

**Exam**: Databricks Certified Data

**Engineer Associate** 

Title: Databricks Certified Data

**Engineer Associate Exam** 

**Version**: DEMO

1.A data organization leader is upset about the data analysis team's reports being different from the data engineering team's reports. The leader believes the siloed nature of their organization's data engineering and data analysis architectures is to blame.

Which of the following describes how a data lakehouse could alleviate this issue?

- A. Both teams would autoscale their work as data size evolves
- B. Both teams would use the same source of truth for their work
- C. Both teams would reorganize to report to the same department
- D. Both teams would be able to collaborate on projects in real-time
- E. Both teams would respond more quickly to ad-hoc requests

### Answer: B Explanation:

A data lakehouse is designed to unify the data engineering and data analysis architectures by integrating features of both data lakes and data warehouses. One of the key benefits of a data lakehouse is that it provides a common, centralized data repository (the "lake") that serves as a single source of truth for data storage and analysis. This allows both data engineering and data analysis teams to work with the same consistent data sets, reducing discrepancies and ensuring that the reports generated by both teams are based on the same underlying data.

- 2. Which of the following describes a scenario in which a data team will want to utilize cluster pools?
- A. An automated report needs to be refreshed as quickly as possible.
- B. An automated report needs to be made reproducible.
- C. An automated report needs to be tested to identify errors.
- D. An automated report needs to be version-controlled across multiple collaborators.
- E. An automated report needs to be runnable by all stakeholders.

# Answer: A Explanation:

Cluster pools are typically used in distributed computing environments, such as cloud-based data platforms like Databricks. They allow you to pre-allocate a set of compute resources (a cluster) for specific tasks or workloads. In this case, if an automated report needs to be refreshed as quickly as possible, you can allocate a cluster pool with sufficient resources to ensure fast data processing and report generation. This helps ensure that the report is generated with minimal latency and can be delivered to stakeholders in a timely manner. Cluster pools allow you to optimize resource allocation for high-demand, time-sensitive tasks like real-time report generation.

- 3. Which of the following is hosted completely in the control plane of the classic Databricks architecture?
- A. Worker node
- B. JDBC data source
- C. Databricks web application
- D. Databricks Filesystem
- E. Driver node

### Answer: C Explanation:

In the classic Databricks architecture, the control plane includes components like the Databricks web application, the Databricks REST API, and the Databricks Workspace. These components are

responsible for managing and controlling the Databricks environment, including cluster provisioning, notebook management, access control, and job scheduling. The other options, such as worker nodes, JDBC data sources, Databricks Filesystem (DBFS), and driver nodes, are typically part of the data plane or the execution environment, which is separate from the control plane. Worker nodes are responsible for executing tasks and computations, JDBC data sources are used to connect to external databases, DBFS is a distributed file system for data storage, and driver nodes are responsible for coordinating the execution of Spark jobs.

4. 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.

5. Which of the following describes the storage organization of a Delta table?

- A. Delta tables are stored in a single file that contains data, history, metadata, and other attributes.
- B. Delta tables store their data in a single file and all metadata in a collection of files in a separate location.
- C. Delta tables are stored in a collection of files that contain data, history, metadata, and other attributes.
- D. Delta tables are stored in a collection of files that contain only the data stored within the table.
- E. Delta tables are stored in a single file that contains only the data stored within the table.

# Answer: C Explanation:

Delta tables store data in a structured manner using Parquet files, and they also maintain metadata and transaction logs in separate directories. This organization allows for versioning, transactional capabilities, and metadata tracking in Delta Lake. Thank you for pointing out the error, and I appreciate your understanding.