EXAM ASSOCIATE CLOUD ENGINEER TOPIC 1 QUESTION 16 DISCUSSION

Actual exam question from Google's Associate Cloud Engineer
Question #: 16
Topic #: 1
[All Associate Cloud Engineer Questions]

You have a single binary application that you want to run on Google Cloud Platform. You decided to automatically scale the application based on underlying infrastructure CPU usage. Your organizational policies require you to use virtual machines directly. You need to ensure that the application scaling is operationally efficient and completed as quickly as possible. What should you do?

A. Create a Google Kubernetes Engine cluster, and use horizontal pod autoscaling to scale the application.

B. Create an instance template, and use the template in a managed instance group with autoscaling configured.

C. Create an instance template, and use the template in a managed instance group that scales up and down based on the time of day.

D. Use a set of third-party tools to build automation around scaling the application up and down, based on Stackdriver CPU usage monitoring.

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by coldpar at *March 15, 2020, 6:46 p.m.*

Comments

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mohdafiuddin **Highly Voted** 3 years, 9 months ago

I'll take a simple and logical approach for answering this.
Let's first break down the question into key requirements -
1. automatically scale the application based on underlying infrastructure CPU usage.
2. use virtual machines directly.

A. Not feasible because VMs are not used directly here.
B. This is the correct answer.
C. Time of Day... Easy elimination because this does not scale on CPU usage and time of day is mentioned NOWHERE.
D. Third Party Tools.... Nobody would use GCP if they needed third party tools to do something as simple as scaling based on CPU usage. all popular cloud providers have native solutions for this including GCP.

upvoted 67 times

kopper2019 3 years, 6 months ago

and also D is out because why would I use a third party tool when is a GCP exam

upvoted 18 times

RMO000 3 years ago

If the resource/solution is not available. It's a possibility.

upvoted 5 times

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

correct is B as you have to use VM instances directly.

upvoted 54 times

sh00001 **Most Recent** 3 months, 3 weeks ago

The correct option is B as it manges the VMs

upvoted 1 times

BAofBK 11 months, 2 weeks ago

The correct answer is B

upvoted 1 times

tlopsm 11 months, 3 weeks ago

B is the answers you can autoscale based on CPU Usage. D is wrong as it suggests that the triggering is time of day

upvoted 1 times

Evan7557 1 year ago

Answer C

upvoted 1 times

YourCloudGuru 1 year ago

Selected Answer: B

The correct answer is B.

This option is the most efficient way to scale your application based on CPU usage, because it uses Google Cloud's built-in autoscaling capabilities. Autoscaling allows you to specify a minimum and maximum number of instances, and Google Cloud will automatically add or remove instances as needed to maintain your desired CPU utilization.

Options A, C, and D are not as efficient, because they require more manual intervention to scale your application.

Here are the steps to create a managed instance group with autoscaling configured:

1. Create an instance template.
2. Create a managed instance group from the instance template.
3. Configure autoscaling for the managed instance group.

Once you have configured autoscaling, the managed instance group will automatically add or remove instances as needed to maintain your desired CPU utilization.

upvoted 2 times

tombatlkap 1 year, 1 month ago

Selected Answer: B

It sounds appropriate.

upvoted 1 times

Captain1212 1 year, 1 month ago

B, is the right answer because, in b you can use the vm's directly and it will be autoconfigured

upvoted 1 times

Paras_vohrA 1 year, 3 months ago

Selected Answer: B

B is correct

upvoted 1 times

BlueJay20 1 year, 8 months ago

Selected Answer: B

B correct answer.

upvoted 2 times

Buruguduystunstugudunstuy 1 year, 9 months ago

Selected Answer: B

The correct answer is Option B. Creating an instance template and using it in a managed instance group with autoscaling configured will allow you to automatically scale the application based on underlying infrastructure CPU usage and will be operationally efficient and completed quickly.
Option A is incorrect because it involves using Kubernetes, which is not required in this scenario.

Option C is incorrect because it involves scaling based on the time of day, which is not specified as a requirement.

Option D involves using third-party tools and is not necessary for this scenario.

upvoted 5 times

_adiii 1 year, 10 months ago

B, as MIG with autoscaling is best choice

upvoted 1 times

cslince 1 year, 10 months ago

correct is B

upvoted 1 times

ChristN 1 year, 10 months ago

Selected Answer: B

automatic scale

upvoted 1 times

leogor 1 year, 12 months ago

B, managed instance group (VM instances) with autoscaling

upvoted 1 times

gcp_world123 2 years, 2 months ago

Our requirements are as per the question

1. Use Virtual Machines directly (i.e. not container-based)
2. Scale Automatically
3. Scaling is efficient & is quick

B is correct

Managed instance groups offer autoscaling capabilities that let you automatically add or delete instances from a managed instance group based on increases or decreases in load (CPU Utilization in this case). Autoscaling helps your apps gracefully handle increases in traffic and reduce costs when the need for resources is lower. You define the autoscaling policy and the autoscaler performs automatic scaling based on the measured load (CPU Utilization in this case). Autoscaling works by adding more instances to your instance group when there is more load (upscaling), and deleting instances when the need for instances is lowered (downscaling).

Ref: https://cloud.google.com/compute/docs/autoscaler

upvoted 4 times

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