1. Source

The JencoMart security team requires that all Google Cloud Platform infrastructure is deployed using a **least privilege model with separation of duties** for administration between production and development resources. What Google domain and project structure should you recommend?

A. Create two G Suite accounts to manage users: one for development/test/staging and one for production. Each account should contain one project for every application

B. Create two G Suite accounts to manage users: one with a single project for all development applications and one with a single project for all production applications

C. Create **a single G Suite account** to manage users with **each stage of each application in its own project**

D. Create a single G Suite account to manage users with one project for the development/test/staging environment and one project for the production environment

> "A general recommendation is to have one project per application per environment. For example, if you have two applications, "app1" and "app2", each with a development and production environment, you would have four projects: app1-dev, app1-prod, app2-dev, app2-prod. This isolates the environments from each other, so changes to the development project do not accidentally impact production, and gives you better access control, since you can (for example) grant all developers access to development projects but restrict production access to your CI/CD pipeline."
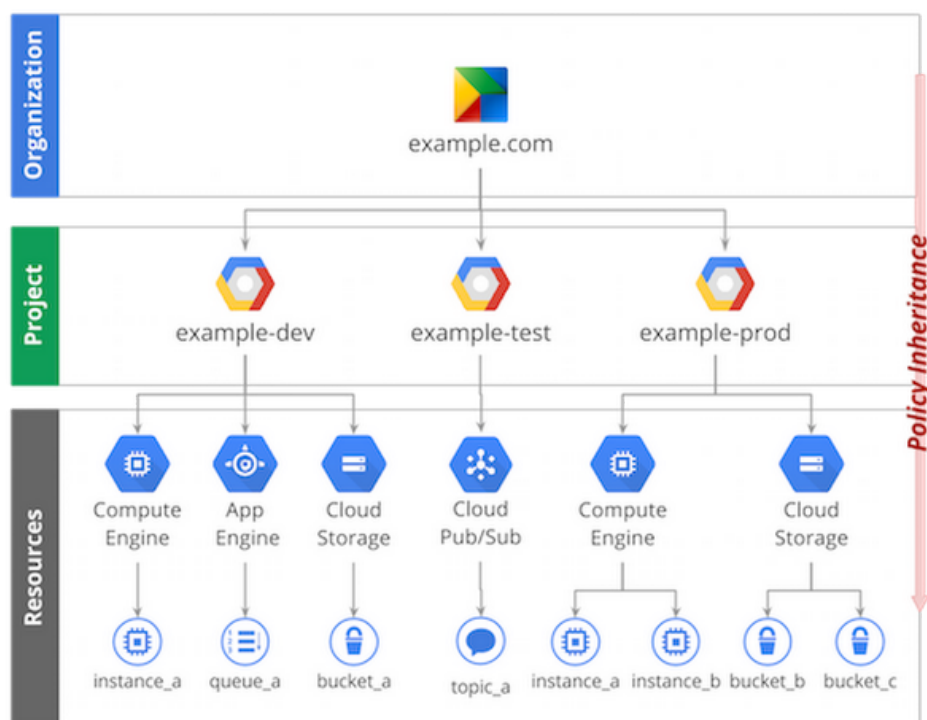
REF

2. Source

A few days after JencoMart migrates the user credentials database to Google Cloud Platform and shuts down the old server, the new database server **stops responding to SSH connections**. It is still **serving database requests** to the application servers **correctly**. What three steps should you take to diagnose the problem? (Choose three.)

A. Delete the virtual machine (VM) and disks and create a new one

B. Delete the instance, attach the disk to a new VM, and investigate

C. Take a **snapshot of the disk** and connect to a new machine to investigate

D. **Check inbound firewall rules** for the network the machine is connected to

E. Connect the machine to another network with very simple firewall rules and investigate

F. Print the Serial Console output for the instance for **troubleshooting**, activate the interactive console, and investigate

> eliminate A,B and E. These options cause downtime.

> C --> Snapshotting is fine, it will reduce the performance foa a short duration, but the database will still be up!

> D --> Obvious place to check for firewall rules

> F --> See server message without downtime

[REF]

3. Source

JencoMart has decided to migrate user profile storage to Google Cloud Datastore and the application servers to Google Compute Engine (GCE). During the migration, the existing infrastructure will need **access to Datastore to upload the data**. What service **account key-management** strategy should you recommend?

A. Provision service account keys for the on-premises infrastructure and for the GCE virtual machines (VMs)

B. Authenticate the on-premises infrastructure with a user account and provision service account keys for the VMs

C. Provision **service account keys for the on-premises infrastructure** and use Google Cloud Platform **(GCP) managed keys** for the VMs

D. Deploy a custom authentication service on GCE/Google Kubernetes Engine (GKE) for the on-premises infrastructure and use GCP managed keys for the VMs

> GCP managed or customer managed.

> Only the on-prom resource need the service account key. so, only C is right.

REF

4. Source

C/D??

JencoMart has built a version of their application on Google Cloud Platform that serves traffic to Asia. You want to measure success against their business and technical goals. Which metrics should you track?
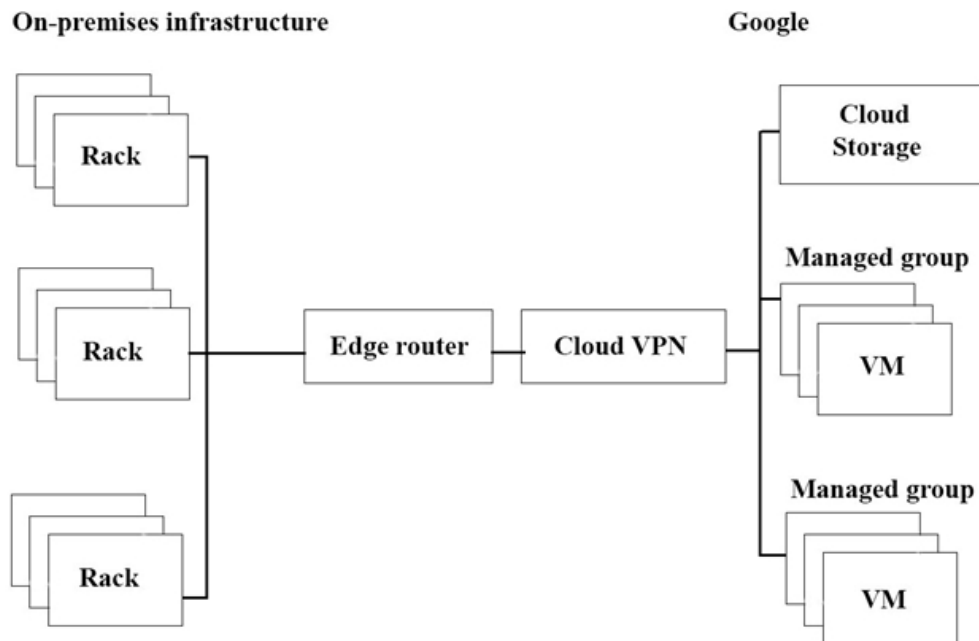
A. Error rates for requests from Asia

B. Latency difference between US and Asia

C. Total visits, **error rates**, and latency from Asia

D. Total visits and average latency for users from Asia

E. The number of character sets present in the database

5. Source

The migration of JencoMart's application to Google Cloud Platform (GCP) is progressing too slowly. The infrastructure is shown in the diagram. You want to **maximize throughput**. What are three potential **bottlenecks**? (Choose three.)

A. A **single VPN tunnel**, which limits throughput

B. A tier of Google Cloud Storage that is not suited for this task

C. A **copy command that is not suited** to operate over long distances

D. Fewer virtual machines (VMs) in GCP than on-premises machines

E. A **separate storage layer outside the VMs**, which is not suited for this task

F. Complicated internet connectivity between the on-premises infrastructure and GCP

> A --> Single VPN tunnel which limits throughout
>
> C --> A copy command is not suited to operate over long disatance
>
> E --> A seperate storage layer outside the VMs, which is also not suited.

[REF]

6. Source

Not sure

JencoMart wants to move their *User Profiles* database to Google Cloud Platform. Which Google Database should they use?

A. Cloud Spanner

B. Google BigQuery

C. Google Cloud SQL

D. **Google Cloud Datastore**

DataStore ?

Spanner ?

1. Source

For this question, refer to the Helicopter Racing League (HRL) case study. Your team is in charge of creating a payment card data vault for card numbers used to bill tens of thousands of viewers, merchandise consumers, and season ticket holders. You need to implement a **custom card tokenization service** that meets the following requirements:

- It must provide **low latency** at minimal cost.
- It must be able to **identify duplicate credit cards** and must **not store plaintext card numbers**.
- It should support **annual key rotation**. Which storage approach should you adopt for your tokenization service?

A. Store the card data in Secret Manager after running a query to identify duplicates.

B. Encrypt the card data with a deterministic algorithm stored in Firestore using **Datastore mode**.

C. Encrypt the card data with a deterministic algorithm and shard it across multiple Memorystore instances.

D. Use column-level encryption to store the data in Cloud SQL.

> Identity and Access Management (IAM)
>
> Cloud Key Management Service (KMS)
>
> Firestore in Datastore mode.

REF

2. Source

For this question, refer to the Helicopter Racing League (HRL) case study. Recently HRL started a new regional racing league in Cape Town, South Africa. In an effort to give customers in Cape Town a better user experience, HRL has partnered with the Content Delivery Network provider, Fastly. HRL needs to allow traffic coming from all of the Fastly IP address ranges into their Virtual Private Cloud network (VPC network). You are a member of the HRL security team and you need to configure the update that will **allow only the Fastly IP address ranges through the External HTTP(S) load balancer**. Which command should you use?

A. gcloud compute security-policies rules update 1000 \ --security-policy from-fastly \ --src-ip-ranges * \ --action "allow"

B. gcloud compute firewall rules update sourceiplist-fastly \ --priority 100 \ --allow tcp:443

C. gcloud compute firewall rules update hir-policy \ --priority 100 \ --target-tags=sourceiplist-fastly \ --allow tcp:443

D. gcloud compute security-policies rules update 1000 \ --security-policy hir-policy \ **--expression "evaluatePreconfiguredExpr(('sourceiplist-fastly')"** \ --action "allow"

> Fastly provide a named ip list which can be used with --expression.

```
gcloud compute security-policies rules create 750 \
    --security-policy my \
    --expression "evaluatePreconfiguredExpr('sourceiplist-abc')" \
    --action "allow"
```

REF

3. Source

Not sure, I go with C

For this question, refer to the Helicopter Racing League (HRL) case study. The HRL development team releases a new version of their predictive capability application every Tuesday evening at 3 a.m. UTC to a repository. The security team at HRL has developed an in-house penetration test Cloud Function called Airwolf. The security team wants to run Airwolf against the predictive capability application as soon as it is released every Tuesday. You need to set up Airwolf to **run at the recurring weekly cadence**. What should you do?

A. Set up Cloud Tasks and a Cloud Storage bucket that triggers a Cloud Function.

B. Set up a Cloud Logging sink and a Cloud Storage bucket that triggers a Cloud Function.

C. Configure the deployment job to notify a **Pub/Sub queue that triggers a Cloud Function**.

D. Set up Identity and Access Management (IAM) and Confidential Computing to trigger a Cloud Function.

> Cloud Scheduler

REF

4. Source

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.

> AI Explanations helps you understand your model's outputs for classification and regression tasks. Whenever you request a prediction on AI Platform, AI Explanations tells you how much each feature in the data contributed to the predicted result.

REF

5. Source

For this question, refer to the Helicopter Racing League (HRL) case study. HRL is looking for a cost-effective approach for storing their race data such as telemetry. They want to keep all **historical records**, **train models** using **only the previous season's data**, and plan for data growth in terms of volume and information collected. You need to propose a data solution. Considering HRL business requirements and the goals expressed by CEO S. Hawke, what should you do?

A. Use Firestore for its scalable and flexible document-based database. Use collections to aggregate race data by season and event.

B. Use Cloud Spanner for its scalability and ability to version schemas with zero downtime. Split race data using season as a primary key.

C. Use **BigQuery** for its scalability and ability to add columns to a schema. Partition race data based on season.

D. Use Cloud SQL for its ability to automatically manage storage increases and compatibility with MySQL. Use separate database instances for each season.

[REF]

6. Source

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 for analysis.

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 are no longer responding to health check probes.

```
gcloud recommender recommendations list \
--project=PROJECT_ID \
--location=ZONE \
--recommender=google.compute.instance.IdleResourceRecommender \
--format=yaml
```

REF

1. Source

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.

> A --> OK. Google Cloud compliance page will give list of products those are HIPAA compliant
>
> B --> OK. BAA means HIPAA Business Associate amendment or Business Associate Agreement entered into between Google and Customer. With EHR being a leading provider of health record software, this agreement is required. REF
>
> Eliminate C, Firebase authentication provides backend services, easy-to-use SDKs and ready-made libraries to users on App. REF
>
> Eliminate D, more of an observability platform
>
> Eliminate E, Running distributed services in GKE private clusters gives enterprises both secure and reliable services. Not sure how this may help with Private Compliance Audit

REF

2. Source

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.

> 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

REF

   3. Source

You need to upgrade the EHR connection to comply with their requirements. The new connection design must support business-critical needs and meet the **same network** and security policy requirements. What should you do?

A. Add a **new Dedicated Interconnect connection**.

B. Upgrade the bandwidth on the Dedicated Interconnect connection to 100 G.

C. Add three new Cloud VPN connections.

D. Add a new Carrier Peering connection.

> In Note they suggest for new connection for migrating 10GB to 100gb

REF

   4. Source

I go with D

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.

> VPN ruled out as traffic is over internet and due to bandwidth. Direct Peering is more for Workspace rather than Google Cloud

REF

   5. Source

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.

> Cost of Batching is latency for individual messages,. To minimize latency batching should be turned off

[REF](REF)

6. Source

For this question, refer to the EHR Healthcare case study. In the past, configuration errors put public IP addresses on backend servers that should not have been accessible from the Internet. You need to ensure that no one can put external IP addresses on backend Compute Engine instances and that **external IP addresses can only be configured on frontend Compute Engine instances**. What should you do?

A. Create an **Organizational Policy** with a constraint to **allow external IP addresses only on the frontend Compute Engine instances**.

B. Revoke the compute.networkAdmin role from all users in the project with front end instances.

C. Create an Identity and Access Management (IAM) policy that maps the IT staff to the compute.networkAdmin role for the organization.

D. Create a custom Identity and Access Management (IAM) role named GCE_FRONTEND with the compute.addresses.create permission.

[REF](REF)

7. Source

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.

> Public endpoint access disabled is the most secure option as it prevents all internet access to the control plane. This is a good choice if you have configured your on-premises network to connect to Google Cloud using Cloud Interconnect (EHR has enabled this) or Cloud VPN.

[REF](REF)

1. Source

I go with D

Mountkirk Games wants you to design their new testing strategy. How should the test coverage differ from their existing backends on the other platforms?

A. Tests should scale well beyond the prior approaches

B. Unit tests are no longer required, only end-to-end tests

C. Tests should be applied after the release is in the production environment

D. Tests should include **directly testing the Google Cloud Platform (GCP) infrastructure**

[REF]

2. Source

Mountkirk Games has deployed their new backend on Google Cloud Platform (GCP). You want to create a through testing process for new versions of the backend before they are released to the public. You want the **testing environment to scale in an economical way**. How should you design the process?

A. Create a **scalable environment** in GCP for simulating production load

B. Use the existing infrastructure to test the GCP-based backend at scale

C. Build stress tests into each component of your application using resources internal to GCP to simulate load

D. Create a set of static environments in GCP to test different levels of load ג€" for example, high, medium, and low

> A --> correct because simulating production load in GCP can scale in an economical way.
>
> eliminate B, one of the pain points about the existing infrastructure was precisely that the environment did not scale well.
>
> eliminate C, it is a best practice to have a clear separation between test and production environments. Generating test load should not be done from a /production environment.
>
> eliminate D,Mountkirk Games wants the testing environment to scale as needed. Defining several static environments for specific levels of load goes against this requirement.

[REF]

3. Source

Mountkirk Games wants to set up a continuous delivery pipeline. Their architecture includes many small services that they want to be able to update and roll back quickly. Mountkirk Games has the following requirements:
☞ Services are **deployed redundantly** across multiple regions in the US and Europe
☞ Only **frontend services are exposed on the public internet**
☞ They can provide a single frontend IP for their fleet of services
☞ Deployment artifacts are **immutable**(-->registry)
Which set of products should they use?

A. Google Cloud Storage, Google Cloud Dataflow, Google Compute Engine

B. Google Cloud Storage, Google App Engine, Google Network Load Balancer

C. Google Kubernetes Registry, **Google Container Engine**, Google HTTP(S) Load Balancer

D. Google Cloud Functions, Google Cloud Pub/Sub, Google Cloud Deployment Manager

> Kubernetes are Immutable, container registry support docker image versioning, and HTTP(s) global LB provide single IP for frontend.

[REF]

4. Source

Mountkirk Games' gaming servers are not automatically scaling properly. Last month, they rolled out a new feature, which suddenly became very popular. A record number of users are trying to use the service, but many of them are getting **503 errors** and very slow response times. What should they investigate first?

A. Verify that the database is online

B. Verify that the **project quota hasn't been exceeded**

C. Verify that the new feature code did not introduce any performance bugs

D. Verify that the load-testing team is not running their tool against production

> Error code starting like 5xx is something related to server
>
> 503 UNAVAILABLE Service unavailable.

REF

5. Source

A/D?

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

REF

6. Source

Mountkirk Games wants to set up a **real-time analytics** platform for their new game. The new platform must meet their technical requirements. Which combination of Google technologies will meet all of their requirements?

A. Kubernetes Engine, Cloud Pub/Sub, and Cloud SQL

B. **Cloud Dataflow**, Cloud Storage, Cloud Pub/Sub, and **BigQuery**

C. Cloud SQL, Cloud Storage, Cloud Pub/Sub, and Cloud Dataflow

D. Cloud Dataproc, Cloud Pub/Sub, Cloud SQL, and Cloud Dataflow

E. Cloud Pub/Sub, Compute Engine, Cloud Storage, and Cloud Dataproc

> Cloud Dataflow -- Stream data (mobile devices)
>
> Cloud Storage --- They need to store historic data of 10 TB
>
> Cloud Pub/Sub --- Reliable messaging service for late arriving data from slow mobile networks
>
> BigQuery -------- Intensive Analytics + historic data

[REF]

1. Source

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.

> ETL --> Dataflow

[REF](#)

2. [Source](#)

For this question, refer to the TerramEarth case study. TerramEarth has decided to store data files in Cloud Storage. You need to configure Cloud Storage lifecycle rule to store **1 year** of data and minimize file storage cost. Which two actions should you take?

A. Create a Cloud Storage lifecycle rule with Age: "30", Storage Class: "Standard", and Action: "**Set to Coldline**", and create a second GCS life-cycle rule with Age: "365", Storage Class: "**Coldline**", and Action: "Delete".

B. Create a Cloud Storage lifecycle rule with Age: "30", Storage Class: "Coldline", and Action: "Set to Nearline", and create a second GCS life-cycle rule with Age: "91", Storage Class: "Coldline", and Action: "Set to Nearline".

C. Create a Cloud Storage lifecycle rule with Age: "90", Storage Class: "Standard", and Action: "Set to Nearline", and create a second GCS life-cycle rule with Age: "91", Storage Class: "Nearline", and Action: "Set to Coldline".

D. Create a Cloud Storage lifecycle rule with Age: "30", Storage Class: "Standard", and Action: "Set to Coldline", and create a second GCS life-cycle rule with Age: "365", Storage Class: "Nearline", and Action: "Delete".

3. [Source](#)

For this question, refer to the Mountkirk Games case study. Mountkirk Games wants to design their solution for the future in order to take advantage of cloud and **technology improvements** as they become available. Which two steps should they take? (Choose two.)

A. Store as much analytics and game activity data as financially feasible today so it can be used to **train machine learning models** to predict user behavior in the future.

B. Begin **packaging their game backend artifacts in container images** and running them on Google Kubernetes Engine to improve the ability to scale up or down based on game activity.

C. Set up a CI/CD pipeline using Jenkins and Spinnaker to automate canary deployments and improve development velocity.

D. Adopt a schema versioning tool to reduce downtime when adding new game features that require storing additional player data in the database.

E. Implement a weekly rolling maintenance process for the Linux virtual machines so they can apply critical kernel patches and package updates and reduce the risk of 0-day vulnerabilities.

> as well as other metrics that provide deeper insight into usage patterns so we can adapt the game to target users.

[REF]

4. [Source](#)

For this question, refer to the Mountkirk Games case study. Mountkirk Games wants you to design a way to test the analytics platform's **resilience** to changes in mobile network latency. What should you do?

A. **Deploy failure injection software** to the game analytics platform that can inject additional latency to mobile client analytics traffic.

B. Build a test client that can be run from a mobile phone emulator on a Compute Engine virtual machine, and run multiple copies in Google Cloud Platform regions all over the world to generate realistic traffic.

C. Add the ability to introduce a random amount of delay before beginning to process analytics files uploaded from mobile devices.

D. Create an opt-in beta of the game that runs on players' mobile devices and collects response times from analytics endpoints running in Google Cloud Platform regions all over the world.

> If you're using a service mesh like Istio to manage your app services, you can inject faults at the application layer instead of killing pods or machines, or you can inject corrupting packets at the TCP layer. You can introduce delays to simulate network latency or an overloaded upstream system. You can also introduce aborts, which mimic failures in upstream systems.

[REF](#)

5. [Source](#)

For this question, refer to the Mountkirk Games case study. You need to analyze and define the technical architecture for the database workloads for your company, Mountkirk Games. Considering the business and technical requirements, what should you do?

A. Use Cloud SQL for time series data, and use Cloud Bigtable for historical data queries.

B. Use Cloud SQL to replace MySQL, and use Cloud Spanner for historical data queries.

C. Use Cloud Bigtable to replace MySQL, and use BigQuery for historical data queries.

D. Use Cloud Bigtable for time series data, use Cloud Spanner for transactional data, and use BigQuery for historical data queries.

> - Analytics - currently on MySQL
> - Nosql - this is a future requirement for the new game. This referenced in solution section
> - User profile - managed transactional db for user profiles. This reference in tech section.

[REF](#)

6. [Source](#)

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

> we can store time series vehicle data in Bigtable which can later be used for analytical processing using BigQuery.

[REF](#)

7. [Source](#)

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 backend. For every region, deploy it on a multi-zone managed instance group. Use an L4 load balancer.

B. Create an instance template for the backend. For every region, deploy it on a single-zone managed instance group. Use an L4 load balancer.

C. Create an instance template for the backend. For every region, deploy it on a **multi-zone** managed instance group. Use an **L7 load balancer**.

D. Create an instance template for the backend. For every region, deploy it on a single-zone managed instance group. Use an L7 load balancer.

> LB chart
>
> REST API uses HTTP
>
> HTTP is L7

REF

1. Source

You need to **optimize batch file transfers** into Cloud Storage for Mountkirk Games' new Google Cloud solution. The batch files contain game statistics that need to be staged in Cloud Storage and be processed by an extract transform load (ETL) tool. What should you do?

A. Use gsutil to batch move files in sequence.

B. Use gsutil to **batch copy** the files in parallel.

C. Use gsutil to extract the files as the first part of ETL.

D. Use gsutil to load the files as the last part of ETL.

REF

2. Source

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 a second SA in the new game's IAM page, and then give the Organization Admin role to both SAs.

B. Create a service account (SA) in the legacy game's Google Cloud project, give the SA the Organization Admin role, and then give it the Firebase Admin role in both projects.

C. 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.

D. 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.

[REF]

3. Source

Mountkirk Games wants to **limit the physical location of resources** to their operating Google Cloud regions. What should you do?

A. Configure an **organizational policy** which constrains where resources can be deployed.

B. Configure IAM conditions to limit what resources can be configured.

C. Configure the quotas for resources in the regions not being used to 0.

D. Configure a custom alert in Cloud Monitoring so you can disable resources as they are created in other regions.

> You can limit the physical location of a new resource with the Organization Policy Service resource locations constraint. You can use the location property of a resource to identify where it is deployed and maintained by the service.

REF

4. Source

You need to implement a network ingress for a new game that meets the defined business and technical requirements. Mountkirk Games wants **each regional game instance to be located in multiple Google Cloud regions**. What should you do?

A. Configure a global load balancer connected to a managed instance group running Compute Engine instances.

B. Configure kubemci with a global load balancer and Google Kubernetes Engine.

C. Configure a global load balancer with Google Kubernetes Engine.

D. Configure **Ingress for Anthos with a global load balancer** and Google Kubernetes Engine.

> it should be built upon an architecture that is multi regional.

REF

5. Source

Your development teams release new versions of games running on Google Kubernetes Engine (GKE) daily. You want to create **service level indicators (SLIs)** to evaluate the quality of the new versions from the user's perspective. What should you do?

A. Create CPU Utilization and Request Latency as service level indicators.

B. Create GKE CPU Utilization and Memory Utilization as service level indicators.

C. Create **Request Latency** and **Error Rate** as service level indicators.

D. Create Server Uptime and Error Rate as service level indicators.

[REF]

6. Source

Mountkirk Games wants you to **secure the connectivity** from the new gaming application platform to Google Cloud. You want to streamline the process and follow Google-recommended practices. What should you do?

A. Configure **Workload Identity** and service accounts to be used by the application platform.

B. Use Kubernetes Secrets, which are obfuscated by default. Configure these Secrets to be used by the application platform.

C. Configure Kubernetes Secrets to store the secret, enable Application-Layer Secrets Encryption, and use Cloud Key Management Service (Cloud KMS) to manage the encryption keys. Configure these Secrets to be used by the application platform.

D. Configure HashiCorp Vault on Compute Engine, and use customer managed encryption keys and Cloud Key Management Service (Cloud KMS) to manage the encryption keys. Configure these Secrets to be used by the application platform.

> Workload Identity is the recommended way to access Google Cloud services from applications running within GKE due to its improved security properties and manageability.

REF

7. Source

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 the containers, and test the mobile app.

D. Upload your mobile app with different configurations to Firebase Hosting and test each configuration.

> Firebase Test Lab is a cloud-based app testing infrastructure that lets you test your app on a range of devices and configurations, so you can get a better idea of how it'll perform in the hands of live users.

[REF]

1. Source

TerramEarth's CTO wants to use the raw data from connected vehicles to help identify approximately when a vehicle in the field will have a catastrophic failure. You want to allow analysts to centrally query the vehicle data. Which architecture should you recommend?

A.
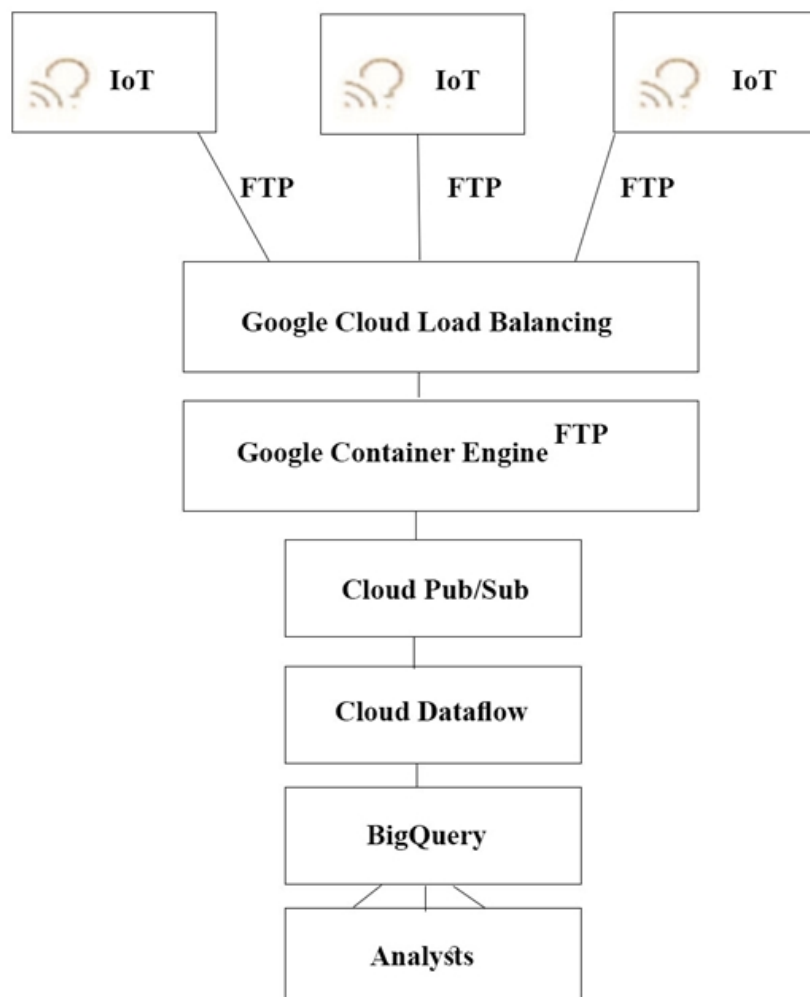
2. Source

The TerramEarth development team wants to create an API to meet the company's business requirements. You want the development team to **focus their development effort on business value** versus creating a custom framework. Which method should they use?

A. Use Google App Engine with Google **Cloud Endpoints**. Focus on an API for dealers and partners

B. Use Google App Engine with a JAX-RS Jersey Java-based framework. Focus on an API for the public

C. Use Google App Engine with the Swagger (Open API Specification) framework. Focus on an API for the public

D. Use Google Container Engine with a Django Python container. Focus on an API for the public

E. Use Google Container Engine with a Tomcat container with the Swagger (Open API Specification) framework. Focus on an API for dealers and partners

> Google offers Cloud Endpoint to develop, deploy and manage APIs on any google cloud backend.

REF

3. Source

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

REF

4. Source

TerramEarth plans to connect all 20 million vehicles in the field to the cloud. This increases the volume to 20 million 600 byte records **a second for 40 TB an hour**. How should you design the data ingestion?

A. Vehicles write data directly to GCS

B. **Vehicles write data directly to Google Cloud Pub/Sub**

C. Vehicles stream data directly to Google BigQuery

D. Vehicles continue to write data using the existing system (FTP)

> eliminate C, streaming data inserts in BQ are not free, also it doesn't seem optimized for writes.

REF

5. Source

You analyzed TerramEarth's business requirement to reduce downtime, and found that they can achieve a majority of time saving by reducing customer's 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

[REF]

    6. Source

Which of TerramEarth's legacy enterprise processes will experience significant change as a result of increased Google Cloud Platform adoption?

A. Opex/capex allocation, LAN changes, capacity planning

B. Capacity planning, TCO calculations, **opex/capex allocation**

C. Capacity planning, utilization measurement, data center expansion

D. Data Center expansion, TCO calculations, utilization measurement

> From the case study, it can conclude that Management (CXO) all concern rapid provision of resources (infrastructure) for growing as well as cost management, such as Cost optimization in Infrastructure, trade up front capital expenditures (Capex) for ongoing operating expenditures (Opex), and Total cost of ownership (TCO)

[REF]

    7. Source

C/D??

To speed up data retrieval, more vehicles will be upgraded to cellular connections and be able to transmit data to the ETL process. The current FTP process is error-prone(易于出错的) and restarts the data transfer from the start of the file when connections fail, which happens often. You want to **improve the reliability of the solution and minimize data transfer time** on the cellular connections. What should you do?

A. Use one Google Container Engine cluster of FTP servers. Save the data to a Multi-Regional bucket. Run the ETL process using data in the bucket

B. Use multiple Google Container Engine clusters running FTP servers located in different regions. Save the data to Multi-Regional buckets in US, EU, and Asia. Run the ETL process using the data in the bucket

C. Directly transfer the files to different Google Cloud Multi-Regional Storage bucket locations in US, EU, and Asia using Google APIs over HTTP(S). Run the ETL process using the data in the bucket

D. Directly transfer the files to a different Google Cloud **Regional Storage bucket** location in US, EU, and Asia using Google APIs over HTTP(S). Run the ETL process to retrieve the data from each Regional bucket

> Use a multi-region when you want to serve content to data consumers that are outside of the Google network and distributed across large geographic areas, or when you want the higher availability that comes with being geo-redundant.

[REF]

    8. Source

TerramEarth's 20 million vehicles are scattered around the world. Based on the vehicle's location, its telemetry data is stored in a Google Cloud Storage (GCS) regional bucket (US, Europe, or Asia). The CTO has asked you to run a report on the raw telemetry data to determine why vehicles are breaking down after 100 K miles. You want to run this job on all the data. What is the most cost-effective way to run this job?

A. Move all the data into 1 zone, then launch a Cloud Dataproc cluster to run the job

B. Move all the data into 1 region, then launch a Google Cloud Dataproc cluster to run the job

C. Launch a cluster in each region to preprocess and compress the raw data, then move the data into a multi-region bucket and use a Dataproc cluster to finish the job

D. Launch a cluster in each region to preprocess and compress the raw data, then move the data into a region bucket and use a Cloud Dataproc cluster to finish the job

> regional bucket and Cloud DataProc cluster certainly helps in a cost effective way.

[REF]

9. Source

TerramEarth has equipped all connected trucks with servers and sensors to collect 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's 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, and store it in a GCS Coldline bucket

> D --> most cost-effective

[REF]

10. Source

Your agricultural division is experimenting with fully autonomous vehicles. You want your architecture to promote strong security during vehicle operation. Which two architectures should you consider? (Choose two.)

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.

[REF]

11. Source

Operational parameters such as oil pressure are adjustable on each of TerramEarth's vehicles to increase their efficiency, depending on their environmental conditions. Your primary goal is to** increase the operating efficiency** of all 20 million cellular and unconnected vehicles in the field. How can you accomplish this goal?

A. Have you engineers inspect the data for patterns, and then create an algorithm with rules that make operational adjustments automatically

B. Capture all operating data, train machine learning models that identify ideal operations, and run locally to make operational adjustments automatically

C. Implement a Google Cloud Dataflow streaming job with a sliding window, and use Google Cloud Messaging (GCM) to make operational adjustments automatically

D. Capture all operating data, train machine learning models that identify ideal operations, and host in Google Cloud Machine Learning (ML) Platform to make operational adjustments automatically.

REF

1. Source

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 months. For Cloud Storage, use gsutil to enable lifecycle management using a DELETE action with an Age condition of 36 months.

B. Create a BigQuery table for the European data, and set the table retention period to 36 months. For Cloud Storage, use gsutil to create a SetStorageClass to NONE action when with an Age condition of 36 months.

C. Create a BigQuery **time-partitioned table** for the European data, and set the partition expiration period to 36 months. For Cloud Storage, use gsutil to enable **lifecycle managemen**t using a DELETE action with an Age condition of 36 months.

D. Create a BigQuery time-partitioned table for the European data, and set the partition expiration period to 36 months. For Cloud Storage, use gsutil to create a SetStorageClass to NONE action with an Age condition of 36 months.

> When you create a table partitioned by ingestion time, BigQuery automatically loads data into daily, date-based partitions that reflect the data's ingestion or arrival time.
>
> I Google recommends you configure the default table expiration for your datasets, configure the expiration time for your tables, and configure the partition expiration for partitioned tables.

REF1

REF2

2. Source

For this question, refer to the TerramEarth case study. TerramEarth has decided to store data files in Cloud Storage. You need to configure Cloud Storage lifecycle rule to **store 1 year of data** and minimize file storage cost. Which two actions should you take?

A. Create a Cloud Storage lifecycle rule with Age: "30", Storage Class: "Standard", and **Action: "Set to Coldline"**, and create a second GCS life-cycle rule with Age: "365", **Storage Class: "Coldline"**, and Action: "Delete".

B. Create a Cloud Storage lifecycle rule with Age: "30", Storage Class: "Coldline", and Action: "Set to Nearline", and create a second GCS life-cycle rule with Age: "91", Storage Class: "Coldline", and Action: "Set to Nearline".

C. Create a Cloud Storage lifecycle rule with Age: "90", Storage Class: "Standard", and Action: "Set to Nearline", and create a second GCS life-cycle rule with Age: "91", Storage Class: "Nearline", and Action: "Set to Coldline".

D. Create a Cloud Storage lifecycle rule with Age: "30", Storage Class: "Standard", and Action: "Set to Coldline", and create a second GCS life-cycle rule with Age: "365", Storage Class: "Nearline", and Action: "Delete".

REF

3. Source

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 **BigQuery**. **Use table partitioning**.

B. Replace the existing data warehouse with a Compute Engine instance with 96 CPUs.

C. Replace the existing data warehouse with BigQuery. Use federated data sources.

D. Replace the existing data warehouse with a Compute Engine instance with 96 CPUs. Add an additional Compute Engine preemptible instance with 32 CPUs.

> BigQuery supports partitioning tables by date. You enable partitioning during the table-creation process. BigQuery creates new date-based partitions automatically, with no need for additional maintenance. In addition, you can specify an expiration time for data in the partitions.

REF

4. Source

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 process. Clean the data in a Cloud Dataflow pipeline.

B. Create a Cloud Function that reads data from BigQuery and cleans it. Trigger the Cloud Function from a Compute Engine instance.

C. Create a SQL statement on the data in BigQuery, and save it as a view. Run the view daily, and save the result to a new table.

D. Use **Cloud Dataprep** and configure the BigQuery tables as the source. Schedule a daily job to clean the data.

> Dataprep has the capabilities to clean dirty data

[REF]

5. Source

For this question, refer to the TerramEarth case study. Considering the technical requirements, how should you **reduce the unplanned vehicle downtime** in GCP?

A. Use BigQuery as the data warehouse. Connect all vehicles to the network and **stream data** into BigQuery using **Cloud Pub/Sub** and Cloud Dataflow. Use Google Data Studio for analysis and reporting.

B. Use BigQuery as the data warehouse. Connect all vehicles to the network and upload gzip files to a Multi-Regional Cloud Storage bucket using gcloud. Use Google Data Studio for analysis and reporting.

C. Use Cloud Dataproc Hive as the data warehouse. Upload gzip files to a Multi-Regional Cloud Storage bucket. Upload this data into BigQuery using gcloud. Use Google Data Studio for analysis and reporting.

D. Use Cloud Dataproc Hive as the data warehouse. Directly stream data into partitioned Hive tables. Use Pig scripts to analyze data.

> Once all the vehicle are connected to network, there is no need to use FTP; data can be ingested directly to BQ using Pub/Sub and DataFlow.

[REF]

6. Source

For this question, refer to the TerramEarth case study. You are asked to design a new architecture for the ingestion of the data of the 200,000 vehicles that are connected to a cellular network. You want to follow Google-recommended practices. Considering the technical requirements, which components should you use for the ingestion of the data?

A. Google Kubernetes Engine with an SSL Ingress

B. **Cloud IoT Core** with public/private key pairs

C. Compute Engine with project-wide SSH keys

D. Compute Engine with specific SSH keys

> Cloud IoT Core Devices limits, per project, per region, is 'Unlimited', but the default is 100,000

REF

   1. Source

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_display. 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.

B. Make func_query 'Require authentication.' Create a **unique service account** and associate it to func_display. Grant the service account invoker role for func_query. Create an **id token** in func_display and include the token to the request when invoking func_query.

C. Make func_query 'Require authentication' and only accept internal traffic. Create those two functions in the same VPC. Create an ingress firewall rule for func_query to only allow traffic from func_display.

D. Create those two functions in the same project and VPC. Make func_query only accept internal traffic. Create an ingress firewall for func_query to only allow traffic from func_display. Also, make sure both functions use the same service account.

> Authentication function to function calls. Add calling function service account as a member on the receiving function and grant that member the cloud functions invoker

REF

   2. Source

B/C???

For this question, refer to the TerramEarth case study. 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 zones. Create Cloud Endpoints that point to the services. Create a global HTTP(S) Load Balancing instance and attach the Cloud Endpoints to its backend.

B. Deploy Cloud Run services to multiple regions. **Create serverless network endpoint groups** pointing to the services. Add the serverless **NEGs** to a backend service that is used by a global HTTP(S) Load Balancing instance.

C. Deploy Cloud Run services to multiple regions. In Cloud DNS, create a latency-based DNS name that points to the services.

D. Deploy Cloud Run services to multiple availability zones. Create a TCP/IP global load balancer. Add the Cloud Run Endpoints to its backend service.

REF

3. Source

For this question, refer to the TerramEarth case study. You are migrating a Linux-based application from your private data center to Google Cloud. The TerramEarth security team sent you several recent Linux vulnerabilities published by Common Vulnerabilities and Exposures (CVE). You need assistance in **understanding how these vulnerabilities could impact** your migration. What should you do? (Choose two.)

A. Open a **support case** regarding the CVE and chat with the support engineer.

B. Read the CVEs from the Google Cloud Status Dashboard to understand the impact.

C. Read the CVEs from the Google **Cloud Platform Security Bulletins** to understand the impact.

D. Post a question regarding the CVE in Stack Overflow to get an explanation.

E. Post a question regarding the CVE in a Google Cloud discussion group to get an explanation.

[REF]

4. Source

For this question, refer to the TerramEarth case study. 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 minute. 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.

B. Create a cron job on a Compute Engine VM that runs every minute. 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.

C. 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.

D. 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.

> Cloud monitoring for Uptime check to validate the application URL and leverage pub/sub to trigger Cloud Function to switch URL

REF

5. Source

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. Configure a trigger in Cloud Build for new source changes. Invoke Cloud Build to build container images for each microservice, and tag them using the **code commit hash**. Push the images to the **Container Registry**.

B. Configure a trigger in Cloud Build for new source changes. The trigger invokes build jobs and build container images for the microservices. Tag the images with a version number, and push them to Cloud Storage.

C. Create a Scheduler job to check the repo every minute. For any new change, invoke Cloud Build to build container images for the microservices. Tag the images using the current timestamp, and push them to the Container Registry.

D. Configure a trigger in Cloud Build for new source changes. Invoke Cloud Build to build one container image, and tag the image with the label 'latest.' Push the image to the Container Registry.

REF

6. Source

For this question, refer to the TerramEarth case study. TerramEarth has about 1 petabyte (PB) of vehicle testing data in a private data center. You want to move the data to Cloud Storage for your machine learning team. Currently, a **1-Gbps interconnect link** is available for you. The machine learning team wants to start using the data in a month. What should you do?

A. Request **Transfer Appliances** from Google Cloud, export the data to appliances, and return the appliances to Google Cloud.

B. Configure the Storage Transfer service from Google Cloud to send the data from your data center to Cloud Storage.

C. Make sure there are no other users consuming the 1Gbps link, and use multi-thread transfer to upload the data to Cloud Storage.

D. Export files to an encrypted USB device, send the device to Google Cloud, and request an import of the data to Cloud Storage.

[REF]

1. Source

The Dress4Win security team has disabled external SSH access into production virtual machines (VMs) on Google Cloud Platform (GCP). The operations team needs to **remotely manage the VMs**, build and push Docker containers, and manage Google Cloud Storage objects. What can they do?

A. Grant the operations engineer access to use **Google Cloud Shell**.

B. Configure a VPN connection to GCP to allow SSH access to the cloud VMs.

C. Develop a new access request process that grants temporary SSH access to cloud VMs when an operations engineer needs to perform a task.

D. Have the development team build an API service that allows the operations team to execute specific remote procedure calls to accomplish their tasks.

> Cloud Shell provides all the tools for managing Compute Engine instances. In this case the assumption that SSH access is needed is incorrect.

[REF]

2. Source

At Dress4Win, an operations engineer wants to create a tow-cost solution to remotely **archive copies** of database backup files. The database files are compressed tar files stored in their current data center. How should he proceed?

A. Create a cron script using gsutil to copy the files to a Coldline Storage bucket.

B. Create a cron script using gsutil to copy the files to a Regional Storage bucket.

C. Create a **Cloud Storage Transfer Service** Job to copy the files to a **Coldline** Storage bucket.

D. Create a Cloud Storage Transfer Service job to copy the files to a Regional Storage bucket.

REF

3. Source

Dress4Win has asked you to **recommend machine types** they should deploy their application servers to. How should you proceed?

A. Perform a mapping of the on-premises physical hardware cores and RAM to the nearest machine types in the cloud.

B. Recommend that Dress4Win deploy application servers to machine types that offer the highest RAM to CPU ratio available.

C. Recommend that Dress4Win deploy into production with the smallest instances available, monitor them over time, and scale the machine type up until the desired performance is reached.

D. Identify the number of virtual cores and RAM associated with the application server virtual machines align them to a **custom machine type** in the cloud, **monitor performance**, and scale the machine types up until the desired performance is reached.

> eliminate A, as its talking about Physical server size
>
> eliminate B, as we its talking about Max spec
>
> eliminate C, as its talking about the Smallest spec
>
> D --> as its recommending to map with on premises app VM Size

[REF]

4. Source

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

[REF]

5. Source

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.

> A --> It does not need to integrate with any on-premise systems. External dependencies are easier to manage through API based integration in Cloud

[REF]

6. Source

Dress4Win has asked you for advice on how to migrate their on-premises **MySQL** deployment to the cloud. They want to **minimize downtime** and performance impact to their on-premises solution during the migration. Which approach should you recommend?

A. Create a dump of the on-premises MySQL master server, and then shut it down, upload it to the cloud environment, and load into a new MySQL cluster.

B. Setup a MySQL replica **server/slave** in the cloud environment, and configure it for asynchronous replication from the MySQL master server on-premises until cutover.

C. Create a new MySQL cluster in the cloud, configure applications to begin writing to both on premises and cloud MySQL masters, and destroy the original cluster at cutover.

D. Create a dump of the MySQL replica server into the cloud environment, load it into: Google Cloud Datastore, and configure applications to read/write to Cloud Datastore at cutover.

> eliminate A, Will cause downtime.
>
> eliminate C, Business impact, incosistency in data.
>
> eliminate D,Cloud DataStore is NoSQL DB

REF

7. Source

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)

> or a health check on http (port 80) you don't need to configure nothing in the server

REF

8. Source

As part of their new application experience, Dress4Wm allows customers to upload images of themselves. The customer has **exclusive control** over who may view these images. Customers should be able to upload images with minimal latency and also be shown their images quickly on the main application page when they log in. Which configuration should Dress4Win use?

A. Store image files in a Google Cloud Storage bucket. Use **Google Cloud Datastore to maintain metadata** that maps each customer's ID and their image files.

B. Store image files in a Google Cloud Storage bucket. Add custom metadata to the uploaded images in Cloud Storage that contains the customer's unique ID.

C. Use a distributed file system to store customers' images. As storage needs increase, add more persistent disks and/or nodes. Assign each customer a unique ID, which sets each file's owner attribute, ensuring privacy of images.

D. Use a distributed file system to store customers' images. As storage needs increase, add more persistent disks and/or nodes. Use a Google Cloud SQL database to maintain metadata that maps each customer's ID to their image files.

> The whole idea is simply build and maintain an external metadata service using NoSQL database to associate the GS object key with its metadata, in order to facilitate object findings based on attributes you pre defined in metatdata.

[REF]

9. Source

Dress4Win has end-to-end tests covering 100% of their endpoints. They want to ensure that the move to the cloud does not introduce any new bugs. Which additional **testing methods** should the developers employ to prevent an outage?

A. They should enable Google Stackdriver Debugger on the application code to show errors in the code.

B. They should add additional **unit tests** and production scale load tests on their cloud staging environment.

C. They should run the end-to-end tests in the cloud staging environment to determine if the code is working as intended.

D. They should add canary tests so developers can measure how much of an impact the new release causes to latency.

> eliminate C, they already have end-to-end test. Running it on staging environment will not prevent an outage

[REF]

10. Source

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 data. 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.

REF

11. Source

The current Dress4Win system architecture has high latency to some customers because it is located in one data center. As of a future evaluation and optimizing for performance in the cloud, Dresss4Win wants to **distribute its system architecture to multiple locations** when Google cloud platform. Which approach should they use?

A. Use **regional managed instance groups** and a global load balancer to increase **performance** because the regional managed instance group can grow instances in each region separately based on traffic.

B. Use a global load balancer with a set of virtual machines that forward the requests to a closer group of virtual machines managed by your operations team.

C. Use regional managed instance groups and a global load balancer to increase reliability by providing automatic failover between zones in different regions.

D. Use a global load balancer with a set of virtual machines that forward the requests to a closer group of virtual machines as part of a separate managed instance groups.

> Each region can have an instance group linked to a global load balancer. Instance groups do not need to be multi regional for this to work.

[REF]

1. Source

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 Storage. Deploy RabbitMQ, and deploy Hadoop servers using Deployment Manager.

B. Migrate RabbitMQ to Cloud Pub/Sub, Hadoop to BigQuery, and NAS to Compute Engine with Persistent Disk storage. Deploy Tomcat, and deploy Nginx using Deployment Manager.

C. Implement managed instance groups for Tomcat and Nginx. Migrate MySQL to Cloud SQL, RabbitMQ to Cloud Pub/Sub, Hadoop to Cloud Dataproc, and NAS to Compute Engine with Persistent Disk storage.

D. Implement managed instance groups for the **Tomcat and Nginx**. Migrate MySQL to Cloud SQL, RabbitMQ to Cloud Pub/Sub, Hadoop to Cloud Dataproc, and **NAS to Cloud Storage**.

> - Use Cloud Marketplace to provision Tomcat and Nginx on Google Compute Engine.
>
> - Replace MySQL with Cloud SQL for MySQL.
>
> - Use the Deployment Manager to provision Jenkins on Google Compute Engine. is the right answer.

[REF]

2. Source

For this question, refer to the Dress4Win case study. Considering the given business requirements, how would you **automate the deployment of web and transactional data layers**?

A. Deploy Nginx and Tomcat using **Cloud Deployment Manager** to Compute Engine. Deploy a **Cloud SQL** server to replace MySQL. Deploy Jenkins using Cloud Deployment Manager.

B. Deploy Nginx and Tomcat using Cloud Launcher. Deploy a MySQL server using Cloud Launcher. Deploy Jenkins to Compute Engine using Cloud Deployment Manager scripts.

C. Migrate Nginx and Tomcat to App Engine. Deploy a Cloud Datastore server(not exist) to replace the MySQL server in a high-availability configuration. Deploy Jenkins to Compute Engine using Cloud Launcher.

D. Migrate Nginx and Tomcat to App Engine. Deploy a MySQL server using Cloud Launcher. Deploy Jenkins to Compute Engine using Cloud Launcher.

[REF]

3. Source

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

> ardoop == dataproc. pretty much a cloud version.

REF

4. Source

For this question, refer to the Dress4Win case study. To be legally compliant during an audit, Dress4Win must be able to give **insights in all administrative actions that modify the configuration or metadata of resources** on Google Cloud. What should you do?

A. Use Stackdriver Trace to create a Trace list analysis.

B. Use Stackdriver Monitoring to create a dashboard on the project's activity.

C. Enable Cloud Identity-Aware Proxy in all projects, and add the group of Administrators as a member.

D. Use the **Activity page** in the GCP Console and Stackdriver Logging to provide the required insight.

REF

5. Source

For this question, refer to the Dress4Win case study. You are responsible for the security of data stored in Cloud Storage for your company, Dress4Win. You have already created a set of Google Groups and assigned the appropriate users to those groups. You should use Google **best practices** and implement the **simplest design** to meet the requirements. Considering Dress4Win's business and technical requirements, what should you do?

A. Assign custom IAM roles to the Google Groups you created in order to enforce security requirements. Encrypt data with a customer-supplied encryption key when storing files in Cloud Storage.

B. Assign custom IAM roles to the Google Groups you created in order to enforce security requirements. Enable default storage encryption before storing files in Cloud Storage.

C. Assign **predefined IAM roles** to the Google Groups you created in order to enforce security requirements. Utilize Google's **default encryption** at rest when storing files in Cloud Storage.

D. Assign predefined IAM roles to the Google Groups you created in order to enforce security requirements. Ensure that the default Cloud KMS key is set before storing files in Cloud Storage.

REF

6. Source

B/D??

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.

REF