Google Cloud

Partner Certification Academy

Professional Cloud Developer

v2309

Quiz questions*

Cloud Storage

** These are for practice only and are not actual exam questions*

Question: Which command-line tool is best suited for copying files from a local system to Google Cloud Storage?

- A. gcloud storage
- B. gsutil
- C. hadoop fs
- D. gcloud dataproc

Question: If you encounter an HTTP 429 error "Too Many Requests" when accessing Cloud Storage, what's the recommended strategy to handle it?

- A. Increase the storage quota.
- B. Switch to a different storage class.

- C. Implement a retry mechanism with exponential backoff.
- D. Reduce the size of the files being accessed.

Question: For hosting a static website with minimal setup, where should you upload your HTML, CSS, and JavaScript files in GCP?

- A. Google Kubernetes Engine
- B. Compute Engine VM instance
- C. App Engine
- D. Google Cloud Storage

Question: When a file is added to a Cloud Storage bucket, you want to automatically send a notification to a Pub/Sub topic. Which feature of Cloud Storage allows you to achieve this?

- A. Cloud Storage Alerts
- B. Cloud Storage Notifications
- C. Cloud Storage Functions
- D. Cloud Storage Metrics

Question: To ensure data objects in Cloud Storage are retained for a minimum of 7 years and are moved to a cost-effective storage class after 3 years, which feature should you configure?

- A. Object Versioning
- B. Object Lifecycle Policy
- C. Data Retention Policy
- D. Storage Class Analysis

Question: For serving static content to global users with minimized latency, which feature in GCP should you enable after storing content in a multi-regional Cloud Storage bucket?

- A. Google Cloud Load Balancer
- B. Google Cloud CDN
- C. Google Cloud Endpoints
- D. Google Cloud Armor

Question: In Cloud Storage, how can you simulate a folder structure for better organization of objects?

- A. By using metadata tags.
- B. By ending the URL with a “/” character.
- C. By creating separate buckets for each folder.
- D. By enabling the "Folder Mode" feature.

Question: If you want to ensure that objects in a Cloud Storage bucket are not deleted or overwritten for a specific duration, which feature should you use?

- A. Object Versioning
- B. Object Locking
- C. Retention Policy
- D. Immutable Objects

Question: You want to have a Cloud Function service that will create thumbnails of image files as they arrive in Cloud Storage. The images will be coming via a website that serves traffic from across the globe. What is the best way to implement this, keeping costs in mind?

- A. Create a multi-region bucket in the same project as the Cloud Function service
- B. Create a regional bucket in the same project as the Cloud Function service
- C. Create a multi-region bucket in a different project than the Cloud Function service

- D. Create a regional bucket in a different project than the Cloud Function service

Question: 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 located in the us-central1 region. Which command should you use and where should the bucket be located

A. gsutil cp [LOCAL_OBJECT] gs://[DESTINATION_BUCKET_NAME]/. Bucket should be located multi-region US.
B. gcloud cp [LOCAL_OBJECT] gs://[DESTINATION_BUCKET_NAME]/. Bucket should be located multi-region US.
C. gsutil cp [LOCAL_OBJECT] gs://[DESTINATION_BUCKET_NAME]/. Bucket should be located in us–central1 region.
D. gcloud dataproc cp [LOCAL_OBJECT] gs://[DESTINATION_BUCKET_NAME]/. Bucket should be located in us–central1 region.

Question: Your service adds text to images that it reads from Cloud Storage. During busy times of the year, requests to Cloud Storage fail with an HTTP 429 "Too Many Requests" status code. How should you handle this error?

A. Add a cache-control header to the objects.
B. Request a quota increase from the GCP Console.
C. Retry the request with a truncated exponential backoff strategy.
D. Change the storage class of the Cloud Storage bucket to Multi-regional.

Question: You are developing an application that will store and access sensitive unstructured data objects in a Cloud Storage bucket. To comply with regulatory requirements, you need to ensure that all data objects are available for at least 7 years after their initial creation. Objects created more than 3 years ago are accessed very infrequently (less than once a year). You need to configure object

storage while ensuring that storage cost is optimized. What should you do? (Choose two.)

A. Use IAM Conditions to provide access to objects 7 years after the object creation date.
B. Enable Object Versioning to prevent objects from being accidentally deleted for 7 years after object creation.
C. Create an object lifecycle policy on the bucket that moves objects from Standard Storage to Archive Storage after 3 years.
D. Set a retention policy on the bucket with a period of 7 years.

Answers to Quiz questions

Cloud Storage

Question: Which command-line tool is best suited for copying files from a local system to Google Cloud Storage?

- A. gcloud storage
- B. gsutil
- C. hadoop fs
- D. gcloud dataproc

Correct Answer: B. gsutil

Explanation: The gsutil command-line tool provides functionalities to manage Cloud Storage buckets and objects.
Resource: Google Cloud Storage: gsutil Overview

Question: If you encounter an HTTP 429 error "Too Many Requests" when accessing Cloud Storage, what's the recommended strategy to handle it?

- A. Increase the storage quota.

- B. Switch to a different storage class.
- C. Implement a retry mechanism with exponential backoff.
- D. Reduce the size of the files being accessed.

Correct Answer: C. Implement a retry mechanism with exponential backoff.

Explanation: Exponential backoff is a standard error-handling strategy for network applications in which the client increases the wait time between retries exponentially, up to a maximum number of retries.
Resource:How Cloud Storage tools implement retry strategies

Question: For hosting a static website with minimal setup, where should you upload your HTML, CSS, and JavaScript files in GCP?

- A. Google Kubernetes Engine
- B. Compute Engine VM instance
- C. App Engine
- D. Google Cloud Storage

Correct Answer: D. Google Cloud Storage

Explanation: Google Cloud Storage allows you to host and serve static websites directly from a storage bucket, making it a simple and cost-effective option.
Resource: Google Cloud Storage: Hosting Static Websites

Question: When a file is added to a Cloud Storage bucket, you want to automatically send a notification to a Pub/Sub topic. Which feature of Cloud Storage allows you to achieve this?

- A. Cloud Storage Alerts
- B. Cloud Storage Notifications
- C. Cloud Storage Functions
- D. Cloud Storage Metrics

Correct Answer: B. Cloud Storage Notifications

Explanation: Cloud Storage Notifications allow you to automatically send notifications to a Pub/Sub topic when objects in your bucket are created, updated, or deleted.
Resource: Google Cloud Storage: Pub/Sub Notifications

Question: To ensure data objects in Cloud Storage are retained for a minimum of 7 years and are moved to a cost-effective storage class after 3 years, which feature should you configure?

- A. Object Versioning
- B. Object Lifecycle Policy
- C. Data Retention Policy
- D. Storage Class Analysis

Correct Answer: B. Object Lifecycle Policy

Explanation: Object Lifecycle Policies allow you to define conditions based on which specific actions are taken on objects, such as changing storage classes or deleting objects.
Resource: Google Cloud Storage: Object Lifecycle Management

Question: For serving static content to global users with minimized latency, which feature in GCP should you enable after storing content in a multi-regional Cloud Storage bucket?

- A. Google Cloud Load Balancer
- B. Google Cloud CDN
- C. Google Cloud Endpoints
- D. Google Cloud Armor

Correct Answer: B. Google Cloud CDN

Explanation: Google Cloud CDN uses globally distributed system points of presence to accelerate content delivery, reducing latency for end-users.
Resource: Google Cloud CDN Documentation

Question: In Cloud Storage, how can you simulate a folder structure for better organization of objects?

- A. By using metadata tags.
- B. By ending the URL with a “/” character.
- C. By creating separate buckets for each folder.
- D. By enabling the "Folder Mode" feature.

Correct Answer: B. By ending the URL with a “/” character.

Explanation: Cloud Storage uses a flat namespace, but you can simulate a hierarchical structure using object name prefixes with slashes.
Resource: Folders

Question: If you want to ensure that objects in a Cloud Storage bucket are not deleted or overwritten for a specific duration, which feature should you use?

- A. Object Versioning
- B. Object Locking
- C. Retention Policy
- D. Immutable Objects

Correct Answer: C. Retention Policy

Explanation: Retention policies allow you to define how long objects in a bucket are retained and prevent them from being deleted or overwritten for the duration of the policy. Resource: Google Cloud Storage: Using Retention Policies

Question: You want to have a Cloud Function service that will create thumbnails of image files as they arrive in Cloud Storage. The images will be coming via a website that serves traffic from across the globe. What is the best way to implement this, keeping costs in mind?

- A. Create a multi-region bucket in the same project as the Cloud Function service

- B. Create a regional bucket in the same project as the Cloud Function service
- C. Create a multi-region bucket in a different project than the Cloud Function service
- D. Create a regional bucket in a different project than the Cloud Function service

Correct Answer: B. Create a regional bucket in the same project as the Cloud Function service

Explanation: To maximize performance and lower your total cost of ownership, co-locate your data and compute in the same region(s). Regional and dual-region locations are both suitable for this purpose
Resource: Location recommendations

Question: 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 located in the us-central1 region. Which command should you use and where should the bucket be located

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D. gcloud dataproc cp [LOCAL_OBJECT] gs://[DESTINATION_BUCKET_NAME]/. Bucket should be located in us–central1 region.

Correct Answer: C.. gsutil cp [LOCAL_OBJECT] gs://[DESTINATION_BUCKET_NAME]/. Bucket should be located in us–central1 region.

Explanation: To upload files from an on-premises virtual machine to Google Cloud Storage as part of a data migration, you should use the command gsutil cp [LOCAL_OBJECT] gs://[DESTINATION_BUCKET_NAME]/.

It's important to note that gsutil command-line tool must be installed on the on-premises virtual machine. Additionally, you should also ensure that you have the appropriate permissions to upload files to the destination Cloud Storage bucket, and that the bucket is in the same project and region as the DataProc cluster to access the files.
Resource: Google Cloud Storage: gsutil Overview

Question: Your service adds text to images that it reads from Cloud Storage. During busy times of the year, requests to Cloud Storage fail with an HTTP 429 "Too Many Requests" status code. How should you handle this error?

A. Add a cache-control header to the objects.
B. Request a quota increase from the GCP Console.
C. Retry the request with a truncated exponential backoff strategy.
D. Change the storage class of the Cloud Storage bucket to Multi-regional.

Correct Answer:C. Retry the request with a truncated exponential backoff strategy.

Explanation:This strategy would involve initially retrying the request immediately after receiving the "Too Many Requests" status code, then incrementally increasing the amount of time between retries with each subsequent failure. This allows for a balance between quickly retrying the request and not overwhelming the service with too many requests in a short period of time. Additionally, it's recommended to implement a maximum limit of retries, and to consider logging the errors and monitoring the retry rate to determine if additional steps are needed to optimize the application and avoid the 429 errors.
Reference: https://cloud.google.com/storage/docs/troubleshooting

Question: You are developing an application that will store and access sensitive unstructured data objects in a Cloud Storage bucket. To comply with regulatory requirements, you need to ensure that all data objects are available for at least 7 years after their initial creation. Objects created more than 3 years ago are accessed very infrequently (less than once a year). You need to configure object storage while ensuring that storage cost is optimized. What should you do? (Choose two.)

E. Use IAM Conditions to provide access to objects 7 years after the object creation date.
F. Enable Object Versioning to prevent objects from being accidentally deleted for 7 years after object creation.
G. Create an object lifecycle policy on the bucket that moves objects from Standard Storage to Archive Storage after 3 years.
H. Set a retention policy on the bucket with a period of 7 years.

Correct Answer: C & D

Explanation: The Bucket Lock feature, which allows you to configure a data retention policy for a Cloud Storage bucket that governs how long objects in the bucket must be retained. The feature also allows you to lock the data retention policy, permanently preventing the policy from being reduced or removed.
Reference: https://cloud.google.com/storage/docs/storage-classes#archive

Archive storage is the lowest-cost, highly durable storage service for data archiving, online backup, and disaster recovery. Unlike the "coldest" storage services offered by other Cloud providers, your data is available within milliseconds, not hours or days. Archive storage is the best choice for data that you plan to access less than once a year.
Reference: https://cloud.google.com/storage/docs/bucket-lock