

 **yilexar** 1 year, 2 months ago

Use Blue-Green to reduce rollback. Check this blog ([When testing in Green environment, you don't perform rollback if test failed in Green.](https://circleci.com/blog/canary-vs-blue-green-downtime/#:~:text=In%20blue%2Dgreen%20deployment%20you,first%2C%20before%20finishing%20the%20others.): Using your load balancers to direct traffic keeps your blue environment running seamlessly for production users while you test and deploy to your green environment. When your deployment and testing are successful, you can switch your load balancer to target your green environment with no perceptible change for your users.</p>
</div>
<div data-bbox=)

upvoted 1 times

  **ChinaSailor** 1 year, 3 months ago

A to validate your deployment and C to ensure that errors do not cascade across the process

upvoted 2 times

  **heretolearnazure** 1 year, 3 months ago

A&C is correct!

upvoted 1 times

Question #7

Topic 1

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? (Choose two.)

- A. Use the `--no-auto-delete` flag on all persistent disks and stop the VM
- B. Use the `--auto-delete` flag on all persistent disks and terminate the VM
- C. Apply VM CPU utilization label and include it in the BigQuery billing export
- D. Use Google BigQuery billing export and labels to associate cost to groups
- E. Store all state into local SSD, snapshot the persistent disks, and terminate the VM
- F. Store all state in Google Cloud Storage, snapshot the persistent disks, and terminate the VM

  **[Removed]**  2 months, 4 weeks ago

I spent all morning researching this question. I just popped over and took the GCP Practice exam on Google's website and guess what... this question was on it word for word, but it had slightly different answers, but not by much here is what I learned. The correct answer is 100% A / and here is why. On the sample question, the "F" option is gone. "A" is there but slightly reworked, it now says: "Use persistent disks to store state. Start and stop the VM as needed" which makes much more sense. The practice exam says A and D are correct. Given the wording of the question, if A and B, where there then both would be correct because of the word "persistent" and not because of the flag. The "no-auto-delete" makes A slightly safer than B, but it is the "persistent disk" that makes them right, not the flag. Hope that helps! F is not right because that is a complex way of solving the issue that by choosing Persistent Disk solves it up front. HTH

upvoted 74 times

  **[Removed]** 2 years, 4 months ago

(A) is not sense because the flag is to preserve disk when the instances was deleted, when the instances was stopped the data on persistent disk are not deleted. So good to know that the response was reworked

(B) is wrong because only on AWS you can terminate instances. On GCP the "terminate" action do not exist .

upvoted 4 times

  **rishab86** Highly Voted 3 years, 6 months ago

A and D looks correct as per <https://cloud.google.com/sdk/gcloud/reference/compute/instances/set-disk-auto-delete#--auto-delete> ;
<https://cloud.google.com/billing/docs/how-to/export-data-bigquery>

upvoted 22 times

  **RKS_2021** 3 years, 5 months ago

-no-auto-delete flag does not have effect on the state of the application. I believe D and F are correct ANS,
<https://cloud.google.com/compute/docs/instances/stop-start-instance>

upvoted 3 times

  **Ekramy_Elnaggar** Most Recent 1 month, 1 week ago

Selected Answer: AD

Answer is : A& D

A. Use the --no-auto-delete flag on all persistent disks and stop the VM:

1. Cost Savings: When you stop a VM, you only pay for the persistent disks attached to it. The --no-auto-delete flag ensures that the disks remain available even when the VM is stopped, preserving the developers' work and avoiding the cost of recreating the environment from scratch each time.
2. State Persistence: This approach ensures that the development environment's state is saved on the persistent disk, allowing developers to resume their work seamlessly when they restart the VM.

D. Use Google BigQuery billing export and labels to associate cost to groups:

1. Cost Visibility: BigQuery billing export allows you to analyze your Google Cloud costs in detail. By applying labels to your resources (e.g., "environment: development", "team: frontend"), you can categorize and track costs associated with different development groups.

upvoted 2 times

  **Hungdv** 4 months, 1 week ago

Choose A and D

upvoted 1 times

  **Septhethus** 6 months, 1 week ago

Another confusing question because I took the "these machines go through multiple stop/starts during the day" as a part of the migration, not a part of daily functionality, so none of the answers other than D made much sense to me. People need to word the questions better on tests give more than enough context or people like me are going to get confused, second guess our answers, and fail.

upvoted 1 times

  **afsarkhan** 7 months, 1 week ago

Selected Answer: AD

F is too complex solution to solve this problem.

E local SSD does not persist on termination of vm so this is also a wrong option

A, B suggest persistent disk but I think A makes better sense.

So my answer is A and D

upvoted 1 times

  **44eacc1** 8 months ago



E wrong:

Scenarios where Compute Engine does not persist Local SSD data

Data on Local SSD disks does not persist through the following events:

If you shut down the guest operating system and force the VM to stop.

upvoted 1 times

  **shikha344** 9 months ago

Hi all, i am trying to view questions from 135. But i cannot access the page as it is asking for contributor access. Is it same for everyone?

upvoted 1 times

  **d0094d6** 10 months, 3 weeks ago

Selected Answer: A

From the GCP Practice exam... A and D

upvoted 2 times

🗨️ 👤 **Teckexam** 11 months ago

Based on documentation A is correct <https://cloud.google.com/sdk/gcloud/reference/compute/instances/set-disk-auto-delete>
Also the documentation clearly states that this flag will help retain the state when VM is started/stopped.
<https://cloud.google.com/blog/products/storage-data-transfer/save-money-by-stopping-and-starting-compute-engine-instances-on-schedule>
For cost visibility option D is correct.
upvoted 1 times

🗨️ 👤 **hzaoui** 11 months, 1 week ago

Selected Answer: DE

D. Use Google BigQuery billing export and labels to associate cost to groups: This offers granular cost visibility across various development teams or projects through BigQuery data analysis. Combining labels with billing export allows you to associate resource consumption with specific groups, enabling chargeback mechanisms and fostering cost accountability.
E. Store all state into local SSD, snapshot the persistent disks, and terminate the VM: This option minimizes ongoing cost by utilizing low-cost local SSD for active state during runtime and terminating the VM when development isn't ongoing. Snapshots offer quick restoration back to the latest state without incurring persistent disk charges during downtime.
upvoted 1 times

🗨️ 👤 **kshlgpt** 11 months, 3 weeks ago

DF. This is the question in google practice test.
upvoted 1 times

🗨️ 👤 **cfigueiredo** 12 months ago

Selected Answer: DF

D & F for me
upvoted 1 times

🗨️ 👤 **Prakzz** 1 year, 2 months ago

How can D ever be right coz it's Bigquery Billing Export and question is about VM billing
upvoted 1 times

🗨️ 👤 **ArtistS** 1 year, 1 month ago

This means you can export the billing to the BQ and then do analysis.
upvoted 1 times

🗨️ 👤 **AdityaGupta** 1 year, 2 months ago

Selected Answer: AD

A is correct, Use of persistent disk means the data is preserved even after restart. --no-auto-delete on persistent disk means persistent disk won't be deleted when VM is deleted.

D is correct, because second part of question asks for billing report to finance department and Label and BQ helps in cost analysis.
upvoted 4 times

🗨️ 👤 **lucaluca1982** 1 year, 4 months ago

Selected Answer: BD

B and D. A is wrong because, (--no-auto-delete) would lead to extra storage costs for the disks even when VMs are not running.
upvoted 1 times

🗨️ 👤 **JC0926** 1 year, 8 months ago

same question, official option:
A. Use persistent disks to store the state. Start and stop the VM as needed.
B. Use the "gcloud --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 a Local SSD, snapshot the persistent disks, and terminate the VM.

This question will not be tested, no need to read
upvoted 3 times

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. The data from the motion detector includes only a sensor ID and several different discrete items of information. Analysts will use this data, together with information about account owners and office locations.

Which database type should you use?

- A. Flat file
- B. NoSQL
- C. Relational
- D. Blobstore

  **clouddude** Highly Voted 4 years, 7 months ago
I'll go with B.

This is time series data. We also have no idea what kinds of data are being captured so it doesn't appear structurd.


A does not seem reasonable because a flat file is not easy to query and analyze.

B seems reasonable because this accommodates unstructured data.

C seems unreasonable because we have no idea on the structure of the data.

D seems unreasonable beacause there is no such Google database type.

upvoted 34 times

  **ddatta** Most Recent 3 weeks, 2 days ago

Selected Answer: B

We don't know the data type. Only nosql make sense.

upvoted 1 times

  **Ekramy_Elnaggar** 1 month, 1 week ago

Selected Answer: B

Answer is B.

1. High Volume and Velocity of Data: You have 1000 rooms reporting data every second, resulting in a massive amount of data with high velocity. NoSQL databases are designed to handle this kind of volume and speed efficiently.

2. Simple Data Structure: The data from the motion sensor is relatively simple (sensor ID and discrete information). NoSQL databases are well suited for storing and processing this type of data without the need for complex schemas.

3. Flexible Schema: NoSQL databases offer schema flexibility, allowing you to easily adapt to changes in the data structure if needed. This is important as your tracking requirements might evolve over time.

4. Scalability: NoSQL databases are highly scalable, making it easy to accommodate future growth in the number of meeting rooms or data volume.

upvoted 1 times

  **ashishdwi007** 11 months ago

Selected Answer: B

With frequencies of data (per second), the best case would be using pub/sub and NoSQL. Relational DB/BlobStore/FlatFile are not good for N realtime data.

upvoted 2 times

🗨️ **hzaoui** 11 months, 1 week ago

Selected Answer: C

C. Relational database.

Here's why:

Scalability: A relational database can handle the data volume from 1000 sensors reporting every second effectively.

Structure: It provides a well-defined schema for organizing data like sensor ID, timestamp, motion status, account owner, and office location, making it easily queryable and understandable for analysts.

Relationships: It allows establishing relationships between tables, such as linking sensor data to specific meeting rooms and their correspond owners and locations. This facilitates analyses involving multiple data sources.

Flexibility: Relational databases offer flexibility for expanding data collection beyond motion sensors in the future to include other sensor type: meeting room details.

upvoted 1 times

🗨️ **_kartik_raj** 1 year, 2 months ago

B, It is

upvoted 1 times

🗨️ **AdityaGupta** 1 year, 2 months ago

Selected Answer: B

Unstructured realtime aata

upvoted 1 times

🗨️ **ChinaSailor** 1 year, 3 months ago

Selected Answer: B

b [You need separete fields and keys -- you do not need to relate them

upvoted 1 times

🗨️ **heretolearnazure** 1 year, 3 months ago

NOSQL DB's are meant for these kind of workloads

upvoted 1 times

🗨️ **BiddlyBdoyn** 1 year, 6 months ago

The requirement to join the data to other data sets implies RDBMS.

BigQuery can handle 1GB/s when streaming inserts, I doubt these 1000 sensors will send that much data.

Bigtable seems over the top and not able to fulfil all the requirements.

upvoted 2 times

🗨️ **Deb2293** 1 year, 9 months ago

Selected Answer: B

This will be time-series data. The best DB would be a Big Table (also sensorID can be used in the row key for faster retrieval of data)

upvoted 3 times

🗨️ **AShrujit** 1 year, 11 months ago

B for me

upvoted 1 times

🗨️ **Jaldhi24** 1 year, 12 months ago

Selected Answer: B

B is right

upvoted 1 times

🗨️ **angelumesh** 2 years ago

Selected Answer: B

B (No SQL should be the right answer)

upvoted 1 times

🗨️ **zr79** 2 years, 2 months ago

surprised by the options given, this is a great use case of Bigtable so NoSQL

upvoted 2 times

🗨️ **AzureDP900** 2 years, 2 months ago

B is right

upvoted 1 times

🗨️ **minmin2020** 2 years, 2 months ago

Selected Answer: B

B. NoSQL - unstructured data

Question #9

Topic 1

You set up an autoscaling instance group to serve web traffic for an upcoming launch. After configuring the instance group as a backend service to an HTTP(S) load balancer, you notice that virtual machine (VM) instances are being terminated and re-launched every minute. The instances do not have a public IP address.

You have verified the appropriate web response is coming from each instance using the curl command. You want to ensure the backend is configured correctly.

What should you do?

- A. Ensure that a firewall rules exists to allow source traffic on HTTP/HTTPS to reach the load balancer.
- B. Assign a public IP to each instance and configure a firewall rule to allow the load balancer to reach the instance public IP.
- C. Ensure that a firewall rule exists to allow load balancer health checks to reach the instances in the instance group.
- D. Create a tag on each instance with the name of the load balancer. Configure a firewall rule with the name of the load balancer as the source and the instance tag as the destination.

🗨️ **Eroc** **Highly Voted** 2 months, 4 weeks ago

"A" and "B" wouldn't turn the VMs on or off, it would jsut prevent traffic. "C" would turn them off if the health check is configured to terminate VM is it fails. "D" is the start of a pseudo health check without any logic, so it also isn't an answer because it is like "A" and "B". Correct Answ "C"

upvoted 35 times

🗨️ **tartar** 4 years, 4 months ago

C is ok

upvoted 14 times

🗨️ **nitinz** 3 years, 9 months ago

C because terminated and relaunch.... something wrong with HC.

upvoted 6 times

🗨️ **AzureDP900** 2 years, 2 months ago

agreed and C is right

upvoted 2 times

🗨️ **TheCloudBoy77** **Highly Voted** 3 years, 1 month ago

A. Ensure that a firewall rules exists to allow source traffic on HTTP/HTTPS to reach the load balancer. >> not correct, load balancer is not the issue here.

B. Assign a public IP to each instance and configure a firewall rule to allow the load balancer to reach the instance public IP. >> defeats the purpose of getting load balancers , not correct

C. Ensure that a firewall rule exists to allow load balancer health checks to reach the instances in the instance group.>> Correct. if using differ port then appropriate FW rule need to be setup to ensure LB can reach backend instances for healthcheck. if healthcheck traffic is blkcd, instances will be marked unhealthy and will be restarted.

D. Create a tag on each instance with the name of the load balancer. Configure a firewall rule with the name of the load balancer as the source and the instance tag as the destination.>> tagging is not useful here as the instance is not the source of traffic, just the port need to be opene on FW.



upvoted 7 times

  **Ekramy_Elnaggar** Most Recent 1 month, 1 week ago

Selected Answer: C


1. Health Checks are Essential: Load balancers rely on health checks to determine if instances in the backend pool are healthy and able to serve traffic. If the health checks fail, the load balancer assumes the instance is unhealthy and terminates it, leading to the constant cycling you're observing.
2. Firewall Rules for Health Checks: Even though your instances don't have public IPs, the load balancer needs to communicate with them through internal IPs for health checks. Firewall rules must be configured to allow this communication.
3. How Health Checks Work: The load balancer sends requests (e.g., HTTP, HTTPS, TCP) to the instances on a specific port and expects a certain response. The firewall needs to allow these requests to reach the instances and the responses to return to the load balancer.

upvoted 1 times

  **subramanyam46** 9 months, 2 weeks ago

c is right

upvoted 1 times

  **hzaoui** 11 months, 1 week ago

Selected Answer: C

C is correct

upvoted 1 times

  **yas_cloud** 11 months, 4 weeks ago

Most likely the problem of instances terminating is with the threshold settings on the health check. It's thinking too sooner that some VMs can be terminated due to less load.

upvoted 1 times

  **Arun_m_123** 1 year, 2 months ago

One thing that i couldn't understand is - How VMs getting terminated and relaunched for not setting health-checks in the load balancer ? how that affect VM's uptime ?

upvoted 2 times

  **AdityaGupta** 1 year, 2 months ago

Selected Answer: C

If the healthcheck is not successful, it will keep on re-creating the instances in MIG.

upvoted 1 times

  **angelumesh** 2 years ago

Selected Answer: C

C (LB Health check should be taken care of)



upvoted 2 times

  **Mahmoud_E** 2 years, 1 month ago

Selected Answer: C

C is the correct answer



upvoted 2 times

  **minmin2020** 2 years, 2 months ago

Selected Answer: C

C. Ensure that a firewall rule exists to allow load balancer health checks to reach the instances in the instance group.



upvoted 3 times

  **YAS007** 2 years, 8 months ago

answer C:

<https://cloud.google.com/load-balancing/docs/health-check-concepts#ip-ranges>


upvoted 2 times

  **AWS56** 2 years, 10 months ago

Selected Answer: C

C is correct.

upvoted 2 times

  **OrangeTiger** 2 years, 11 months ago

C is correct.

upvoted 1 times

  **OrangeTiger** 2 years, 11 months ago

' (VM) instances are being terminated and re-launched every minute. ' Isn't it because the health check is failing.

A & D Maybe already there. curl command passed.

B What are you doing. Absolutely no.

upvoted 2 times

  **haroldbenites** 3 years ago

Go for C.

This questions is in sample questions of Google


<https://docs.google.com/forms/d/e/1FAIpQLSdvf8Xq6m0kvyloysdr8WZYCG32WHENStftiHTSdtW4ad2-0w/viewform>

upvoted 4 times

  **vincy2202** 3 years, 1 month ago

C is the correct answer.

upvoted 2 times

  **unnikrisb** 3 years, 2 months ago

Option C

If curl command is working then traffic exists.. So we need to check why health checks are failing.. so firewall issues for health check done by Google probes

upvoted 2 times

Question #10

Topic 1

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 gcloud with the command `gcloud components install bq`.

  **kalschi**  2 months, 4 weeks ago



A - If client library was not installed, the python scripts won't run - since the question states the script reports "cannot connect" - the client lib must have been installed. so it's B or C.

B - <https://cloud.google.com/bigquery/docs/authorization> an access scope is how your client application retrieve access_token with access permission in OAuth when you want to access services via API call - in this case, it is possible that the python script use an API call instead of library, if this is true, then access scope is required. client library requires no access scope (as it does not go through OAuth)

C - service account is Google Cloud's best practice

So prefer C.

upvoted 98 times

  **rishab86** 3 years, 2 months ago

Access scopes are the legacy method of specifying permissions for your instance. read from >

<https://cloud.google.com/compute/docs/access/service-accounts> . So , I would go with C

upvoted 11 times

🗨️ 👤 **Vika** 3 years, 10 months ago
agreed to comment here . C seems like a good option
upvoted 4 times

🗨️ 👤 **MQQNB** 2 years, 4 months ago
agree
access scope is enabled by default
https://cloud.google.com/bigquery/docs/authorization#authenticate_with_oauth_20

If you use the BigQuery client libraries, you do not need this information, as this is done for you automatically.

upvoted 2 times

🗨️ 👤 **Musk** 4 years, 6 months ago
Might be an old version
upvoted 4 times

🗨️ 👤 **KouShikyou** Highly Voted 5 years, 1 month ago

Why not B? It looks better for me.

upvoted 13 times

🗨️ 👤 **tartar** 4 years, 4 months ago

C is ok

upvoted 11 times

🗨️ 👤 **tartar** 4 years, 4 months ago

Sorry, B is ok. You can create service account, add user to service account, and grant the user role as Service Account User. You still need to enable BigQuery scope to make the Python script running the instance to access BigQuery.

upvoted 15 times

🗨️ 👤 **cloudguy1** 4 years, 4 months ago

Stop confusing people, B) doesn't make any sense. Why would you use or create a whole new VM just because of a permission issue? If anything, just stop the instance and edit the scope of the default Compute Service Account and grant it the role through IAM. C) is the most appropriate answer since you can only set scopes of the default Compute Service Account, if you're using any other, there's no scope option - its access is dictated strictly by IAM in such scenario. So C) is the answer: Stop the VM, change the Service Account with the appropriate permissions and done. B) would still need to have permission the set through IAM & Admin, the scope isn't enough with the default Compute Service Account.

upvoted 36 times

🗨️ 👤 **certificadores** 4 years, 1 month ago

cloud guy1, relax. tartar is the hero for google cloud and if you read his answer, he explains the service account user's role granting on this one as that is the best practice

upvoted 4 times

🗨️ 👤 **techalik** 4 years ago

Configure the Python API to use a service account with relevant BigQuery access enabled. is the right answer.

It is likely that this service account this script is running under does not have the permissions to connect to BigQuery and that could be causing issues. You can prevent these by using a service account that has the necessary roles to access BigQuery.

Ref: <https://cloud.google.com/bigquery/docs/reference/libraries#cloud-console>

A service account is a special kind of account used by an application or a virtual machine (VM) instance, not a person.

Ref: <https://cloud.google.com/iam/docs/service-accounts>

upvoted 5 times

🗨️ 👤 **nitin** 3 years, 9 months ago

C, no brainer. You need SA for using API period. That's where you start your troubleshooting.

upvoted 6 times

🗨️ 👤 **[Removed]** 1 year, 11 months ago

Create a new service account with BigQuery access and execute your script with that user: If you want to run the script on an existing virtual machine, you can create a new service account with the necessary permissions to access BigQuery and then execute the script using that service account. This will allow the script to connect to BigQuery and access the data it needs.

upvoted 2 times

🗨️ 👤 **nitin** 3 years, 9 months ago

I stand corrected, B you need to have scope. It is union of Scope + Service Account. If scope is not there, you are screwed anyways.

upvoted 2 times

🗨️ 👤 **Ekrany_Elnaggar** Most Recent 1 month, 1 week ago

Selected Answer: C

A and C are correct, but we eliminated A because they mentioned "cannot connect" which means the script can run which means the client library was already installed, so final answer is only "C"

"C" was chosen because in order to access BigQuery, the script needs to authenticate and be authorized. The recommended way to do this for applications running on Compute Engine is to use a service account. Create a service account with the appropriate permissions (e.g., "BigQuery Data Editor") to access your BigQuery data. When running the script, make sure it uses the service account credentials to authenticate. This can be done by setting the `GOOGLE_APPLICATION_CREDENTIALS` environment variable to the path of the service account key file.

upvoted 1 times

🗳️ 👤 **Hungdv** 4 months, 1 week ago

Choose C

upvoted 1 times

🗳️ 👤 **kingfighers** 6 months, 1 week ago

I suppose all of them are correct, but we should choose the least effort, B is correct..

upvoted 1 times

🗳️ 👤 **kingfighers** 6 months, 1 week ago

run script on a new vm, not create a new vm..

upvoted 1 times

🗳️ 👤 **a2le** 6 months, 2 weeks ago

Selected Answer: C

Tricky question.

However, as you can read in gcloud compute instances create documentation:

--scopes=[SCOPE,...]

If not provided, the instance will be assigned the default scopes, described below. However, if neither --scopes nor --no-scopes are specified and the project has no default service account, then the instance will be created with no scopes. Note that the level of access that a service account has is determined by a combination of access scopes and IAM roles so you must configure both access scopes and IAM roles for the service account to work properly.

So, probably, B is the right one, as for the "new vm", I guess that this is because you don't want to stop the current one before having the working one ready...

upvoted 2 times

🗳️ 👤 **Robert0** 6 months, 4 weeks ago

Selected Answer: C

C - service account is Google Cloud's best practice

upvoted 1 times

🗳️ 👤 **researched_answer_boi** 7 months, 4 weeks ago

Selected Answer: C

You don't need to create a new VM to have different access scopes:

<https://cloud.google.com/compute/docs/access/service-accounts#accessscopesiam>

This weakens answer B.

When a user-managed service account is attached to the instance, the access scope defaults to cloud-platform:

https://cloud.google.com/compute/docs/access/service-accounts#scopes_best_practice

See Step 6 in: <https://cloud.google.com/compute/docs/instances/change-service-account#changeserviceaccountandscopes>

These facts leave C as the valid answer.

upvoted 2 times

🗳️ 👤 **santoshchauhan** 9 months, 2 weeks ago

Selected Answer: C

C. Create a new service account with BigQuery access and execute your script with that user.

Service accounts are used for server-to-server interactions, such as those between a virtual machine and BigQuery. You would need to create service account that has the necessary permissions to access BigQuery, then download the service account key in JSON format. Once you have the key, you can set an environment variable (GOOGLE_APPLICATION_CREDENTIALS) to the path of the JSON key file before running your script, which will authenticate your requests to BigQuery.

upvoted 3 times

🗳️ 👤 **Powerboy** 9 months, 1 week ago

better than creating and downloading a service account key would be to impersonate the service account

upvoted 1 times

🗳️ 👤 **tosinogunfile** 10 months, 2 weeks ago

The answer is C

<https://cloud.google.com/bigquery/docs/authentication>

For most services, you must attach the service account when you create the resource that will run your code; you cannot add or replace the service account later. Compute Engine is an exception—it lets you attach a service account to a VM instance at any time.

upvoted 1 times

Question #11

Topic 1

Your customer is moving an existing corporate application to Google Cloud Platform from an on-premises data center. The business owners require minimal user disruption. There are strict security team requirements for storing passwords. What authentication strategy should they use?

- A. Use G Suite Password Sync to replicate passwords into Google
- B. Federate authentication via SAML 2.0 to the existing Identity Provider
- C. Provision users in Google using the Google Cloud Directory Sync tool
- D. Ask users to set their Google password to match their corporate password

  **gcp_aws** Highly Voted 4 years, 7 months ago

The correct answer is B.

GCDS tool only copies the usernames, not the passwords. And more over strict security requirements for the passwords. Not allowed to copy them onto Google, I think.

Federation technique help resolve this issue. Please correct me if I am wrong.

upvoted 79 times



  **brss39** 1 year, 1 month ago

B is the answer. Why ?

GCDS syncs passwords - Ok but which passwords? Clients need to provide a new password for accessing Google Cloud after GCDS syn Google recognizes the user because GCDS populated the user list. The user is redirected to a standard Google sign-in screen where they enter their standard username and Google Cloud-specific password.

The issue here is the two sets of passwords. Even if a user manually sets them both to the same value, they aren't managed in a single pla If you need to update your password, you'd have to do that in AD and then again in Google Cloud Identity. In some cases, this approach c allow for better separation between your on-premises environment and Google Cloud, but it's also one more password to manage for your users.

upvoted 14 times

  **Robert0** 6 months, 4 weeks ago

This should be the top comment. It explains in detail the proccess

upvoted 3 times

  **Neferith** 2 years, 3 months ago

Passwords are also synchronized:

https://support.google.com/a/answer/6120130?hl=en&ref_topic=2679497

upvoted 8 times

  **ExamTopicsFan** 3 years, 6 months ago

GCDS synchronises password as well and that is the reason why B is the correct answer. Only in B the password doesn't get copied to GC

upvoted 11 times

  **zr79** 2 years, 2 months ago

C is the answer

upvoted 3 times

  **Eroc** Highly Voted 5 years, 1 month ago



"A" will synchronise passwords between on pre-mise and the GCP, this duplicates the existing strategy plus Google's "built-in" encryption of all the data. "B" does not support the moving to GCP. "C" The directory sync tool copies the filesystem settings between servers, UNIX filesystems have permission settings built in and passwords to log into the permission groups, syncing these would set GCP up the same way their on-premises is, plus Google's "built-in" encryption. "D" disrupts the users, so this is not correct. The debate should be between "A" and "C", "C" includes "A" according to (<https://cloud.google.com/solutions/migrating-consumer-accounts-to-cloud-identity-or-g-suite-best-practices-federation>) so choose "C"

upvoted 22 times

  **Gobblegobble** 4 years, 5 months ago



B is supported read <https://cloud.google.com/architecture/identity/federating-gcp-with-active-directory-configuring-single-sign-on>

upvoted 4 times

  **tsys** 3 years, 9 months ago



There is no mention SSO is needed.

upvoted 3 times

  **tartar** 4 years, 4 months ago



B is ok.

upvoted 5 times

  **tartar** 4 years, 4 months ago



miss typed.. C is ok

upvoted 11 times

  **nitinz** 3 years, 9 months ago

B, you dont want to store password as per security guidelines provided in question.

upvoted 3 times

  **cetanx** 4 years, 5 months ago

GCDS syncs user accounts and some other LDAP attributes but not the passwords, with hybrid connectivity to GCP, SAML (or federation) the preferred method.

Answer should be "B"

<https://cloud.google.com/solutions/patterns-for-authenticating-corporate-users-in-a-hybrid-environment>

https://cloud.google.com/architecture/identity/federating-gcp-with-active-directory-synchronizing-user-accounts#deciding_what_to_provide

upvoted 16 times

  **squishy_fishy** 2 years, 11 months ago

This is the best answer so far.

upvoted 1 times

  **SamirJ** 4 years, 2 months ago

GCDS does sync passwords. Please refer - <https://support.google.com/a/answer/6120130>. Since the question says client wants to move to GCP, C should be the answer.

upvoted 5 times

  **BiddlyBdoynng** 1 year, 6 months ago

The article implies that ADFS is best but suggests you also need the GCDS. This makes sense, you need the users in Google to allocate permissions but you don't want to copy the passwords across hence ADFS.

upvoted 1 times

  **Ekramy_Elnaggar** Most Recent 1 month, 1 week ago

Selected Answer: B

1. Minimal User Disruption: Federated authentication allows users to use their existing corporate credentials to access the application in Google Cloud. This eliminates the need for them to create and remember new passwords, minimizing disruption and improving user experience.

2. Strict Security Requirements: SAML 2.0 is a widely used, secure standard for authentication and authorization. It allows the existing identity provider (IdP) to handle password management and security policies, ensuring compliance with the security team's requirements.



3. Centralized Identity Management: Federation keeps identity management centralized within the existing corporate infrastructure. This simplifies user management and reduces the overhead of managing identities in multiple places.

upvoted 1 times

  **selected** 2 months ago

Selected Answer: B

cross-domain SSO can be achieved by SAML
upvoted 1 times

  **JohnJamesB1212** 3 months, 1 week ago

Selected Answer: B

I think B is correct
upvoted 1 times



  **maxdanny** 3 months, 2 weeks ago

Selected Answer: B

Minimal user disruption: By federating authentication via SAML 2.0, users can continue using their existing corporate credentials without having to manage or remember new passwords.
Security requirements: SAML 2.0 federation allows your organization to maintain control over user authentication and password management within the existing Identity Provider (IdP). Passwords do not need to be stored in Google's systems, which aligns with strict security requirements.
upvoted 1 times

  **Manishjb006** 4 months, 1 week ago

B is right one . Because C While Google Cloud Directory Sync (GCDS) helps sync users between an on-premises directory and Google, it does not address the password management aspect. Users may still face disruptions as this method might not handle existing passwords securely.
upvoted 1 times

  **Hungdv** 4 months, 1 week ago

Choose B
upvoted 1 times

  **kingfighers** 6 months, 1 week ago

the most convenient way is B, but the principle of this kind of exam is use cloud provider's native tools, so the C is correct.. this principle is also used on AWS
upvoted 1 times

  **santoshchauhan** 9 months, 2 weeks ago

Selected Answer: B

B. Federate authentication via SAML 2.0 to the existing Identity Provider.

Here's why:

Security: SAML 2.0 allows for secure single sign-on (SSO) without storing passwords on Google's side. It ensures that authentication happens against the corporate Identity Provider (IdP), which maintains control over the user credentials.

Minimal Disruption: Users can continue to use their existing corporate credentials to access the application on GCP without having to remember a new set of credentials or go through a password change process.

Compliance: It satisfies the security team's requirements for password storage by ensuring that passwords remain within the corporate boundary.

Integration: SAML is widely supported and can be integrated with many IdPs, allowing for a seamless transition to cloud-based resources while leveraging existing identity management infrastructure.

upvoted 5 times

  **lisabisa** 10 months ago

The correct answer is C.
Google Cloud Directory Sync will provide federated authentications.
B is wrong because SAML is used for Single sign-on. It also doesn't mention how the cloud can be authenticated to the existing Identity Provider. SAML by itself is not enough to do the job.
upvoted 2 times

  **xxoox** 10 months ago

Selected Answer: B

Federating authentication aligns with strict security team requirements for password storage, as it avoids the need to store or sync passwords outside the corporate environment.
upvoted 2 times

🗨️ 👤 **hzaoui** 11 months, 1 week ago

Selected Answer: B

Minimal User Disruption:

Users continue using their existing corporate credentials for both on-premises and GCP applications, avoiding password resets or new account creations.

Security Team Requirements:

GCP doesn't store or manage corporate passwords; authentication relies on the existing Identity Provider (IdP), meeting strict password storage requirements.

upvoted 1 times

🗨️ 👤 **02fc23a** 1 year ago

Selected Answer: B

B is a preferred solution nowadays, that's why:

https://cloud.google.com/architecture/framework/security/identity-access#use_a_single_identity_provider

upvoted 2 times

🗨️ 👤 **nideesh** 1 year, 1 month ago

Selected Answer: C

GCDS is better as it is a corporate application. The requirements for storing password can be met by GCP. As GCP has many security features. For SAML, the corporate needs to have Identity provider service such as the one provided by Google, Facebook

upvoted 1 times

🗨️ 👤 **nideesh** 1 year, 1 month ago

Also the application needs to be modified to use identity provider service, if they are going by choice B

upvoted 1 times

🗨️ 👤 **asciimo** 1 year, 1 month ago

Selected Answer: B

main reason for B are strict storage requirements.

upvoted 1 times

🗨️ 👤 **Arup m. 122** 1 year, 2 months ago

Question #12

Topic 1

Your company has successfully migrated to the cloud and wants to analyze their data stream to optimize operations. They do not have any existing code for this analysis, so they are exploring all their options. These options include a mix of batch and stream processing, as they are running some hourly jobs and live- processing some data as it comes in.

Which technology should they use for this?

- A. Google Cloud Dataproc
- B. Google Cloud Dataflow
- C. Google Container Engine with Bigtable
- D. Google Compute Engine with Google BigQuery

🗨️ 👤 **Eroc** **Highly Voted** 🗳️ 2 months, 4 weeks ago

All four options can accomplish what the question asks, in regards to batching and streaming processes. "A" is for Apache Spark and Hadoop juggernaut in speed of data processing. "B" is Google's best attempt at TIBCO, Ab Initio, and other processing technology, built explicitly for visualizing batch operations and streams without through various labeled circuit boards. "C" and "D" are used within "A" and "B" and would require more work and higher risk. I'd guess Google wants you to select "B"

upvoted 36 times

🗨️ 👤 **2g** **Highly Voted** 🗳️ 4 years, 10 months ago

answer: B

upvoted 6 times

  **Ekramy_Elnaggar** Most Recent 1 month, 1 week ago

Selected Answer: B

1. Unified Batch and Stream Processing: Dataflow is a fully managed service designed for both batch and stream data processing. This make ideal for your company's needs, as they require both hourly batch jobs and live stream processing.
2. No Existing Code: Dataflow provides a unified programming model and SDKs (Java, Python) for building data pipelines, which is beneficial since your company doesn't have existing code and needs to develop new solutions.
3. Serverless and Scalable: Dataflow is serverless, meaning you don't need to manage infrastructure. It automatically scales resources based the workload, ensuring efficient processing of both batch and stream data.
4. Cost-Effective: Dataflow's autoscaling and pay-per-use model optimize costs by only utilizing resources when needed.

upvoted 3 times

  **Singapore123** 2 months, 3 weeks ago

Selected Answer: B

B. Google Cloud Dataflow

Explanation:

Unified Processing:

Google Cloud Dataflow is designed to handle both batch and stream processing in a unified manner. This means you can process data as it arrives (stream processing) and also perform scheduled batch jobs efficiently.

Serverless and Scalable:

Dataflow is serverless, which means you don't have to worry about managing the underlying infrastructure. It automatically scales to handle varying workloads, making it ideal for optimizing operations based on live data streams and scheduled jobs.

Integration with Other Google Cloud Services:

Dataflow integrates well with other Google Cloud services, such as Google Cloud Storage, BigQuery, and Pub/Sub. This makes it easier to bu a comprehensive data pipeline that can analyze data streams effectively.

Flexible SDKs:

Dataflow supports popular programming languages like Java and Python, allowing your team to write custom processing logic as needed.

upvoted 2 times

  **Hungdv** 4 months, 1 week ago

Choose B

upvoted 1 times

  **hzaoui** 11 months, 1 week ago

Selected Answer: B

B is correct

upvoted 1 times

  **devakram** 12 months ago

chatGPT answers:

B. Google Cloud Dataflow

Google Cloud Dataflow is a fully managed service for stream and batch data processing. It is built on Apache Beam and provides a unified programming model, making it an ideal choice for scenarios where both batch and stream data processing are required. Dataflow simplifies the complexities of data parallel processing, allowing for easy development and maintenance of data processing pipelines. It integrates well with other Google Cloud services, like BigQuery for analytics and Cloud Storage for storing data, providing a comprehensive solution for real-time batch data processing needs.

upvoted 1 times

  **BiddlyBdoynq** 1 year, 6 months ago

The word analysis throws me off. Wonder if the question is just written incorrectly here? I'd say Dataflow is a key tool to enable the processing the data to be able to do the analysis but feels like the final analysis should be in a database.

upvoted 5 times

  **alekonko** 1 year, 9 months ago

Selected Answer: B

B is the answer

upvoted 2 times

🗨️ **Deb2293** 1 year, 9 months ago

Selected Answer: B

A is a managed Hadoop and Spark service. C and D are mostly for petabyte kinds of data. So remains B (suitable for ETL jobs)
upvoted 2 times

🗨️ **omermahgoub** 2 years ago

To analyze a data stream and optimize operations, your company could consider using Google Cloud Dataflow, which is a fully-managed, cloud-native data processing service that can handle both batch and stream processing.

Google Cloud Dataflow is designed to handle large volumes of data and can scale up or down automatically to meet the needs of the workload. It provides a number of pre-built connectors and integrations that make it easy to ingest data from a variety of sources, and it offers a range of processing options, including batch processing and stream processing, that can be used to analyze the data in real-time.

Option A: Google Cloud Dataproc, option C: Google Container Engine with Bigtable, and option D: Google Compute Engine with Google BigQuery, while potentially useful for certain types of data processing, would not necessarily be well-suited to handle both batch and stream processing in the way that Google Cloud Dataflow can

upvoted 3 times

🗨️ **thamaster** 2 years ago

answer is D for me the question is which tool for analyse data. Dataflow does not analyse data
upvoted 2 times

🗨️ **megumin** 2 years, 1 month ago

Selected Answer: B

ok for B
upvoted 1 times

🗨️ **Mahmoud_E** 2 years, 1 month ago

Selected Answer: B

B is the right answer
upvoted 1 times

🗨️ **AzureDP900** 2 years, 2 months ago

B is correct
upvoted 1 times

🗨️ **minmin2020** 2 years, 2 months ago

Selected Answer: B

B. Google Cloud Dataflow
upvoted 1 times

🗨️ **holerina** 2 years, 3 months ago

correct is B use data flow for stream and batch process
upvoted 1 times

Question #13

Topic 1

Your customer is receiving reports that their recently updated Google App Engine application is taking approximately 30 seconds to load for some of their users.


This behavior was not reported before the update.

What strategy should you take?

- A. Work with your ISP to diagnose the problem
- B. Open a support ticket to ask for network capture and flow data to diagnose the problem, then roll back your application
- C. Roll back to an earlier known good release initially, then use Stackdriver Trace and Logging to diagnose the problem in a development/test/staging environment
- D. Roll back to an earlier known good release, then push the release again at a quieter period to investigate. Then use Stackdriver Trace and Logging to diagnose the problem

  **Tos0** Highly Voted 5 years ago



C is the answer
upvoted 27 times

  **MyPractice** Highly Voted 2 months, 4 weeks ago

Key word: This behavior was not reported before the update
A - Not Correct as it was working before with same ISP
B - New code update caused an issue- why to open support ticket
C - I agree with C
D - This requires downtime and live prod affected too
upvoted 17 times

  **MyPractice** 4 years, 11 months ago

"then use Stackdriver Trace and Logging to diagnose the problem in a development/test/staging environment" they are NOT asking us to setup Dev/Test/Stage.. meaning the environment already exist and we have to use it
upvoted 1 times


  **hafid** 4 years, 6 months ago

"then use Stackdriver Trace and Logging to diagnose the problem in a development/test/staging environment" this is not asking for set environment either, it just says to diagnose problem in other environment so C it is
upvoted 1 times

  **Ekramy_Elnaggar** Most Recent 1 month, 1 week ago

Selected Answer: C

1. Prioritize User Experience: Rolling back to a stable version quickly minimizes user impact and restores the application to a functional state. This should be the immediate first step.
2. Controlled Environment: Diagnosing the issue in a development/test/staging environment allows you to investigate without affecting real users. You can reproduce the problem, gather data, and test potential solutions safely.
3. Powerful Diagnostic Tools: Stackdriver Trace helps you pinpoint performance bottlenecks by tracing requests across your application. Stackdriver Logging provides detailed logs to understand application behavior and identify errors.
upvoted 1 times

  **hzaoui** 11 months, 1 week ago

Selected Answer: C

C is correct
upvoted 1 times

  **AdityaGupta** 1 year, 2 months ago

Selected Answer: C

Your customer is receiving reports that their recently updated Google App Engine application is taking approximately 30 seconds to load for some of their users.
This behavior was not reported before the update.
What strategy should you take?

Here the application (our code) is updated and only some users are facing latency (Cloud Trace) issue.

The issue is not with ISP (A), Not an issue with Google (B).
Rollback must be done as mitigation, but testing should be done in Non-Prod environments (C), not on prod environment (D).

Hence C is correct answer.
upvoted 1 times

🗨️ **jrisl1991** 1 year, 2 months ago

Selected Answer: C

I'm going for C. While D may be "better" in case this is an issue that only occurs in production, I think that keeping the disruption at minimum would be the best practice, which D would not really do. Plus, if the problem is load related, having this released at a quieter period may not surface the problem either.

upvoted 2 times

🗨️ **frankryuu** 1 year, 5 months ago

Selected Answer: C

Although it sounds like the right answer to do network tracing in stg again, this may be a network pass-through related issue and it is felt that problem may not be reproduced if not checked in a prod environment.

upvoted 2 times

🗨️ **frankryuu** 1 year, 5 months ago

Although it sounds like the right answer to do network tracing in stg again, this may be a network pass-through related issue and it is felt that problem may not be reproduced if not checked in a prod environment.

upvoted 1 times

🗨️ **FigVam** 1 year, 7 months ago

Selected Answer: C

should be C

upvoted 2 times

🗨️ **alekonko** 1 year, 9 months ago

Selected Answer: C

C is the answer

upvoted 2 times

🗨️ **JC0926** 1 year, 9 months ago

Option C is also a valid strategy in this scenario. Rolling back to an earlier known good release initially and using Stackdriver Trace and Logging to diagnose the problem in a development/test/staging environment can help diagnose the issue without impacting production users.

However, the reason why option D may be a better approach is that it allows for investigation during a quieter period, which can reduce the impact of any issues that may occur during the investigation. Rolling back to a known good release and then pushing the release again at a quieter period can help to ensure that users are not impacted during the investigation.

upvoted 3 times

🗨️ **megumin** 2 years, 1 month ago

Selected Answer: C

ok for C

upvoted 1 times

🗨️ **Mahmoud_E** 2 years, 1 month ago

Selected Answer: C

C is the correct answer

upvoted 1 times

🗨️ **AzureDP900** 2 years, 2 months ago

C is perfect to troubleshoot latency issues with app

upvoted 1 times

🗨️ **minmin2020** 2 years, 2 months ago

Selected Answer: C

C. Roll back to an earlier known good release initially, then use Stackdriver Trace and Logging to diagnose the problem in a development/test/staging environment

A and B are not relevant

D - no IT manager will ever allow re-deployment of erroneous code in production, even in a quiet period...!

upvoted 3 times

🗨️ **Kiroo** 1 year, 7 months ago

I agree why not D, but in the past I faced issues only reproducible in prd, at that situation D was a possibility but usually yep C is for sure

upvoted 2 times

🗨️ 👤 **holerina** 2 years, 3 months ago

correct answer is C use the standard practise

upvoted 1 times

🗨️ 👤 **Amit_arch** 2 years, 3 months ago

Selected Answer: D

How come everyone is agreeing to C!! In option C after rollback, the investigation will happen only on the earlier good release. Whereas in opt D, all the troubleshooting will happen on current/problematic build. Option D should be the right option as it resolves the issue in short term and provides room for further investigation without downtime.

upvoted 1 times

🗨️ 👤 **zr79** 2 years, 2 months ago

you want to minimize the business loss, best option is to rollback and use stack-driver to diagnose the issue

upvoted 1 times

🗨️ 👤 **BiddlyBdoyng** 2 years, 2 months ago

Option C is investigating the bad build in test. The problem with option D is it is user impacting. Always best to attempt to find the problem in a test environment first. D could end-up being an option of last resort if all attempts to diagnose in test fail but I doubt any business person would be happy with D as it impacts service.

upvoted 3 times

Question #14

Topic 1

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