

Databricks-Certified-Data-Engineer-Associate Dumps

Databricks Certified Data Engineer Associate Exam

<https://www.certleader.com/Databricks-Certified-Data-Engineer-Associate-dumps.html>



NEW QUESTION 1

In which of the following scenarios should a data engineer select a Task in the Depends On field of a new Databricks Job Task?

- A. When another task needs to be replaced by the new task
- B. When another task needs to fail before the new task begins
- C. When another task has the same dependency libraries as the new task
- D. When another task needs to use as little compute resources as possible
- E. When another task needs to successfully complete before the new task begins

Answer: E

NEW QUESTION 2

A data engineer has created a new database using the following command: CREATE DATABASE IF NOT EXISTS customer360;
In which of the following locations will the customer360 database be located?

- A. dbfs:/user/hive/database/customer360
- B. dbfs:/user/hive/warehouse
- C. dbfs:/user/hive/customer360
- D. More information is needed to determine the correct response

Answer: B

Explanation:

dbfs:/user/hive/warehouse - which is the default location

NEW QUESTION 3

Which of the following approaches should be used to send the Databricks Job owner an email in the case that the Job fails?

- A. Manually programming in an alert system in each cell of the Notebook
- B. Setting up an Alert in the Job page
- C. Setting up an Alert in the Notebook
- D. There is no way to notify the Job owner in the case of Job failure
- E. MLflow Model Registry Webhooks

Answer: B

Explanation:

<https://docs.databricks.com/en/workflows/jobs/job-notifications.html>

NEW QUESTION 4

A data engineer has configured a Structured Streaming job to read from a table, manipulate the data, and then perform a streaming write into a new table.
The code block used by the data engineer is below:

```
(spark.table("sales")
  .withColumn("avg_price", col("sales") / col("units"))
  .writeStream
  .option("checkpointLocation", checkpointPath)
  .outputMode("complete")
  .trigger(
    .table("new_sales")
  )
)
```

If the data engineer only wants the query to execute a micro-batch to process data every 5 seconds, which of the following lines of code should the data engineer use to fill in the blank?

- A. trigger("5 seconds")
- B. trigger()
- C. trigger(once="5 seconds")
- D. trigger(processingTime="5 seconds")
- E. trigger(continuous="5 seconds")

Answer: D

Explanation:

ProcessingTime trigger with two-seconds micro-batch interval df.writeStream \nformat("console") \ trigger(processingTime='2 seconds') \ start()\n<https://spark.apache.org/docs/latest/structured-streaming-programming-guide.html#triggers>

NEW QUESTION 5

A data analyst has developed a query that runs against Delta table. They want help from the data engineering team to implement a series of tests to ensure the data returned by the query is clean. However, the data engineering team uses Python for its tests rather than SQL.
Which of the following operations could the data engineering team use to run the query and operate with the results in PySpark?

- A. SELECT * FROM sales
- B. spark.delta.table
- C. spark.sql
- D. There is no way to share data between PySpark and SQL.

E. spark.table

Answer: C

Explanation:

```
from pyspark.sql import SparkSession spark = SparkSession.builder.getOrCreate()  
df = spark.sql("SELECT * FROM sales") print(df.count())
```

NEW QUESTION 6

A data engineer is attempting to drop a Spark SQL table my_table. The data engineer wants to delete all table metadata and data.

They run the following command: DROP TABLE IF EXISTS my_table

While the object no longer appears when they run SHOW TABLES, the data files still exist.

Which of the following describes why the data files still exist and the metadata files were deleted?

- A. The table's data was larger than 10 GB
- B. The table's data was smaller than 10 GB
- C. The table was external
- D. The table did not have a location
- E. The table was managed

Answer: C

Explanation:

The reason why the data files still exist while the metadata files were deleted is because the table was external. When a table is external in Spark SQL (or in other database systems), it means that the table metadata (such as schema information and table structure) is managed externally, and Spark SQL assumes that the data is managed and maintained outside of the system. Therefore, when you execute a DROP TABLE statement for an external table, it removes only the table metadata from the catalog, leaving the data files intact. On the other hand, for managed tables (option E), Spark SQL manages both the metadata and the data files. When you drop a managed table, it deletes both the metadata and the associated data files, resulting in a complete removal of the table.

NEW QUESTION 7

Which of the following must be specified when creating a new Delta Live Tables pipeline?

- A. A key-value pair configuration
- B. The preferred DBU/hour cost
- C. A path to cloud storage location for the written data
- D. A location of a target database for the written data
- E. At least one notebook library to be executed

Answer: E

Explanation:

<https://docs.databricks.com/en/delta-live-tables/tutorial-pipelines.html>

NEW QUESTION 8

A data engineer wants to schedule their Databricks SQL dashboard to refresh every hour, but they only want the associated SQL endpoint to be running when it is necessary. The dashboard has multiple queries on multiple datasets associated with it. The data that feeds the dashboard is automatically processed using a Databricks Job.

Which of the following approaches can the data engineer use to minimize the total running time of the SQL endpoint used in the refresh schedule of their dashboard?

- A. They can turn on the Auto Stop feature for the SQL endpoint.
- B. They can ensure the dashboard's SQL endpoint is not one of the included query's SQL endpoint.
- C. They can reduce the cluster size of the SQL endpoint.
- D. They can ensure the dashboard's SQL endpoint matches each of the queries' SQL endpoints.
- E. They can set up the dashboard's SQL endpoint to be serverless.

Answer: A

NEW QUESTION 9

Which of the following benefits of using the Databricks Lakehouse Platform is provided by Delta Lake?

- A. The ability to manipulate the same data using a variety of languages
- B. The ability to collaborate in real time on a single notebook
- C. The ability to set up alerts for query failures
- D. The ability to support batch and streaming workloads
- E. The ability to distribute complex data operations

Answer: D

Explanation:

Delta Lake is a key component of the Databricks Lakehouse Platform that provides several benefits, and one of the most significant benefits is its ability to support both batch and streaming workloads seamlessly. Delta Lake allows you to process and analyze data in real-time (streaming) as well as in batch, making it a versatile choice for various data processing needs. While the other options may be benefits or capabilities of Databricks or the Lakehouse Platform in general, they are not specifically associated with Delta Lake.

NEW QUESTION 10

A data engineer needs to determine whether to use the built-in Databricks Notebooks versioning or version their project using Databricks Repos.

Which of the following is an advantage of using Databricks Repos over the Databricks Notebooks versioning?

- A. Databricks Repos automatically saves development progress
- B. Databricks Repos supports the use of multiple branches
- C. Databricks Repos allows users to revert to previous versions of a notebook
- D. Databricks Repos provides the ability to comment on specific changes
- E. Databricks Repos is wholly housed within the Databricks Lakehouse Platform

Answer: B

Explanation:

An advantage of using Databricks Repos over the built-in Databricks Notebooks versioning is the ability to work with multiple branches. Branching is a fundamental feature of version control systems like Git, which Databricks Repos is built upon. It allows you to create separate branches for different tasks, features, or experiments within your project. This separation helps in parallel development and experimentation without affecting the main branch or the work of other team members. Branching provides a more organized and collaborative development environment, making it easier to merge changes and manage different development efforts. While Databricks Notebooks versioning also allows you to track versions of notebooks, it may not provide the same level of flexibility and collaboration as branching in Databricks Repos.

NEW QUESTION 10

An engineering manager wants to monitor the performance of a recent project using a Databricks SQL query. For the first week following the project's release, the manager wants the query results to be updated every minute. However, the manager is concerned that the compute resources used for the query will be left running and cost the organization a lot of money beyond the first week of the project's release.

Which of the following approaches can the engineering team use to ensure the query does not cost the organization any money beyond the first week of the project's release?

- A. They can set a limit to the number of DBUs that are consumed by the SQL Endpoint.
- B. They can set the query's refresh schedule to end after a certain number of refreshes.
- C. They cannot ensure the query does not cost the organization money beyond the first week of the project's release.
- D. They can set a limit to the number of individuals that are able to manage the query's refresh schedule.
- E. They can set the query's refresh schedule to end on a certain date in the query scheduler.

Answer: E

Explanation:

If a dashboard is configured for automatic updates, it has a Scheduled button at the top, rather than a Schedule button. To stop automatically updating the dashboard and remove its subscriptions:

Click Scheduled.

In the Refresh every drop-down, select Never.

Click Save. The Scheduled button label changes to Schedule. Source: <https://learn.microsoft.com/en-us/azure/databricks/sql/user/dashboards/>

NEW QUESTION 11

A data engineer has a Job that has a complex run schedule, and they want to transfer that schedule to other Jobs.

Rather than manually selecting each value in the scheduling form in Databricks, which of the following tools can the data engineer use to represent and submit the schedule programmatically?

- A. `pyspark.sql.types.DateType`
- B. `datetime`
- C. `pyspark.sql.types.TimestampType`
- D. Cron syntax
- E. There is no way to represent and submit this information programmatically

Answer: D

NEW QUESTION 14

A Delta Live Table pipeline includes two datasets defined using STREAMING LIVE TABLE. Three datasets are defined against Delta Lake table sources using LIVE TABLE.

The table is configured to run in Production mode using the Continuous Pipeline Mode. Assuming previously unprocessed data exists and all definitions are valid, what is the

expected outcome after clicking Start to update the pipeline?

- A. All datasets will be updated at set intervals until the pipeline is shut down
- B. The compute resources will persist to allow for additional testing.
- C. All datasets will be updated once and the pipeline will persist without any processing
- D. The compute resources will persist but go unused.
- E. All datasets will be updated at set intervals until the pipeline is shut down
- F. The compute resources will be deployed for the update and terminated when the pipeline is stopped.
- G. All datasets will be updated once and the pipeline will shut down
- H. The compute resources will be terminated.
- I. All datasets will be updated once and the pipeline will shut down
- J. The compute resources will persist to allow for additional testing.

Answer: C

Explanation:

In a Delta Live Table pipeline running in Continuous Pipeline Mode, when you click Start to update the pipeline, the following outcome is expected: All datasets defined using STREAMING LIVE TABLE and LIVE TABLE against Delta Lake table sources will be updated at set intervals. The compute resources will be deployed for the update process and will be active during the execution of the pipeline. The compute resources will be terminated when the pipeline is stopped or shut down. This mode allows for continuous and periodic updates to the datasets as new data arrives or changes in the underlying Delta Lake tables occur. The compute resources are provisioned and utilized during the update intervals to process the data and perform the necessary operations.

NEW QUESTION 16

A data engineer has left the organization. The data team needs to transfer ownership of the data engineer's Delta tables to a new data engineer. The new data engineer is the lead engineer on the data team.

Assuming the original data engineer no longer has access, which of the following individuals must be the one to transfer ownership of the Delta tables in Data Explorer?

- A. Databricks account representative
- B. This transfer is not possible
- C. Workspace administrator
- D. New lead data engineer
- E. Original data engineer

Answer: C

Explanation:

<https://docs.databricks.com/sql/admin/transfer-ownership.html>

NEW QUESTION 19

Which of the following data workloads will utilize a Gold table as its source?

- A. A job that enriches data by parsing its timestamps into a human-readable format
- B. A job that aggregates uncleaned data to create standard summary statistics
- C. A job that cleans data by removing malformed records
- D. A job that queries aggregated data designed to feed into a dashboard
- E. A job that ingests raw data from a streaming source into the Lakehouse

Answer: D

NEW QUESTION 22

A Delta Live Table pipeline includes two datasets defined using STREAMING LIVE TABLE. Three datasets are defined against Delta Lake table sources using LIVE TABLE.

The table is configured to run in Development mode using the Continuous Pipeline Mode.

Assuming previously unprocessed data exists and all definitions are valid, what is the expected outcome after clicking Start to update the pipeline?

- A. All datasets will be updated once and the pipeline will shut dow
- B. The compute resources will be terminated.
- C. All datasets will be updated at set intervals until the pipeline is shut dow
- D. The compute resources will persist until the pipeline is shut down.
- E. All datasets will be updated once and the pipeline will persist without any processin
- F. The compute resources will persist but go unused.
- G. All datasets will be updated once and the pipeline will shut dow
- H. The compute resources will persist to allow for additional testing.
- I. All datasets will be updated at set intervals until the pipeline is shut dow
- J. The compute resources will persist to allow for additional testing.

Answer: E

Explanation:

You can optimize pipeline execution by switching between development and production modes. Use the Delta Live Tables Environment Toggle Icon buttons in the Pipelines UI to switch between these two modes. By default, pipelines run in development mode.

When you run your pipeline in development mode, the Delta Live Tables system does the following:

Reuses a cluster to avoid the overhead of restarts. By default, clusters run for two hours when development mode is enabled. You can change this with the `pipelines.clusterShutdown.delay` setting in the Configure your compute settings.

Disables pipeline retries so you can immediately detect and fix errors. In production mode, the Delta Live Tables system does the following:

Restarts the cluster for specific recoverable errors, including memory leaks and stale credentials.

Retries execution in the event of specific errors, for example, a failure to start a cluster. <https://docs.databricks.com/en/delta-live-tables/updates.html#optimize-execution>

NEW QUESTION 23

Which of the following code blocks will remove the rows where the value in column age is greater than 25 from the existing Delta table my_table and save the updated table?

- A. `SELECT * FROM my_table WHERE age > 25;`
- B. `UPDATE my_table WHERE age > 25;`
- C. `DELETE FROM my_table WHERE age > 25;`
- D. `UPDATE my_table WHERE age <= 25;`
- E. `DELETE FROM my_table WHERE age <= 25;`

Answer: C

NEW QUESTION 27

A data engineer wants to create a data entity from a couple of tables. The data entity must be used by other data engineers in other sessions. It also must be saved to a physical location.

Which of the following data entities should the data engineer create?

- A. Database
- B. Function
- C. View

- D. Temporary view
- E. Table

Answer: E

Explanation:

In the context described, creating a "Table" is the most suitable choice. Tables in SQL are data entities that exist independently of any session and are saved in a physical location. They can be accessed and manipulated by other data engineers in different sessions, which aligns with the requirements stated. A "Database" is a collection of tables, views, and other database objects. A "Function" is a stored procedure that performs an operation. A "View" is a virtual table based on the result-set of an SQL statement, but it is not stored physically. A "Temporary view" is a feature that allows you to store the result of a query as a view that disappears once your session with the database is closed.

NEW QUESTION 28

Which of the following Structured Streaming queries is performing a hop from a Silver table to a Gold table?

A.

```
(spark.readStream.load(rawSalesLocation)
  .writeStream
  .option("checkpointLocation", checkpointPath)
  .outputMode("append")
  .table("newSales")
)
```

B.

```
(spark.read.load(rawSalesLocation)
  .writeStream
  .option("checkpointLocation", checkpointPath)
  .outputMode("append")
  .table("newSales")
)
```

C.

```
(spark.table("sales")
  .withColumn("avgPrice", col("sales") / col("units"))
  .writeStream
  .option("checkpointLocation", checkpointPath)
  .outputMode("append")
  .table("newSales")
)
```

D.

```
(spark.table("sales")
  .filter(col("units") > 0)
  .writeStream
  .option("checkpointLocation", checkpointPath)
  .outputMode("append")
  .table("newSales")
)
```

E.

```
(spark.table("sales")
  .groupBy("store")
  .agg(sum("sales"))
  .writeStream
  .option("checkpointLocation", checkpointPath)
  .outputMode("complete")
  .table("newSales")
)
```

A.

Answer: E

NEW QUESTION 31

A data engineer has a single-task Job that runs each morning before they begin working. After identifying an upstream data issue, they need to set up another task to run a new notebook prior to the original task.

Which of the following approaches can the data engineer use to set up the new task?

- A. They can clone the existing task in the existing Job and update it to run the new notebook.
- B. They can create a new task in the existing Job and then add it as a dependency of the original task.
- C. They can create a new task in the existing Job and then add the original task as a dependency of the new task.
- D. They can create a new job from scratch and add both tasks to run concurrently.
- E. They can clone the existing task to a new Job and then edit it to run the new notebook.

Answer: B

Explanation:

To set up the new task to run a new notebook prior to the original task in a single-task Job, the data engineer can use the following approach: In the existing Job, create a new task that corresponds to the new notebook that needs to be run. Set up the new task with the appropriate configuration, specifying the notebook to be executed and any necessary parameters or dependencies. Once the new task is created, designate it as a dependency of the original task in the Job configuration.

This ensures that the new task is executed before the original task.

NEW QUESTION 34

A data engineer needs access to a table new_table, but they do not have the correct permissions. They can ask the table owner for permission, but they do not know who the table owner is.

Which of the following approaches can be used to identify the owner of new_table?

- A. Review the Permissions tab in the table's page in Data Explorer
- B. All of these options can be used to identify the owner of the table
- C. Review the Owner field in the table's page in Data Explorer
- D. Review the Owner field in the table's page in the cloud storage solution
- E. There is no way to identify the owner of the table

Answer: C

NEW QUESTION 37

Which of the following describes a benefit of creating an external table from Parquet rather than CSV when using a CREATE TABLE AS SELECT statement?

- A. Parquet files can be partitioned
- B. CREATE TABLE AS SELECT statements cannot be used on files
- C. Parquet files have a well-defined schema
- D. Parquet files have the ability to be optimized
- E. Parquet files will become Delta tables

Answer: C

Explanation:

<https://www.databricks.com/glossary/what-is-parquet#:~:text=Columnar%20storage%20like%20Apache%20Parquet,compared%20to%20row%20oriented%20databases>. Columnar storage like Apache Parquet is designed to bring efficiency compared to row-based files like CSV. When querying, columnar storage you can skip over the non-relevant data very quickly. As a result, aggregation queries are less time-consuming compared to row-oriented databases.

NEW QUESTION 40

In which of the following file formats is data from Delta Lake tables primarily stored?

- A. Delta
- B. CSV
- C. Parquet
- D. JSON
- E. A proprietary, optimized format specific to Databricks

Answer: C

Explanation:

<https://docs.delta.io/latest/delta-faq.html>

NEW QUESTION 45

A data engineer has realized that the data files associated with a Delta table are incredibly small. They want to compact the small files to form larger files to improve performance.

Which of the following keywords can be used to compact the small files?

- A. REDUCE
- B. OPTIMIZE
- C. COMPACTION
- D. REPARTITION
- E. VACUUM

Answer: B

Explanation:

OPTIMIZE can be used to club small files into 1 and improve performance.

NEW QUESTION 47

A data engineer is designing a data pipeline. The source system generates files in a shared directory that is also used by other processes. As a result, the files should be kept as is and will accumulate in the directory. The data engineer needs to identify which files are new since the previous run in the pipeline, and set up the pipeline to only ingest those new files with each run.

Which of the following tools can the data engineer use to solve this problem?

- A. Unity Catalog
- B. Delta Lake
- C. Databricks SQL
- D. Data Explorer
- E. Auto Loader

Answer: E

Explanation:

Auto Loader incrementally and efficiently processes new data files as they arrive in cloud storage without any additional setup.<https://docs.databricks.com/en/ingestion/auto-loader/index.html>

NEW QUESTION 50

A data architect has determined that a table of the following format is necessary:

employeeId	startDate	avgRating
a1	2009-01-06	5.5
a2	2018-11-21	7.1
...

Which of the following code blocks uses SQL DDL commands to create an empty Delta table in the above format regardless of whether a table already exists with this name?

- CREATE TABLE IF NOT EXISTS table_name (
 employeeId STRING,
A. startDate DATE,
 avgRating FLOAT
)
- CREATE OR REPLACE TABLE table_name AS
SELECT
B. employeeId STRING,
 startDate DATE,
 avgRating FLOAT
USING DELTA
- CREATE OR REPLACE TABLE table_name WITH COLUMNS (
 employeeId STRING,
C. startDate DATE,
 avgRating FLOAT
) USING DELTA
- CREATE TABLE table_name AS
SELECT
D. employeeId STRING,
 startDate DATE,
 avgRating FLOAT
- CREATE OR REPLACE TABLE table_name (
 employeeId STRING,
E. startDate DATE,
 avgRating FLOAT
)

- A. Option A
B. Option B
C. Option C
D. Option D
E. Option E

Answer: E

NEW QUESTION 52

A data engineer has configured a Structured Streaming job to read from a table, manipulate the data, and then perform a streaming write into a new table. The code block used by the data engineer is below:

```
(spark.readStream
  .table("sales")
  .withColumn("avg_price", col("sales") / col("units"))
  .writeStream
  .option("checkpointLocation", checkpointPath)
  .outputMode("complete")
  * _____
  .table("new_sales")
)
```

If the data engineer only wants the query to process all of the available data in as many batches as required, which of the following lines of code should the data engineer use to fill in the blank?

- A. processingTime(1)
- B. trigger(availableNow=True)
- C. trigger(parallelBatch=True)
- D. trigger(processingTime="once")
- E. trigger(continuous="once")

Answer: B

Explanation:

<https://stackoverflow.com/questions/71061809/trigger-availablenow-for-delta-source-streaming-queries-in-pyspark-databricks>

NEW QUESTION 55

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