

- 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.

  **chiar** Highly Voted 4 years, 6 months ago

I think D it can't be, because you want to load a dump in a Cloud Datastore. If it were a Cloud Storage, it could be, but a Cloud datastore is a nosql.

It's true that you have to use a dump, but to create a replica server/slave to promote to Cloud SQL. So I think it is B.

upvoted 32 times

  **AD2AD4** Highly Voted 4 years ago



Final Decision to go with Option B

upvoted 24 times

  **jabrrJ68w02ond1** Most Recent 1 year, 7 months ago

IMPORTANT: Dress4Win is not anymore part of the officially listed case studies: <https://cloud.google.com/certification/guides/professional-cloud-architect>

upvoted 6 times

  **Pime13** 4 months, 3 weeks ago

it's cool for training,

upvoted 3 times

  **alexandercamachop** 1 year, 9 months ago

Selected Answer: B

Cloud datastore is a nosql.

It's true that you have to use a dump, but to create a replica server/slave to promote to Cloud SQL. So I think it is B.

upvoted 1 times

  **joe2211** 2 years, 6 months ago

Selected Answer: B

vote B

upvoted 1 times

  **victory108** 2 years, 11 months ago

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

upvoted 1 times

  **MamthaSJ** 2 years, 11 months ago

Answer is B

upvoted 4 times

  **Ausias18** 3 years, 2 months ago

Answer is B

upvoted 2 times

  **lynx256** 3 years, 2 months ago

B is ok

upvoted 1 times

- 🗳️ 👤 **bnlcnd** 3 years, 4 months ago  
<https://cloud.google.com/sql/docs/mysql/replication/external-server>  
 B is good.  
 upvoted 3 times
- 🗳️ 👤 **okixavi** 3 years, 6 months ago  
 B it is  
 upvoted 1 times
- 🗳️ 👤 **Chulbul\_Pandey** 3 years, 6 months ago  
 B is correct  
 upvoted 1 times
- 🗳️ 👤 **Hjameel** 3 years, 6 months ago  
 If a database SLA or other requirements do not allow for an export-based migration, you should consider creating a replica of the database in which the replica database is in the Google cloud. This configuration is referred to as primary/replica or leader/follower , and in general it is the preferred migration method. Whenever there is a change to the primary or leader, the same change is made to the replica or follower instance. Once the database has synchronized the data, database applications can be configured to point to the cloud database.  
  
 Answer B  
 upvoted 1 times
- 🗳️ 👤 **AdityaGupta** 3 years, 7 months ago  
 I will go with answer B, because this will avoid any downtime and performance impact. And post cutover this database can be used as a master.  
  
 A -> Will cause downtime.  
 B -> Right choice  
 C -> Business impact, inconsistency in data.  
 D -> Cloud DataStore is NoSQL DB  
 upvoted 3 times
- 🗳️ 👤 **homer\_simpson** 3 years, 8 months ago  
 B is correct answer.  
 Datastore is no SQL database. And when we create a dump and upload it we might lose some data during this process time that was served from the previous site  
 upvoted 1 times
- 🗳️ 👤 **bidibidi** 3 years, 8 months ago  
 It's B.  
 There's a similar question in the Linux Academy practice exam:  
 "Dress4Win is ready to migrate their on-premises MySQL deployment to the cloud. They want to reduce downtime and performance impact during their on-premises solution during the migration. What should they do?"  
 Answer: "Set up a MySQL replica/slave in Google Cloud using Cloud SQL and configure it for asynchronous replication from the MySQL master server on-premises until cutover."  
 upvoted 3 times
- 🗳️ 👤 **ESP\_SAP** 3 years, 9 months ago  
 Correct Answer is (B):  
  
 Please, stop to confuse the people with crazy ideas.  
 Every migration we should try to smooth or near zero downtime in DB cases.  
 The question clearly mentions move MySQL to the cloud, minimize downtime and performance impact.  
 How can you recommend "D" to accomplish the previous premises?  
  
 Then if you setup a MySQL replica server/slave it will be easy the cutover, just shut down the replica to on-premise and change the role for replica server from slave to primary. That is all! No impact, no service disruption, almost near zero downtime.  
 upvoted 8 times

Question #7

Topic 11

**Introductory Info****Company Overview -**

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**Company Background -**

Dress4Win's application has grown from a few servers in the founder's garage to several hundred servers and appliances in a collocated data center. However, the capacity of their infrastructure is now insufficient for the application's rapid growth. Because of this growth and the company's desire to innovate faster, Dress4Win is committing to a full migration to a public cloud.

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For the first phase of their migration to the cloud, Dress4Win is considering moving their development and test environments. They are also considering building a disaster recovery site, because their current infrastructure is at a single location. They are not sure which components of their architecture they can migrate as is and which components they need to change before migrating them.

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**Databases:**

- MySQL - user data, inventory, static data
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**Application servers:**

- Tomcat - Java micro-services
- Nginx - static content
- Apache Beam - Batch processing

**Storage appliances:**

- iSCSI for VM hosts
- Fiber channel SAN - MySQL databases
- NAS - image storage, logs, backups

**Apache Hadoop/Spark servers:**

- Data analysis
- Real-time trending calculations

**MQ servers:**

- Messaging
- Social notifications
- Events

**Miscellaneous servers:**

- Jenkins, monitoring, bastion hosts, security scanners

**Business Requirements -**

Build a reliable and reproducible environment with scaled parity of production.

- - Improve security by defining and adhering to a set of security and Identity and Access Management (IAM) best practices for cloud.
  - Improve business agility and speed of innovation through rapid provisioning of new resources.
  - Analyze and optimize architecture for performance in the cloud.
  - Migrate fully to the cloud if all other requirements are met.

#### Technical Requirements -

- Evaluate and choose an automation framework for provisioning resources in cloud.
- Support failover of the production environment to cloud during an emergency.
- Identify production services that can migrate to cloud to save capacity.
- Use managed services whenever possible.
- Encrypt data on the wire and at rest.
- Support multiple VPN connections between the production data center and cloud environment.

#### CEO Statement -

Our investors are concerned about our ability to scale and contain costs with our current infrastructure. They are also concerned that a new competitor could use a public cloud platform to offset their up-front investment and freeing them to focus on developing better features.

#### CTO Statement -

We have invested heavily in the current infrastructure, but much of the equipment is approaching the end of its useful life. We are consistently waiting weeks for new gear to be racked before we can start new projects. Our traffic patterns are highest in the mornings and weekend evenings; during other times, 80% of our capacity is sitting idle.

#### CFO Statement -

Our capital expenditure is now exceeding our quarterly projections. Migrating to the cloud will likely cause an initial increase in spending, but we expect to fully transition before our next hardware refresh cycle. Our total cost of ownership (TCO) analysis over the next 5 years puts a cloud strategy between 30 to 50% lower than our current model.

### Question



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](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>)

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

It's B. B must be done. For a health check on http (port 80) you don't need to configure nothing in the server (it makes a get o something simi  
upvoted 34 times

  **tartar** 4 years, 4 months ago

B is ok



upvoted 6 times

  **GopiSivanathan** 4 years, 2 months ago

If the resource you are checking isn't publicly available, you must configure the resource's firewall to permit incoming traffic from the uptime-check servers. See Getting IP addresses to download a list of the IP addresses

If the resource you are checking doesn't have an external IP address, uptime checks are unable to reach it.

upvoted 1 times

  **nitinz** 3 years, 9 months ago

ans is B

upvoted 3 times

  **gcp2019** Highly Voted 5 years ago

Correct answer is B

[https://cloud.google.com/monitoring/uptime-checks/using-uptime-checks#monitoring\\_uptime\\_check\\_list\\_ips-console](https://cloud.google.com/monitoring/uptime-checks/using-uptime-checks#monitoring_uptime_check_list_ips-console)

upvoted 15 times

  **JohnJamesB1212** Most Recent 2 months, 3 weeks ago

**Selected Answer: D**



D. Configure their legacy web servers to allow requests that contain the User-Agent HTTP header when the value matches GoogleStackdriverMonitoring-UptimeChecks (<https://cloud.google.com/monitoring>).

Here's why:

Google Cloud Monitoring uptime checks use a specific User-Agent (GoogleStackdriverMonitoring-UptimeChecks) to make health checks on services. If the legacy web servers are not configured to accept these requests or block certain User-Agent headers, they will reject the check causing them to be reported as unhealthy.

By configuring the legacy web servers to allow traffic from uptime checks that include the proper User-Agent header, Dress4Win ensures that uptime check traffic can reach the services, allowing Google Monitoring to report accurate health status.

upvoted 2 times

  **JohnJamesB1212** 2 months, 3 weeks ago


Why other options are less ideal:

Option A (install the Stackdriver agent) is not relevant to this issue. The Stackdriver agent is used for logging and monitoring system metric but does not directly relate to uptime checks.

Option B (creating inbound firewall rules) is unnecessary unless there's evidence that the firewall is blocking traffic from Google's uptime check servers. Typically, Google uptime check servers should not require special rules.

Option C (configuring the load balancer to pass through the User-Agent header) is relevant if there's a load balancer in place, but it only so part of the problem. The legacy web servers still need to accept requests with the appropriate User-Agent header.

upvoted 2 times

  **6a8c7ad** 4 months, 1 week ago

D. Not B. "legacy". So not in console.

upvoted 3 times

  **mesodan** 9 months, 2 weeks ago

**Selected Answer: C**

Option D suggests configuring legacy web servers to allow requests with the specific User-Agent header. While this might seem appropriate, it is unnecessary and potentially risky. Modifying the servers' configuration introduces additional steps and potential security implications. Since all uptime checks are already reaching the web servers, the key is ensuring the load balancer doesn't interfere with them, not modifying the servers themselves.

upvoted 2 times

  **jabrrJ68w02ond1** 2 years, 1 month ago

IMPORTANT: Dress4Win is not anymore part of the officially listed case studies: <https://cloud.google.com/certification/guides/professional-clc-architect>

upvoted 15 times

  **amxexam** 2 years, 7 months ago

**Selected Answer: B**

It would be missing firewall rule that would be causing problem

upvoted 1 times

🗲️ 👤 **DivAI272829** 2 years, 8 months ago

B: If the resource you are checking isn't publicly available, you must configure the resource's firewall to permit incoming traffic from the uptime check servers. See List uptime-check server IP addresses to download a list of the IP addresses.

upvoted 1 times

🗲️ 👤 **mesodan** 2 years, 9 months ago

**Selected Answer: B**

It's B. Read: <https://cloud.google.com/monitoring/uptime-checks>

upvoted 3 times

🗲️ 👤 **nagibator163** 2 years, 11 months ago

**Selected Answer: D**

I don't understand why everyone's saying it's B. The question talks about "legacy services". They are not on GCP, are they? So setting up inbound rules on a firewall in GCP will have no effect.

upvoted 6 times

🗲️ 👤 **Andrea67** 3 years ago

I think B is ok, "Your use of uptime checks is affected by any firewalls protecting your service." from <https://cloud.google.com/monitoring/uptime-checks>

upvoted 1 times

🗲️ 👤 **joe2211** 3 years ago

**Selected Answer: B**

vote B

upvoted 3 times

🗲️ 👤 **kopper2019** 3 years, 5 months ago

hey guys new Qs posted as of July 12th, 2021, All 21 new Qs in Question #152

upvoted 1 times

🗲️ 👤 **[Removed]** 3 years, 5 months ago

B) (if the answer talk about firewall of legacy services ant not firewall on GCP) and D) are valid solutions.

I prefer D) because with B) you have to modify firewall rules once per quarter as ips can change (<https://cloud.google.com/monitoring/uptime-checks/using-uptime-checks#get-ips>).

upvoted 2 times

🗲️ 👤 **victory108** 3 years, 5 months ago

B. In the Cloud Platform Console download the list of the uptime servers' IP addresses and create an inbound firewall rule

upvoted 1 times

🗲️ 👤 **MamthaSJ** 3 years, 5 months ago

Answer is B

upvoted 2 times

🗲️ 👤 **Ausias18** 3 years, 8 months ago

Answer is B

upvoted 1 times

Question #8

Topic 11

### Introductory Info

#### Company Overview -

Dress4Win is a web-based company that helps their users organize and manage their personal wardrobe using a website and mobile application. The company also cultivates an active social network that connects their users with designers and retailers. They monetize their services through advertising, e-commerce, referrals, and a premium app model.

#### Company Background -

Dress4Win's application has grown from a few servers in the founder's garage to several hundred servers and appliances in a collocated data

center. However, the capacity of their infrastructure is now insufficient for the application's rapid growth. Because of this growth and the company's desire to innovate faster, Dress4Win is committing to a full migration to a public cloud.

#### Solution Concept -

For the first phase of their migration to the cloud, Dress4Win is considering moving their development and test environments. They are also considering building a disaster recovery site, because their current infrastructure is at a single location. They are not sure which components of their architecture they can migrate as is and which components they need to change before migrating them.

#### Existing Technical Environment -

The Dress4Win application is served out of a single data center location.

##### Databases:

- MySQL - user data, inventory, static data
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Our investors are concerned about our ability to scale and contain costs with our current infrastructure. They are also concerned that a new

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We have invested heavily in the current infrastructure, but much of the equipment is approaching the end of its useful life. We are consistently waiting weeks for new gear to be racked before we can start new projects. Our traffic patterns are highest in the mornings and weekend evenings; during other times, 80% of our capacity is sitting idle.

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Our capital expenditure is now exceeding our quarterly projections. Migrating to the cloud will likely cause an initial increase in spending, but we expect to fully transition before our next hardware refresh cycle. Our total cost of ownership (TCO) analysis over the next 5 years puts a cloud strategy between 30 to 50% lower than our current model.

#### Question

As part of their new application experience, Dress4Win 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.

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

I think it's A, because in the question says "The customer has exclusive control over who may view these images"  
And I think it is easier to develop this feature having in cloud datastore a NOSQL database where you can manage the control of file's viewer  
upvoted 33 times

  **DrCoola** Highly Voted 4 years, 4 months ago

A - using gsutil for this purpose makes queries on such metadata painful for application logic.  
upvoted 8 times

  **svkds** Most Recent 1 month ago

**Selected Answer: B**

This approach leverages Google Cloud Storage for storing the image files, which provides scalability, durability, and low-latency access. By adding custom metadata containing the customer's unique ID to the uploaded images, Dress4Win can maintain control over access to the images while enabling efficient retrieval based on customer identity. This configuration aligns well with the requirement for minimal latency and quick access to images while ensuring customer privacy and security.

upvoted 1 times

  **joe2211** 2 years, 6 months ago

**Selected Answer: A**

vote A  
upvoted 2 times



🗳️ 👤 **PeppaPig** 2 years, 10 months ago

A is correct. 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 metadata

This AWS blog provides a solution in the context of AWS S3, but the idea behind is applicable to Google Storage as well

<https://aws.amazon.com/blogs/big-data/building-and-maintaining-an-amazon-s3-metadata-index-without-servers/>

upvoted 4 times

🗳️ 👤 **kopper2019** 2 years, 11 months ago

hey guys new Qs posted as of July 12th, 2021, All 21 new Qs in Question #152

upvoted 1 times

🗳️ 👤 **[Removed]** 2 years, 11 months ago

B) is not correct because we cannot search on bucket using metadata (maybe in the future ...). So for now we have to get all files from the bucket and filter on metadata (very bad performance).

The answer is A).

upvoted 2 times

🗳️ 👤 **victory108** 2 years, 11 months ago

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.

upvoted 1 times

🗳️ 👤 **MamthaSJ** 2 years, 11 months ago

Answer is A

upvoted 3 times

🗳️ 👤 **Ausias18** 3 years, 2 months ago

Answer is A

upvoted 1 times

🗳️ 👤 **Rightsaidfred** 3 years, 4 months ago

Between A & B. A will take quickest time. A is the answer.

upvoted 2 times

🗳️ 👤 **okixavi** 3 years, 6 months ago

A is the man

upvoted 2 times

🗳️ 👤 **Bijesh** 3 years, 6 months ago

The customer has exclusive control over who can view their image.

Is this possible by option B, by merely adding metadata on the object. I don't think so.

A is better suited.

upvoted 2 times

🗳️ 👤 **hems4all** 3 years, 7 months ago

A is correct

upvoted 2 times

🗳️ 👤 **AdityaGupta** 3 years, 7 months ago

I will go with A, Store the images in GCS is cost-optimized way of storing images/ objects. DataStore is best option to store user profiles, which gives control to user.

upvoted 2 times

🗳️ 👤 **zzaric** 3 years, 11 months ago

A is correct

upvoted 2 times

🗳️ 👤 **mlantonis** 3 years, 12 months ago

I agree with A

upvoted 2 times

Question #9

Topic 11

Introductory Info

#### Company Overview -

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### Question

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.

  **examtaker11** Highly Voted 4 years, 3 months ago



C- I would run the same test suite in cloud) to see what breaks  
upvoted 27 times

  **Jphix** 3 years, 5 months ago

Going with B. "Final answer" lol. C is a good answer except that they're asking for an additional testing method. Since they're already testing endpoints specifically, you'd literally be running the exact same test after migration. That said, for B, I'm still at a loss of why we'd need to add additional unit testing--best explanation is that some of the applications will have needed to be retooled for PaaS offerings if they're doing more than a lift-and-shift, thereby actually changing the underlying code; but the production-level load testing is like the most GCP thing you can do here  
upvoted 9 times

  **mesodan** 2 years, 3 months ago

I would go with B. "Additional" seems to be the keyword here so adding unit tests and production scale load tests to the ones they already have makes more sense.  
upvoted 2 times

  **Smart** 4 years, 3 months ago

Agree, however, I think running at production-scale would not only show what breaks but also when it breaks? I go with B  
upvoted 6 times

  **FAB1010** Highly Voted 3 years, 10 months ago

Question mention that "end-to-end tests covering 100% of their endpoints", "ensure that the move to the cloud does not introduce any new bugs", and "additional testing methods should the \*developers\* employ to \*prevent an outage\*"

A - Not Correct. Developer can debug the problem, but cannot \*prevent\* the outage.

B - Correct. Developers are responsible for writing unit tests. They already have end-to-end tests for \*endpoints\* but nothing mentioned about the unit tests. Cloud will auto-scale but you need to define your auto-scaling configuration (desired count, max count etc) and production scale load test will help you to configure the auto-scaling policies

C - Not Correct. They already have end-to-end test. Running it on staging environment will not prevent an outage

D - Not Correct. Answers says "an impact the new release causes to latency" but question ask for preventing an outage and so this one is ruled out



upvoted 20 times

  **bigzero** Most Recent 1 month ago

D

they already has 100% covering end-to-end testing, that means unit tests was finished before this so, additional test remains canary in production environment

upvoted 1 times

  **Jconnor** 6 months, 2 weeks ago

B is testing scale, C is testing the code is working as intended in the cloud. the question is for bugs, not for scale. It should be C, but I understand why everyone goes for B. Neurodivergents will go for C.

upvoted 1 times

  **RitwickKumar** 1 year, 10 months ago

Selected Answer: B

Note the ask "prevent an outage".

One of the way to test outage scenarios is through load testing. Option B covers this where as option C only covers checking the intended behaviour.

upvoted 2 times

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

Testing pipeline: Unit ---- Integration --- end-to-end

If choose B, add additional unit tests. It should be continue to do Integration test and end-to-end test.

But it just has a unit test, then go to production scale load test.

C should be better, because it has finished end-to-end tests before, so for move to the cloud, it should be test the end-to-end in cloud preproduction environment to check whether it's also working fine on cloud.

[https://cloud.google.com/architecture/building-production-ready-data-pipelines-using-dataflow-developing-and-testing#end-to-end\\_tests](https://cloud.google.com/architecture/building-production-ready-data-pipelines-using-dataflow-developing-and-testing#end-to-end_tests)



upvoted 1 times

  **joe2211** 2 years, 6 months ago

Selected Answer: B

vote B

upvoted 2 times

  **rottzy** 2 years, 8 months ago

end-to-end is already present, go for additional tests

upvoted 1 times

  **amxexam** 2 years, 9 months ago

It should be B as for all those going with C if you do all staging you will still leave out the performance test that scales the application which is covered in B that means even if the application works well but will not scale properly will lead to an outage, which we are asked to prevent.

upvoted 1 times

  **victory108** 2 years, 11 months ago

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

upvoted 3 times

  **MamthaSJ** 2 years, 11 months ago

Answer is B

upvoted 4 times

- 🗨️ 👤 **Ausias18** 3 years, 2 months ago  
Answer is B (but C... uff... is also possible, but as the question says end-to-end is already done)  
upvoted 3 times
- 🗨️ 👤 **lynx256** 3 years, 2 months ago  
B is ok  
upvoted 1 times
- 🗨️ 👤 **ybe\_gcp\_cert** 3 years, 3 months ago  
Question asks about "ADDITIONAL testing methods".  
  
B adds production scale load tests.  
C should also be executed in a new cloud env but this question doesn't ask for this.  
  
In real life serious projects, B and C are mandatory (end to end and perf tests).  
  
Should be B.  
upvoted 2 times
- 🗨️ 👤 **guid1984** 3 years, 4 months ago  
Should be B  
Reasoning: They already had end-to-end contract tests coverage for all their service(s) endpoints. So, additionally they should add unit test coverage and perform prod load tests in staging environment which will help find out performance related issues before deploying it to production.  
upvoted 1 times
- 🗨️ 👤 **Rightsaidfred** 3 years, 4 months ago  
Obviously C. Yes they have end-to-end tests on prem with 100% coverage, however this hasn't been tested in the cloud yet.  
upvoted 1 times
- 🗨️ 👤 **bnlcnd** 3 years, 4 months ago  
B vs C  
B sounds right other than additional "unit" test. C is nothing wrong but not mentioning load. I will throw a dime to decide which to choose.  
upvoted 1 times

## Question #10

## Topic 11

**Introductory Info**

## Company Overview -

Dress4Win is a web-based company that helps their users organize and manage their personal wardrobe using a website and mobile application. The company also cultivates an active social network that connects their users with designers and retailers. They monetize their services through advertising, e-commerce, referrals, and a premium app model.

## Company Background -

Dress4Win's application has grown from a few servers in the founder's garage to several hundred servers and appliances in a collocated data center. However, the capacity of their infrastructure is now insufficient for the application's rapid growth. Because of this growth and the company's desire to innovate faster, Dress4Win is committing to a full migration to a public cloud.

## Solution Concept -

For the first phase of their migration to the cloud, Dress4Win is considering moving their development and test environments. They are also considering building a disaster recovery site, because their current infrastructure is at a single location. They are not sure which components of their architecture they can migrate as is and which components they need to change before migrating them.

## Existing Technical Environment -

The Dress4Win application is served out of a single data center location.

**Databases:**

- MySQL - user data, inventory, static data
- Redis - metadata, social graph, caching

**Application servers:**

- Tomcat - Java micro-services
- Nginx - static content
- Apache Beam - Batch processing

**Storage appliances:**

- iSCSI for VM hosts
- Fiber channel SAN - MySQL databases
- NAS - image storage, logs, backups

**Apache Hadoop/Spark servers:**

- Data analysis
- Real-time trending calculations

**MQ servers:**

- Messaging
- Social notifications
- Events

**Miscellaneous servers:**

- Jenkins, monitoring, bastion hosts, security scanners

**Business Requirements -**

Build a reliable and reproducible environment with scaled parity of production.

▪

Improve security by defining and adhering to a set of security and Identity and Access Management (IAM) best practices for cloud.

Improve business agility and speed of innovation through rapid provisioning of new resources.

Analyze and optimize architecture for performance in the cloud.

Migrate fully to the cloud if all other requirements are met.

**Technical Requirements -**

Evaluate and choose an automation framework for provisioning resources in cloud.

Support failover of the production environment to cloud during an emergency.

Identify production services that can migrate to cloud to save capacity.

Use managed services whenever possible.

Encrypt data on the wire and at rest.

Support multiple VPN connections between the production data center and cloud environment.

**CEO Statement -**

Our investors are concerned about our ability to scale and contain costs with our current infrastructure. They are also concerned that a new competitor could use a public cloud platform to offset their up-front investment and freeing them to focus on developing better features.

**CTO Statement -**

We have invested heavily in the current infrastructure, but much of the equipment is approaching the end of its useful life. We are consistently waiting weeks for new gear to be racked before we can start new projects. Our traffic patterns are highest in the mornings and weekend evenings; during other times, 80% of our capacity is sitting idle.

**CFO Statement -**

Our capital expenditure is now exceeding our quarterly projections. Migrating to the cloud will likely cause an initial increase in spending, but we expect to fully transition before our next hardware refresh cycle. Our total cost of ownership (TCO) analysis over the next 5 years puts a cloud strategy between 30 to 50% lower than our current model.

**Question**

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 Bigtable 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.

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

I think it's A, because when you read documentation both of them (nearline and coldline) you can see the expression infrequent access. And in case, your priority is the cost, and you are going to save 10 years

upvoted 32 times

  **MyPractice** Highly Voted 3 years, 5 months ago

its A - "Cold data storage - Infrequently accessed data, such as data stored for legal or regulatory reasons, can be stored at low cost as Coldline Storage and be available when you need it"

<https://cloud.google.com/storage/docs/storage-classes>

upvoted 10 times



  **RVivek** Most Recent 4 months, 1 week ago

**Selected Answer: B**

Coldline Data retrieval takes hours


If the data is infrequently accessed then Nearline is better.

upvoted 1 times

  **RVivek** 4 months, 1 week ago

I change it to A. Just noticed the phrase " Cost optimization is top priority" in question

upvoted 1 times

  **NodummyIQ** 5 months, 2 weeks ago

Option A is not a correct answer because Google Cloud Storage Coldline is not suitable for infrequent access to data. Coldline storage is optimized for archival storage with a 90-day minimum storage duration and a retrieval period measured in hours. It is not suitable for data that needs to be accessed frequently or within a short period of time.

Option B is a better choice for infrequent access to data. Google Cloud Storage Nearline is optimized for infrequent access with a 30-day minimum storage duration and a retrieval period measured in seconds. It is more suitable for data that needs to be accessed infrequently or within a short period of time, such as data that needs to be accessed by auditors.

upvoted 2 times

  **alexandercamachop** 9 months, 1 week ago

**Selected Answer: A**

Cost + 10 years, should be Archival, but since is not here. Lets go with ColdLine.

upvoted 2 times

  **gcpAMa** 10 months, 2 weeks ago

Answer: A

upvoted 1 times

  **joe2211** 1 year, 6 months ago

**Selected Answer: A**

vote A

upvoted 2 times

  **victory108** 1 year, 11 months ago

A. Google Cloud Storage Coldline to store the data, and gsutil to access the data.

upvoted 1 times

- 🗨️ 👤 **kopper2019** 1 year, 11 months ago  
hey guys new Qs posted as of July 12th, 2021, All 21 new Qs in Question #152  
upvoted 2 times
- 🗨️ 👤 **mbrueck** 1 year, 11 months ago  
Answer: A  
upvoted 1 times
- 🗨️ 👤 **MamthaSJ** 1 year, 11 months ago  
Answer is A  
upvoted 3 times
- 🗨️ 👤 **Ausias18** 2 years, 2 months ago  
Answer is A  
upvoted 1 times
- 🗨️ 👤 **lynx256** 2 years, 2 months ago  
A is ok  
upvoted 1 times
- 🗨️ 👤 **gu9singg** 2 years, 2 months ago  
A - Coldline is cheapest one  
upvoted 1 times
- 🗨️ 👤 **Joyrex** 2 years, 3 months ago  
Today the answer would be Archive Storage instead of coldline, so keep in mind the options on the test may be updated.  
upvoted 4 times
- 🗨️ 👤 **LoganIsh** 2 years, 8 months ago  
A is the answer... The catch here is that 10 years archives to store thus coldline storage is the right pick.  
upvoted 1 times
- 🗨️ 👤 **mlantonis** 2 years, 12 months ago  
I hate when we have to guess what infrequent actually means. I believe because "Cost optimization is your top priority" we should choose Coldline.  
  
A provides a more cost-effective solution.  
upvoted 1 times
- 🗨️ 👤 **definepi314** 2 years, 11 months ago  
Infrequent means not frequently, that is "less". You don't have to guess.  
upvoted 1 times
- 🗨️ 👤 **lynx256** 2 years, 2 months ago  
"Infrequent" is unclear same as "not frequently" :)  
I think @mlantonis wants to say "I'd like more precision: twice a year, once a year or so on"  
upvoted 2 times



## Question #11

## Topic 11

**Introductory Info**

## Company Overview -

Dress4Win is a web-based company that helps their users organize and manage their personal wardrobe using a website and mobile application. The company also cultivates an active social network that connects their users with designers and retailers. They monetize their services through advertising, e-commerce, referrals, and a premium app model.

## Company Background -

Dress4Win's application has grown from a few servers in the founder's garage to several hundred servers and appliances in a collocated data center. However, the capacity of their infrastructure is now insufficient for the application's rapid growth. Because of this growth and the company's desire to innovate faster, Dress4Win is committing to a full migration to a public cloud.

## Solution Concept -

For the first phase of their migration to the cloud, Dress4Win is considering moving their development and test environments. They are also considering building a disaster recovery site, because their current infrastructure is at a single location. They are not sure which components of their architecture they can migrate as is and which components they need to change before migrating them.

## Existing Technical Environment -

The Dress4Win application is served out of a single data center location.

## Databases:

- MySQL - user data, inventory, static data
- Redis - metadata, social graph, caching

## Application servers:

- Tomcat - Java micro-services
- Nginx - static content
- Apache Beam - Batch processing

## Storage appliances:

- iSCSI for VM hosts
- Fiber channel SAN - MySQL databases
- NAS - image storage, logs, backups

## Apache Hadoop/Spark servers:

- Data analysis
- Real-time trending calculations

## MQ servers:

- Messaging
- Social notifications
- Events

## Miscellaneous servers:

- Jenkins, monitoring, bastion hosts, security scanners

## Business Requirements -

Build a reliable and reproducible environment with scaled parity of production.

- 

Improve security by defining and adhering to a set of security and Identity and Access Management (IAM) best practices for cloud.

Improve business agility and speed of innovation through rapid provisioning of new resources.

Analyze and optimize architecture for performance in the cloud.

Migrate fully to the cloud if all other requirements are met.

#### Technical Requirements -

Evaluate and choose an automation framework for provisioning resources in cloud.  
Support failover of the production environment to cloud during an emergency.  
Identify production services that can migrate to cloud to save capacity.  
Use managed services whenever possible.  
Encrypt data on the wire and at rest.  
Support multiple VPN connections between the production data center and cloud environment.

#### CEO Statement -

Our investors are concerned about our ability to scale and contain costs with our current infrastructure. They are also concerned that a new competitor could use a public cloud platform to offset their up-front investment and freeing them to focus on developing better features.

#### CTO Statement -

We have invested heavily in the current infrastructure, but much of the equipment is approaching the end of its useful life. We are consistently waiting weeks for new gear to be racked before we can start new projects. Our traffic patterns are highest in the mornings and weekend evenings; during other times, 80% of our capacity is sitting idle.


#### CFO Statement -


Our capital expenditure is now exceeding our quarterly projections. Migrating to the cloud will likely cause an initial increase in spending, but we expect to fully transition before our next hardware refresh cycle. Our total cost of ownership (TCO) analysis over the next 5 years puts a cloud strategy between 30 to 50% lower than our current model.

#### Question

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, Dress4Win 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.

 **KouShikyou** Highly Voted 4 years, 8 months ago  
Agree. A looks correct for me.  
upvoted 30 times

 **kimharsh** 2 years ago  
I thought A is talking about MIG , but if your read the question carefully you will see MIG's , which changed my answer from D to A  
upvoted 1 times

- 🗲️ 👤 **MeasService** Highly Voted 👍 4 years, 8 months ago  
I am not convinced with D. A sounds correct answer. Creating regional MIGs and connecting it to GLB. Anyone ?  
upvoted 19 times
- 🗲️ 👤 **nitinz** 3 years, 3 months ago  
A is correct  
upvoted 3 times
- 🗲️ 👤 **tartar** 3 years, 10 months ago  
A is ok  
upvoted 5 times
- 🗲️ 👤 **thewalker** Most Recent 🕒 7 months, 1 week ago  
A.  
Creating MIGs across regions behind a GLB, gives HA across Zones and Regions.  
upvoted 1 times
- 🗲️ 👤 **NodummyIQ** 1 year, 5 months ago  
Answer D is correct. Answer A is not correct because it does not mention the aspect of distributing the system architecture to multiple locations. A regional managed instance group can increase performance by allowing the group to grow instances in each region separately based on traffic but it does not address the issue of distributing the system architecture to multiple locations.  
upvoted 2 times
- 🗲️ 👤 **joe2211** 2 years, 6 months ago  
Selected Answer: A  
vote A  
upvoted 3 times
- 🗲️ 👤 **Ari\_GCP** 2 years, 9 months ago  
Agree with A. It says optimize for performance, and multiple regional MIG's can definitely help you do that.  
upvoted 1 times
- 🗲️ 👤 **PeppaPig** 2 years, 10 months ago  
A is correct for sure  
D is wrong. GLB is already capable of forwarding traffic to MIG in the closer region so why would you implement that again  
upvoted 1 times
- 🗲️ 👤 **parthkulkarni998** 5 months, 3 weeks ago  
Exactly. D states about implementing GLB in a set of VMs rather than using a managed service of GLBs  
upvoted 1 times
- 🗲️ 👤 **kopper2019** 2 years, 11 months ago  
hey guys new Qs posted as of July 12th, 2021, All 21 new Qs in Question #152  
upvoted 1 times
- 🗲️ 👤 **victory108** 2 years, 11 months ago  
A. Use regional managed instance groups and a global load balancer to increase performance because the regional managed instance group grows instances in each region separately based on traffic.  
upvoted 2 times
- 🗲️ 👤 **MamthaSJ** 2 years, 11 months ago  
Answer is A  
upvoted 2 times
- 🗲️ 👤 **Pb55** 3 years, 1 month ago  
It's A. 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.  
upvoted 1 times

- 🗨️ 👤 **tzKhalil** 3 years, 2 months ago  
A is not good, because a regional MIG, which deploys instances to multiple zones across the same region. This will not deploy instances in m regions.  
D is good  
upvoted 2 times
- 🗨️ 👤 **taoj** 2 years, 11 months ago  
your statement is right. But A was MIGs.  
upvoted 2 times
- 🗨️ 👤 **tzKhalil** 3 years, 2 months ago  
Doc: [https://cloud.google.com/compute/docs/instance-groups#types\\_of\\_managed\\_instance\\_groups](https://cloud.google.com/compute/docs/instance-groups#types_of_managed_instance_groups)  
upvoted 1 times
- 🗨️ 👤 **jaguarr** 3 years, 2 months ago  
D is the correct answer.  
With A it says "because the regional managed instance group can grow instances in each region separately based on traffic." A regional instance group cannot grow instances in Multiple Regions, only in one.  
With D, you have multiple separate Regional Instance Groups, which is what is missing in answer A.  
upvoted 3 times
- 🗨️ 👤 **Ausias18** 3 years, 2 months ago  
Answer is A  
upvoted 1 times
- 🗨️ 👤 **lynx256** 3 years, 2 months ago  
IMO - A.  
We are going to use a few MIGs - one per region; each of them can scale independently from others.  
upvoted 1 times
- 🗨️ 👤 **gu9singg** 3 years, 2 months ago  
A- because with Regional resources and global load balancer we can route traffic to nearest VM machine  
upvoted 1 times

## Topic 12 - Testlet 9

<https://cloud.google.com/load-balancing/docs/https/setting-up-https>  
Custom Domains

Question #1

Topic 12

### Introductory Info

#### Company Overview -

Dress4Win is a web-based company that helps their users organize and manage their personal wardrobe using a web app and mobile application. The company also cultivates an active social network that connects their users with designers and retailers. They monetize their services through advertising, e-commerce, referrals, and a freemium app model. The application has grown from a few servers in the founder's garage to several hundred servers and appliances in a colocated data center. However, the capacity of their infrastructure is now insufficient for the application's rapid growth. Because of this growth and the company's desire to innovate faster, Dress4Win is committing to a full migration to a public cloud.

#### Solution Concept -

For the first phase of their migration to the cloud, Dress4Win is moving their development and test environments. They are also building a disaster recovery site, because their current infrastructure is at a single location. They are not sure which components of their architecture they can migrate as is and which components they need to change before migrating them.

#### Existing Technical Environment -

The Dress4Win application is served out of a single data center location. All servers run Ubuntu LTS v16.04.

#### Databases:

MySQL. 1 server for user data, inventory, static data:

- MySQL 5.8
- 8 core CPUs