



Microsoft

Exam Questions DP-500

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

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NEW QUESTION 1

- (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 2

- (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 3

- (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)	FALSE All								
Row Labels	Relationship Type	Max From Cardinality	Max to Cardinality	1:M Ratio	% Missing Keys	Invalid Rows	Relationships	Size	Bid. Filters
'Date [Date] ==<-1 'LocalDateTable_39c22ddb-27f3-4e6c-8a44-a3380850fcb4[Date	M:1	84	2,557	3044.05%	0	0		4,056	
Fact	M:1	90	327	0.69%	22			184	
'Fact'[BU Key]==<-1 'BU'[BU Key]	M:1	26	164	0.34%	0	0		32	
'Fact'[Customer Key] ==<-1 'Customer'[Customer]	M:1	90	327	0.69%	21	1,804		112	
'Fact'[Product Key] ==<-1 'Product'[Product Key]	M:1	7	6	0.01%	1	6,577		8	
'Fact'[Scenario Key] ==<-1 'Scenario'[Scenario Key]	M:1	2	2	0.00%	0	0		8	
'Fact'[YearPeriod] ==<-1 'Date'[YearPeriod]	M:1	16	84	0.18%	0	0		24	
Grand Total	M:1	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 4

- (Exam Topic 3)

You have a Power BI tenant.

You plan to register the tenant in an Azure Purview account.

You need to ensure that you can scan the tenant by using Azure Purview.

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

- A. From the Microsoft 365 admin center, create a Microsoft 365 group.
- B. From the Power BI Admin center, set Allow live connections to Enabled.
- C. From the Power BI Admin center, set Allow service principals to use read-only Power BI admin APIs to Enabled.
- D. From the Azure Active Directory admin center, create a security group.
- E. From the Power BI Admin center, set Share content with external users to Enabled.

Answer: CD

Explanation:

Scan same-tenant Power BI using Azure IR and Managed Identity in public network. Make sure Power BI and Microsoft Purview accounts are in the same tenant.

Make sure Power BI tenant Id is entered correctly during the registration.

From Azure portal, validate if Microsoft Purview account Network is set to public access.

From Power BI tenant Admin Portal, make sure Power BI tenant is configured to allow public network.

(D) In Azure Active Directory tenant, create a security group.

From Azure Active Directory tenant, make sure Microsoft Purview account MSI is member of the new security group.

On the Power BI Tenant Admin portal, validate if Allow service principals to use read-only Power BI admin APIs is enabled for the new security group.

Associate the security group with Power BI tenant Log into the Power BI admin portal.

Select the Tenant settings page.

(C) Select Admin API settings > Allow service principals to use read-only Power BI admin APIs (Preview). Select Specific security groups.

Select Admin API settings > Enhance admin APIs responses with detailed metadata > Enable the toggle to allow Microsoft Purview Data Map automatically discover the detailed metadata of Power BI datasets as part of its scans.

Reference: <https://docs.microsoft.com/en-us/azure/purview/register-scan-power-bi-tenant>

NEW QUESTION 5

- (Exam Topic 3)

You have a Power BI report that contains one visual.

You need to provide users with the ability to change the visual type without affecting the view for other users. What should you do?

- A. From Report setting, select Personalize visuals.
- B. From Tabular Editor, create a new perspective.
- C. From the Bookmarks pane, select Focus mode, and then select Add.
- D. From Visual options in Report settings, select Use the modern visual header with updated styling options.

Answer: A

Explanation:

Enable personalization in a report

You can enable the feature either in Power BI Desktop or the Power BI service. You can also enable it in embedded reports.

To enable the feature in Power BI Desktop, go to File > Options and settings > Options > Current file > Report settings. Make sure Personalize visuals is turned

on.

NEW QUESTION 6

- (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 7

- (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 Latin1_General_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 8

- (Exam Topic 3)

You have a Power BI workspace that contains one dataset and four reports that connect to the dataset. The dataset uses Import storage mode and contains the following data sources:

- A CSV file in an Azure Storage account
- An Azure Database for PostgreSQL database

You plan to use deployment pipelines to promote the content from development to test to production. There will be different data source locations for each stage.

What should you include in the deployment pipeline to ensure that the appropriate data source locations are used during each stage?

- A. parameter rules
- B. selective deployment
- C. auto-binding across pipelines
- D. data source rules

Answer: A

Explanation:

Note: Create deployment rules

When working in a deployment pipeline, different stages may have different configurations. For example, each stage can have different databases or different query parameters. The development stage might query sample data from the database, while the test and production stages query the entire database.

When you deploy content between pipeline stages, configuring deployment rules enables you to allow changes to content, while keeping some settings intact. For example, if you want a dataset in a production stage to point to a production database, you can define a rule for this. The rule is defined in the production stage, under the appropriate dataset. Once the rule is defined, content deployed from test to production, will inherit the value as defined in the deployment rule, and will always apply as long as the rule is unchanged and valid.

NEW QUESTION 9

- (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 10

- (Exam Topic 3)

You have a Power BI workspace named Workspace1 that contains five dataflows.

You need to configure Workspace1 to store the dataflows in an Azure Data Lake Storage Gen2 account. What should you do first?

- A. Delete the dataflow queries.
- B. From the Power BI Admin portal, enable tenant-level storage.
- C. Disable load for all dataflow queries.
- D. Change the Data source settings in the dataflow queries.

Answer: B

Explanation:

Configuring Azure connections is an optional setting with additional properties that can optionally be set:

* Tenant Level storage, which lets you set a default, and/or

* Workspace-level storage, which lets you specify the connection per workspace

You can optionally configure tenant-level storage if you want to use a centralized data lake only, or want this to be the default option.

Reference:

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

NEW QUESTION 10

- (Exam Topic 3)

You need to save Power BI dataflows in an Azure Storage account.

Which two prerequisites are required to support the configuration? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. The storage account must be protected by using an Azure Firewall.
- B. The connection must be created by a user that is assigned the Storage Blob Data Owner role.
- C. The storage account must have hierarchical namespace enabled.
- D. Dataflows must exist already for any directly connected Power BI workspaces.
- E. The storage account must be created in a separate Azure region from the Power BI tenant and workspaces.

Answer: BC

Explanation:

Reference:

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

NEW QUESTION 13

- (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 14

- (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 create a hierarchy.

Does this meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

Instead use the 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.

Note: A hierarchy is an ordered set of values that are linked to the level above. An example of a hierarchy could be Country, State, and City. Cities are in a State, and States make up a Country. In Power BI visuals can handle hierarchy data and provide controls for the user to navigate up and down the hierarchy.

Reference: <https://docs.microsoft.com/en-us/power-bi/developer/visuals/capabilities> <https://powerbi.tips/2018/09/how-to-navigate-hierarchies/>

NEW QUESTION 18

- (Exam Topic 3)

You have an Azure Synapse Analytics serverless SQL pool and an Azure Data Lake Storage Gen2 account. You need to query all the files in the 'csv/taxi/' folder and all its subfolders. All the files are in CSV format and have a header row.

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

NOTE: Each correct selection is worth one point.

`SELECT*`

`FROM OPENROWSET (`

	▼
BULK 'csv/taxi',	
BULK 'csv/taxi/**',	
BULK 'csv/taxi/*.csv',	
BULK 'csv/taxi/',	

`DATA_SOURCE = 'datalake',`
`FORMAT = 'CSV', PARSER_VERSION = '2.0',`

	▼
FIRSTROW = 0	
FIRSTROW = 1	
FIRSTROW = -1	
FIRSTROW = 2	

`)`

`WITH (`

`pickup_datetime DATETIME2,`
`passenger_count INT,`
`trip_distance FLOAT,`
`total_amount FLOAT`

`) AS nyc;`

- A. Mastered
- B. Not Mastered

- A. All the query steps are folding.
- B. Elevated permissions are being used to query records.
- C. The query is timing out.
- D. Some query steps are folding.

Answer: A

Explanation:

Understanding folding with Query Diagnostics

One of the most common reasons to use Query Diagnostics is to have a better understanding of what operations were 'pushed down' by Power Query to be performed by the back-end data source, which is also known as 'folding'. If we want to see what folded, we can look at what is the 'most specific' query, or queries, that get sent to the back-end data source. We can look at this for both ODATA and SQL.

Reference: <https://docs.microsoft.com/en-us/power-query/querydiagnosticsfolding>

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 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 30

- (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 33

- (Exam Topic 3)

You have an Azure Synapse Analytics serverless SQL pool.

You need to return a list of files and the number of rows in each file.

How should you complete the Transact-SQL statement? 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.

Values

- APPROX_COUNT_DISTINCT
- COUNT_BIG
- OPENDATASOURCE
- OPENJSON
- OPENQUERY
- OPENROWSET

Answer Area

```
SELECT
  asa.filename() AS [filename]
, [ ] (*) AS [rows]
FROM
  [ ]
  BULK 'parquet/production/year=2017/month=9/*.parquet',
  DATA_SOURCE = 'DataLake1',
  FORMAT= 'PARQUET'
) asa
GROUP BY [filename]
```

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: APPROX_COUNT_DISTINCT

The APPROX_COUNT_DISTINCT function returns the approximate number of unique non-null values in a group.

Box 2: OPENROWSET

OPENROWSET function in Synapse SQL reads the content of the file(s) from a data source. The data source is an Azure storage account and it can be explicitly referenced in the OPENROWSET function or can be dynamically inferred from URL of the files that you want to read. The OPENROWSET function can optionally contain a DATA_SOURCE parameter to specify the data source that contains files.

The OPENROWSET function can be referenced in the FROM clause of a query as if it were a table name OPENROWSET. It supports bulk operations through a built-in BULK provider that enables data from a file to be read and returned as a rowset.

Reference: <https://docs.microsoft.com/en-us/sql/t-sql/functions/approx-count-distinct-transact-sql> <https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/develop-openrowset>

NEW QUESTION 34

- (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 38

- (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 42

- (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. rollup
- B. cov
- C. explain
- 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 44

- (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 45

- (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.

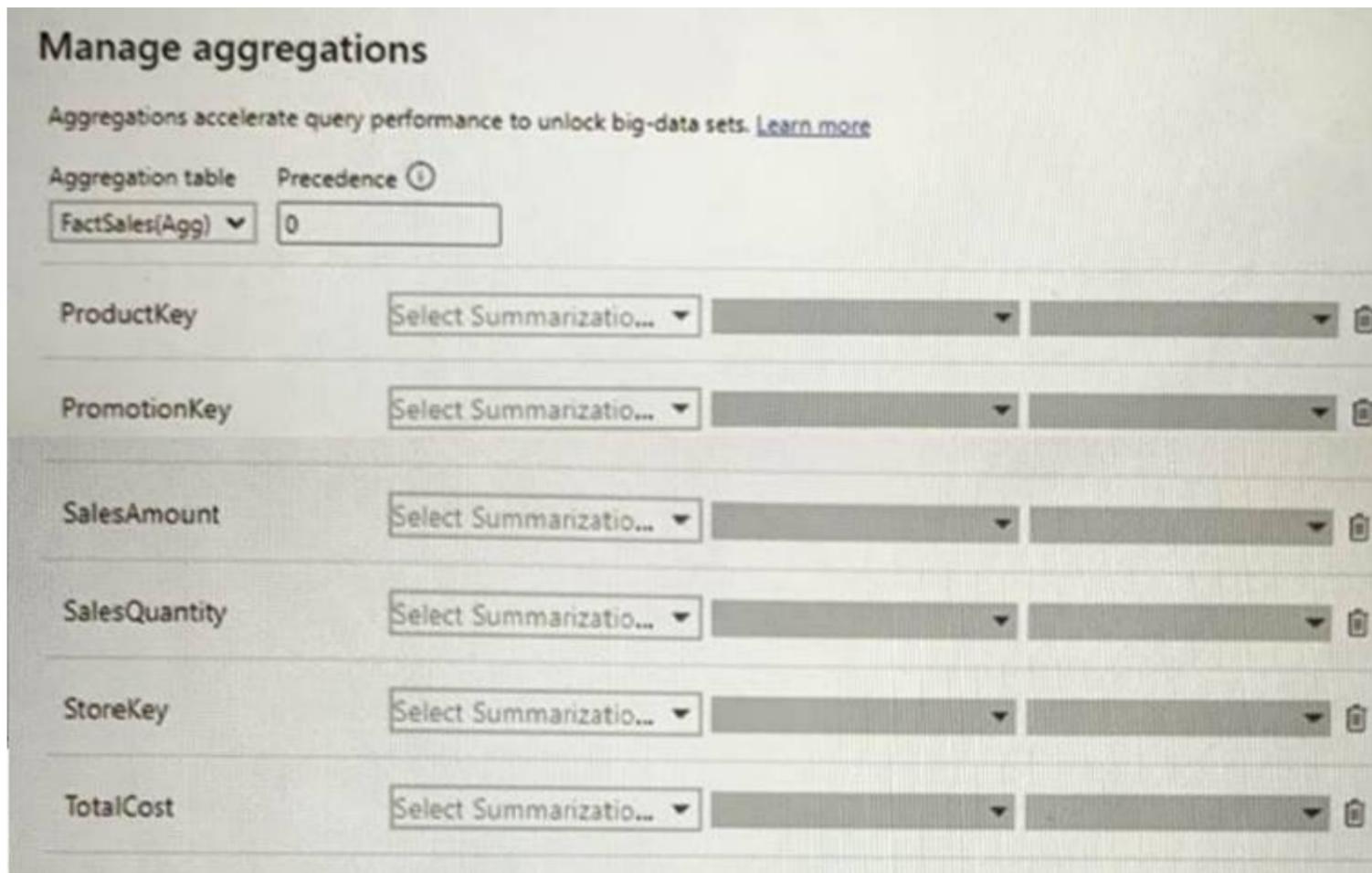
The curves are defined by the points (x, y1) and (x, y2). This creates one or multiple polygons describing the filled area.

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

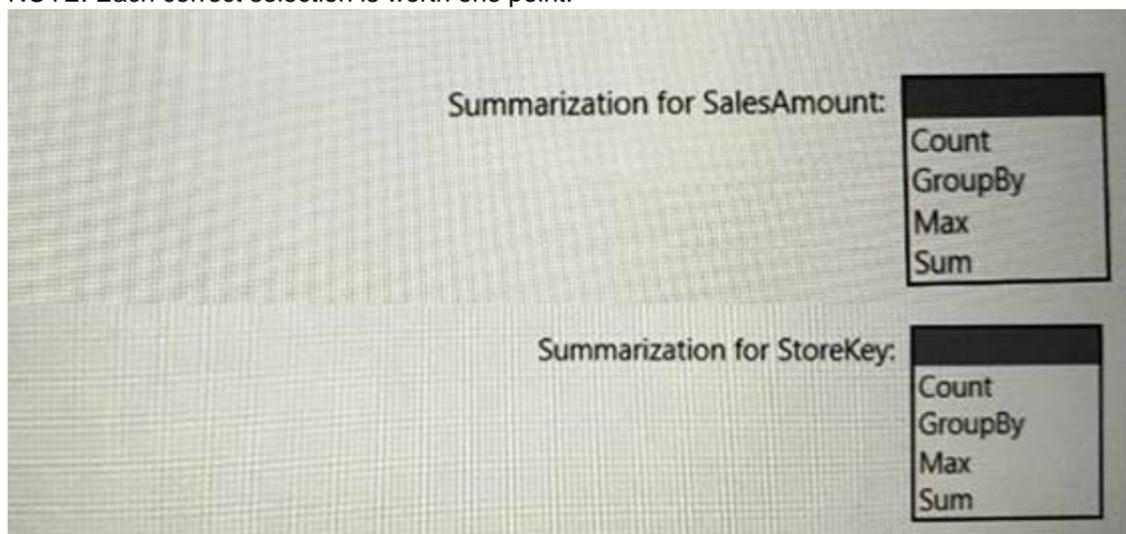
NEW QUESTION 46

- (Exam Topic 3)

You are configuring an aggregation table as shown in the following exhibit.



The detail table is named FactSales and the aggregation table is named FactSales(Agg). You need to aggregate SalesAmount for each store. Which type of summarization should you use for SalesAmount and StoreKey? To answer, select the appropriate options in the answer area, NOTE: Each correct selection is worth one point.



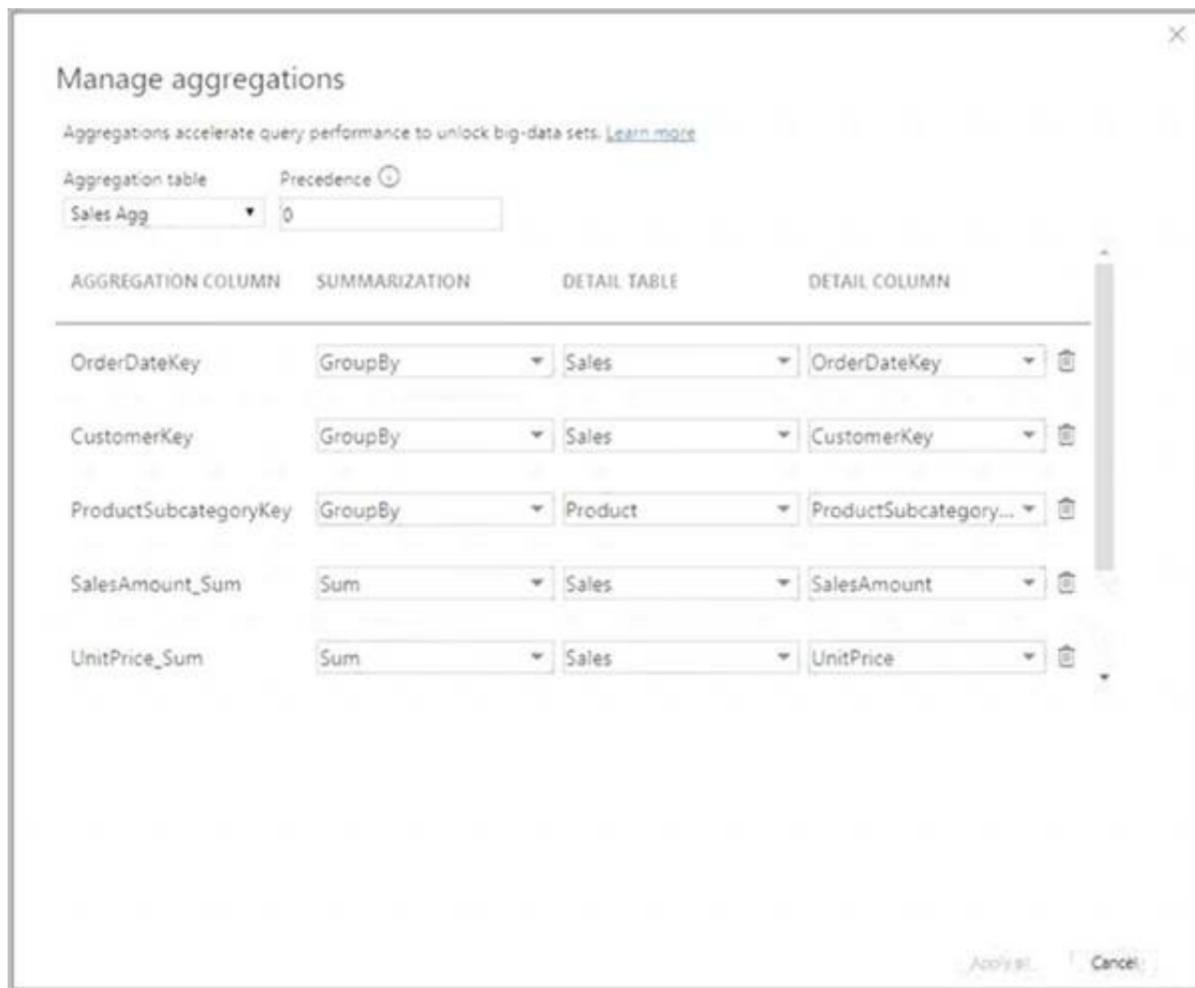
- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: Sum

The Manage aggregations dialog shows a row for each column in the table, where you can specify the aggregation behavior. In the following example, queries to the Sales detail table are internally redirected to the Sales Agg aggregation table.



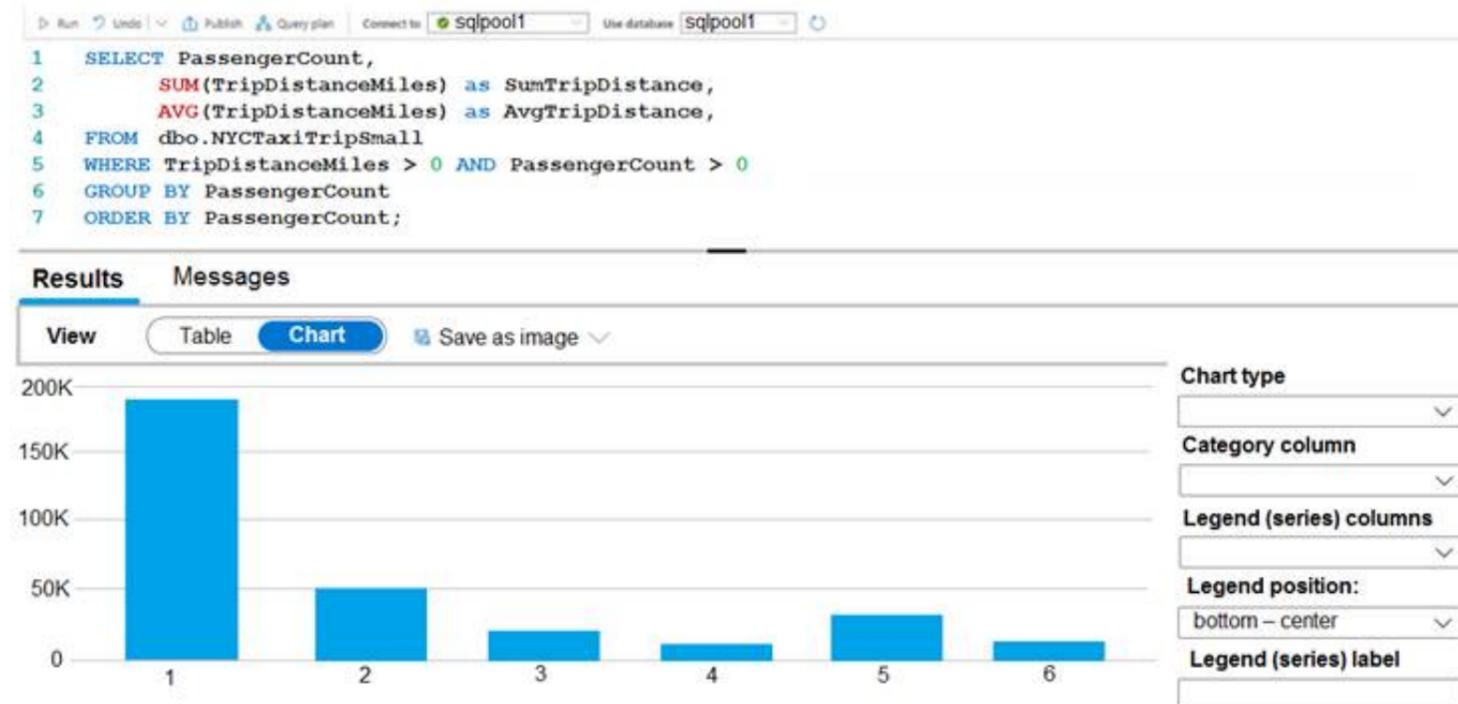
Box 2: GroupBy
 Reference: <https://docs.microsoft.com/en-us/power-bi/transform-model/aggregations-advanced>

NEW QUESTION 47

- (Exam Topic 3)

You are using Azure Synapse Studio to explore a dataset that contains data about taxi trips.

You need to create a chart that will show the total trip distance according to the number of passengers as shown in the following exhibit.



How should you configure the chart? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

Category column:

- AvgTripDistance
- PassengerCount
- SumTripDistance
- TripDistanceMiles

Legend (series) column:

- AvgTripDistance
- PassengerCount
- SumTripDistance
- TripDistanceMiles

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area

Category column:

▼
AvgTripDistance
PassengerCount
SumTripDistance
TripDistanceMiles

Legend (series) column:

▼
AvgTripDistance
PassengerCount
SumTripDistance
TripDistanceMiles

NEW QUESTION 50

- (Exam Topic 3)

You have an Azure Synapse Analytics dataset that contains data about jet engine performance. You need to score the dataset to identify the likelihood of an engine failure. Which function should you use in the query?

- A. PIVOT
- B. GROUPING
- C. PREDICT
- D. CAST

Answer: A

NEW QUESTION 53

- (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 56

- (Exam Topic 3)

You are optimizing a Power BI data model by using DAX Studio.

You need to capture the query events generated by a Power BI Desktop report. What should you use?

- A. the DMV list
- B. a Query Plan trace
- C. an All Queries trace
- D. a Server Timings trace

Answer: C

Explanation:

The All Queries trace in Dax Studio supports capturing the query events from all client tools (not just queries sent from DAX Studio like the Query Plan and Server Timings features do). The 'All Queries' trace is really useful when you wish to see the queries that are generated by a client tool like Power BI Desktop.

Reference: <https://daxstudio.org/documentation/features/all-queries-trace/>

NEW QUESTION 60

- (Exam Topic 3)

You are planning a Power BI solution for a customer.

The customer will have 200 Power BI users. The customer identifies the following requirements:

- Ensure that all the users can create paginated reports.
- Ensure that the users can create reports containing AI visuals.
- Provide autoscaling of the CPU resources during heavy usage spikes.

You need to recommend a Power BI solution for the customer. The solution must minimize costs. What should you recommend?

- A. Power BI Premium per user
- B. a Power BI Premium per capacity
- C. Power BI Pro per user
- D. Power BI Report Server

Answer: A

Explanation:

Announcing Power BI Premium Per User general availability and autoscale preview for Gen2. Power BI Premium per user features and capabilities

* Pixel perfect paginated reports are available for operational reporting capabilities based on SSRS technology. Users can create highly formatted reports in various formats such as PDF and PPT, which are embeddable in applications and are designed to be printed or shared.

* Automated machine learning (AutoML) in Power BI enables business users to build ML models to predict outcomes without having to write any code.

* Etc. Note:

Power BI empowers every business user and business analyst to get amazing insights with AI infused experiences. With Power BI Premium, we enable business analysts to not only analyze and visualize their data, but to also build an end-to-end data platform through drag and drop experiences. Everything from ingesting and transforming data at scale, to building automated machine learning models, and analyzing massive volumes of data is now possible for our millions of business analysts.

Reference:

<https://powerbi.microsoft.com/nl-be/blog/announcing-power-bi-premium-per-user-general-availability-and-auto>

NEW QUESTION 64

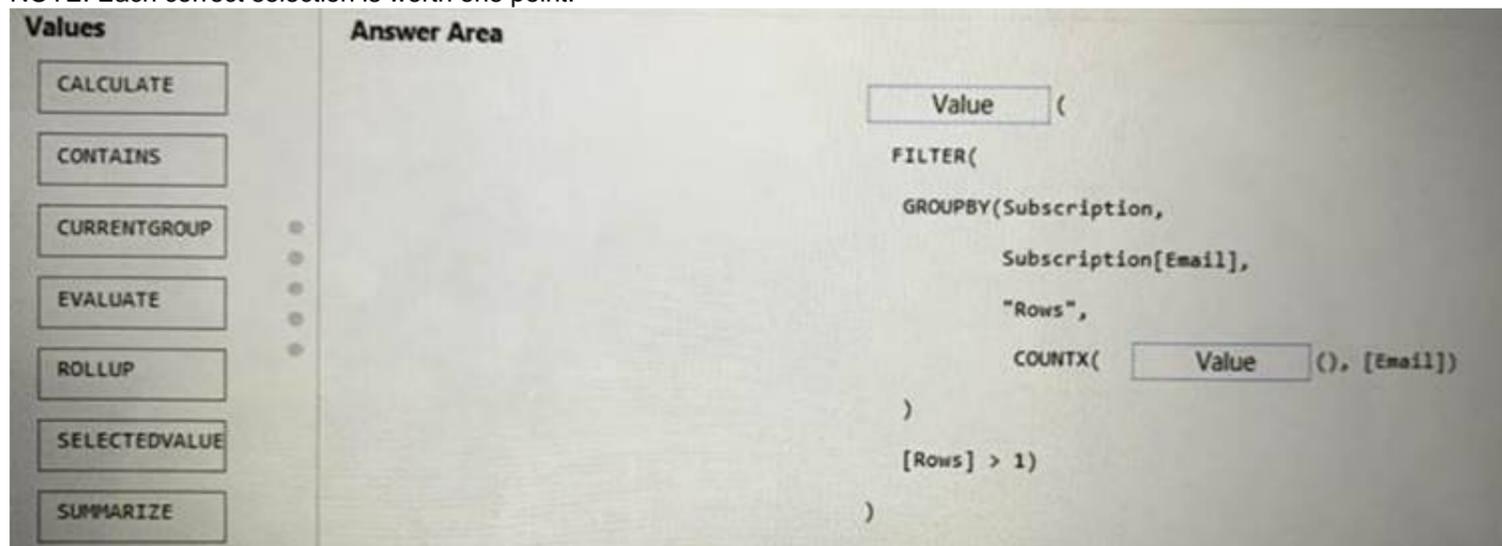
- (Exam Topic 3)

You are using DAX Studio to query an XMLA endpoint.

You need to identify the duplicate values in a column named Email in a table named Subscription.

How should you complete the DAX expression? To answer, drag the appropriate values to the targets. Each value may be used once, more than once. 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: CALCULATE

Box 2: CURRENTGROUP

CURRENTGROUP returns a set of rows from the table argument of a GROUPBY expression that belong to the current row of the GROUPBY result.

Remarks

This function can only be used within a GROUPBY expression.

This function takes no arguments and is only supported as the first argument to one of the following aggregation functions: AVERAGEX, COUNTAX, COUNTX, GEOMEANX, MAXX, MINX, PRODUCTX, STDEVX.S, STDEVX.P, SUMX, VARX.S, VARX.P.

Note: COUNTX counts the number of rows that contain a non-blank value or an expression that evaluates to a non-blank value, when evaluating an expression over a table.

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

NEW QUESTION 67

- (Exam Topic 3)

You are creating a Python visual in Power BI Desktop.

You need to retrieve the value of a column named Unit Price from a DataFrame. How should you reference the Unit Price column in the Python code?

- A. pandas.DataFrame('Unit Price')
- B. dataset['Unit Price']
- C. data = [Unit Price]
- D. ('Unit Price')

Answer: A

Explanation:

You can retrieve a column in a pandas DataFrame object by using the DataFrame object name, followed by the label of the column name in brackets. So if the DataFrame object name is dataframe1 and the column we are trying to retrieve the 'X' column, then we retrieve the column using the statement, dataframe1['X'].

Here's a simple Python script that imports pandas and uses a data frame: import pandas as pd

```
data = [['Alex',10],['Bob',12],['Clarke',13]]
```

```
df = pd.DataFrame(data,columns=['Name','Age'],dtype=float) print (df)
```

When run, this script returns: Name Age

```
0 Alex 10.0
```

```
1 Bob 12.0
```

```
2 Clarke 13.0
```

Reference:
<http://www.learningaboutelectronics.com/Articles/How-to-retrieve-a-column-from-a-pandas-dataframe-object-i>

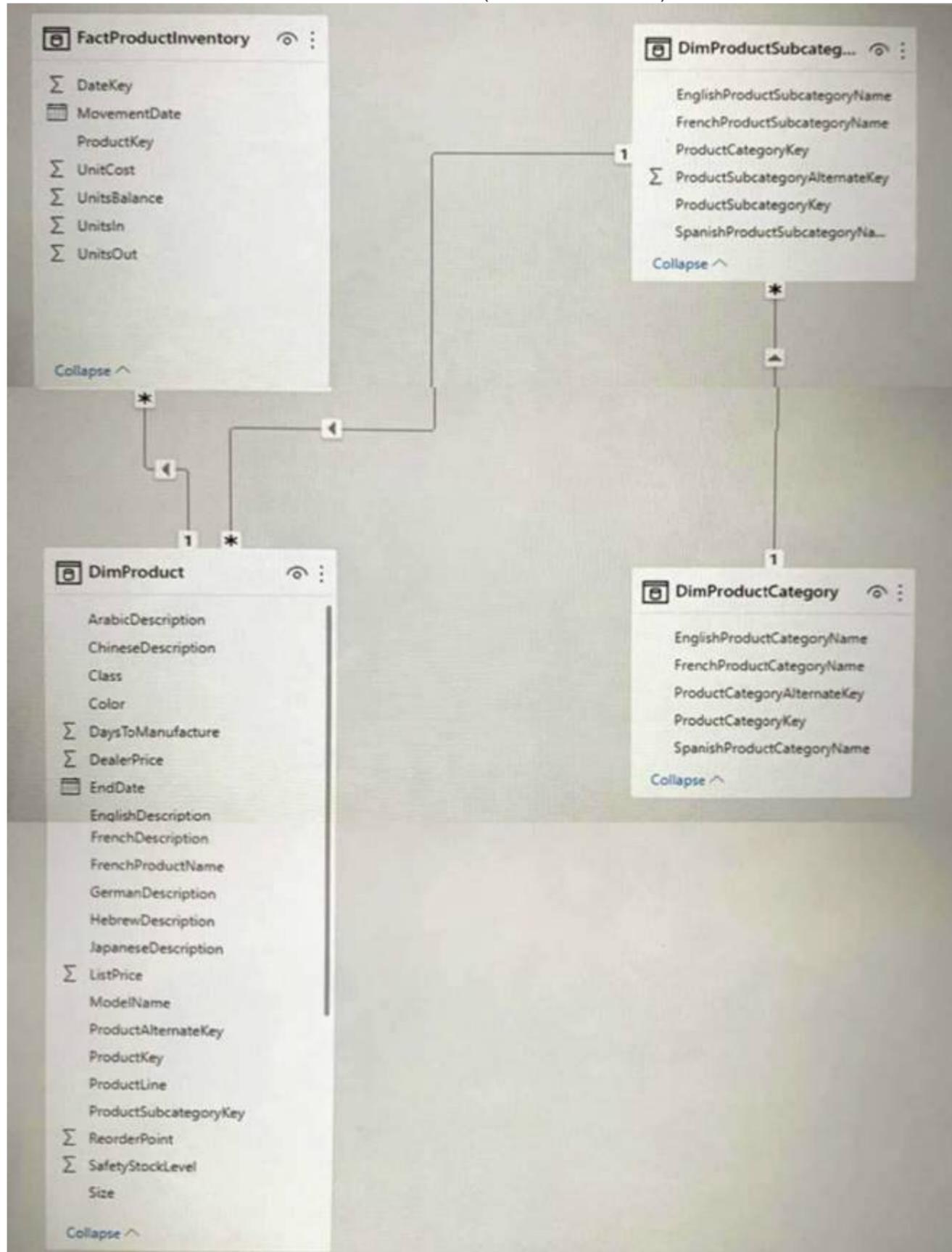
NEW QUESTION 71

- (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 creating a perspective that contains the commonly used fields. Does this meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

Instead 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 73

- (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 77

- (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 80

- (Exam Topic 3)

You have a Power BI dataset named Dataset1 that uses DirectQuery against an Azure SQL database named DB1. DB1 is a transactional database in the third normal form.

You need to recommend a solution to minimize how long it takes to execute the query. The solution must maintain the current functionality. What should you include in the recommendation?

- A. Create calculated columns in Dataset1.
- B. Remove the relationships from Dataset1.
- C. Normalize the tables in DB1.
- D. Denormalize the tables in DB1.

Answer: D

Explanation:

Denormalize to improve query performance.

Note: Normalization prevents data duplications, preserves disk space, and improves the performance of the disk I/O operations. The downside of the normalization is that the queries based on these normalized tables require more table joins.

Schema denormalization (i.e. consolidation of some dimension tables) for such databases can significantly reduce costs of the analytical queries and improve the performance.

Reference:

<https://www.mssqltips.com/sqlservertip/7114/denormalization-dimensions-synapse-mapping-data-flow/>

NEW QUESTION 82

- (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

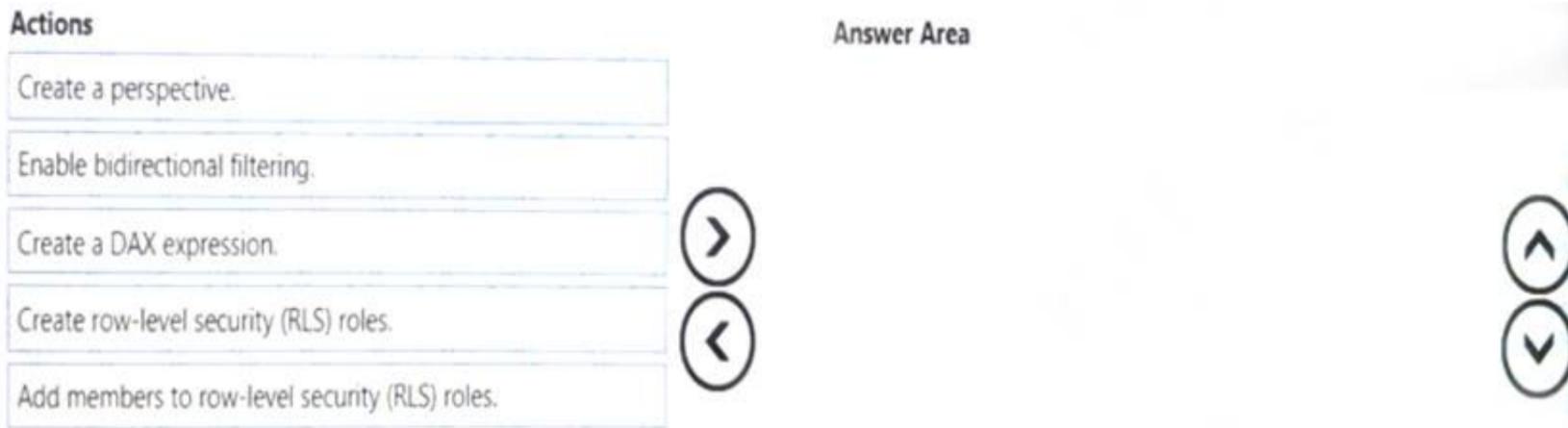
Reference: <https://docs.microsoft.com/en-us/power-bi/connect-data/service-datasets-admin-across-workspaces>

NEW QUESTION 85

- (Exam Topic 2)

You need to create Power BI reports that will display data based on the customers' subscription level.

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.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Step 1: Create row-level security (RLS) roles Create roles

Note: 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.

Implement subscription levels for the customers. Each subscription level will provide access to specific rows of financial data.

Deploy prebuilt datasets to Power BI to simplify the query experience of the customers. Step 2: Create a DAX expression

Consider a model with two roles: The first role, named Workers, restricts access to all Payroll table rows by using the following rule expression: FALSE()

Note: A rule will return no table rows when its expression evaluates to false.

Yet, a second role, named Managers, allows access to all Payroll table rows by using the following rule expression:

TRUE()

Take care: Should a report user map to both roles, they'll see all Payroll table rows. Step 3: Add members to row-level security (RLS) roles

Configure role mappings

Once [the model is] published to Power BI, you must map members to dataset roles. Reference: <https://docs.microsoft.com/en-us/power-bi/guidance/rls-guidance>

NEW QUESTION 88

- (Exam Topic 2)

You need to recommend a solution to resolve the query issue of the serverless SQL pool. The solution must minimize impact on the users.

What should you in the recommendation?

- A. Update the statistics for the serverless SQL pool.
- B. Move the data from the serverless SQL pool to a dedicated Apache Spark pool.
- C. Execute the sp_sec_process_daca_limic stored procedure for the serverless SQL pool.
- D. Move the data from the serverless SQL pool to a dedicated SQL pool.

Answer: D

Explanation:

Users indicate that queries against the serverless SQL pool fail occasionally because the size of tempdb has been exceeded.

In the dedicated SQL pool resource, temporary tables offer a performance benefit because their results are written to local rather than remote storage.

Temporary tables in serverless SQL pool.

Temporary tables in serverless SQL pool are supported but their usage is limited. They can't be used in queries which target files.

For example, you can't join a temporary table with data from files in storage. The number of temporary tables is limited to 100, and their total size is limited to 100 MB.

Reference: <https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/develop-tables-temporary>

NEW QUESTION 93

- (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 96

- (Exam Topic 1)

You need to configure the Sales Analytics workspace to meet the ad hoc reporting requirements. What should you do?

- A. Grant the sales managers the Build permission for the existing Power BI datasets.
- B. Grant the sales managers admin access to the existing Power BI workspace.
- C. Create a deployment pipeline and grant the sales managers access to the pipeline.
- D. Create a PBIT file and distribute the file to the sales managers.

Answer: D

Explanation:

Allow sales managers to perform ad hoc sales reporting with minimal effort

Power BI report templates contain the following information from the report from which they were generated: Report pages, visuals, and other visual elements
The data model definition, including the schema, relationships, measures, and other model definition items
All query definitions, such as queries, Query Parameters, and other query elements

What is not included in templates is the report's data.

Report templates use the file extension .PBIT (compare to Power BI Desktop reports, which use the .PBIX extension).

Note: With Power BI Desktop, you can create compelling reports that share insights across your entire organization. With Power BI Desktop templates, you can streamline your work by creating a report template, based on an existing template, which you or other users in your organization can use as a starting point for a new report's layout, data model, and queries. Templates in Power BI Desktop help you jump-start and standardize report creation.

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

NEW QUESTION 99

- (Exam Topic 1)

You need to recommend a solution to ensure that sensitivity labels are applied. The solution must minimize administrative effort.

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

NOTE: Each correct selection is worth one point.

- A. From the Power BI Admin portal, set Allow users to apply sensitivity labels for Power BI content to Enabled.
- B. From the Power BI Admin portal, set Apply sensitivity labels from data sources to their data in Power BI to Enabled.
- C. In SQLD
- D. apply sensitivity labels to the columns in the Customer and CustomersWithProductScore tables.
- E. In the Power BI datasets, apply sensitivity labels to the columns in the Customer and CustomersWithProductScore tables.
- F. From the Power BI Admin portal, set Make certified content discoverable to Enabled.

Answer: ADE

Explanation:

A Synapse Analytics dedicated SQL pool is named SQLDW.

Customer contact data in SQLDW and the Power BI dataset must be labeled as Sensitive. Records must be kept of any users that use the sensitive data.

A (not B): Enable sensitivity labels

Sensitivity labels must be enabled on the tenant before they can be used in both the service and in Desktop.

To enable sensitivity labels on the tenant, go to the Power BI Admin portal, open the Tenant settings pane, and find the Information protection section.

In the Information Protection section, perform the following steps:

- > Open Allow users to apply sensitivity labels for Power BI content.
- > Enable the toggle.

D (not C): When data protection is enabled on your tenant, sensitivity labels appear in the sensitivity column in the list view of dashboards, reports, datasets, and dataflows.

E: Power BI Tenant Discovery Setting include Make certified content discoverable.

Reference: <https://docs.microsoft.com/en-us/power-bi/enterprise/service-security-enable-data-sensitivity-labels> <https://docs.microsoft.com/en-us/power-bi/enterprise/service-security-apply-data-sensitivity-labels> <https://support.nhs.net/knowledge-base/power-bi-guidance/>

NEW QUESTION 102

- (Exam Topic 1)

What should you configure in the deployment pipeline?

- A. a backward deployment
- B. a selective deployment

- C. auto-binding
- D. a data source rule

Answer: D

Explanation:

Development Process Requirements

Litware identifies the following development process requirements:

SQLDW and datalake1 will act as the development environment. Once feature development is complete, all entities in synapseworkspace1 will be promoted to a test workspace, and then to a production workspace.

Power BI content must be deployed to test and production by using deployment pipelines. Create deployment rules

When working in a deployment pipeline, different stages may have different configurations. For example, each stage can have different databases or different query parameters. The development stage might query sample data from the database, while the test and production stages query the entire database.

When you deploy content between pipeline stages, configuring deployment rules enables you to allow changes to content, while keeping some settings intact. For example, if you want a dataset in a production stage to point to a production database, you can define a rule for this. The rule is defined in the production stage, under the appropriate dataset. Once the rule is defined, content deployed from test to production, will inherit the value as defined in the deployment rule, and will always apply as long as the rule is unchanged and valid.

You can configure data source rules and parameter rules.

Incorrect:

Not B: if you already have a steady production environment, you can deploy it backward (to Test or Dev, based on your need) and set up the pipeline. The feature is not limited to any sequential orders.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/deployment-pipelines-get-started#step-4---create-deplo>

NEW QUESTION 107

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