



# Practice Exam

Databricks Certified Data Engineer Associate



## Overview

This is a practice exam for the [Databricks Certified Data Engineer Associate](#) exam. The questions here are retired questions from the actual exam that are representative of the questions one will receive while taking the actual exam. After taking this practice exam, one should know what to expect while taking the actual Data Engineer Associate exam.

Just like the actual exam, it contains 45 multiple-choice questions. Each of these questions has one correct answer. The correct answer for each question is listed at the bottom in the **Correct Answers** section.

There are a few more things to be aware of:

1. There is a 90-minute time limit to take the actual exam.
2. In order to pass the actual exam, testers will need to correctly answer at least 32 of the 45 questions.
3. Testers will not have access to any documentation or Databricks environments during the exam.
4. These questions are representative of questions that are on the actual exam, but they are no longer on the actual exam.

If you have more questions, please review the [Databricks Academy Certification FAQ](#).

Once you've completed the practice exam, evaluate your score using the correct answers at the bottom of this document. If you're ready to take the exam, head to the [Databricks Certification portal](#) to register.

## Questions

### Question 1

Which of the following describes a benefit of a data lakehouse that is unavailable in a traditional data warehouse?

- A. A data lakehouse provides a relational system of data management.
- B. A data lakehouse captures snapshots of data for version control purposes.
- C. A data lakehouse couples storage and compute for complete control.
- D. A data lakehouse utilizes proprietary storage formats for data.
- E. A data lakehouse enables both batch and streaming analytics.

### Question 2

Which of the following locations hosts the driver and worker nodes of a Databricks-managed cluster?

- A. Data plane
- B. Control plane
- C. Databricks Filesystem
- D. JDBC data source
- E. Databricks web application

### Question 3

A data architect is designing a data model that works for both video-based machine learning workloads and highly audited batch ETL/ELT workloads.

Which of the following describes how using a data lakehouse can help the data architect meet the needs of both workloads?

- A. A data lakehouse requires very little data modeling.
- B. A data lakehouse combines compute and storage for simple governance.
- C. A data lakehouse provides autoscaling for compute clusters.
- D. A data lakehouse stores unstructured data and is ACID-compliant.
- E. A data lakehouse fully exists in the cloud.

#### Question 4

Which of the following describes a scenario in which a data engineer will want to use a Job cluster instead of an all-purpose cluster?

- A. An ad-hoc analytics report needs to be developed while minimizing compute costs.
- B. A data team needs to collaborate on the development of a machine learning model.
- C. An automated workflow needs to be run every 30 minutes.
- D. A Databricks SQL query needs to be scheduled for upward reporting.
- E. A data engineer needs to manually investigate a production error.

#### Question 5

A data engineer has created a Delta table as part of a data pipeline. Downstream data analysts now need SELECT permission on the Delta table.

Assuming the data engineer is the Delta table owner, which part of the Databricks Lakehouse Platform can the data engineer use to grant the data analysts the appropriate access?

- A. Repos
- B. Jobs
- C. Data Explorer
- D. Databricks Filesystem
- E. Dashboards

#### Question 6

Two junior data engineers are authoring separate parts of a single data pipeline notebook. They are working on separate Git branches so they can pair program on the same notebook simultaneously. A senior data engineer experienced in Databricks suggests there is a better alternative for this type of collaboration.

Which of the following supports the senior data engineer's claim?

- A. Databricks Notebooks support automatic change-tracking and versioning
- B. Databricks Notebooks support real-time coauthoring on a single notebook
- C. Databricks Notebooks support commenting and notification comments
- D. Databricks Notebooks support the use of multiple languages in the same notebook
- E. Databricks Notebooks support the creation of interactive data visualizations

## Question 7

Which of the following describes how Databricks Repos can help facilitate CI/CD workflows on the Databricks Lakehouse Platform?

- A. Databricks Repos can facilitate the pull request, review, and approval process before merging branches
- B. Databricks Repos can merge changes from a secondary Git branch into a main Git branch
- C. Databricks Repos can be used to design, develop, and trigger Git automation pipelines
- D. Databricks Repos can store the single-source-of-truth Git repository
- E. Databricks Repos can commit or push code changes to trigger a CI/CD process

## Question 8

Which of the following statements describes Delta Lake?

- A. Delta Lake is an open source analytics engine used for big data workloads.
- B. Delta Lake is an open format storage layer that delivers reliability, security, and performance.
- C. Delta Lake is an open source platform to help manage the complete machine learning lifecycle.
- D. Delta Lake is an open source data storage format for distributed data.
- E. Delta Lake is an open format storage layer that processes data.

## Question 9

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

id	birthDate	avgRating
a1	1990-01-06	5.5
a2	1974-11-21	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?

- A. 

```
CREATE OR REPLACE TABLE table_name AS
SELECT
    id STRING,
    birthDate DATE,
    avgRating FLOAT
USING DELTA
```
- B. 

```
CREATE OR REPLACE TABLE table_name (
    id STRING,
    birthDate DATE,
    avgRating FLOAT
)
```
- C. 

```
CREATE TABLE IF NOT EXISTS table_name (
    id STRING,
    birthDate DATE,
    avgRating FLOAT
)
```
- D. 

```
CREATE TABLE table_name AS
SELECT
    id STRING,
    birthDate DATE,
    avgRating FLOAT
```
- E. 

```
CREATE OR REPLACE TABLE table_name WITH COLUMNS (
    id STRING,
    birthDate DATE,
    avgRating FLOAT
) USING DELTA
```

Question 10

Which of the following SQL keywords can be used to append new rows to an existing Delta table?

- A. UPDATE
- B. COPY
- C. INSERT INTO
- D. DELETE
- E. UNION

## Question 11

A data engineering team needs to query a Delta table to extract rows that all meet the same condition. However, the team has noticed that the query is running slowly. The team has already tuned the size of the data files. Upon investigating, the team has concluded that the rows meeting the condition are sparsely located throughout each of the data files.

Based on the scenario, which of the following optimization techniques could speed up the query?

- A. Data skipping
- B. Z-Ordering
- C. Bin-packing
- D. Write as a Parquet file
- E. Tuning the file size

## Question 12

A data engineer needs to create a database called **customer360** at the location **/customer/customer360**. The data engineer is unsure if one of their colleagues has already created the database.

Which of the following commands should the data engineer run to complete this task?

- A. CREATE DATABASE customer360 LOCATION '/customer/customer360';
- B. CREATE DATABASE IF NOT EXISTS customer360;
- C. CREATE DATABASE IF NOT EXISTS customer360 LOCATION '/customer/customer360';
- D. CREATE DATABASE IF NOT EXISTS customer360 DELTA LOCATION '/customer/customer360';
- E. CREATE DATABASE customer360 DELTA LOCATION '/customer/customer360';

## Question 13

A junior data engineer needs to create a Spark SQL table `my_table` for which Spark manages both the data and the metadata. The metadata and data should also be stored in the Databricks Filesystem (DBFS).

Which of the following commands should a senior data engineer share with the junior data engineer to complete this task?

- A. `CREATE TABLE my_table (id STRING, value STRING) USING org.apache.spark.sql.parquet OPTIONS (PATH "storage-path");`
- B. `CREATE MANAGED TABLE my_table (id STRING, value STRING) USING org.apache.spark.sql.parquet OPTIONS (PATH "storage-path");`
- C. `CREATE MANAGED TABLE my_table (id STRING, value STRING);`
- D. `CREATE TABLE my_table (id STRING, value STRING) USING DBFS;`
- E. `CREATE TABLE my_table (id STRING, value STRING);`

## Question 14

A data engineer wants to create a relational object by pulling data from two tables. The relational object must be used by other data engineers in other sessions. In order to save on storage costs, the data engineer wants to avoid copying and storing physical data.

Which of the following relational objects should the data engineer create?

- A. `View`
- B. Temporary view
- C. Delta Table
- D. Database
- E. Spark SQL Table

## Question 15

A data engineering team has created a series of tables using Parquet data stored in an external system. The team is noticing that after appending new rows to the data in the external system, their queries within Databricks are not returning the new rows. They identify the caching of the previous data as the cause of this issue.

Which of the following approaches will ensure that the data returned by queries is always up-to-date?

- A. The tables should be converted to the Delta format
- B. The tables should be stored in a cloud-based external system
- C. The tables should be refreshed in the writing cluster before the next query is run
- D. The tables should be altered to include metadata to not cache
- E. The tables should be updated before the next query is run

## Question 16

A table **customerLocations** exists with the following schema:

```
id STRING,  
date STRING,  
city STRING,  
country STRING
```

A senior data engineer wants to create a new table from this table using the following command:

```
CREATE TABLE customersPerCountry AS  
SELECT country,  
       COUNT(*) AS customers  
FROM customerLocations  
GROUP BY country;
```

A junior data engineer asks why the schema is not being declared for the new table.

Which of the following responses explains why declaring the schema is not necessary?

- A. CREATE TABLE AS SELECT statements adopt schema details from the source table and query.
- B. CREATE TABLE AS SELECT statements infer the schema by scanning the data.
- C. CREATE TABLE AS SELECT statements result in tables where schemas are optional.
- D. CREATE TABLE AS SELECT statements assign all columns the type STRING.
- E. CREATE TABLE AS SELECT statements result in tables that do not support schemas.

## Question 17



A data engineer is overwriting data in a table by deleting the table and recreating the table. Another data engineer suggests that this is inefficient and the table should simply be overwritten instead.

Which of the following reasons to overwrite the table instead of deleting and recreating the table is incorrect?

- A. Overwriting a table is efficient because no files need to be deleted.
- B. Overwriting a table results in a clean table history for logging and audit purposes.
- C. Overwriting a table maintains the old version of the table for Time Travel.
- D. Overwriting a table is an atomic operation and will not leave the table in an unfinished state.
- E. Overwriting a table allows for concurrent queries to be completed while in progress.

## Question 18

Which of the following commands will return records from an existing Delta table `my_table` where duplicates have been removed?

- A. `DROP DUPLICATES FROM my_table;`
- B. `SELECT * FROM my_table WHERE duplicate = False;`
- C. `SELECT DISTINCT * FROM my_table;`
- D. `MERGE INTO my_table a USING new_records b ON a.id = b.id WHEN NOT MATCHED THEN INSERT *;`
- E. `MERGE INTO my_table a USING new_records b;`

## Question 19

A data engineer wants to horizontally combine two tables as a part of a query. They want to use a shared column as a key column, and they only want the query result to contain rows whose value in the key column is present in both tables.

Which of the following SQL commands can they use to accomplish this task?

- A. `INNER JOIN`
- B. `OUTER JOIN`
- C. `LEFT JOIN`
- D. `MERGE`
- E. `UNION`

## Question 20

A junior data engineer has ingested a JSON file into a table **raw\_table** with the following schema:

```
cart_id STRING,  
items ARRAY<item_id:STRING>
```

The junior data engineer would like to unnest the **items** column in **raw\_table** to result in a new table with the following schema:

```
cart_id STRING,  
item_id STRING
```

Which of the following commands should the junior data engineer run to complete this task?

- A. `SELECT cart_id, filter(items) AS item_id FROM raw_table;`
- B. `SELECT cart_id, flatten(items) AS item_id FROM raw_table;`
- C. `SELECT cart_id, reduce(items) AS item_id FROM raw_table;`
- D. `SELECT cart_id, explode(items) AS item_id FROM raw_table;`
- E. `SELECT cart_id, slice(items) AS item_id FROM raw_table;`

## Question 21

A data engineer has ingested a JSON file into a table **raw\_table** with the following schema:

```
transaction_id STRING,  
payload ARRAY<customer_id:STRING, date:TIMESTAMP, store_id:STRING>
```

The data engineer wants to efficiently extract the date of each transaction into a table with the following schema:

```
transaction_id STRING,  
date TIMESTAMP
```

Which of the following commands should the data engineer run to complete this task?

- A. `SELECT transaction_id, explode(payload) FROM raw_table;`
- B. `SELECT transaction_id, payload.date FROM raw_table;`
- C. `SELECT transaction_id, date FROM raw_table;`

- D. `SELECT transaction_id, payload[date] FROM raw_table;`
- E. `SELECT transaction_id, date from payload FROM raw_table;`

## Question 22

A data analyst has provided a data engineering team with the following Spark SQL query:

```
SELECT district,  
        avg(sales)  
FROM store_sales_20220101  
GROUP BY district;
```

The data analyst would like the data engineering team to run this query every day. The date at the end of the table name (20220101) should automatically be replaced with the current date each time the query is run.

Which of the following approaches could be used by the data engineering team to efficiently automate this process?

- A. They could wrap the query using PySpark and use Python's string variable system to automatically update the table name.
- B. They could manually replace the date within the table name with the current day's date.
- C. They could request that the data analyst rewrites the query to be run less frequently.
- D. They could replace the string-formatted date in the table with a timestamp-formatted date.
- E. They could pass the table into PySpark and develop a robustly tested module on the existing query.

## Question 23

A data engineer has ingested data from an external source into a PySpark DataFrame `raw_df`. They need to briefly make this data available in SQL for a data analyst to perform a quality assurance check on the data.

Which of the following commands should the data engineer run to make this data available in SQL for only the remainder of the Spark session?

- A. `raw_df.createOrReplaceTempView("raw_df")`
- B. `raw_df.createTable("raw_df")`
- C. `raw_df.write.save("raw_df")`
- D. `raw_df.saveAsTable("raw_df")`

- E. There is no way to share data between PySpark and SQL.

## Question 24

A data engineer needs to dynamically create a table name string using three Python variables: **region**, **store**, and **year**. An example of a table name is below when **region** = "nyc", **store** = "100", and **year** = "2021":

nyc100\_sales\_2021

Which of the following commands should the data engineer use to construct the table name in Python?

- A. "{region}+{store}+\_sales\_+{year}"
- B. f"{region}+{store}+\_sales\_+{year}"
- C. "{region}{store}\_sales\_{year}"
- D. f"{region}{store}\_sales\_{year}"
- E. {region}+{store}+"\_sales\_" + {year}

## Question 25

A data engineer has developed a code block to perform a streaming read on a data source. The code block is below:

```
(spark
    .read
    .schema(schema)
    .format("cloudFiles")
    .option("cloudFiles.format", "json")
    .load(dataSource)
)
```

The code block is returning an error.

Which of the following changes should be made to the code block to configure the block to successfully perform a streaming read?

- A. The **.read** line should be replaced with **.readStream**.
- B. A new **.stream** line should be added after the **.read** line.
- C. The **.format("cloudFiles")** line should be replaced with **.format("stream")**.
- D. A new **.stream** line should be added after the **spark** line.
- E. A new **.stream** line should be added after the **.load(dataSource)** line.

## Question 26

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")
  ._____
  .table("new_sales")
)
```

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

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

## Question 27

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

## Question 28

A data engineering team is in the process of converting their existing data pipeline to utilize Auto Loader for incremental processing in the ingestion of JSON files. One data engineer comes across the following code block in the Auto Loader documentation:

```
(streaming_df = spark.readStream.format("cloudFiles")
    .option("cloudFiles.format", "json")
    .option("cloudFiles.schemaLocation", schemaLocation)
    .load(sourcePath))
```

Assuming that **schemaLocation** and **sourcePath** have been set correctly, which of the following changes does the data engineer need to make to convert this code block to use Auto Loader to ingest the data?

- A. The data engineer needs to change the **format("cloudFiles")** line to **format("autoLoader")**.
- B. There is no change required. Databricks automatically uses Auto Loader for streaming reads.
- C. There is no change required. The inclusion of **format("cloudFiles")** enables the use of Auto Loader.
- D. The data engineer needs to add the **.autoLoader** line before the **.load(sourcePath)** line.
- E. There is no change required. The data engineer needs to ask their administrator to turn on Auto Loader.

## Question 29

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

- A. A job that aggregates cleaned data to create standard summary statistics
- B. A job that queries aggregated data to publish key insights into a dashboard
- C. A job that ingests raw data from a streaming source into the Lakehouse
- D. A job that develops a feature set for a machine learning application
- E. A job that enriches data by parsing its timestamps into a human-readable format

## Question 30

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

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

## Question 31

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

- A. 

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

```
(spark.table("sales")
  .agg(sum("sales"),
    sum("units"))
  .writeStream
  .option("checkpointLocation", checkpointPath)
  .outputMode("complete")
  .table("aggregatedSales")
)
```
- C. 

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

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

```
(spark.read.load(rawSalesLocation)
  .writeStream
```

```
        .option("checkpointLocation", checkpointPath)
        .outputMode("append")
        .table("uncleanedSales")
    )
```

## Question 32

Which of the following benefits does Delta Live Tables provide for ELT pipelines over standard data pipelines that utilize Spark and Delta Lake on Databricks?

- A. The ability to declare and maintain data table dependencies
- B. The ability to write pipelines in Python and/or SQL
- C. The ability to access previous versions of data tables
- D. The ability to automatically scale compute resources
- E. The ability to perform batch and streaming queries

## Question 33

A data engineer has three notebooks in an ELT pipeline. The notebooks need to be executed in a specific order for the pipeline to complete successfully. The data engineer would like to use Delta Live Tables to manage this process.

Which of the following steps must the data engineer take as part of implementing this pipeline using Delta Live Tables?

- A. They need to create a Delta Live Tables pipeline from the Data page.
- B. They need to create a Delta Live Tables pipeline from the Jobs page.
- C. They need to create a Delta Live tables pipeline from the Compute page.
- D. They need to refactor their notebook to use Python and the dlt library.
- E. They need to refactor their notebook to use SQL and **CREATE LIVE TABLE** keyword.

## Question 34

A data engineer has written the following query:

```
SELECT *
FROM json.`path/to/json/file.json`;
```

The data engineer asks a colleague for help to convert this query for use in a Delta Live Tables (DLT) pipeline. The query should create the first table in the DLT pipeline.



Which of the following describes the change the colleague needs to make to the query?

- A. They need to add a **COMMENT** line at the beginning of the query.
- B. They need to add a **CREATE LIVE TABLE table\_name AS** line at the beginning of the query.
- C. They need to add a **live.** prefix prior to **json.** in the **FROM** line.
- D. They need to add a **CREATE DELTA LIVE TABLE table\_name AS** line at the beginning of the query.
- E. They need to add the **cloud\_files(...)** wrapper to the JSON file path.

## Question 35

A dataset has been defined using Delta Live Tables and includes an expectations clause:

```
CONSTRAINT valid_timestamp EXPECT (timestamp > '2020-01-01')
```

What is the expected behavior when a batch of data containing data that violates these constraints is processed?

- A. Records that violate the expectation are added to the target dataset and recorded as invalid in the event log.
- B. Records that violate the expectation are dropped from the target dataset and recorded as invalid in the event log.
- C. Records that violate the expectation cause the job to fail.
- D. Records that violate the expectation are added to the target dataset and flagged as invalid in a field added to the target dataset.
- E. Records that violate the expectation are dropped from the target dataset and loaded into a quarantine table.

## Question 36

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 Triggered 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 down. The compute resources will be terminated.
- B. All datasets will be updated at set intervals until the pipeline is shut down. The compute resources will be deployed for the update and terminated when the pipeline is stopped.
- C. All datasets will be updated at set intervals until the pipeline is shut down. The compute resources will persist after the pipeline is stopped to allow for additional testing.
- D. All datasets will be updated once and the pipeline will shut down. The compute resources will persist to allow for additional testing.
- E. All datasets will be updated continuously and the pipeline will not shut down. The compute resources will persist with the pipeline.

### Question 37

A data engineer has a Job with multiple tasks that runs nightly. One of the tasks unexpectedly fails during 10 percent of the runs.

Which of the following actions can the data engineer perform to ensure the Job completes each night while minimizing compute costs?

- A. They can institute a retry policy for the entire Job
- B. They can observe the task as it runs to try and determine why it is failing
- C. They can set up the Job to run multiple times ensuring that at least one will complete
- D. They can institute a retry policy for the task that periodically fails
- E. They can utilize a Jobs cluster for each of the tasks in the Job

### Question 38

A data engineer has set up two Jobs that each run nightly. The first Job starts at 12:00 AM, and it usually completes in about 20 minutes. The second Job depends on the first Job, and it starts at 12:30 AM. Sometimes, the second Job fails when the first Job does not complete by 12:30 AM.

Which of the following approaches can the data engineer use to avoid this problem?

- A. They can utilize multiple tasks in a single job with a linear dependency
- B. They can use cluster pools to help the Jobs run more efficiently
- C. They can set up a retry policy on the first Job to help it run more quickly
- D. They can limit the size of the output in the second Job so that it will not fail as easily
- E. They can set up the data to stream from the first Job to the second Job

### Question 39

A data engineer has set up a notebook to automatically process using a Job. The data engineer's manager wants to version control the schedule due to its complexity.

Which of the following approaches can the data engineer use to obtain a version-controllable configuration of the Job's schedule?

- A. They can link the Job to notebooks that are a part of a Databricks Repo.
- B. They can submit the Job once on a Job cluster.
- C. They can download the JSON description of the Job from the Job's page.
- D. They can submit the Job once on an all-purpose cluster.
- E. They can download the XML description of the Job from the Job's page.

### Question 40

A data analyst has noticed that their Databricks SQL queries are running too slowly. They claim that this issue is affecting all of their sequentially run queries. They ask the data engineering team for help. The data engineering team notices that each of the queries uses the same SQL endpoint, but the SQL endpoint is not used by any other user.

Which of the following approaches can the data engineering team use to improve the latency of the data analyst's queries?

- A. They can turn on the Serverless feature for the SQL endpoint.
- B. They can increase the maximum bound of the SQL endpoint's scaling range.
- C. They can increase the cluster size of the SQL endpoint.
- D. They can turn on the Auto Stop feature for the SQL endpoint.
- E. They can turn on the Serverless feature for the SQL endpoint and change the Spot Instance Policy to "Reliability Optimized."

### Question 41

An engineering manager uses a Databricks SQL query to monitor their team's progress on fixes related to customer-reported bugs. The manager checks the results of the query every day, but they are manually rerunning the query each day and waiting for the results.

Which of the following approaches can the manager use to ensure the results of the query are updated each day?

- A. They can schedule the query to run every 1 day from the Jobs UI.
- B. They can schedule the query to refresh every 1 day from the query's page in Databricks SQL.
- C. They can schedule the query to run every 12 hours from the Jobs UI.
- D. They can schedule the query to refresh every 1 day from the SQL endpoint's page in Databricks SQL.
- E. They can schedule the query to refresh every 12 hours from the SQL endpoint's page in Databricks SQL.

## Question 42

A data engineering team has been using a Databricks SQL query to monitor the performance of an ELT job. The ELT job is triggered by a specific number of input records being ready to process. The Databricks SQL query returns the number of minutes since the job's most recent runtime.

Which of the following approaches can enable the data engineering team to be notified if the ELT job has not been run in an hour?

- A. They can set up an Alert for the accompanying dashboard to notify them if the returned value is greater than 60.
- B. They can set up an Alert for the query to notify when the ELT job fails.
- C. They can set up an Alert for the accompanying dashboard to notify when it has not refreshed in 60 minutes.
- D. They can set up an Alert for the query to notify them if the returned value is greater than 60.
- E. This type of alerting is not possible in Databricks.

## Question 43

A data engineering manager has noticed that each of the queries in a Databricks SQL dashboard takes a few minutes to update when they manually click the "Refresh" button. They are curious why this might be occurring, so a team member provides a variety of reasons on why the delay might be occurring.

Which of the following reasons *fails* to explain why the dashboard might be taking a few minutes to update?

- A. The SQL endpoint being used by each of the queries might need a few minutes to start up.
- B. The queries attached to the dashboard might take a few minutes to run under normal circumstances.

- C. The queries attached to the dashboard might first be checking to determine if new data is available.
- D. The Job associated with updating the dashboard might be using a non-pooled endpoint.
- E. The queries attached to the dashboard might all be connected to their own, unstarted Databricks clusters.

## Question 44

A new data engineer has started at a company. The data engineer has recently been added to the company's Databricks workspace as `new.engineer@company.com`. The data engineer needs to be able to query the table `sales` in the database `retail`. The new data engineer already has been granted `USAGE` on the database `retail`.

Which of the following commands can be used to grant the appropriate permissions to the new data engineer?

- A. `GRANT USAGE ON TABLE sales TO new.engineer@company.com;`
- B. `GRANT CREATE ON TABLE sales TO new.engineer@company.com;`
- C. `GRANT SELECT ON TABLE sales TO new.engineer@company.com;`
- D. `GRANT USAGE ON TABLE new.engineer@company.com TO sales;`
- E. `GRANT SELECT ON TABLE new.engineer@company.com TO sales;`

## Question 45

A new data engineer `new.engineer@company.com` has been assigned to an ELT project. The new data engineer will need full privileges on the table `sales` to fully manage the project.

Which of the following commands can be used to grant full permissions on the table to the new data engineer?

- A. `GRANT ALL PRIVILEGES ON TABLE sales TO new.engineer@company.com;`
- B. `GRANT USAGE ON TABLE sales TO new.engineer@company.com;`
- C. `GRANT ALL PRIVILEGES ON TABLE new.engineer@company.com TO sales;`
- D. `GRANT SELECT ON TABLE sales TO new.engineer@company.com;`
- E. `GRANT SELECT CREATE MODIFY ON TABLE sales TO new.engineer@company.com;`

## Correct Answers

1. E
2. A
3. D
4. C
5. C
6. B
7. E
8. B
9. B
10. C
11. B
12. C
13. E
14. A
15. A
16. A
17. B
18. C
19. A
20. D
21. B
22. A
23. A
24. D
25. A
26. A
27. E
28. C
29. E
30. D
31. C
32. A
33. B
34. B
35. A
36. D
37. D
38. A
39. C
40. C

- 41. B
- 42. D
- 43. D
- 44. C
- 45. A