



Google

Exam Questions Associate-Cloud-Engineer

Google Cloud Certified - Associate Cloud Engineer

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NEW QUESTION 1

You recently discovered that your developers are using many service account keys during their development process. While you work on a long term improvement, you need to quickly implement a process to enforce short-lived service account credentials in your company. You have the following requirements:

- All service accounts that require a key should be created in a centralized project called pj-sa.
- Service account keys should only be valid for one day.

You need a Google-recommended solution that minimizes cost. What should you do?

- A. Implement a Cloud Run job to rotate all service account keys periodically in pj-s
- B. Enforce an org policy to deny service account key creation with an exception to pj-sa.
- C. Implement a Kubernetes Cronjob to rotate all service account keys periodically
- D. Disable attachment of service accounts to resources in all projects with an exception to pj-sa.
- E. Enforce an org policy constraint allowing the lifetime of service account keys to be 24 hours
- F. Enforce an org policy constraint denying service account key creation with an exception on pj-sa.
- G. Enforce a DENY org policy constraint over the lifetime of service account keys for 24 hours
- H. Disable attachment of service accounts to resources in all projects with an exception to pj-sa.

Answer: C

Explanation:

According to the Google Cloud documentation, you can use organization policy constraints to control the creation and expiration of service account keys. The constraints are:

➤ `constraints/iam.allowServiceAccountKeyCreation`: This constraint allows you to specify which projects or folders can create service account keys. You can set the value to true or false, or use a condition to apply the constraint to specific service accounts. By setting this constraint to false for the organization and adding an exception for the pj-sa project, you can prevent developers from creating service account keys in other projects.

➤ `constraints/iam.serviceAccountKeyMaxLifetime`: This constraint allows you to specify the maximum lifetime of service account keys. You can set the value to a duration in seconds, such as 86400 for one day. By setting this constraint to 86400 for the organization, you can ensure that all service account keys expire after one day.

These constraints are recommended by Google Cloud as best practices to minimize the risk of service account key misuse or compromise. They also help you reduce the cost of managing service account keys, as you do not need to implement a custom solution to rotate or delete them.

References:

- 1: Associate Cloud Engineer Certification Exam Guide | Learn - Google Cloud
- 5: Create and delete service account keys - Google Cloud
- Organization policy constraints for service accounts

NEW QUESTION 2

Your learn wants to deploy a specific content management system (CMS) solution to Google Cloud. You need a quick and easy way to deploy and install the solution. What should you do?

- A. Search for the CMS solution in Google Cloud Marketplace
- B. Use gcloud CLI to deploy the solution.
- C. Search for the CMS solution in Google Cloud Marketplace
- D. Deploy the solution directly from Cloud Marketplace.
- E. Search for the CMS solution in Google Cloud Marketplace
- F. Use Terraform and the Cloud Marketplace ID to deploy the solution with the appropriate parameters.
- G. Use the installation guide of the CMS provider
- H. Perform the installation through your configuration management system.

Answer: B

NEW QUESTION 3

You have a developer laptop with the Cloud SDK installed on Ubuntu. The Cloud SDK was installed from the Google Cloud Ubuntu package repository. You want to test your application locally on your laptop with Cloud Datastore. What should you do?

- A. Export Cloud Datastore data using `gcloud datastore export`.
- B. Create a Cloud Datastore index using `gcloud datastore indexes create`.
- C. Install the `google-cloud-sdk-datastore-emulator` component using the `apt get install` command.
- D. Install the `cloud-datastore-emulator` component using the `gcloud components install` command.

Answer: D

Explanation:

➤ The Datastore emulator provides local emulation of the production Datastore environment. You can use the emulator to develop and test your application locally. Ref: <https://cloud.google.com/datastore/docs/tools/datastore-emulator>

NEW QUESTION 4

Your organization is a financial company that needs to store audit log files for 3 years. Your organization has hundreds of Google Cloud projects. You need to implement a cost-effective approach for log file retention. What should you do?

- A. Create an export to the sink that saves logs from Cloud Audit to BigQuery.
- B. Create an export to the sink that saves logs from Cloud Audit to a Coldline Storage bucket.
- C. Write a custom script that uses logging API to copy the logs from Stackdriver logs to BigQuery.
- D. Export these logs to Cloud Pub/Sub and write a Cloud Dataflow pipeline to store logs to Cloud SQL.

Answer: B

Explanation:

Coldline Storage is the perfect service to store audit logs from all the projects and is very cost-efficient as well. Coldline Storage is a very low-cost, highly durable storage service for storing infrequently accessed data.

NEW QUESTION 5

Your company wants to standardize the creation and management of multiple Google Cloud resources using Infrastructure as Code. You want to minimize the amount of repetitive code needed to manage the environment. What should you do?

- A. Create a bash script that contains all requirement steps as gcloud commands
- B. Develop templates for the environment using Cloud Deployment Manager
- C. Use curl in a terminal to send a REST request to the relevant Google API for each individual resource.
- D. Use the Cloud Console interface to provision and manage all related resources

Answer: B

Explanation:

You can use Google Cloud Deployment Manager to create a set of Google Cloud resources and manage them as a unit, called a deployment. For example, if your team's development environment needs two virtual machines (VMs) and a BigQuery database, you can define these resources in a configuration file, and use Deployment Manager to create, change, or delete these resources. You can make the configuration file part of your team's code repository, so that anyone can create the same environment with consistent results. <https://cloud.google.com/deployment-manager/docs/quickstart>

NEW QUESTION 6

You received a JSON file that contained a private key of a Service Account in order to get access to several resources in a Google Cloud project. You downloaded and installed the Cloud SDK and want to use this private key for authentication and authorization when performing gcloud commands. What should you do?

- A. Use the command `gcloud auth login` and point it to the private key
- B. Use the command `gcloud auth activate-service-account` and point it to the private key
- C. Place the private key file in the installation directory of the Cloud SDK and rename it to "credentials.json"
- D. Place the private key file in your home directory and rename it to "GOOGLE_APPLICATION_CREDENTIALS".

Answer: B

Explanation:

Authorizing with a service account

`gcloud auth activate-service-account` authorizes access using a service account. As with `gcloud init` and `gcloud auth login`, this command saves the service account credentials to the local system on successful completion and sets the specified account as the active account in your Cloud SDK configuration.

https://cloud.google.com/sdk/docs/authorizing#authorizing_with_a_service_account

NEW QUESTION 7

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: A

NEW QUESTION 8

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 9

You need to manage a third-party application that will run on a Compute Engine instance. Other Compute Engine instances are already running with default configuration. Application installation files are hosted on Cloud Storage. You need to access these files from the new instance without allowing other virtual machines (VMs) to access these files. What should you do?

- A. Create the instance with the default Compute Engine service account. Grant the service account permissions on Cloud Storage.
- B. Create the instance with the default Compute Engine service account. Add metadata to the objects on Cloud Storage that matches the metadata on the new instance.
- C. Create a new service account and assign this service account to the new instance. Grant the service account permissions on Cloud Storage.
- D. Create a new service account and assign this service account to the new instance. Add metadata to the objects on Cloud Storage that matches the metadata on the new instance.

Answer: B

Explanation:

<https://cloud.google.com/iam/docs/best-practices-for-using-and-managing-service-accounts>

If an application uses third-party or custom identities and needs to access a resource, such as a BigQuery dataset or a Cloud Storage bucket, it must perform a transition between principals. Because Google Cloud APIs don't recognize third-party or custom identities, the application can't propagate the end-user's identity to BigQuery or Cloud Storage. Instead, the application has to perform the access by using a different Google identity.

NEW QUESTION 10

You are hosting an application from Compute Engine virtual machines (VMs) in us-central1-a. You want to adjust your design to support the failure of a single Compute Engine zone, eliminate downtime, and minimize cost. What should you do?

- A. – Create Compute Engine resources in us-central1-b.–Balance the load across both us-central1-a and us-central1-b.
- B. – Create a Managed Instance Group and specify us-central1-a as the zone.–Configure the Health Check with a short Health Interval.
- C. – Create an HTTP(S) Load Balancer.–Create one or more global forwarding rules to direct traffic to your VMs.
- D. – Perform regular backups of your application.–Create a Cloud Monitoring Alert and be notified if your application becomes unavailable.–Restore from backups when notified.

Answer: A

Explanation:

Choosing a region and zone You choose which region or zone hosts your resources, which controls where your data is stored and used. Choosing a region and zone is important for several reasons:

Handling failures

Distribute your resources across multiple zones and regions to tolerate outages. Google designs zones to be independent from each other: a zone usually has power, cooling, networking, and control planes that are isolated from other zones, and most single failure events will affect only a single zone. Thus, if a zone becomes unavailable, you can transfer traffic to another zone in the same region to keep your services running. Similarly, if a region experiences any disturbances, you should have backup services running in a different region. For more information about distributing your resources and designing a robust system, see [Designing Robust Systems](#). Decreased network latency To decrease network latency, you might want to choose a region or zone that is close to your point of service.

https://cloud.google.com/compute/docs/regions-zones#choosing_a_region_and_zone

NEW QUESTION 10

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 11

You have files in a Cloud Storage bucket that you need to share with your suppliers. You want to restrict the time that the files are available to your suppliers to 1 hour. You want to follow Google recommended practices. What should you do?

- A. Create a service account with just the permissions to access files in the bucket
- B. Create a JSON key for the service account
- C. Execute the command `gsutil signurl -m 1h gs://**`.
- D. Create a service account with just the permissions to access files in the bucket
- E. Create a JSON key for the service account
- F. Execute the command `gsutil signurl -d 1h gs://**`.
- G. Create a service account with just the permissions to access files in the bucket
- H. Create a JSON key for the service account
- I. Execute the command `gsutil signurl -p 60m gs://`.
- J. Create a JSON key for the Default Compute Engine Service Account
- K. Execute the command `gsutil signurl -t 60m gs://***`

Answer: B

Explanation:

This command correctly specifies the duration that the signed url should be valid for by using the -d flag. The default is 1 hour so omitting the -d flag would have also resulted in the same outcome. Times may be specified with no suffix (default hours), or with s = seconds, m = minutes, h = hours, d = days. The max duration allowed is 7d. Ref: <https://cloud.google.com/storage/docs/gsutil/commands/signurl>

NEW QUESTION 16

You built an application on Google Cloud Platform that uses Cloud Spanner. Your support team needs to monitor the environment but should not have access to table data. You need a streamlined solution to grant the correct permissions to your support team, and you want to follow Google-recommended practices. What should you do?

- A. Add the support team group to the roles/monitoring.viewer role
- B. Add the support team group to the roles/spanner.databaseUser role.
- C. Add the support team group to the roles/spanner.databaseReader role.
- D. Add the support team group to the roles/stackdriver.accounts.viewer role.

Answer: A

Explanation:

➤ roles/monitoring.viewer provides read-only access to get and list information about all monitoring data and configurations. This role provides monitoring access and fits our requirements. roles/monitoring.viewer. is the right answer.

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

NEW QUESTION 21

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 23

Your company developed a mobile game that is deployed on Google Cloud. Gamers are connecting to the game with their personal phones over the Internet. The game sends UDP packets to update the servers about the gamers' actions while they are playing in multiplayer mode. Your game backend can scale over multiple virtual machines (VMs), and you want to expose the VMs over a single IP address. What should you do?

- A. Configure an SSL Proxy load balancer in front of the application servers.
- B. Configure an Internal UDP load balancer in front of the application servers.
- C. Configure an External HTTP(s) load balancer in front of the application servers.
- D. Configure an External Network load balancer in front of the application servers.

Answer: D

Explanation:

cell phones are sending UDP packets and the only that can receive that type of traffic is a External Network TCP/UDP <https://cloud.google.com/load-balancing/docs/network>

<https://cloud.google.com/load-balancing/docs/choosing-load-balancer#lb-decision-tree>

NEW QUESTION 27

Your development team needs a new Jenkins server for their project. You need to deploy the server using the fewest steps possible. What should you do?

- A. Download and deploy the Jenkins Java WAR to App Engine Standard.
- B. Create a new Compute Engine instance and install Jenkins through the command line interface.
- C. Create a Kubernetes cluster on Compute Engine and create a deployment with the Jenkins Docker image.
- D. Use GCP Marketplace to launch the Jenkins solution.

Answer: D

NEW QUESTION 30

A colleague handed over a Google Cloud Platform project for you to maintain. As part of a security checkup, you want to review who has been granted the Project Owner role. What should you do?

- A. In the console, validate which SSH keys have been stored as project-wide keys.
- B. Navigate to Identity-Aware Proxy and check the permissions for these resources.
- C. Enable Audit Logs on the IAM & admin page for all resources, and validate the results.
- D. Use the command `gcloud projects get-iam-policy` to view the current role assignments.

Answer: D

Explanation:

A simple approach would be to use the command flags available when listing all the IAM policy for a given project. For instance, the following command: `gcloud projects get-iam-policy $PROJECT_ID`

`--flatten="bindings[.members]" --format="table(bindings.members)" --filter="bindings.role:roles/owner"`

outputs all the users and service accounts associated with the role 'roles/owner' in the project in question. <https://groups.google.com/g/google-cloud-dev/c/Z6sZs7TvygQ?pli=1>

NEW QUESTION 32

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 33

You need to manage a Cloud Spanner Instance for best query performance. Your instance in production runs in a single Google Cloud region. You need to improve performance in the shortest amount of time. You want to follow Google best practices for service configuration. What should you do?

- A. Create an alert in Cloud Monitoring to alert when the percentage of high priority CPU utilization reaches 45% If you exceed this threshold, add nodes lo your instance.
B. Create an alert in Cloud Monitoring to alert when the percentage to high priority CPU utilization reaches 45% Use database query statistics to identify queries that result in high CPU usage, and then rewrite those queries to optimize their resource usage
C. Create an alert in Cloud Monitoring to alert when the percentage of high priority CPU utilization reaches 65% If you exceed this threshold, add nodes to your instance
D. Create an alert in Cloud Monitoring to alert when the percentage of high priority CPU utilization reaches 65%. Use database query statistics to identity queries that result in high CPU usage, and then rewrite those queries to optimize their resource usage.

Answer: B

Explanation:

<https://cloud.google.com/spanner/docs/cpu-utilization#recommended-max>

NEW QUESTION 37

Your auditor wants to view your organization's use of data in Google Cloud. The auditor is most interested in auditing who accessed data in Cloud Storage buckets. You need to help the auditor access the data they need. What should you do?

- A. Assign the appropriate permissions, and then use Cloud Monitoring to review metrics
B. Use the export logs API to provide the Admin Activity Audit Logs in the format they want
C. Turn on Data Access Logs for the buckets they want to audit, and Then build a query in the log viewer that filters on Cloud Storage
D. Assign the appropriate permissions, and then create a Data Studio report on Admin Activity Audit Logs

Answer: C

Explanation:

Types of audit logs Cloud Audit Logs provides the following audit logs for each Cloud project, folder, and organization: Admin Activity audit logs Data Access audit logs System Event audit logs Policy Denied audit logs ***Data Access audit logs contain API calls that read the configuration or metadata of resources, as well as user-driven API calls that create, modify, or read user-provided resource data. <https://cloud.google.com/logging/docs/audit#types>
<https://cloud.google.com/logging/docs/audit#data-access> Cloud Storage: When Cloud Storage usage logs are enabled, Cloud Storage writes usage data to the Cloud Storage bucket, which generates Data Access audit logs for the bucket. The generated Data Access audit log has its caller identity redacted.

NEW QUESTION 40

You need to create a Compute Engine instance in a new project that doesn't exist yet. What should you do?

- A. Using the Cloud SDK, create a new project, enable the Compute Engine API in that project, and then create the instance specifying your new project.
B. Enable the Compute Engine API in the Cloud Console, use the Cloud SDK to create the instance, and then use the —project flag to specify a new project.
C. Using the Cloud SDK, create the new instance, and use the —project flag to specify the new project. Answer yes when prompted by Cloud SDK to enable the Compute Engine API.
D. Enable the Compute Engine API in the Cloud Consol
E. Go to the Compute Engine section of the Console to create a new instance, and look for the Create In A New Project option in the creation form.

Answer: A

Explanation:

<https://cloud.google.com/sdk/gcloud/reference/projects/create> Quickstart: Creating a New Instance Using the Command Line Before you begin

* 1. In the Cloud Console, on the project selector page, select or create a Cloud project.

* 2. Make sure that billing is enabled for your Google Cloud project. Learn how to confirm billing is enabled for your project.

To use the gcloud command-line tool for this quickstart, you must first install and initialize the Cloud SDK:

* 1. Download and install the Cloud SDK using the instructions given on Installing Google Cloud SDK.

* 2. Initialize the SDK using the instructions given on Initializing Cloud SDK.

To use gcloud in Cloud Shell for this quickstart, first activate Cloud Shell using the instructions given on Starting Cloud Shell.

<https://cloud.google.com/ai-platform/deep-learning-vm/docs/quickstart-cli#before-you-begin>

NEW QUESTION 41

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 44

You are creating a Google Kubernetes Engine (GKE) cluster with a cluster autoscaler feature enabled. You need to make sure that each node of the cluster will run a monitoring pod that sends container metrics to a third-party monitoring solution. What should you do?

- A. Deploy the monitoring pod in a StatefulSet object.
- B. Deploy the monitoring pod in a DaemonSet object.
- C. Reference the monitoring pod in a Deployment object.
- D. Reference the monitoring pod in a cluster initializer at the GKE cluster creation time.

Answer: B

Explanation:

<https://cloud.google.com/kubernetes-engine/docs/concepts/daemonset> https://cloud.google.com/kubernetes-engine/docs/concepts/daemonset#usage_patterns
DaemonSets attempt to adhere to a one-Pod-per-node model, either across the entire cluster or a subset of nodes. As you add nodes to a node pool, DaemonSets automatically add Pods to the new nodes as needed.

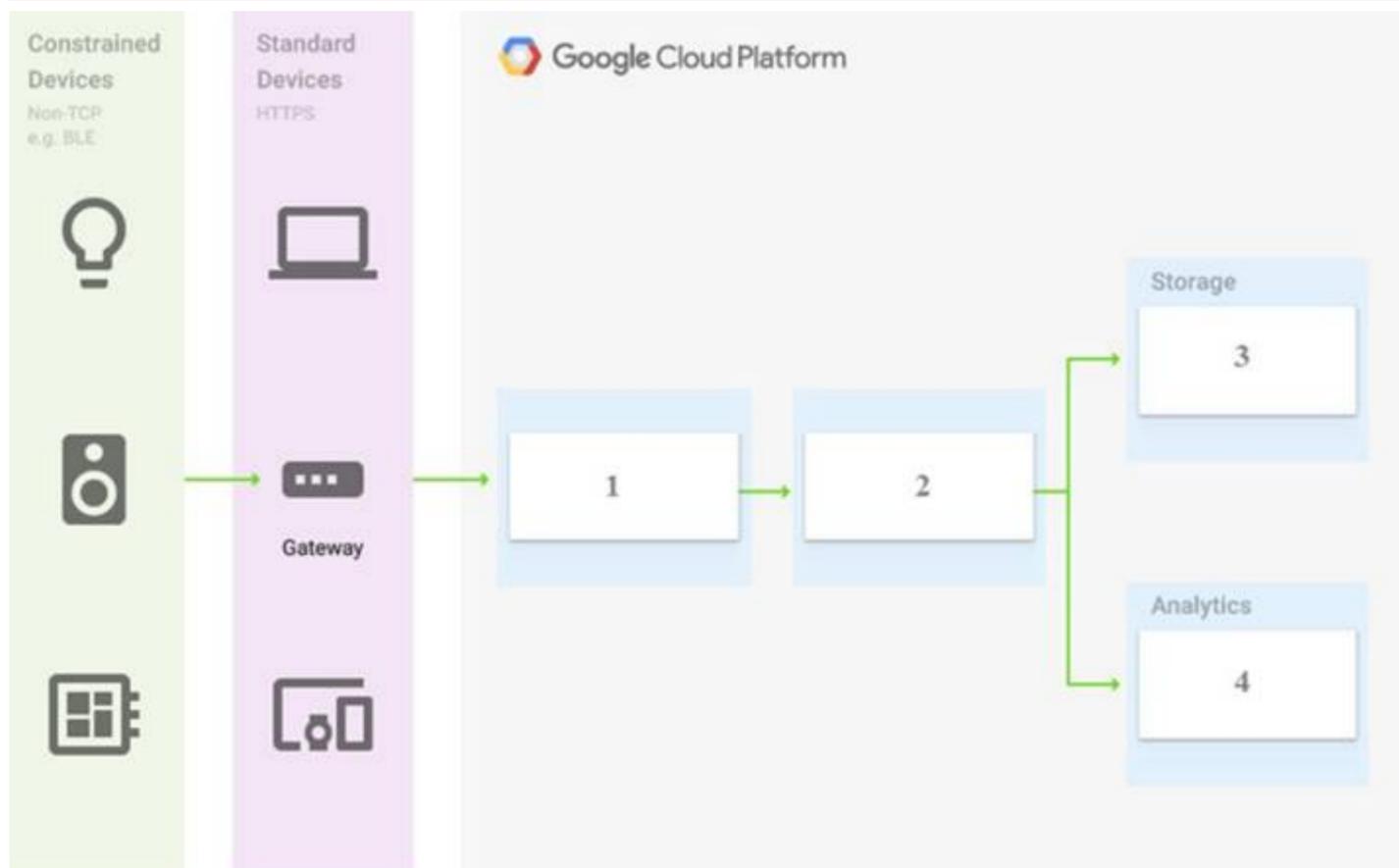
In GKE, DaemonSets manage groups of replicated Pods and adhere to a one-Pod-per-node model, either across the entire cluster or a subset of nodes. As you add nodes to a node pool, DaemonSets automatically add Pods to the new nodes as needed. So, this is a perfect fit for our monitoring pod.

Ref: <https://cloud.google.com/kubernetes-engine/docs/concepts/daemonset>

DaemonSets are useful for deploying ongoing background tasks that you need to run on all or certain nodes, and which do not require user intervention. Examples of such tasks include storage daemons like ceph, log collection daemons like fluentd, and node monitoring daemons like collectd. For example, you could have DaemonSets for each type of daemon run on all of your nodes. Alternatively, you could run multiple DaemonSets for a single type of daemon, but have them use different configurations for different hardware types and resource needs.

NEW QUESTION 47

You are building a pipeline to process time-series data. Which Google Cloud Platform services should you put in boxes 1,2,3, and 4?



- A. Cloud Pub/Sub, Cloud Dataflow, Cloud Datastore, BigQuery
- B. Firebase Messages, Cloud Pub/Sub, Cloud Spanner, BigQuery
- C. Cloud Pub/Sub, Cloud Storage, BigQuery, Cloud Bigtable
- D. Cloud Pub/Sub, Cloud Dataflow, Cloud Bigtable, BigQuery

Answer: D

NEW QUESTION 52

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 54

You are building an application that processes data files uploaded from thousands of suppliers. Your primary goals for the application are data security and the expiration of aged data. You need to design the application to:

- Restrict access so that suppliers can access only their own data.
- Give suppliers write access to data only for 30 minutes.
- Delete data that is over 45 days old.

You have a very short development cycle, and you need to make sure that the application requires minimal maintenance. Which two strategies should you use? (Choose two.)

- A. Build a lifecycle policy to delete Cloud Storage objects after 45 days.
- B. Use signed URLs to allow suppliers limited time access to store their objects.
- C. Set up an SFTP server for your application, and create a separate user for each supplier.
- D. Build a Cloud function that triggers a timer of 45 days to delete objects that have expired.
- E. Develop a script that loops through all Cloud Storage buckets and deletes any buckets that are older than 45 days.

Answer: AB

Explanation:

(A) Object Lifecycle Management Delete

The Delete action deletes an object when the object meets all conditions specified in the lifecycle rule.

Exception: In buckets with Object Versioning enabled, deleting the live version of an object causes it to become a noncurrent version, while deleting a noncurrent version deletes that version permanently.

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

(B) Signed URLs

This page provides an overview of signed URLs, which you use 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 55

You have downloaded and installed the gcloud command line interface (CLI) and have authenticated with your Google Account. Most of your Compute Engine instances in your project run in the europe-west1-d zone. You want to avoid having to specify this zone with each CLI command when managing these instances. What should you do?

- A. Set the europe-west1-d zone as the default zone using the gcloud config subcommand.
- B. In the Settings page for Compute Engine under Default location, set the zone to europe-west1-d.
- C. In the CLI installation directory, create a file called default.conf containing zone=europe-west1-d.
- D. Create a Metadata entry on the Compute Engine page with key compute/zone and value europe-west1-d.

Answer: A

Explanation:

Change your default zone and region in the metadata server Note: This only applies to the default configuration. You can change the default zone and region in your metadata server by making a request to the metadata server. For example: `gcloud compute project-info add-metadata --metadata google-compute-default-region=europe-west1,google-compute-default-zone=europe-west1-b` The gcloud command-line tool only picks up on new default zone and region changes after you rerun the gcloud init command. After updating your default metadata, run gcloud init to reinitialize your default configuration.
https://cloud.google.com/compute/docs/gcloud-compute#change_your_default_zone_and_region_in_the_metad

NEW QUESTION 56

You need to create a custom IAM role for use with a GCP service. All permissions in the role must be suitable for production use. You also want to clearly share with your organization the status of the custom role. This will be the first version of the custom role. What should you do?

- A. Use permissions in your role that use the 'supported' support level for role permission
- B. Set the rolestage to ALPHA while testing the role permissions.
- C. Use permissions in your role that use the 'supported' support level for role permission
- D. Set the role stage to BETA while testing the role permissions.
- E. Use permissions in your role that use the 'testing' support level for role permission
- F. Set the role stage to ALPHA while testing the role permissions.
- G. Use permissions in your role that use the 'testing' support level for role permission
- H. Set the role stage to BETA while testing the role permissions.

Answer: A

Explanation:

When setting support levels for permissions in custom roles, you can set to one of SUPPORTED, TESTING or NOT_SUPPORTED.
Ref: <https://cloud.google.com/iam/docs/custom-roles-permissions-support>

NEW QUESTION 58

You have an application that runs on Compute Engine VM instances in a custom Virtual Private Cloud (VPC). Your company's security policies only allow the use to internal IP addresses on VM instances and do not let VM instances connect to the internet. You need to ensure that the application can access a file hosted in a Cloud Storage bucket within your project. What should you do?

- A. Enable Private Service Access on the Cloud Storage Bucket.
- B. Add storage.googleapis.com to the list of restricted services in a VPC Service Controls perimeter and add your project to the list of protected projects.
- C. Enable Private Google Access on the subnet within the custom VPC.
- D. Deploy a Cloud NAT instance and route the traffic to the dedicated IP address of the Cloud Storage bucket.

Answer: A

NEW QUESTION 63

You want to deploy an application on Cloud Run that processes messages from a Cloud Pub/Sub topic. You want to follow Google-recommended practices. What should you do?

- A. 1. Create a Cloud Function that uses a Cloud Pub/Sub trigger on that topic.2. Call your application on Cloud Run from the Cloud Function for every message.
- B. 1. Grant the Pub/Sub Subscriber role to the service account used by Cloud Run.2. Create a Cloud Pub/Sub subscription for that topic.3. Make your application pull messages from that subscription.
- C. 1. Create a service account.2. Give the Cloud Run Invoker role to that service account for your Cloud Run application.3. Create a Cloud Pub/Sub subscription that uses that service account and uses your Cloud Run application as the push endpoint.
- D. 1. Deploy your application on Cloud Run on GKE with the connectivity set to Internal.2. Create a Cloud Pub/Sub subscription for that topic.3. In the same Google Kubernetes Engine cluster as your application, deploy a container that takes the messages and sends them to your application.

Answer: C

Explanation:

<https://cloud.google.com/run/docs/tutorials/pubsub#integrating-pubsub>

* 1. Create a service account. 2. Give the Cloud Run Invoker role to that service account for your Cloud Run application. 3. Create a Cloud Pub/Sub subscription that uses that service account and uses your Cloud Run application as the push endpoint.

NEW QUESTION 65

An employee was terminated, but their access to Google Cloud Platform (GCP) was not removed until 2 weeks later. You need to find out this employee accessed any sensitive customer information after their termination. What should you do?

- A. View System Event Logs in Stackdrive
- B. Search for the user's email as the principal.
- C. View System Event Logs in Stackdrive

- D. Search for the service account associated with the user.
- E. View Data Access audit logs in Stackdrive
- F. Search for the user's email as the principal.
- G. View the Admin Activity log in Stackdrive
- H. Search for the service account associated with the user.

Answer: C

Explanation:

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

Data Access audit logs Data Access audit logs contain API calls that read the configuration or metadata of resources, as well as user-driven API calls that create, modify, or read user-provided resource data.

<https://cloud.google.com/logging/docs/audit#data-access>

NEW QUESTION 67

You are assigned to maintain a Google Kubernetes Engine (GKE) cluster named dev that was deployed on Google Cloud. You want to manage the GKE configuration using the command line interface (CLI). You have just downloaded and installed the Cloud SDK. You want to ensure that future CLI commands by default address this specific cluster. What should you do?

- A. Use the command `gcloud config set container/cluster dev`.
- B. Use the command `gcloud container clusters update dev`.
- C. Create a file called `gke.default` in the `~/.gcloud` folder that contains the cluster name.
- D. Create a file called `defaults.json` in the `~/.gcloud` folder that contains the cluster name.

Answer: A

Explanation:

To set a default cluster for `gcloud` commands, run the following command: `gcloud config set container/cluster CLUSTER_NAME`

<https://cloud.google.com/kubernetes-engine/docs/how-to/managing-clusters?hl=en>

NEW QUESTION 69

You need to create a new billing account and then link it with an existing Google Cloud Platform project. What should you do?

- A. Verify that you are Project Billing Manager for the GCP projec
- B. Update the existing project to link it to the existing billing account.
- C. Verify that you are Project Billing Manager for the GCP projec
- D. Create a new billing account and link the new billing account to the existing project.
- E. Verify that you are Billing Administrator for the billing accoun
- F. Create a new project and link the new project to the existing billing account.
- G. Verify that you are Billing Administrator for the billing accoun
- H. Update the existing project to link it to the existing billing account.

Answer: B

Explanation:

Billing Administrators can not create a new billing account, and the project is presumably already created. Project Billing Manager allows you to link the created billing account to the project. It is vague on how the billing account gets created but by process of elimination

NEW QUESTION 74

You used the `gcloud container clusters` command to create two Google Cloud Kubernetes (GKE) clusters `prod-cluster` and `dev-cluster`.

- `prod-cluster` is a standard cluster.
- `dev-cluster` is an auto-pilot duster.

When you run the `Kubect1 get nodes` command, you only see the nodes from `prod-cluster` Which commands should you run to check the node status for `dev-cluster`?

- A.

```
gcloud container clusters get-credentials dev-cluster
kubectl get nodes
```
- B.

```
gcloud container clusters update -generate-password dev-cluste
kubectl get nodes
```
- C.

```
kubect1 config set-context dev-cluster
kubect1 cluster-info
```
- D.

```
kubect1 config set-credentials dev-cluster
kubect1 cluster-info
```

Answer: C

NEW QUESTION 75

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: B

Explanation:

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

NEW QUESTION 77

You manage three Google Cloud projects with the Cloud Monitoring API enabled. You want to follow Google-recommended practices to visualize CPU and network metrics for all three projects together. What should you do?

- A. * 1. Create a Cloud Monitoring Dashboard* 2. Collect metrics and publish them into the Pub/Sub topics 3. Add CPU and network Charts (or each of (he three projects
- B. * 1. Create a Cloud Monitoring Dashboard.* 2. Select the CPU and Network metrics from the three projects.* 3. Add CPU and network Charts lot each of the three protects.
- C. * 1 Create a Service Account and apply roles/viewer on the three projects* 2. Collect metrics and publish them lo the Cloud Monitoring API* 3. Add CPU and network Charts for each of the three projects.
- D. * 1. Create a fourth Google Cloud project* 2 Create a Cloud Workspace from the fourth project and add the other three projects

Answer: B

NEW QUESTION 78

You are building a new version of an application hosted in an App Engine environment. You want to test the new version with 1% of users before you completely switch your application over to the new version. What should you do?

- A. Deploy a new version of your application in Google Kubernetes Engine instead of App Engine and then use GCP Console to split traffic.
- B. Deploy a new version of your application in a Compute Engine instance instead of App Engine and then use GCP Console to split traffic.
- C. Deploy a new version as a separate app in App Engin
- D. Then configure App Engine using GCP Console to split traffic between the two apps.
- E. Deploy a new version of your application in App Engin
- F. Then go to App Engine settings in GCP Console and split traffic between the current version and newly deployed versions accordingly.

Answer: D

Explanation:

GCP App Engine natively offers traffic splitting functionality between versions. You can use traffic splitting to specify a percentage distribution of traffic across two or more of the versions within a service. Splitting traffic allows you to conduct A/B testing between your versions and provides control over the pace when rolling out features.

Ref: <https://cloud.google.com/appengine/docs/standard/python/splitting-traffic>

NEW QUESTION 83

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 instanc
- 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 instanc
- D. Set the service account to no service account for that instanc
- E. Direct them to use the Cloud Shell to ssh to that instance.
- F. Enable block project wide keys for the instanc
- 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 instanc
- I. Generate an SSH key and associate the key with that instanc
- J. Distribute the key to dev1 users and direct them to use their third-party tools to connect.

Answer: A

NEW QUESTION 86

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 90

You recently received a new Google Cloud project with an attached billing account where you will work. You need to create instances, set firewalls, and store data in Cloud Storage. You want to follow Google-recommended practices. What should you do?

- A. Use the gcloud CLI services enable cloudresourcemanager.googleapis.com command to enable all resources.
- B. Use the gcloud services enable compute.googleapis.com command to enable Compute Engine and the gcloud services enable storage-api.googleapis.com command to enable the Cloud Storage APIs.
- C. Open the Google Cloud console and enable all Google Cloud APIs from the API dashboard.
- D. Open the Google Cloud console and run gcloud init --project <project-id> in a Cloud Shell.

Answer: B

NEW QUESTION 94

Your company uses a large number of Google Cloud services centralized in a single project. All teams have specific projects for testing and development. The DevOps team needs access to all of the production services in order to perform their job. You want to prevent Google Cloud product changes from broadening their permissions in the future. You want to follow Google-recommended practices. What should you do?

- A. Grant all members of the DevOps team the role of Project Editor on the organization level.
- B. Grant all members of the DevOps team the role of Project Editor on the production project.
- C. Create a custom role that combines the required permission
- D. Grant the DevOps team the custom role on the production project.
- E. Create a custom role that combines the required permission
- F. Grant the DevOps team the custom role on the organization level.

Answer: C

Explanation:

Understanding IAM custom roles

Key Point: Custom roles enable you to enforce the principle of least privilege, ensuring that the user and service accounts in your organization have only the permissions essential to performing their intended functions.

Basic concepts

Custom roles are user-defined, and allow you to bundle one or more supported permissions to meet your specific needs. Custom roles are not maintained by Google; when new permissions, features, or services are added to Google Cloud, your custom roles will not be updated automatically.

When you create a custom role, you must choose an organization or project to create it in. You can then grant the custom role on the organization or project, as well as any resources within that organization or project.

https://cloud.google.com/iam/docs/understanding-custom-roles#basic_concepts

NEW QUESTION 96

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 101

You have two subnets (subnet-a and subnet-b) in the default VPC. Your database servers are running in subnet-a. Your application servers and web servers are running in subnet-b. You want to configure a firewall rule that only allows database traffic from the application servers to the database servers. What should you do?

- A. * Create service accounts sa-app and sa-db. • Associate service account: sa-app with the application servers and the service account sa-db with the database servers. • Create an ingress firewall rule to allow network traffic from source service account sa-app to target service account sa-db.
- B. • Create network tags app-server and db-server. • Add the app-server tag to the application servers and the db-server tag to the database servers. • Create an egress firewall rule to allow network traffic from source network tag app-server to target network tag db-server.
- C. * Create a service account sa-app and a network tag db-server. * Associate the service account sa-app with the application servers and the network tag db-server with the database servers. • Create an ingress firewall rule to allow network traffic from source VPC IP addresses and target the subnet-a IP addresses.
- D. • Create a network tag app-server and service account sa-db. • Add the tag to the application servers and associate the service account with the database servers. • Create an egress firewall rule to allow network traffic from source network tag app-server to target service account sa-db.

Answer: C

NEW QUESTION 106

You are given a project with a single virtual private cloud (VPC) and a single subnetwork in the us-central1 region. There is a Compute Engine instance hosting an application in this subnetwork. You need to deploy a new instance in the same project in the europe-west1 region. This new instance needs access to the

application. You want to follow Google-recommended practices. What should you do?

- A. 1. Create a subnetwork in the same VPC, in europe-west1.2. Create the new instance in the new subnetwork and use the first instance's private address as the endpoint.
- B. 1. Create a VPC and a subnetwork in europe-west1.2. Expose the application with an internal load balancer.3. Create the new instance in the new subnetwork and use the load balancer's address as the endpoint.
- C. 1. Create a subnetwork in the same VPC, in europe-west1.2. Use Cloud VPN to connect the two subnetworks.3. Create the new instance in the new subnetwork and use the first instance's private address as the endpoint.
- D. 1. Create a VPC and a subnetwork in europe-west1.2. Peer the 2 VPCs.3. Create the new instance in the new subnetwork and use the first instance's private address as the endpoint.

Answer: C

Explanation:

➤ Given that the new instance wants to access the application on the existing compute engine instance, these applications seem to be related so they should be within the same VPC. It is possible to have them in different VPCs and peer the VPCs but this is a lot of additional work and we can simplify this by choosing the option below (which is the answer)

* 1. Create a subnet in the same VPC, in europe-west1.

* 2. Create the new instance in the new subnet and use the first instance subnets private address as the endpoint. is the right answer.

➤ We can create another subnet in the same VPC and this subnet is located in europe-west1. We can then spin up a new instance in this subnet. We also have to set up a firewall rule to allow communication between the two subnets. All instances in the two subnets with the same VPC can communicate through the internal IP Address

Ref: <https://cloud.google.com/vpc>

NEW QUESTION 110

You have designed a solution on Google Cloud Platform (GCP) that uses multiple GCP products. Your company has asked you to estimate the costs of the solution. You need to provide estimates for the monthly total cost. What should you do?

- A. For each GCP product in the solution, review the pricing details on the products pricing pag
- B. Use the pricing calculator to total the monthly costs for each GCP product.
- C. For each GCP product in the solution, review the pricing details on the products pricing pag
- D. Create a Google Sheet that summarizes the expected monthly costs for each product.
- E. Provision the solution on GC
- F. Leave the solution provisioned for 1 wee
- G. Navigate to the Billing Report page in the Google Cloud Platform Consol
- H. Multiply the 1 week cost to determine the monthly costs.
- I. Provision the solution on GC
- J. Leave the solution provisioned for 1 wee
- K. Use Stackdriver to determine the provisioned and used resource amount
- L. Multiply the 1 week cost to determine the monthly costs.

Answer: A

Explanation:

You can use the Google Cloud Pricing Calculator to total the estimated monthly costs for each GCP product. You dont incur any charges for doing so.

Ref: <https://cloud.google.com/products/calculator>

NEW QUESTION 115

You need to reduce GCP service costs for a division of your company using the fewest possible steps. You need to turn off all configured services in an existing GCP project. What should you do?

- A. * 1. Verify that you are assigned the Project Owners IAM role for this project.* 2. Locate the project in the GCP console, click Shut down and then enter the project ID.
- B. * 1. Verify that you are assigned the Project Owners IAM role for this project.* 2. Switch to the project in the GCP console, locate the resources and delete them.
- C. * 1. Verify that you are assigned the Organizational Administrator IAM role for this project.* 2. Locate the project in the GCP console, enter the project ID and then click Shut down.
- D. * 1. Verify that you are assigned the Organizational Administrators IAM role for this project.* 2. Switch to the project in the GCP console, locate the resources and delete them.

Answer: A

Explanation:

<https://cloud.google.com/run/docs/tutorials/gcloud> <https://cloud.google.com/resource-manager/docs/creating-managing-projects>

https://cloud.google.com/iam/docs/understanding-roles#primitive_roles

You can shut down projects using the Cloud Console. When you shut down a project, this immediately happens: All billing and traffic serving stops, You lose access to the project, The owners of the project will be notified and can stop the deletion within 30 days, The project will be scheduled to be deleted after 30 days. However, some resources may be deleted much earlier.

NEW QUESTION 119

Your company uses BigQuery for data warehousing. Over time, many different business units in your company have created 1000+ datasets across hundreds of projects. Your CIO wants you to examine all datasets to find tables that contain an employee_ssn column. You want to minimize effort in performing this task. What should you do?

- A. Go to Data Catalog and search for employee_ssn in the search box.
- B. Write a shell script that uses the bq command line tool to loop through all the projects in your organization.
- C. Write a script that loops through all the projects in your organization and runs a query on INFORMATION_SCHEMA.COLUMNS view to find the employee_ssn column.
- D. Write a Cloud Dataflow job that loops through all the projects in your organization and runs a query on INFORMATION_SCHEMA.COLUMNS view to find employee_ssn column.

Answer: A

Explanation:

<https://cloud.google.com/bigquery/docs/quickstarts/quickstart-web-ui?authuser=4>

NEW QUESTION 123

You are designing an application that uses WebSockets and HTTP sessions that are not distributed across the web servers. You want to ensure the application runs properly on Google Cloud Platform. What should you do?

- A. Meet with the cloud enablement team to discuss load balancer options.
- B. Redesign the application to use a distributed user session service that does not rely on WebSockets and HTTP sessions.
- C. Review the encryption requirements for WebSocket connections with the security team.
- D. Convert the WebSocket code to use HTTP streaming.

Answer: A

Explanation:

➤ Google HTTP(S) Load Balancing has native support for the WebSocket protocol when you use HTTP or HTTPS, not HTTP/2, as the protocol to the backend.
Ref: https://cloud.google.com/load-balancing/docs/https#websocket_proxy_support

➤ We don't need to convert WebSocket code to use HTTP streaming or Redesign the application, as WebSocket support is offered by Google HTTP(S) Load Balancing. Reviewing the encryption requirements is a good idea but it has nothing to do with WebSockets.

NEW QUESTION 126

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 130

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 135

You are running multiple microservices in a Kubernetes Engine cluster. One microservice is rendering images. The microservice responsible for the image rendering requires a large amount of CPU time compared to the memory it requires. The other microservices are workloads that are optimized for n1-standard machine types. You need to optimize your cluster so that all workloads are using resources as efficiently as possible. What should you do?

- A. Assign the pods of the image rendering microservice a higher pod priority than the other microservices
- B. Create a node pool with compute-optimized machine type nodes for the image rendering microservice Use the node pool with general-purpose machine type nodes for the other microservices
- C. Use the node pool with general-purpose machine type nodes for the image rendering microservice Create a nodepool with compute-optimized machine type nodes for the other microservices
- D. Configure the required amount of CPU and memory in the resource requests specification of the image rendering microservice deployment Keep the resource requests for the other microservices at the default

Answer: B

NEW QUESTION 139

You need to deploy an application in Google Cloud using serverless technology. You want to test a new version of the application with a small percentage of production traffic. What should you do?

- A. Deploy the application to Cloud Run
- B. Use Cloud Functions
- C. Use gradual rollouts for traffic splitting.
- D. Deploy the application to Google Kubernetes Engine
- E. Use Anthos Service Mesh for traffic splitting.
- F. Deploy the application to Cloud Function
- G. Specify the version number in the function name.
- H. Deploy the application to App Engine
- I. For each new version, create a new service.

Answer: A

NEW QUESTION 141

Your organization has user identities in Active Directory. Your organization wants to use Active Directory as their source of truth for identities. Your organization wants to have full control over the Google accounts used by employees for all Google services, including your Google Cloud Platform (GCP) organization. What should you do?

- A. Use Google Cloud Directory Sync (GCDS) to synchronize users into Cloud Identity.
- B. Use the cloud Identity APIs and write a script to synchronize users to Cloud Identity.
- C. Export users from Active Directory as a CSV and import them to Cloud Identity via the Admin Console.
- D. Ask each employee to create a Google account using self sign-up.
- E. Require that each employee use their company email address and password.

Answer: A

NEW QUESTION 143

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 146

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

NEW QUESTION 149

You need to host an application on a Compute Engine instance in a project shared with other teams. You want to prevent the other teams from accidentally causing downtime on that application. Which feature should you use?

- A. Use a Shielded VM.
- B. Use a Preemptible VM.
- C. Use a sole-tenant node.
- D. Enable deletion protection on the instance.

Answer: D

Explanation:

As part of your workload, there might be certain VM instances that are critical to running your application or services, such as an instance running a SQL server, a server used as a license manager, and so on. These VM instances might need to stay running indefinitely so you need a way to protect these VMs from being deleted. By setting the `deletionProtection` flag, a VM instance can be protected from accidental deletion. If a user attempts to delete a VM instance for which you have set the `deletionProtection` flag, the request fails. Only a user that has been granted a role with `compute.instances.create` permission can reset the flag to allow the resource to be deleted. Ref: <https://cloud.google.com/compute/docs/instances/preventing-accidental-vm-deletion>

NEW QUESTION 150

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 cluster
- 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 152

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-58ddb995-1p86m    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 153

You create a Deployment with 2 replicas in a Google Kubernetes Engine cluster that has a single preemptible node pool. After a few minutes, you use kubectl to examine the status of your Pod and observe 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
```

What is the most likely cause?

- A. The pending Pod's resource requests are too large to fit on a single node of the cluster.
- B. Too many Pods are already running in the cluster, and there are not enough resources left to schedule the pending Pod.
- C. The node pool is configured with a service account that does not have permission to pull the container image used by the pending Pod.
- D. The pending Pod was originally scheduled on a node that has been preempted between the creation of the Deployment and your verification of the Pods' status.
- E. It is currently being rescheduled on a new node.

Answer: B

Explanation:

- > The pending Pods resource requests are too large to fit on a single node of the cluster. Too many Pods are already running in the cluster, and there are not enough resources left to schedule the pending Pod. is the right answer.
- > When you have a deployment with some pods in running and other pods in the pending state, more often than not it is a problem with resources on the nodes. Here's a sample output of this use case. We see that the problem is with insufficient CPU on the Kubernetes nodes so we have to either enable auto-scaling or manually scale up the nodes.

NEW QUESTION 157

You are developing a new web application that will be deployed on Google Cloud Platform. As part of your release cycle, you want to test updates to your application on a small portion of real user traffic. The majority of the users should still be directed towards a stable version of your application. What should you do?

- A. Deploy the application on App Engine. For each update, create a new version of the same service. Configure traffic splitting to send a small percentage of traffic to the new version.
- B. Deploy the application on App Engine. For each update, create a new service. Configure traffic splitting to send a small percentage of traffic to the new service.
- C. Deploy the application on Kubernetes Engine. For a new release, update the deployment to use the new version.
- D. Deploy the application on Kubernetes Engine. For a new release, create a new deployment for the new version. Update the service to use the new deployment.

Answer: D

Explanation:

Keyword, Version, traffic splitting, App Engine supports traffic splitting for versions before releasing.

NEW QUESTION 162

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 167

You have production and test workloads that you want to deploy on Compute Engine. Production VMs need to be in a different subnet than the test VMs. All the VMs must be able to reach each other over internal IP without creating additional routes. You need to set up VPC and the 2 subnets. Which configuration meets these requirements?

- A. Create a single custom VPC with 2 subnets.
- B. Create each subnet in a different region and with a different CIDR range.
- C. Create a single custom VPC with 2 subnets.
- D. Create each subnet in the same region and with the same CIDR range.
- E. Create 2 custom VPCs, each with a single subnet.
- F. Create each subnet in a different region and with a different CIDR range.
- G. Create 2 custom VPCs, each with a single subnet.
- H. Create each subnet in the same region and with the same CIDR range.

Answer: A

Explanation:

When we create subnets in the same VPC with different CIDR ranges, they can communicate automatically within VPC. Resources within a VPC network can communicate with one another by using internal (private) IPv4 addresses, subject to applicable network firewall rules

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

NEW QUESTION 168

You need to assign a Cloud Identity and Access Management (Cloud IAM) role to an external auditor. The auditor needs to have permissions to review your Google Cloud Platform (GCP) Audit Logs and also to review your Data Access logs. What should you do?

- A. Assign the auditor the IAM role roles/logging.privateLogViewe
- B. Perform the export of logs to Cloud Storage.
- C. Assign the auditor the IAM role roles/logging.privateLogViewe
- D. Direct the auditor to also review the logs for changes to Cloud IAM policy.
- E. Assign the auditor's IAM user to a custom role that has logging.privateLogEntries.list permisso
- F. Perform the export of logs to Cloud Storage.
- G. Assign the auditor's IAM user to a custom role that has logging.privateLogEntries.list permisso
- H. Direct the auditor to also review the logs for changes to Cloud IAM policy.

Answer: B

Explanation:

Google Cloud provides Cloud Audit Logs, which is an integral part of Cloud Logging. It consists of two log streams for each project: Admin Activity and Data Access, which are generated by Google Cloud services to help you answer the question of who did what, where, and when? within your Google Cloud projects.

Ref: https://cloud.google.com/iam/docs/job-functions/auditing#scenario_external_auditors

NEW QUESTION 173

An external member of your team needs list access to compute images and disks in one of your projects. You want to follow Google-recommended practices when you grant the required permissions to this user. What should you do?

- A. Create a custom role, and add all the required compute.disks.list and compute, images.list permissions as includedPermission
- B. Grant the custom role to the user at the project level.
- C. Create a custom role based on the Compute Image User role Add the compute.disks, list to theincludedPermissions field Grant the custom role to the user at the project level
- D. Grant the Compute Storage Admin role at the project level.
- E. Create a custom role based on the Compute Storage Admin rol
- F. Exclude unnecessary permissions from the custom rol
- G. Grant the custom role to the user at the project level.

Answer: B

NEW QUESTION 177

You need to manage multiple Google Cloud Platform (GCP) projects in the fewest steps possible. You want to configure the Google Cloud SDK command line interface (CLI) so that you can easily manage multiple GCP projects. What should you do?

- A. * 1. Create a configuration for each project you need to manage.* 2. Activate the appropriate configuration when you work with each of your assigned GCP projects.
- B. * 1. Create a configuration for each project you need to manage.* 2. Use gcloud init to update the configuration values when you need to work with a non-default project
- C. * 1. Use the default configuration for one project you need to manage.* 2. Activate the appropriate configuration when you work with each of your assigned GCP projects.
- D. * 1. Use the default configuration for one project you need to manage.* 2. Use gcloud init to update the configuration values when you need to work with a non-default project.

Answer: A

Explanation:

<https://cloud.google.com/sdk/gcloud> https://cloud.google.com/sdk/docs/configurations#multiple_configurations

NEW QUESTION 178

Your continuous integration and delivery (CI/CD) server can't execute Google Cloud actions in a specific project because of permission issues. You need to validate whether the used service account has the appropriate roles in the specific project. What should you do?

- A. Open the Google Cloud console, and run a query to determine which resources this service account can access.
- B. Open the Google Cloud console, and run a query of the audit logs to find permission denied errors for this service account.
- C. Open the Google Cloud console, and check the organization policies.
- D. Open the Google Cloud console, and check the Identity and Access Management (IAM) roles assigned to the service account at the project or inherited from the folder or organization levels.

Answer: D

Explanation:

This answer is the most effective way to validate whether the service account used by the CI/CD server has the appropriate roles in the specific project. By checking the IAM roles assigned to the service account, you can see which permissions the service account has and which resources it can access. You can also check if the service account inherits any roles from the folder or organization levels, which may affect its access to the project. You can use the Google Cloud console, the gcloud command-line tool, or the IAM API to view the IAM roles of a service account.

NEW QUESTION 180

Your organization needs to grant users access to query datasets in BigQuery but prevent them from accidentally deleting the datasets. You want a solution that

follows Google-recommended practices. What should you do?

- A. Add users to roles/bigquery user role only, instead of roles/bigquery dataOwner.
- B. Add users to roles/bigquery dataEditor role only, instead of roles/bigquery dataOwner.
- C. Create a custom role by removing delete permissions, and add users to that role only.
- D. Create a custom role by removing delete permission
- E. Add users to the group, and then add the group to the custom role.

Answer: D

Explanation:

https://cloud.google.com/bigquery/docs/access-control#custom_roles

Custom roles enable you to enforce the principle of least privilege, ensuring that the user and service accounts in your organization have only the permissions essential to performing their intended functions.

NEW QUESTION 184

Your company has a Google Cloud Platform project that uses BigQuery for data warehousing. Your data science team changes frequently and has few members. You need to allow members of this team to perform queries. You want to follow Google-recommended practices. What should you do?

- A. 1. Create an IAM entry for each data scientist's user account.2. Assign the BigQuery jobUser role to the group.
- B. 1. Create an IAM entry for each data scientist's user account.2. Assign the BigQuery dataViewer user role to the group.
- C. 1. Create a dedicated Google group in Cloud Identity.2. Add each data scientist's user account to the group.3. Assign the BigQuery jobUser role to the group.
- D. 1. Create a dedicated Google group in Cloud Identity.2. Add each data scientist's user account to the group.3. Assign the BigQuery dataViewer user role to the group.

Answer: C

Explanation:

Read the dataset's metadata and to 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.

BigQuery Data Viewer (roles/bigquery.dataViewer)

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.

Lowest-level resources where you can grant this role: Table

View

BigQuery Job User (roles/bigquery.jobUser)

Provides permissions to run jobs, including queries, within the project.

Lowest-level resources where you can grant this role:

Project

to run jobs <https://cloud.google.com/bigquery/docs/access-control#bigquery.jobUser> databaseUser needs additional role permission to run jobs

<https://cloud.google.com/spanner/docs/iam#spanner.databaseUser>

NEW QUESTION 189

You are using multiple configurations for gcloud. You want to review the configured Kubernetes Engine cluster of an inactive configuration using the fewest possible steps. What should you do?

- A. Use gcloud config configurations describe to review the output.
- B. Use gcloud config configurations activate and gcloud config list to review the output.
- C. Use kubectl config get-contexts to review the output.
- D. Use kubectl config use-context and kubectl config view to review the output.

Answer: D

NEW QUESTION 192

You have a managed instance group comprised of preemptible VM's. All of the VM's keep deleting and recreating themselves every minute. What is a possible cause of this behavior?

- A. Your zonal capacity is limited, causing all preemptible VM's to be shutdown to recover capacity
- B. Try deploying your group to another zone.
- C. You have hit your instance quota for the region.
- D. Your managed instance group's VM's are toggled to only last 1 minute in preemptible settings.
- E. Your managed instance group's health check is repeatedly failing, either to a misconfigured health check or misconfigured firewall rules not allowing the healthcheck to access the instance

Answer: D

Explanation:

as the instances (normal or preemptible) would be terminated and relaunched if the health check fails either due to application not configured properly or the instances firewall do not allow health check to happen.

GCP provides health check systems that connect to virtual machine (VM) instances on a configurable, periodic basis. Each connection attempt is called a probe.

GCP records the success or failure of each probe.

Health checks and load balancers work together. Based on a configurable number of sequential successful or failed probes, GCP computes an overall health state for each VM in the load balancer. VMs that respond successfully for the configured number of times are considered healthy. VMs that fail to respond successfully for a separate number of times are unhealthy.

GCP uses the overall health state of each VM to determine its eligibility for receiving new requests. In addition to being able to configure probe frequency and health state thresholds, you can configure the criteria that define a successful probe.

NEW QUESTION 197

You need to select and configure compute resources for a set of batch processing jobs. These jobs take around 2 hours to complete and are run nightly. You want to minimize service costs. What should you do?

- A. Select Google Kubernetes Engine
- B. Use a single-node cluster with a small instance type.
- C. Select Google Kubernetes Engine
- D. Use a three-node cluster with micro instance types.
- E. Select Compute Engine
- F. Use preemptible VM instances of the appropriate standard machine type.
- G. Select Compute Engine
- H. Use VM instance types that support micro bursting.

Answer: C

Explanation:

If your apps are fault-tolerant and can withstand possible instance preemptions, then preemptible instances can reduce your Compute Engine costs significantly. For example, batch processing jobs can run on preemptible instances. If some of those instances stop during processing, the job slows but does not completely stop. Preemptible instances complete your batch processing tasks without placing additional workload on your existing instances and without requiring you to pay full price for additional normal instances.

<https://cloud.google.com/compute/docs/instances/preemptible>

NEW QUESTION 202

You host a static website on Cloud Storage. Recently, you began to include links to PDF files on this site. Currently, when users click on the links to these PDF files, their browsers prompt them to save the file onto their local system. Instead, you want the clicked PDF files to be displayed within the browser window directly, without prompting the user to save the file locally. What should you do?

- A. Enable Cloud CDN on the website frontend.
- B. Enable 'Share publicly' on the PDF file objects.
- C. Set Content-Type metadata to application/pdf on the PDF file objects.
- D. Add a label to the storage bucket with a key of Content-Type and value of application/pdf.

Answer: C

Explanation:

https://developer.mozilla.org/en-US/docs/Web/HTTP/Basics_of_HTTP/MIME_Types#importance_of_setting_t

NEW QUESTION 204

Your company set up a complex organizational structure on Google Cloud Platform. The structure includes hundreds of folders and projects. Only a few team members should be able to view the hierarchical structure. You need to assign minimum permissions to these team members and you want to follow Google-recommended practices. What should you do?

- A. Add the users to roles/browser role.
- B. Add the users to roles/iam.roleViewer role.
- C. Add the users to a group, and add this group to roles/browser role.
- D. Add the users to a group, and add this group to roles/iam.roleViewer role.

Answer: C

Explanation:

We need to apply the GCP Best practices. roles/browser Browser Read access to browse the hierarchy for a project, including the folder, organization, and IAM policy. This role doesn't include permission to view resources in the project. <https://cloud.google.com/iam/docs/understanding-roles>

NEW QUESTION 205

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