

# 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

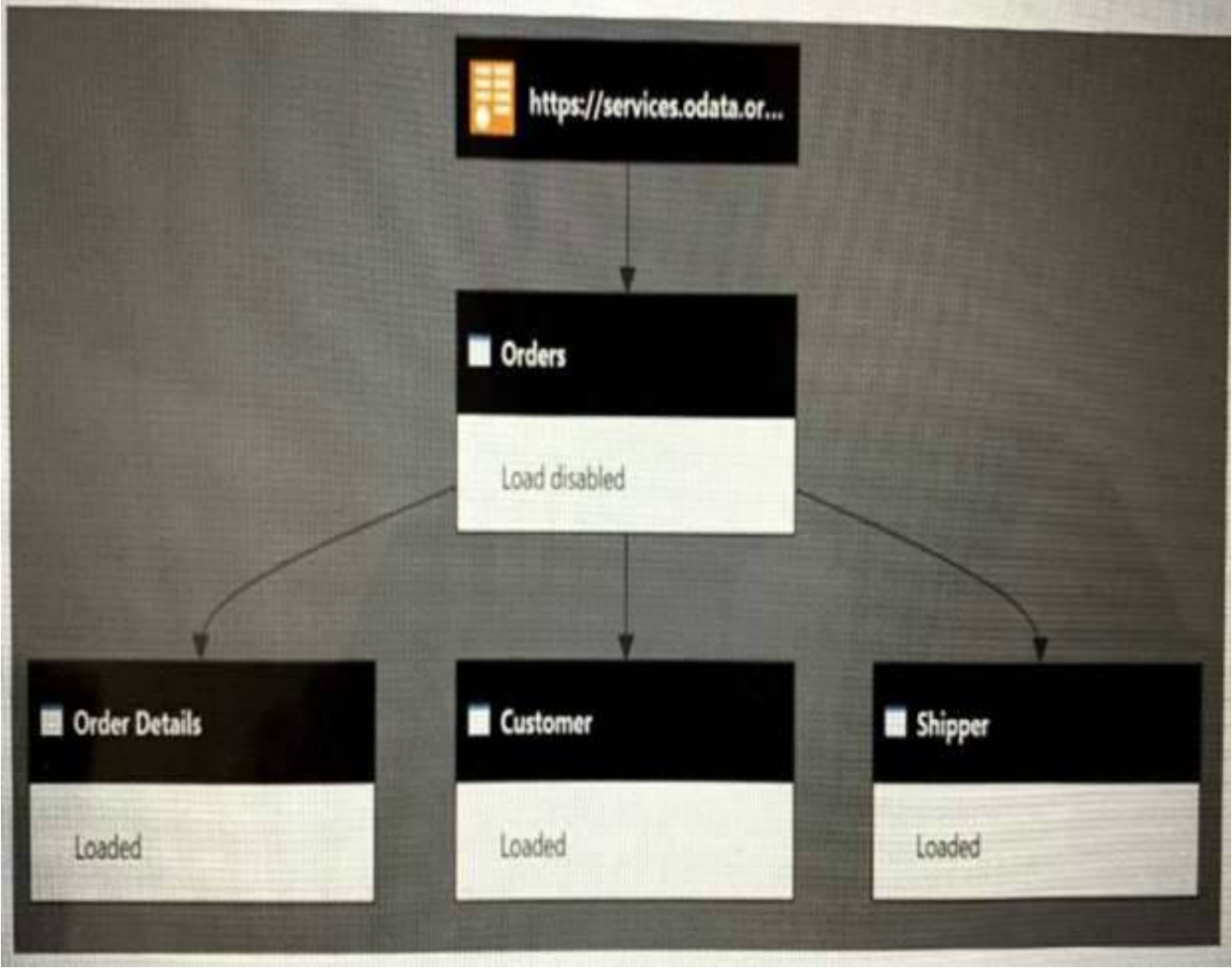
**Explanation:**

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

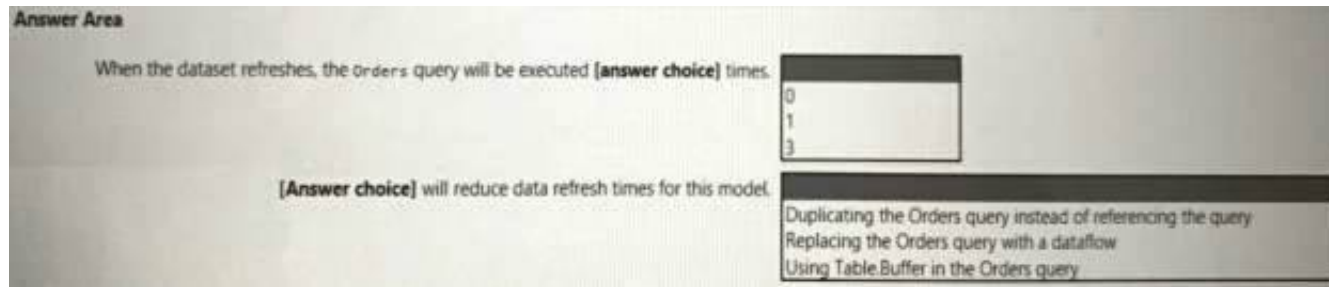
**NEW QUESTION 2**

- (Exam Topic 3)

You have a Power BI dataset that has the query dependencies shown in the following exhibit.



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.



- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Box 1: 3

Power Query doesn't start at the first query and work down, it starts at the bottom (last) query and works backwards, so 3 tables from 1 will cause it to process that first source table 3 times.

Box 2: Using Table.Buffer in the Orders query

Table.Buffer buffers a table in memory, isolating it from external changes during evaluation. Buffering is shallow. It forces the evaluation of any scalar cell values, but leaves non-scalar values (records, lists, tables, and so on) as-is.

Note that using this function might or might not make your queries run faster. In some cases, it can make your queries run more slowly due to the added cost of reading all the data and storing it in memory, as well as the fact that buffering prevents downstream folding.

Example 1

Load all the rows of a SQL table into memory, so that any downstream operations will no longer be able to query the SQL server.

Usage let

Source = Sql.Database("SomeSQLServer", "MyDb"), MyTable = Source[Item="MyTable"][Data], BufferMyTable = Table.Buffer(dbo\_MyTable)

in BufferMyTable Output

Reference: <https://radacad.com/performance-tip-for-power-bi-enable-load-sucks-memory-up> <https://docs.microsoft.com/en-us/powerquery-m/table-buffer>

**NEW QUESTION 3**

- (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](https://pandas.pydata.org/docs/getting_started/intro_tutorials/06_calculate_statistics.html)

**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 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 7**

- (Exam Topic 3)

You discover a poorly performing measure in a Power BI data model.

You need to review the query plan to analyze the amount of time spent in the storage engine and the formula engine.

What should you use?

- A. Tabular Editor
- B. Performance analyzer in Power BI Desktop
- C. Vertipaq Analyzer
- D. DAX Studio

**Answer: B**

**Explanation:**

Monitor report performance in Power BI Desktop using the Performance Analyzer. Monitoring will help you learn where the bottlenecks are, and how you can improve report performance.

Monitoring performance is relevant in the following situations: Your Import data model refresh is slow.

Your DirectQuery or Live Connection reports are slow. Your model calculations are slow.

Slow queries or report visuals should be a focal point of continued optimization.

Reference: <https://docs.microsoft.com/en-us/power-bi/guidance/monitor-report-performance>

**NEW QUESTION 8**

- (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 9**

- (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 10**

- (Exam Topic 3)

You have two Power BI reports named Report1 and Report2.

Report1 connects to a shared dataset named Dataset1.

Report2 connects to a local dataset that has the same structure as Dataset1. Report2 contains several calculated tables and parameters.

You need to prepare Report2 to use Dataset1.

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

- A. Remove the data source permissions.
- B. Delete all the Power Query Editor objects.
- C. Modify the source of each query.
- D. Update all the parameter values.
- E. Delete all the calculated tables.

**Answer:** CD

**Explanation:**

C: Power BI Desktop also comes with Power Query Editor. Use Power Query Editor to connect to one or many data sources, shape and transform the data to meet your needs, then load that model into Power BI Desktop.

D: Common uses for parameters

Here are some of the most common ways to use parameters. Control paginated report data

\* Filter paginated report data at the data source by writing dataset queries that contain variables.

\* Etc.

Reference: <https://docs.microsoft.com/en-us/power-bi/transform-model/desktop-query-overview> <https://docs.microsoft.com/en-us/learn/modules/dax-power-bi-add-calculated-tables/1-introduction>

**NEW QUESTION 10**

- (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 14**

- (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'.

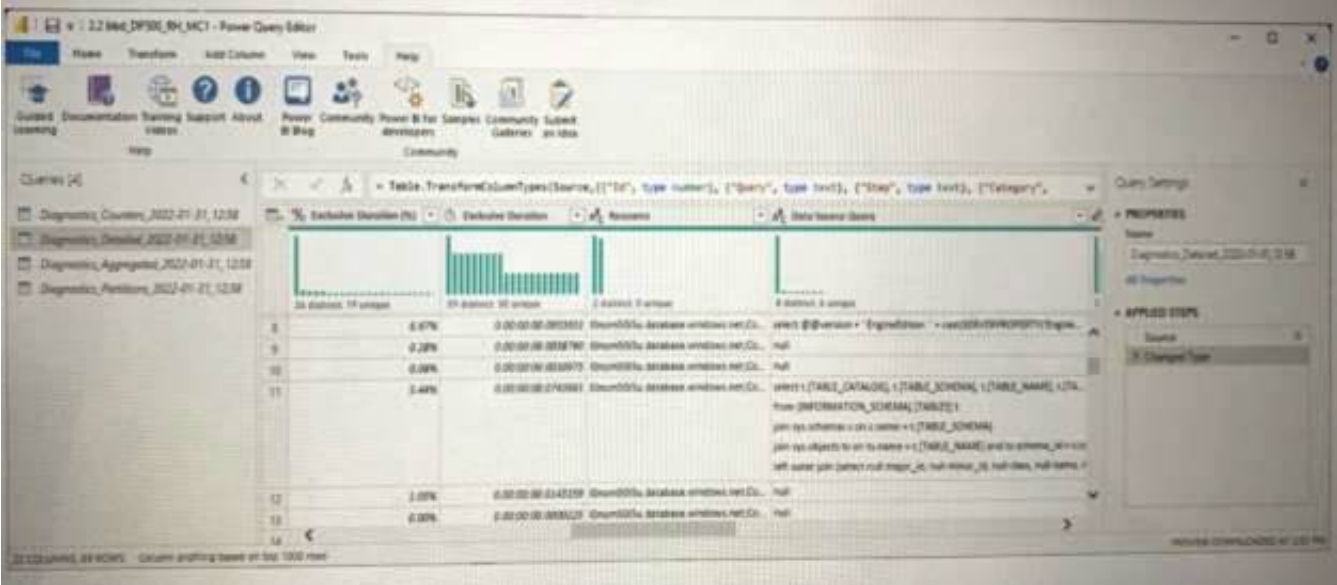
Note: If you use the Latin1\_General\_100\_BIN2\_UTF8 collation you will get an additional performance boost compared to the other collations. The Latin1\_General\_100\_BIN2\_UTF8 collation is compatible with parquet string sorting rules. The SQL pool is able to eliminate some parts of the parquet files 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 16**

- (Exam Topic 3)

You are running a diagnostic against a query as shown in the following exhibit.



What can you identify from the diagnostics query?

- 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 21**

- (Exam Topic 3)

You use Azure Synapse Analytics and Apache Spark notebooks to You need to use PySpark to gain access to the visual libraries. Which Python libraries should you use?

- A. Seaborn only
- B. Matplotlib and Seaborn
- C. Matplotlib only
- D. Matplotlib and TensorFlow
- E. TensorFlow only
- F. Seaborn and TensorFlow

**Answer: B**

**Explanation:**

Matplotlib

You can render standard plotting libraries, like Matplotlib, using the built-in rendering functions for each library.

Matplotlib is a plotting library for the Python programming language and its numerical mathematics extension NumPy.

Additional libraries

Beyond these libraries, the Azure Synapse Analytics Runtime also includes the following set of libraries that are often used for data visualization:

Seaborn

Seaborn is a Python data visualization library based on matplotlib. It provides a high-level interface for drawing attractive and informative statistical graphics.

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

**NEW QUESTION 22**

- (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 24**

- (Exam Topic 3)  
 You are using GitHub as a source control solution for an Azure Synapse Studio workspace. You need to modify the source control solution to use an Azure DevOps Git repository. What should you do first?

- A. Disconnect from the GitHub repository.
- B. Create a new pull request.
- C. Change the workspace to live mode.
- D. Change the active branch.

**Answer:** A

**Explanation:**

By default, Synapse Studio authors directly against the Synapse service. If you have a need for collaboration using Git for source control, Synapse Studio allows you to associate your workspace with a Git repository, Azure DevOps, or GitHub.  
 Prerequisites  
 Users must have the Azure Contributor (Azure RBAC) or higher role on the Synapse workspace to configure, edit settings and disconnect a Git repository with Synapse.  
 Reference: <https://docs.microsoft.com/en-us/azure/synapse-analytics/cicd/source-control>

**NEW QUESTION 27**

- (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
<b>Total</b>	<b>118,726,350.26</b>

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 29**

- (Exam Topic 3)  
 You are building a Power BI dataset that contains a table named Calendar. Calendar contains the following calculated column.  
 pfflag = IF('Calendar'[Date] < TOOAYQ, "Past", "Future")  
 You need to create a measure that will perform a fiscal prior year-to-date calculation that meets the following requirements:  
 • Returns the fiscal prior year-to-date value for [sales Amount]  
 • Uses a fiscal year end of June 30



• Produces no result for dates in the future  
 How should you complete the DAX expression? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.  
**Answer Area**

PYTD =

CALCULATE (

[Sales Amount],

CALCULATETABLE

CROSSJOIN

SUMMARIZECOLUMNS

UNION

)

DATEADD

FIRSTDATE

PARALLELPERIOD

SAMEPERIODLASTYEAR

( DATESYTD ( 'Calendar'[Date], "6/30/2022" ) ),

'Ca

'Calendar'[pfFlag] =

"Future"

NOW()

"Past"

TODAY()

)

)

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Box 1: CALCULATETABLE  
 CALCULATETABLE evaluates a table expression in a modified filter context. Syntax: CALCULATETABLE(<expression>[, <filter1> [, <filter2> [, ...]]]) Incorrect:  
 \* SUMMARIZECOLUMNS  
 SUMMARIZECOLUMNS returns a summary table over a set of groups.  
 Syntax: SUMMARIZECOLUMNS( <groupBy\_columnName> [, <groupBy\_columnName >]...[, <filterTable>]...[, <name>, <expression>]...)  
 \* CROSSJOIN returns a table that contains the Cartesian product of all rows from all tables in the arguments. The columns in the new table are all the columns in all the argument tables.  
 Syntax: CROSSJOIN(<table>, <table>[, <table>]...)  
 \* UNION creates a union (join) table from a pair of tables.  
 Syntax: UNION(<table\_expression1>, <table\_expression2> [, <table\_expression>]...)  
 Box 2: SAMEPERIODLASTYEAR  
 SAMEPERIODLASTYEAR returns a table that contains a column of dates shifted one year back in time from the dates in the specified dates column, in the current context.  
 Syntax: SAMEPERIODLASTYEAR(<dates>)  
 The dates returned are the same as the dates returned by this equivalent formula: DATEADD(dates, -1, year) Example:  
 The following sample formula creates a measure that calculates the previous year sales of Reseller sales.  
 = CALCULATE(SUM(ResellerSales\_USD[SalesAmount\_USD]), SAMEPERIODLASTYEAR(DateTime[DateKey]))  
 Box 3: TODAY()  
 TODAY() returns the current date.  
 The TODAY function is useful when you need to have the current date displayed on a worksheet, regardless of when you open the workbook. It is also useful for calculating intervals.  
 Example:  
 The following sample formula creates a measure that calculates the 'Running Total' for Internet sales.  
 = CALCULATE(SUM(InternetSales\_USD[SalesAmount\_USD]), DATESYTD(DateTime[DateKey])) Reference: <https://docs.microsoft.com/en-us/dax/calculatetable-function-dax> <https://docs.microsoft.com/en-us/dax/sameperiodlastyear-function-dax> <https://docs.microsoft.com/en-us/dax/datesytd-function-dax>

**NEW QUESTION 34**

- (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.

Values

ISSELECTEDMEASURE()

SELECTEDMEASURENAME()

SELECTEDMEASURE()

SELECTEDVALUE()

Answer Area

IF(

Value

= "CG Measure Switch", [Actuals],

Value

)

- 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 35**

- (Exam Topic 3)

You need to provide users with a reproducible method to connect to a data source and transform the data by using an AI function. The solution must meet the following requirement

- Minimize development effort.
- Avoid including data in the file. Which type of file should you create?

- A. PBIDS  
B. PBIX  
C. PBIT

**Answer:** C

**Explanation:**

A PBIT file is a template created by Power BI Desktop, a Microsoft application used to create reports and visualizations. It contains queries, visualization settings, data models, reports, and other data added by the user.

A PBIT file acts as a Power BI template. It doesn't include any data from your source systems. Reference: <https://docs.microsoft.com/en-us/power-bi/connect-data/desktop-data-sources>

**NEW QUESTION 37**

- (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](https://pandas.pydata.org/docs/getting_started/intro_tutorials/06_calculate_statistics.html)

**NEW QUESTION 39**

- (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](https://matplotlib.org/3.5.0/api/_as_gen/matplotlib.pyplot.fill_between.html)

**NEW QUESTION 41**

- (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 45**

- (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 46

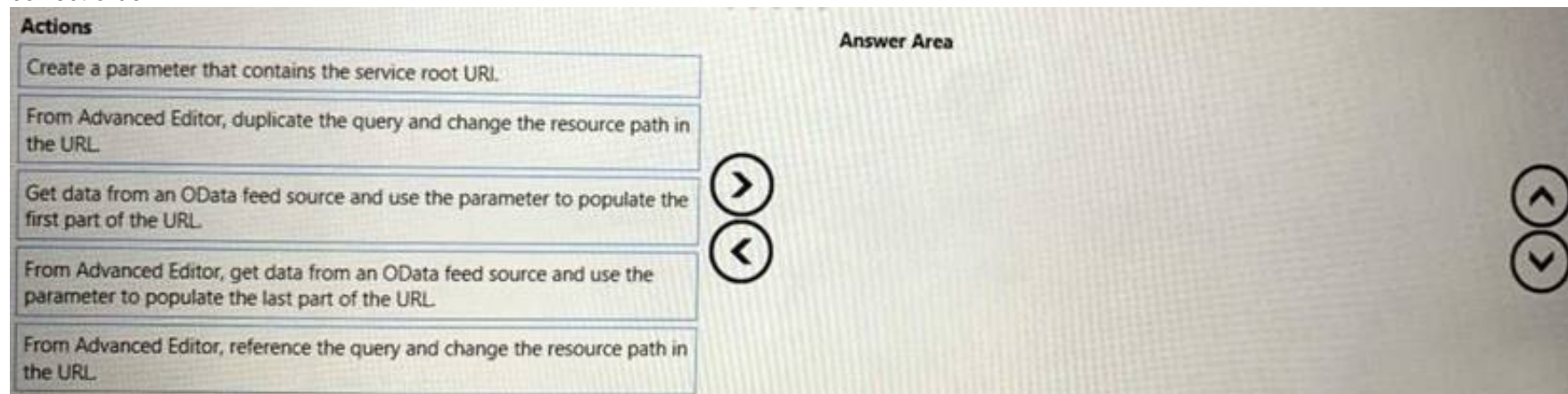
- (Exam Topic 3)

You plan to create a Power BI report that will use an OData feed as the data source. You will retrieve all the entities from two different collections by using the same service root

The OData feed is still in development. The location of the feed will change once development is complete. The report will be published before the OData feed development is complete.

You need to minimize development effort to change the data source once the location changes.

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:

Graphical user interface, text, application Description automatically generated

Step 1: Create a parameter that contains the service root URI

Step 2: Get data from OData feed source and use the parameter to populate the first part of the URL. The URI is in the first part of the query.

Example: let

Source = OData.Feed

("https://analytics.dev.azure.com/{organization}/{project}/\_odata/v3.0-preview/WorkItemSnapshot? "

&"\$apply=filter( "

&"WorkItemType eq 'Bug' "

&"and StateCategory ne 'Completed' "

&"and startswith(Area/AreaPath,{areapath}) "

&"and DateValue ge {startdate} "

&") "

&"/groupby( "

&"(DateValue,State,WorkItemType,Priority,Severity,Area/AreaPath,Iteration/IterationPath,AreaSK), "

&"aggregate(\$count as Count) "

&") "

,null, [Implementation="2.0",OmitValues = ODataOmitValues.Nulls,ODataVersion = 4]) in

Source

Box 3: From Advanced Editor, duplicate the query and change the resource path in the URL. Choose Get Data, and then Blank Query.

From the Power BI Query editor, choose Advanced Editor. The Advanced Editor window opens.

Edit the query. Etc.

Reference: <https://docs.microsoft.com/en-us/azure/devops/report/powerbi/odataquery-connect>

#### NEW QUESTION 49

- (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>

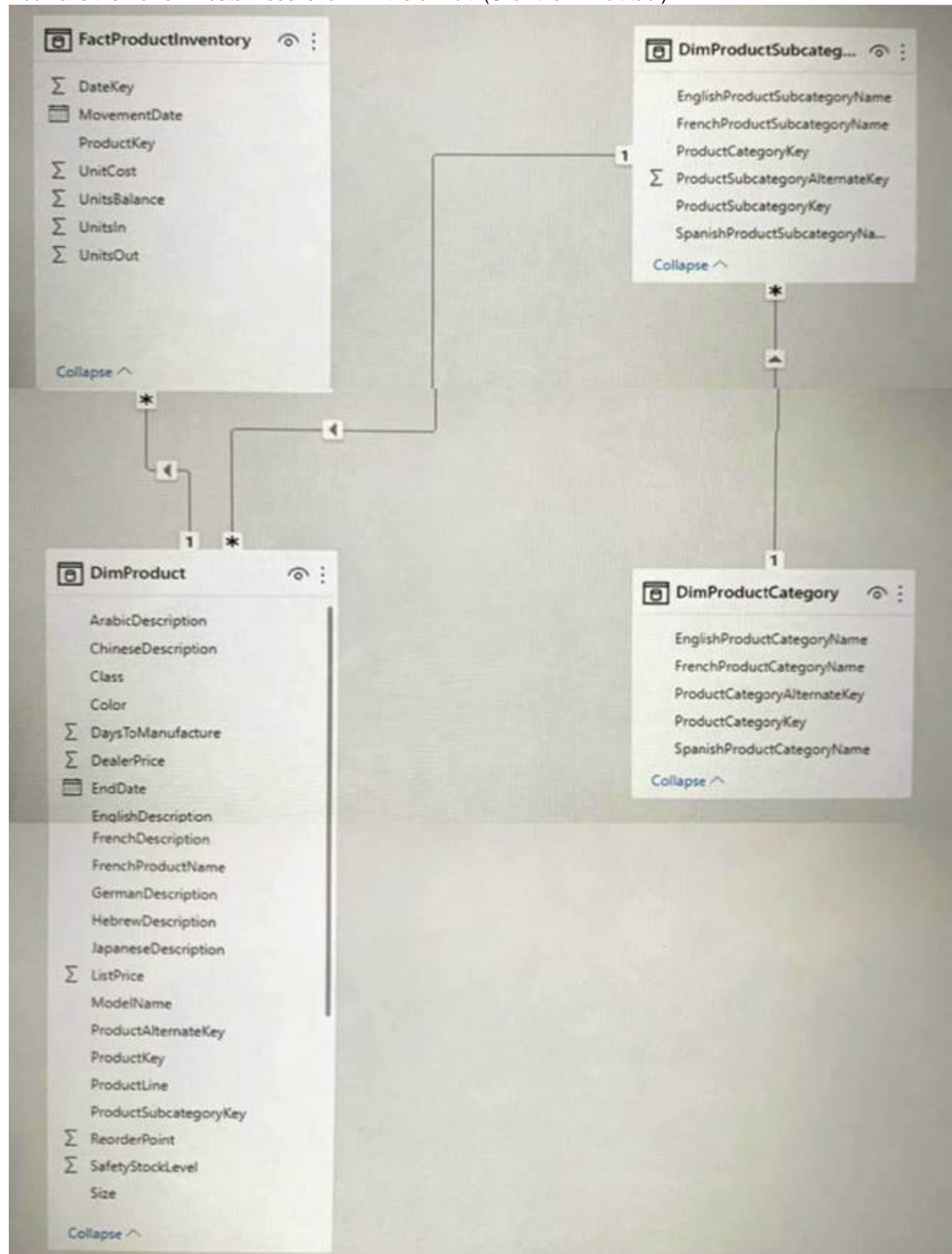
### NEW QUESTION 50

- (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 55

- (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 57**

- (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 62**

- (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 63**

- (Exam Topic 2)

Which two possible tools can you use to identify what causes the report to render slowly? Each correct answer presents a complete solution.  
NOTE: Each correct selection is worth one point.

- A. Synapse Studio
- B. DAX Studio
- C. Azure Data Studio
- D. Performance analyzer in Power BI Desktop

**Answer:** BD

**Explanation:**

Some users indicate that the visuals in Power BI reports are slow to render when making filter selections.  
B: You can investigate a slow query in a Power BI report using DAX Studio, looking at the query plan and the server timings.  
D: Use Power BI Desktop Performance Analyzer to optimize the report or model. Reference: <https://www.sqlbi.com/tv/analyzing-a-slow-report-query-in-dax-studio/>  
<https://docs.microsoft.com/en-us/power-bi/guidance/report-performance-troubleshoot>

**NEW QUESTION 68**

- (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.



Actions

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.

From Tabular Editor, set Object Level Security to **None** for the Customer table and save the changes.

>

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Answer Area

>

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- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Actions

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.

From Tabular Editor, set Object Level Security to **None** for the Customer table and save the changes.

>

<

Answer Area

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.

>

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NEW QUESTION 72

- (Exam Topic 1)

You need to create the customized Power BI usage reporting. The Usage Metrics Report dataset has already been created. The solution must minimize development and administrative effort.

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

From Power BI Desktop, open the **Usage Metrics Report** dataset in the Sales Analytics workspace.

Add a report measure.

Publish the report to the Sales Analytics workspace.

From powerbi.com, create a new report from the Usage Metrics Report dataset in the Sales Analytics workspace.

Request access to the Power BI audit logs.

Add visuals to the report.

>

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Answer Area

>

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- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Step 1: From powerbi.com, create a new report..

The company wants custom Power BI usage reporting that includes the percent change of users that view reports in the Sales Analytics workspace each month.

Step 2: Add a report measure

Measures are used in some of the most common data analyses. Simple summarizations such as sums, averages, minimum, maximum and counts can be set through the Fields well. The calculated results of measures are always changing in response to your interaction with your reports, allowing for fast and dynamic ad-hoc data exploration.

Step 3: Add visuals to the report

Step 4: Publish the report to the Sales Analytics workspace

Reference: <https://docs.microsoft.com/en-us/power-bi/transform-model/desktop-measures>

NEW QUESTION 74

- (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 79**

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