanation:**

```
C:\GCP\appeng>gcloud config list [core]
account = xxx@gmail.com disable_usage_reporting = False project = my-first-demo-xxxx
https://cloud.google.com/endpoints/docs/openapi/troubleshoot-gce-deployment
```

**NEW QUESTION 52**

You manage an App Engine Service that aggregates and visualizes data from BigQuery. The application is deployed with the default App Engine Service account. The data that needs to be visualized resides in a different project managed by another team. You do not have access to this project, but you want your application to be able to read data from the BigQuery dataset. What should you do?

- A. Ask the other team to grant your default App Engine Service account the role of BigQuery Job User.
- B. Ask the other team to grant your default App Engine Service account the role of BigQuery Data Viewer.
- C. In Cloud IAM of your project, ensure that the default App Engine service account has the role of BigQuery Data Viewer.
- D. In Cloud IAM of your project, grant a newly created service account from the other team the role of BigQuery Job User in your project.

**Answer:** B

**Explanation:**

The resource that you need to get access is in the other project. roles/bigquery.dataViewer BigQuery Data Viewer

When applied to a table or view, this role provides permissions to: Read data and metadata from the table or view.

This role cannot be applied to individual models or routines.

When applied to a dataset, this role provides permissions to: Read the dataset's metadata and list tables in the dataset. Read data and metadata from the dataset's tables.

When applied at the project or organization level, this role can also enumerate all datasets in the project. Additional roles, however, are necessary to allow the running of jobs.

**NEW QUESTION 53**

You have deployed multiple Linux instances on Compute Engine. You plan on adding more instances in the coming weeks. You want to be able to access all of these instances through your SSH client over the Internet without having to configure specific access on the existing and new instances. You do not want the Compute Engine instances to have a public IP. What should you do?

- A. Configure Cloud Identity-Aware Proxy (or HTTPS resources)
- B. Configure Cloud Identity-Aware Proxy for SSH and TCP resources.
- C. Create an SSH keypair and store the public key as a project-wide SSH Key
- D. Create an SSH keypair and store the private key as a project-wide SSH Key

**Answer:** B

**Explanation:**



<https://cloud.google.com/iap/docs/using-tcp-forwarding>

#### NEW QUESTION 54

You built an application on your development laptop that uses Google Cloud services. Your application uses Application Default Credentials for authentication and works fine on your development laptop. You want to migrate this application to a Compute Engine virtual machine (VM) and set up authentication using Google-recommended practices and minimal changes. What should you do?

- A. Assign appropriate access for Google services to the service account used by the Compute Engine VM.
- B. Create a service account with appropriate access for Google services, and configure the application to use this account.
- C. Store credentials for service accounts with appropriate access for Google services in a config file, and deploy this config file with your application.
- D. Store credentials for your user account with appropriate access for Google services in a config file, and deploy this config file with your application.

**Answer: B**

#### Explanation:

In general, Google recommends that each instance that needs to call a Google API should run as a service account with the minimum permissions necessary for that instance to do its job. In practice, this means you should configure service accounts for your instances with the following process: Create a new service account rather than using the Compute Engine default service account. Grant IAM roles to that service account for only the resources that it needs. Configure the instance to run as that service account. Grant the instance the <https://www.googleapis.com/auth/cloud-platform> scope to allow full access to all Google Cloud APIs, so that the IAM permissions of the instance are completely determined by the IAM roles of the service account. Avoid granting more access than necessary and regularly check your service account permissions to make sure they are up-to-date.

[https://cloud.google.com/compute/docs/access/create-enable-service-accounts-for-instances#best\\_practices](https://cloud.google.com/compute/docs/access/create-enable-service-accounts-for-instances#best_practices)

#### NEW QUESTION 59

You are building an archival solution for your data warehouse and have selected Cloud Storage to archive your data. Your users need to be able to access this archived data once a quarter for some regulatory requirements. You want to select a cost-efficient option. Which storage option should you use?

- A. Coldline Storage
- B. Nearline Storage
- C. Regional Storage
- D. Multi-Regional Storage

**Answer: A**

#### Explanation:

Coldline Storage is a very-low-cost, highly durable storage service for storing infrequently accessed data. Coldline Storage is ideal for data you plan to read or modify at most once a quarter. Since we have a requirement to access data once a quarter and want to go with the most cost-efficient option, we should select Coldline Storage.

Ref: <https://cloud.google.com/storage/docs/storage-classes#coldline>



This slide represents the different types of storage classes such as multi-regional, regional, storage nearline, and storage cold line of the Google Cloud.

Storage Class	Characteristics	Use Cases	Price (Per Gb Per Month)*
Multi-Regional Storage	<ul style="list-style-type: none"> <li>99.95% availability</li> <li>Geo-redundant</li> </ul>	Keeps information that is frequently accessed around the globe, such as videos, gaming, and mobile applications	\$0.026 per GB/Month
Regional Storage	<ul style="list-style-type: none"> <li>99.9% availability</li> <li>Low cost per GB stored</li> <li>Data storage in a small region</li> </ul>	Keeps information that is frequently accessed around the globe, such as videos, gaming, and mobile applications	\$0.02 per GB/Month
Storage Nearline	<ul style="list-style-type: none"> <li>99.0% availability</li> <li>Very low cost per GB</li> <li>Data fetching costs</li> <li>Higher per-task costs</li> <li>30-day minimum storage duration</li> </ul>	Keeps data that is not accessed is often ideal for data backups	\$0.01 per GB/Month
Storage Cold line	<ul style="list-style-type: none"> <li>99.0% availability</li> <li>Lowest cost per GB</li> <li>Data fetching costs</li> <li>Higher per-task costs</li> <li>90-day minimum storage duration</li> </ul>	Keeps information that is infrequently ideal for disaster recovery or archived data	\$0.007 per GB/Month

This slide is 100% editable. Adapt it to your needs and capture your audience's attention.

#### NEW QUESTION 62

You are deploying an application to App Engine. You want the number of instances to scale based on request rate. You need at least 3 unoccupied instances at all times. Which scaling type should you use?

- A. Manual Scaling with 3 instances.
- B. Basic Scaling with min\_instances set to 3.
- C. Basic Scaling with max\_instances set to 3.
- D. Automatic Scaling with min\_idle\_instances set to 3.

**Answer:** D

#### NEW QUESTION 66

You want to find out when users were added to Cloud Spanner Identity Access Management (IAM) roles on your Google Cloud Platform (GCP) project. What should you do in the GCP Console?

- A. Open the Cloud Spanner console to review configurations.
- B. Open the IAM & admin console to review IAM policies for Cloud Spanner roles.
- C. Go to the Stackdriver Monitoring console and review information for Cloud Spanner.
- D. Go to the Stackdriver Logging console, review admin activity logs, and filter them for Cloud Spanner IAM roles.

**Answer:** D

#### Explanation:

<https://cloud.google.com/monitoring/audit-logging>

#### NEW QUESTION 68

You need to provide a cost estimate for a Kubernetes cluster using the GCP pricing calculator for Kubernetes. Your workload requires high IOPs, and you will also be using disk snapshots. You start by entering the number of nodes, average hours, and average days. What should you do next?

- A. Fill in local SS
- B. Fill in persistent disk storage and snapshot storage.
- C. Fill in local SS
- D. Add estimated cost for cluster management.
- E. Select Add GPU
- F. Fill in persistent disk storage and snapshot storage.
- G. Select Add GPU
- H. Add estimated cost for cluster management.

**Answer:** A

#### Explanation:

<https://cloud.google.com/compute/docs/disks/local-ssd>

#### NEW QUESTION 73

Your web application has been running successfully on Cloud Run for Anthos. You want to evaluate an updated version of the application with a specific percentage of your production users (canary deployment). What should you do?

- A. Create a new service with the new version of the applicatio
- B. Split traffic between this version and the version that is currently running.
- C. Create a new revision with the new version of the applicatio
- D. Split traffic between this version and the version that is currently running.
- E. Create a new service with the new version of the applicatio
- F. Add an HTTP Load Balancer in front of both services.
- G. Create a new revision with the new version of the applicatio
- H. Add an HTTP Load Balancer in front of both revisions.

**Answer:** B

#### Explanation:

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

#### NEW QUESTION 77

You have created an application that is packaged into a Docker image. You want to deploy the Docker image as a workload on Google Kubernetes Engine. What should you do?

- A. Upload the image to Cloud Storage and create a Kubernetes Service referencing the image.
- B. Upload the image to Cloud Storage and create a Kubernetes Deployment referencing the image.
- C. Upload the image to Container Registry and create a Kubernetes Service referencing the image.
- D. Upload the image to Container Registry and create a Kubernetes Deployment referencing the image.

**Answer:** D

#### Explanation:

A deployment is responsible for keeping a set of pods running. A service is responsible for enabling network access to a set of pods.

#### NEW QUESTION 80

You created an instance of SQL Server 2017 on Compute Engine to test features in the new version. You want to connect to this instance using the fewest number of steps. What should you do?

- A. Install a RDP client on your deskto
- B. Verify that a firewall rule for port 3389 exists.
- C. Install a RDP client in your deskto
- D. Set a Windows username and password in the GCP Consol
- E. Use the credentials to log in to the instance.
- F. Set a Windows password in the GCP Consol
- G. Verify that a firewall rule for port 22 exist
- H. Click the RDP button in the GCP Console and supply the credentials to log in.
- I. Set a Windows username and password in the GCP Consol
- J. Verify that a firewall rule for port 3389 exist
- K. Click the RDP button in the GCP Console, and supply the credentials to log in.

**Answer: D**

**Explanation:**

<https://cloud.google.com/compute/docs/instances/connecting-to-windows#remote-desktop-connection-app>

<https://cloud.google.com/compute/docs/instances/windows/generating-credentials> <https://cloud.google.com/compute/docs/instances/connecting-to-windows#before-you-begin>

**NEW QUESTION 82**

Your coworker has helped you set up several configurations for gcloud. You've noticed that you're running commands against the wrong project. Being new to the company, you haven't yet memorized any of the projects. With the fewest steps possible, what's the fastest way to switch to the correct configuration?

- A. Run gcloud configurations list followed by gcloud configurations activate .
- B. Run gcloud config list followed by gcloud config activate.
- C. Run gcloud config configurations list followed by gcloud config configurations activate.
- D. Re-authenticate with the gcloud auth login command and select the correct configurations on login.

**Answer: C**

**Explanation:**

as gcloud config configurations list can help check for the existing configurations and activate can help switch to the configuration.

gcloud config configurations list lists existing named configurations

gcloud config configurations activate activates an existing named configuration

Obtains access credentials for your user account via a web-based authorization flow. When this command completes successfully, it sets the active account in the current configuration to the account specified. If no configuration exists, it creates a configuration named default.

**NEW QUESTION 86**

Your organization has a dedicated person who creates and manages all service accounts for Google Cloud projects. You need to assign this person the minimum role for projects. What should you do?

- A. Add the user to roles/iam.roleAdmin role.
- B. Add the user to roles/iam.securityAdmin role.
- C. Add the user to roles/iam.serviceAccountUser role.
- D. Add the user to roles/iam.serviceAccountAdmin role.

**Answer: D**

**NEW QUESTION 88**

You have one GCP account running in your default region and zone and another account running in a non-default region and zone. You want to start a new Compute Engine instance in these two Google Cloud Platform accounts using the command line interface. What should you do?

- A. Create two configurations using gcloud config configurations create [NAME]. Run gcloud config configurations activate [NAME] to switch between accounts when running the commands to start the Compute Engine instances.
- B. Create two configurations using gcloud config configurations create [NAME]. Run gcloud configurations list to start the Compute Engine instances.
- C. Activate two configurations using gcloud configurations activate [NAME]. Run gcloud config list to start the Compute Engine instances.
- D. Activate two configurations using gcloud configurations activate [NAME]. Run gcloud configurations list to start the Compute Engine instances.

**Answer: A**

**Explanation:**

"Run gcloud configurations list to start the Compute Engine instances". How the heck are you expecting to "start" GCE instances doing "configuration list".

Each gcloud configuration has a 1 to 1 relationship with the region (if a region is defined). Since we have two different regions, we would need to create two separate configurations using gcloud config configurations createRef: <https://cloud.google.com/sdk/gcloud/reference/config/configurations/create>

Secondly, you can activate each configuration independently by running gcloud config configurations activate [NAME]Ref:

<https://cloud.google.com/sdk/gcloud/reference/config/configurations/activate>

Finally, while each configuration is active, you can run the gcloud compute instances start [NAME] command to start the instance in the configurations region.<https://cloud.google.com/sdk/gcloud/reference/compute/instances/start>

**NEW QUESTION 93**

You have an application running in Google Kubernetes Engine (GKE) with cluster autoscaling enabled. The application exposes a TCP endpoint. There are several replicas of this application. You have a Compute Engine instance in the same region, but in another Virtual Private Cloud (VPC), called gce-network, that has no overlapping IP ranges with the first VPC. This instance needs to connect to the application on GKE. You want to minimize effort. What should you do?

- A. 1. In GKE, create a Service of type LoadBalancer that uses the application's Pods as backend.2. Set the service's externalTrafficPolicy to Cluster.3. Configure the Compute Engine instance to use the address of the load balancer that has been created.
- B. 1. In GKE, create a Service of type NodePort that uses the application's Pods as backend.2. Create a Compute Engine instance called proxy with 2 network interfaces, one in each VPC.3. Use iptables on this instance to forward traffic from gce-network to the GKE nodes.4. Configure the Compute Engine instance to



use the address of proxy in gce-network as endpoint.

- C. 1. In GKE, create a Service of type LoadBalancer that uses the application's Pods as backend.2. Add an annotation to this service: cloud.google.com/load-balancer-type: Internal3. Peer the two VPCs together.4. Configure the Compute Engine instance to use the address of the load balancer that has been created.
- D. 1. In GKE, create a Service of type LoadBalancer that uses the application's Pods as backend.2. Add a Cloud Armor Security Policy to the load balancer that whitelists the internal IPs of the MIG's instances.3. Configure the Compute Engine instance to use the address of the load balancer that has been created.

**Answer: C**

**Explanation:**

performs a peering between the two VPC's (the statement makes sure that this option is feasible since it clearly specifies that there is no overlapping between the ip ranges of both vpc's), deploy the LoadBalancer as internal with the annotation, and configure the endpoint so that the compute engine instance can access the application internally, that is, without the need to have a public ip at any time and therefore, without the need to go outside the google network. The traffic, therefore, never crosses the public internet.

<https://medium.com/pablo-perez/k8s-externaltrafficpolicy-local-or-cluster-40b259a19404> <https://cloud.google.com/kubernetes-engine/docs/how-to/internal-load-balancing>

clients in a VPC network connected to the LoadBalancer network using VPC Network Peering can also access the Service

<https://cloud.google.com/kubernetes-engine/docs/how-to/service-parameters>

**NEW QUESTION 95**

You deployed a new application inside your Google Kubernetes Engine cluster using the YAML file specified below.

```
apiVersion: apps/v1          apiVersion: v1
kind: Deployment             kind: Service
metadata:                    metadata:
  name: myapp-deployment      name: myapp-service
spec:                         spec:
  selector:                   ports:
    matchLabels:               - port: 8000
      app: myapp               targetPort: 80
  replicas: 2                 protocol: TCP
  template:                   selector:
    metadata:                  app: myapp
    labels:
      app: myapp
    spec:
      containers:
        - name: myapp
          image: myapp:1.1
          ports:
            - containerPort: 80
```

You check the status of the deployed pods and notice that one of them is still in PENDING status:

```
kubectl get pods -l app=myapp
```

NAME	READY	STATUS	RESTART	AGE
myapp-deployment-58ddb995-lp86m	0/1	Pending	0	9m
myapp-deployment-58ddb995-qjpkg	1/1	Running	0	9m

You want to find out why the pod is stuck in pending status. What should you do?

- A. Review details of the myapp-service Service object and check for error messages.
- B. Review details of the myapp-deployment Deployment object and check for error messages.
- C. Review details of myapp-deployment-58ddb995-lp86m Pod and check for warning messages.
- D. View logs of the container in myapp-deployment-58ddb995-lp86m pod and check for warning messages.

**Answer: C**

**Explanation:**

<https://kubernetes.io/docs/tasks/debug-application-cluster/debug-application/#debugging-pods>

**NEW QUESTION 98**

You are migrating a production-critical on-premises application that requires 96 vCPUs to perform its task. You want to make sure the application runs in a similar environment on GCP. What should you do?

- A. When creating the VM, use machine type n1-standard-96.
- B. When creating the VM, use Intel Skylake as the CPU platform.
- C. Create the VM using Compute Engine default setting
- D. Use gcloud to modify the running instance to have 96 vCPUs.
- E. Start the VM using Compute Engine default settings, and adjust as you go based on Rightsizing Recommendations.



**Answer:** A

**Explanation:**

Ref: [https://cloud.google.com/compute/docs/machine-types#n1\\_machine\\_type](https://cloud.google.com/compute/docs/machine-types#n1_machine_type)

**NEW QUESTION 103**

You have deployed an application on a single Compute Engine instance. The application writes logs to disk. Users start reporting errors with the application. You want to diagnose the problem. What should you do?

- A. Navigate to Cloud Logging and view the application logs.
- B. Connect to the instance's serial console and read the application logs.
- C. Configure a Health Check on the instance and set a Low Healthy Threshold value.
- D. Install and configure the Cloud Logging Agent and view the logs from Cloud Logging.

**Answer:** D

**NEW QUESTION 106**

Your company runs its Linux workloads on Compute Engine instances. Your company will be working with a new operations partner that does not use Google Accounts. You need to grant access to the instances to your operations partner so they can maintain the installed tooling. What should you do?

- A. Enable Cloud IAP for the Compute Engine instances, and add the operations partner as a Cloud IAP Tunnel User.
- B. Tag all the instances with the same network tag.
- C. Create a firewall rule in the VPC to grant TCP access on port 22 for traffic from the operations partner to instances with the network tag.
- D. Set up Cloud VPN between your Google Cloud VPC and the internal network of the operations partner.
- E. Ask the operations partner to generate SSH key pairs, and add the public keys to the VM instances.

**Answer:** A

**Explanation:**

IAP controls access to your App Engine apps and Compute Engine VMs running on Google Cloud. It leverages user identity and the context of a request to determine if a user should be allowed access. IAP is a building block toward BeyondCorp, an enterprise security model that enables employees to work from untrusted networks without using a VPN.

By default, IAP uses Google identities and IAM. By leveraging Identity Platform instead, you can authenticate users with a wide range of external identity providers, such as:

Email/password

OAuth (Google, Facebook, Twitter, GitHub, Microsoft, etc.) SAML

OIDC

Phone number Custom Anonymous

This is useful if your application is already using an external authentication system, and migrating your users to Google accounts is impractical.

<https://cloud.google.com/iap/docs/using-tcp-forwarding#grant-permission>

**NEW QUESTION 108**

You are about to deploy a new Enterprise Resource Planning (ERP) system on Google Cloud. The application holds the full database in-memory for fast data access, and you need to configure the most appropriate resources on Google Cloud for this application. What should you do?

- A. Provision preemptible Compute Engine instances.
- B. Provision Compute Engine instances with GPUs attached.
- C. Provision Compute Engine instances with local SSDs attached.
- D. Provision Compute Engine instances with M1 machine type.

**Answer:** D

**Explanation:**

M1 machine series Medium in-memory databases such as SAP HANA Tasks that require intensive use of memory with higher memory-to-vCPU ratios than the general-purpose high-memory machine types.

In-memory databases and in-memory analytics, business warehousing (BW) workloads, genomics analysis, SQL analysis services. Microsoft SQL Server and similar databases.

<https://cloud.google.com/compute/docs/machine-types>

[https://cloud.google.com/compute/docs/machine-types#:~:text=databases%20such%20as-,SAP%20HANA,-In%](https://cloud.google.com/compute/docs/machine-types#:~:text=databases%20such%20as-,SAP%20HANA,-In%20memory,-database%3F)

<https://www.sap.com/india/products/hana.html#:~:text=is%20SAP%20HANA-,in%20memory,-database%3F>

**NEW QUESTION 111**

You have a Compute Engine instance hosting a production application. You want to receive an email if the instance consumes more than 90% of its CPU resources for more than 15 minutes. You want to use Google services. What should you do?

- A. \* 1. Create a consumer Gmail account.\* 2. Write a script that monitors the CPU usage.\* 3. When the CPU usage exceeds the threshold, have that script send an email using the Gmail account and smtp.gmail.com on port 25 as SMTP server.
- B. \* 1. Create a Stackdriver Workspace, and associate your Google Cloud Platform (GCP) project with it.\* 2.Create an Alerting Policy in Stackdriver that uses the threshold as a trigger condition
- C. 3.Configure your email address in the notification channel.
- D. \* 1. Create a Stackdriver Workspace, and associate your GCP project with it.\* 2.Write a script that monitors the CPU usage and sends it as a custom metric to Stackdriver
- E. 3.Create an uptime check for the instance in Stackdriver.
- F. \* 1. In Stackdriver Logging, create a logs-based metric to extract the CPU usage by using this regular expression: CPU Usage: ([0-9] {1,3})%\* 2.In Stackdriver Monitoring, create an Alerting Policy based on this metric
- G. 3.Configure your email address in the notification channel.

**Answer:** B

**Explanation:**

Specifying conditions for alerting policies This page describes how to specify conditions for alerting policies. The conditions for an alerting policy define what is monitored and when to trigger an alert. For example, suppose you want to define an alerting policy that emails you if the CPU utilization of a Compute Engine VM instance is above 80% for more than 3 minutes. You use the conditions dialog to specify that you want to monitor the CPU utilization of a Compute Engine VM instance, and that you want an alerting policy to trigger when that utilization is above 80% for 3 minutes. <https://cloud.google.com/monitoring/alerts/ui-conditions-ga> <https://cloud.google.com/monitoring/alerts/using-alerting-ui> <https://cloud.google.com/monitoring/support/notification-options>

**NEW QUESTION 112**

You have successfully created a development environment in a project for an application. This application uses Compute Engine and Cloud SQL. Now, you need to create a production environment for this application.

The security team has forbidden the existence of network routes between these 2 environments, and asks you to follow Google-recommended practices. What should you do?

- A. Create a new project, enable the Compute Engine and Cloud SQL APIs in that project, and replicate the setup you have created in the development environment.
- B. Create a new production subnet in the existing VPC and a new production Cloud SQL instance in your existing project, and deploy your application using those resources.
- C. Create a new project, modify your existing VPC to be a Shared VPC, share that VPC with your new project, and replicate the setup you have in the development environment in that new project, in the Shared VPC.
- D. Ask the security team to grant you the Project Editor role in an existing production project used by another division of your company.
- E. Once they grant you that role, replicate the setup you have in the development environment in that project.

**Answer:** A

**Explanation:**

This aligns with Google's recommended practices. By creating a new project, we achieve complete isolation between development and production environments; as well as isolate this production application from production applications of other departments.

Ref: <https://cloud.google.com/docs/enterprise/best-practices-for-enterprise-organizations#define-hierarchy>

**NEW QUESTION 115**

You need to configure optimal data storage for files stored in Cloud Storage for minimal cost. The files are used in a mission-critical analytics pipeline that is used continually. The users are in Boston, MA (United States). What should you do?

- A. Configure regional storage for the region closest to the users Configure a Nearline storage class
- B. Configure regional storage for the region closest to the users Configure a Standard storage class
- C. Configure dual-regional storage for the dual region closest to the users Configure a Nearline storage class
- D. Configure dual-regional storage for the dual region closest to the users Configure a Standard storage class

**Answer:** D

**Explanation:**

Keywords: - continually -> Standard - mission-critical analytics -> dual-regional

**NEW QUESTION 116**

You have a project for your App Engine application that serves a development environment. The required testing has succeeded and you want to create a new project to serve as your production environment. What should you do?

- A. Use gcloud to create the new project, and then deploy your application to the new project.
- B. Use gcloud to create the new project and to copy the deployed application to the new project.
- C. Create a Deployment Manager configuration file that copies the current App Engine deployment into a new project.
- D. Deploy your application again using gcloud and specify the project parameter with the new project name to create the new project.

**Answer:** A

**Explanation:**

You can deploy to a different project by using `--project` flag.

By default, the service is deployed the current project configured via:

`$ gcloud config set core/project PROJECT`

To override this value for a single deployment, use the `--project` flag:

`$ gcloud app deploy ~/my_app/app.yaml --project=PROJECT` Ref: <https://cloud.google.com/sdk/gcloud/reference/app/deploy>

**NEW QUESTION 120**

You've deployed a microservice called myapp1 to a Google Kubernetes Engine cluster using the YAML file specified below:

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: myapp1-deployment
spec:
  selector:
    matchLabels:
      app: myapp1
  replicas: 2
  template:
    metadata:
      labels:
        app: myapp1
    spec:
      containers:
        - name: main-container
          image: gcr.io/my-company-repo/myapp1:1.4
          env:
            - name: DB_PASSWORD
              value: "t0ugh2guess!"
          ports:
            - containerPort: 8080
```

You need to refactor this configuration so that the database password is not stored in plain text. You want to follow Google-recommended practices. What should you do?

- A. Store the database password inside the Docker image of the container, not in the YAML file.
- B. Store the database password inside a Secret objec
- C. Modify the YAML file to populate the DB\_PASSWORD environment variable from the Secret.
- D. Store the database password inside a ConfigMap objec
- E. Modify the YAML file to populate the DB\_PASSWORD environment variable from the ConfigMap.
- F. Store the database password in a file inside a Kubernetes persistent volume, and use a persistent volume claim to mount the volume to the container.

**Answer: B**

**Explanation:**

<https://cloud.google.com/config-connector/docs/how-to/secrets#gcloud>

**NEW QUESTION 125**

An application generates daily reports in a Compute Engine virtual machine (VM). The VM is in the project corp-iot-insights. Your team operates only in the project corp-aggregate-reports and needs a copy of the daily exports in the bucket corp-aggregate-reports-storage. You want to configure access so that the daily reports from the VM are available in the bucket corp-aggregate-reports-storage and use as few steps as possible while following Google-recommended practices. What should you do?

- A. Move both projects under the same folder.
- B. Grant the VM Service Account the role Storage Object Creator on corp-aggregate-reports-storage.
- C. Create a Shared VPC network between both project
- D. Grant the VM Service Account the role Storage Object Creator on corp-iot-insights.
- E. Make corp-aggregate-reports-storage public and create a folder with a pseudo-randomized suffix name. Share the folder with the IoT team.

**Answer: B**

**Explanation:**

Predefined roles

The following table describes Identity and Access Management (IAM) roles that are associated with Cloud Storage and lists the permissions that are contained in each role. Unless otherwise noted, these roles can be applied either to entire projects or specific buckets.

Storage Object Creator (roles/storage.objectCreator) Allows users to create objects. Does not give permission to view, delete, or overwrite objects.

<https://cloud.google.com/storage/docs/access-control/iam-roles#standard-roles>

**NEW QUESTION 130**

The core business of your company is to rent out construction equipment at a large scale. All the equipment that is being rented out has been equipped with multiple sensors that send event information every few seconds. These signals can vary from engine status, distance traveled, fuel level, and more. Customers are billed based on the consumption monitored by these sensors. You expect high throughput – up to thousands of events per hour per device – and need to retrieve consistent data based on the time of the event. Storing and retrieving individual signals should be atomic. What should you do?

- A. Create a file in Cloud Storage per device and append new data to that file.
- B. Create a file in Cloud Filestore per device and append new data to that file.
- C. Ingest the data into Datastor
- D. Store data in an entity group based on the device.
- E. Ingest the data into Cloud Bigtabl
- F. Create a row key based on the event timestamp.

**Answer: D**

**Explanation:**

Keyword need to look for

- "High Throughput",
- "Consistent",
- "Property based data insert/fetch like ngine status, distance traveled, fuel level, and more." which can be designed in column,

- "Large Scale Customer Base + Each Customer has multiple sensor which send event in seconds" This will go for per byte situation,
- Export data based on the time of the event.
- Atomic
  - o BigTable will fit all requirement.
  - o DataStore is not fully Atomic
  - o CloudStorage is not a option where we can export data based on time of event. We need another solution to do that
  - o Firestore can be used with MobileSDK.

#### NEW QUESTION 134

You have a Linux VM that must connect to Cloud SQL. You created a service account with the appropriate access rights. You want to make sure that the VM uses this service account instead of the default Compute Engine service account. What should you do?

- A. When creating the VM via the web console, specify the service account under the 'Identity and API Access' section.
- B. Download a JSON Private Key for the service account
- C. On the Project Metadata, add that JSON as the value for the key compute-engine-service-account.
- D. Download a JSON Private Key for the service account
- E. On the Custom Metadata of the VM, add that JSON as the value for the key compute-engine-service-account.
- F. Download a JSON Private Key for the service account
- G. After creating the VM, ssh into the VM and save the JSON under `~/gcloud/compute-engine-service-account.json`.

**Answer:** A

#### NEW QUESTION 139

You want to configure an SSH connection to a single Compute Engine instance for users in the dev1 group. This instance is the only resource in this particular Google Cloud Platform project that the dev1 users should be able to connect to. What should you do?

- A. Set metadata to enable-oslogin=true for the instance
- B. Grant the dev1 group the compute.osLogin role. Direct them to use the Cloud Shell to ssh to that instance.
- C. Set metadata to enable-oslogin=true for the instance
- D. Set the service account to no service account for that instance
- E. Direct them to use the Cloud Shell to ssh to that instance.
- F. Enable block project wide keys for the instance
- G. Generate an SSH key for each user in the dev1 group. Distribute the keys to dev1 users and direct them to use their third-party tools to connect.
- H. Enable block project wide keys for the instance
- I. Generate an SSH key and associate the key with that instance
- J. Distribute the key to dev1 users and direct them to use their third-party tools to connect.

**Answer:** A

#### NEW QUESTION 142

You are working with a user to set up an application in a new VPC behind a firewall. The user is concerned about data egress. You want to configure the fewest open egress ports. What should you do?

- A. Set up a low-priority (65534) rule that blocks all egress and a high-priority rule (1000) that allows only the appropriate ports.
- B. Set up a high-priority (1000) rule that pairs both ingress and egress ports.
- C. Set up a high-priority (1000) rule that blocks all egress and a low-priority (65534) rule that allows only the appropriate ports.
- D. Set up a high-priority (1000) rule to allow the appropriate ports.

**Answer:** A

#### Explanation:

Implied rules Every VPC network has two implied firewall rules. These rules exist, but are not shown in the Cloud Console: Implied allow egress rule. An egress rule whose action is allow, destination is 0.0.0.0/0, and priority is the lowest possible (65535) lets any instance send traffic to any destination, except for traffic blocked by Google Cloud. A higher priority firewall rule may restrict outbound access. Internet access is allowed if no other firewall rules deny outbound traffic and if the instance has an external IP address or uses a Cloud NAT instance. For more information, see Internet access requirements. Implied deny ingress rule. An ingress rule whose action is deny, source is 0.0.0.0/0, and priority is the lowest possible (65535) protects all instances by blocking incoming connections to them. A higher priority rule might allow incoming access. The default network includes some additional rules that override this one, allowing certain types of incoming connections. [https://cloud.google.com/vpc/docs/firewalls#default\\_firewall\\_rules](https://cloud.google.com/vpc/docs/firewalls#default_firewall_rules)

#### NEW QUESTION 147

You need to create an autoscaling managed instance group for an HTTPS web application. You want to make sure that unhealthy VMs are recreated. What should you do?

- A. Create a health check on port 443 and use that when creating the Managed Instance Group.
- B. Select Multi-Zone instead of Single-Zone when creating the Managed Instance Group.
- C. In the Instance Template, add the label 'health-check'.
- D. In the Instance Template, add a startup script that sends a heartbeat to the metadata server.

**Answer:** A

#### Explanation:

[https://cloud.google.com/compute/docs/instance-groups/autohealing-instances-in-migs#setting\\_up\\_an\\_autoheali](https://cloud.google.com/compute/docs/instance-groups/autohealing-instances-in-migs#setting_up_an_autoheali)

#### NEW QUESTION 150

You have a workload running on Compute Engine that is critical to your business. You want to ensure that the data on the boot disk of this workload is backed up regularly. You need to be able to restore a backup as quickly as possible in case of disaster. You also want older backups to be cleaned automatically to save on cost. You want to follow Google-recommended practices. What should you do?

- A. Create a Cloud Function to create an instance template.



- B. Create a snapshot schedule for the disk using the desired interval.
- C. Create a cron job to create a new disk from the disk using gcloud.
- D. Create a Cloud Task to create an image and export it to Cloud Storage.

**Answer:** B

**Explanation:**

Best practices for persistent disk snapshots

You can create persistent disk snapshots at any time, but you can create snapshots more quickly and with greater reliability if you use the following best practices.

Creating frequent snapshots efficiently

Use snapshots to manage your data efficiently.

Create a snapshot of your data on a regular schedule to minimize data loss due to unexpected failure. Improve performance by eliminating excessive snapshot downloads and by creating an image and reusing it. Set your snapshot schedule to off-peak hours to reduce snapshot time.

Snapshot frequency limits

Creating snapshots from persistent disks

You can snapshot your disks at most once every 10 minutes. If you want to issue a burst of requests to snapshot your disks, you can issue at most 6 requests in 60 minutes.

If the limit is exceeded, the operation fails and returns the following error: <https://cloud.google.com/compute/docs/disks/snapshot-best-practices>

**NEW QUESTION 155**

You have developed a containerized web application that will serve Internal colleagues during business hours. You want to ensure that no costs are incurred outside of the hours the application is used. You have just created a new Google Cloud project and want to deploy the application. What should you do?

- A. Deploy the container on Cloud Run for Anthos, and set the minimum number of instances to zero
- B. Deploy the container on Cloud Run (fully managed), and set the minimum number of instances to zero.
- C. Deploy the container on App Engine flexible environment with autoscalin
- D. and set the value min\_instances to zero in the app yaml
- E. Deploy the container on App Engine flexible environment with manual scaling, and set the value instances to zero in the app yaml

**Answer:** B

**Explanation:**

[https://cloud.google.com/kuberun/docs/architecture-overview#components\\_in\\_the\\_default\\_installation](https://cloud.google.com/kuberun/docs/architecture-overview#components_in_the_default_installation)

**NEW QUESTION 156**

You need to set a budget alert for use of Compute Engine services on one of the three Google Cloud Platform projects that you manage. All three projects are linked to a single billing account. What should you do?

- A. Verify that you are the project billing administrato
- B. Select the associated billing account and create a budget and alert for the appropriate project.
- C. Verify that you are the project billing administrato
- D. Select the associated billing account and create a budget and a custom alert.
- E. Verify that you are the project administrato
- F. Select the associated billing account and create a budget for the appropriate project.
- G. Verify that you are project administrato
- H. Select the associated billing account and create a budget and a custom alert.

**Answer:** A

**Explanation:**

<https://cloud.google.com/iam/docs/understanding-roles#billing-roles>

**NEW QUESTION 159**

You want to configure 10 Compute Engine instances for availability when maintenance occurs. Your requirements state that these instances should attempt to automatically restart if they crash. Also, the instances should be highly available including during system maintenance. What should you do?

- A. Create an instance template for the instance
- B. Set the 'Automatic Restart' to o
- C. Set the 'On-host maintenance' to Migrate VM instanc
- D. Add the instance template to an instance group.
- E. Create an instance template for the instance
- F. Set 'Automatic Restart' to of
- G. Set 'On-host maintenance' to Terminate VM instance
- H. Add the instance template to an instance group.
- I. Create an instance group for the instance
- J. Set the 'Autohealing' health check to healthy (HTTP).
- K. Create an instance group for the instanc
- L. Verify that the 'Advanced creation options' setting for 'do not retry machine creation' is set to off.

**Answer:** A

**Explanation:**

Create an instance template for the instances so VMs have same specs. Set the "'Automatic Restart' to on to VM automatically restarts upon crash. Set the "'On-host maintenance' to Migrate VM instance. This will take care of VM during maintenance window. It will migrate VM instance making it highly available Add the instance template to an instance group so instances can be managed.

- onHostMaintenance: Determines the behavior when a maintenance event occurs that might cause your instance to reboot.
- [Default] MIGRATE, which causes Compute Engine to live migrate an instance when there is a maintenance event.
- TERMINATE, which stops an instance instead of migrating it.
- automaticRestart: Determines the behavior when an instance crashes or is stopped by the system.
- [Default] true, so Compute Engine restarts an instance if the instance crashes or is stopped.

- false, so Compute Engine does not restart an instance if the instance crashes or is stopped.

Enabling automatic restart ensures that compute engine instances are automatically restarted when they crash. And Enabling Migrate VM Instance enables live migrates i.e. compute instances are migrated during system maintenance and remain running during the migration.

Automatic Restart If your instance is set to terminate when there is a maintenance event, or if your instance crashes because of an underlying hardware issue, you can set up Compute Engine to automatically restart the instance by setting the automaticRestart field to true. This setting does not apply if the instance is taken offline through a user action, such as calling sudo shutdown, or during a zone

outage.Ref: <https://cloud.google.com/compute/docs/instances/setting-instance-scheduling-options#autorestart>

Enabling the Migrate VM Instance option migrates your instance away from an infrastructure maintenance event, and your instance remains running during the migration. Your instance might experience a short period of decreased performance, although generally, most instances should not notice any difference. This is ideal for instances that require constant uptime and can tolerate a short period of decreased

performance.Ref: [https://cloud.google.com/compute/docs/instances/setting-instance-scheduling-options#live\\_](https://cloud.google.com/compute/docs/instances/setting-instance-scheduling-options#live_)

#### NEW QUESTION 162

You need to deploy an application, which is packaged in a container image, in a new project. The application exposes an HTTP endpoint and receives very few requests per day. You want to minimize costs. What should you do?

- A. Deploy the container on Cloud Run.
- B. Deploy the container on Cloud Run on GKE.
- C. Deploy the container on App Engine Flexible.
- D. Deploy the container on Google Kubernetes Engine, with cluster autoscaling and horizontal pod autoscaling enabled.

**Answer:** A

#### Explanation:

Cloud Run takes any container images and pairs great with the container ecosystem: Cloud Build, Artifact Registry, Docker. ... No infrastructure to manage: once deployed, Cloud Run manages your services so you can sleep well. Fast autoscaling. Cloud Run automatically scales up or down from zero to N depending on traffic.

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

#### NEW QUESTION 163

You recently deployed a new version of an application to App Engine and then discovered a bug in the release. You need to immediately revert to the prior version of the application. What should you do?

- A. Run gcloud app restore.
- B. On the App Engine page of the GCP Console, select the application that needs to be reverted and click Revert.
- C. On the App Engine Versions page of the GCP Console, route 100% of the traffic to the previous version.
- D. Deploy the original version as a separate applicatio
- E. Then go to App Engine settings and split traffic between applications so that the original version serves 100% of the requests.

**Answer:** C

#### NEW QUESTION 165

You are running an application on multiple virtual machines within a managed instance group and have autoscaling enabled. The autoscaling policy is configured so that additional instances are added to the group if the CPU utilization of instances goes above 80%. VMs are added until the instance group reaches its maximum limit of five VMs or until CPU utilization of instances lowers to 80%. The initial delay for HTTP

health checks against the instances is set to 30 seconds. The virtual machine instances take around three minutes to become available for users. You observe that when the instance group autoscales, it adds more instances than necessary to support the levels of end-user traffic. You want to properly maintain instance group sizes when autoscaling. What should you do?

- A. Set the maximum number of instances to 1.
- B. Decrease the maximum number of instances to 3.
- C. Use a TCP health check instead of an HTTP health check.
- D. Increase the initial delay of the HTTP health check to 200 seconds.

**Answer:** D

#### Explanation:

The reason is that when you do health check, you want the VM to be working. Do the first check after initial setup time of 3 mins = 180 s < 200 s is reasonable.

➤ The reason why our autoscaling is adding more instances than needed is that it checks 30 seconds after launching the instance and at this point, the instance isn't up and isn't ready to serve traffic. So our autoscaling policy starts another instance again checks this after 30 seconds and the cycle repeats until it gets to the maximum instances or the instances launched earlier are healthy and start processing traffic which happens after 180 seconds (3 minutes). This can be easily rectified by adjusting the initial delay to be higher than the time it takes for the instance to become available for processing traffic. So setting this to 200 ensures that it waits until the instance is up (around 180-second mark) and then starts forwarding traffic to this instance. Even after a cool out period, if the CPU utilization is still high, the autoscaler can again scale up but this scale-up is genuine and is based on the actual load.

Initial Delay Seconds This setting delays autohealing from potentially prematurely recreating the instance if the instance is in the process of starting up. The initial delay timer starts when the currentAction of the instance is VERIFYING.Ref: <https://cloud.google.com/compute/docs/instance-groups/autohealing-instances-in-migs>

#### NEW QUESTION 168

You are managing a project for the Business Intelligence (BI) department in your company. A data pipeline ingests data into BigQuery via streaming. You want the users in the BI department to be able to run the custom SQL queries against the latest data in BigQuery. What should you do?

- A. Create a Data Studio dashboard that uses the related BigQuery tables as a source and give the BI team view access to the Data Studio dashboard.
- B. Create a Service Account for the BI team and distribute a new private key to each member of the BI team.
- C. Use Cloud Scheduler to schedule a batch Dataflow job to copy the data from BigQuery to the BI team's internal data warehouse.
- D. Assign the IAM role of BigQuery User to a Google Group that contains the members of the BI team.

**Answer:** D

**Explanation:**

When applied to a dataset, this role provides the ability to read the dataset's metadata and list tables in the dataset. When applied to a project, this role also provides the ability to run jobs, including queries, within the project. A member with this role can enumerate their own jobs, cancel their own jobs, and enumerate datasets within a project. Additionally, allows the creation of new datasets within the project; the creator is granted the BigQuery Data Owner role (roles/bigquery.dataOwner) on these new datasets.

<https://cloud.google.com/bigquery/docs/access-control>

**NEW QUESTION 169**

You want to configure a solution for archiving data in a Cloud Storage bucket. The solution must be cost-effective. Data with multiple versions should be archived after 30 days. Previous versions are accessed once a month for reporting. This archive data is also occasionally updated at month-end. What should you do?

- A. Add a bucket lifecycle rule that archives data with newer versions after 30 days to Coldline Storage.
- B. Add a bucket lifecycle rule that archives data with newer versions after 30 days to Nearline Storage.
- C. Add a bucket lifecycle rule that archives data from regional storage after 30 days to Coldline Storage.
- D. Add a bucket lifecycle rule that archives data from regional storage after 30 days to Nearline Storage.

**Answer:** B

**NEW QUESTION 173**

Your projects incurred more costs than you expected last month. Your research reveals that a development GKE container emitted a huge number of logs, which resulted in higher costs. You want to disable the logs quickly using the minimum number of steps. What should you do?

- A. 1. Go to the Logs ingestion window in Stackdriver Logging, and disable the log source for the GKE container resource.
- B. 1. Go to the Logs ingestion window in Stackdriver Logging, and disable the log source for the GKE Cluster Operations resource.
- C. 1. Go to the GKE console, and delete existing clusters.2. Recreate a new cluster.3. Clear the option to enable legacy Stackdriver Logging.
- D. 1. Go to the GKE console, and delete existing clusters.2. Recreate a new cluster.3. Clear the option to enable legacy Stackdriver Monitoring.

**Answer:** A

**Explanation:**

<https://cloud.google.com/logging/docs/api/v2/resource-list> GKE Containers have more log than GKE Cluster Operations:

-GKE Containe:

cluster\_name: An immutable name for the cluster the container is running in. namespace\_id: Immutable ID of the cluster namespace the container is running in.

instance\_id: Immutable ID of the GCE instance the container is running in. pod\_id: Immutable ID of the pod the container is running in.

container\_name: Immutable name of the container. zone: The GCE zone in which the instance is running. VS

-GKE Cluster Operations

project\_id: The identifier of the GCP project associated with this resource, such as "my-project". cluster\_name: The name of the GKE Cluster.

location: The location in which the GKE Cluster is running.

**NEW QUESTION 175**

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