

Vendor: Google

Exam Code: PROFESSIONAL-CLOUD-DEVELOPER

Exam Name: Professional Cloud Developer

Version: Demo

QUESTION 1

You manage a microservices application on Google Kubernetes Engine (GKE) using Istio. You secure the communication channels between your microservices by implementing an Istio AuthorizationPolicy, a Kubernetes NetworkPolicy, and mTLS on your GKE cluster. You discover that HTTP requests between two Pods to specific URLs fail, while other requests to other URLs succeed. What is the cause of the connection issue?

- A. A Kubernetes NetworkPolicy resource is blocking HTTP traffic between the Pods.
- B. The Pod initiating the HTTP requests is attempting to connect to the target Pod via an incorrect TCP port.
- C. The Authorization Policy of your cluster is blocking HTTP requests for specific paths within your application.
- D. The cluster has mTLS configured in permissive mode, but the Pod\\'s sidecar proxy is sending unencrypted traffic in plain text.

Correct Answer: C

QUESTION 2

You are monitoring a web application that is written in Go and deployed in Google Kubernetes Engine. You notice an increase in CPU and memory utilization. You need to determine which source code is consuming the most CPU and memory resources. What should you do?

- A. Download, install, and start the Snapshot Debugger agent in your VM. Take debug snapshots of the functions that take the longest time. Review the call stack frame, and identify the local variables at that level in the stack.
- B. Import the Cloud Profiler package into your application, and initialize the Profiler agent. Review the generated flame graph in the Google Cloud console to identify time-intensive functions.
- C. Import OpenTelemetry and Trace export packages into your application, and create the trace provider. Review the latency data for your application on the Trace overview page, and identify where bottlenecks are occurring.
- D. Create a Cloud Logging query that gathers the web application\\'s logs. Write a Python script that calculates the difference between the timestamps from the beginning and the end of the application\\'s longest functions to identity time-intensive functions.

Correct Answer: B

QUESTION 3

The development teams in your company want to manage resources from their local environments. You have been asked to enable developer access to each team\\'s Google Cloud projects. You want to maximize efficiency while following Google-recommended best practices. What should you do?

A. Add the users to their projects, assign the relevant roles to the users, and then provide the users with each relevant Project ID.

B. Add the users to their projects, assign the relevant roles to the users, and then provide the users with each relevant

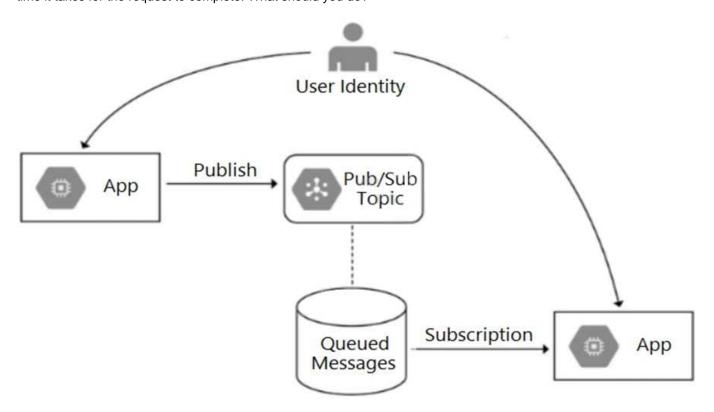
Project Number.

- C. Create groups, add the users to their groups, assign the relevant roles to the groups, and then provide the users with each relevant Project ID.
- D. Create groups, add the users to their groups, assign the relevant roles to the groups, and then provide the users with each relevant Project Number.

Correct Answer: C

QUESTION 4

You have an application running in App Engine. Your application is instrumented with Stackdriver Trace. The /product-details request reports details about four known unique products at /sku-details as shown below. You want to reduce the time it takes for the request to complete. What should you do?



- A. Increase the size of the instance class.
- B. Change the Persistent Disk type to SSD.
- C. Change /product-details to perform the requests in parallel.
- D. Store the /sku-details information in a database, and replace the webservice call with a database query.

Correct Answer: C

QUESTION 5

You are designing an application that will subscribe to and receive messages from a single Pub/Sub topic and insert corresponding rows into a database. Your application runs on Linux and leverages preemptible virtual machines to reduce costs. You need to create a shutdown script that will initiate a graceful shutdown. What should you do?

A. Write a shutdown script that uses inter-process signals to notify the application process to disconnect from the database.

- B. Write a shutdown script that broadcasts a message to all signed-in users that the Compute Engine instance is going down and instructs them to save current work and sign out.
- C. Write a shutdown script that writes a file in a location that is being polled by the application once every five minutes. After the file is read, the application disconnects from the database.
- D. Write a shutdown script that publishes a message to the Pub/Sub topic announcing that a shutdown is in progress. After the application reads the message, it disconnects from the database.

Correct Answer: D

QUESTION 6

You recently migrated a monolithic application to Google Cloud by breaking it down into microservices. One of the microservices is deployed using Cloud Functions. As you modernize the application, you make a change to the API of the service that is backward-incompatible. You need to support both existing callers who use the original API and new callers who use the new API. What should you do?

A. Leave the original Cloud Function as-is and deploy a second Cloud Function with the new API. Use a load balancer to distribute calls between the versions.

- B. Leave the original Cloud Function as-is and deploy a second Cloud Function that includes only the changed API. Calls are automatically routed to the correct function.
- C. Leave the original Cloud Function as-is and deploy a second Cloud Function with the new API. Use Cloud Endpoints to provide an API gateway that exposes a versioned API.
- D. Re-deploy the Cloud Function after making code changes to support the new API. Requests for both versions of the API are fulfilled based on a version identifier included in the call.

Correct Answer: D

Reference: https://cloud.google.com/endpoints/docs/openapi/versioning-an-api

QUESTION 7

You need to migrate an internal file upload API with an enforced 500-MB file size limit to App Engine.

What should you do?

- A. Use FTP to upload files.
- B. Use CPanel to upload files.
- C. Use signed URLs to upload files.

D. Change the API to be a multipart file upload API.

Correct Answer: C

Reference: https://wiki.christophchamp.com/index.php?title=Google_Cloud_Platform

QUESTION 8

You want to upload files from an on-premises virtual machine to Google Cloud Storage as part of a data migration. These files will be consumed by Cloud DataProc Hadoop cluster in a GCP environment. Which command should you use?

A. gsutil cp [LOCAL_OBJECT] gs://[DESTINATION_BUCKET_NAME]/

B. gcloud cp [LOCAL_OBJECT] gs://[DESTINATION_BUCKET_NAME]/

C. hadoop fs cp [LOCAL_OBJECT] gs://[DESTINATION_BUCKET_NAME]/

D. gcloud dataproc cp [LOCAL_OBJECT] gs://[DESTINATION_BUCKET_NAME]/

Correct Answer: A

The gsutil cp command allows you to copy data between your local file. storage. boto files generated by running "gsutil config"

QUESTION 9

Your company has created an application that uploads a report to a Cloud Storage bucket. When the report is uploaded to the bucket, you want to publish a message to a Cloud Pub/Sub topic. You want to implement a solution that will take a small amount to effort to implement. What should you do?

A. Configure the Cloud Storage bucket to trigger Cloud Pub/Sub notifications when objects are modified.

B. Create an App Engine application to receive the file; when it is received, publish a message to the Cloud Pub/Sub topic.

C. Create a Cloud Function that is triggered by the Cloud Storage bucket. In the Cloud Function, publish a message to the Cloud Pub/Sub topic.

D. Create an application deployed in a Google Kubernetes Engine cluster to receive the file; when it is received, publish a message to the Cloud Pub/Sub topic.

Correct Answer: C

https://cloud.google.com/storage/docs/pubsub-notifications

QUESTION 10

You recently developed an application. You need to call the Cloud Storage API from a Compute Engine instance that doesn\\'t have a public IP address. What should you do?

- A. Use Carrier Peering
- B. Use VPC Network Peering
- C. Use Shared VPC networks
- D. Use Private Google Access

Correct Answer: D

https://cloud.google.com/vpc/docs/private-google-access

QUESTION 11

You are developing a microservice-based application that will be deployed on a Google Kubernetes Engine cluster. The application needs to read and write to a Spanner database. You want to follow security best practices while minimizing code changes.

How should you configure your application to retrieve Spanner credentials?

- A. Configure the appropriate service accounts, and use Workload Identity to run the pods.
- B. Store the application credentials as Kubernetes Secrets, and expose them as environment variables.
- C. Configure the appropriate routing rules, and use a VPC-native cluster to directly connect to the database.
- D. Store the application credentials using Cloud Key Management Service, and retrieve them whenever a database connection is made.

Correct Answer: A

https://cloud.google.com/kubernetes-engine/docs/concepts/workload-identity

QUESTION 12

You have an analytics application that runs hundreds of queries on BigQuery every few minutes using BigQuery API. You want to find out how much time these queries take to execute. What should you do?

- A. Use Stackdriver Monitoring to plot slot usage.
- B. Use Stackdriver Trace to plot API execution time.
- C. Use Stackdriver Trace to plot query execution time.
- D. Use Stackdriver Monitoring to plot query execution times.

Correct Answer: D