

Google Cloud Architect Certification Bootcamp Example Questions

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Presentation Questions

Question 1

Which of the following are true of GCP Zones? (choose two)

- A. Zones should be considered a single failure domain within a region
- **B.** To deploy fault-tolerant applications with high availability, applications should be deployed across multiple Zones in a Region to help protect against unexpected failures
- **C.** Every GCP Region has at least 4 Zones
- **D.** In the Event of a Zonal outage, all GCP Resources within the failed Zone will automatically be redeployed to another Zone within the same Region
- **E.** In the Event of a Zonal outage, all GCP Resources within the failed Zone will automatically be redeployed to another Zone in a different Region

Question 2

Which of the following Interfaces CANNOT be used to manage GCP Resources?

- A. Command-line interface / Cloud SDK
- B. Client Libraries / Google Cloud APIs
- C. Google Cloud Platform Console
- D. Cloud Shell
- E. Cloud Station Console Interface
- F. Cloud Console Mobile App

Question 3

Which of the following are the two main components of a Shared VPC?

- A. Host Network & Service Network
- B. Host VPC & Service VPC
- C. Host Project & Service Project

Question 4

Which GCP Service supports both Static and Dynamic Routing and provides a single Secure Tunnel?

- A. HA (High Availability) VPN
- B. Classic VPN Premium
- C. VPN HA (High Availability)
- D. Direct Peering
- E. Classic Direct Peering
- F. Premium Direct Peering

Which type of Cloud Load Balancer is intended for Global Traffic that is not HTTP(S) and not SSL Encrypted?

- **A.** Global HTTP(S)
- **B.** Global SSL Proxy
- **C.** Global TCP Proxy
- D. Network Load Balancer
- E. Internal Load Balancer
- F. External Load Balancer

Question 6

What is the minimum number of Instances for a Service deployed to the App Engine Standard Environment?

- **A.** 0
- **B.** 1
- **C.** 2
- **D.** 3
- **E.** 4
- **F.** 5

Question 7

Which of the following can provide additional performance for GCP Compute Engines? (choose two)

- A. CPU Bursting capabilities for Shared Core Compute Engine Types
- B. CPU Bursting capabilities for Compute Optimized Compute Engine Types
- C. CPU Bursting capabilities for Memory Optimized Compute Engine Types
- **D.** Optional additional GPUs for General Purpose Compute Engine Types
- E. Optional additional GPUs for Memory Optimized Compute Engine Types
- F. Optional additional GPUs for Shared Compute Engine Types

Question 8

Kubernetes is best described by which of the following?

- A. Proprietary Container Orchestrator
- **B.** Open-Source VM Orchestrator
- **C.** Open-Source Container Orchestrator
- **D.** Proprietary VM Orchestrator
- E. Java Runtime Engine
- F. Hadoop Ecosystem Framework

What service provides the ability to Design, Secure, Publish, Analyze, Monitor, and Monetize APIs?

- A. Cloud API Manager
- B. Cloud API Designer
- C. Cloud API
- **D.** Cloud Endpoints
- E. Apigee
- F. Cloud Gateway

Question 10

True or False: Spinnaker can be integrated with Cloud Build to provide a complete CI/CD pipeline.

- **A.** True
- **B.** False

Question 11

Which open-source software library can be used to construct Neural Networks?

- A. Skynet
- **B.** Skyflow
- C. TensorFlow
- D. Cloud Brain
- E. Cloud Synapses
- F. Apache Spark

Question 12

Data can be uploaded to Cloud Storage through a Network using which of the following methods? (choose three)

- A. Google Cloud Console
- **B.** File System Mounting using Cloud Fuse
- C. Cloud Storage Bulk Upload desktop application
- **D.** Cloud SDK / gsutil
- E. Cloud Transfer Appliance
- F. Cloud Slingshot

Ouestion 13

GCP Cloud SQL provides which of the following Backup types? (choose two)

- A. On-Demand Backups
- B. Preemptible Backups
- C. Automated Backups
- D. Failover Backups
- **E.** Archived Backups
- F. Scheduled Backups

True or False: Unique Tables and Unique Garbage Collection Policies can be assigned to a specific Cluster in a Bigtable Instance.

- **A.** True
- **B.** False

Question 15

Which of the following is true regarding loading data into BigQuery? (choose three)

- A. BigQuery can ingest CSV and JSON data from Cloud Storage
- **B.** The BigQuery Data Transfer Service automates data movement from Software as a Service (SaaS) applications such as Google Ads and Google Ad Manager on a scheduled, managed basis
- **C.** Cloud BTT (Bigtable Transfer Service) provides dedicated connections for moving data between Bigtable and BigQuery
- **D.** Cloud BigLoad provides streaming and batch data pipelines for moving data into BigQuery
- E. Dataflow can stream data into BigQuery at speeds of 100k rows/s

Question 16

Cloud Dataproc is used primarily to create which types of Clusters? (choose two)

- **A.** MySQL
- B. PostgreSQL
- C. MongoDB
- **D.** Apache Hadoop
- E. Apache Spark
- F. Apache Lucene

Question 17

True or False: Cloud Dataparse provides automatic schema detection and suggests predictive transformations.

- **A.** True
- **B.** False

Which of the following most accurately describes an Effective Policy for a GCP Resource?

- **A.** The Effective Policy for a GCP Resource is the Policy that has been directly set for a GCP Resource
- B. The Effective Policy for a GCP Resource is the aggregation of all inherited Policies
- **C.** The Effective Policy is an aggregation of the least restrictive Policies
- **D.** The Effective Policy is an aggregation of the most restrictive Policies
- **E.** The Effective Policy for a GCP Resource is the union of the Resource policy and all inherited Policies
- **F.** The Effective Policy for a GCP Resource is the intersection of the Resource policy and all inherited Policies

Question 19

Which GCP Service tracks Admin Activity, Data Access, and System Events for GCP Resources?

- A. Logs Viewer
- B. Cloud Audit Log
- C. Cloud Log Capture
- **D.** Log Search
- E. Cloud Report
- F. Cloud Repository

Scenario Questions

Scenario Question 1

An application you deployed to Google Cloud uses a single Cloud SQL for MySQL instance in *us-west1-a* zone. What should you do to ensure high availability?

- **A.** Create a MySQL read replica in us-east1 (different region)
- **B.** Create a MySQL failover replica in us-east1 (different region)
- **C.** Create a MySQL failover replica in us-west1-b (same region but different zone)
- **D.** Create a MySQL read replica in us-west1-b (same region but different zone)

Scenario Question 2

To reduce costs, the Director of Engineering has required all developers to move their development infrastructure resources from on-premises virtual machines (VMs) to Google Cloud Platform. These resources go through multiple start/stop events during the day and require state to persist. You have been asked to design the process of running a development environment in Google Cloud while providing cost visibility to the finance department. Which two steps should you take?

- **A.** Use persistent disks to store the state. Start and stop the VM as needed
- **B.** Use the –auto-delete flag on all persistent disks before stopping the VM
- C. Apply VM CPU utilization label and include it in the BigQuery billing export
- **D.** Use BigQuery billing export and labels to relate cost to groups
- E. Store all state in local SSD, snapshot the persistent disks, and terminate the VM

Scenario Question 3

You deployed multiple applications in a GKE cluster; however, one application is not responding to requests. All pods of the deployment that underpins the troublesome application keep restarting every 10 seconds. You have been asked to inspect the logs and identify the issue. What should you do?

- A. Connect to a VM in the node pool, use kubectl exec -it <container id> /bin/bash to SSH
- **B.** In Cloud Logging, inspect logs of all pods that serve in the troublesome application
- **C.** In Cloud Logging, inspect logs of all compute engine instances from the GKE node pool
- **D.** Inspect Serial Port logs of all compute engine instances from the GKE node pool

Scenario Question 4

The database administration team has asked you to help them improve the performance of their new database server running on Compute Engine. The database is used for importing and normalizing the company's performance statistics. It is built with MySQL running on Debian Linux. They have an n1-standard-8 virtual machine with 80 GB of SSD zonal persistent disk. What should they change to get better performance from this system in a cost-effective manner?

- **A.** Increase the virtual machine's memory to 64 GB.
- B. Create a new virtual machine running PostgreSQL.
- **C.** Dynamically resize the SSD persistent disk to 500 GB.
- **D.** Migrate their performance metrics warehouse to BigQuery.

Scenario Question 5

Your company wants to track whether someone is present in a meeting room reserved for a scheduled meeting. There are 1000 meeting rooms across 5 offices on 3 continents. Each room is equipped with a motion sensor that reports its status every second. You want to support the data ingestion needs of this sensor network. The receiving infrastructure needs to account for the possibility that the devices may have inconsistent connectivity. Which solution should you design?

- **A.** Have each device create a persistent connection to a Compute Engine instance and write messages to a custom application.
- **B.** Have devices poll for connectivity to Cloud SQL and insert the latest messages on a regular interval to a device specific table.
- **C.** Have devices poll for connectivity to Cloud Pub/Sub and publish the latest messages on a regular interval to a shared topic for all devices.
- **D.** Have devices create a persistent connection to an App Engine application fronted by Cloud Endpoints, which ingest messages and write them to Cloud Datastore.

Case Studies Questions

- <u>TerramEarth</u>
- Dress4Win
- Mountkirk Games

Case Study Question 1 - TerramEarth

Because you do not know every possible future use for the data TerramEarth collects, you have decided to build a system that captures and stores all **raw data** in case you need it later. How can you most cost-effectively accomplish this goal?

- A. Have the vehicles in the field stream the data directly into BigQuery.
- **B.** Have the vehicles in the field pass the data to Cloud Pub/Sub and dump it into a Cloud Dataproc cluster that stores data in Apache Hadoop Distributed File System (HDFS) on persistent disks.
- **C.** Have the vehicles in the field continue to dump data via FTP, adjust the existing Linux machines, and use a collector to upload them into Cloud Dataproc HDFS for storage.
- **D.** Have the vehicles in the field continue to dump data via FTP and adjust the existing Linux machines to immediately upload it to Cloud Storage with gsutil.

Case Study Question 2 - Mountkirk Games

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