

# Google

## Exam Questions Professional-Cloud-DevOps-Engineer

Google Cloud Certified - Professional Cloud DevOps Engineer Exam



**NEW QUESTION 1**

You use Cloud Build to build your application. You want to reduce the build time while minimizing cost and development effort. What should you do?

- A. Use Cloud Storage to cache intermediate artifacts.
- B. Run multiple Jenkins agents to parallelize the build.
- C. Use multiple smaller build steps to minimize execution time.
- D. Use larger Cloud Build virtual machines (VMs) by using the machine-type option.

**Answer: C**

**Explanation:**

<https://cloud.google.com/storage/docs/best-practices>

[https://cloud.google.com/build/docs/speeding-up-builds#caching\\_directories\\_with\\_google\\_cloud\\_storage](https://cloud.google.com/build/docs/speeding-up-builds#caching_directories_with_google_cloud_storage) Caching directories with Google Cloud Storage To increase the speed of a build, reuse the results from a

previous build. You can copy the results of a previous build to a Google Cloud Storage bucket, use the results for faster calculation, and then copy the new results back to the bucket. Use this method when your build takes a long time and produces a small number of files that does not take time to copy to and from Google Cloud Storage.

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**NEW QUESTION 2**

You use Spinnaker to deploy your application and have created a canary deployment stage in the pipeline. Your application has an in-memory cache that loads objects at start time. You want to automate the comparison of the canary version against the production version. How should you configure the canary analysis?

- A. Compare the canary with a new deployment of the current production version.
- B. Compare the canary with a new deployment of the previous production version.
- C. Compare the canary with the existing deployment of the current production version.
- D. Compare the canary with the average performance of a sliding window of previous production versions.

**Answer: A**

**Explanation:**

<https://cloud.google.com/architecture/automated-canary-analysis-kubernetes-engine-spinnaker> <https://spinnaker.io/guides/user/canary/best-practices/#compare-canary-against-baseline-not-against-production>

**NEW QUESTION 3**

You are part of an organization that follows SRE practices and principles. You are taking over the management of a new service from the Development Team, and you conduct a Production Readiness Review (PRR). After the PRR analysis phase, you determine that the service cannot currently meet its Service Level Objectives (SLOs). You want to ensure that the service can meet its SLOs in production. What should you do next?

- A. Adjust the SLO targets to be achievable by the service so you can bring it into production.
- B. Notify the development team that they will have to provide production support for the service.
- C. Identify recommended reliability improvements to the service to be completed before handover.
- D. Bring the service into production with no SLOs and build them when you have collected operational data.

**Answer: C**

**NEW QUESTION 4**

You support a high-traffic web application and want to ensure that the home page loads in a timely manner. As a first step, you decide to implement a Service Level Indicator (SLI) to represent home page request latency with an acceptable page load time set to 100 ms. What is the Google-recommended way of calculating this SLI?

- A. Bucketize the request latencies into ranges, and then compute the percentile at 100 ms.
- B. Bucketize the request latencies into ranges, and then compute the median and 90th percentiles.
- C. Count the number of home page requests that load in under 100 ms, and then divide by the total number of home page requests.
- D. Count the number of home page requests that load in under 100 ms
- E. and then divide by the total number of all web application requests.

**Answer: C**

**Explanation:**

<https://sre.google/workbook/implementing-slos/>

In the SRE principles book, it's recommended treating the SLI as the ratio of two numbers: the number of good events divided by the total number of events. For example: Number of successful HTTP requests / total HTTP requests (success rate)

**NEW QUESTION 5**

You are running an application on Compute Engine and collecting logs through Stackdriver. You discover that some personally identifiable information (PII) is leaking into certain log entry fields. All PII entries begin with the text userinfo. You want to capture these log entries in a secure location for later review and prevent them from leaking to Stackdriver Logging. What should you do?

- A. Create a basic log filter matching userinfo, and then configure a log export in the Stackdriver console with Cloud Storage as a sink.
- B. Use a Fluentd filter plugin with the Stackdriver Agent to remove log entries containing userinfo, and then copy the entries to a Cloud Storage bucket.
- C. Create an advanced log filter matching userinfo, configure a log export in the Stackdriver console with Cloud Storage as a sink, and then configure a log exclusion with userinfo as a filter.
- D. Use a Fluentd filter plugin with the Stackdriver Agent to remove log entries containing userinfo, create an advanced log filter matching userinfo, and then configure a log export in the Stackdriver console with Cloud Storage as a sink.

**Answer: B**

**Explanation:**

<https://medium.com/google-cloud/fluentd-filter-plugin-for-google-cloud-data-loss-prevention-api-42bbb1308e7>

**NEW QUESTION 6**

You support an application running on App Engine. The application is used globally and accessed from various device types. You want to know the number of connections. You are using Stackdriver Monitoring for App Engine. What metric should you use?

- A. flex/connections/current
- B. tcp\_ssl\_proxy/new\_connections
- C. tcp\_ssl\_proxy/open\_connections
- D. flex/instance/connections/current

**Answer:** A

**Explanation:**

[https://cloud.google.com/monitoring/api/metrics\\_gcp#gcp-appengine](https://cloud.google.com/monitoring/api/metrics_gcp#gcp-appengine)

**NEW QUESTION 7**

You support a popular mobile game application deployed on Google Kubernetes Engine (GKE) across several Google Cloud regions. Each region has multiple Kubernetes clusters. You receive a report that none of the users in a specific region can connect to the application. You want to resolve the incident while following Site Reliability Engineering practices. What should you do first?

- A. Reroute the user traffic from the affected region to other regions that don't report issues.
- B. Use Stackdriver Monitoring to check for a spike in CPU or memory usage for the affected region.
- C. Add an extra node pool that consists of high memory and high CPU machine type instances to the cluster.
- D. Use Stackdriver Logging to filter on the clusters in the affected region, and inspect error messages in the logs.

**Answer:** A

**Explanation:**

Google always aims to first stop the impact of an incident, and then find the root cause (unless the root cause just happens to be identified early on).

**NEW QUESTION 8**

You have a set of applications running on a Google Kubernetes Engine (GKE) cluster, and you are using Stackdriver Kubernetes Engine Monitoring. You are bringing a new containerized application required by your company into production. This application is written by a third party and cannot be modified or reconfigured. The application writes its log information to /var/log/app\_messages.log, and you want to send these log entries to Stackdriver Logging. What should you do?

- A. Use the default Stackdriver Kubernetes Engine Monitoring agent configuration.
- B. Deploy a Fluentd daemonset to GK
- C. Then create a customized input and output configuration to tail the log file in the application's pods and write to Stackdriver Logging.
- D. Install Kubernetes on Google Compute Engine (GCE) and redeploy your application
- E. Then customize the built-in Stackdriver Logging configuration to tail the log file in the application's pods and write to Stackdriver Logging.
- F. Write a script to tail the log file within the pod and write entries to standard output
- G. Run the script as a sidecar container with the application's pod
- H. Configure a shared volume between the containers to allow the script to have read access to /var/log in the application container.

**Answer:** B

**Explanation:**

<https://cloud.google.com/architecture/customizing-stackdriver-logs-fluentd>

Besides the list of default logs that the Logging agent streams by default, you can customize the Logging agent to send additional logs to Logging or to adjust agent settings by adding input configurations. The configuration definitions in these sections apply to the fluent-plugin-google-cloud output plugin only and specify how logs are transformed and ingested into Cloud Logging. <https://cloud.google.com/logging/docs/agent/logging/configuration#configure>

**NEW QUESTION 9**

Your application runs on Google Cloud Platform (GCP). You need to implement Jenkins for deploying application releases to GCP. You want to streamline the release process, lower operational toil, and keep user data secure. What should you do?

- A. Implement Jenkins on local workstations.
- B. Implement Jenkins on Kubernetes on-premises
- C. Implement Jenkins on Google Cloud Functions.
- D. Implement Jenkins on Compute Engine virtual machines.

**Answer:** D

**Explanation:**

Your application runs on Google Cloud Platform (GCP). You need to implement Jenkins for deploying application releases to GCP. You want to streamline the release process, lower operational toil, and keep user data secure. What should you do?

<https://plugins.jenkins.io/google-compute-engine/>

**NEW QUESTION 10**

You are ready to deploy a new feature of a web-based application to production. You want to use Google Kubernetes Engine (GKE) to perform a phased rollout to half of the web server pods.

What should you do?

- A. Use a partitioned rolling update.

- B. Use Node taints with NoExecute.
- C. Use a replica set in the deployment specification.
- D. Use a stateful set with parallel pod management policy.

**Answer:** A

**Explanation:**

<https://medium.com/velotio-perspectives/exploring-upgrade-strategies-for-stateful-sets-in-kubernetes-c02b8286f>

#### NEW QUESTION 10

Some of your production services are running in Google Kubernetes Engine (GKE) in the eu-west-1 region. Your build system runs in the us-west-1 region. You want to push the container images from your build system to a scalable registry to maximize the bandwidth for transferring the images to the cluster. What should you do?

- A. Push the images to Google Container Registry (GCR) using the gcr.io hostname.
- B. Push the images to Google Container Registry (GCR) using the us.gcr.io hostname.
- C. Push the images to Google Container Registry (GCR) using the eu.gcr.io hostname.
- D. Push the images to a private image registry running on a Compute Engine instance in the eu-west-1 region.

**Answer:** C

**Explanation:**

Hostname Storage location gcr.io Stores images in data centers in the United States asia.gcr.io Stores images in data centers in Asia eu.gcr.io Stores images in data centers within member states of the European Union us.gcr.io Stores images in data centers in the United States

#### NEW QUESTION 15

You are using Stackdriver to monitor applications hosted on Google Cloud Platform (GCP). You recently deployed a new application, but its logs are not appearing on the Stackdriver dashboard.

You need to troubleshoot the issue. What should you do?

- A. Confirm that the Stackdriver agent has been installed in the hosting virtual machine.
- B. Confirm that your account has the proper permissions to use the Stackdriver dashboard.
- C. Confirm that port 25 has been opened in the firewall to allow messages through to Stackdriver.
- D. Confirm that the application is using the required client library and the service account key has proper permissions.

**Answer:** A

**Explanation:**

<https://cloud.google.com/monitoring/agent/monitoring/troubleshooting#checklist>

#### NEW QUESTION 19

You need to define Service Level Objectives (SLOs) for a high-traffic multi-region web application. Customers expect the application to always be available and have fast response times. Customers are currently happy with the application performance and availability. Based on current measurement, you observe that the 90th percentile of latency is 120ms and the 95th percentile of latency is 275ms over a 28-day window. What latency SLO would you recommend to the team to publish?

- A. 90th percentile – 100ms 95th percentile – 250ms
- B. 90th percentile – 120ms 95th percentile – 275ms
- C. 90th percentile – 150ms 95th percentile – 300ms
- D. 90th percentile – 250ms 95th percentile – 400ms

**Answer:** C

**Explanation:**

<https://sre.google/sre-book/service-level-objectives/>

#### NEW QUESTION 21

You are working with a government agency that requires you to archive application logs for seven years. You need to configure Stackdriver to export and store the logs while minimizing costs of storage. What should you do?

- A. Create a Cloud Storage bucket and develop your application to send logs directly to the bucket.
- B. Develop an App Engine application that pulls the logs from Stackdriver and saves them in BigQuery.
- C. Create an export in Stackdriver and configure Cloud Pub/Sub to store logs in permanent storage for seven years.
- D. Create a sink in Stackdriver, name it, create a bucket on Cloud Storage for storing archived logs, and then select the bucket as the log export destination.

**Answer:** D

**Explanation:**

<https://cloud.google.com/logging/docs/routing/overview>

#### NEW QUESTION 23

You support a high-traffic web application that runs on Google Cloud Platform (GCP). You need to measure application reliability from a user perspective without making any engineering changes to it. What should you do?

Choose 2 answers

- A. Review current application metrics and add new ones as needed.
- B. Modify the code to capture additional information for user interaction.

- C. Analyze the web proxy logs only and capture response time of each request.
- D. Create new synthetic clients to simulate a user journey using the application.
- E. Use current and historic Request Logs to trace customer interaction with the application.

**Answer:** CE

**Explanation:**

<https://cloud.google.com/architecture/adopting-slos?hl=en>

#### NEW QUESTION 25

Your company is developing applications that are deployed on Google Kubernetes Engine (GKE). Each team manages a different application. You need to create the development and production environments for each team, while minimizing costs. Different teams should not be able to access other teams' environments. What should you do?

- A. Create one GCP Project per tea
- B. In each project, create a cluster for Development and one for Productio
- C. Grant the teams IAM access to their respective clusters.
- D. Create one GCP Project per tea
- E. In each project, create a cluster with a Kubernetes namespace for Development and one for Productio
- F. Grant the teams IAM access to their respective clusters.
- G. Create a Development and a Production GKE cluster in separate project
- H. In each cluster, create a Kubernetes namespace per team, and then configure Identity Aware Proxy so that each team can only access its own namespace.
- I. Create a Development and a Production GKE cluster in separate project
- J. In each cluster, create a Kubernetes namespace per team, and then configure Kubernetes Role-based access control (RBAC) so that each team can only access its own namespace.

**Answer:** D

**Explanation:**

[https://cloud.google.com/architecture/prep-kubernetes-engine-for-prod#roles\\_and\\_groups](https://cloud.google.com/architecture/prep-kubernetes-engine-for-prod#roles_and_groups)

#### NEW QUESTION 27

You currently store the virtual machine (VM) utilization logs in Stackdriver. You need to provide an easy-to-share interactive VM utilization dashboard that is updated in real time and contains information aggregated on a quarterly basis. You want to use Google Cloud Platform solutions. What should you do?

- A. \* 1. Export VM utilization logs from Stackdriver to BigQuery.\* 2. Create a dashboard in Data Studio.\* 3. Share the dashboard with your stakeholders.
- B. \* 1. Export VM utilization logs from Stackdriver to Cloud Pub/Sub.\* 2. From Cloud Pub/Sub, send the logs to a Security Information and Event Management (SIEM) system.\* 3. Build the dashboards in the SIEM system and share with your stakeholders.
- C. \* 1. Export VM utilization logs (rom Stackdriver to BigQuery.\* 2. From BigQuer
- D. export the logs to a CSV file.\* 3. Import the CSV file into Google Sheets.\* 4. Build a dashboard in Google Sheets and share it with your stakeholders.
- E. \* 1. Export VM utilization logs from Stackdriver to a Cloud Storage bucket.\* 2. Enable the Cloud Storage API to pull the logs programmatically.\* 3. Build a custom data visualization application.\* 4. Display the pulled logs in a custom dashboard.

**Answer:** A

#### NEW QUESTION 31

You support a service with a well-defined Service Level Objective (SLO). Over the previous 6 months, your service has consistently met its SLO and customer satisfaction has been consistently high. Most of your service's operations tasks are automated and few repetitive tasks occur frequently. You want to optimize the balance between reliability and deployment velocity while following site reliability engineering best practices. What should you do? (Choose two.)

- A. Make the service's SLO more strict.
- B. Increase the service's deployment velocity and/or risk.
- C. Shift engineering time to other services that need more reliability.
- D. Get the product team to prioritize reliability work over new features.
- E. Change the implementation of your Service Level Indicators (SLIs) to increase coverage.

**Answer:** BC

**Explanation:**

(<https://sre.google/workbook/implementing-slos/#slo-decision-matrix>)

#### NEW QUESTION 35

You are running an application in a virtual machine (VM) using a custom Debian image. The image has the Stackdriver Logging agent installed. The VM has the cloud-platform scope. The application is logging information via syslog. You want to use Stackdriver Logging in the Google Cloud Platform Console to visualize the logs. You notice that syslog is not showing up in the "All logs" dropdown list of the Logs Viewer. What is the first thing you should do?

- A. Look for the agent's test log entry in the Logs Viewer.
- B. Install the most recent version of the Stackdriver agent.
- C. Verify the VM service account access scope includes the monitoring.write scope.
- D. SSH to the VM and execute the following commands on your VM: ps ax | grep fluentd

**Answer:** D

**Explanation:**

[https://cloud.google.com/compute/docs/access/service-accounts#associating\\_a\\_service\\_account\\_to\\_an\\_instance](https://cloud.google.com/compute/docs/access/service-accounts#associating_a_service_account_to_an_instance)

#### NEW QUESTION 38



You are responsible for creating and modifying the Terraform templates that define your Infrastructure. Because two new engineers will also be working on the same code, you need to define a process and adopt a tool that will prevent you from overwriting each other's code. You also want to ensure that you capture all updates in the latest version. What should you do?

- A. • Store your code in a Git-based version control system. • Establish a process that allows developers to merge their own changes at the end of each day. • Package and upload code to a versioned Cloud Storage bucket as the latest master version.
- B. • Store your code in a Git-based version control system. • Establish a process that includes code reviews by peers and unit testing to ensure integrity and functionality before integration of code. • Establish a process where the fully integrated code in the repository becomes the latest master version.
- C. • Store your code as text files in Google Drive in a defined folder structure that organizes the files. • At the end of each day, confirm that all changes have been captured in the files within the folder structure. • Rename the folder structure with a predefined naming convention that increments the version.
- D. confirm that all changes have been captured in the files within the folder structure. • Rename the folder structure with a predefined naming convention that increments the version.
- E. • Store your code as text files in Google Drive in a defined folder structure that organizes the files. • At the end of each day, confirm that all changes have been captured in the files within the folder structure and create a new .zip archive with a predefined naming convention. • Upload the .zip archive to a versioned Cloud Storage bucket and accept it as the latest version.

**Answer:** B

#### NEW QUESTION 39

Your team is designing a new application for deployment into Google Kubernetes Engine (GKE). You need to set up monitoring to collect and aggregate various application-level metrics in a centralized location. You want to use Google Cloud Platform services while minimizing the amount of work required to set up monitoring. What should you do?

- A. Publish various metrics from the application directly to the Stackdriver Monitoring API, and then observe these custom metrics in Stackdriver.
- B. Install the Cloud Pub/Sub client libraries, push various metrics from the application to various topics, and then observe the aggregated metrics in Stackdriver.
- C. Install the OpenTelemetry client libraries in the application, configure Stackdriver as the export destination for the metrics, and then observe the application's metrics in Stackdriver.
- D. Emit all metrics in the form of application-specific log messages, pass these messages from the containers to the Stackdriver logging collector, and then observe metrics in Stackdriver.

**Answer:** A

#### Explanation:

[https://cloud.google.com/kubernetes-engine/docs/concepts/custom-and-external-metrics#custom\\_metrics](https://cloud.google.com/kubernetes-engine/docs/concepts/custom-and-external-metrics#custom_metrics) <https://github.com/GoogleCloudPlatform/k8s-stackdriver/blob/master/custom-metrics-stackdriver-adapter/REA> Your application can report a custom metric to Cloud Monitoring. You can configure Kubernetes to respond to these metrics and scale your workload automatically. For example, you can scale your application based on metrics such as queries per second, writes per second, network performance, latency when communicating with a different application, or other metrics that make sense for your workload. <https://cloud.google.com/kubernetes-engine/docs/concepts/custom-and-external-metrics>

#### NEW QUESTION 43

Your team uses Cloud Build for all CI/CO pipelines. You want to use the kubectl builder for Cloud Build to deploy new images to Google Kubernetes Engine (GKE). You need to authenticate to GKE while minimizing development effort. What should you do?

- A. Assign the Container Developer role to the Cloud Build service account.
- B. Specify the Container Developer role for Cloud Build in the cloudbuild.yaml file.
- C. Create a new service account with the Container Developer role and use it to run Cloud Build.
- D. Create a separate step in Cloud Build to retrieve service account credentials and pass these to kubectl.

**Answer:** A

#### Explanation:

<https://cloud.google.com/build/docs/deploying-builds/deploy-gke> <https://cloud.google.com/build/docs/securing-builds/configure-user-specified-service-accounts>

#### NEW QUESTION 45

You support a Node.js application running on Google Kubernetes Engine (GKE) in production. The application makes several HTTP requests to dependent applications. You want to anticipate which dependent applications might cause performance issues. What should you do?

- A. Instrument all applications with Stackdriver Profiler.
- B. Instrument all applications with Stackdriver Trace and review inter-service HTTP requests.
- C. Use Stackdriver Debugger to review the execution of logic within each application to instrument all applications.
- D. Modify the Node.js application to log HTTP request and response times to dependent application
- E. Use Stackdriver Logging to find dependent applications that are performing poorly.

**Answer:** B

#### NEW QUESTION 50

Your company follows Site Reliability Engineering practices. You are the Incident Commander for a new, customer-impacting incident. You need to immediately assign two incident management roles to assist you in an effective incident response. What roles should you assign?  
Choose 2 answers

- A. Operations Lead
- B. Engineering Lead
- C. Communications Lead
- D. Customer Impact Assessor
- E. External Customer Communications Lead

**Answer:** AC

#### Explanation:

<https://sre.google/workbook/incident-response/>

"The main roles in incident response are the Incident Commander (IC), Communications Lead (CL), and Operations or Ops Lead (OL)."

**NEW QUESTION 51**

Your company experiences bugs, outages, and slowness in its production systems. Developers use the production environment for new feature development and bug fixes. Configuration and experiments are done in the production environment, causing outages for users. Testers use the production environment for load testing, which often slows the production systems. You need to redesign the environment to reduce the number of bugs and outages in production and to enable testers to load test new features. What should you do?

- A. Create an automated testing script in production to detect failures as soon as they occur.
- B. Create a development environment with smaller server capacity and give access only to developers and testers.
- C. Secure the production environment to ensure that developers can't change it and set up one controlled update per year.
- D. Create a development environment for writing code and a test environment for configurations, experiments, and load testing.

**Answer:** D

**NEW QUESTION 53**

You support an application running on GCP and want to configure SMS notifications to your team for the most critical alerts in Stackdriver Monitoring. You have already identified the alerting policies you want to configure this for. What should you do?

- A. Download and configure a third-party integration between Stackdriver Monitoring and an SMS gateway. Ensure that your team members add their SMS/phone numbers to the external tool.
- B. Select the Webhook notifications option for each alerting policy, and configure it to use a third-party integration too
- C. Ensure that your team members add their SMS/phone numbers to the external tool.
- D. Ensure that your team members set their SMS/phone numbers in their Stackdriver Profile
- E. Select the SMS notification option for each alerting policy and then select the appropriate SMS/phone numbers from the list.
- F. Configure a Slack notification for each alerting policy
- G. Set up a Slack-to-SMS integration to send SMS messages when Slack messages are received
- H. Ensure that your team members add their SMS/phone numbers to the external integration.

**Answer:** C

**Explanation:**

[https://cloud.google.com/monitoring/support/notification-options#creating\\_channels](https://cloud.google.com/monitoring/support/notification-options#creating_channels) To configure SMS notifications, do the following:

In the SMS section, click Add new and follow the instructions. Click Save. When you set up your alerting policy, select the SMS notification type and choose a verified phone number from the list.

**NEW QUESTION 55**

You are creating and assigning action items in a postmortem for an outage. The outage is over, but you need to address the root causes. You want to ensure that your team handles the action items quickly and efficiently. How should you assign owners and collaborators to action items?

- A. Assign one owner for each action item and any necessary collaborators.
- B. Assign multiple owners for each item to guarantee that the team addresses items quickly
- C. Assign collaborators but no individual owners to the items to keep the postmortem blameless.
- D. Assign the team lead as the owner for all action items because they are in charge of the SRE team.

**Answer:** A

**Explanation:**

<https://devops.com/when-it-disaster-strikes-part-3-conducting-a-blameless-post-mortem/>

**NEW QUESTION 56**

You support a stateless web-based API that is deployed on a single Compute Engine instance in the europe-west2-a zone. The Service Level Indicator (SLI) for service availability is below the specified Service Level Objective (SLO). A postmortem has revealed that requests to the API regularly time out. The time outs are due to the API having a high number of requests and running out of memory. You want to improve service availability. What should you do?

- A. Change the specified SLO to match the measured SLI.
- B. Move the service to higher-specification compute instances with more memory.
- C. Set up additional service instances in other zones and load balance the traffic between all instances.
- D. Set up additional service instances in other zones and use them as a failover in case the primary instance is unavailable.

**Answer:** C

**NEW QUESTION 59**

Your organization recently adopted a container-based workflow for application development. Your team develops numerous applications that are deployed continuously through an automated build pipeline to the production environment. A recent security audit alerted your team that the code pushed to production could contain vulnerabilities and that the existing tooling around virtual machine (VM) vulnerabilities no longer applies to the containerized environment. You need to ensure the security and patch level of all code running through the pipeline. What should you do?

- A. Set up Container Analysis to scan and report Common Vulnerabilities and Exposures.
- B. Configure the containers in the build pipeline to always update themselves before release.
- C. Reconfigure the existing operating system vulnerability software to exist inside the container.
- D. Implement static code analysis tooling against the Docker files used to create the containers.

**Answer:** D

**Explanation:**

<https://cloud.google.com/binary-authorization>

Binary Authorization is a deploy-time security control that ensures only trusted container images are deployed on Google Kubernetes Engine (GKE) or Cloud Run. With Binary Authorization, you can require images to be signed by trusted authorities during the development process and then enforce signature validation when deploying. By enforcing validation, you can gain tighter control over your container environment by ensuring only verified images are integrated into the build-and-release process.

#### NEW QUESTION 62

Your organization wants to implement Site Reliability Engineering (SRE) culture and principles. Recently, a service that you support had a limited outage. A manager on another team asks you to provide a formal explanation of what happened so they can action remediations. What should you do?

- A. Develop a postmortem that includes the root causes, resolution, lessons learned, and a prioritized list of action item
- B. Share it with the manager only.
- C. Develop a postmortem that includes the root causes, resolution, lessons learned, and a prioritized list of action item
- D. Share it on the engineering organization's document portal.
- E. Develop a postmortem that includes the root causes, resolution, lessons learned, the list of people responsible, and a list of action items for each person
- F. Share it with the manager only.
- G. Develop a postmortem that includes the root causes, resolution, lessons learned, the list of people responsible, and a list of action items for each person
- H. Share it on the engineering organization's document portal.

**Answer:** B

#### NEW QUESTION 64

You support a web application that is hosted on Compute Engine. The application provides a booking service for thousands of users. Shortly after the release of a new feature, your monitoring dashboard shows that all users are experiencing latency at login. You want to mitigate the impact of the incident on the users of your service. What should you do first?

- A. Roll back the recent release.
- B. Review the Stackdriver monitoring.
- C. Upsize the virtual machines running the login services.
- D. Deploy a new release to see whether it fixes the problem.

**Answer:** C

#### Explanation:

Rollback to previous stable version. Then you need to find what is causing the issue.

#### NEW QUESTION 66

You use Cloud Build to build and deploy your application. You want to securely incorporate database credentials and other application secrets into the build pipeline. You also want to minimize the development effort. What should you do?

- A. Create a Cloud Storage bucket and use the built-in encryption at rest
- B. Store the secrets in the bucket and grant Cloud Build access to the bucket.
- C. Encrypt the secrets and store them in the application repository
- D. Store a decryption key in a separate repository and grant Cloud Build access to the repository.
- E. Use client-side encryption to encrypt the secrets and store them in a Cloud Storage bucket
- F. Store a decryption key in the bucket and grant Cloud Build access to the bucket.
- G. Use Cloud Key Management Service (Cloud KMS) to encrypt the secrets and include them in your Cloud Build deployment configuration
- H. Grant Cloud Build access to the KeyRing.

**Answer:** D

#### Explanation:

<https://cloud.google.com/build/docs/securing-builds/use-encrypted-credentials>

#### NEW QUESTION 67

You are managing the production deployment to a set of Google Kubernetes Engine (GKE) clusters. You want to make sure only images which are successfully built by your trusted CI/CD pipeline are deployed to production. What should you do?

- A. Enable Cloud Security Scanner on the clusters.
- B. Enable Vulnerability Analysis on the Container Registry.
- C. Set up the Kubernetes Engine clusters as private clusters.
- D. Set up the Kubernetes Engine clusters with Binary Authorization.

**Answer:** D

#### Explanation:

<https://cloud.google.com/binary-authorization/docs/overview>

#### NEW QUESTION 70

You support the backend of a mobile phone game that runs on a Google Kubernetes Engine (GKE) cluster. The application is serving HTTP requests from users. You need to implement a solution that will reduce the network cost. What should you do?

- A. Configure the VPC as a Shared VPC Host project.
- B. Configure your network services on the Standard Tier.
- C. Configure your Kubernetes cluster as a Private Cluster.
- D. Configure a Google Cloud HTTP Load Balancer as Ingress.

**Answer:** D



**Explanation:**

Costs associated with a load balancer are charged to the project containing the load balancer components. Because of these benefits, container-native load balancing is the recommended solution for load balancing through Ingress. When NEG's are used with GKE Ingress, the Ingress controller facilitates the creation of all aspects of the L7 load balancer. This includes creating the virtual IP address, forwarding rules, health checks, firewall rules, and more.

<https://cloud.google.com/architecture/best-practices-for-running-cost-effective-kubernetes-applications-on-gke>

**NEW QUESTION 72**

You deploy a new release of an internal application during a weekend maintenance window when there is minimal user traffic. After the window ends, you learn that one of the new features isn't working as expected in the production environment. After an extended outage, you roll back the new release and deploy a fix. You want to modify your release process to reduce the mean time to recovery so you can avoid extended outages in the future. What should you do?

Choose 2 answers

- A. Before merging new code, require 2 different peers to review the code changes.
- B. Adopt the blue/green deployment strategy when releasing new code via a CD server.
- C. Integrate a code linting tool to validate coding standards before any code is accepted into the repository.
- D. Require developers to run automated integration tests on their local development environments before release.
- E. Configure a CI server
- F. Add a suite of unit tests to your code and have your CI server run them on commit and verify any changes.

**Answer:** BE

**NEW QUESTION 74**

You support a multi-region web service running on Google Kubernetes Engine (GKE) behind a Global HTTP'S Cloud Load Balancer (CLB). For legacy reasons, user requests first go through a third-party Content Delivery Network (CDN). which then routes traffic to the CLB. You have already implemented an availability Service Level Indicator (SLI) at the CLB level. However, you want to increase coverage in case of a potential load balancer misconfiguration. CDN failure, or other global networking catastrophe. Where should you measure this new SLI?

Choose 2 answers

- A. Your application servers' logs
- B. Instrumentation coded directly in the client
- C. Metrics exported from the application servers
- D. GKE health checks for your application servers
- E. A synthetic client that periodically sends simulated user requests

**Answer:** BE

**NEW QUESTION 75**

You manage an application that is writing logs to Stackdriver Logging. You need to give some team members the ability to export logs. What should you do?

- A. Grant the team members the IAM role of logging.configWriter on Cloud IAM.
- B. Configure Access Context Manager to allow only these members to export logs.
- C. Create and grant a custom IAM role with the permissions logging.sinks.list and logging.sink.get.
- D. Create an Organizational Policy in Cloud IAM to allow only these members to create log exports.

**Answer:** A

**Explanation:**

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

**NEW QUESTION 76**

You are running a real-time gaming application on Compute Engine that has a production and testing environment. Each environment has their own Virtual Private Cloud (VPC) network. The application frontend and backend servers are located on different subnets in the environment's VPC. You suspect there is a malicious process communicating intermittently in your production frontend servers. You want to ensure that network traffic is captured for analysis. What should you do?

- A. Enable VPC Flow Logs on the production VPC network frontend and backend subnets only with a sample volume scale of 0.5.
- B. Enable VPC Flow Logs on the production VPC network frontend and backend subnets only with a sample volume scale of 1.0.
- C. Enable VPC Flow Logs on the testing and production VPC network frontend and backend subnets with a volume scale of 0.5. Apply changes in testing before production.
- D. Enable VPC Flow Logs on the testing and production VPC network frontend and backend subnets with a volume scale of 1.0. Apply changes in testing before production.

**Answer:** D

**NEW QUESTION 81**

You need to deploy a new service to production. The service needs to automatically scale using a Managed Instance Group (MIG) and should be deployed over multiple regions. The service needs a large number of resources for each instance and you need to plan for capacity. What should you do?

- A. Use the n1-highcpu-96 machine type in the configuration of the MIG.
- B. Monitor results of Stackdriver Trace to determine the required amount of resources.
- C. Validate that the resource requirements are within the available quota limits of each region.
- D. Deploy the service in one region and use a global load balancer to route traffic to this region.

**Answer:** C

**Explanation:**

[https://cloud.google.com/compute/quotas#understanding\\_quotas](https://cloud.google.com/compute/quotas#understanding_quotas) <https://cloud.google.com/compute/quotas>

#### NEW QUESTION 85

You are performing a semiannual capacity planning exercise for your flagship service. You expect a service user growth rate of 10% month-over-month over the next six months. Your service is fully containerized and runs on Google Cloud Platform (GCP). using a Google Kubernetes Engine (GKE) Standard regional cluster on three zones with cluster autoscaler enabled. You currently consume about 30% of your total deployed CPU capacity, and you require resilience against the failure of a zone. You want to ensure that your users experience minimal negative impact as a result of this growth or as a result of zone failure, while avoiding unnecessary costs. How should you prepare to handle the predicted growth?

- A. Verify the maximum node pool size, enable a horizontal pod autoscaler, and then perform a load test to verify your expected resource needs.
- B. Because you are deployed on GKE and are using a cluster autoscale
- C. your GKE cluster will scale automatically, regardless of growth rate.
- D. Because you are at only 30% utilization, you have significant headroom and you won't need to add any additional capacity for this rate of growth.
- E. Proactively add 60% more node capacity to account for six months of 10% growth rate, and then perform a load test to make sure you have enough capacity.

**Answer:** A

#### **Explanation:**

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

The Horizontal Pod Autoscaler changes the shape of your Kubernetes workload by automatically increasing or decreasing the number of Pods in response to the workload's CPU or memory consumption

#### NEW QUESTION 90

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