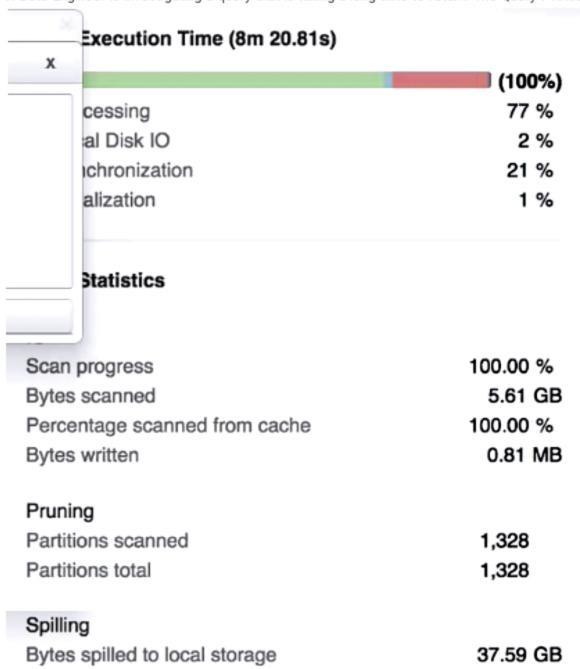
Question #: 1

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

A Data Engineer is investigating a query that is taking a long time to return. The Query Profile shows the following:



What step should the Engineer take to increase the query performance?

- A. Add additional virtual warehouses.
- B. Increase the size of the virtual warehouse.
- C. Rewrite the query using Common Table Expressions (CTEs).
- D. Change the order of the joins and start with smaller tables first.

FORUM CONTACT

Q

Actual exam question from Snowflake's SnowPro Advanced Data Engineer

Question #: 2

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

How can the following relational data be transformed into semi-structured data using the LEAST amount of operational overhead?

create table provinces (province varchar, created_date date);

Row	PROVINCE	CREATED_DATE
2	Alberta	2020-01-19
1	Manitoba	2020-01-18

- A. Use the TO_JSON function.
- B. Use the PARSE_JSON function to produce a VARIANT value.
- C. Use the OBJECT_CONSTRUCT function to return a Snowflake object.
- D. Use the TO_VARIANT function to convert each of the relational columns to VARIANT.

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Actual exam question from Snowflake's SnowPro Advanced Data Engineer

Question #: 6

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

A large table with 200 columns contains two years of historical data. When queried, the table is filtered on a single day. Below is the Query Profile:

Total Execution Time (1h 18m 40.737s)

Commence of the Commence of th	(100%)
Processing	36 %
 Local Disk IO 	2 %
 Remote Disk IO 	60 %
 Network Communication 	0.%
 Synchronization 	0 %
 Initialization 	0 %

Total Statistics

10

Scan progress	98.38	%
Bytes scanned	5.78	ΤB
Percentage scanned from cache	2.60	%

Network

Bytes sent over the network 42.17 GB

Pruning

Partitions scanned	2,115,987
Partitions total	2.956.205

Spilling

Bytes spilled to local storage 32.94 GB

Using a size 2XL virtual warehouse, this query took over an hour to complete.

What will improve the query performance the MOST?

- A. Increase the size of the virtual warehouse.
- B. Increase the number of clusters in the virtual warehouse.
- C. Implement the search optimization service on the table.
- D. Add a date column as a cluster key on the table.

Question #: 7

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

A Data Engineer is working on a Snowflake deployment in AWS eu-west-1 (Ireland). The Engineer is planning to load data from staged files into target tables using the COPY INTO command.

FORUM

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Which sources are valid? (Choose three.)

- A. Internal stage on GCP us-central1 (lowa)
- B. Internal stage on AWS eu-central-1 (Frankfurt)
- C. External stage on GCP us-central1 (lowa)
- D. External stage in an Amazon S3 bucket on AWS eu-west-1 (Ireland)
- E. External stage in an Amazon S3 bucket on AWS eu-central-1 (Frankfurt)
- F. SSD attached to an Amazon EC2 instance on AWS eu-west-1 (Ireland)

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Actual exam question from Snowflake's SnowPro Advanced Data Engineer

Question #: 8

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

A Data Engineer wants to create a new development database (DEV) as a clone of the permanent production database (PROD). There is a requirement to disable Fail-safe for all tables.

Which command will meet these requirements?

A. CREATE DATABASE DEV -

CLONE PROD -

FAIL_SAFE = FALSE;

B. CREATE DATABASE DEV -

CLONE PROD;

C. CREATE TRANSIENT DATABASE DEV -

CLONE PROD;

D. CREATE DATABASE DEV -

CLONE PROD -

DATA_RETENTION_TIME_IN DAYS = 0;

Question #: 9

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

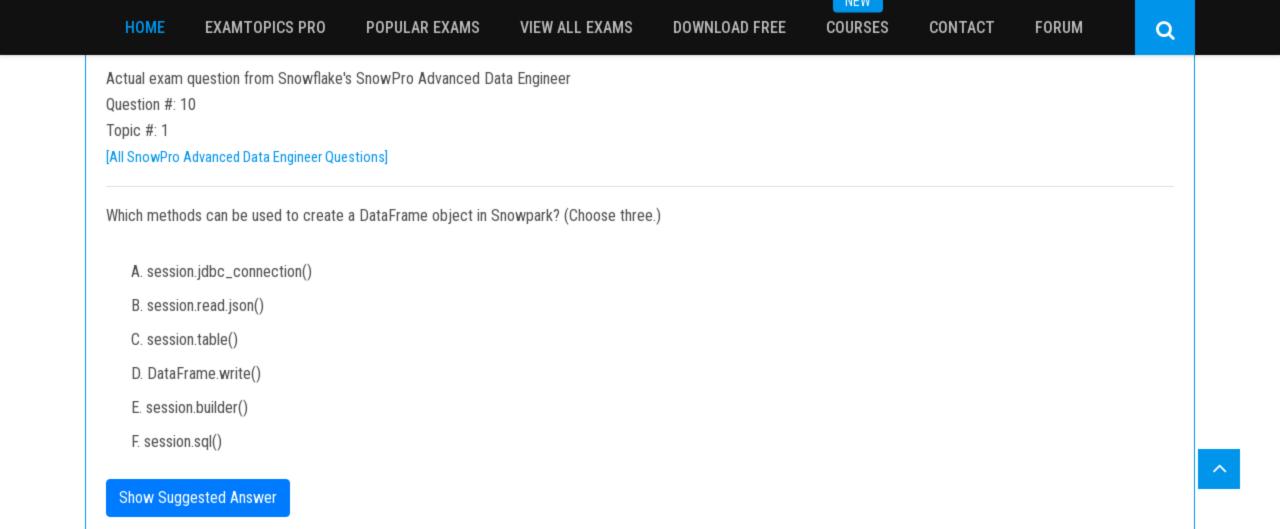
Which query will show a list of the 20 most recent executions of a specified task, MYTASK, that have been scheduled within the last hour that have ended or are still running?

```
select * from table(information_schema.task_history(scheduled_time_range_start
A =>dateadd('hour',-1,current_timestamp()), result_limit => 20,
    task_name=>'MYTASK'))

select * from table(information_schema.task_history(scheduled_time_range_start
B =>dateadd('hour',-1,current_timestamp()), result_limit => 20,
    task_name=>'MYTASK')) where query_id IS NOT NULL;

select * from table(information_schema.task_history(scheduled_time_range_start
C =>dateadd('hour',-1,current_timestamp()), result_limit => 20,
    task_name=>'MYTASK')) where STATE IN ('EXECUTING', 'SUCCEEDED', 'FAILED')

select * from table(information_schema.task_history(scheduled_time_range_end
D =>dateadd('hour',-1,current_timestamp()), result_limit => 10,
    task_name=>'MYTASK')) where STATE IN ('EXECUTING', 'SUCCEEDED')
```



Actual exam question from Snowflake's SnowPro Advanced Data Engineer Question #: 13

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

```
The JSON below is stored in a VARIANT column named V in a table named jCustRaw:
{
     " id": "6282638561cf48544e2ef7e9",
     "company": "FLYBOYZ",
     "isActive": true,
     "name": "Dean Head",
     "teamMembers": [
         -{
              "age": 29,
              "eyeColor": "green",
              "name": "Dominique Grimes",
              "registered": "2017-02-19T06:12:36 +06:00"
         },
         {
              "age": 39,
              "eyeColor": "green",
              "name": "Pearl Dunlap",
              "registered": "2018-05-12T09:21:42 +05:00"
         1,
         {
              "age": 22,
              "eyeColor": "blue",
              "name": "Cardenas Warren",
              "registered": "2019-04-08T01:24:29 +05:00"
         }
     ]
}
Which query will return one row per team member (stored in the teamMembers array) along with all of the attributes of each team member?
    select
          t2.name AS memberName
          ,t2.registered AS registeredDttm
          ,t2.age AS age
          ,t2.eyeColor AS eyeColor
    from jCustRaw t1
    ,lateral flatten(v) t2;
    select
          t2.value:name::varchar AS memberName
          ,t2.value:registered::timestamp AS registeredDttm
        ,t2.value:age::number AS age
          ,t2.value:eyeColor::varchar AS eyeColor
    from jCustRaw t1
     ,lateral flatten(input => v:teamMembers) t2;
    select
          v:teamMembers.name::varchar AS memberName
          ,v:teamMembers.registered::timestamp AS
  C.
          registeredDttm
          , v:teamMembers.age::number AS age
          , v:teamMembers.eyeColor::varchar AS eyeColor
    from jCustRaw;
    select
          v:teamMembers[0].name::varchar AS memberName
          ,v:teamMembers[0].registered::timestamp AS registeredDttm
  D.
          , v:teamMembers[0].age::number AS age
          , v:teamMembers[0].eyeColor::varchar AS eyeColor
    from jCustRaw;
```

Question #: 14

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

A company has an extensive script in Scala that transforms data by leveraging DataFrames. A Data Engineer needs to move these transformations to Snowpark. What characteristics of data transformations in Snowpark should be considered to meet this requirement? (Choose two.)

- A. It is possible to join multiple tables using DataFrames.
- B. Snowpark operations are executed lazily on the server.
- C. User-Defined Functions (UDFs) are not pushed down to Snowflake.
- D. Snowpark requires a separate cluster outside of Snowflake for computations.
- E. Columns in different DataFrames with the same name should be referred to with squared brackets.

Show Suggested Answer

FORUM

Question #: 15

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

The following is returned from SYSTEM\$CLUSTERING_INFORMATION() for a table named ORDERS with a DATE column named O_ORDERDATE:

```
{
  "cluster_by_keys" : "LINEAR(YEAR(O_ORDERDATE))",
  "total partition_count" : 536,
  "total_constant_partition_count" : 493,
  "average overlaps" : 0.1716,
  "average_depth" : 1.0914,
  "partition depth histogram" : {
    "000000" : 0,
    "00001" : 491,
    "00002" : 41,
    "00003" : 4,
    "00004" : 0,
    "00005" : 0,
    "000006" : 0,
    "00007" : 0,
    "000008" : 0,
    "00009" : 0,
    "00010" : 0,
    "00011" : 0,
    "00012" : 0,
    "00013" : 0,
    "00014" : 0,
    "00015" : 0,
    "00016" : 0
  3
}
```

What does the total_constant_partition_count value indicate about this table?

- A. The table is clustered very well on O_ORDERDATE, as there are 493 micro-partitions that could not be significantly improved by reclustering.
- B. The table is not clustered well on O_ORDERDATE, as there are 493 micro-partitions where the range of values in that column overlap with every other micro-partition in the table.
- C. The data in O_ORDERDATE does not change very often, as there are 493 micro-partitions containing rows where that column has not been modified since the row was created.
- D. The data in O_ORDERDATE has a very low cardinality, as there are 493 micro-partitions where there is only a single distinct value in that column for all rows in the micro-partition.

Question #: 16

Topic #: 1

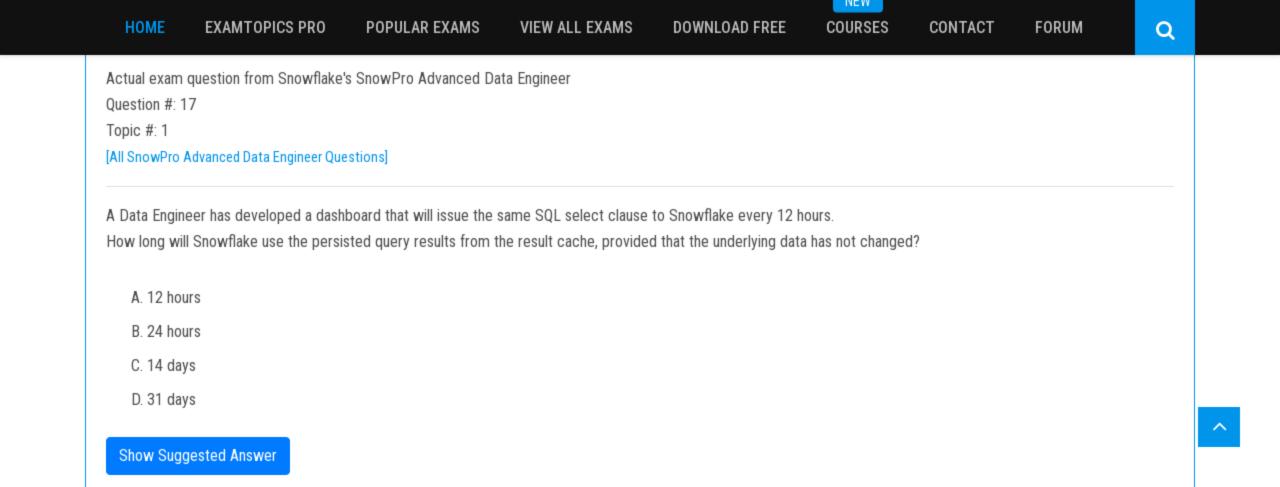
[All SnowPro Advanced Data Engineer Questions]

A company is building a dashboard for thousands of Analysts. The dashboard presents the results of a few summary queries on tables that are regularly updated. The query conditions vary by topic according to what data each Analyst needs. Responsiveness of the dashboard queries is a top priority, and the data cache should be preserved. How should the Data Engineer configure the compute resources to support this dashboard?

FORUM

Q

- A. Assign queries to a multi-cluster virtual warehouse with economy auto-scaling. Allow the system to automatically start and stop clusters according to demand.
- B. Assign all gueries to a multi-cluster virtual warehouse set to maximized mode. Monitor to determine the smallest suitable number of clusters.
- C. Create a virtual warehouse for every 250 Analysts. Monitor to determine how many of these virtual warehouses are being utilized at capacity.
- D. Create a size XL virtual warehouse to support all the dashboard queries. Monitor query runtimes to determine whether the virtual warehouse should be resized.



Question #: 18

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

A Data Engineer ran a stored procedure containing various transactions. During the execution, the session abruptly disconnected, preventing one transaction from committing or rolling back. The transaction was left in a detached state and created a lock on resources.

What step must the Engineer take to immediately run a new transaction?

- A. Call the system function SYSTEM\$ABORT_TRANSACTION.
- B. Call the system function SYSTEM\$CANCEL_TRANSACTION.
- C. Set the LOCK_TIMEOUT to FALSE in the stored procedure.
- D. Set the TRANSACTION_ABORT_ON_ERROR to TRUE in the stored procedure.

Show Suggested Answer

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FORUM

```
Actual exam question from Snowflake's SnowPro Advanced Data Engineer
```

```
Question #: 19
```

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

A database contains a table and a stored procedure defined as:

```
CREATE OR REPLACE TABLE log table (col1 VARCHAR);
CREATE OR REPLACE PROCEDURE insert log(input VARCHAR)
RETURNS FLOAT
LANGUAGE JAVASCRIPT
RETURNS NULL ON NULL INPUT
AS
var rs = snowflake.execute({sqlText: INSERT INTO log_table(col1) VALUES(:1); }
,binds:[INPUT]});
return 1;
٠,
```

The log_table is initially empty and a Data Engineer issues the following command:

CALL insert_log(NULL::VARCHAR);

No other operations are affecting the log_table.

What will be the outcome of the procedure call?

- A. The log_table contains zero records and the stored procedure returned 1 as a return value.
- B. The log_table contains one record and the stored procedure returned 1 as a return value.
- C. The log_table contains one record and the stored procedure returned NULL as a return value.
- D. The log_table contains zero records and the stored procedure returned NULL as a return value.

Question #: 23

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

A table is loaded using Snowpipe and truncated afterwards. Later, a Data Engineer finds that the table needs to be reloaded, but the metadata of the pipe will not allow the same files to be loaded again.

FORUM

Q

How can this issue be solved using the LEAST amount of operational overhead?

- A. Wait until the metadata expires and then reload the file using Snowpipe.
- B. Modify the file by adding a blank row to the bottom and re-stage the file.
- C. Set the FORCE=TRUE option in the Snowpipe COPY INTO command.
- D. Recreate the pipe by using the CREATE OR REPLACE PIPE command.

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Actual exam question from Snowflake's SnowPro Advanced Data Engineer

Question #: 25

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

A Data Engineer is evaluating the performance of a query in a development environment.

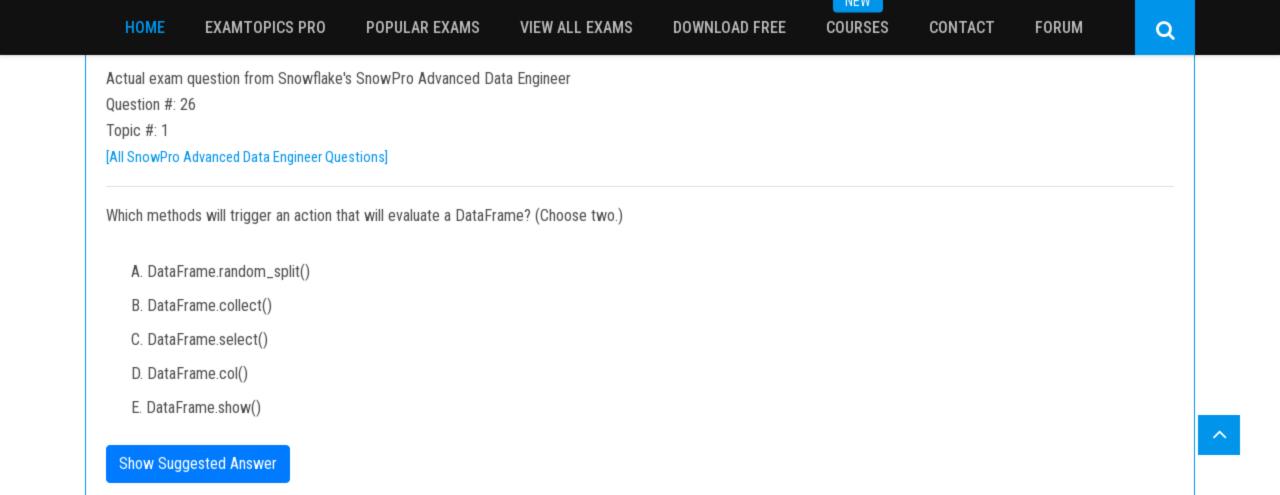
```
select *
from
```

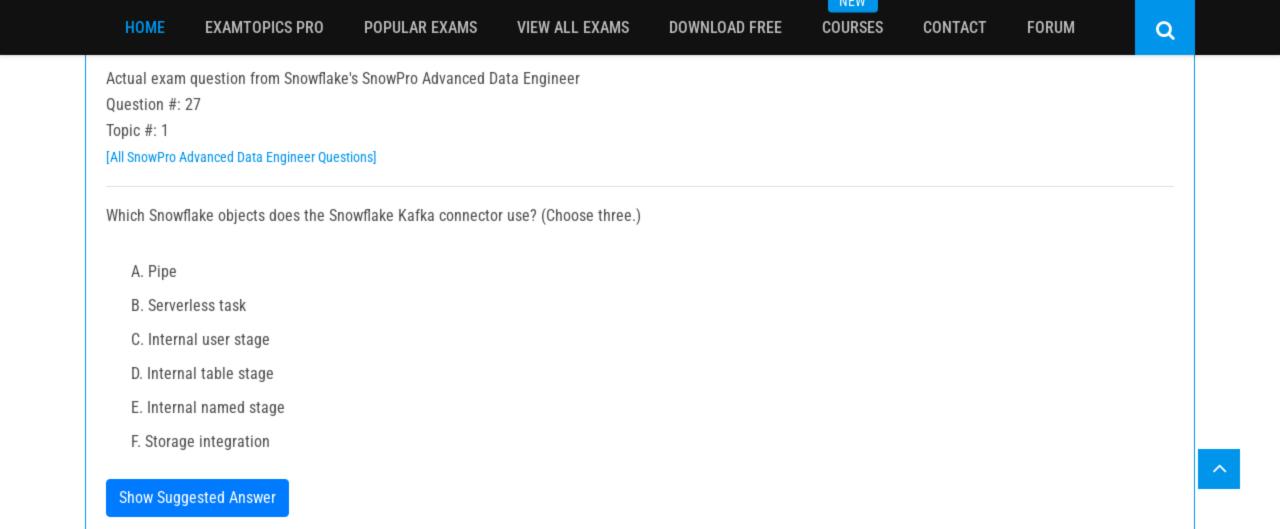
sample_data.tpcds_sf10tcl.store_sales,
order by ss_item_sk;

Total Execution Time (2h 45m 57.567s)			
	(100%)		
Processing	52 %		
 Local Disk IO 	10 %		
 Remote Disk IO 	20 %		
 Network Communication 	0 %		
 Initialization 	18 %		
Total Statistics			
IO			
Scan progress	19.54 %		
Bytes scanned	256.60 GB		
Percentage scanned from cache	0.00 %		
Bytes written to result	326.66 GB		
Network			
Bytes sent over the network	160.81 GE		
Pruning			
Partitions scanned	16,913		
	86,547		
Partitions total			
Spilling Bytes spilled to local storage	1.31 TB		

Based on the Query Profile, what are some performance tuning options the Engineer can use? (Choose two.)

- A. Add a LIMIT to the ORDER BY if possible
- B. Use a multi-cluster virtual warehouse with the scaling policy set to standard
- C. Move the query to a larger virtual warehouse
- D. Create indexes to ensure sorted access to data
- E. Increase the MAX_CLUSTER_COUNT





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Actual exam question from Snowflake's SnowPro Advanced Data Engineer

Question #: 28

Topic #: 1

]

[All SnowPro Advanced Data Engineer Questions]

```
A Data Engineer has created table t1 with one column c1 with datatype VARIANT: create or replace table t1 (c1 variant);
The Engineer has loaded the following JSON data set, which has information about 4 laptop models, into the table.
```

```
"device model": [
"manufacturer": "HP",
"model": "HP 240 G8",
"model_id": "hp 240 g8",
"model name": "240 G8"
},
"manufacturer": "HP",
"model": "HP EliteBook 1030 G1",
"model id": "hp elitebook 1030 g1",
"model_name": "EliteBook 1030 G1"
},
"manufacturer": "HP",
"model": "HP ZBook 15 G2",
"model_id": "hp zbook 15 g2",
"model_name": "ZBook 15 G2"
},
"manufacturer": "Lenovo",
"model": "Lenovo B50-70",
"model_id": "lenovo b50-70",
"model name": "B50-70"
}
```

The Engineer now wants to query that data set so that results are shown as normal structured data. The result should be 4 rows and 4 columns, without the double quotes surrounding the data elements in the JSON data.

The result should be similar to the use case where the data was selected from a normal relational table t2, where t2 has string data type columns model_id, model, manufacturer, and model_name, and is queried with the SQL clause select * from t2;

Which select command will produce the correct results?

```
select value:model_id::string
  , value:model::string
  , value:manufacturer::string
  , value:model_name::string
  from t1
  , lateral flatten(input => c1);
  select value:model_id::string
  , value:model::string
B , value:manufacturer::string
  , value:model_name::string
  from tl
  , lateral flatten(input => c1:device model);
  select model id::string
  , model::string
c , manufacturer::string
  , model_name::string
  from t1
  , lateral flatten(input => cl:device_model);
  select value:model id
  , value:model
, value:manufacturer
  , value:model_name
  from t1
  , lateral flatten(input => c1:device model);
```

Question #: 30

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

A Data Engineer is implementing a near real-time ingestion pipeline to load data into Snowflake using the Snowflake Kafka connector. There will be three Kafka topics created.

FORUM

Q

Which Snowflake objects are created automatically when the Kafka connector starts? (Choose three.)

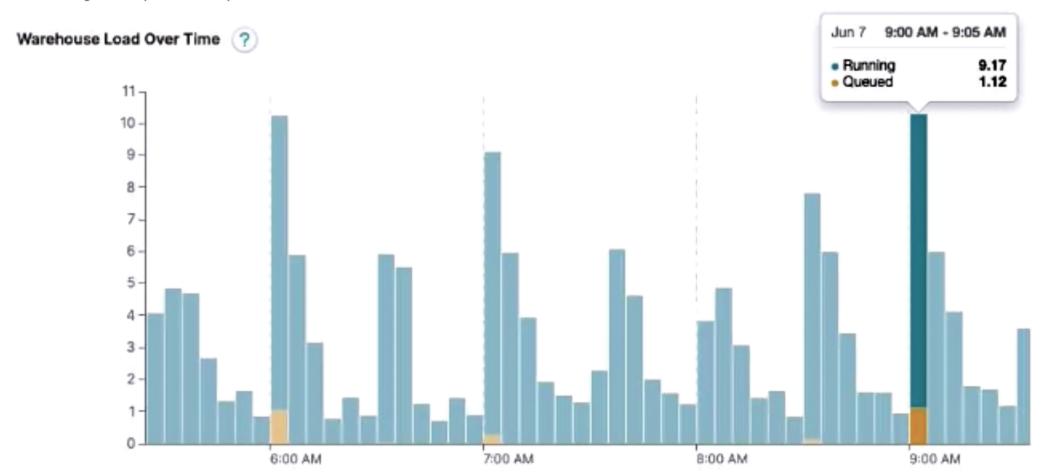
- A. Tables
- B. Tasks
- C. Pipes
- D. Internal stages
- E. External stages
- F. Materialized views

Question #: 31

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

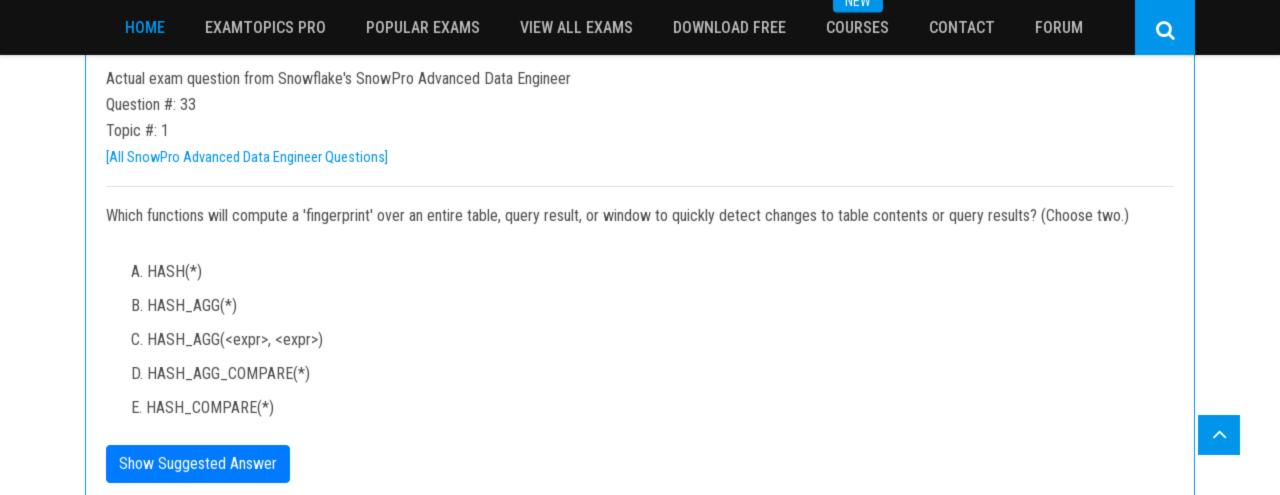
The following chart represents the performance of a virtual warehouse over time:



A Data Engineer notices that the warehouse is queueing queries. The warehouse is size X-Small, the minimum and maximum cluster counts are set to 1, the scaling policy is set to standard, and auto-suspend is set to 10 minutes.

How can the performance be improved?

- A. Change the cluster settings.
- B. Increase the size of the warehouse.
- C. Change the scaling policy to economy.
- D. Change auto-suspend to a longer time frame.



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FORUM

Actual exam question from Snowflake's SnowPro Advanced Data Engineer

Question #: 36

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

Company A and Company B both have Snowflake accounts. Company A's account is hosted on a different cloud provider and region than Company B's account. Companies A and B are not in the same Snowflake organization.

How can Company A share data with Company B? (Choose two.)

- A. Create a share within Company A's account and add Company B's account as a recipient of that share.
- B. Create a share within Company A's account, and create a reader account that is a recipient of the share. Grant Company B access to the reader account.
- C. Use database replication to replicate Company A's data into Company B's account. Create a share within Company B's account and grant users within Company B's account access to the share.
- D. Create a new account within Company A's organization in the same cloud provider and region as Company B's account. Use database replication to replicate Company A's data to the new account. Create a share within the new account, and add Company B's account as a recipient of that share.
- E. Create a separate database within Company A's account to contain only those data sets they wish to share with Company B. Create a share within Company A's account and add all the objects within this separate database to the share. Add Company B's account as a recipient of the share.

Question #: 37

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

A Data Engineer is trying to load the following rows from a CSV file into a table in Snowflake with the following structure:

CUSTOMERID, ADDRESS, REGISTERDT

30 Ford Walk, Dante, Rhode Island, 366",2014-02-08 14 Monroe Street, Kersey, Nevada, 6384",2021-04-19 789, "783 Gate Ave, Edgewater, New York, 1757",2020-07-03

CUSTOMERID	NUMBER(38,0)
ADDRESS	VARCHAR(255)
REGISTERDT	DATE

The engineer is using the following COPY INTO statement:

```
copy into stgCustomer
from @csv_stage/address.csv.gz
file format = (type = CSV skip header = 1);
```

However, the following error is received:

Number of columns in file (6) does not match that of the corresponding table (3), use file format option error_on_column_count_mismatch=false to ignore this error File 'address.csv.gz', line 3, character 1 Row 1 starts at line 2, column "STGCUSTOMER"[6] If you would like to continue loading when an error is encountered, use other values such as 'SKIP_FILE' or 'CONTINUE' for the ON_ERROR option.

Which file format option should be used to resolve the error and successfully load all the data into the table?

- A. ESCAPE_UNENCLOSED FIELD = '\\'
- B. ERROR_ON_COLUMN_COUNT_MISMATCH = FALSE
- C. FIELD_DELIMITER = ','
- D. FIELD_OPTIONALLY_ENCLOSED_BY = ""

Question #: 38

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

A Data Engineer is working on a continuous data pipeline which receives data from Amazon Kinesis Firehose and loads the data into a staging table which will later be used in the data transformation process. The average file size is 300-500 MB.

The Engineer needs to ensure that Snowpipe is performant while minimizing costs.

How can this be achieved?

- A. Increase the size of the virtual warehouse used by Snowpipe.
- B. Split the files before loading them and set the SIZE_LIMIT option to 250 MB.
- C. Change the file compression size and increase the frequency of the Snowpipe loads.
- D. Decrease the buffer size to trigger delivery of files sized between 100 to 250 MB in Kinesis Firehose.

CONTACT FORUM

Actual exam question from Snowflake's SnowPro Advanced Data Engineer

Question #: 40

Topic #: 1

[All SnowPro Advanced Data Engineer Questions]

Assuming a Data Engineer has all appropriate privileges and context, which statements would be used to assess whether the User-Defined Function (UDF), MYDATABASE.SALES.REVENUE_BY_REGION, exists and is secure? (Choose two.)

- A. SHOW USER FUNCTIONS LIKE 'REVENUE_BY_REGION' IN SCHEMA SALES;
- B. SELECT IS_SECURE FROM SNOWFLAKE.INFORMATION_SCHEMA.FUNCTIONS WHERE FUNCTION_SCHEMA = 'SALES' AND FUNCTION_NAME = 'REVENUE_BY_REGION';
- C. SELECT IS_SECURE FROM INFORMATION_SCHEMA.FUNCTIONS WHERE FUNCTION_SCHEMA = 'SALES' AND FUNCTION_NAME = 'REVENUE_BY_REGION';
- D. SHOW EXTERNAL FUNCTIONS LIKE 'REVENUE_BY_REGION' IN SCHEMA SALES;
- E. SHOW SECURE FUNCTIONS LIKE 'REVENUE_BY_REGION' IN SCHEMA SALES;