Exam Questions Professional-Cloud-Architect

Google Certified Professional - Cloud Architect (GCP)

https://www.2passeasy.com/dumps/Professional-Cloud-Architect/

NEW QUESTION 1
- (Topic 1)
For this question, refer to the Mountkirk Games case study
Mountkirk Games needs to create a repeatable and configurable mechanism for deploying isolated application environments. Developers and testers can access each other's environments and resources, but they cannot access staging or production resources. The staging environment needs access to some services from production.
What should you do to isolate development environments from staging and production?

A. Create a project for development and test and another for staging and production.
B. Create a network for development and test and another for staging and production.
C. Create one subnetwork for development and another for staging and production.
D. Create one project for development, a second for staging and a third for production.

Answer: D

NEW QUESTION 2
- (Topic 2)
For this question, refer to the TerramEarth case study
Your development team has created a structured API to retrieve vehicle data. They want to allow third parties to develop tools for dealerships that use this vehicle event data. You want to support delegated authorization against this data. What should you do?

A. Build or leverage an OAuth-compatible access control system.
B. Build SAML 2.0 SSO compatibility into your authentication system.
C. Restrict data access based on the source IP address of the partner systems.
D. Create secondary credentials for each dealer that can be given to the trusted third party.

Answer: A

Explanation:
https://cloud.google.com/appengine/docs/flexible/go/authorizing-apps
https://cloud.google.com/docs/enterprise/best-practices-for-enterprise-organizations#delegate_application_authorization_with_oauth2
Delegate application authorization with OAuth2
Cloud Platform APIs support OAuth 2.0, and scopes provide granular authorization over the methods that are supported. Cloud Platform supports both service-account and user- account OAuth, also called three-legged OAuth.
References: https://cloud.google.com/docs/enterprise/best-practices-for-enterprise-organizations#delegate_application_authorization_with_oauth2
https://cloud.google.com/appengine/docs/flexible/go/authorizing-apps

NEW QUESTION 3
- (Topic 2)
For this question, refer to the TerramEarth case study.
TerramEarth has equipped unconnected trucks with servers and sensors to collet telemetry data. Next year they want to use the data to train machine learning models. They want to store this data in the cloud while reducing costs. What should they do?

A. Have the vehicle' computer compress the data in hourly snapshots, and store it in a Google Cloud storage (GCS) Nearline bucket.
B. Push the telemetry data in Real-time to a streaming dataflow job that compresses the data, and store it in Google BigQuery.
C. Push the telemetry data in real-time to a streaming dataflow job that compresses the data, and store it in Cloud Bigtable.
D. Have the vehicle's computer compress the data in hourly snapshots, a Store it in a GCS Coldline bucket.

Answer: D

Explanation:
Coldline Storage is the best choice for data that you plan to access at most once a year, due to its slightly lower availability, 90-day minimum storage duration, costs for data access, and higher per-operation costs. For example:
Cold Data Storage - Infrequently accessed data, such as data stored for legal or regulatory reasons, can be stored at low cost as Coldline Storage, and be available when you need it. Disaster recovery - In the event of a disaster recovery event, recovery time is key. Cloud Storage provides low latency access to data stored as Coldline Storage.
References: https://cloud.google.com/storage/docs/storage-classes

NEW QUESTION 4
- (Topic 2)
Your agricultural division is experimenting with fully autonomous vehicles.
You want your architecture to promote strong security during vehicle operation. Which two architecture should you consider?
Choose 2 answers:

A. Treat every micro service call between modules on the vehicle as untrusted.
B. Require IPv6 for connectivity to ensure a secure address space.
C. Use a trusted platform module (TPM) and verify firmware and binaries on boot.
D. Use a functional programming language to isolate code execution cycles.
E. Use multiple connectivity subsystems for redundancy.
F. Enclose the vehicle's drive electronics in a Faraday cage to isolate chips.

Answer: AC

NEW QUESTION 5
- (Topic 2)
For this question, refer to the TerramEarth case study
You analyzed TerramEarth's business requirement to reduce downtime, and found that they can achieve a majority of time saving by reducing customers' wait time

for parts You decided to focus on reduction of the 3 weeks aggregate reporting time Which modifications to the company's processes should you recommend?

A. Migrate from CSV to binary format, migrate from FTP to SFTP transport, and develop machine learning analysis of metrics.
B. Migrate from FTP to streaming transport, migrate from CSV to binary format, and develop machine learning analysis of metrics.
C. Increase fleet cellular connectivity to 80%, migrate from FTP to streaming transport, and develop machine learning analysis of metrics.
D. Migrate from FTP to SFTP transport, develop machine learning analysis of metrics, and increase dealer local inventory by a fixed factor.

Answer: C

Explanation:
The Avro binary format is the preferred format for loading compressed data. Avro data is faster to load because the data can be read in parallel, even when the data blocks are compressed.
Cloud Storage supports streaming transfers with the gsutil tool or boto library, based on HTTP chunked transfer encoding. Streaming data lets you stream data to and from your Cloud Storage account as soon as it becomes available without requiring that the data be first saved to a separate file. Streaming transfers are useful if you have a process that generates data and you do not want to buffer it locally before uploading it, or if you want to send the result from a computational pipeline directly into Cloud Storage.
References: https://cloud.google.com/storage/docs/streaming https://cloud.google.com/bigquery/docs/loading-data

NEW QUESTION 6
- (Topic 4)
For this question, refer to the Dress4Win case study.
Dress4Win would like to become familiar with deploying applications to the cloud by successfully deploying some applications quickly, as is. They have asked for your recommendation. What should you advise?

A. Identify self-contained applications with external dependencies as a first move to the cloud.
B. Identify enterprise applications with internal dependencies and recommend these as a first move to the cloud.
C. Suggest moving their in-house databases to the cloud and continue serving requests to on-premise applications.
D. Recommend moving their message queuing servers to the cloud and continue handling requests to on-premise applications.

Answer: A

Explanation:
https://cloud.google.com/blog/products/gcp/the-five-phases-of-migrating-to-google-cloud-platform

NEW QUESTION 7
- (Topic 4)
Dress4win has end to end tests covering 100% of their endpoints.
They want to ensure that the move of cloud does not introduce any new bugs.
Which additional testing methods should the developers employ to prevent an outage?

A. They should run the end to end tests in the cloud staging environment to determine if the code is working as intended.
B. They should enable google stack driver debugger on the application code to show errors in the code
C. They should add additional unit tests and production scale load tests on their cloud staging environment.
D. They should add canary tests so developers can measure how much of an impact the new release causes to latency

Answer: B

NEW QUESTION 8
- (Topic 4)
For this question, refer to the Dress4Win case study.
You want to ensure Dress4Win's sales and tax records remain available for infrequent viewing by auditors for at least 10 years. Cost optimization is your top priority. Which cloud services should you choose?

A. Google Cloud Storage Coldline to store the data, and gsutil to access the data.
B. Google Cloud Storage Nearline to store the data, and gsutil to access the data.
C. Google Bigtabte with US or EU as location to store the data, and gcloud to access the data.
D. BigQuery to store the data, and a web server cluster in a managed instance group to access the dat
E. Google Cloud SQL mirrored across two distinct regions to store the data, and a Redis cluster in a managed instance group to access the data.

Answer: A

Explanation:
References: https://cloud.google.com/storage/docs/storage-classes

NEW QUESTION 9
- (Topic 4)
For this question, refer to the Dress4Win case study.
Dress4Win has configured a new uptime check with Google Stackdriver for several of their legacy services. The Stackdriver dashboard is not reporting the services as healthy. What should they do?

A. Install the Stackdriver agent on all of the legacy web servers.
B. In the Cloud Platform Console download the list of the uptime servers' IP addresses and create an inbound firewall rule
C. Configure their load balancer to pass through the User-Agent HTTP header when the value matches GoogleStackdriverMonitoring-UptimeChecks (https://cloud.google.com/monitoring)
D. Configure their legacy web servers to allow requests that contain user-Agent HTTP header when the value matches GoogleStackdriverMonitoring—UptimeChecks (https://cloud.google.com/monitoring)

Answer: B

NEW QUESTION 10
- (Topic 4)
For this question, refer to the Dress4Win case study.
As part of Dress4Win's plans to migrate to the cloud, they want to be able to set up a managed logging and monitoring system so they can handle spikes in their traffic load.
They want to ensure that:
• The infrastructure can be notified when it needs to scale up and down to handle the ebb and flow of usage throughout the day
• Their administrators are notified automatically when their application reports errors.
• They can filter their aggregated logs down in order to debug one piece of the application across many hosts
Which Google StackDriver features should they use?

A. Logging, Alerts, Insights, Debug
B. Monitoring, Trace, Debug, Logging
C. Monitoring, Logging, Alerts, Error Reporting
D. Monitoring, Logging, Debug, Error Report

Answer: D

NEW QUESTION 10
- (Topic 5)
You are responsible for the Google Cloud environment in your company Multiple departments need access to their own projects and the members within each department will have the same project responsibilities You want to structure your Google Cloud environment for minimal maintenance and maximum overview of 1AM permissions as each department's projects start and end You want to follow Google-recommended practices What should you do?

A. Create a Google Group per department and add all department members to their respective groups Create a folder per departmentand grant the respective group the required 1AM permissions at the folder level Add the projects under the respective folders
B. Grant all department members the required 1AM permissions for their respective projects
C. Create a Google Group per department and add all department members to theirrespective groups Grant each group the required I AM permissions for their respective projects
D. Create a folder per department and grant the respective members of the department the required 1AM permissions at the folder leve
E. Structure all projects for each department under the respective folders

Answer: A

Explanation:
This option follows the Google-recommended practices for structuring a Google Cloud environment for minimal maintenance and maximum overview of IAM permissions. By creating a Google Group per department and adding all department members to their respective groups, you can simplify user management and avoid granting IAM permissions to individual users. By creating a folder per department and granting the respective group the required IAM permissions at the folder level, you can enforce consistent policies across all projects within each department and avoid granting IAM permissions at the project level. By adding the projects under the respective folders, you can organize your resources hierarchically and leverage inheritance of IAM policies from folders to projects. The other options are not optimal for this scenario, because they either require granting IAM permissions to individual users (B, C), or do not use Google Groups to manage users (D). References:
? https://cloud.google.com/architecture/framework/system-design
? https://cloud.google.com/architecture/identity/best-practices-for-planning
? https://cloud.google.com/resource-manager/docs/creating-managing-folders

NEW QUESTION 15
- (Topic 5)
Your company has an application running on Compute Engine mat allows users to play their favorite music. There are a fixed number of instances Files are stored in Cloud Storage and data is streamed directly to users. Users are reporting that they sometimes need to attempt to play popular songs multiple times before they are successful. You need to improve the performance of the application. What should you do?
A.
* 1. Copy popular songs into CloudSQL as a blob
* 2. Update application code to retrieve data from CloudSQL when Cloud Storage is overloaded
B.
* 1. Create a managed instance group with Compute Engine instances
* 2. Create a global toad balancer and configure ii with two backbends
* Managed instance group
* Cloud Storage bucket
* 3. Enable Cloud CDN on the bucket backend
C.
* 1. Mount the Cloud Storage bucket using gcsfuse on all backend Compute Engine instances
* 2. Serve muse files directly from the backend Compute Engine instance
D.
* 1. Create a Cloud Filestore NFS volume and attach it to the backend Compute Engine instances
* 2. Download popular songs in Cloud Filestore
* 3. Serve music Wes directly from the backend Compute Engine instance

A.

Answer: B

NEW QUESTION 19
- (Topic 5)
Your company wants you to build a highly reliable web application with a few public APIs as the backend. You don’t expect a lot of user traffic, but traffic could spike occasionally.
You want to leverage Cloud Load Balancing, and the solution must be cost-effective for users. What should you do?

A. Store static content such as HTML and images in Cloud CD
B. Host the APIs on App Engine and store the user data in Cloud SQL.

C. Store static content such as HTML and images in a Cloud Storage bucke
D. Host the APIs on a zonal Google Kubernetes Engine cluster with worker nodes in multiple zones, and save the user data in Cloud Spanner.
E. Store static content such as HTML and images in Cloud CD
F. Use Cloud Run to host the APIs and save the user data in Cloud SQL.
G. Store static content such as HTML and images in a Cloud Storage bucke
H. Use Cloud Functions to host the APIs and save the user data in Firestore.

Answer: D

Explanation:
https://cloud.google.com/load-balancing/docs/https/setting-up-https-serverless#gcloud:-cloud-functions https://cloud.google.com/blog/products/networking/better-load-balancing-for-app-engine-cloud-run-and-functions

NEW QUESTION 22
- (Topic 5)
Your company has a networking team and a development team. The development team runs applications on Compute Engine instances that contain sensitive data. The development team requires administrative permissions for Compute Engine. Your company requires all network resources to be managed by the networking team. The development team does not want the networking team to have access to the sensitive data on the instances. What should you do?

A. * 1. Create a project with a standalone VPC and assign the Network Admin role to the networking team.* 2. Create a second project with a standalone VPC and assign the Compute Admin role to the development team.* 3. Use Cloud VPN to join the two VPCs.
B. * 1. Create a project with a standalone Virtual Private Cloud (VPC), assign the Network Admin role to the networking team, and assign the Compute Admin role to the development team.
C. * 1. Create a project with a Shared VPC and assign the Network Admin role to the networking team.* 2. Create a second project without a VPC, configure it as a Shared VPC service project,and assign the Compute Admin role to the development team.
D. * 1. Create a project with a standalone VPC and assign the Network Admin role to the networking team.* 2. Create a second project with a standalone VPC and assign the Compute Admin role to the development team.* 3. Use VPC Peering to join the two VPCs.

Answer: C

Explanation:
In this scenario, a large organization has a central team that manages security and networking controls for the entire organization. Developers do not have permissions to make changes to any network or security settings defined by the security and networking team but they are granted permission to create resources such as virtual machines in shared subnets. To facilitate this the organization makes use of a shared VPC (Virtual Private Cloud). A shared VPC allows creation of a VPC network of RFC 1918 IP spaces that associated projects (service projects) can then use. Developers using the associated projects can create VM instances in the shared VPC network spaces. The organization's network and security admins can create subnets, VPNs, and firewall rules usable by all the projects in the VPC network. https://cloud.google.com/iam/docs/job-functions/networking#single_team_manages_security_network_for_organization
Reference: https://cloud.google.com/vpc/docs/shared-vpc

NEW QUESTION 25
- (Topic 5)
Your company has an application running on multiple Compute Engine instances. You need to ensure that the application can communicate with an on-premises service that requires high throughput via internal IPs, while minimizing latency. What should you do?

A. Use OpenVPN to configure a VPN tunnel between the on-premises environment and Google Cloud.
B. Configure a direct peering connection between the on-premises environment and Google Cloud.
C. Use Cloud VPN to configure a VPN tunnel between the on-premises environment and Google Cloud.
D. Configure a Cloud Dedicated Interconnect connection between the on-premises environment and Google Cloud.

Answer: D

Explanation:
Reference https://cloud.google.com/architecture/setting-up-private-access-to-cloud-apis-through-vpn-tunnels

NEW QUESTION 30
- (Topic 5)
Your company recently acquired a company that has infrastructure in Google Cloud. Each company has its own Google Cloud organization Each company is using a Shared Virtual Private Cloud (VPC) to provide network connectivity tor its applications Some of the subnets used by both companies overlap In order for both businesses to integrate, the applications need to have private network connectivity. These applications are not on overlapping subnets. You want to provide connectivity with minimal re-engineering. What should you do?

A. Set up VPC peering and peer each Shared VPC together
B. Configure SSH port forwarding on each application to provide connectivity between applications i the different Shared VPCs
C. Migrate the protects from the acquired company into your company's Google Cloud organization Re launch the instances in your companies Shared VPC
D. Set up a Cloud VPN gateway in each Shared VPC and peer Cloud VPNs

Answer: B

NEW QUESTION 32
- (Topic 5)
Your company has a Google Workspace account and Google Cloud Organization Some developers in the company have created Google Cloud projects outside of the Google Cloud Organization
You want to create an Organization structure that allows developers to create projects, but prevents them from modifying production projects You want to manage policies for all projects centrally and be able to set more restrictive policies for production projects
You want to minimize disruption to users and developers when business needs change in the future You want to follow Google-recommended practices How should you design the Organization structure?

A. * 1 Create a second Google Workspace account and Organization* 2 Grant all developers the Project Creator IAM role on the new Organization * 3 Move the developer projects into the new Organization* 4 Set the policies for all projects on both Organizations.* 5 Additionally set the production policies on the original

Organization
B. * 1 Create a folder under the Organization resource named "Production '* 2 Grant all developers the Project Creator IAM role on the Organization * 3. Move the developer projects into the Organization* 4 Set the policies for all projects on the Organization* 5 Additionally set the production policies on the 'Production" folder
C. * 1 Create folders under the Organization resource named "Development" and Production'* 2 Grant all developers the Project Creator IAM role on the ""Development1 folder * 3. Move the developer projects into the "Development" folder* 4 Set the policies for all projects on the Organization* 5 Additionally set the production policies on the "Production" folder
D. * 1 Designate the Organization for production projects only* 2 Ensure that developers do not have the Project Creator IAM role on the Organization * 3 Create development projects outside of the Organization using the developer Google Workspace accounts* 4 Set the policies for all projects on the Organization* 5 Additionally set the production policies on the individual production projects

Answer: C

Explanation:
This option can help create an organization structure that allows developers to create projects, but prevents them from modifying production projects. Folders are containers for projects and other folders within Google Cloud organizations. Folders allow resources to be structured hierarchically and inherit policies from their parent resources. By creating folders under the organization resource named “Development” and “Production”, you can organize your projects by environment and apply different policies to them. By granting all developers the Project Creator IAM role on the “Development” folder, you can allow them to create projects under that folder, but not under the “Production” folder. By moving the developer projects into the “Development” folder, you can ensure that they are subject to the policies set on that folder. By setting the policies for all projects on the organization, you can manage policies centrally and efficiently. By additionally setting the production policies on the “Production” folder, you can enforce more restrictive policies for production projects and prevent developers from modifying them. The other options are not optimal for this scenario, because they either create a second Google Workspace account and organization, which increases complexity and cost (A), or do not use folders to organize projects by environment, which makes it harder to manage policies and permissions (B, D). References:
? https://cloud.google.com/resource-manager/docs/creating-managing-folders
? https://cloud.google.com/architecture/framework/system-design

NEW QUESTION 37
- (Topic 5)
You have a Python web application with many dependencies that requires 0.1 CPU cores and 128 MB of memory to operate in production. You want to monitor and maximize machine utilization. You also to reliably deploy new versions of the application. Which set of steps should you take?

A. Perform the following:1) Create a managed instance group with f1-micro type machines.2) Use a startup script to clone the repository, check out the production branch, install the dependencies, and start the Python app.3) Restart the instances to automatically deploy new production releases.
B. Perform the following:1) Create a managed instance group with n1-standard-1 type machines.2) Build a Compute Engine image from the production branch that contains all of the dependencies andautomatically starts the Python app.3) Rebuild the Compute Engine image, and update the instance template to deploy new productionreleases.
C. Perform the following:1) Create a Kubernetes Engine cluster with n1-standard-1 type machines.2) Build a Docker image from the production branch with all of the dependencies, and tag it with theversion number.3) Create a Kubernetes Deployment with the imagePullPolicy set to “IfNotPresent” in the stagingnamespace, and then promote it to the production namespace after testing.
D. Perform the following:1) Create a Kubernetes Engine (GKE) cluster with n1-standard-4 type machines.2) Build a Docker image from the master branch will all of the dependencies, and tag it with “latest”.3) Create a Kubernetes Deployment in the default namespace with the imagePullPolicy set to “Always”.Restart the pods to automatically deploy new production releases.

Answer: D

Explanation:
https://cloud.google.com/compute/docs/instance-templates

NEW QUESTION 40
- (Topic 5)
You need to ensure reliability for your application and operations by supporting reliable task a scheduling for compute on GCP. Leveraging Google best practices, what should you do?

A. Using the Cron service provided by App Engine, publishing messages directly to a message-processing utility service running on Compute Engine instances.
B. Using the Cron service provided by App Engine, publish messages to a Cloud Pub/Sub topi
C. Subscribe to that topic using a message-processing utility service running on Compute Engine instances.
D. Using the Cron service provided by Google Kubernetes Engine (GKE), publish messages directly to amessage-processing utility service running on Compute Engine instances.
E. Using the Cron service provided by GKE, publish messages to a Cloud Pub/Sub topi
F. Subscribe to that topic using a message-processing utility service running on Compute Engine instances.

Answer: B

Explanation:
https://cloud.google.com/solutions/reliable-task-scheduling-compute-engine

NEW QUESTION 41
- (Topic 5)
A development manager is building a new application He asks you to review his requirements and identify what cloud technologies he can use to meet them. The application must
* 1. Be based on open-source technology for cloud portability
* 2. Dynamically scale compute capacity based on demand
* 3. Support continuous software delivery
* 4. Run multiple segregated copies of the same application stack
* 5. Deploy application bundles using dynamic templates
* 6. Route network traffic to specific services based on URL
Which combination of technologies will meet all of his requirements?

A. Google Container Engine, Jenkins, and Helm
B. Google Container Engine and Cloud Load Balancing
C. Google Compute Engine and Cloud Deployment Manager

D. Google Compute Engine, Jenkins, and Cloud Load Balancing

Answer: A

Explanation:
Helm for managing Kubernetes
Kubernetes can base on the URL to route traffic to different location (path)
https://cloud.google.com/kubernetes-engine/docs/tutorials/http-balancer eg.apiVersion: networking.k8s.io/v1beta1
kind: Ingress metadata:
name: fanout-ingress spec:
rules:
- http: paths:
- path: /* backend:
serviceName: web servicePort: 8080
- path: /v2/* backend: serviceName: web2 servicePort: 8080

NEW QUESTION 43
- (Topic 5)
Your organization wants to control IAM policies for different departments independently, but centrally.
Which approach should you take?

A. Multiple Organizations with multiple Folders
B. Multiple Organizations, one for each department
C. A single Organization with Folder for each department
D. A single Organization with multiple projects, each with a central owner

Answer: C

Explanation:
Folders are nodes in the Cloud Platform Resource Hierarchy. A folder can contain projects, other folders, or a combination of both. You can use folders to group projects under an organization in a hierarchy. For example, your organization might contain multiple departments, each with its own set of GCP resources. Folders allow you to group these
resources on a per-department basis. Folders are used to group resources that share common IAM policies. While a folder can contain multiple folders or resources, a given folder or resource can have exactly one parent.
References: https://cloud.google.com/resource-manager/docs/creating-managing-folders

NEW QUESTION 46
- (Topic 5)
Your company is planning to perform a lift and shift migration of their Linux RHEL 6.5+ virtual machines. The virtual machines are running in an on-premises VMware environment. You want to migrate them to Compute Engine following Google- recommended practices. What should you do?

A. * 1. Define a migration plan based on the list of the applications and their dependencies.* 2. Migrate all virtual machines into Compute Engine individually with Migrate for Compute Engine.
B. * 1. Perform an assessment of virtual machines running in the current VMware environment.* 2. Create images of all disk
C. Import disks on Compute Engine.* 3. Create standard virtual machines where the boot disks are the ones you have imported.
D. * 1. Perform an assessment of virtual machines running in the current VMware environment.* 2. Define a migration plan, prepare a Migrate for Compute Engine migration RunBook, and execute the migration.
E. * 1. Perform an assessment of virtual machines running in the current VMware environment.* 2.Install a third-party agent on all selected virtual machine
F. 3.Migrate all virtual machines into Compute Engine.

Answer: C

Explanation:
The framework illustrated in the preceding diagram has four phases:
•Assess. In this phase, you assess your source environment, assess the workloads that you want to migrate to Google Cloud, and assess which VMs support each workload.
•Plan. In this phase, you create the basic infrastructure for Migrate for Compute Engine, such as provisioning the resource hierarchy and setting up network access.
•Deploy. In this phase, you migrate the VMs from the source environment to Compute Engine.
•Optimize. In this phase, you begin to take advantage of the cloud technologies and capabilities.
Reference: https://cloud.google.com/architecture/migrating-vms-migrate-for-compute-engine-getting-started

NEW QUESTION 50
- (Topic 5)
You are deploying a PHP App Engine Standard service with SQL as the backend. You want to minimize the number of queries to the database.
What should you do?

A. Set the memcache service level to dedicate
B. Create a key from the hash of the query, and returndatabase values from memcache before issuing a query to Cloud SQL.
C. Set the memcache service level to dedicate
D. Create a cron task that runs every minute to populate the cache with keys containing query results.
E. Set the memcache service level to share
F. Create a cron task that runs every minute to save all expected queries to a key called “cached-queries”.
G. Set the memcache service level to share
H. Create a key called “cached-queries”, and return databasevalues from the key before using a query to Cloud SQL.

Answer: A

Explanation:
https://cloud.google.com/appengine/docs/standard/php/memcache/using

NEW QUESTION 54
- (Topic 5)
Your company is designing its data lake on Google Cloud and wants to develop different ingestion pipelines to collect unstructured data from different sources. After the data is stored in Google Cloud, it will be processed in several data pipelines to build a recommendation engine for end users on the website. The structure of the data retrieved from the source systems can change at any time. The data must be stored exactly as it was retrieved for reprocessing purposes in case the data structure is incompatible with the current processing pipelines. You need to design an architecture to support the use case after you retrieve the data. What should you do?

A. Send the data through the processing pipeline, and then store the processed data in a BigQuery table for reprocessing.
B. Store the data in a BigQuery tabl
C. Design the processing pipelines to retrieve the data from the table.
D. Send the data through the processing pipeline, and then store the processed data in a Cloud Storage bucket for reprocessing.
E. Store the data in a Cloud Storage bucke
F. Design the processing pipelines to retrieve the data from the bucket

Answer: D

NEW QUESTION 55
- (Topic 5)
You are moving an application that uses MySQL from on-premises to Google Cloud. The application will run on Compute Engine and will use Cloud SQL. You want to cut over to the Compute Engine deployment of the application with minimal downtime and no data loss to your customers. You want to migrate the application with minimal modification. You also need to determine the cutover strategy. What should you do?

A. * 1. Set up Cloud VPN to provide private network connectivity between the Compute Engine application and the on-premises MySQL server.* 2. Stop the on-premises application.* 3. Create a mysqldump of the on-premises MySQL serve
B. * 4.Upload the dump to a Cloud Storage bucket.* 5. Import the dump into Cloud SQL.* 6. Modify the source code of the application to write queries to both databases and read from its local database.* 7. Start the Compute Engine applicatio
C. * 8.Stop the on-premises application.
D. * 1. Set up Cloud SQL proxy and MySQL prox
E. * 2.Create a mysqldump of the on-premises MySQL serve
F. * 3.Upload the dump to a Cloud Storage bucket.* 4.Import the dump into Cloud SQ
G. * 5.Stop the on-premises applicatio
H. * 6.Start the Compute Engine application.
I. * 1. Set up Cloud VPN to provide private network connectivity between the Compute Engine application and the on-premises MySQL server.* 2. Stop the on-premises application.* 3. Start the Compute Engine application, configured to read and write to the on-premises MySQL server.* 4. Create the replication configuration in Cloud SQL.* 5. Configure the source database server to accept connections from the Cloud SQL replic
J. * 6.Finalize the Cloud SQL replica configuration.* 7.When replication has been completed, stop the Compute Engine applicatio
K. * 8.Promote the Cloud SQL replica to a standalone instance.* 9.Restart the Compute Engine application, configured to read and write to the Cloud SQL standalone instance.
L. * 1. Stop the on-premises application.* 2.Create a mysqldump of the on-premises MySQL serve
M. * 3.Upload the dump to a Cloud Storage bucket.* 4. Import the dump into Cloud SQL.* 5. Start the application on Compute Engine.

Answer: C

Explanation:
External replica promotion migration In the migration strategy of external replica promotion, you create an external database replica and synchronize the existing data to that replica. This can happen with minimal downtime to the existing database. When you have a replica database, the two databases have different roles that are referred to in this document as primary and replica. After the data is synchronized, you promote the replica to be the primary in order to move the management layer with minimal impact to database uptime. In Cloud SQL, an easy way to accomplish the external replica promotion is to use the automated migration workflow. This process automates many of the steps that are needed for this type of migration.
https://cloud.google.com/architecture/migrating-mysql-to-cloudsql-concept
- The best option for migrating your MySQL database is to use an external replica promotion. In this strategy, you create a replica database and set your existing database as the primary. You wait until the two databases are in sync, and you then promote your MySQL replica database to be the primary. This process minimizes database downtime related to the database migration. - https://cloud.google.com/architecture/migrating-mysql-to-cloudsql-concept#external_replica_promotion_migration

NEW QUESTION 58
- (Topic 5)
You are working in a highly secured environment where public Internet access from the Compute Engine VMs is not allowed. You do not yet have a VPN connection to access an on-premises file server. You need to install specific software on a Compute Engine instance. How should you install the software?

A. Upload the required installation files to Cloud Storag
B. Configure the VM on a subnet with a Private Google Access subne
C. Assign only an internal IP address to the V
D. Download the installation files to the VM using gsutil.
E. Upload the required installation files to Cloud Storage and use firewall rules to block all traffic except the IP address range for Cloud Storag
F. Download the files to the VM using gsutil.
G. Upload the required installation files to Cloud Source Repositorie
H. Configure the VM on a subnet with a Private Google Access subne
I. Assign only an internal IP address to the V
J. Download the installation files to the VM using gcloud.
K. Upload the required installation files to Cloud Source Repositories and use firewall rules to block all traffic except the IP address range for Cloud Source Repositorie
L. Download the files to the VM using gsutil.

Answer: A

Explanation:
https://cloud.google.com/vpc/docs/private-access-options#pga-supported

NEW QUESTION 60
- (Topic 5)
You want to optimize the performance of an accurate, real-time, weather-charting application. The data comes from 50,000 sensors sending 10 readings a second, in the format of a timestamp and sensor reading. Where should you store the data?

A. Google BigQuery
B. Google Cloud SQL
C. Google Cloud Bigtable
D. Google Cloud Storage

Answer: C

Explanation:
It is time-series data, So Big Table. https://cloud.google.com/bigtable/docs/schema-design-time-series
Google Cloud Bigtable is a scalable, fully-managed NoSQL wide-column database that is suitable for both real-time access and analytics workloads.
Good for:
? Low-latency read/write access
? High-throughput analytics
? Native time series support
? Common workloads:
? IoT, finance, adtech
? Personalization, recommendations
? Monitoring
? Geospatial datasets
? Graphs
References: https://cloud.google.com/storage-options/

NEW QUESTION 62
- (Topic 5)
Your solution is producing performance bugs in production that you did not see in staging and test environments. You want to adjust your test and deployment procedures to avoid this problem in the future. What should you do?

A. Deploy fewer changes to production.
B. Deploy smaller changes to production.
C. Increase the load on your test and staging environments.
D. Deploy changes to a small subset of users before rolling out to production.

Answer: C

NEW QUESTION 66
- (Topic 5)
Your operations team currently stores 10 TB of data m an object storage service from a third-party provider. They want to move this data to a Cloud Storage bucket as quickly as possible, following Google-recommended practices. They want to minimize the cost of this data migration. When approach should they use?

A. Use the gsutil mv command lo move the data
B. Use the Storage Transfer Service to move the data
C. Download the data to a Transfer Appliance and ship it to Google
D. Download the data to the on-premises data center and upload it to the Cloud Storage bucket

Answer: B

Explanation:
https://cloud.google.com/architecture/migration-to-google-cloud-transferring-your-large-datasets#transfer-options
https://cloud.google.com/storage-transfer-service

NEW QUESTION 68
- (Topic 5)
Your organization has stored sensitive data in a Cloud Storage bucket. For regulatory reasons, your company must be able to rotate the encryption key used to encrypt the data in the bucket. The data will be processed in Dataproc. You want to follow Google- recommended practices for security What should you do?

A. Create a key with Cloud Key Management Service (KMS) Encrypt the data using the encrypt method of Cloud KMS.
B. Create a key with Cloud Key Management Service (KMS). Set the encryption key on the bucket to the Cloud KMS key.
C. Generate a GPG key pai
D. Encrypt the data using the GPG ke
E. Upload the encrypted data to the bucket.
F. Generate an AES-256 encryption ke
G. Encrypt the data in the bucket using the customer-supplied encryption keys feature.

Answer: AD

Explanation:
https://cloud.google.com/storage/docs/encryption/using-customer-managed-keys#add-object-key
https://cloud.google.com/storage/docs/encryption/using-customer-managed-keys

NEW QUESTION 70
- (Topic 5)
A lead software engineer tells you that his new application design uses websockets and HTTP sessions that are not distributed across the web servers. You want to help him ensure his application will run property on Google Cloud Platform. What should you do?

A. Help the engineer to convert his websocket code to use HTTP streaming.
B. Review the encryption requirements for websocket connections with the security team.
C. Meet with the cloud operations team and the engineer to discuss load balancer options.
D. Help the engineer redesign the application to use a distributed user session service that does not rely on websockets and HTTP sessions.

Answer: C

Explanation:
Google Cloud Platform (GCP) HTTP(S) load balancing provides global load balancing for HTTP(S) requests destined for your instances.
The HTTP(S) load balancer has native support for the WebSocket protocol.

NEW QUESTION 73
- (Topic 5)
You are deploying an application on App Engine that needs to integrate with an on- premises database. For security purposes, your on-premises database must not be accessible through the public Internet. What should you do?

A. Deploy your application on App Engine standard environment and use App Engine firewall rules to limit access to the open on-premises database.
B. Deploy your application on App Engine standard environment and use Cloud VPN to limit access to the onpremises database.
C. Deploy your application on App Engine flexible environment and use App Engine firewall rules to limit access to the on-premises database.
D. Deploy your application on App Engine flexible environment and use Cloud VPN to limit access to the on-premises database.

Answer: D

Explanation:
https://cloud.google.com/appengine/docs/flexible/python/using-third-party- databases

NEW QUESTION 75
- (Topic 5)
Your company has an application that is running on multiple instances of Compute Engine. It generates 1 TB per day of logs. For compliance reasons, the logs need to be kept for at least two years. The logs need to be available for active query for 30 days. After that, they just need to be retained for audit purposes. You want to implement a storage solution that is compliant, minimizes costs, and follows Google-recommended practices. What should you do?
A.
* 1. Install the Cloud Ops agent on all instances.
* 2. Create a sink to export logs into a partitioned BigQuery table.
* 3. Set a time_partitioning_expiration of 30 days.
B.
* 1. Install the Cloud Ops agent on all instances.
* 2. Create a sink to export logs into a regional Cloud Storage bucket.
* 3. Create an Object Lifecycle rule to move files into a Coldline Cloud Storage bucket after one month.
* 4. Configure a retention policy at the bucket level to create a lock.
C.
* 1. Create a daily cron job, running on all instances, that uploads logs into a partitioned BigQuery table.
* 2. Set a time_partitioning_expiration of 30 days.
D.
* 1. Write a daily cron job, running on all instances, that uploads logs into a Cloud Storage bucket.
* 2. Create a sink to export logs into a regional Cloud Storage bucket.
* 3. Create an Object Lifecycle rule to move files into a Coldline Cloud Storage bucket after one month.

A.

Answer: B

Explanation:
The practice for managing logs generated on Compute Engine on Google Cloud is to install the Cloud Logging agent and send them to Cloud Logging.
The sent logs will be aggregated into a Cloud Logging sink and exported to Cloud Storage. The reason for using Cloud Storage as the destination for the logs is that the requirement in question requires setting up a lifecycle based on the storage period.
In this case, the log will be used for active queries for 30 days after it is saved, but after that, it needs to be stored for a longer period of time for auditing purposes.
If the data is to be used for active queries, we can use BigQuery's Cloud Storage data query feature and move the data past 30 days to Coldline to build a cost-optimal solution.
Therefore, the correct answer is as follows
* 1. Install the Cloud Logging agent on all instances.
Create a sync that exports the logs to the region's Cloud Storage bucket.
* 3. Create an Object Lifecycle rule to move the files to the Coldline Cloud Storage bucket after one month. * 4.
* 4. set up a bucket-level retention policy using bucket locking."

NEW QUESTION 80
- (Topic 5)
All compute Engine instances in your VPC should be able to connect to an Active Directory server on specific ports. Any other traffic emerging from your instances is not allowed. You want to enforce this using VPC firewall rules.
How should you configure the firewall rules?

A. Create an egress rule with priority 1000 to deny all traffic for all instance
B. Create another egress rule with priority 100 to allow the Active Directory traffic for all instances.
C. Create an egress rule with priority 100 to deny all traffic for all instance
D. Create another egress rule with priority 1000 to allow the Active Directory traffic for all instances.
E. Create an egress rule with priority 1000 to allow the Active Directory traffi
F. Rely on the implied denyegress rule with priority 100 to block all traffic for all instances.
G. Create an egress rule with priority 100 to allow the Active Directory traffi
H. Rely on the implied deny egress rule with priority 1000 to block all traffic for all instances.

Answer: B

Explanation:
https://cloud.google.com/vpc/docs/firewalls

NEW QUESTION 84
- (Topic 5)
Your company creates rendering software which users can download from the company website. Your
company has customers all over the world. You want to minimize latency for all your customers. You want to follow Google-recommended practices.
How should you store the files?

A. Save the files in a Multi-Regional Cloud Storage bucket.
B. Save the files in a Regional Cloud Storage bucket, one bucket per zone of the region.
C. Save the files in multiple Regional Cloud Storage buckets, one bucket per zone per region.
D. Save the files in multiple Multi-Regional Cloud Storage buckets, one bucket per multi- region.

Answer: A

Explanation:
https://cloud.google.com/storage/docs/locations#location-mr

NEW QUESTION 89
- (Topic 5)
Your company operates nationally and plans to use GCP for multiple batch workloads, including some that are not time-critical. You also need to use GCP services that are HIPAA-certified and manage service costs.
How should you design to meet Google best practices?

A. Provisioning preemptible VMs to reduce cos
B. Discontinue use of all GCP services and APIs that are not HIPAA-compliant.
C. Provisioning preemptible VMs to reduce cos
D. Disable and then discontinue use of all GCP and APIs that are not HIPAA-compliant.
E. Provision standard VMs in the same region to reduce cos
F. Discontinue use of all GCPservices and APIs that are not HIPAA-compliant.
G. Provision standard VMs to the same region to reduce cos
H. Disable and then discontinue use of all GCP services and APIs that are not HIPAA-compliant.

Answer: B

Explanation:
https://cloud.google.com/security/compliance/hipaa/

NEW QUESTION 94
- (Topic 5)
You are deploying an application to Google Cloud. The application is part of a system. The application in Google Cloud must communicate over a private network with applications in a non-Google Cloud environment. The expected average throughput is 200 kbps. The business requires:
• 99.99% system availability
• cost optimization
You need to design the connectivity between the locations to meet the business requirements. What should you provision?

A. A Classic Cloud VPN gateway connected with one tunnel to an on-premises VPN gateway.
B. A Classic Cloud VPN gateway connected with two tunnels to an on-premises VPN gateway.
C. An HA Cloud VPN gateway connected with two tunnels to an on-premises VPN gateway.
D. Two HA Cloud VPN gateways connected to two on-premises VPN gateway
E. Configure each HA CloudVPN gateway to have two tunnels, each connected to different on-premises VPN gateways.

Answer: C

Explanation:
https://cloud.google.com/network-connectivity/docs/vpn/concepts/topologies#configurations_that_support_9999_availability

NEW QUESTION 98
- (Topic 5)
Your team will start developing a new application using microservices architecture on Kubernetes Engine. As part of the development lifecycle, any code change that has been pushed to the remote develop branch on your GitHub repository should be built and tested automatically. When the build and test are successful, the relevant microservice will be deployed automatically in the development environment. You want to ensure that all code deployed in the development environment follows this process. What should you do?

A. Have each developer install a pre-commit hook on their workstation that tests the code and builds the container when committing on the development branc
B. After a successful commit, have the developer deploy the newly built container image on the development cluster.
C. Install a post-commit hook on the remote git repository that tests the code and builds the container when code is pushed to the development branc
D. After a successful commit, have the developer deploy the newly built container image on the development cluster.
E. Create a Cloud Build trigger based on the development branch that tests the code, builds the container, and stores it in Container Registr
F. Create a deployment pipeline that watches for new images and deploys the new image on the development cluste
G. Ensure only the deployment tool has access to deploy new versions.
H. Create a Cloud Build trigger based on the development branch to build a new container image and store it in Container Registr
I. Rely on Vulnerability Scanning to ensure the code tests succee
J. As the final step of the Cloud Build process, deploy the new container image on the development cluste
K. Ensure only Cloud Build has access to deploy new versions.

Answer: C

Explanation:
https://cloud.google.com/container-registry/docs/overview
Create a Cloud Build trigger based on the development branch that tests the code, builds the container, and stores it in Container Registry. Create a deployment pipeline that watches for new images and deploys the new image on the development cluster. Ensure only the deployment tool has access to deploy new versions.

NEW QUESTION 102
- (Topic 5)
You have deployed an application to Kubernetes Engine, and are using the Cloud SQL proxy container to make the Cloud SQL database available to the services running on Kubernetes. You are notified that the application is reporting database connection issues. Your company policies require a post- mortem. What should you do?

A. Use gcloud sql instances restart.
B. Validate that the Service Account used by the Cloud SQL proxy container still has the Cloud Build Editor role.
C. In the GCP Console, navigate to Stackdriver Loggin
D. Consult logs for Kubernetes Engine and Cloud SQL.
E. In the GCP Console, navigate to Cloud SQ
F. Restore the latest backu
G. Use kubect1 to restart all pods.

Answer: C

NEW QUESTION 104
- (Topic 5)
Your company and one of its partners each nave a Google Cloud protect in separate organizations. Your company s protect (prj-a) runs in Virtual Private Cloud (vpc-a). The partner's project (prj-b) runs in vpc-b. There are two instances running on vpc-a and one instance running on vpc-b Subnets denned in both VPCs are not overlapping. You need to ensure that all instances communicate with each other via internal IPs minimizing latency and maximizing throughput. What should you do?

A. Set up a network peering between vpc-a and vpc-b
B. Set up a VPN between vpc-a and vpc-b using Cloud VPN
C. Configure IAP TCP forwarding on the instance in vpc b and then launch the following gcloud command from one of the instance in vpc-gcloud:
```
gcloud compute start-iap-tunnel INSTANCE_NAME_IN_VPC_B 22 \
--local-host-port=localhost:22
```
* 1. Create an additional instance in vpc-a* 2. Create an additional instance n vpc-b* 3. Instal OpenVPN in newly created instances* 4. Configure a VPN tunnel between vpc-a and vpc-b with the help of OpenVPN

Answer: C

NEW QUESTION 105
- (Topic 5)
Your company is building a new architecture to support its data-centric business focus. You are responsible for setting up the network. Your company’s mobile and web-facing applications will be deployed on-premises, and all data analysis will be conducted in GCP. The plan is to process and load 7 years of archived .csv files totaling 900 TB of data and then continue loading 10 TB of data daily. You currently have an existing 100-MB internet connection.
What actions will meet your company’s needs?

A. Compress and upload both achieved files and files uploaded daily using the qsutil –m option.
B. Lease a Transfer Appliance, upload archived files to it, and send it, and send it to Google to transferarchived data to Cloud Storag
C. Establish a connection with Google using a Dedicated Interconnect orDirect Peering connection and use it to upload files daily.
D. Lease a Transfer Appliance, upload archived files to it, and send it, and send it to Google to transferarchived data to Cloud Storag
E. Establish one Cloud VPN Tunnel to VPC networks over the public internet, and compares and upload files daily using the gsutil –m option.
F. Lease a Transfer Appliance, upload archived files to it, and send it to Google to transfer archived data to Cloud Storag
G. Establish a Cloud VPN Tunnel to VPC networks over the public internet, and compress and upload files daily.

Answer: B

Explanation:
https://cloud.google.com/interconnect/docs/how-to/direct-peering

NEW QUESTION 109
- (Topic 5)
Your company is running a stateless application on a Compute Engine instance. The application is used heavily during regular business hours and lightly outside of business hours. Users are reporting that the application is slow during peak hours. You need to optimize the application’s performance. What should you do?

A. Create a snapshot of the existing dis
B. Create an instance template from the snapshot.Create anautoscaled managed instance group from the instance template.
C. Create a snapshot of the existing dis
D. Create a custom image from the snapsho
E. Create an autoscaled managed instance group from the custom image.
F. Create a custom image from the existing dis
G. Create an instance template from the custom imag
H. Create an autoscaled managed instance group from the instance template.
I. Create an instance template from the existing dis
J. Create a custom image from the instance template.Create an autoscaled managed instance group from the custom image.

Answer: B

Explanation:
https://cloud.google.com/compute/docs/instance-templates/create-instance- templates

NEW QUESTION 110
- (Topic 5)
You are working at a financial institution that stores mortgage loan approval documents on Cloud Storage. Any change to these approval documents must be uploaded as a separate approval file, so you want to ensure that these documents cannot be deleted or overwritten for the next 5 years. What should you do?

A. Create a retention policy on the bucket for the duration of 5 year
B. Create a lock on the retention policy.
C. Create the bucket with uniform bucket-level access, and grant a service account the role of Object Write
D. Use the service account to upload new files.
E. Use a customer-managed key for the encryption of the bucke
F. Rotate the key after 5 years.
G. Create the bucket with fine-grained access control, and grant a service account the role of Object Write
H. Use the service account to upload new files.

Answer: A

Explanation:
Reference: https://cloud.google.com/storage/docs/using-bucket-lock

NEW QUESTION 111
- (Topic 5)
An application development team has come to you for advice.They are planning to write and deploy an HTTP(S) API using Go 1.12. The API will have a very unpredictable workload and must remain reliable during peaks in traffic. They want to minimize operational overhead for this application. What approach should you recommend?

A. Use a Managed Instance Group when deploying to Compute Engine
B. Develop an application with containers, and deploy to Google Kubernetes Engine (GKE)
C. Develop the application for App Engine standard environment
D. Develop the application for App Engine Flexible environment using a custom runtime

Answer: C

Explanation:
https://cloud.google.com/appengine/docs/the-appengine-environments

NEW QUESTION 114
- (Topic 5)
You are designing an application for use only during business hours. For the minimum viable product release, you'd like to use a managed product that automatically "scales to zero" so you don't incur costs when there is no activity.
Which primary compute resource should you choose?

A. Cloud Functions
B. Compute Engine
C. Kubernetes Engine
D. AppEngine flexible environment

Answer: A

Explanation:
https://cloud.google.com/serverless-options

NEW QUESTION 118
- (Topic 5)
A small number of API requests to your microservices-based application take a very long time. You know that each request to the API can traverse many services. You want to know which service takes the longest in those cases. What should you do?

A. Set timeouts on your application so that you can fail requests faster.
B. Send custom metrics for each of your requests to Stackdriver Monitoring.
C. Use Stackdriver Monitoring to look for insights that show when your API latencies are high.
D. Instrument your application with Stackdnver Trace in order to break down the request latencies at each microservice.

Answer: D

Explanation:
https://cloud.google.com/trace/docs/overview

NEW QUESTION 119
- (Topic 5)
You have been asked to select the storage system for the click-data of your company's large portfolio of websites. This data is streamed in from a custom website analytics package at a typical rate of 6,000 clicks per minute, with bursts of up to 8,500 clicks per second. It must been stored for future analysis by your data science and user experience teams. Which storage infrastructure should you choose?

A. Google Cloud SQL
B. Google Cloud Bigtable
C. Google Cloud Storage
D. Google cloud Datastore

Answer:

C

Explanation:
https://cloud.google.com/bigquery/docs/loading-data-cloud-storage

NEW QUESTION 121
- (Topic 5)
For this question, refer to the TerramEarth case study. You are building a microservice- based application for TerramEarth. The application is based on Docker containers. You want to follow Google-recommended practices to build the application continuously and store the build artifacts. What should you do?
A.
* 1. Configure a trigger in Cloud Build for new source changes.
* 2. Invoke Cloud Build to build one container image, and tag the image with the label 'latest.'
* 3. Push the image to the Artifact Registry.
B.
* 1. Configure a trigger in Cloud Build for new source changes.
* 2. Invoke Cloud Build to build container images for each microservice, and tag them using the code commit hash.
* 3. Push the images to the Artifact Registry.
C.
* 1 Create a Scheduler job to check the repo every minute.
* 2. For any new change, invoke Cloud Build to build container images for the microservices.
* 3. Tag the images using the current timestamp, and push them to the Artifact Registry.
D.
* 1. Configure a trigger in Cloud Build for new source changes.
* 2. The trigger invokes build jobs and build container images for the microservices.
* 3. Tag the images with a version number, and push them to Cloud Storage.

A.

Answer: C

NEW QUESTION 124
- (Topic 5)
Your company plans to migrate a multi-petabyte data set to the cloud. The data set must be available 24hrs a day. Your business analysts have experience only with using a SQL interface. How should you store the data to optimize it for ease of analysis?

A. Load data into Google BigQuery.
B. Insert data into Google Cloud SQL.
C. Put flat files into Google Cloud Storage.
D. Stream data into Google Cloud Datastore.

Answer: A

Explanation:
Google Big Query is for multi peta byte storage , HA(High availability) which means 24 hours, SQL interface .
https://medium.com/google-cloud/the-12-components-of-google-bigquery-c2b49829a7c7 https://cloud.google.com/solutions/bigquery-data-warehouse https://cloud.google.com/bigquery/
BigQuery is Google's serverless, highly scalable, low cost enterprise data warehouse designed to make all your data analysts productive. Because there is no infrastructure to manage, you can focus on analyzing data to find meaningful insights using familiar SQL and you don't need a database administrator.
BigQuery enables you to analyze all your data by creating a logical data warehouse over managed, columnar storage as well as data from object storage, and spreadsheets.
References: https://cloud.google.com/bigquery/

NEW QUESTION 125
- (Topic 5)
You want to automate the creation of a managed instance group and a startup script to install the OS package dependencies. You want to minimize the startup time for VMs in the instance group.
What should you do?

A. Use Terraform to create the managed instance group and a startup script to install the OS packagedependencies.
B. Create a custom VM image with all OS package dependencie
C. Use Deployment Manager to create the managed instance group with the VM image.
D. Use Puppet to create the managed instance group and install the OS package dependencies.
E. Use Deployment Manager to create the managed instance group and Ansible to install the OS package dependencies.

Answer: B

Explanation:
"Custom images are more deterministic and start more quickly than instances with startup scripts. However, startup scripts are more flexible and let you update the apps and settings in your instances more easily." https://cloud.google.com/compute/docs/instance- templates/create-instance-templates#using_custom_or_public_images_in_your_instance_templates

NEW QUESTION 130
- (Topic 5)
A news teed web service has the following code running on Google App Engine. During peak load, users report that they can see news articles they already viewed. What is the most likely cause of this problem?

```
import news
from flask import Flask, redirect, request
from flask.ext.api import status
from google.appengine.api import users

app = Flask(_name_)
sessions = {}

@app.route("/")
def homepage():
      user = users.get_current_user()
      if not user:
            return "Invalid login",
status.HTTP_401_UNAUTHORIZED

      if user not in sessions:
            sessions[user] = {"viewed": []}

      news_articles = news.get_new_news (user, sessions [user]
["viewed"])
      sessions [user] ["viewed"] +- [n["id"] for n
in news_articles]
      return news.render(news_articles)

if _name_ == "_main_":
      app.run()
```

A. The session variable is local to just a single instance.
B. The session variable is being overwritten in Cloud Datastore.
C. The URL of the API needs to be modified to prevent caching.
D. The HTTP Expires header needs to be set to -1 to stop caching.

Answer: A

Explanation:
https://stackoverflow.com/questions/3164280/google-app-engine-cache-list-in-session-variable?rq=1

NEW QUESTION 131
- (Topic 5)
You need to deploy an application on Google Cloud that must run on a Debian Linux environment. The application requires extensive configuration in order to operate correctly. You want to ensure that you can install Debian distribution updates with minimal manual intervention whenever they become available. What should you do?

A. Create a Compute Engine instance template using the most recent Debian imag
B. Create an instance from this template, and install and configure the application as part of the startup scrip
C. Repeat this process whenever a new Google-managed Debian image becomes available.
D. Create a Debian-based Compute Engine instance, install and configure the application, and use OS patch management to install available updates.
E. Create an instance with the latest available Debian imag
F. Connect to the instance via SSH, and install and configure the application on the instanc
G. Repeat this process whenever a new Google-managed Debian image becomes available.
H. Create a Docker container with Debian as the base imag
I. Install and configure the application as part of the Docker image creation proces
J. Host the container on Google Kubernetes Engine and restart the container whenever a new update is available.

Answer: B

Explanation:
Reference: https://cloud.google.com/compute/docs/os-patch-management

NEW QUESTION 133
- (Topic 5)
Your company wants to start using Google Cloud resources but wants to retain their on- premises Active Directory domain controller for identity management. What should you do?

A. Use the Admin Directory API to authenticate against the Active Directory domain controller.
B. Use Google Cloud Directory Sync to synchronize Active Directory usernames with cloud identities andconfigure SAML SSO.
C. Use Cloud Identity-Aware Proxy configured to use the on-premises Active Directory domain controller as an identity provider.
D. Use Compute Engine to create an Active Directory (AD) domain controller that is a replica of the onpremises AD domain controller using Google Cloud Directory Sync.

Answer: B

Explanation:
https://cloud.google.com/solutions/federating-gcp-with-active-directory-introduction#implementing_federation

NEW QUESTION 137
- (Topic 5)
You need to develop procedures to verify resilience of disaster recovery for remote recovery using GCP. Your production environment is hosted on-premises. You need to establish a secure, redundant connection between your on premises network and the GCP network.
What should you do?

A. Verify that Dedicated Interconnect can replicate files to GC
B. Verify that direct peering can establish asecure connection between your networks if Dedicated Interconnect fails.
C. Verify that Dedicated Interconnect can replicate files to GC
D. Verify that Cloud VPN can establish a secure connection between your networks if Dedicated Interconnect fails.
E. Verify that the Transfer Appliance can replicate files to GC
F. Verify that direct peering can establish asecure connection between your networks if the Transfer Appliance fails.
G. Verify that the Transfer Appliance can replicate files to GC
H. Verify that Cloud VPN can establish a secure connection between your networks if the Transfer Appliance fails.

Answer: B

Explanation:
https://cloud.google.com/interconnect/docs/how-to/direct-peering

NEW QUESTION 140
- (Topic 5)
You write a Python script to connect to Google BigQuery from a Google Compute Engine virtual machine. The script is printing errors that it cannot connect to BigQuery. What should you do to fix the script?

A. Install the latest BigQuery API client library for Python
B. Run your script on a new virtual machine with the BigQuery access scope enabled
C. Create a new service account with BigQuery access and execute your script with that user
D. Install the bq component for gccloud with the command gcloud components install bq.

Answer: B

Explanation:
The error is most like caused by the access scope issue. When create new instance, you have the default Compute engine default service account but most serves access including BigQuery is not enable. Create an instance Most access are not enabled by default You have default service account but don't have the permission (scope) you can stop the instance, edit, change scope and restart it to enable the scope access. Of course, if you Run your script on a new virtual machine with the BigQuery access scope enabled, it also works
https://cloud.google.com/compute/docs/access/service-accounts

NEW QUESTION 145
- (Topic 5)
Your company has an enterprise application running on Compute Engine that requires high availability and high performance. The application has been deployed on two instances in two zones in the same region m active passive mode. The application writes data to a persistent disk in the case of a single zone outage that data should be immediately made available to the other instance in the other zone. You want to maximize performance while minimizing downtime and data loss.
What should you do?
A.
* 1. Attach a persistent SSD disk to the first instance
* 2. Create a snapshot every hour
* 3. In case of a zone outage, recreate a persistent SSD disk in the second instance where data is coming from the created snapshot
B.
* 1 Create a Cloud Storage bucket
* 2. Mount the bucket into the first instance with gcs-fuse
* 3. In case of a zone outage, mount the Cloud Storage bucket to the second instance with gcs-fuse
C.
* 1 Attach a local SSD lo the first instance disk
* 2. Execute an rsync command every hour where the target is a persistent SSD disk attached to the second instance
* 3. In case of a zone outage, use the second instance
D.
* 1. Attach a regional SSD persistent Ask to the first instance
* 2. In case of a zone outage, force-attach the disk to the other instance

A.

Answer: D

NEW QUESTION 146
- (Topic 5)
You team needs to create a Google Kubernetes Engine (GKE) cluster to host a newly built application that requires access to third-party services on the internet. Your company does not allow any Compute Engine instance to have a public IP address on Google Cloud. You need to create a deployment strategy that adheres to these guidelines. What should you do?

A. Create a Compute Engine instance, and install a NAT Proxy on the instanc
B. Configure all workloads on GKE to pass through this proxy to access third-party services on the Internet
C. Configure the GKE cluster as a private cluster, and configure Cloud NAT Gateway for the cluster subnet
D. Configure the GKE cluster as a route-based cluste
E. Configure Private Google Access on the Virtual Private Cloud (VPC)
F. Configure the GKE cluster as a private cluste
G. Configure Private Google Access on the Virtual Private Cloud (VPC)

Answer: B

Explanation:
A Cloud NAT gateway can perform NAT for nodes and Pods in a private cluster, which is a type of VPC-native cluster. The Cloud NAT gateway must be configured to apply to at least the following subnet IP address ranges for the subnet that your cluster uses:
Subnet primary IP address range (used by nodes)
Subnet secondary IP address range used for Pods in the cluster Subnet secondary IP address range used for Services in the cluster
The simplest way to provide NAT for an entire private cluster is to configure a Cloud NAT gateway to apply to all of the cluster's subnet's IP address ranges.
https://cloud.google.com/nat/docs/overview

NEW QUESTION 147
- (Topic 5)
Your company has multiple on-premises systems that serve as sources for reporting. The data has not been maintained well and has become degraded over time. You want to use Google-recommended practices to detect anomalies in your company data. What should you do?

A. Upload your files into Cloud Storag
B. Use Cloud Datalab to explore and clean your data.
C. Upload your files into Cloud Storag
D. Use Cloud Dataprep to explore and clean your data.
E. Connect Cloud Datalab to your on-premises system
F. Use Cloud Datalab to explore and clean your data.
G. Connect Cloud Dataprep to your on-premises system
H. Use Cloud Dataprep to exploreand clean your data.

Answer: B

Explanation:
https://cloud.google.com/dataprep/

NEW QUESTION 149
- (Topic 5)
You are managing several internal applications that are deployed on Compute Engine. Business users inform you that an application has become very slow over the past few days. You want to find the underlying cause in order to solve the problem. What should you do first?

A. Inspect the logs and metrics from the instances in Cloud Logging and Cloud Monitoring.
B. Restore a backup of the application database from a time before the application became slow.
C. Deploy the applications on a managed instance group with autoscaling enable
D. Add aload balancer in front of the managed instance group, and have the users connect to the IP of the load balancer.
E. Change the Compute Engine Instances behind the application to a machine type with more CPU and memory.

Answer: A

Explanation:
When an application becomes slow, the first step you should take is to gather information about the underlying cause of the problem. One way to do this is by inspecting the logs and metrics from the instances where the application is deployed. Google Cloud Platform (GCP) provides tools such as Cloud Logging and Cloud Monitoring that can help you to collect and analyze this information. By reviewing the logs and metrics from the instances, you may be able to identify issues such as resource shortages (e.g. CPU, memory, or disk), network problems, or application errors that are causing the performance issues. Once you have identified the underlying cause of the problem, you can take steps to resolve it.

NEW QUESTION 153
- (Topic 5)
Your company has an application running on App Engine that allows users to upload music files and share them with other people. You want to allow users to upload files directly into Cloud Storage from their browser session. The payload should not be passed through the backend. What should you do?
A.
* 1. Set a CORS configuration in the target Cloud Storage bucket where the base URL of the App Engine application is an allowed origin.
* 2. Use the Cloud Storage Signed URL feature to generate a POST URL.
B.
* 1. Set a CORS configuration in the target Cloud Storage bucket where the base URL of the App Engine application is an allowed origin.
* 2. Assign the Cloud Storage WRITER role to users who upload files.
C.
* 1. Use the Cloud Storage Signed URL feature to generate a POST URL.
* 2. Use App Engine default credentials to sign requests against Cloud Storage.
D.
* 1. Assign the Cloud Storage WRITER role to users who upload files.
* 2. Use App Engine default credentials to sign requests against Cloud Storage.

A.

Answer: B

NEW QUESTION 157
- (Topic 5)
Your company has an application running on a deployment in a GKE cluster. You have a separate cluster for development, staging and production. You have discovered that the team is able to deploy a Docker image to the production cluster without first testing the deployment in development and then staging. You want to allow the team to have autonomy but want to prevent this from happening. You want a Google Cloud solution that can be implemented quickly with minimal effort. What should you do?

A. Create a Kubernetes admission controller to prevent the container from starting if it is not approved for usage in the given environment
B. Configure a Kubernetes lifecycle hook to prevent the container from starting if it is not approved for usage in the given environment
C. Implement a corporate policy to prevent teams from deploying Docker image to an environment unless the Docker image was tested in an earlier environment
D. Configure the binary authorization policies for the development, staging and production cluster
E. Create attestations as part of the continuous integration pipeline"

Answer: D

Explanation:
https://cloud.google.com/architecture/prep-kubernetes-engine-for- prod#binary-authorization
The most common Binary Authorization use cases involve attestations. An attestation certifies that a specific image has completed a previous stage, as described previously. You configure the Binary Authorization policy to verify the attestation before allowing the image to be deployed. At deploy time, instead of redoing activities that were completed in earlier stages, Binary Authorization only needs to verify the attestation. https://cloud.google.com/binary-authorization/docs/overview

NEW QUESTION 161
- (Topic 5)
Your company places a high value on being responsive and meeting customer needs quickly. Their primary business objectives are release speed and agility. You want to reduce the chance of security errors being accidentally introduced. Which two actions can you take? Choose 2 answers

A. Ensure every code check-in is peer reviewed by a security SME.
B. Use source code security analyzers as part of the CI/CD pipeline.
C. Ensure you have stubs to unit test all interfaces between components.
D. Enable code signing and a trusted binary repository integrated with your CI/CD pipeline.
E. Run a vulnerability security scanner as part of your continuous-integration /continuous- delivery (CI/CD) pipeline.

Answer: BE

Explanation:
https://docs.microsoft.com/en-us/vsts/articles/security-validation-cicd-pipeline?view=vsts

NEW QUESTION 165
- (Topic 5)
You are working at an institution that processes medical data. You are migrating several workloads onto Google Cloud. Company policies require all workloads to run on physically separated hardware, and workloads from different clients must also be separated You created a sole-tenant node group and added a node for each client. You need to deploy the workloads on these dedicated hosts. What should you do?

A. Add the node group name as a network tag when creating Compute Engine instances in order to host each workload on the correct node group.
B. Add the node name as a network tag when creating Compute Engine instances in order to host each workload on the correct node.
C. Use node affinity labels based on the node group name when creating Compute Engine instances in order to host each workload on the correct node group
D. Use node affinity labels based on the node name when creating Compute Engine instances in order to host each workload on the correct node.

Answer: C

Explanation:
https://cloud.google.com/compute/docs/nodes/provisioning-sole-tenant-vms#provision_a_sole-tenant_vm
https://cloud.google.com/compute/docs/nodes/provisioning-sole-tenant-vms#gcloud_2 When you create a VM, you request sole-tenancy by specifying node affinity or anti-affinity, referencing one or more node affinity labels. You specify custom node affinity labels when you create a node template, and Compute Engine automatically includes some default affinity labels on each node. By specifying affinity when you create a VM, you can schedule VMs together on a specific node or nodes in a node group. By specifying anti-affinity when you create a VM, you can ensure that certain VMs are not scheduled together on the same node or nodes in a node group.

NEW QUESTION 167
- (Topic 5)
Your company is designing its application landscape on Compute Engine. Whenever a
zonal outage occurs, the application should be restored in another zone as quickly as possible with the latest application data. You need to design the solution to meet this requirement. What should you do?

A. Create a snapshot schedule for the disk containing the application dat
B. Whenever a zonal outage occurs, use the latest snapshot to restore the disk in the same zone.
C. Configure the Compute Engine instances with an instance template for the application, and use a regional persistent disk for the application dat
D. Whenever a zonal outage occurs, use the instance template to spin up the application in another zone in the same regio
E. Use the regional persistent disk for the application data.
F. Create a snapshot schedule for the disk containing the application dat
G. Whenever a zonal outage occurs, use the latest snapshot to restore the disk in another zone within the same region.
H. Configure the Compute Engine instances with an instance template for the application, and use a regional persistent disk for the application dat
I. Whenever a zonal outage occurs, use the instance template to spin up the application in another regio
J. Use the regional persistent disk for the application data,

Answer: B

Explanation:
Regional persistent disk is a storage option that provides synchronous replication of data between two zones in a region. Regional persistent disks can be a good building block to use when you implement HA services in Compute Engine. https://cloud.google.com/compute/docs/disks/high-availability-regional-persistent-disk

NEW QUESTION 172
- (Topic 5)
Your company wants to try out the cloud with low risk. They want to archive approximately 100 TB of their log data to the cloud and test the analytics features available to them there, while also retaining that data as a long-term disaster recovery backup. Which two steps should they take? Choose 2 answers

A. Load logs into Google BigQuery.
B. Load logs into Google Cloud SQL.
C. Import logs into Google Stackdriver.
D. Insert logs into Google Cloud Bigtable.
E. Upload log files into Google Cloud Storage.

Answer: AE

NEW QUESTION 173
- (Topic 5)
Your customer wants to capture multiple GBs of aggregate real-time key performance indicators (KPIs) from their game servers running on Google Cloud Platform and monitor the KPIs with low latency. How should they capture the KPIs?

A. Store time-series data from the game servers in Google Bigtable, and view it using Google Data Studio.
B. Output custom metrics to Stackdriver from the game servers, and create a Dashboard in StackdriverMonitoring Console to view them.
C. Schedule BigQuery load jobs to ingest analytics files uploaded to Cloud Storage every ten minutes, and visualize the results in Google Data Studio.
D. Insert the KPIs into Cloud Datastore entities, and run ad hoc analysis and visualizations of them in Cloud Datalab.

Answer: A

Explanation:
https://cloud.google.com/monitoring/api/v3/metrics-details#metric-kinds

NEW QUESTION 176
- (Topic 5)
You want to enable your running Google Kubernetes Engine cluster to scale as demand for your application changes.
What should you do?

A. Add additional nodes to your Kubernetes Engine cluster using the following command:gcloud container clusters resizeCLUSTER_Name – -size 10
B. Add a tag to the instances in the cluster with the following command:gcloud compute instances add-tagsINSTANCE - -tags enable-autoscaling max-nodes-10
C. Update the existing Kubernetes Engine cluster with the following command:gcloud alpha container clustersupdate mycluster - -enable-autoscaling - -min-nodes=1 - -max-nodes=10
D. Create a new Kubernetes Engine cluster with the following command:gcloud alpha container clusterscreate mycluster - -enable-autoscaling - -min-nodes=1 - -max- nodes=10and redeploy your application

Answer: C

Explanation:
https://cloud.google.com/kubernetes-engine/docs/concepts/cluster-autoscaler To enable autoscaling for an existing node pool, run the following command:
gcloud container clusters update [CLUSTER_NAME] --enable-autoscaling \--min-nodes 1 -- max-nodes 10 --zone [COMPUTE_ZONE] --node-pool default-pool

NEW QUESTION 178
- (Topic 5)
You are monitoring Google Kubernetes Engine (GKE) clusters in a Cloud Monitoring workspace. As a Site Reliability Engineer (SRE), you need to triage incidents quickly. What should you do?

A. Navigate the predefined dashboards in the Cloud Monitoring workspace, and then add metrics and create alert policies.
B. Navigate the predefined dashboards in the Cloud Monitoring workspace, create custom metrics, and install alerting software on a Compute Engine instance.
C. Write a shell script that gathers metrics from GKE nodes, publish these metrics to a Pub/Sub topic, export the data to BigQuery, and make a Data Studio dashboard.
D. Create a custom dashboard in the Cloud Monitoring workspace for each incident, and then add metrics and create alert policies.

Answer: A

Explanation:
https://cloud.google.com/stackdriver/docs/solutions/gke/legacy-stackdriver/monitoring

NEW QUESTION 180
- (Topic 5)
A production database virtual machine on Google Compute Engine has an ext4-formatted persistent disk for data files The database is about to run out of storage space How can you remediate the problem with the least amount of downtime?

A. In the Cloud Platform Console, increase the size of the persistent disk and use the resize2fs command in Linux.
B. Shut down the virtual machine, use the Cloud Platform Console to increase the persistent disk size, then restart the virtual machine.
C. In the Cloud Platform Console, increase the size of the persistent disk and verify the new space is ready to use with the fdisk command in Linux.
D. In the Cloud Platform Console, create a new persistent disk attached to the virtual machine, format and mount it, and configure the database service to move the files to the new disk.
E. In the Cloud Platform Console, create a snapshot of the persistent disk, restore the snapshot to a new larger disk, unmount the old disk, mount the new disk, and restart the database service.

Answer: A

Explanation:
On Linux instances, connect to your instance and manually resize your partitions and file systems to use the additional disk space that you added.
Extend the file system on the disk or the partition to use the added space. If you grew a partition on your disk, specify the partition. If your disk does not have a partition table, specify only the disk ID.
sudo resize2fs /dev/[DISK_ID][PARTITION_NUMBER]
where [DISK_ID] is the device name and [PARTITION_NUMBER] is the partition number for the device where you are resizing the file system.
References: https://cloud.google.com/compute/docs/disks/add-persistent-disk

NEW QUESTION 183
- (Topic 5)
Your company provides a recommendation engine for retail customers. You are providing retail customers with an API where they can submit a user ID and the API returns a list of recommendations for that user. You are responsible for the API lifecycle and want to ensure stability for your customers in case the API makes backward-incompatible changes. You want to follow Google-recommended practices. What should you do?

A. Create a distribution list of all customers to inform them of an upcoming backward- incompatible change at least one month before replacing the old API with the new API.
B. Create an automated process to generate API documentation, and update the public API documentation as part of the CI/CD process when deploying an update to the API.
C. Use a versioning strategy for the APIs that increases the version number on every backward-incompatible change.
D. Use a versioning strategy for the APIs that adds the suffix “DEPRECATED” to the current API version number on every backward-incompatible chang
E. Use the current version number for the new API.

Answer: C

Explanation:
https://cloud.google.com/apis/design/versioning
All Google API interfaces must provide a major version number, which is encoded at the end of the protobuf package, and included as the first part of the URI path for REST APIs. If an API introduces a breaking change, such as removing or renaming a field, it must increment its API version number to ensure that existing user code does not suddenly break.

NEW QUESTION 187
- (Topic 5)
You have an application that makes HTTP requests to Cloud Storage. Occasionally the requests fail with
HTTP status codes of 5xx and 429.
How should you handle these types of errors?

A. Use gRPC instead of HTTP for better performance.
B. Implement retry logic using a truncated exponential backoff strategy.
C. Make sure the Cloud Storage bucket is multi-regional for geo-redundancy.
D. Monitor https://status.cloud.google.com/feed.atom and only make requests if Cloud Storage is not reportingan incident.

Answer: A

Explanation:
Reference https://cloud.google.com/storage/docs/json_api/v1/status-codes

NEW QUESTION 189
- (Topic 5)
Your company's user-feedback portal comprises a standard LAMP stack replicated across two zones. It is deployed in the us-central1 region and uses autoscaled managed instance groups on all layers, except the database. Currently, only a small group of select customers have access to the portal. The portal meets a 99.99% availability SLA under these conditions However next quarter, your company will be making the portal available to all users, including unauthenticated users. You need to develop a resiliency testing strategy to ensure the system maintains the SLA once they introduce additional user load. What should you do?

A. Capture existing users input, and replay captured user load until autoscale is triggered on all layer
B. At the same time, terminate all resources in one of the zones.
C. Create synthetic random user input, replay synthetic load until autoscale logic is triggered on at least one layer, and introduce "chaos" to the system by terminating random resources on both zones.
D. Expose the new system to a larger group of users, and increase group ' size each day until autoscale logic is tnggered on all layer
E. At the same time, terminate random resources on both zones.
F. Capture existing users input, and replay captured user load until resource utilization crosses 80%. Also, derive estimated number of users based on existing users usage of the app, and deploy enough resources to handle 200% of expected load.

Answer: A

NEW QUESTION 193
- (Topic 5)
During a high traffic portion of the day, one of your relational databases crashes, but the replica is never promoted to a master. You want to avoid this in the future. What should you do?

A. Use a different database.
B. Choose larger instances for your database.
C. Create snapshots of your database more regularly.
D. Implement routinely scheduled failovers of your databases.

Answer: D

Explanation:
https://cloud.google.com/solutions/dr-scenarios-planning-guide

NEW QUESTION 196
- (Topic 5)
The operations team in your company wants to save Cloud VPN log events (or one year You need to configure the cloud infrastructure to save the logs What should you do?

A. Set up a filter in Cloud Logging and a topic in Pub/Sub to publish the logs
B. Set up a Cloud Logging Dashboard titled Cloud VPN Logs, and then add a chart that queries for the VPN metrics over a one-year time period

C. Enable the Compute Engine API and then enable logging on the firewall rules that match the traffic you want to save
D. Set up a filter in Cloud Logging and a Cloud Storage bucket as an export target for the logs you want to save

Answer: D

NEW QUESTION 199
- (Topic 5)
Your company is using BigQuery as its enterprise data warehouse. Data is distributed over several Google Cloud projects. All queries on BigQuery need to be billed on a single
project. You want to make sure that no query costs are incurred on the projects that contain the data. Users should be able to query the datasets, but not edit them.
How should you configure users' access roles?

A. Add all users to a grou
B. Grant the group the role of BigQuery user on the billing project and BigQuerydataViewer on the projects that contain the data.
C. Add all users to a grou
D. Grant the group the roles of BigQuery dataViewer on the billing project andBigQuery user on the projects that contain the data.
E. Add all users to a grou
F. Grant the group the roles of BigQuery jobUser on the billing project and BigQuery dataViewer on the projects that contain the data.
G. Add all users to a grou
H. Grant the group the roles of BigQuery dataViewer on the billing project andBigQuery jobUser on the projects that contain the data.

Answer: A

Explanation:
Reference: https://cloud.google.com/bigquery/docs/running-queries

NEW QUESTION 201
- (Topic 5)
Your applications will be writing their logs to BigQuery for analysis. Each application should have its own table.
Any logs older than 45 days should be removed. You want to optimize storage and follow Google recommended practices. What should you do?

A. Configure the expiration time for your tables at 45 days
B. Make the tables time-partitioned, and configure the partition expiration at 45 days
C. Rely on BigQuery's default behavior to prune application logs older than 45 days
D. Create a script that uses the BigQuery command line tool (bq) to remove records older than 45 days

Answer: B

Explanation:
https://cloud.google.com/bigquery/docs/managing-partitioned-tables

NEW QUESTION 205
- (Topic 5)
You have an application deployed on Kubernetes Engine using a Deployment named echo- deployment. The deployment is exposed using a Service called echo-service. You need to perform an update to the application with minimal downtime to the application. What should you do?

A. Use kubect1 set image deployment/echo-deployment <new-image>
B. Use the rolling update functionality of the Instance Group behind the Kubernetes cluster
C. Update the deployment yaml file with the new container imag
D. Use kubect1 delete deployment/echo-deployment and kubect1 create –f <yaml-file>
E. Update the service yaml file which the new container imag
F. Use kubect1 delete service/echoserviceand kubect1 create –f <yaml-file>

Answer: A

Explanation:
https://cloud.google.com/kubernetes-engine/docs/how-to/updating-apps#updating_an_application

NEW QUESTION 210
- (Topic 5)
You are developing an application using different microservices that should remain internal to the cluster. You want to be able to configure each microservice with a specific number of replicas. You also want to be able to address a specific microservice from any other microservice in a uniform way, regardless of the number of replicas the microservice scales to. You need to implement this solution on Google Kubernetes Engine. What should you do?

A. Deploy each microservice as a Deploymen
B. Expose the Deployment in the cluster using a Service, and use the Service DNS name to address it from other microservices within the cluster.
C. Deploy each microservice as a Deploymen
D. Expose the Deployment in the cluster using an Ingress, and use the Ingress IP address to address the Deployment from other microservices within the cluster.
E. Deploy each microservice as a Po
F. Expose the Pod in the cluster using a Service, anduse the Service DNS name to address the microservice from other microservices within the cluster.
G. Deploy each microservice as a Po
H. Expose the Pod in the cluster using an Ingress, and use the Ingress IP address name to address the Pod from other microservices within the cluster.

Answer: A

Explanation:
https://kubernetes.io/docs/concepts/services-networking/ingress/

NEW QUESTION 211
- (Topic 5)
You are designing a mobile chat application. You want to ensure people cannot spoof chat messages, by providing a message were sent by a specific user. What should you do

A. Tag messages client side with the originating user identifier and the destination user.
B. Encrypt the message client side using block-based encryption with a shared key.
C. Use public key infrastructure (PKI) to encrypt the message client side using the originating user's privatekey.
D. Use a trusted certificate authority to enable SSL connectivity between the client application and the server.

Answer: C

NEW QUESTION 216
- (Topic 5)
You are analyzing and defining business processes to support your startup's trial usage of GCP, and you don't yet know what consumer demand for your product will be. Your manager requires you to minimize GCP
service costs and adhere to Google best practices. What should you do?

A. Utilize free tier and sustained use discount
B. Provision a staff position for service costmanagement.
C. Utilize free tier and sustained use discount
D. Provide training to the team about service cost management.
E. Utilize free tier and committed use discount
F. Provision a staff position for service cost management.
G. Utilize free tier and committed use discount
H. Provide training to the team about service cost management.

Answer: D

Explanation:
https://cloud.google.com/docs/enterprise/best-practices-for-enterprise-organizations#billing_and_management

NEW QUESTION 218
- (Topic 5)
You want to make a copy of a production Linux virtual machine in the US-Central region. You want to manage and replace the copy easily if there are changes on the production
virtual machine. You will deploy the copy as a new instances in a different project in the US-East region. What steps must you take?

A. Use the Linux dd and netcat command to copy and stream the root disk contents to a new virtual machine instance in the US-East region.
B. Create a snapshot of the root disk and select the snapshot as the root disk when you create a new virtual machine instance in the US-East region.
C. Create an image file from the root disk with Linux dd command, create a new disk from the image file, and use it to create a new virtual machine instance in the US-East region
D. Create a snapshot of the root disk, create an image file in Google Cloud Storage from the snapshot, and create a new virtual machine instance in the US-East region using the image file for the root disk.

Answer: D

Explanation:
https://stackoverflow.com/questions/36441423/migrate-google-compute-engine-instance-to-a-different-region

NEW QUESTION 220
- (Topic 6)
For this question, refer to the Dress4Win case study. Which of the compute services should be migrated as –is and would still be an optimized architecture for performance in the cloud?

A. Web applications deployed using App Engine standard environment
B. RabbitMQ deployed using an unmanaged instance group
C. Hadoop/Spark deployed using Cloud Dataproc Regional in High Availability mode
D. Jenkins, monitoring, bastion hosts, security scanners services deployed on custom machine types

Answer: C

NEW QUESTION 222
- (Topic 6)
For this question, refer to the Dress4Win case study. Dress4Win is expected to grow to 10 times its size in 1 year with a corresponding growth in data and traffic that mirrors the existing patterns of usage. The CIO has set the target of migrating production infrastructure to the cloud within the next 6 months. How will you configure the solution to scale for this growth without making major application changes and still maximize the ROI?

A. Migrate the web application layer to App Engine, and MySQL to Cloud Datastore, and NAS to Cloud Storag
B. Deploy RabbitMQ, and deploy Hadoop servers using Deployment Manager.
C. Migrate RabbitMQ to Cloud Pub/Sub, Hadoop to BigQuery, and NAS to Compute Engine with Persistent Disk storag
D. Deploy Tomcat, and deploy Nginx using Deployment Manager.
E. Implement managed instance groups for Tomcat and Ngin
F. Migrate MySQL to Cloud SQL, RabbitMQ to Cloud Pub/Sub, Hadoop to Cloud Dataproc, and NAS to Compute Engine with Persistent Disk storage.
G. Implement managed instance groups for the Tomcat and Ngin
H. Migrate MySQL to Cloud SQL, RabbitMQ to Cloud Pub/Sub, Hadoop to Cloud Dataproc, and NAS to Cloud Storage.

Answer: D

NEW QUESTION 224
- (Topic 6)
For this question, refer to the Dress4Win case study. You want to ensure that your on- premises architecture meets business requirements before you migrate your solution.
What change in the on-premises architecture should you make?

A. Replace RabbitMQ with Google Pub/Sub.
B. Downgrade MySQL to v5.7, which is supported by Cloud SQL for MySQL.
C. Resize compute resources to match predefined Compute Engine machine types.
D. Containerize the micro services and host them in Google Kubernetes Engine.

Answer: C

NEW QUESTION 228
- (Topic 7)
TerramEarth has a legacy web application that you cannot migrate to cloud. However, you still want to build a cloud-native way to monitor the application. If the application goes down, you want the URL to point to a "Site is unavailable" page as soon as possible. You also want your Ops team to receive a notification for the issue. You need to build a reliable solution for minimum cost
What should you do?

A. Create a scheduled job in Cloud Run to invoke a container every minut
B. The container will check the application URL If the application is down, switch the URL to the "Site is unavailable" page, and notify the Ops team.
C. Create a cron job on a Compute Engine VM that runs every minut
D. The cron job invokes a Python program to check the application URL If the application is down, switch the URL to the "Site is unavailable" page, and notify the Ops team.
E. Create a Cloud Monitoring uptime check to validate the application URL If it fails, put a message in a Pub/Sub queue that triggers a Cloud Function to switch the URL to the "Site is unavailable" page, and notify the Ops team.
F. Use Cloud Error Reporting to check the application URL If the application is down, switch the URL to the "Site is unavailable" page, and notify the Ops team.

Answer: C

Explanation:
https://cloud.google.com/blog/products/management-tools/how-to-use-pubsub-as-a-cloud-monitoring-notification-channel

NEW QUESTION 230
- (Topic 7)
You have broken down a legacy monolithic application into a few containerized RESTful microservices. You want to run those microservices on Cloud Run. You also want to make sure the services are highly available with low latency to your customers. What should you do?

A. Deploy Cloud Run services to multiple availability zone
B. Create Cloud Endpoints that point to the service
C. Create a global HTIP(S) Load Balancing instance and attach the Cloud Endpoints to its backend.
D. Deploy Cloud Run services to multiple regions Create serverless network endpoint groups pointing to the service
E. Add the serverless NE Gs to a backend service that is used by a global HTIP(S) Load Balancing instance.
F. Cloud Run services to multiple region
G. In Cloud DNS, create a latency-based DNS name that points to the services.
H. Deploy Cloud Run services to multiple availability zone
I. Create a TCP/IP global load balance
J. Add the Cloud Run Endpoints to its backend service.

Answer: B

Explanation:
https://cloud.google.com/run/docs/multiple-regions

NEW QUESTION 234
- (Topic 7)
For this question, refer to the TerramEarth case study.
You start to build a new application that uses a few Cloud Functions for the backend. One use case requires a Cloud Function func_display to invoke another Cloud Function func_query. You want func_query only to accept invocations from func_display. You also want to follow Google's recommended best practices.
What should you do?

A. Create a token and pass it in as an environment variable to func_displa
B. When invoking func_query, include the token in the request Pass the same token to func _query and reject the invocation if the tokens are different.
C. Make func_query 'Require authentication.' Create a unique service account and associate it to func_displa
D. Grant the service account invoker role for func_quer
E. Create an id token in func_display and include the token to the request when invoking func_query.
F. Make func _query 'Require authentication' and only accept internal traffi
G. Create those two functions in the same VP
H. Create an ingress firewall rule for func_query to only allow traffic from func_display.
I. Create those two functions in the same project and VP
J. Make func_query only accept internal traffi
K. Create an ingress firewall for func_query to only allow traffic from func_displa
L. Also, make sure both functions use the same service account.

Answer: B

Explanation:
https://cloud.google.com/functions/docs/securing/authenticating#authenticating_function_to_function_calls

NEW QUESTION 239
- (Topic 7)
For this question, refer to the TerramEarth case study. To be compliant with European GDPR regulation, TerramEarth is required to delete data generated from its European customers after a period of 36 months when it contains personal data. In the new architecture, this data will be stored in both Cloud Storage and BigQuery. What should you do?

A. Create a BigQuery table for the European data, and set the table retention period to 36 month
B. For Cloud Storage, use gsutil to enable lifecycle management using a DELETE action with an Age condition of 36 months.
C. Create a BigQuery table for the European data, and set the table retention period to 36 month
D. For Cloud Storage, use gsutil to create a SetStorageClass to NONE action when with an Age condition of 36 months.
E. Create a BigQuery time-partitioned table for the European data, and set the partition expiration period to 36 month
F. For Cloud Storage, use gsutil to enable lifecycle management using a DELETE action with an Age condition of 36 months.
G. Create a BigQuery time-partitioned table for the European data, and set the partition period to 36 month
H. For Cloud Storage, use gsutil to create a SetStorageClass to NONE action with an Age condition of 36 months.

Answer: C

Explanation:
https://cloud.google.com/bigquery/docs/managing-partitioned- tables#partition-expiration
https://cloud.google.com/storage/docs/lifecycle

NEW QUESTION 241
- (Topic 7)
For this question, refer to the TerramEarth case study. A new architecture that writes all incoming data to BigQuery has been introduced. You notice that the data is dirty, and want to ensure data quality on an automated daily basis while managing cost. What should you do?

A. Set up a streaming Cloud Dataflow job, receiving data by the ingestion proces
B. Clean the data in a Cloud Dataflow pipeline.
C. Create a Cloud Function that reads data from BigQuery and cleans i
D. Trigger i
E. Trigger the Cloud Function from a Compute Engine instance.
F. Create a SQL statement on the data in BigQuery, and save it as a vie
G. Run the view daily, and save the result to a new table.
H. Use Cloud Dataprep and configure the BigQuery tables as the sourc
I. Schedule a daily job to clean the data.

Answer: A

NEW QUESTION 245
- (Topic 7)
For this question, refer to the TerramEarth case study. You need to implement a reliable, scalable GCP solution for the data warehouse for your company, TerramEarth. Considering the TerramEarth business and technical requirements, what should you do?

A. Replace the existing data warehouse with BigQuer
B. Use table partitioning.
C. Replace the existing data warehouse with a Compute Engine instance with 96 CPUs.
D. Replace the existing data warehouse with BigQuer
E. Use federated data sources.
F. Replace the existing data warehouse with a Compute Engine instance with 96 CPU
G. Add an additional Compute Engine pre-emptible instance with 32 CPUs.

Answer: C

Explanation:
https://cloud.google.com/solutions/bigquery-data- warehouse#external_sources https://cloud.google.com/solutions/bigquery-data-warehouse

NEW QUESTION 246
- (Topic 8)
For this question, refer to the Mountkirk Games case study. Which managed storage option meets Mountkirk's technical requirement for storing game activity in a time series database service?

A. Cloud Bigtable
B. Cloud Spanner
C. BigQuery
D. Cloud Datastore

Answer: A

Explanation:
https://cloud.google.com/blog/products/databases/getting-started-with-time-series-trend-predictions-using-gcp

NEW QUESTION 248
- (Topic 8)
For this question, refer to the Mountkirk Games case study. Mountkirk Games wants to migrate from their current analytics and statistics reporting model to one that meets their technical requirements on Google Cloud Platform.
Which two steps should be part of their migration plan? (Choose two.)

A. Evaluate the impact of migrating their current batch ETL code to Cloud Dataflow.

B. Write a schema migration plan to denormalize data for better performance in BigQuery.
C. Draw an architecture diagram that shows how to move from a single MySQL database to a MySQL cluster.
D. Load 10 TB of analytics data from a previous game into a Cloud SQL instance, and run test queries against the full dataset to confirm that they complete successfully.
E. Integrate Cloud Armor to defend against possible SQL injection attacks in analytics files uploaded to Cloud Storage.

Answer: AB

Explanation:
https://cloud.google.com/bigquery/docs/loading-data#loading_denormalized_nested_and_repeated_data

NEW QUESTION 249
- (Topic 8)
For this question, refer to the Mountkirk Games case study. You are in charge of the new Game Backend Platform architecture. The game communicates with the backend over a REST API.
You want to follow Google-recommended practices. How should you design the backend?

A. Create an instance template for the backen
B. For every region, deploy it on a multi-zone managed instance grou
C. Use an L4 load balancer.
D. Create an instance template for the backen
E. For every region, deploy it on a single- zone managed instance grou
F. Use an L4 load balancer.
G. Create an instance template for the backen
H. For every region, deploy it on a multi-zone managed instance grou
I. Use an L7 load balancer.
J. Create an instance template for the backen
K. For every region, deploy it on a single- zone managed instance grou
L. Use an L7 load balancer.

Answer: C

Explanation:
https://cloud.google.com/solutions/gaming/cloud-game-infrastructure#dedicated_game_server

NEW QUESTION 252
- (Topic 8)
For this question, refer to the Mountkirk Games case study. You need to analyze and define the technical architecture for the compute workloads for your company, Mountkirk Games. Considering the Mountkirk Games business and technical requirements, what should you do?

A. Create network load balancer
B. Use preemptible Compute Engine instances.
C. Create network load balancer
D. Use non-preemptible Compute Engine instances.
E. Create a global load balancer with managed instance groups and autoscaling policie
F. Use preemptible Compute Engine instances.
G. Create a global load balancer with managed instance groups and autoscaling policie
H. Use non-preemptible Compute Engine instances.

Answer: D

NEW QUESTION 257
- (Topic 8)
Your development team has created a mobile game app. You want to test the new mobile app on Android and iOS devices with a variety of configurations. You need to ensure that testing is efficient and cost-effective. What should you do?

A. Upload your mobile app to the Firebase Test Lab, and test the mobile app on Android and iOS devices.
B. Create Android and iOS VMs on Google Cloud, install the mobile app on the VMs, and test the mobile app.
C. Create Android and iOS containers on Google Kubernetes Engine (GKE), install the mobile app on thecontainers, and test the mobile app.
D. Upload your mobile app with different configurations to Firebase Hosting and test each configuration.

Answer: C

NEW QUESTION 261
- (Topic 8)
You are implementing Firestore for Mountkirk Games. Mountkirk Games wants to give a new game
programmatic access to a legacy game's Firestore database. Access should be as restricted as possible. What should you do?

A. Create a service account (SA) in the legacy game's Google Cloud project, add this SA in the new game's IAM page, and then give it the Firebase Admin role in both projects
B. Create a service account (SA) in the legacy game's Google Cloud project, add a second SA in the new game's IAM page, and then give the Organization Admin role to both SAs
C. Create a service account (SA) in the legacy game's Google Cloud project, give it the Firebase Admin role, and then migrate the new game to the legacy game's project.
D. Create a service account (SA) in the lgacy game's Google Cloud project, give the SA the Organization Admin rule and then give it the Firebase Admin role in both projects

Answer: A

NEW QUESTION 265
- (Topic 9)
For this question, refer to the Helicopter Racing League (HRL) case study. HRL wants better prediction accuracy from their ML prediction models. They want you to use Google's AI Platform so HRL can understand and interpret the predictions. What should you do?

A. Use Explainable AI.
B. Use Vision AI.
C. Use Google Cloud's operations suite.
D. Use Jupyter Notebooks.

Answer: A

Explanation:
Reference: https://cloud.google.com/ai-platform/prediction/docs/ai-explanations/preparing- metadata

NEW QUESTION 266
- (Topic 9)
For this question, refer to the Helicopter Racing League (HRL) case study. A recent finance audit of cloud infrastructure noted an exceptionally high number of Compute Engine instances are allocated to do video encoding and transcoding. You suspect that these Virtual Machines are zombie machines that were not deleted after their workloads completed. You need to quickly get a list of which VM instances are idle. What should you do?

A. Log into each Compute Engine instance and collect disk, CPU, memory, and network usage statistics foranalysis.
B. Use the gcloud compute instances list to list the virtual machine instances that have the idle: true label set.
C. Use the gcloud recommender command to list the idle virtual machine instances.
D. From the Google Console, identify which Compute Engine instances in the managed instance groups areno longer responding to health check probes.

Answer: C

Explanation:
Reference: https://cloud.google.com/compute/docs/instances/viewing-and-applying-idle- vm-recommendations

NEW QUESTION 267
- (Topic 10)
For this question, refer to the EHR Healthcare case study. You are responsible for ensuring that EHR's use of Google Cloud will pass an upcoming privacy compliance audit. What should you do? (Choose two.)

A. Verify EHR's product usage against the list of compliant products on the Google Cloud compliance page.
B. Advise EHR to execute a Business Associate Agreement (BAA) with Google Cloud.
C. Use Firebase Authentication for EHR's user facing applications.
D. Implement Prometheus to detect and prevent security breaches on EHR's web-based applications.
E. Use GKE private clusters for all Kubernetes workloads.

Answer: AB

Explanation:
https://cloud.google.com/security/compliance/hipaa

NEW QUESTION 269
- (Topic 10)
For this question, refer to the EHR Healthcare case study. You are a developer on the EHR customer portal team. Your team recently migrated the customer portal application to Google Cloud. The load has increased on the application servers, and now the application is logging many timeout errors. You recently incorporated Pub/Sub into the application architecture, and the application is not logging any Pub/Sub publishing errors. You want to improve publishing latency. What should you do?

A. Increase the Pub/Sub Total Timeout retry value.
B. Move from a Pub/Sub subscriber pull model to a push model.
C. Turn off Pub/Sub message batching.
D. Create a backup Pub/Sub message queue.

Answer: C

Explanation:
https://cloud.google.com/pubsub/docs/publisher?hl=en#batching

NEW QUESTION 270
- (Topic 10)
For this question, refer to the EHR Healthcare case study. You are responsible for designing the Google Cloud network architecture for Google Kubernetes Engine. You want to follow Google best practices. Considering the EHR Healthcare business and technical requirements, what should you do to reduce the attack surface?

A. Use a private cluster with a private endpoint with master authorized networks configured.
B. Use a public cluster with firewall rules and Virtual Private Cloud (VPC) routes.
C. Use a private cluster with a public endpoint with master authorized networks configured.
D. Use a public cluster with master authorized networks enabled and firewall rules.

Answer: A

Explanation:
https://cloud.google.com/kubernetes-engine/docs/concepts/private-cluster- concept#overview

NEW QUESTION 273
- (Topic 10)
For this question, refer to the EHR Healthcare case study. You need to define the technical architecture for hybrid connectivity between EHR's on-premises systems and Google Cloud. You want to follow Google's recommended practices for production-level applications. Considering the EHR Healthcare business and technical requirements, what should you do?

A. Configure two Partner Interconnect connections in one metro (City), and make sure the Interconnect connections are placed in different metro zones.
B. Configure two VPN connections from on-premises to Google Cloud, and make sure the VPN devices on-premises are in separate racks.
C. Configure Direct Peering between EHR Healthcare and Google Cloud, and make sure you are peering at least two Google locations.
D. Configure two Dedicated Interconnect connections in one metro (City) and two connections in another metro, and make sure the Interconnect connections are placed in different metro zones.

Answer: D

Explanation:
based on the requirement of secure and high-performance connection between on-premises systems to Google Cloud
https://cloud.google.com/network-connectivity/docs/interconnect/tutorials/partner-creating- 9999-availability

NEW QUESTION 276
- (Topic 10)
For this question, refer to the EHR Healthcare case study. You need to define the technical architecture for securely deploying workloads to Google Cloud. You also need to ensure that only verified containers are deployed using Google Cloud services. What should you do? (Choose two.)

A. Enable Binary Authorization on GKE, and sign containers as part of a CI/CD pipeline.
B. Configure Jenkins to utilize Kritis to cryptographically sign a container as part of a CI/CD pipeline.
C. Configure Container Registry to only allow trusted service accounts to create and deploy containers from the registry.
D. Configure Container Registry to use vulnerability scanning to confirm that there are no vulnerabilities before deploying the workload.

Answer: A

Explanation:
Binary Authorization to ensure only verified containers are deployed To ensure deployment are secure and and consistent, automatically scan images for vulnerabilities with container analysis (https://cloud.google.com/docs/ci-cd/overview?hl=en&skip_cache=true)

NEW QUESTION 279
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