

Microsoft

Exam Questions DP-500

Designing and Implementing Enterprise-Scale Analytics Solutions Using Microsoft Azure and Microsoft Power BI



NEW QUESTION 1

- (Exam Topic 3)

You are configuring a Power BI report for accessibility as shown in the following table.



You need to change the default colors of all three visuals to make the report more accessible to users who have color vision deficiency. Which two settings should you configure in the Customize theme window? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. Theme colors
- B. Sentiment colors
- C. Divergent colors
- D. First-level elements colors

Answer: AB

Explanation:

Reference: <https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-report-themes>

NEW QUESTION 2

- (Exam Topic 3)

You plan to generate a line chart to visualize and compare the last six months of sales data for two departments. You need to increase the accessibility of the visual. What should you do?

- A. Replace long text with abbreviations and acronyms.
- B. Configure a unique marker for each series.
- C. Configure a distinct color for each series.
- D. Move important information to a tooltip.

Answer: C

Explanation:

Themes, contrast and colorblind-friendly colors.

You should ensure that your reports have enough contrast between text and any background colors. Certain color combinations are particularly difficult for users with color vision deficiencies to distinguish.

These include the following combinations:

green and red green and brown blue and purple green and blue

light green and yellow blue and grey

green and grey green and black

Avoid using these colors together in a chart, or on the same report page.

Reference: <https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-accessibility-creating-reports>

NEW QUESTION 3

- (Exam Topic 3)

You have a deployment pipeline for a Power BI workspace. The workspace contains two datasets that use import storage mode.

A database administrator reports a drastic increase in the number of queries sent from the Power BI service to an Azure SQL database since the creation of the deployment pipeline.

An investigation into the issue identifies the following:

- > One of the datasets is larger than 1 GB and has a fact table that contains more than 500 million rows.
- > When publishing dataset changes to development, test, or production pipelines, a refresh is triggered against the entire dataset.

You need to recommend a solution to reduce the size of the queries sent to the database when the dataset changes are published to development, test, or production.

What should you recommend?

- A. From Capacity settings in the Power BI Admin portal, reduce the Max Intermediate Row Set Count setting.
- B. Configure the dataset to use a composite model that has a DirectQuery connection to the fact table.
- C. Enable the large dataset storage format for workspace.
- D. From Capacity settings in the Power BI Admin portal, increase the Max Intermediate Row Set Count setting.

Answer: B

Explanation:

A composite model in Power BI means part of your model can be a DirectQuery connection to a data source (for example, SQL Server database), and another part as Import Data (for example, an Excel file). Previously, when you used DirectQuery, you couldn't even add another data source into the model.

DirectQuery and Import Data have different advantages.

Now the Composite Model combines the good things of both Import and DirectQuery into one model. Using the Composite Model, you can work with big data tables using DirectQuery, and still import smaller tables using Import Data.

Reference:

<https://radacad.com/composite-model-directquery-and-import-data-combined-evolution-begins-in-power-bi>

<https://powerbi.microsoft.com/en-us/blog/five-new-power-bi-premium-capacity-settings-is-available-on-the-por>

NEW QUESTION 4

- (Exam Topic 3)

You have a Power Bi workspace named Workspacel in a Premium capacity. Workspacel contains a dataset. During a scheduled refresh, you receive the following error message: "Unable to save the changes since the new dataset size of 11,354 MB exceeds the limit of 10,240 MB."

You need to ensure that you can refresh the dataset. What should you do?

- A. Turn on Large dataset storage format.
- B. Connect Workspace1 to an Azure Data Lake Storage Gen2 account
- C. Change License mode to Premium per user.
- D. Change the location of the Premium capacity.

Answer: D

Explanation:

Assigning workspaces to capacities

Workspaces can be assigned to a Premium capacity in the Power BI Admin portal or, for a workspace, in the Workspace pane.

Note: Capacity limits

Workspace storage limits, whether for My Workspace or an app workspace, depend on whether the workspace is in shared or Premium capacity.

* Shared capacity limits

For workspaces in shared capacity:

There is a per-workspace storage limit of 10 GB.

Premium Per User (PPU) tenants have a 100 TB storage limit.

When using a Pro license, the total usage can't exceed the tenant storage limit of 10 GB multiplied by the number of Pro licenses in the tenant.

* Premium capacity limits

For workspaces in Premium capacity:

There is a limit of 100 TB per Premium capacity. There is no per-user storage limit.

Workspace storage usage is shown as 0 (as shown in this screenshot) if the workspace is assigned to a Premium capacity.

Incorrect:

Not C: If your organization is using the original version of Power BI Premium, you're required to migrate to the modern Premium Gen2 platform. Microsoft began migrating all Premium capacities to Gen2.

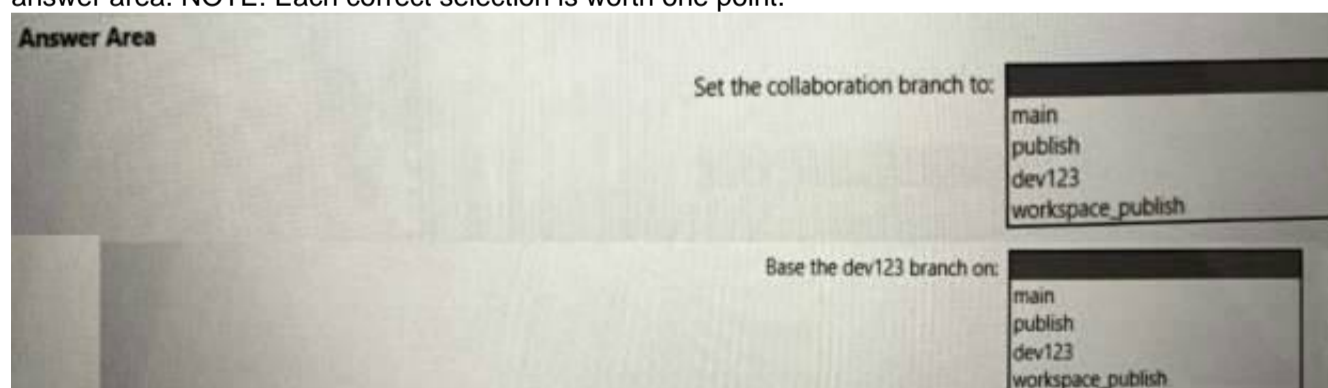
Reference: <https://docs.microsoft.com/en-us/power-bi/enterprise/service-premium-capacity-manage-gen2> <https://docs.microsoft.com/en-us/power-bi/admin/service-admin-manage-your-data-storage-in-power-bi>

NEW QUESTION 5

- (Exam Topic 3)

You need to configure a source control solution for Azure Synapse Analytics. The solution must meet the following requirements:

- Code must always be merged to the main branch before being published, and the main branch must be used for publishing resource
- The workspace templates must be stored in the publish branch.
- A branch named dev123 will be created to support the development of a new feature. What should you do? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: main

Code must always be merged to the main branch before being published, and the main branch must be used for publishing resources.

Collaboration branch - Your Azure Repos collaboration branch that is used for publishing. By default, its master. Change this setting in case you want to publish resources from another branch. You can select existing branches or create new.

Each Git repository that's associated with a Synapse Studio has a collaboration branch. (main or master is the default collaboration branch).

Box 2: workspace_publish

A branch named dev123 will be created to support the development of a new feature. The workspace templates must be stored in the publish branch.

Creating feature branches

Users can also create feature branches by clicking + New Branch in the branch dropdown.

By default, Synapse Studio generates the workspace templates and saves them into a branch called workspace_publish. To configure a custom publish branch, add a publish_config.json file to the root folder in the collaboration branch.

Reference: <https://docs.microsoft.com/en-us/azure/synapse-analytics/cicd/source-control>

NEW QUESTION 6

- (Exam Topic 3)

You are using a Python notebook in an Apache Spark pool in Azure Synapse Analytics. You need to present the data distribution statistics from a DataFrame in a tabular view. Which method should you invoke on the DataFrame?

- A. freqItems
- B. explain
- C. rollup
- D. describe

Answer: D

Explanation:

The aggregating statistic can be calculated for multiple columns at the same time with the describe function. Example:

titanic[["Age", "Fare"]].describe() Out[6]:

Age Fare

count 714.000000 891.000000

mean 29.699118 32.204208

std 14.526497 49.693429

min 0.420000 0.000000

25% 20.125000 7.910400

50% 28.000000 14.454200

75% 38.000000 31.000000

max 80.000000 512.329200

Reference: https://pandas.pydata.org/docs/getting_started/intro_tutorials/06_calculate_statistics.html

NEW QUESTION 7

- (Exam Topic 3)

You use Vertipaq Analyzer to analyze a model.

The Relationships tab contains the results shown in the following exhibit.

IsRowNumber	Cardinality (Filter)	Relationship Type	Max From Cardinality	Max to Cardinality	1:M Ratio	% Missing Keys	Invalid Rows	Relationships	Size	Bid.	Filters	MMR
			84	2,557	3044.05%	0	0		4,056			
			90	327	0.69%	22			184			
			26	164	0.34%	0	0		32			
			90	327	0.69%	21	1,804		112			
			7	6	0.01%	1	6,577		8			
			2	2	0.00%	0	0		8			
			16	84	0.18%	0	0		24			
			90	2,557	3044.05%	27			4,320			

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Answer Area

The [answer choice] table is missing records needed by the Fact table.

▼

BU Key

Customer

Date

Scenario

There are [answer choice] blank values created by missing dimensional relationships.

▼

22

1,804

6,577

8,381

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: Customer

There are 1804 invalid rows (records) in the Customer table. Box 2: 22

There are 22 missing keys.

Note: VertiPaq Analyzer in DAX Studio is useful in identifying referential integrity violations which slow down your DAX codes. It helps you determine which table or column needs to be optimized and improved. Reference: <https://blog.enterprisedna.co/vertipaq-analyzer-tutorial-relationships-referential-integrity/>

NEW QUESTION 8

- (Exam Topic 3)

You have a Power BI dataset. The dataset contains data that is updated frequently. You need to improve the performance of the dataset by using incremental refreshes.

Which four actions should you perform in sequence to enable the incremental refreshes? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions

Define the incremental refresh policy for the table.

Enable query caching.

Publish the model to the Power BI service.

Create RangeStart and RangeEnd parameters.

Use the Power BI REST API to post a message to /refreshes.

Apply a custom Date/Time filter to the data.

Answer Area

⬅

➡

⬆

⬆

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application, chat or text message Description automatically generated

Step 1: Create RangeStart and RangeEnd parameters. Create parameters

In this task, use Power Query Editor to create RangeStart and RangeEnd parameters with default values. The default values apply only when filtering the data to be loaded into the model in Power BI Desktop. The values you enter should include only a small amount of the most recent data from your data source. When published to the service, these values are overridden by the incremental refresh policy.

Step 2: Apply a custom Date/Time filter to the data. Filter data

With RangeStart and RangeEnd parameters defined, apply a filter based on conditions in the RangeStart and RangeEnd parameters.

Before continuing with this task, verify your source table has a date column of Date/Time data type. Step 3: Define the incremental refresh policy for the table. Define policy

After you've defined RangeStart and RangeEnd parameters, and filtered data based on those parameters, you define an incremental refresh policy. The policy is applied only after the model is published to the service and a manual or scheduled refresh operation is performed.














Step 4: Publish the model to the Power BI service. Save and publish to the service

When your RangeStart and RangeEnd parameters, filtering, and refresh policy settings are complete, be sure to save your model, and then publish to the service. Reference: <https://docs.microsoft.com/en-us/power-bi/connect-data/incremental-refresh-configure>

NEW QUESTION 9

- (Exam Topic 3)

You have a Power BI report that contains the table shown in the following exhibit.

Store ID	Store	Returns
6	Leo	\$6,108 
5	Fama	\$6,097 
13	Contoso	\$5,214 
11	Pomum	\$4,968 
7	VanArsdel	\$4,964 
10	Pirum	\$4,644 
2	Aliqui	\$4,479 
1	Abbas	\$4,070 
8	Natura	\$3,376 
14	Victoria	\$2,317 
4	Salvus	\$2,296 
12	Quibus	\$2,208 
3	Barba	\$1,601 
Total		\$52,342

The table contains conditional formatting that shows which stores are above, near, or below the monthly quota for returns. You need to ensure that the table is accessible to consumers of reports who have color vision deficiency. What should you do?

- A. Add alt text to explain the information that each color conveys.
- B. Move the conditional formatting icons to a tooltip report.
- C. Change the icons to use a different shape for each color.
- D. Remove the icons and use red, yellow, and green background colors instead.

Answer: A

Explanation:

Report accessibility checklist, All Visuals.

- * Ensure alt text is added to all non-decorative visuals on the page.
- * Avoid using color as the only means of conveying information. Use text or icons to supplement or replace the color.
- * Check that your report page works for users with color vision deficiency.
- * Etc.

Reference: <https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-accessibility-creating-reports>

NEW QUESTION 10

- (Exam Topic 3)

You have a file named File1.txt that has the following characteristics:

- A header row
- Tab delimited values
- UNIX-style line endings

You need to read File1.txt by using an Azure Synapse Analytics serverless SQL pool. Which query should you execute?

A. `SELECT*`
`FROM OPENROWSET (`
`BULK 'file1.txt',`
`DATA_SOURCE = 'Sql1',`
`FORMAT = 'CSV', PARSER_VERSION = '2.0',`
`FIELDTERMINATOR = '\t',`
`ROWTERMINATOR = '0x0a',`
`FIRSTROW= 2`
`)`

B. `SELECT*`
`FROM OPENROWSET (`
`BULK 'file1.txt',`
`DATA_SOURCE = 'Sql1',`
`FORMAT = 'CSV', PARSER_VERSION = '2.0',`
`FIELDTERMINATOR = ',' ,`
`ROWTERMINATOR = '\n',`
`FIRSTROW= 2`
`)`

C. `SELECT*`
`FROM OPENROWSET (`
`BULK 'file1.txt',`
`DATA_SOURCE = 'Sql1',`
`FORMAT = 'CSV', PARSER_VERSION = '2.0',`
`FIELDTERMINATOR = ',' ,`
`ROWTERMINATOR = '0x0a',`
`FIRSTROW= 2`
`)`

D. `SELECT*`
`FROM OPENROWSET (`
`BULK 'file1.txt',`
`DATA_SOURCE = 'Sql1',`
`FORMAT = 'CSV', PARSER_VERSION = '2.0',`
`FIELDTERMINATOR = '\t',`
`ROWTERMINATOR = '0x0a',`
`FIRSTROW= 1`
`)`

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

Answer: A

Explanation:

Use FIELDTERMINATOR ='t' for tab.

Use ROWTERMINATOR ='0x0A ' for UNIX-style line endings Use FIRSTROW= 2 for a header row

Note: Using Row Terminators

The row terminator can be the same character as the terminator for the last field. Generally, however, a distinct row terminator is useful. For example, to produce tabular output, terminate the last field in each row with the newline character (\n) and all other fields with the tab character (\t).

If you want to output a line feed character only (LF) as the row terminator - as is typical on Unix and Linux computers - use hexadecimal notation to specify the LF row terminator. For example:

bcp -r '0x0A' FIRSTROW

FIRSTROW=first_row Specifies the number of the first row to load. The default is 1. This indicates the first row in the specified data file. The row numbers are determined by counting the row terminators. FIRSTROW is 1-based.

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/import-export/specify-field-and-row-terminators-sql-se>

<https://docs.microsoft.com/en-us/sql/t-sql/functions/openrowset-transact-sql>

NEW QUESTION 10

- (Exam Topic 3)

You have an Azure Synapse Analytics dedicated SQL pool.

You need to ensure that the SQL pool is scanned by Azure Purview. What should you do first?

- A. Register a data source.
- B. Search the data catalog.
- C. Create a data share connection.
- D. Create a data policy.

Answer: B

NEW QUESTION 11

- (Exam Topic 3)

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are using an Azure Synapse Analytics serverless SQL pool to query a collection of Apache Parquet files by using automatic schema inference. The files contain more than 40 million rows of UTF-8-encoded business names, survey names, and participant counts. The database is configured to use the default collation.

The queries use open row set and infer the schema shown in the following table.

name	system_type_name	max_length
businessName	varchar(8000)	8000
surveyName	varchar(8000)	8000
participants	int	4

You need to recommend changes to the queries to reduce I/O reads and tempdb usage.

Solution: You recommend using openrowset with to explicitly define the collation for businessName and surveyName as Latim_Generai_100_BiN2_UTF8. Does this meet the goal?

A. Yes
 B. No

Answer: A

Explanation:
 Query Parquet files using serverless SQL pool in Azure Synapse Analytics. Important Ensure you are using a UTF-8 database collation (for example Latin1_General_100_BIN2_UTF8) because string values in PARQUET files are encoded using UTF-8 encoding. A mismatch between the text encoding in the PARQUET file and the collation may cause unexpected conversion errors. You can easily change the default collation of the current database using the following T-SQL statement: alter database current collate Latin1_General_100_BIN2_UTF8'. Note: If you use the Latin1_General_100_BIN2_UTF8 collation you will get an additional performance boost compared to the other collations. The Latin1_General_100_BIN2_UTF8 collation is compatible with parquet string sorting rules. The SQL pool is able to eliminate some parts of the parquet files that will not contain data needed in the queries (file/column-segment pruning). If you use other collations, all data from the parquet files will be loaded into Synapse SQL and the filtering is happening within the SQL process. The Latin1_General_100_BIN2_UTF8 collation has additional performance optimization that works only for parquet and CosmosDB. The downside is that you lose fine-grained comparison rules like case insensitivity. Reference: <https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/query-parquet-files>

NEW QUESTION 14

- (Exam Topic 3)
 You manage a dataset that contains the two data sources as shown in the following table.

Data source	Type of data	Privacy level
Azure SQL database	Sensitive company data	Private
Microsoft SharePoint folder	Non-sensitive company data	Private

When you attempt to refresh the dataset in powerbi.com, you receive the following error message: “[Unable to combine data] Add Columns is accessing data sources that have privacy levels which cannot be used together. Please rebuild this data combination.”

You discover that the dataset contains queries that fold data from the SharePoint folder to the Azure SQL database.

You need to resolve the error. The solution must provide the highest privacy possible.

Which privacy level should you select for each data source? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Azure SQL database:

▼

Organizational

Private

Public

SharePoint folder:

▼

Organizational

Private

Public

- A. Mastered
 B. Not Mastered

Answer: A

Explanation:
 Box 1: Private
 This Formula.Firewall error is the result of Power Query’s Data Privacy Firewall (aka the Firewall)
 Note: Folding is a term that refers to converting expressions in M (such as filters, renames, joins, and so on) into operations against a raw data source (such as SQL, OData, and so on).
 Box 2: Organizational
 Organizational Limits the visibility of a data source to a trusted group of people. It is isolated from all Public data sources, but is visible to other Organizational data sources. A common example is a Microsoft Word document on an intranet SharePoint site with permissions enabled for a trusted group.
 Reference:

<https://support.microsoft.com/en-us/office/set-privacy-levels-power-query-cc3ede4d-359e-4b28-bc72-9bee7900>

NEW QUESTION 19

- (Exam Topic 3)

You are attempting to configure certification for a Power BI dataset and discover that the certification setting for the dataset is unavailable.

What are two possible causes of the issue? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

- A. The workspace is in shared capacity.
- B. You have insufficient permissions.
- C. Dataset certification is disabled for the Power BI tenant.
- D. The sensitivity level for the dataset is set to Highly Confidential.
- E. Row-level security (RLS) is missing from the dataset.

Answer: BC

Explanation:

Reference: <https://docs.microsoft.com/en-us/power-bi/admin/service-admin-setup-certification> <https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-endorse-content>

NEW QUESTION 22

- (Exam Topic 3)

You are creating an external table by using an Apache Spark pool in Azure Synapse Analytics. The table will contain more than 20 million rows partitioned by date. The table will be shared with the SQL engines.

You need to minimize how long it takes for a serverless SQL pool to execute a query data against the table. In which file format should you recommend storing the table data?

- A. JSON
- B. Apache Parquet
- C. CSV
- D. Delta

Answer: B

Explanation:

Prepare files for querying

If possible, you can prepare files for better performance:

* Convert large CSV and JSON files to Parquet. Parquet is a columnar format. Because it's compressed, its file sizes are smaller than CSV or JSON files that contain the same data. Serverless SQL pool skips the columns and rows that aren't needed in a query if you're reading Parquet files. Serverless SQL pool needs less time and fewer storage requests to read it.

Reference: <https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/best-practices-serverless-sql-pool> <https://stackoverflow.com/questions/65320949/parquet-vs-delta-format-in-azure-data-lake-gen-2-store>

NEW QUESTION 24

- (Exam Topic 3)

You are using DAX Studio to analyze a slow-running report query. You need to identify inefficient join operations in the query. What should you review?

- A. the query statistics
- B. the query plan
- C. the query history
- D. the server timings

Answer: B

Explanation:

Open DAX Studio.

Paste the query there, enable Query Plan display and Server Timings, run your query (with clear cache), and then study the query plan for large row counts. Once the culprit is identified you can decide how to rewrite your DAX to make that part faster.

Reference: <https://community.powerbi.com/t5/Power-Query/DAX-Query-taking-longer-time/td-p/1171961> <https://www.sqlbi.com/wp-content/uploads/DAX-Query-Plans.pdf>

NEW QUESTION 26

- (Exam Topic 3)

You plan to modify a Power BI dataset.

You open the Impact analysis panel for the dataset and select Notify contacts. Which contacts will be notified when you use the Notify contacts feature?

- A. any users that accessed a report that uses the dataset within the last 30 days
- B. the workspace admins of any workspace that uses the dataset
- C. the Power BI admins
- D. all the workspace members of any workspace that uses the dataset

Answer: D

Explanation:

Notify contacts

If you've made a change to a dataset or are thinking about making a change, you might want to contact the relevant users to tell them about it. When you notify contacts, an email is sent to the contact lists of all the impacted workspaces. Your name appears on the email so the contacts can find you and reply back in a new email thread.

Reference: <https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-dataset-impact-analysis>

NEW QUESTION 27

- (Exam Topic 3)

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are using an Azure Synapse Analytics serverless SQL pool to query a collection of Apache Parquet files by using automatic schema inference. The files contain more than 40 million rows of UTF-8-encoded business names, survey names, and participant counts. The database is configured to use the default collation.

The queries use open row set and infer the schema shown in the following table.

name	system_type_name	max_length
businessName	varchar(8000)	8000
surveyName	varchar(8000)	8000
participants	int	4

You need to recommend changes to the queries to reduce I/O reads and tempdb usage.

Solution: You recommend using openrowset with to explicitly specify the maximum length for businessName and surveyName.

Does this meet the goal?

- A. Yes
B. No

Answer: B

Explanation:

Instead use Solution: You recommend using OPENROWSET WITH to explicitly define the collation for businessName and surveyName as Latin1_General_100_BIN2_UTF8.

Query Parquet files using serverless SQL pool in Azure Synapse Analytics. Important

Ensure you are using a UTF-8 database collation (for example Latin1_General_100_BIN2_UTF8) because string values in PARQUET files are encoded using UTF-8 encoding. A mismatch between the text encoding in the PARQUET file and the collation may cause unexpected conversion errors. You can easily change the default collation of the current database using the following T-SQL statement: alter database current collate Latin1_General_100_BIN2_UTF8'.

Note: If you use the Latin1_General_100_BIN2_UTF8 collation you will get an additional performance boost compared to the other collations. The Latin1_General_100_BIN2_UTF8 collation is compatible with parquet string sorting rules. The SQL pool is able to eliminate some parts of the parquet files that will not contain data needed in the queries (file/column-segment pruning). If you use other collations, all data from the parquet files will be loaded into Synapse SQL and the filtering is happening within the SQL process. The Latin1_General_100_BIN2_UTF8 collation has additional performance optimization that works only for parquet and CosmosDB. The downside is that you lose fine-grained comparison rules like case insensitivity.

Reference: <https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/query-parquet-files>

NEW QUESTION 31

- (Exam Topic 3)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a Power BI dataset named Dataset1.

In Dataset1, you currently have 50 measures that use the same time intelligence logic. You need to reduce the number of measures, while maintaining the current functionality. Solution: From Power BI Desktop, you group the measures in a display folder.

Does this meet the goal?

- A. Yes
B. No

Answer: B

Explanation:

Solution: From DAX Studio, you write a query that uses grouping sets.

A grouping is a set of discrete values that are used to group measure fields. Reference: <https://docs.microsoft.com/en-us/power-bi/developer/visuals/capabilities>

NEW QUESTION 35

- (Exam Topic 3)

You have five Power BI reports that contain R script data sources and R visuals.

You need to publish the reports to the Power BI service and configure a daily refresh of datasets. What should you include in the solution?

- A. a Power BI Embedded capacity
B. an on-premises data gateway (standard mode)
C. a workspace that connects to an Azure Data Lake Storage Gen2 account
D. an on-premises data gateway (personal mode)

Answer: D

Explanation:

To schedule refresh of your R visuals or dataset, enable scheduled refresh and install an on-premises data gateway (personal mode) on the computer containing the workbook and R.

Reference: <https://docs.microsoft.com/en-us/power-bi/connect-data/desktop-r-in-query-editor>

NEW QUESTION 40

- (Exam Topic 3)

You have a Power BI Premium capacity.

You need to increase the number of virtual cores associated to the capacity. Which role do you need?

- A. Power BI workspace admin
- B. capacity admin
- C. Power Platform admin
- D. Power BI admin

Answer: D

Explanation:

Change capacity size
Power BI admins and global administrators can change Power BI Premium capacity. Capacity admins who are not a Power BI admin or global administrator don't have this option.
Reference: <https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-premium-manage>

NEW QUESTION 42

- (Exam Topic 3)
You manage a Power BI dataset that queries a fact table named SalesDetails. SalesDetails contains three date columns named OrderDate, CreatedOnDate, and ModifiedDate.
You need to implement an incremental refresh of SalesDetails. The solution must ensure that OrderDate starts on or after the beginning of the prior year.
Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.
NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.

Actions

Create RangeStart and RangeEndTime parameters.

Configure an incremental refresh to archive data that starts one year before the refresh date.

Add an applied step that filters OrderDate to the start of the prior year.

Configure an incremental refresh to archive data that starts two years before the refresh date.

Add an applied step that adds a custom date filter where OrderDate is between RangeStart and RangeEnd.

Answer Area

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application, chat or text message Description automatically generated
Step 1: Create RangeStart and RangeEndTime parameters.
When configuring incremental refresh in Power BI Desktop, you first create two Power Query date/time parameters with the reserved, case-sensitive names RangeStart and RangeEnd. These parameters, defined in the Manage Parameters dialog in Power Query Editor are initially used to filter the data loaded into the Power BI Desktop model table to include only those rows with a date/time within that period.
Step 2: Add an applied step that adds a custom date filter OrderDate is Between RangeStart and RangeEnd. With RangeStart and RangeEnd parameters defined, you then apply custom Date filters on your table's date column. The filters you apply select a subset of data that will be loaded into the model when you click Apply.
Step 3: Configure an incremental refresh to archive data that starts two years before the refresh date.
After filters have been applied and a subset of data has been loaded into the model, you then define an incremental refresh policy for the table. After the model is published to the service, the policy is used by the service to create and manage table partitions and perform refresh operations. To define the policy, you will use the Incremental refresh and real-time data dialog box to specify both required settings and optional settings.
Step 4: Add an applied step that filters OrderDate to the start of the prior year.
Reference: <https://docs.microsoft.com/en-us/power-bi/connect-data/incremental-refresh-overview>

NEW QUESTION 46

- (Exam Topic 3)
You have a Power BI tenant that contains 10 workspaces.
You need to create dataflows in three of the workspaces. The solution must ensure that data engineers can access the resulting data by using Azure Data Factory.
Which two actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point

- A. Associate the Power BI tenant to an Azure Data Lake Storage account.
- B. Add the managed identity for Data Factory as a member of the workspaces.
- C. Create and save the dataflows to an Azure Data Lake Storage account.

D. Create and save the dataflows to the internal storage of Power BI

Answer: AC

Explanation:

Data used with Power BI is stored in internal storage provided by Power BI by default. With the integration of dataflows and Azure Data Lake Storage Gen 2 (ADLS Gen2), you can store your dataflows in your organization's Azure Data Lake Storage Gen2 account. This essentially allows you to "bring your own storage" to Power BI dataflows, and establish a connection at the tenant or workspace level.

Reference:

<https://docs.microsoft.com/en-us/power-bi/transform-model/dataflows/dataflows-azure-data-lake-storage-integra>

NEW QUESTION 47

- (Exam Topic 3)

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are using an Azure Synapse Analytics serverless SQL pool to query a collection of Apache Parquet files by using automatic schema inference. The files contain more than 40 million rows of UTF-8-encoded business names, survey names, and participant counts. The database is configured to use the default collation.

The queries use open row set and infer the schema shown in the following table.

name	system_type_name	max_length
businessName	varchar(8000)	8000
surveyName	varchar(8000)	8000
participants	int	4

You need to recommend changes to the queries to reduce I/O reads and tempdb usage.

Solution: You recommend defining a data source and view for the Parquet files. You recommend updating the query to use the view.

Does this meet the goal?

A. Yes

B. No

Answer: B

Explanation:

Solution: You recommend using OPENROWSET WITH to explicitly specify the maximum length for businessName and surveyName.

The size of the varchar(8000) columns are too big. Better reduce their size.

A SELECT...FROM OPENROWSET(BULK...) statement queries the data in a file directly, without importing the data into a table. SELECT...FROM OPENROWSET(BULK...) statements can also list bulk-column aliases by using a format file to specify column names, and also data types.

Reference: <https://docs.microsoft.com/en-us/sql/t-sql/functions/openrowset-transact-sql>

NEW QUESTION 52

- (Exam Topic 3)

You have a 2-GB Power BI dataset.

You need to ensure that you can redeploy the dataset by using Tabular Editor. The solution must minimize how long it will take to apply changes to the dataset from powerbi.com.

Which two actions should you perform in powerbi.com? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point

A. Enable service principal authentication for read-only admin APIs.

B. Turn on Large dataset storage format.

C. Connect the target workspace to an Azure Data Lake Storage Gen2 account.

D. Enable XMLA read-write.

Answer: BD

Explanation:

Optimize datasets for write operations by enabling large models

When using the XMLA endpoint for dataset management with write operations, it's recommended you enable the dataset for large models. This reduces the overhead of write operations, which can make them considerably faster. For datasets over 1 GB in size (after compression), the difference can be significant.

Tabular Editor supports Azure Analysis Services and Power BI Premium Datasets through XMLA read/write. Note: Tabular Editor - An open-source tool for creating, maintaining, and managing tabular models using an

intuitive, lightweight editor. A hierarchical view shows all objects in your tabular model. Objects are

organized by display folders with support for multi-select property editing and DAX syntax highlighting. XMLA read-only is required for query operations. Read-write is required for metadata operations.

Reference: <https://docs.microsoft.com/en-us/power-bi/enterprise/service-premium-connect-tools> <https://tabulareditor.github.io/>

NEW QUESTION 53

- (Exam Topic 3)

You use an Apache Spark notebook in Azure Synapse Analytics to filter and transform data. You need to review statistics for a DataFrame that includes:

The column name The column type

The number of distinct values

Whether the column has missing values Which function should you use?

A. displayHTML()

B. display(df, summary=true)

C. %%configure

D. display(df)

E. %%lsmagic

Answer: B

Explanation:

display(df) statistic details

You can use display(df, summary = true) to check the statistics summary of a given Apache Spark DataFrame that include the column name, column type, unique values, and missing values for each column. You can also select on specific column to see its minimum value, maximum value, mean value and standard deviation.

Reference: <https://docs.microsoft.com/en-us/azure/synapse-analytics/spark/apache-spark-data-visualization>

NEW QUESTION 57

- (Exam Topic 3)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a Power BI dataset named Dataset1.

In Dataset1, you currently have 50 measures that use the same time intelligence logic. You need to reduce the number of measures, while maintaining the current functionality. Solution: From Tabular Editor, you create a calculation group.

Does this meet the goal?

A. Yes

B. No

Answer: B

Explanation:

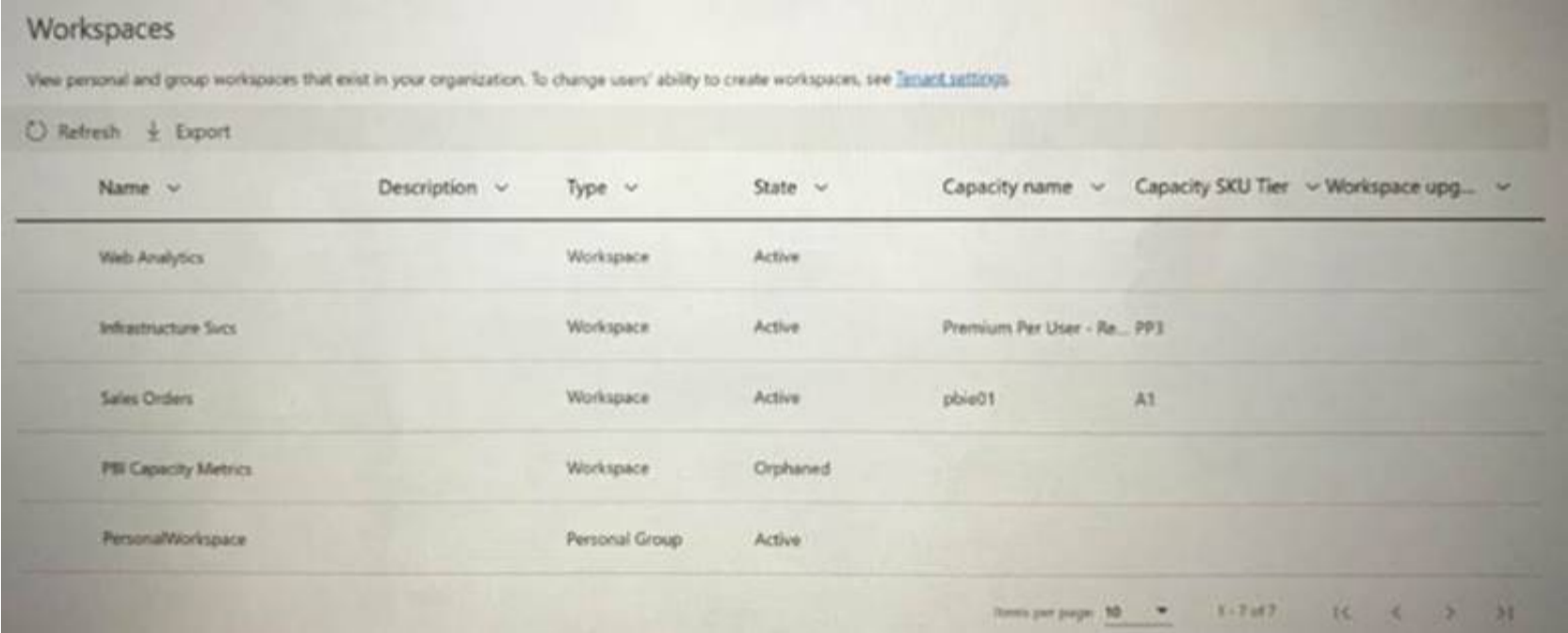
Solution: From DAX Studio, you write a query that uses grouping sets.

A grouping is a set of discrete values that are used to group measure fields. Reference: <https://docs.microsoft.com/en-us/power-bi/developer/visuals/capabilities>

NEW QUESTION 58

- (Exam Topic 3)

You have the Power BI workspaces shown in the following exhibit.



Workspaces						
View personal and group workspaces that exist in your organization. To change users' ability to create workspaces, see tenant settings .						
<div><div></div> Refresh <div></div> Export</div>						
Name	Description	Type	State	Capacity name	Capacity SKU Tier	Workspace upg...
Web Analytics		Workspace	Active			
Infrastructure Svcs		Workspace	Active	Premium Per User - Re...	PPU	
Sales Orders		Workspace	Active	pbie01	A1	
PBI Capacity Metrics		Workspace	Orphaned			
PersonalWorkspace		Personal Group	Active			

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Answer Area

The [answer choice] workspace will allow users outside the organization to view private reports from a custom application without a Power BI license.

A user must be assigned the [answer choice] role to change the state of the PBI Capacity Metrics workspace to **Active**.

Infrastructure Svcs
PBI Capacity Metrics
Sales Orders
Web Analytics

Admin
Contributor
Member
Viewer

A. Mastered

B. Not Mastered

Answer: A

Explanation:

Box 1: Infrastrucrue Svcs

Infrastrucrue Svcs is a Premium workspace.

If users have a free license and the workspace is stored in Premium (dedicated) capacity, they will be able to view and interact with the content in that workspace.

If users have a free license and the workspace is stored in shared capacity (not premium), they will not be able to see the content in shared workspace, only "My workspace".

If users have pro license, they will be able to view and interact with the content in that workspace.


Box 2: Admin

We need to activate the Orpaned workspace.

An orphaned workspace is one that does not have an admin assigned.
If you're a Service Admin, you can now view all of your organization's workspaces through the Admin Portal in the user interface.
Graphical user interface, table Description automatically generated with medium confidence

Workspaces

View personal and group workspaces that exist in your organization. To change users' ability to create workspaces, see [Tenant settings](#).

 Refresh	 Export				
Name	Description	Type	State	Read only	
Wannabe Orphan W...	Orphan testing	Workspace	Orphaned	False	

It's easy to Recover an orphan from this screen. Simply select the workspace and click Recover, then add yourself or another user as an admin.
Reference:
<https://community.powerbi.com/t5/Service/Difference-between-Public-and-Private-workspace/m-p/1382219>
<https://docs.microsoft.com/en-us/power-bi/admin/service-admin-portal-workspaces>

NEW QUESTION 59

- (Exam Topic 3)

You have a Power BI dataset that contains two tables named Table1 and Table2. The dataset is used by one report.
You need to prevent project managers from accessing the data in two columns in Table1 named Budget and Forecast.
Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions

For Table1, set the permissions for the Project Manager role to **None**.

From Power BI Desktop, create a role named Project Managers.

For Table1, set the permissions for the Project Manager role to **Read**.

Open **DAX Studio**.

From Power BI Desktop, add a DAX filter to the Project Managers role.

For the Budget and Forecast columns, set the permissions to **None**.

Open **Tabular Editor**.

Answer Area

>

<

↑

↓

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Step 1: From Power BI Desktop, create a role named Project Managers. Create roles
You can define roles within Power BI Desktop. Step 2: Open Tabular Editor
Under Tables, select the table to which you want to apply a DAX rule.
In the Table filter DAX expression box, enter the DAX expressions. This expression returns a value of true or false. For example: [Entity ID] = "Value".
Step 3: From Power BI Desktop, add a DAX filter to the Project Managers role. Step 4: For Table1, the Budget and Forecast columns, set the permissions to None.
Reference: <https://docs.microsoft.com/en-us/power-bi/guidance/rls-guidance>

NEW QUESTION 61

- (Exam Topic 3)

You have a Power BI dataset that has only the necessary fields visible for report development.
You need to ensure that end users see only 25 specific fields that they can use to personalize visuals. What should you do?

- A. From Tabular Editor, create a new role.
- B. Hide all the fields in the dataset.
- C. Configure object-level security (OLS).
- D. From Tabular Editor, create a new perspective.

Answer: B

NEW QUESTION 64

- (Exam Topic 3)

You are implementing a reporting solution that has the following requirements:
• Reports for external customers must support 500 concurrent requests. The data for these reports is approximately 7 GB and is stored in Azure Synapse Analytics.
• Reports for the security team use data that must have local security rules applied at the database level to restrict access. The data being reviewed is 2 GB.
Which storage mode provides the best response time for each group of users?

- A. DirectQuery for the external customers and import for the security team.
- B. DirectQuery for the external customers and DirectQuery for the security team.
- C. Import for the external customers and DirectQuery for the security team.

D. Import for the external customers and import for the security team.

Answer: A

Explanation:

With DirectQuery, queries are sent back to your Azure Synapse Analytics in real time as you explore the data. Real-time queries, combined with the scale of Synapse Analytics enables users to create dynamic reports in minutes against terabytes of data.

Need import for the security team for local security rules. Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/service-azure-sql-data-warehouse-with-direct-connect>

NEW QUESTION 68

- (Exam Topic 3)

You have a Power BI report that contains the visual shown in the following exhibit.

Product	Sales
Amarilla	17,747,116.06
Carretera	13,815,307.89
Montana	15,390,801.88
Paseo	33,011,143.95
Velo	18,250,059.47
VTT	20,511,921.02
Total	118,726,350.26

You need to make the visual more accessible to users who have color vision deficiency. What should you do?

- A. Change the font color of values in the Sales column to white.
- B. Change the red background color to orange.
- C. Add icons to represent the sales status of each product.
- D. Add additional measures to the table values.

Answer: A

Explanation:

Themes, contrast and colorblind-friendly colors

You should ensure that your reports have enough contrast between text and any background colors. Certain color combinations are particularly difficult for users with color vision deficiencies to distinguish.

These include the following combinations:

**---> green and black green and red

green and brown blue and purple green and blue

light green and yellow blue and grey

green and grey

Avoid using these colors together in a chart, or on the same report page.

Reference: <https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-accessibility-creating-reports>

NEW QUESTION 73

- (Exam Topic 3)

You have a group of data scientists who must create machine learning models and run periodic experiments on a large dataset.

You need to recommend an Azure Synapse Analytics pool for the data scientists. The solution must minimize costs.

Which type of pool should you recommend?

- A. a Data Explorer pool
- B. an Apache Spark pool
- C. a dedicated SQL pool
- D. a serverless SQL pool

Answer: B

Explanation:

In Azure Synapse, training machine learning models can be performed on the Apache Spark Pools with tools like PySpark/Python, Scala, or .NET.

Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/machine-learning/what-is-machine-learning>

NEW QUESTION 77

- (Exam Topic 3)

You have a Power BI dataset that contains the following measures:

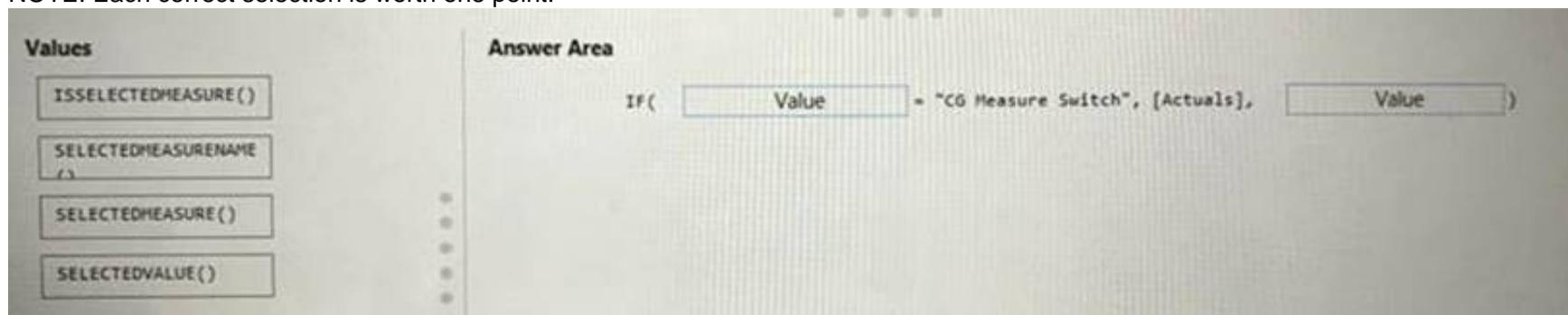
- Budget
- Actuals
- Forecast

You create a report that contains 10 visuals.

You need provide users with the ability to use a slicer to switch between the measures in two visuals only. You create a dedicated measure named cg Measure switch.

How should you complete the DAX expression for the Actuals measure? To answer, drag the appropriate values to the targets. Each value may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: SELECTEDMEASURENAME()

SELECTEDMEASURENAME is used by expressions for calculation items to determine the measure that is in context by name.

Syntax: SELECTEDMEASURENAME()

No parameters. Example:

The following calculation item expression checks if the current measure is Expense Ratio and conditionally applies calculation logic. Since the check is based on a string comparison, it is not subject to formula fixup and will not benefit from object renaming being automatically reflected. For a similar comparison that would benefit from formula fixup, please see the ISSLECTEDMEASURE function instead.

```
IF (
SELECTEDMEASURENAME = "Expense Ratio", SELECTEDMEASURE (),
DIVIDE ( SELECTEDMEASURE (), COUNTROWS ( DimDate ) )
)
```

Box 2: SELECTEDVALUE()

SELECTEDVALUE returns the value when the context for columnName has been filtered down to one distinct value only. Otherwise returns alternateResult.

Syntax:

SELECTEDVALUE(<columnName>[, <alternateResult>]) M1, M2, ... - A list of measures.

Reference: <https://docs.microsoft.com/en-us/dax/selectedmeasurename-function-dax> <https://docs.microsoft.com/en-us/dax/selectedvalue-function>

NEW QUESTION 78

- (Exam Topic 3)

You develop a solution that uses a Power BI Premium capacity. The capacity contains a dataset that is expected to consume 50 GB of memory.

Which two actions should you perform to ensure that you can publish the model successfully to the Power BI service? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Increase the Max Offline Dataset Size setting.
- B. Invoke a refresh to load historical data based on the incremental refresh policy.
- C. Restart the capacity.
- D. Publish an initial dataset that is less than 10 GB.
- E. Publish the complete dataset.

Answer: BE

Explanation:

Enable large datasets

Steps here describe enabling large datasets for a new model published to the service. For existing datasets, only step 3 is necessary.

Create a model in Power BI Desktop. If your dataset will become larger and progressively consume more memory, be sure to configure Incremental refresh.

Publish the model as a dataset to the service.

In the service > dataset > Settings, expand Large dataset storage format, set the slider to On, and then select Apply.

Enable large dataset slider

Invoke a refresh to load historical data based on the incremental refresh policy. The first refresh could take a while to load the history. Subsequent refreshes should be faster, depending on your incremental refresh policy.

Reference: <https://docs.microsoft.com/en-us/power-bi/enterprise/service-premium-large-models>

NEW QUESTION 79

- (Exam Topic 3)

You are building a Power BI dataset that will use two data sources.

The dataset has a query that uses a web data source. The web data source uses anonymous authentication. You need to ensure that the query can be used by all the other queries in the dataset.

Which privacy level should you select for the data source?

- A. Public
- B. Organizational
- C. Private
- D. None

Answer: A

Explanation:

A Public data source gives everyone visibility to the data contained in the data source. Only files, internet data sources, or workbook data can be marked Public. Data from a Public data source may be freely folded to other sources.

Reference: <https://docs.microsoft.com/en-us/power-bi/enterprise/desktop-privacy-levels>

NEW QUESTION 83

- (Exam Topic 3)

You have a kiosk that displays a Power BI report page. The report uses a dataset that uses Import storage mode. You need to ensure that the report page updates all the visuals every 30 minutes. Which two actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. Enable Power BI embedded.
- B. Configure the data sources to use DirectQuery.
- C. Configure the data sources to use a streaming dataset
- D. Select Auto page refresh.
- E. Enable the XMIA endpoint.
- F. Add a Microsoft Power Automate visual to the report page.

Answer: BD

Explanation:

Automatic page refresh in Power BI enables your active report page to query for new data, at a predefined cadence, for DirectQuery sources.

Automatic page refresh is available for DirectQuery sources and some LiveConnect scenarios, so it will only be available when you are connected to a supported data source. This restriction applies to both automatic page refresh types.

Reference: <https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-automatic-page-refresh>

NEW QUESTION 86

- (Exam Topic 3)

You have the following Python code in an Apache Spark notebook.

```
import matplotlib.pyplot as plt
import numpy as np
ys = 300 + np.random.randn(100)
x = [x for x in range(len(ys))]
plt.plot(x, ys, '-')
plt.fill_between(x, ys, 395, where=(ys > 395), facecolor='g', alpha=0.5)
plt.title("Chart Sample")
plt.show()
```

Which type of chart will the code produce?

- A. a stacked bar chart
- B. a pie chart
- C. a bar chart
- D. an area chart

Answer: D

Explanation:

The matplotlib.pyplot.fill_between function fills the area between two horizontal curves.

The curves are defined by the points (x, y1) and (x, y2). This creates one or multiple polygons describing the filled area.

Reference: https://matplotlib.org/3.5.0/api/_as_gen/matplotlib.pyplot.fill_between.html

NEW QUESTION 90

- (Exam Topic 3)

You have a sales report as shown in the following exhibit.



The sales report has the following characteristics: The measures are optimized.

The dataset uses import storage mode.

Data points, hierarchies, and fields cannot be removed or filtered from the report page. From powerbi.com, users experience slow load times when viewing the report.

You need to reduce how long it takes for the report to load without affecting the data displayed in the report. Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Change the report theme to monochromatic.
- B. Replace the single-value cards with a multi-row card.
- C. Replace the product category charts with a bar chart for sales and a hierarchy of Category and Sub Category on the axis.
- D. Replace all the filters on the Filters pane with visual slicers on the report page.

Answer: BC

NEW QUESTION 91

- (Exam Topic 3)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a Power BI dataset named Dataset1.

In Dataset1, you currently have 50 measures that use the same time intelligence logic. You need to reduce the number of measures, while maintaining the current functionality. Solution: From DAX Studio, you write a query that uses grouping sets.

Does this meet the goal?

- A. Yes
- B. No

Answer: A

Explanation:

A grouping is a set of discrete values that are used to group measure fields. Reference: <https://docs.microsoft.com/en-us/power-bi/developer/visuals/capabilities>

NEW QUESTION 92

- (Exam Topic 3)

You have new security and governance protocols for Power BI reports and datasets. The new protocols must meet the following requirements.

- New reports can be embedded only in locations that require authentication.
- Live connections are permitted only for workspaces that use Premium capacity datasets.

Which three actions should you recommend performing in the Power BI Admin portal? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. From Tenant settings, disable Allow XMLA endpoints and Analyze in Excel with on-premises datasets.
- B. From the Premium per user settings, set XMLA Endpoint to Off.
- C. From Embed Codes, delete all the codes.
- D. From Capacity settings, set XMLA Endpoint to Read Write.
- E. From Tenant settings, set Publish to web to Disable.

Answer: ADE

Explanation:

Reference: <https://docs.microsoft.com/en-us/power-bi/enterprise/service-premium-connect-tools> <https://powerbi.microsoft.com/en-us/blog/power-bi-february-service-update>

NEW QUESTION 96

- (Exam Topic 3)

You are using an Azure Synapse Analytics serverless SQL pool to query network traffic logs in the Apache Parquet format. A sample of the data is shown in the following table.

source		destination	
name	ip	name	ip
Network01	192.168.0.1	Internet	0.0.0.0

You need to create a Transact-SQL query that will return the source IP address.
Which function should you use in the select statement to retrieve the source IP address?

- A. JSON_VALUE
- B. FOR.JSON
- C. CONVERT
- D. FIRST VALUE

Answer: A

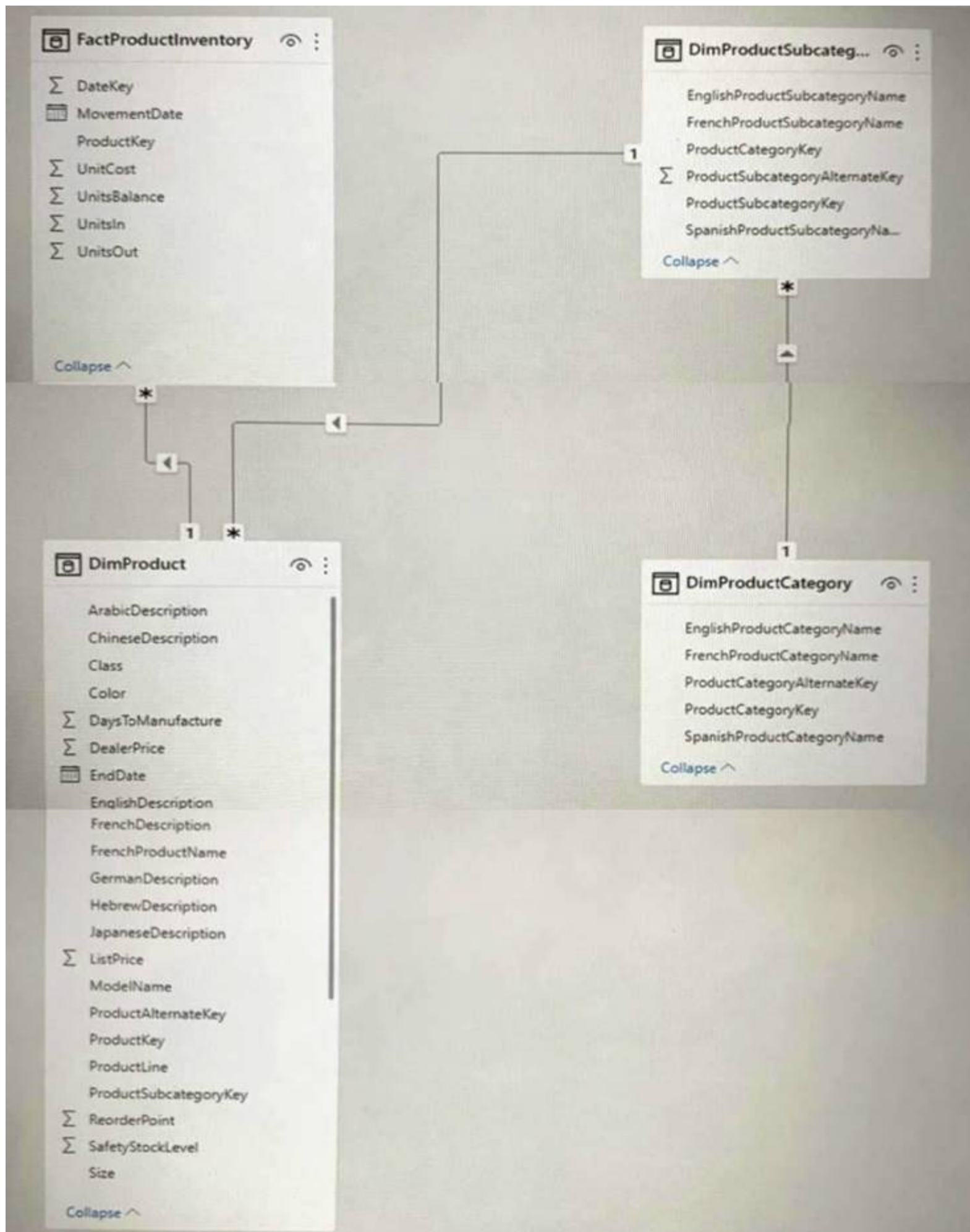
NEW QUESTION 98

- (Exam Topic 3)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have the Power BI data model shown in the exhibit (Click the Exhibit tab.)



Users indicate that when they build reports from the data model, the reports take a long time to load. You need to recommend a solution to reduce the load times of the reports.

Solution: You recommend denormalizing the data model. Does this meet the goal?

- A. Yes
- B. No

Answer: A

Explanation:

Denormalize For Performance.

Even though it might mean storing a bit of redundant data, schema denormalization can sometimes provide better query performance. The only question then becomes is the extra space used worth the performance benefit.

Reference: <https://www.mssqltips.com/sqlservertutorial/3211/denormalize-for-performance/>

NEW QUESTION 99

- (Exam Topic 3)

You have a Power BI dataset that uses DirectQuery against an Azure SQL database.

Multiple reports use the dataset.

A database administrator reports that too many queries are being sent from Power BI to the database. You need to reduce the number of queries sent to the database. The solution must meet the following requirements:

- DirectQuery must continue to be used.
- Visual interactions in all the reports must remain as they are configured currently.
- Consumers of the reports must only be allowed to apply filters from the Filter pane. Which two settings should you select? Each correct answer presents part of

the solution. NOTE: Each correct selection is worth one point.

- A. Disabling cross highlighting/filtering by default
- B. Add a single Apply button to the filter pane to apply changes at once
- C. Add an Apply button to each slicer to apply changes when you're ready
- D. Add Apply buttons to all basic filters to apply changes when you're ready
- E. Ignore the Privacy Levels and potentially improve performance

Answer: BC

Explanation:

Reduce queries
Reduce the number of queries sent by Power BI using the Query reduction settings. For slicers, select the “Add an Apply button to each slicer to apply changes when you’re ready” option. For filters, select “Add a single Apply button to the filter pane to apply changes at once (preview).”
Reference: <https://maqsoftware.com/insights/power-bi-best-practices>

NEW QUESTION 103

- (Exam Topic 3)
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You are using an Azure Synapse Analytics serverless SQL pool to query a collection of Apache Parquet files by using automatic schema inference. The files contain more than 40 million rows of UTF-8-encoded business names, survey names, and participant counts. The database is configured to use the default collation.
The queries use open row set and infer the schema shown in the following table.

name	system_type_name	max_length
businessName	varchar(8000)	8000
surveyName	varchar(8000)	8000
participants	int	4

You need to recommend changes to the queries to reduce I/O reads and tempdb usage.
Solution: You recommend defining an external table for the Parquet files and updating the query to use the table
Does this meet the goal?

- A. Yes
- B. No

Answer: B

NEW QUESTION 107

- (Exam Topic 3)
You have an Azure Data Lake Storage Gen 2 container that stores more than 300,000 files representing hourly telemetry data. The data is organized in folders by the year, month, and day according to when the telemetry was captured.
You have the following query in Power Query Editor.

```
let
    Source = AzureStorage.Blobs("https://tmppbie01.blob.core.windows.net/logs/"),
    Filtered = Table.SelectRows(Source, each Text.StartsWith([Name], "2019/12/")),
    and [Extension] = ".csv"),
    Transformed = Table.AddColumn(Filtered, "Transformed", each TransformFiles([Content])),
    Limited = Table.SelectColumns(Transformed, "Transformed"),
    Expanded = Table.ExpandTableColumn(Limited, "Transformed", {"Date", "Name", "Activity"}),
    Final = Table.TransformColumnTypes(Expanded,
        {"Date", type date}, {"Name", type text}, {"Activity", type text})
in
    Final
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE: Each correct selection is worth one point

Answer Area		
Statements	Yes	No
The query uses the hierarchical namespace of the storage account.	<input type="radio"/>	<input type="radio"/>
The query uses a custom function to load file data.	<input type="radio"/>	<input type="radio"/>
Changing the source to use AzureStorage.DataLake will reduce the load time of the query.	<input type="radio"/>	<input type="radio"/>

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: Yes
A key mechanism that allows Azure Data Lake Storage Gen2 to provide file system performance at object storage scale and prices is the addition of a hierarchical namespace. This allows the collection of objects/files within an account to be organized into a hierarchy of directories and nested subdirectories in the same way that the file system on your computer is organized. With a hierarchical namespace enabled, a storage account becomes capable of providing the scalability and cost-effectiveness of object storage, with file system semantics that are familiar to analytics engines and frameworks.

Box 2: No
Table.SelectRows returns a table of rows from the table, that matches the selection condition. Box 3: Yes
Azure Data Lake Storage has higher throughput and IOPS.

Note: Azure Blob Storage is a general purpose, scalable object store that is designed for a wide variety of storage scenarios. Azure Data Lake Storage is a hyper-scale repository that is optimized for big data analytics workloads.

Azure Data Lake Storage use Cases: Batch, interactive, streaming analytics and machine learning data such as log files, IoT data, click streams, large datasets

Reference: <https://docs.microsoft.com/en-us/azure/storage/blobs/data-lake-storage-namespace> <https://docs.microsoft.com/en-us/powerquery-m/table-selectrows> <https://docs.microsoft.com/en-us/azure/data-lake-store/data-lake-store-comparison-with-blob-storage>

NEW QUESTION 110

- (Exam Topic 3)
You are creating a Power BI Desktop report. You add a Python visual to the report page.
You plan to create a scatter chart to visualize the data. You add Python code to the Python script editor.
You need to create the scatter chart.
How should you complete the Python code? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

import

matplotlib.axes

matplotlib.projections

matplotlib.pyplot

matplotlib.widgets

as chart

dataset.plot(kind='scatter', x='Age', y='Weight', color='red')

chart.clf()

chart.plot()

chart.show()

chart.triplot()

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: matplotlib.pyplot
Create a scatter plot
Let's create a scatter plot to see if there's a correlation between age and weight. Under Paste or type your script code here, enter this code:
import matplotlib.pyplot as plt
dataset.plot(kind='scatter', x='Age', y='Weight', color='red') plt.show()

Box 2: chart.show()
Reference:
<https://docs.microsoft.com/en-us/power-bi/connect-data/desktop-python-visuals#create-a-scatter-plot>

NEW QUESTION 111

- (Exam Topic 3)
You have a dataset that contains a table named UserPermissions. UserPermissions contains the following data.

User	Region
CONTOSO\User1	1
CONTOSO\User2	2
CONTOSO\User3	1
CONTOSO\User4	3
CONTOSO\User4	5

You plan to create a security role named User Security for the dataset. You need to filter the dataset based on the current users. What should you include in the DAX expression?

- A. [UserPermissions] - USERNAME()
- B. [UserPermissions] - USERPRINCIPALNAME()
- C. [User] = USERPRINCIPALNAME()

- D. [User] = USERNAME()
- E. [User] = USEROBJECTID()

Answer: D

Explanation:

USERNAME() returns the domain name and username from the credentials given to the system at connection time. It should be compared to column name of User, which in DAX is expressed through [User]. Reference: <https://docs.microsoft.com/en-us/dax/username-function-dax>

NEW QUESTION 116

- (Exam Topic 3)

You use Advanced Editor in Power Query Editor to edit a query that references two tables named Sales and Commission. A sample of the data in the Sales table is shown in the following table.

OrderID	SalesPerson	Amount
101	Tom	199.99
103	Eileen	279.99
108	Enrique	333.42

A sample of the data in the Commission table is shown in the following table.

Person	Commission
Tom	0.04
Eileen	0.05

You need to merge the tables by using Power Query Editor without losing any rows in the Sales table. How should you complete the query? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

Combined = Table.

Combine

InsertRows

Join

TransformRow

(Sale, "SalesPerson", Commission, "Name", JoinKind.

LeftAnti

LeftOuter

RightAnti

RightOuter

),

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: Join

Box 2: LeftOuter Left outer join

One of the join kinds available in the Merge dialog box in Power Query is a left outer join, which keeps all the rows from the left table and brings in any matching rows from the right table.

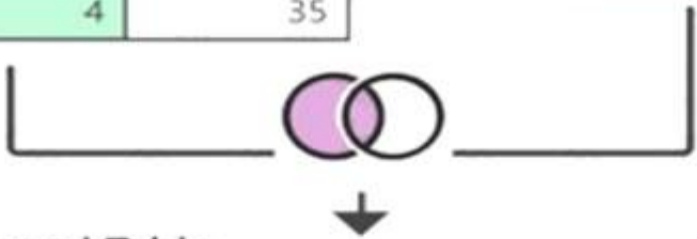
Diagram, table Description automatically generated

Left Table

Date	CountryID	Units
1/1/2020	1	40
1/2/2020	1	25
1/3/2020	3	30
1/4/2020	4	35

Right Table

ID	Country
1	USA
2	Canada
3	Panama



Merged Table

Date	CountryID	Units	Country
1/1/2020	1	40	USA
1/2/2020	1	25	USA
1/3/2020	3	30	Panama
1/4/2020	4	35	null

Reference: <https://docs.microsoft.com/en-us/power-query/merge-queries-left-outer>

NEW QUESTION 120

- (Exam Topic 3)

You are using a Python notebook in an Apache Spark pool in Azure Synapse Analytics. You need to present the data distribution statistics from a DataFrame in a tabular view. Which method should you invoke on the DataFrame?

- A. sample
- B. describe
- C. freqItems
- D. explain

Answer: B

Explanation:

pandas.DataFrame.describe

Descriptive statistics include those that summarize the central tendency, dispersion and shape of a dataset's distribution, excluding NaN values.

Analyzes both numeric and object series, as well as DataFrame column sets of mixed data types. The output will vary depending on what is provided.

Reference: <https://pandas.pydata.org/pandas-docs/stable/reference/api/pandas.DataFrame.describe.html>

NEW QUESTION 123

- (Exam Topic 2)

You need to build a Transact-SQL query to implement the planned changes for the internal users.

How should you complete the Transact-SQL query? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

```
DECLARE @model varbinary(max) = (
    SELECT native_model_object
    FROM ml_models
    WHERE model_name = 'rxLinMod'
    AND model_version = 'v1');
SELECT d.*, p.*
FROM [ ] (MODEL = @model, DATA = dbo.rx_linMod as lm)
    [ ]
    [ ]
    [ ]
    [ ]

go [ ] (model_outcome float, trade_volume float, price_Pred float) as p;
    [ ]
    [ ]
    [ ]
    [ ]
    [ ]
```

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: PREDICT

Provide internal users with the ability to incorporate machine learning models loaded to the dedicated SQL pool.

The example below shows a sample query using prediction function. An additional column with name Score and data type float is created containing the prediction results. All the input data columns as well as output prediction columns are available to display with the select statement.

-- Query for ML predictions SELECT d.*, p.Score

FROM PREDICT(MODEL = (SELECT Model FROM Models WHERE Id = 1),

DATA = dbo.mytable AS d, RUNTIME = ONNX) WITH (Score float) AS p; Box 2: WITH

Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-predict>

NEW QUESTION 124

- (Exam Topic 2)

You need to recommend a solution for the customer workspaces to support the planned changes.

Which two configurations should you include in the recommendation? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Set Use datasets across workspaces to Enabled
- B. Publish the financial data to the web.
- C. Grant the Build permission for the financial data to each customer.
- D. Configure the FinData workspace to use a Power BI Premium capacity.

Answer: AD

Explanation:

Build a new dataset in the FinData workspace by using data from the Synapse Analytics dedicated SQL pool. Provide all the customers with their own Power BI workspace to create their own reports. Each workspace will

use the new dataset in the FinData workspace

Reference: <https://docs.microsoft.com/en-us/power-bi/connect-data/service-datasets-admin-across-workspaces>

NEW QUESTION 127

- (Exam Topic 2)

You need to recommend a solution to add new fields to the financial data Power BI dataset with data from the Microsoft SQL Server data warehouse. What should you include in the recommendation?

- A. Azure Purview
- B. Site-to-Site VPN
- C. an XMLA endpoint
- D. the on-premises data gateway

Answer: D

Explanation:

Refresh data from an on-premises SQL Server database
The SQL Server database must be accessed by Power BI through an on-premises data gateway.
You can install an on-premises data gateway on the same local computer as SQL Server (in production, it would typically be a different computer).
Reference: <https://docs.microsoft.com/en-us/power-bi/connect-data/service-gateway-sql-tutorial>

NEW QUESTION 128

- (Exam Topic 1)

How should you configure the Power BI dataset refresh for the dbo.SalesTransactions table?

- A. an incremental refresh of Product where the ModifiedDate value is during the last three days.
- B. an incremental refresh of dbo.SalesTransactions where the SalesDate value is during the last three days.
- C. a full refresh of all the tables
- D. an incremental refresh of dbo.SalesTransactions where the SalesDate value is during the last hour.

Answer: B

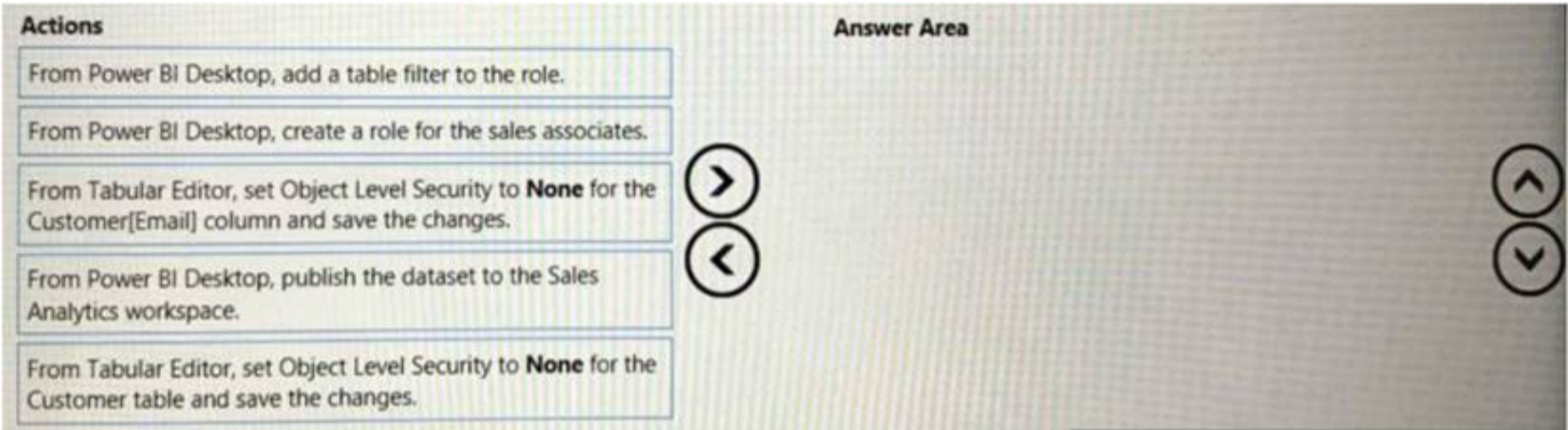
Explanation:

The sales data in SQLDW is updated every 30 minutes. Records in dbo.SalesTransactions are updated in SQLDW up to three days after being created. The records do NOT change after three days.

NEW QUESTION 129

- (Exam Topic 1)

You need to implement object-level security (OLS) in the Power BI dataset for the sales associates. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

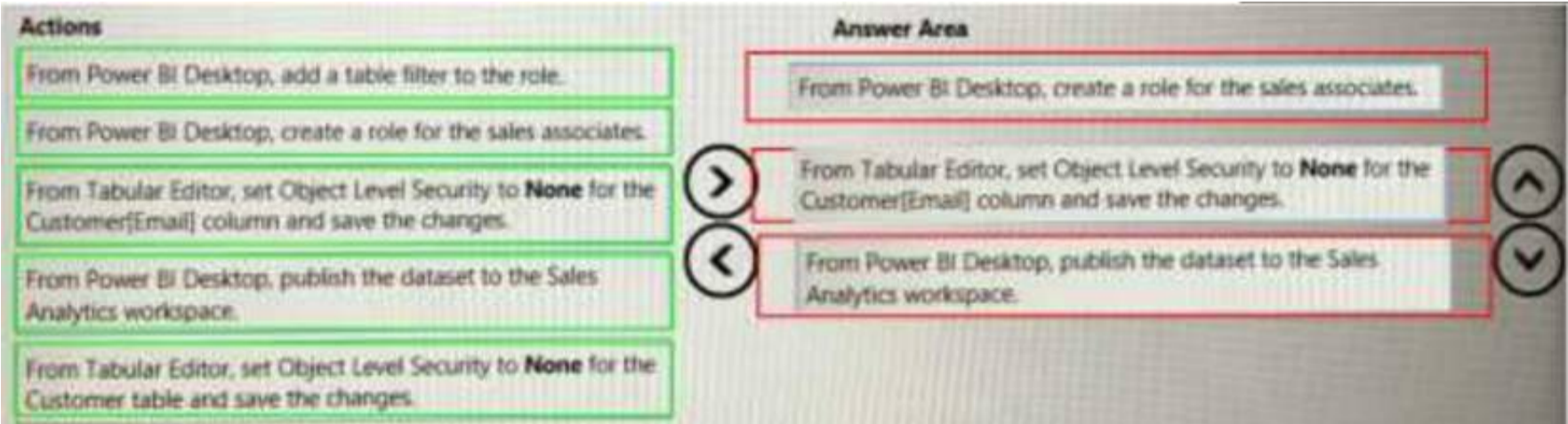


The screenshot shows the exam interface with two main sections: 'Actions' and 'Answer Area'. The 'Actions' list contains five items: 'From Power BI Desktop, add a table filter to the role.', 'From Power BI Desktop, create a role for the sales associates.', 'From Tabular Editor, set Object Level Security to **None** for the Customer[Email] column and save the changes.', 'From Power BI Desktop, publish the dataset to the Sales Analytics workspace.', and 'From Tabular Editor, set Object Level Security to **None** for the Customer table and save the changes.' The 'Answer Area' is currently empty, with navigation arrows on the right.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



The screenshot shows the exam interface with the 'Actions' list on the left and the 'Answer Area' on the right. The 'Answer Area' contains three actions in a specific sequence, highlighted with red boxes: 'From Power BI Desktop, create a role for the sales associates.', 'From Tabular Editor, set Object Level Security to **None** for the Customer[Email] column and save the changes.', and 'From Power BI Desktop, publish the dataset to the Sales Analytics workspace.' The 'Actions' list on the left has green boxes around the first three items, which correspond to the ones in the answer area.

NEW QUESTION 130

- (Exam Topic 1)

You need to populate the CustomersWithProductScore table. How should you complete the stored procedure? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

```

DECLARE @model
SELECT model
FROM MLModel
WHERE model_name = 'PredictPurchase'
);

INSERT INTO CustomersWithProductScore (
    CustomerID
    ,CustomerEmail
    ,ProductID
    ,ProductName
    ,Score
)

SELECT d.CustomerID
    ,d.CustomerEmail
    ,d.ProductID
    ,d.ProductName
    ,p.score
FROM PREDICT(MODEL = @model, DATA =
    WITH (score FLOAT) AS p;

```

Box 1: BIT, FLOAT, NVARCHAR(1000), VARBINARY(max)

Box 2: AS d)

dbo.Customer
 dbo.CustomerPurchases
 dbo.CustomersWithProductScore
 dbo.Product

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: FLOAT

Identify which customers should receive promotional emails based on their likelihood of purchasing promoted products.

FLOT is used in the last statement of the code: WITH (score FLOAT) as p; From syntax: MODEL

The MODEL parameter is used to specify the model used for scoring or prediction. The model is specified as a variable or a literal or a scalar expression.

Box 2: dbo.CustomerWithProductScore

Identify which customers should receive promotional emails based on their likelihood of purchasing promoted products.

Only table CustomerWithProductScore has the required filed score.

From the syntax: DATA

The DATA parameter is used to specify the data used for scoring or prediction. Data is specified in the form of a table source in the query. Table source can be a table, table alias, CTE alias, view, or table-valued function.

Reference: <https://docs.microsoft.com/en-us/sql/t-sql/queries/predict-transact-sql>

NEW QUESTION 134

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