

ARA-C01^{Q&As}

SnowPro Advanced: Architect Certification Exam

Pass Snowflake ARA-C01 Exam with 100% Guarantee

Free Download Real Questions & Answers **PDF** and **VCE** file from:

<https://www.certbus.com/ara-c01.html>

100% Passing Guarantee
100% Money Back Assurance

Following Questions and Answers are all new published by Snowflake
Official Exam Center

- ⚙️ **Instant Download** After Purchase
- ⚙️ **100% Money Back** Guarantee
- ⚙️ **365 Days** Free Update
- ⚙️ **800,000+** Satisfied Customers



QUESTION 1

Which system functions does Snowflake provide to monitor clustering information within a table (Choose two.)

- A. SYSTEM\$CLUSTERING_INFORMATION
- B. SYSTEM\$CLUSTERING_USAGE
- C. SYSTEM\$CLUSTERING_DEPTH
- D. SYSTEM\$CLUSTERING_KEYS
- E. SYSTEM\$CLUSTERING_PERCENT

Correct Answer: AC

Explanation: According to the Snowflake documentation, these two system functions are provided by Snowflake to monitor clustering information within a table. A system function is a type of function that allows executing actions or returning information about the system. A clustering key is a feature that allows organizing data across micro-partitions based on one or more columns in the table. Clustering can improve query performance by reducing the number of files to scan. SYSTEM\$CLUSTERING_INFORMATION is a system function that returns clustering information, including average clustering depth, for a table based on one or more columns in the table. The function takes a table name and an optional column name or expression as arguments, and returns a JSON string with the clustering information. The clustering information includes the cluster by keys, the total partition count, the total constant partition count, the average overlaps, and the average depth1. SYSTEM\$CLUSTERING_DEPTH is a system function that returns the clustering depth for a table based on one or more columns in the table. The function takes a table name and an optional column name or expression as arguments, and returns an integer value with the clustering depth. The clustering depth is the maximum number of overlapping micro-partitions for any micro-partition in the table. A lower clustering depth indicates a better clustering2. References: SYSTEM\$CLUSTERING_INFORMATION | Snowflake Documentation SYSTEM\$CLUSTERING_DEPTH | Snowflake Documentation

QUESTION 2

An Architect needs to allow a user to create a database from an inbound share.

To meet this requirement, the user's role must have which privileges? (Choose two.)

- A. IMPORT SHARE;
- B. IMPORT PRIVILEGES;
- C. CREATE DATABASE;
- D. CREATE SHARE;
- E. IMPORT DATABASE;

Correct Answer: CE

Explanation: According to the Snowflake documentation, to create a database from an inbound share, the user's role must have the following privileges: The CREATE DATABASE privilege on the current account. This privilege allows the user to create a new database in the account1. The IMPORT DATABASE privilege on the share. This privilege allows the user to import a database from the share into the account2. The other privileges listed are not relevant for this

requirement. The IMPORT SHARE privilege is used to import a share into the account, not a database³. The IMPORT PRIVILEGES privilege is used to import the privileges granted on the shared objects, not the objects themselves². The CREATE SHARE privilege is used to create a share to provide data to other accounts, not to consume data from other accounts⁴. References: CREATE DATABASE | Snowflake Documentation Importing Data from a Share | Snowflake Documentation Importing a Share | Snowflake Documentation CREATE SHARE | Snowflake Documentation

QUESTION 3

Which organization-related tasks can be performed by the ORGADMIN role? (Choose three.)

- A. Changing the name of the organization
- B. Creating an account
- C. Viewing a list of organization accounts
- D. Changing the name of an account
- E. Deleting an account
- F. Enabling the replication of a database

Correct Answer: BCF

Explanation: According to the SnowPro Advanced: Architect documents and learning resources, the organization-related tasks that can be performed by the ORGADMIN role are: Creating an account in the organization. A user with the ORGADMIN role can use the CREATE ACCOUNT command to create a new account that belongs to the same organization as the current account¹. Viewing a list of organization accounts. A user with the ORGADMIN role can use the SHOW ORGANIZATION ACCOUNTS command to view the names and properties of all accounts in the organization². Alternatively, the user can use the Admin ?Accounts page in the web interface to view the organization name and account names³. Enabling the replication of a database. A user with the ORGADMIN role can use the SYSTEM\$GLOBAL_ACCOUNT_SET_PARAMETER function to enable database replication for an account in the organization. This allows the user to replicate databases across accounts in different regions and cloud platforms for data availability and durability⁴. The other options are incorrect because they are not organization-related tasks that can be performed by the ORGADMIN role. Option A is incorrect because changing the name of the organization is not a task that can be performed by the ORGADMIN role. To change the name of an organization, the user must contact Snowflake Support³. Option D is incorrect because changing the name of an account is not a task that can be performed by the ORGADMIN role. To change the name of an account, the user must contact Snowflake Support⁵. Option E is incorrect because deleting an account is not a task that can be performed by the ORGADMIN role. To delete an account, the user must contact Snowflake Support. References: CREATE ACCOUNT | Snowflake Documentation, SHOW ORGANIZATION ACCOUNTS | Snowflake Documentation, Getting Started with Organizations | Snowflake Documentation, SYSTEM\$GLOBAL_ACCOUNT_SET_PARAMETER | Snowflake Documentation, ALTER ACCOUNT | Snowflake Documentation, [DROP ACCOUNT | Snowflake Documentation]

QUESTION 4

A Snowflake Architect is designing a multi-tenant application strategy for an organization in the Snowflake Data Cloud and is considering using an Account Per Tenant strategy.

Which requirements will be addressed with this approach? (Choose two.)

- A. There needs to be fewer objects per tenant.

- B. Security and Role-Based Access Control (RBAC) policies must be simple to configure.
- C. Compute costs must be optimized.
- D. Tenant data shape may be unique per tenant.
- E. Storage costs must be optimized.

Correct Answer: DE

An Account Per Tenant strategy means creating a separate Snowflake account for each tenant (customer or business unit) of the multi-tenant application. This approach has some advantages and disadvantages compared to other strategies,

such as Database Per Tenant or Schema Per Tenant. One advantage is that each tenant can have a unique data shape, meaning they can define their own tables, views, and other objects without affecting other tenants. This allows for more

flexibility and customization for each tenant.

Therefore, option D is correct.

Another advantage is that storage costs can be optimized, because each tenant can use their own storage credits and manage their own data retention policies. This also reduces the risk of data spillover or cross-tenant access. Therefore,

option E is correct.

However, this approach also has some drawbacks, such as:

References: : Multi-Tenant Application Strategies

QUESTION 5

What is a characteristic of loading data into Snowflake using the Snowflake Connector for Kafka?

- A. The Connector only works in Snowflake regions that use AWS infrastructure.
- B. The Connector works with all file formats, including text, JSON, Avro, Ore, Parquet, and XML.
- C. The Connector creates and manages its own stage, file format, and pipe objects.
- D. Loads using the Connector will have lower latency than Snowpipe and will ingest data in real time.

Correct Answer: C

Explanation: According to the SnowPro Advanced: Architect documents and learning resources, a characteristic of loading data into Snowflake using the Snowflake Connector for Kafka is that the Connector creates and manages its own stage, file format, and pipe objects. The stage is an internal stage that is used to store the data files from the Kafka topics. The file format is a JSON or Avro file format that is used to parse the data files. The pipe is a Snowpipe object that is used to load the data files into the Snowflake table. The Connector automatically creates and configures these objects based on the Kafka configuration properties, and handles the cleanup and maintenance of these objects¹. The other options are incorrect because they are not characteristics of loading data into Snowflake using the Snowflake Connector for Kafka. Option A is incorrect because the Connector works in Snowflake regions that use any cloud infrastructure, not just AWS. The Connector supports AWS, Azure, and Google Cloud platforms, and can load data across different regions and cloud platforms using data replication². Option B is incorrect because the Connector does

not work with all file formats, only JSON and Avro. The Connector expects the data in the Kafka topics to be in JSON or Avro format, and parses the data accordingly. Other file formats, such as text, ORC, Parquet, or XML, are not supported by the Connector³. Option D is incorrect because loads using the Connector do not have lower latency than Snowpipe, and do not ingest data in real time. The Connector uses Snowpipe to load data into Snowflake, and inherits the same latency and performance characteristics of Snowpipe. The Connector does not provide real-time ingestion, but near real-time ingestion, depending on the frequency and size of the data files⁴. References: Installing and Configuring the Kafka Connector | Snowflake Documentation, Sharing Data Across Regions and Cloud Platforms | Snowflake Documentation, Overview of the Kafka Connector | Snowflake Documentation, Using Snowflake Connector for Kafka With Snowpipe Streaming | Snowflake Documentation

QUESTION 6

Following objects can be cloned in snowflake: (Choose three.)

- A. Permanent table
- B. Transient table
- C. Temporary table
- D. External tables
- E. Internal stages

Correct Answer: ABD

Snowflake supports cloning of various objects, such as databases, schemas, tables, stages, file formats, sequences, streams, tasks, and roles. Cloning creates a copy of an existing object in the system without copying the data or metadata.

Cloning is also known as zero-copy cloning¹. Among the objects listed in the question, the following ones can be cloned in Snowflake:

The following objects listed in the question cannot be cloned in Snowflake:

References: : Cloning Considerations : CREATE TABLE ... CLONE : CREATE EXTERNAL TABLE ... CLONE : Temporary Tables : Internal Stages

QUESTION 7

What integration object should be used to place restrictions on where data may be exported?

- A. Stage integration
- B. Security integration
- C. Storage integration
- D. API integration

Correct Answer: B

Explanation: According to the SnowPro Advanced: Architect documents and learning resources, the integration object

that should be used to place restrictions on where data may be exported is the security integration. A security integration is a Snowflake object that provides an interface between Snowflake and third-party security services, such as Okta, Duo, or Google Authenticator. A security integration can be used to enforce policies on data export, such as requiring multi-factor authentication (MFA) or restricting the export destination to a specific network or domain. A security integration can also be used to enable single sign-on (SSO) or federated authentication for Snowflake users¹. The other options are incorrect because they are not integration objects that can be used to place restrictions on where data may be exported. Option A is incorrect because a stage integration is not a valid type of integration object in Snowflake. A stage is a Snowflake object that references a location where data files are stored, such as an internal stage, an external stage, or a named stage. A stage is not an integration object that provides an interface between Snowflake and third-party services². Option C is incorrect because a storage integration is a Snowflake object that provides an interface between Snowflake and external cloud storage, such as Amazon S3, Azure Blob Storage, or Google Cloud Storage. A storage integration can be used to securely access data files from external cloud storage without exposing the credentials, but it cannot be used to place restrictions on where data may be exported³. Option D is incorrect because an API integration is a Snowflake object that provides an interface between Snowflake and third-party services that use REST APIs, such as Salesforce, Slack, or Twilio. An API integration can be used to securely call external REST APIs from Snowflake using the `CALL_EXTERNAL_API` function, but it cannot be used to place restrictions on where data may be exported⁴. References: [CREATE SECURITY INTEGRATION | Snowflake Documentation](#), [CREATE STAGE | Snowflake Documentation](#), [CREATE STORAGE INTEGRATION | Snowflake Documentation](#), [CREATE API INTEGRATION | Snowflake Documentation](#)

QUESTION 8

Which Snowflake data modeling approach is designed for BI queries?

- A. 3 NF
- B. Star schema
- C. Data Vault
- D. Snowflake schema

Correct Answer: B

Explanation: A star schema is a Snowflake data modeling approach that is designed for BI queries. A star schema is a type of dimensional modeling that organizes data into fact tables and dimension tables. A fact table contains the measures or metrics of the business process, such as sales amount, order quantity, or profit margin. A dimension table contains the attributes or descriptors of the business process, such as product name, customer name, or order date. A star schema is called so because it resembles a star, with one fact table in the center and multiple dimension tables radiating from it. A star schema can improve the performance and simplicity of BI queries by reducing the number of joins, providing fast access to aggregated data, and enabling intuitive query syntax. A star schema can also support various types of analysis, such as trend analysis, slice and dice, drill down, and roll up¹². References: [Snowflake Documentation: Dimensional Modeling](#) [Snowflake Documentation: Star Schema](#)

QUESTION 9

Which security, governance, and data protection features require, at a MINIMUM, the Business Critical edition of Snowflake? (Choose two.)

- A. Extended Time Travel (up to 90 days)
- B. Customer-managed encryption keys through Tri-Secret Secure

- C. Periodic rekeying of encrypted data
- D. AWS, Azure, or Google Cloud private connectivity to Snowflake
- E. Federated authentication and SSO

Correct Answer: BD

Explanation: According to the SnowPro Advanced: Architect documents and learning resources, the security, governance, and data protection features that require, at a minimum, the Business Critical edition of Snowflake are: Customer-managed encryption keys through Tri-Secret Secure. This feature allows customers to manage their own encryption keys for data at rest in Snowflake, using a combination of three secrets: a master key, a service key, and a security password. This provides an additional layer of security and control over the data encryption and decryption process¹. Periodic rekeying of encrypted data. This feature allows customers to periodically rotate the encryption keys for data at rest in Snowflake, using either Snowflake- managed keys or customer-managed keys. This enhances the security and protection of the data by reducing the risk of key compromise or exposure². The other options are incorrect because they do not require the Business Critical edition of Snowflake. Option A is incorrect because extended Time Travel (up to 90 days) is available with the Enterprise edition of Snowflake³. Option D is incorrect because AWS, Azure, or Google Cloud private connectivity to Snowflake is available with the Standard edition of Snowflake⁴. Option E is incorrect because federated authentication and SSO are available with the Standard edition of Snowflake⁵. References: Tri-Secret Secure | Snowflake Documentation, Periodic Rekeying of Encrypted Data | Snowflake Documentation, Snowflake Editions | Snowflake Documentation, Snowflake Network Policies | Snowflake Documentation, Configuring Federated Authentication and SSO | Snowflake Documentation

QUESTION 10

A company wants to deploy its Snowflake accounts inside its corporate network with no visibility on the internet. The company is using a VPN infrastructure and Virtual Desktop Infrastructure (VDI) for its Snowflake users. The company also wants to re-use the login credentials set up for the VDI to eliminate redundancy when managing logins.

What Snowflake functionality should be used to meet these requirements? (Choose two.)

- A. Set up replication to allow users to connect from outside the company VPN.
- B. Provision a unique company Tri-Secret Secure key.
- C. Use private connectivity from a cloud provider.
- D. Set up SSO for federated authentication.
- E. Use a proxy Snowflake account outside the VPN, enabling client redirect for user logins.

Correct Answer: CD

Explanation: According to the SnowPro Advanced: Architect documents and learning resources, the Snowflake functionality that should be used to meet these requirements are: Use private connectivity from a cloud provider. This feature allows customers to connect to Snowflake from their own private network without exposing their data to the public Internet. Snowflake integrates with AWS PrivateLink, Azure Private Link, and Google Cloud Private Service Connect to offer private connectivity from customers\' VPCs or VNets to Snowflake endpoints. Customers can control how traffic reaches the Snowflake endpoint and avoid the need for proxies or public IP addresses¹²³. Set up SSO for federated authentication. This feature allows customers to use their existing identity provider (IdP) to authenticate users for SSO access to Snowflake. Snowflake supports most SAML 2.0-compliant vendors as an IdP, including Okta, Microsoft AD FS, Google G Suite, Microsoft Azure Active Directory, OneLogin, Ping Identity, and PingOne. By setting up SSO for federated authentication, customers can leverage their existing user credentials and profile information, and provide stronger security than username/password authentication⁴. The other options are incorrect because they do not

meet the requirements or are not feasible. Option A is incorrect because setting up replication does not allow users to connect from outside the company VPN. Replication is a feature of Snowflake that enables copying databases across accounts in different regions and cloud platforms. Replication does not affect the connectivity or visibility of the accounts⁵. Option B is incorrect because provisioning a unique company Tri-Secret Secure key does not affect the network or authentication requirements. Tri-Secret Secure is a feature of Snowflake that allows customers to manage their own encryption keys for data at rest in Snowflake, using a combination of three secrets: a master key, a service key, and a security password. Tri-Secret Secure provides an additional layer of security and control over the data encryption and decryption process, but it does not enable private connectivity or SSO⁶. Option E is incorrect because using a proxy Snowflake account outside the VPN, enabling client redirect for user logins, is not a supported or recommended way of meeting the requirements. Client redirect is a feature of Snowflake that allows customers to connect to a different Snowflake account than the one specified in the connection string. This feature is useful for scenarios such as cross-region failover, data sharing, and account migration, but it does not provide private connectivity or SSO⁷. References: AWS PrivateLink and Snowflake | Snowflake Documentation, Azure Private Link and Snowflake | Snowflake Documentation, Google Cloud Private Service Connect and Snowflake | Snowflake Documentation, Overview of Federated Authentication and SSO | Snowflake Documentation, Replicating Databases Across Multiple Accounts | Snowflake Documentation, Tri-Secret Secure | Snowflake Documentation, Redirecting Client Connections | Snowflake Documentation

QUESTION 11

An Architect has been asked to clone schema STAGING as it looked one week ago, Tuesday June 1st at 8:00 AM, to recover some objects.

The STAGING schema has 50 days of retention.

The Architect runs the following statement:

```
CREATE SCHEMA STAGING_CLONE CLONE STAGING at (timestamp => '\\2021-06-01 08:00:00\\');
```

The Architect receives the following error: Time travel data is not available for schema STAGING. The requested time is either beyond the allowed time travel period or before the object creation time.

The Architect then checks the schema history and sees the following:

```
CREATED_ON|NAME|DROPPED_ON
```

```
2021-06-02 23:00:00 | STAGING | NULL
```

```
2021-05-01 10:00:00 | STAGING | 2021-06-02 23:00:00
```

How can cloning the STAGING schema be achieved?

- A. Undrop the STAGING schema and then rerun the CLONE statement.
- B. Modify the statement: `CREATE SCHEMA STAGING_CLONE CLONE STAGING at (timestamp => '\\2021-05-01 10:00:00\\');`
- C. Rename the STAGING schema and perform an UNDROP to retrieve the previous STAGING schema version, then run the CLONE statement.
- D. Cloning cannot be accomplished because the STAGING schema version was not active during the proposed Time Travel time period.

Correct Answer: C

The error message indicates that the schema STAGING does not have time travel data available for the requested timestamp, because the current version of the schema was created on 2021-06-02 23:00:00, which is after the timestamp of 2021-06-01 08:00:00. Therefore, the CLONE statement cannot access the historical data of the schema at that point in time. Option A is incorrect, because undropping the STAGING schema will not restore the previous version of the schema that was active on 2021-06-01 08:00:00. Instead, it will create a new version of the schema with the same name and no data or objects. Option B is incorrect, because modifying the timestamp to 2021-05-01 10:00:00 will not clone the schema as it looked one week ago, but as it looked when it was first created. This may not reflect the desired state of the schema and its objects. Option C is correct, because renaming the STAGING schema and performing an UNDROP to retrieve the previous STAGING schema version will restore the schema that was dropped on 2021-06-02 23:00:00. This schema has time travel data available for the requested timestamp of 2021-06-01 08:00:00, and can be cloned using the CLONE statement. Option D is incorrect, because cloning can be accomplished by using the UNDROP command to access the previous version of the schema that was active during the proposed time travel period. References: : Cloning Considerations : Understanding and Using Time Travel : CREATE ... CLONE

QUESTION 12

What built-in Snowflake features make use of the change tracking metadata for a table? (Choose two.)

- A. The MERGE command
- B. The UPSERT command
- C. The CHANGES clause
- D. A STREAM object
- E. The CHANGE_DATA_CAPTURE command

Correct Answer: CD

Explanation: The built-in Snowflake features that make use of the change tracking metadata for a table are the CHANGES clause and a STREAM object. The CHANGES clause enables querying the change tracking metadata for a table or view within a specified interval of time without having to create a stream with an explicit transactional offset¹. A STREAM object records data manipulation language (DML) changes made to tables, including inserts, updates, and deletes, as well as metadata about each change, so that actions can be taken using the changed data. This process is referred to as change data capture (CDC)². The other options are incorrect because they do not make use of the change tracking metadata for a table. The MERGE command performs insert, update, or delete operations on a target table based on the results of a join with a source table³. The UPSERT command is not a valid Snowflake command. The CHANGE_DATA_CAPTURE command is not a valid Snowflake command. References: CHANGES | Snowflake Documentation, Change Tracking Using Table Streams | Snowflake Documentation, MERGE | Snowflake Documentation

QUESTION 13

What are purposes for creating a storage integration? (Choose three.)

- A. Control access to Snowflake data using a master encryption key that is maintained in the cloud provider's key management service.
- B. Store a generated identity and access management (IAM) entity for an external cloud provider regardless of the cloud provider that hosts the Snowflake account.
- C. Support multiple external stages using one single Snowflake object.

- D. Avoid supplying credentials when creating a stage or when loading or unloading data.
- E. Create private VPC endpoints that allow direct, secure connectivity between VPCs without traversing the public internet.
- F. Manage credentials from multiple cloud providers in one single Snowflake object.

Correct Answer: BCD

A storage integration is a Snowflake object that stores a generated identity and access management (IAM) entity for an external cloud provider, such as Amazon S3, Google Cloud Storage, or Microsoft Azure Blob Storage. This integration allows Snowflake to read data from and write data to an external storage location referenced in an external stage¹. One purpose of creating a storage integration is to support multiple external stages using one single Snowflake object. An integration can list buckets (and optional paths) that limit the locations users can specify when creating external stages that use the integration. Note that many external stage objects can reference different buckets and paths and use the same storage integration for authentication¹. Therefore, option C is correct. Another purpose of creating a storage integration is to avoid supplying credentials when creating a stage or when loading or unloading data. Integrations are named, first-class Snowflake objects that avoid the need for passing explicit cloud provider credentials such as secret keys or access tokens. Integration objects store an IAM user ID, and an administrator in your organization grants the IAM user permissions in the cloud provider account¹. Therefore, option D is correct. A third purpose of creating a storage integration is to store a generated IAM entity for an external cloud provider regardless of the cloud provider that hosts the Snowflake account. For example, you can create a storage integration for Amazon S3 even if your Snowflake account is hosted on Azure or Google Cloud Platform. This allows you to access data across different cloud platforms using Snowflake¹. Therefore, option B is correct. Option A is incorrect, because creating a storage integration does not control access to Snowflake data using a master encryption key. Snowflake encrypts all data using a hierarchical key model, and the master encryption key is managed by Snowflake or by the customer using a cloud provider's key management service. This is independent of the storage integration feature². Option E is incorrect, because creating a storage integration does not create private VPC endpoints. Private VPC endpoints are a network configuration option that allow direct, secure connectivity between VPCs without traversing the public internet. This is also independent of the storage integration feature³. Option F is incorrect, because creating a storage integration does not manage credentials from multiple cloud providers in one single Snowflake object. A storage integration is specific to one cloud provider, and you need to create separate integrations for each cloud provider you want to access⁴. References: : Encryption and Decryption : Private Link for Snowflake : CREATE STORAGE INTEGRATION : Option 1: Configuring a Snowflake Storage Integration to Access Amazon S3

QUESTION 14

A company has a table with that has corrupted data, named Data. The company wants to recover the data as it was 5 minutes ago using cloning and Time Travel.

What command will accomplish this?

- A. `CREATE CLONE TABLE Recover_Data FROM Data AT(OFFSET => -60*5);`
- B. `CREATE CLONE Recover_Data FROM Data AT(OFFSET => -60*5);`
- C. `CREATE TABLE Recover_Data CLONE Data AT(OFFSET => -60*5);`
- D. `CREATE TABLE Recover Data CLONE Data AT(TIME => -60*5);`

Correct Answer: C

Explanation: This is the correct command to create a clone of the table Data as it was 5 minutes ago using cloning and Time Travel. Cloning is a feature that allows creating a copy of a database, schema, table, or view without duplicating the

data or metadata. Time Travel is a feature that enables accessing historical data (i.e. data that has been changed or deleted) at any point within a defined period. To create a clone of a table at a point in time in the past, the syntax is:

```
CREATE TABLE CLONE AT (OFFSET => );
```

The OFFSET parameter specifies the time difference in seconds from the present time. A negative value indicates a point in the past. For example, -60*5 means 5 minutes ago. Alternatively, the TIMESTAMP parameter can be used to specify

an exact timestamp in the past. The clone will contain the data as it existed in the source table at the specified point in time¹².

References:

Snowflake Documentation: Cloning Objects

Snowflake Documentation: Cloning Objects at a Point in Time in the Past

QUESTION 15

What Snowflake features should be leveraged when modeling using Data Vault? (Choose two.)

- A. Snowflake's support of multi-table inserts into the data model's Data Vault tables
- B. Data needs to be pre-partitioned to obtain a superior data access performance
- C. Scaling up the virtual warehouses will support parallel processing of new source loads
- D. Snowflake's ability to hash keys so that hash key joins can run faster than integer joins

Correct Answer: AC

Explanation: These two features are relevant for modeling using Data Vault on Snowflake. Data Vault is a data modeling approach that organizes data into hubs, links, and satellites. Data Vault is designed to enable high scalability, flexibility, and performance for data integration and analytics. Snowflake is a cloud data platform that supports various data modeling techniques, including Data Vault. Snowflake provides some features that can enhance the Data Vault modeling, such as: Snowflake's support of multi-table inserts into the data model's Data Vault tables. Multi-table inserts (MTI) are a feature that allows inserting data from a single query into multiple tables in a single DML statement. MTI can improve the performance and efficiency of loading data into Data Vault tables, especially for real-time or near-real-time data integration. MTI can also reduce the complexity and maintenance of the loading code, as well as the data duplication and latency¹². Scaling up the virtual warehouses will support parallel processing of new source loads. Virtual warehouses are a feature that allows provisioning compute resources on demand for data processing. Virtual warehouses can be scaled up or down by changing the size of the warehouse, which determines the number of servers in the warehouse. Scaling up the virtual warehouses can improve the performance and concurrency of processing new source loads into Data Vault tables, especially for large or complex data sets. Scaling up the virtual warehouses can also leverage the parallelism and distribution of Snowflake's architecture, which can optimize the data loading and querying³⁴. References: Snowflake Documentation: Multi-table Inserts Snowflake Blog: Tips for Optimizing the Data Vault Architecture on Snowflake Snowflake Documentation: Virtual Warehouses Snowflake Blog: Building a Real-Time Data Vault in Snowflake