⬅ Google Discussions

📄 EXAM PROFESSIONAL DATA ENGINEER TOPIC 1 QUESTION 90 DISCUSSION

Actual exam question from Google's Professional Data Engineer

Question #: 90

Topic #: 1

[All Professional Data Engineer Questions]

You are deploying MariaDB SQL databases on GCE VM Instances and need to configure monitoring and alerting. You want to collect metrics including network connections, disk IO and replication status from MariaDB with minimal development effort and use StackDriver for dashboards and alerts.
What should you do?

A. Install the OpenCensus Agent and create a custom metric collection application with a StackDriver exporter.

B. Place the MariaDB instances in an Instance Group with a Health Check.

C. Install the StackDriver Logging Agent and configure fluentd in_tail plugin to read MariaDB logs.

D. Install the StackDriver Agent and configure the MySQL plugin.

Show Suggested Answer

by [deleted] at *March 22, 2020, 5:59 p.m.*

Comments

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⊟ 👤 **Barniyah** Highly Voted 👍 4 years ago

Answer : A
MariaDB needs costume metrics , and stackdriver built-in monitoring tools will not provide these metrics . Opencensus Agent will do this for you
For more info , refer to :
https://cloud.google.com/monitoring/custom-metrics/open-census

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   ⊟ 👤 **fire558787** 2 years, 7 months ago

   It is definitely A.
B: can't be because Health Checks just checks that machine is online
C: StackDriver Logging is for Logging. Here we talk of Monitoring / Alerting
D: StackDriver Agent monitors default metrics of VMs and some Database stuff with the MySQL Plugin. Here you want to monitor some more custom stuff like Replication of MariaDB (I didn't find anything of this sort in the plugin page), and you may want to use Custom Metrics rather than default metrics. "Cloud Monitoring automatically collects more than 1,500 built-in metrics from more than 100 monitored resources. But those metrics cannot capture application-specific data or client-side system data. Those metrics can give you information on backend latency or disk usage, but they can't tell you how many background routines your application spawned." https://cloud.google.com/monitoring/custom-metrics/open-census#monitoring_opencensus_metrics_quickstart-python

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⊟ 👤 **[Removed]** `Highly Voted 👍` 4 years, 1 month ago

Answer: C
Description: The GitHub repository named google-fluentd-catch-all-config which includes the configuration files for the Logging agent for ingesting the logs from various third-party software packages.

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   ⊟ 👤 **Atulthakur** 2 years, 8 months ago

   I think its D, because its Selfmanaged DB and for this we use Stackdriver Agents. and in this question its asking about metrics not logs.

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⊟ 👤 **rocky48** `Most Recent ⊙` 5 months ago

`Selected Answer: D`

Here's the rationale:
StackDriver Agent: The StackDriver Agent is designed to collect system and application metrics from virtual machine instances and send them to StackDriver Monitoring. It simplifies the process of collecting and forwarding metrics.
MySQL Plugin: The StackDriver Agent has a MySQL plugin that allows you to collect MySQL-specific metrics without the need for additional custom development. This includes metrics related to network connections, disk IO, and replication status – which are the specific metrics you mentioned.

Option D is the most straightforward and least development-intensive approach to achieve the monitoring and alerting requirements for MariaDB on GCE VM Instances using StackDriver.

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⊟ 👤 **BlehMaks** 5 months, 4 weeks ago

`Selected Answer: A`

replication status seems to be not included in sql agent metrics. but I do not like A in terms of efforts

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⊟ 👤 **ninjatech** 1 year, 1 month ago

it can't be A as it saying minimal development but for opencensus the development is needed.

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⊟ 👤 **slade_wilson** 1 year, 4 months ago

`Selected Answer: A`

To use metrics collected by OpenCensus in your Google Cloud project, you must make the OpenCensus metrics libraries and the Stackdriver exporter available to your application. The Stackdriver exporter exports the metrics that OpenCensus collects to your Google Cloud project. You can then use Cloud Monitoring to chart or monitor those metrics.

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⊟ 👤 **zellck** 1 year, 5 months ago

`Selected Answer: D`

D is the answer.

https://cloud.google.com/stackdriver/docs/solutions/agents/ops-agent/third-party/mariadb

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   ⊟ 👤 **wan2three** 1 year, 4 months ago

   For supplement, 'Stackdriver agent' now called as Ops agent, 'Operations Suite'

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⊟ 👤 **dish11dish** 1 year, 5 months ago

Option D is Correct
MariaDB is a community-developed, commercially supported fork of the MySQL relational database management system (RDBMS). To collect logs and metrics for MariaDB, use the mysql receivers.

The mysql receiver connects by default to a local MariaDB server using a Unix socket and Unix authentication as the root user.

reference:-https://cloud.google.com/stackdriver/docs/solutions/agents/ops-agent/third-party/mariadb

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⊟ 👤 **girgu** 1 year, 6 months ago

https://cloud.google.com/monitoring/agent/ops-agent/third-party/mariadb

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⊟ 👤 **clouditis** 1 year, 7 months ago

C is the answer, fluentd plug in is needed as the DB is on GCE

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⊟ 👤 **ducc** 1 year, 8 months ago

go for D

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⊟ 👤 **eRaymox** 1 year, 8 months ago

A
StackDriver Agent monitors default metrics of VMs and some Database stuff with the MySQL Plugin. Here you want to monitor some more custom stuff like Replication of MariaDB (I didn't find anything of this sort in the plugin page), and you may want to use Custom Metrics rather than default metrics. "Cloud Monitoring automatically collects more than 1,500 built-in metrics from more than 100 monitored resources. But those metrics cannot capture application-specific data or client-side system data. Those metrics can give you information on backend latency or disk usage, but they can't tell you how many background routines your application spawned." https://cloud.google.com/monitoring/custom-metrics/open-census#monitoring_opencensus_metrics_quickstart-python

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⊟ 👤 **Kriegs** 1 year, 10 months ago

I'm not 100% sure as I have no experience with that issue, but I would say it's D - both A and D should work, but the keyword is "with minimal development effort" (and using pre-built plugin > creating custom metric in terms of simplicity, that's obvious) and all of the relevant data (as per question) should be there: https://cloud.google.com/monitoring/api/metrics_agent#agent-mysql

I'm not sure if C would work, but it also seems more advanced in implementation than D. B is 100% wrong and insufficient for that use case.

Feel free to prove me wrong :)

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⊟ 👤 **NR22** 2 years ago

A and D both seem like viable options here, unsure which is Google's preferred method as that would be deemed the correct answer in the exam. Any opinions?

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⊟ 👤 **Didine_22** 2 years ago

D
mariaDB is an extension of mysql and mysql plugin must work fine to extract the metrics of mariaDB.

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⊟ 👤 **ST42** 1 year, 11 months ago

"MariaDB is a community-developed, commercially supported fork of the MySQL relational database management system (RDBMS). To collect logs and metrics for MariaDB, use the mysql receivers."

https://cloud.google.com/monitoring/agent/ops-agent/third-party/mariadb

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⊟ 👤 **rbeeraka** 2 years, 3 months ago

Opencensus Agent is right one

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⊟ 👤 **nguyenmoon** 2 years, 7 months ago

D is correct. Answer : D
mariaDB is an extension of mysql and mysql plugin must work fine to extract the metrics of mariaDB.

👍 ↩ 🚩 upvoted 4 times

⊟ 👤 **[Removed]** 2 years, 3 months ago

agree; https://cloud.google.com/monitoring/agent/ops-agent/third-party/mariadb#configure-instance

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