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### **Exam Professional Machine Learning Engineer All Questions**

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# **EXAM PROFESSIONAL MACHINE LEARNING ENGINEER TOPIC 1 QUESTION 261 DISCUSSI...**

Actual exam question from Google's Professional Machine Learning Engineer

Question #: 261

Topic #: 1

[All Professional Machine Learning Engineer Questions]

You are developing a recommendation engine for an online clothing store. The historical customer transaction data is stored in BigQuery and Cloud Storage. You need to perform exploratory data analysis (EDA), preprocessing and model training. You plan to rerun these EDA, preprocessing, and training steps as you experiment with different types of algorithms. You want to minimize the cost and development effort of running these steps as you experiment. How should you configure the environment?

- A. Create a Vertex AI Workbench user-managed notebook using the default VM instance, and use the %%bigquerv magic commands in Jupyter to query the tables.
- B. Create a Vertex AI Workbench managed notebook to browse and query the tables directly from the JupyterLab interface.
- C. Create a Vertex Al Workbench user-managed notebook on a Dataproc Hub, and use the %%bigquery magic commands in Jupyter to query the tables.
- D. Create a Vertex AI Workbench managed notebook on a Dataproc cluster, and use the spark-bigquery-connector to access the tables.

**Show Suggested Answer** 

by Apikachu007 at Jan. 13, 2024, 3:45 p.m.

### **Comments**

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■ b1a8fae Highly Voted 9 months ago

#### **Selected Answer: B**

"Managed notebooks are usually a good choice if you want to use a notebook for data exploration, analysis, modeling, or as part of an end-to-end data science workflow.

Managed notebooks instances let you perform workflow-oriented tasks without leaving the JupyterLab interface. They also have many integrations and features for implementing your data science workflow."

VS.

"User-managed notebooks can be a good choice for users who require extensive customization or who need a lot of control over their environment."

Seems more like the former -> B

upvoted 5 times

AzureDP900 Most Recent @ 3 months, 2 weeks ago

B is right because this option allows you to minimize cost and development effort by using a managed notebook in Vertex Al Workbench, which integrates well with BigQuery and Cloud Storage. You can browse and query your data directly within the JupyterLab interface without having to create a separate BigQuery client or use the bq command-line tool.

upvoted 2 times

□ ♣ pinimichele01 6 months ago

### **Selected Answer: B**

see b1a8fae

upvoted 1 times

□ ♣ qscharly 6 months ago

#### Selected Answer: A

agree with guilhermebutzke. Also, this option is easier to reuse in multiple experiments

upvoted 1 times

😑 🏜 guilhermebutzke 8 months, 1 week ago

#### Selected Answer: A

My Answer: A

A: Default VM instance is the best to minimize the cost, and the command %%bigquery magic is the most easy way to get data from BQ.

B: Not necessary JupyerLab interface to run code. The %%bigquerv magic commands is sufficient to get data and run easily queries.

C: Dataproc Hub seems overkill and it is more expensive than a default VM instance.

C: spark-bigquery-connector unnecessary to get tables in the notebook. better use %%bigquery.

upvoted 1 times

🗖 🏜 daidai75 9 months ago

#### Selected Answer: B

https://cloud.google.com/bigquery/docs/visualize-jupyter

upvoted 1 times

shadz10 9 months, 1 week ago

### Selected Answer: B

https://cloud.google.com/vertex-ai/docs/workbench/notebook-

solution#:~:text=For%20users%20who%20have%20specific,user%2Dmanaged%20notebooks%20instance's%20VM.

upvoted 1 times

pikachu007 9 months, 1 week ago

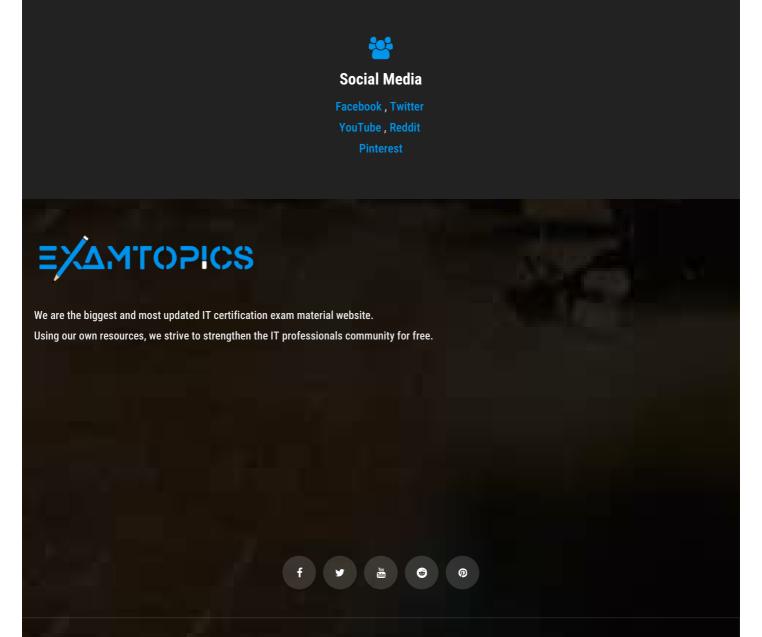
#### Selected Answer: B

Option A: User-managed notebooks require VM instance management, adding cost and complexity. %%bigquery magic commands are still needed.

Option C: Dataproc Hub adds unnecessary cost and complexity for simple BigQuery interactions.

Option D: Spark-bigquery-connector adds complexity and overhead compared to the native BigQuery integration in managed notebooks.

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