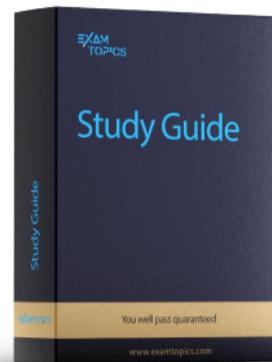




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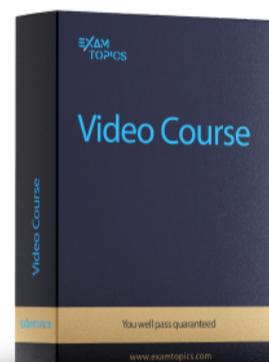
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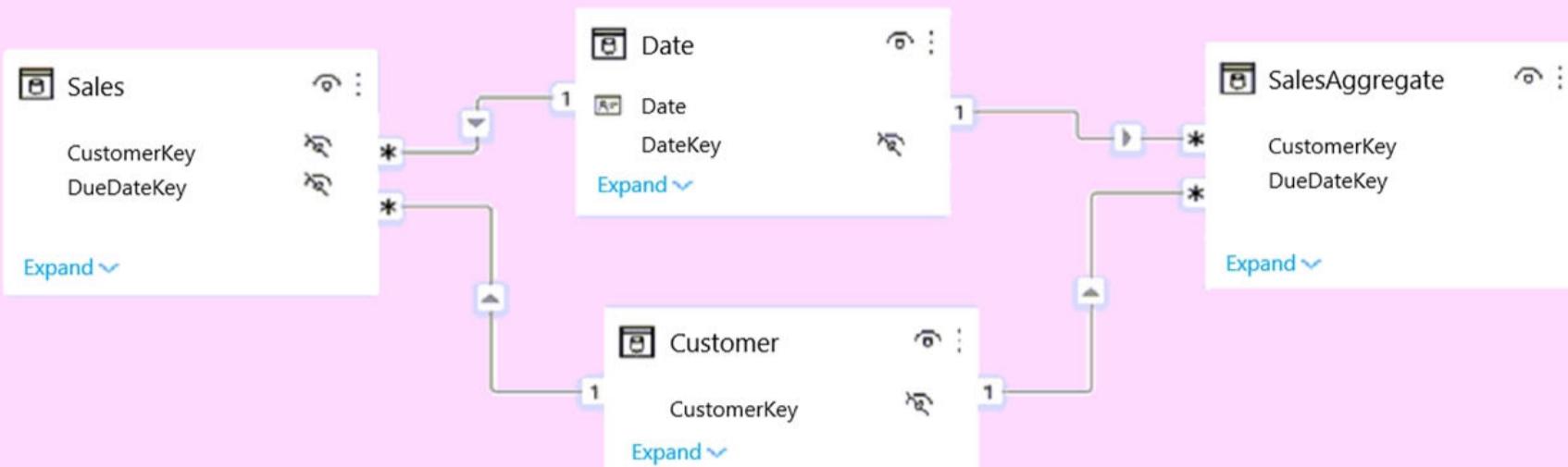
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HOTSPOT -

You plan to create the Power BI model shown in the exhibit. (Click the Exhibit tab.)



The data has the following refresh requirements:

- Customer must be refreshed daily.
- Date must be refreshed once every three years.
- Sales must be refreshed in near real time.
- SalesAggregate must be refreshed once per week.

You need to select the storage modes for the tables. The solution must meet the following requirements:

- Minimize the load times of visuals.
- Ensure that the data is loaded to the model based on the refresh requirements.

Which storage mode should you select for each table? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Customer:

DirectQuery
Dual
Import

Date:

DirectQuery
Dual
Import

Sales:

DirectQuery
Dual
Import

SalesAggregate:

DirectQuery
Dual
Import

Answer Area

Customer:	<table border="1"><tr><td>▼</td></tr><tr><td>DirectQuery</td></tr><tr style="background-color: #90EE90;"><td>Dual</td></tr><tr><td>Import</td></tr></table>	▼	DirectQuery	Dual	Import
▼					
DirectQuery					
Dual					
Import					
Date:	<table border="1"><tr><td>▼</td></tr><tr><td>DirectQuery</td></tr><tr style="background-color: #90EE90;"><td>Dual</td></tr><tr><td>Import</td></tr></table>	▼	DirectQuery	Dual	Import
▼					
DirectQuery					
Dual					
Import					
Correct Answer:					
Sales:	<table border="1"><tr><td>▼</td></tr><tr style="background-color: #90EE90;"><td>DirectQuery</td></tr><tr><td>Dual</td></tr><tr><td>Import</td></tr></table>	▼	DirectQuery	Dual	Import
▼					
DirectQuery					
Dual					
Import					
SalesAggregate:	<table border="1"><tr><td>▼</td></tr><tr><td>DirectQuery</td></tr><tr><td>Dual</td></tr><tr style="background-color: #90EE90;"><td>Import</td></tr></table>	▼	DirectQuery	Dual	Import
▼					
DirectQuery					
Dual					
Import					

Box 1: Dual -

Customer should use the dual storage mode.

Dual: Tables with this setting can act as either cached or not cached, depending on the context of the query that's submitted to the Power BI dataset. In some cases, you fulfill queries from cached data. In other cases, you fulfill queries by executing an on-demand query to the data source.

Note: You set the Storage mode property to one of these three values: Import, DirectQuery, and Dual.

Box 2: Dual -

You can set the dimension tables (Customer, Geography, and Date) to Dual to reduce the number of limited relationships in the dataset, and improve performance.

Box 3: DirectQuery -

Sales should use the DirectQuery storage mode.

DirectQuery: Tables with this setting aren't cached. Queries that you submit to the Power BI dataset—for example, DAX queries—and that return data from

DirectQuery tables can be fulfilled only by executing on-demand queries to the data source. Queries that you submit to the data source use the query language for that data source, for example, SQL.

Box 4: Import -

Import: Imported tables with this setting are cached. Queries submitted to the Power BI dataset that return data from Import tables can be fulfilled only from cached data.

Reference:

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

You have a project management app that is fully hosted in Microsoft Teams. The app was developed by using Microsoft Power Apps.

You need to create a Power BI report that connects to the project management app.

Which connector should you select?

- A. Microsoft Teams Personal Analytics
- B. SQL Server database
- C. Dataverse
- D. Dataflows

Correct Answer: C

Data sources in Power BI Desktop.

The Power Platform category provides the following data connections:

Power BI datasets -

Power BI dataflows -

Common Data Service (Legacy)

Dataverse -

Dataflows -

Other data sources include Microsoft Teams Personal Analytics (Beta).

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/desktop-data-sources>

Community vote distribution

C (100%)

For the sales department at your company, you publish a Power BI report that imports data from a Microsoft Excel file located in a Microsoft SharePoint folder.

The data model contains several measures.

You need to create a Power BI report from the existing data. The solution must minimize development effort.

Which type of data source should you use?

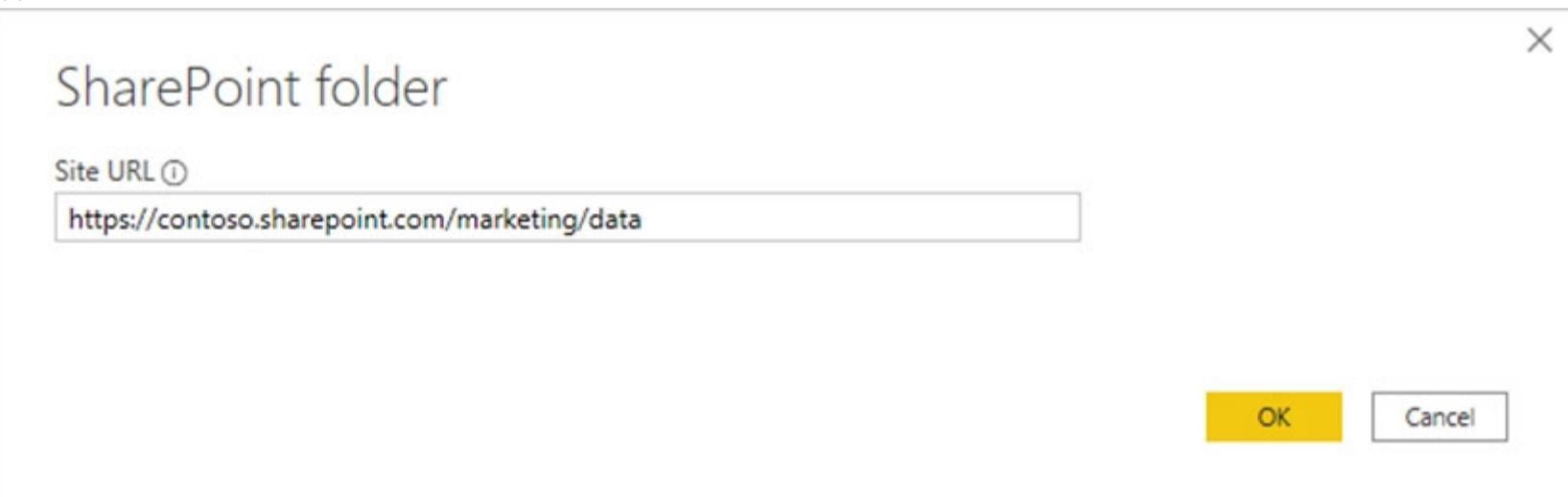
- A. Power BI dataset
- B. a SharePoint folder
- C. Power BI dataflows
- D. an Excel workbook

Correct Answer: B

Connect to a SharePoint folder from Power Query Desktop

To connect to a SharePoint folder:

1. From Get Data, select SharePoint folder.
2. Paste the SharePoint site URL you copied in Determine the site URL to the Site URL text box in the SharePoint folder dialog box. In this example, the site URL is <https://contoso.sharepoint.com/marketing/data>. If the site URL you enter is invalid, a warning icon will appear next to the URL text box.



Select OK to continue.

3. If this is the first time you've visited this site address, select the appropriate authentication method. Enter your credentials and choose which level to apply these settings to. Then select Connect.
4. When you select the SharePoint folder you want to use, the file information about all of the files in that SharePoint folder are displayed. In addition, file information about any files in any subfolders is also displayed.

A screenshot of the Power Query Editor interface. At the top, it shows the URL "https://contoso.sharepoint.com/marketing/data". Below is a table with the following data:

Content	Name	Extension	Date accessed	Date modified	Date created	Attributes	
Binary	Financial Sample 1.csv	.csv	4/29/2020 9:15:41 AM	4/28/2020 8:43:47 AM	4/29/2020 9:15:41 AM	Record	https://contoso.sharepoint.com/marketing/data
Binary	Financial Sample 2.csv	.csv	4/29/2020 9:15:41 AM	4/28/2020 8:45:00 AM	4/29/2020 9:15:41 AM	Record	https://contoso.sharepoint.com/marketing/data
Binary	Financial Sample 3.csv	.csv	4/29/2020 9:15:41 AM	4/28/2020 8:46:10 AM	4/29/2020 9:15:41 AM	Record	https://contoso.sharepoint.com/marketing/data
Binary	Financial Sample 4.csv	.csv	4/29/2020 9:15:41 AM	4/28/2020 8:47:23 AM	4/29/2020 9:15:41 AM	Record	https://contoso.sharepoint.com/marketing/data
Binary	Financial Sample 5.csv	.csv	4/29/2020 9:15:41 AM	4/28/2020 8:48:28 AM	4/29/2020 9:15:41 AM	Record	https://contoso.sharepoint.com/marketing/data
Binary	Financial Sample 6.csv	.csv	4/29/2020 9:15:41 AM	4/28/2020 8:48:49 AM	4/29/2020 9:15:41 AM	Record	https://contoso.sharepoint.com/marketing/data

Below the table are navigation arrows and buttons: "Combine", "Load", "Transform Data", and "Cancel".

5. Etc.

Reference:

<https://docs.microsoft.com/en-us/power-query/connectors/sharepointfolder>

Community vote distribution

A (80%)

B (20%)

You import two Microsoft Excel tables named Customer and Address into Power Query. Customer contains the following columns:

- Customer ID
- Customer Name
- Phone
- Email Address
- Address ID

Address contains the following columns:

- Address ID
- Address Line 1
- Address Line 2
- City
- State/Region
- Country
- Postal Code

Each Customer ID represents a unique customer in the Customer table. Each Address ID represents a unique address in the Address table.

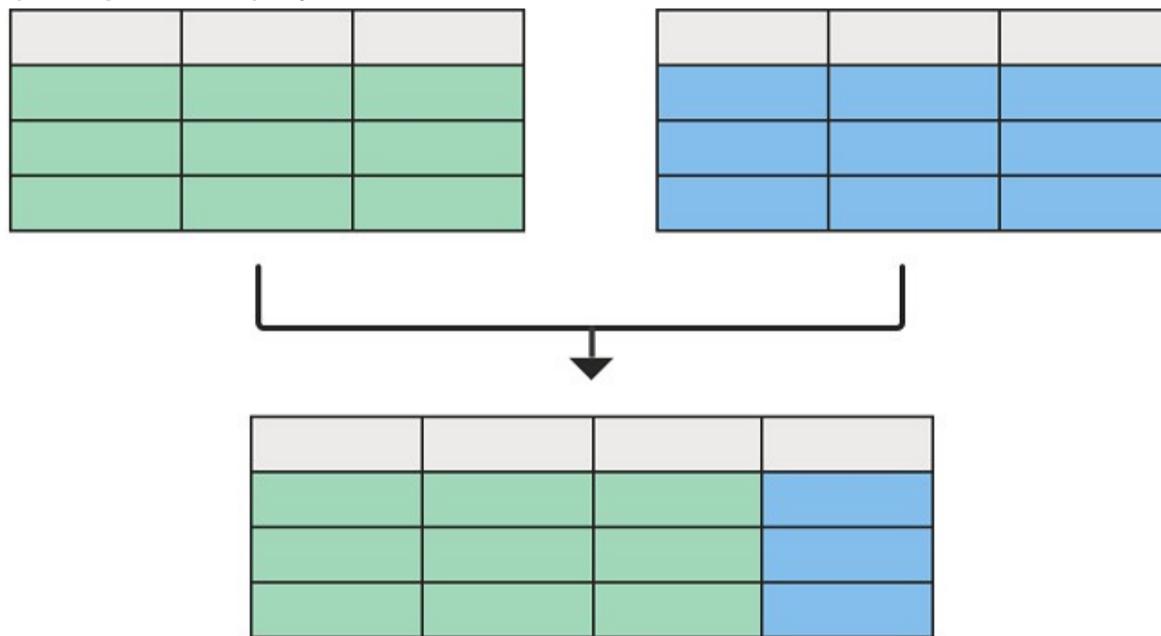
You need to create a query that has one row per customer. Each row must contain City, State/Region, and Country for each customer.

What should you do?

- A. Merge the Customer and Address tables.
- B. Group the Customer and Address tables by the Address ID column.
- C. Transpose the Customer and Address tables.
- D. Append the Customer and Address tables.

Correct Answer: A

A merge queries operation joins two existing tables together based on matching values from one or multiple columns. You can choose to use different types of joins, depending on the output you want.



Reference:

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

Community vote distribution

A (100%)

HOTSPOT -

You have two Azure SQL databases that contain the same tables and columns.

For each database, you create a query that retrieves data from a table named Customer.

You need to combine the Customer tables into a single table. The solution must minimize the size of the data model and support scheduled refresh in powerbi.com.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Option to use to combine the Customer tables:

Append Queries
Append Queries as New
Merge Queries
Merge Queries as New

Action to perform on the original two SQL database queries:

Delete the queries
Disable including the query in report refresh
Disable loading the query to the data model
Duplicate the queries

Correct Answer:

Answer Area

Option to use to combine the Customer tables:

Append Queries
Append Queries as New
Merge Queries
Merge Queries as New

Action to perform on the original two SQL database queries:

Delete the queries
Disable including the query in report refresh
Disable loading the query to the data model
Duplicate the queries

Box 1: Append Queries as New -

When you have additional rows of data that you'd like to add to an existing query, you append the query.

There are two append options:

* Append queries as new displays the Append dialog box to create a new query by appending multiple tables.

* Append queries displays the Append dialog box to add additional tables to the current query.

Incorrect: When you have one or more columns that you'd like to add to another query, you merge the queries.

Box 2: Disable loading the query to the data model

By default, all queries from Query Editor will be loaded into the memory of Power BI Model. You can disable the load for some queries, especially queries that used as intermediate transformation to produce the final query for the model.

Disabling Load doesn't mean the query won't be refreshed, it only means the query won't be loaded into the memory. When you click on Refresh model in Power

BI, or when a scheduled refresh happens even queries marked as Disable Load will be refreshed, but their data will be used as intermediate source for other queries instead of loading directly into the model. This is a very basic performance tuning tip, but very important when your Power BI model grows bigger and bigger.

Reference:

<https://docs.microsoft.com/en-us/power-query/append-queries>

<https://radacad.com/performance-tip-for-power-bi-enable-load-sucks-memory-up>

DRAG DROP -

In Power Query Editor, you have three queries named ProductCategory, ProductSubCategory, and Product.

Every Product has a ProductSubCategory.

Not every ProductSubCategory has a parent ProductCategory.

You need to merge the three queries into a single query. The solution must ensure the best performance in Power Query.

How should you merge the tables? To answer, drag the appropriate merge types to the correct queries. Each merge type 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.

Select and Place:

Join kinds	Answer Area	Left Table	Right Table	Join Kind
Full outer		Product	ProductSubCategory	Join kind
Inner		ProductSubCategory	ProductCategory	Join kind
Left anti				
Left outer				
Right anti				
Right outer				

Correct Answer:

Join kinds	Answer Area	Left Table	Right Table	Join Kind
Full outer		Product	ProductSubCategory	Inner
Inner		ProductSubCategory	ProductCategory	Left outer
Left anti				
Left outer				
Right anti				
Right outer				

Box 1: Inner -

Every Product has a ProductSubCategory.

A standard join is needed.

One of the join kinds available in the Merge dialog box in Power Query is an inner join, which brings in only matching rows from both the left and right tables.

Box 2: Left outer -

Not every ProductSubCategory has a parent ProductCategory.

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

in any matching rows from the right table.

Reference:

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

Question #7

Topic 1

You are building a Power BI report that uses data from an Azure SQL database named erp1.

You import the following tables.

Name	Description
Products	Contains the product catalog
Orders	Contains high-level information about orders
Order Line Items	Contains the product ID, quantity, and price details of an order

You need to perform the following analyses:

Orders sold over time that include a measure of the total order value

Orders by attributes of products sold

The solution must minimize update times when interacting with visuals in the report.

What should you do first?

- A. From Power Query, merge the Order Line Items query and the Products query.
- B. Create a calculated column that adds a list of product categories to the Orders table by using a DAX function.
- C. Calculate the count of orders per product by using a DAX function.
- D. From Power Query, merge the Orders query and the Order Line Items query.

Correct Answer: D

A merge queries operation joins two existing tables together based on matching values from one or multiple columns.

Join the Orders and the Order Line Items tables.

Reference:

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

Community vote distribution

D (71%)

A (29%)

You have a Microsoft SharePoint Online site that contains several document libraries.

One of the document libraries contains manufacturing reports saved as Microsoft Excel files. All the manufacturing reports have the same data structure.

You need to use Power BI Desktop to load only the manufacturing reports to a table for analysis.

What should you do?

- A. Get data from a SharePoint folder and enter the site URL Select Transform, then filter by the folder path to the manufacturing reports library.
- B. Get data from a SharePoint list and enter the site URL. Select Combine & Transform, then filter by the folder path to the manufacturing reports library.
- C. Get data from a SharePoint folder, enter the site URL, and then select Combine & Load.
- D. Get data from a SharePoint list, enter the site URL, and then select Combine & Load.

Correct Answer: A

Get Data from SharePoint folder + select Combine & Load to load the data from all of the files in the SharePoint folder directly into your app.

Note: Connect to a SharePoint folder from Power Query Desktop

To connect to a SharePoint folder:

1. From Get Data, select SharePoint folder.
2. Paste the SharePoint site URL you copied in Determine the site URL to the Site URL text box in the SharePoint folder dialog box. In this example, the site URL is <https://contoso.sharepoint.com/marketing/data>. If the site URL you enter is invalid, a warning icon will appear next to the URL text box.
- SharePoint folder selection.
3. Select OK to continue.
4. If this is the first time you've visited this site address, select the appropriate authentication method. Enter your credentials and choose which level to apply these settings to. Then select Connect.
5. When you select the SharePoint folder you want to use, the file information about all of the files in that SharePoint folder are displayed. In addition, file information about any files in any subfolders is also displayed.
6. Select Combine & Transform Data to combine the data in the files of the selected SharePoint folder and load the data into the Power Query Editor for editing. Or select Combine & Load to load the data from all of the files in the SharePoint folder directly into your app.

Reference:

<https://docs.microsoft.com/en-us/power-query/connectors/sharepointfolder>

Community vote distribution

A (91%)

5%

DRAG DROP -

You have a Microsoft Excel workbook that contains two sheets named Sheet1 and Sheet2.

Sheet1 contains the following table named Table1.

Products
abc
def
ghi
jkł
mno

Sheet2 contains the following table named Table2.

Products
abc
xyz
tuv
mno
pqr
stu

You need to use Power Query Editor to combine the products from Table1 and Table2 into the following table that has one column containing no duplicate values.

Products
abc
xyz
tuv
mno
pqr
stu
def
ghi
jkł

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.

Select and Place:

Actions
From Power Query Editor, remove errors from the table.
From Power Query Editor, select Table1 , and then select Remove duplicates .
From Power Query Editor, merge Table1 and Table2.
From Power BI Desktop, import the data from Excel, and select Table1 and Table2 .
From Power Query Editor, append Table2 to Table1.

Answer Area



Correct Answer:

Actions

Answer Area

From Power Query Editor, append Table2 to Table1.
From Power Query Editor, remove errors from the table.
From Power Query Editor, select Table1 , and then select Remove duplicates .



Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/desktop-shape-and-combine-data>

You have a CSV file that contains user complaints. The file contains a column named Logged. Logged contains the date and time each complaint occurred. The data in Logged is in the following format: 2018-12-31 at 08:59.

You need to be able to analyze the complaints by the logged date and use a built-in date hierarchy.

What should you do?

- A. Apply a transformation to extract the last 11 characters of the Logged column and set the data type of the new column to Date.
- B. Change the data type of the Logged column to Date.
- C. Split the Logged column by using at as the delimiter.
- D. Apply a transformation to extract the first 11 characters of the Logged column.

Correct Answer: D

Extract the date, which is the first 11 characters.

CSV files have no data types.

Note: A CSV is a comma-separated values file, which allows data to be saved in a tabular format. CSVs look like a garden-variety spreadsheet but with a .csv extension. CSV files can be used with most any spreadsheet program, such as Microsoft Excel or Google Spreadsheets.

Reference:

<https://www.bigcommerce.com/ecommerce-answers/what-csv-file-and-what-does-it-mean-my-ecommerce-business/>

Community vote distribution

C (89%)

7%

You have a Microsoft Excel file in a Microsoft OneDrive folder.

The file must be imported to a Power BI dataset.

You need to ensure that the dataset can be refreshed in powerbi.com.

Which two connectors can you use to connect to the file? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Excel Workbook
- B. Text/CSV
- C. Folder
- D. SharePoint folder
- E. Web

Correct Answer: AC

A: Connect to an Excel workbook from Power Query Desktop

To make the connection from Power Query Desktop:

1. Select the Excel option in the connector selection.
2. Browse for and select the Excel workbook you want to load. Then select Open.

3. Etc.

C: Folder connector capabilities supported

Folder path -

Combine -

Combine and load -

Combine and transform -

Connect to a folder from Power Query Online

To connect to a folder from Power Query Online:

1. Select the Folder option in the connector selection.
2. Enter the path to the folder you want to load.

Note:

The screenshot shows the 'Get Data' dialog box from Microsoft Power BI. The left sidebar lists common data sources: Excel, Power BI datasets, Power BI dataflows, SQL Server, Analysis Services, Text/CSV, Web, OData feed, Blank query, and Power BI Template Apps. A 'More...' button is also present. The main area is titled 'Get Data' and contains a search bar and a 'All' category. Under 'All', 'Excel' and 'Folder' are highlighted with red boxes. Other listed items include Text/CSV, XML, JSON, PDF, Parquet, SharePoint folder, SQL Server database, Access database, SQL Server Analysis Services database, Oracle database, IBM Db2 database, IBM Informix database (Beta), IBM Netezza, and MySQL database. At the bottom, there are tabs for 'Certified Connectors' and 'Template Apps', and buttons for 'Connect' and 'Cancel'.

Reference:
<https://docs.microsoft.com/en-us/power-query/connectors/excel> <https://docs.microsoft.com/en-us/power-query/connectors/folder>

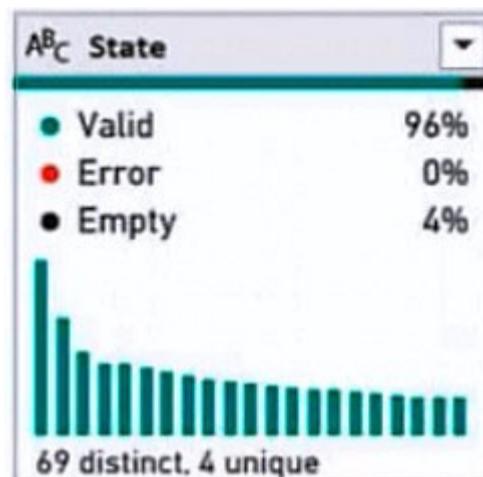
Community vote distribution

Category	Percentage
DE (83%)	83%
Other	17%

HOTSPOT -

You are profiling data by using Power Query Editor.

You have a table named Reports that contains a column named State. The distribution and quality data metrics for the data in State is 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.

Hot Area:

Answer Area

There are [answer choice] different values in State including nulls.

4
65
69
73

There are [answer choice] non-null values that occur only once in State.

4
65
69
73

Correct Answer:

Answer Area

There are [answer choice] different values in State including nulls.

4
65
69
73

There are [answer choice] non-null values that occur only once in State.

4
65
69
73

Note: Column Distribution allows you to get a sense for the overall distribution of values within a column in your data previews, including the count of distinct values (total number of different values found in a given column) and unique values (total number of values that only appear once in a given column).

Box 2: 4 -

Reference:

<https://systemmanagement.ro/2018/10/16/power-bi-data-profiling-distinct-vs-unique/>

HOTSPOT -

You have two CSV files named Products and Categories.

The Products file contains the following columns:

- ProductID
- ProductName
- SupplierID
- CategoryID

The Categories file contains the following columns:

- CategoryID
- CategoryName
- CategoryDescription

From Power BI Desktop, you import the files into Power Query Editor.

You need to create a Power BI dataset that will contain a single table named Product. The Product will table includes the following columns:

- ProductID
- ProductName
- SupplierID
- CategoryID
- CategoryName
- CategoryDescription

How should you combine the queries, and what should you do on the Categories query? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Combine the queries by performing a:

Append
Merge
Transpose

On the Categories query:

Delete the query.
Disable the query load.
Exclude the query from report refresh.

Correct Answer:

Answer Area

Combine the queries by performing a:

Append
Merge
Transpose

On the Categories query:

Delete the query.
Disable the query load.
Exclude the query from report refresh.

Box 1: Merge -

There are two primary ways of combining queries: merging and appending.

* When you have one or more columns that you'd like to add to another query, you merge the queries.

* When you have additional rows of data that you'd like to add to an existing query, you append the query.

Box 2: Disable the query load -

Managing loading of queries -

In many situations, it makes sense to break down your data transformations in multiple queries. One popular example is merging where you merge two queries into one to essentially do a join. In this type of situations, some queries are not relevant to load into Desktop as they are intermediate steps, while they are still required for your data transformations to work correctly. For these queries, you can make sure they are not loaded in Desktop by un-checking 'Enable load' in the context menu of the query in Desktop or in the Properties screen:

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/desktop-shape-and-combine-data> <https://docs.microsoft.com/en-us/power-bi/connect-data/refresh-include-in-report-refresh>

Question #14

Topic 1

You have an Azure SQL database that contains sales transactions. The database is updated frequently.

You need to generate reports from the data to detect fraudulent transactions. The data must be visible within five minutes of an update.

How should you configure the data connection?

- A. Add a SQL statement.
- B. Set the Command timeout in minutes setting.
- C. Set Data Connectivity mode to Import.
- D. Set Data Connectivity mode to DirectQuery.

Correct Answer: D

DirectQuery: No data is imported or copied into Power BI Desktop. For relational sources, the selected tables and columns appear in the Fields list. For multi-dimensional sources like SAP Business Warehouse, the dimensions and measures of the selected cube appear in the Fields list.

As you create or interact with a visualization, Power BI Desktop queries the underlying data source, so you're always viewing current data.

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/desktop-use-directquery>

Community vote distribution

D (100%)

DRAG DROP -

You have a folder that contains 100 CSV files.

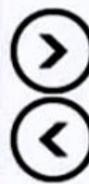
You need to make the file metadata available as a single dataset by using Power BI. The solution must NOT store the data of the CSV files.

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.

Select and Place:

Actions

- From Power BI Desktop, select **Get Data**, and then select Folder.
- From Power Query Editor, expand the Attributes column.
- From Power Query Editor, remove the Content column.
- From Power Query Editor, remove the Attributes column.
- From Power BI Desktop, select Get Data, and then select Text/CSV.
- From Power Query Editor, combine the Content column.

Answer Area**Correct Answer:****Actions**

- From Power BI Desktop, select **Get Data**, and then select Folder.
- From Power Query Editor, expand the Attributes column.
- From Power Query Editor, remove the Content column.
- From Power Query Editor, remove the Attributes column.
- From Power BI Desktop, select Get Data, and then select Text/CSV.
- From Power Query Editor, combine the Content column.

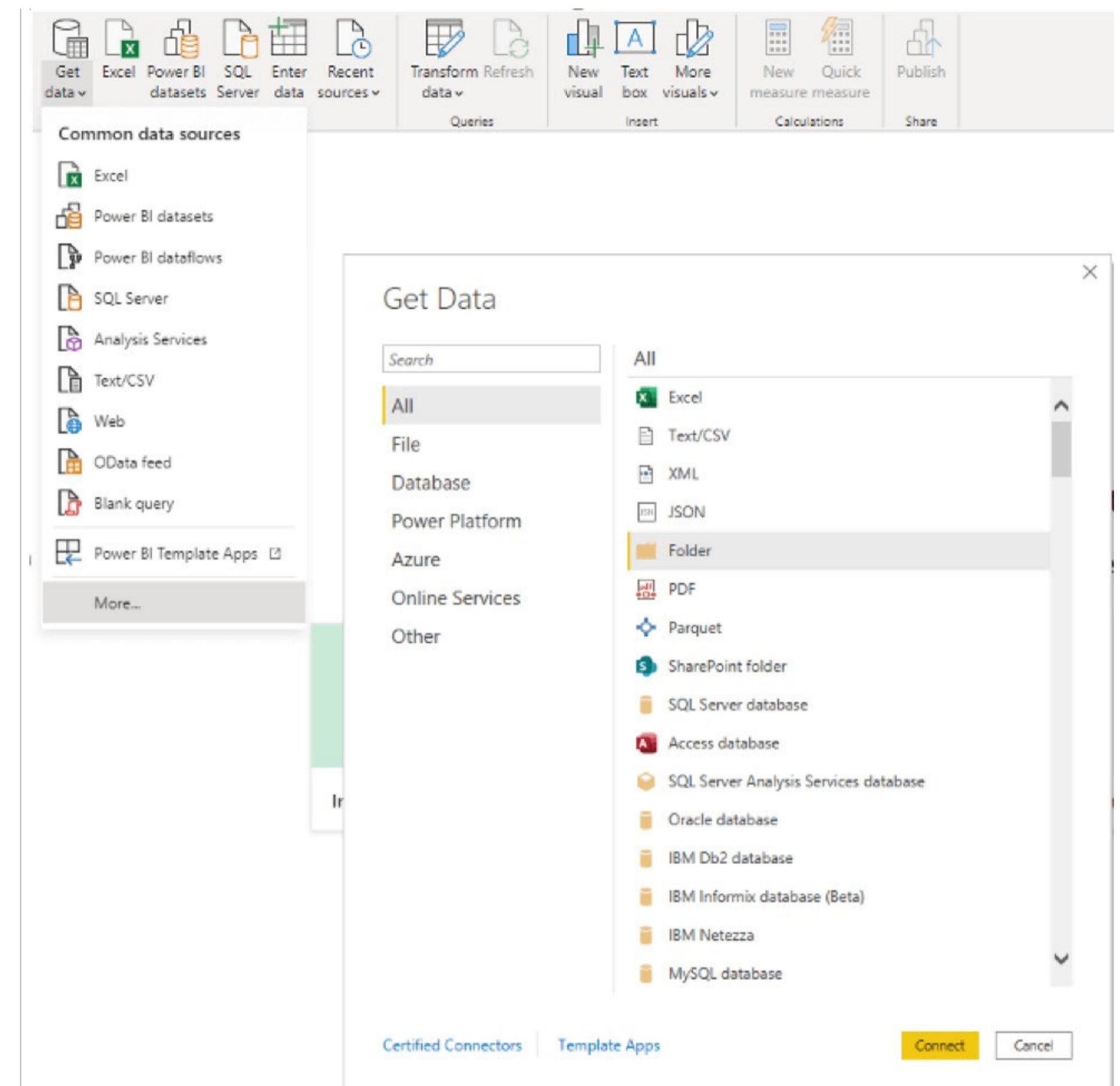
Answer Area

- From Power BI Desktop, select **Get Data**, and then select Folder.
- From Power Query Editor, expand the Attributes column.
- From Power Query Editor, combine the Content column.



Step 1: From Power BI Desktop, Select Get Data, and then Select Folder.

Open Power BI Desktop and then select Get Data\More... and choose Folder from the All options on the left.



Enter the folder path, select OK, and then select Transform data to see the folder's files in Power Query Editor.

Step 2: From Power Query Editor, expand the Attributes column.

Step 3: From Power Query Editor, combine the Content column.

The screenshot shows the Microsoft Power Query Editor interface. The 'Home' tab is selected in the top ribbon. On the right side of the ribbon, the 'Transform' section is open, and the 'Combine' icon (represented by a grid with a plus sign) is highlighted with a red box. In the main workspace, there is one query named 'Statistics'. The query preview shows three binary files: 'ABCDE.xlsx', 'FGHIJ.xlsx', and 'KLMNO.xlsx', listed under the 'Content' column. The 'Content' column header and the 'Combine' icon are also highlighted with red boxes. The 'Applied Steps' pane on the right shows a single step named 'Source'.

Combine files behavior -

To combine binary files in Power Query Editor, select Content (the first column label) and select Home > Combine Files. Or you can just select the Combine Files icon next to Content.

Reference:

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

A business intelligence (BI) developer creates a dataflow in Power BI that uses DirectQuery to access tables from an on-premises Microsoft SQL server. The Enhanced Dataflows Compute Engine is turned on for the dataflow.

You need to use the dataflow in a report. The solution must meet the following requirements:

- Minimize online processing operations.
- Minimize calculation times and render times for visuals.
- Include data from the current year, up to and including the previous day.

What should you do?

- A. Create a dataflows connection that has DirectQuery mode selected.
- B. Create a dataflows connection that has DirectQuery mode selected and configure a gateway connection for the dataset.
- C. Create a dataflows connection that has Import mode selected and schedule a daily refresh.
- D. Create a dataflows connection that has Import mode selected and create a Microsoft Power Automate solution to refresh the data hourly.

Correct Answer: C

A daily update is adequate.

When you set up a refresh schedule, Power BI connects directly to the data sources using connection information and credentials in the dataset to query for updated data, then loads the updated data into the dataset. Any visualizations in reports and dashboards based on that dataset in the Power BI service are also updated.

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/refresh-desktop-file-local-drive>

Community vote distribution

C (92%) 8%

DRAG DROP

You publish a dataset that contains data from an on-premises Microsoft SQL Server database.

The dataset must be refreshed daily.

You need to ensure that the Power BI service can connect to the database and refresh the dataset.

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

Add the dataset owner to the data source.

Configure an on-premises data gateway.

Configure a virtual network data gateway.

Add a data source.

Configure a scheduled refresh.

Answer Area

1

2

3

4

Answer Area

1 Configure an on-premises data gateway.

Correct Answer: 2 Add a data source.

3 Add the dataset owner to the data source.

4 Configure a scheduled refresh.

You attempt to connect Power BI Desktop to a Cassandra database.

From the Get Data connector list, you discover that there is no specific connector for the Cassandra database.

You need to select an alternate data connector that will connect to the database.

Which type of connector should you choose?

- A. Microsoft SQL Server database
- B. ODBC
- C. OLE DB
- D. OData

Correct Answer: B

Community vote distribution

B (100%)

DRAG DROP

You receive annual sales data that must be included in Power BI reports.

From Power Query Editor, you connect to the Microsoft Excel source shown in the following exhibit.

	Month	MonthNumber	2019	2020	2021
1	Jan	1	345	5526	3456
2	Feb	2	758	773	0
3	Mar	3	37763	570	null
4	Apr	4	8364	9417	null
5	May	5	58256	276	null
6	June	6	6722	235	null
7	July	7	55225	6297	null
8	Aug	8	673	63	null
9	Sep	9	552	357	null
10	Oct	10	7838	24214	null
11	Nov	11	83544	257	null
12	Dec	12	32455	389	null

You need to create a report that meets the following requirements:

- Visualizes the Sales value over a period of years and months
- Adds a slicer for the month
- Adds a slicer for the year

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

Answer Area

Select the Month and MonthNumber columns.

1

Select Unpivot other columns.



2

Rename the Attribute column as Year and the Value column as Sales.

3

Select the 2019, 2020, and 2021 columns.



Select Transpose.

Answer Area

Correct Answer:

1 Select the Month and MonthNumber columns.

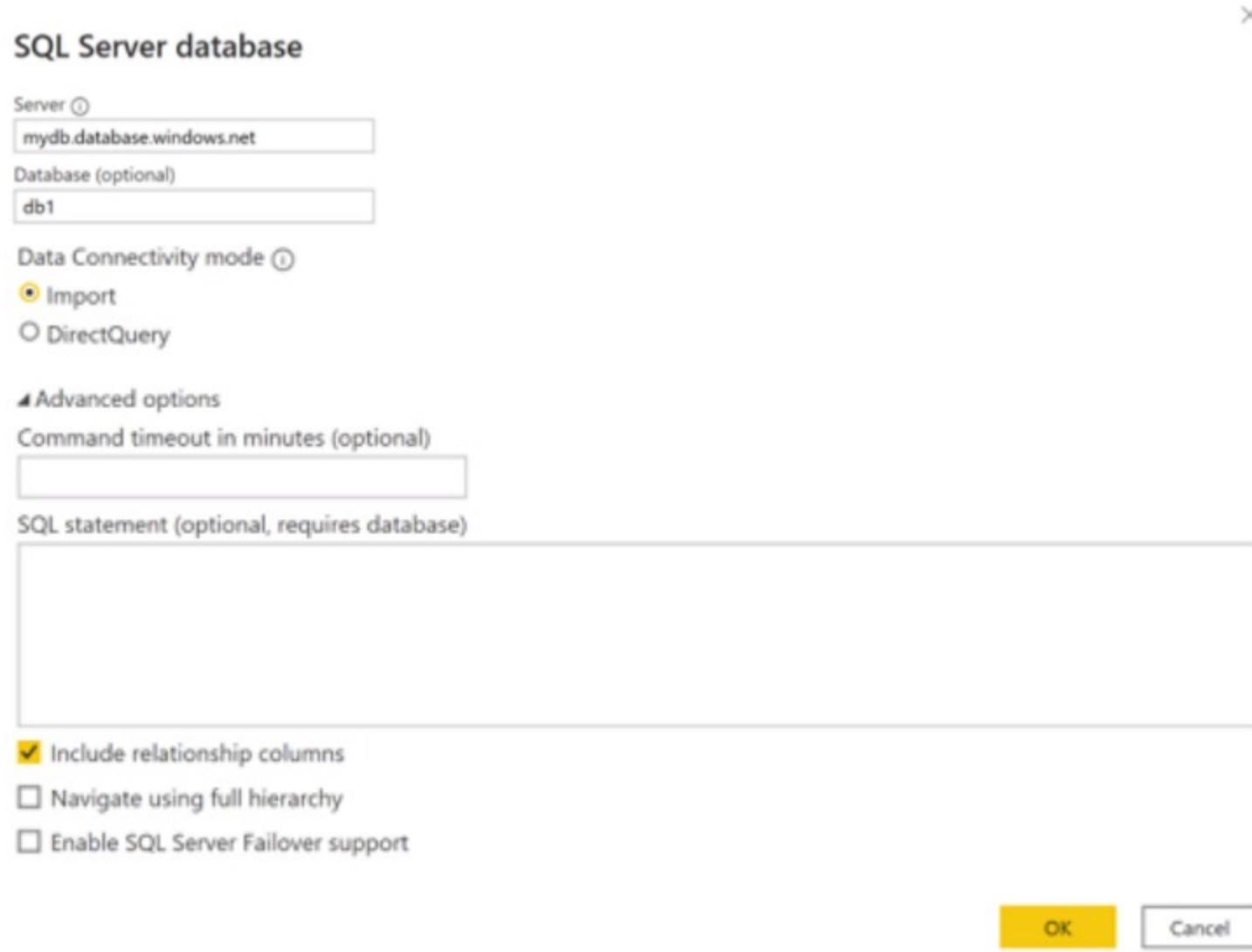
2 Select Unpivot other columns.

3 Rename the Attribute column as Year and the Value column as Sales.

HOTSPOT

You are using Power BI Desktop to connect to an Azure SQL database.

The connection is configured as 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 solution is worth one point.

Answer Area

The default timeout for the connection from Power BI Desktop to the database will be

unlimited
one minute
10 minutes

The Navigator will display

all the tables
only tables that contain data
only tables that contain hierarchies

Answer Area

The default timeout for the connection from Power BI Desktop to the database will be

unlimited
one minute
10 minutes

Correct Answer:

The Navigator will display

all the tables
only tables that contain data
only tables that contain hierarchies

HOTSPOT

You have the Azure SQL databases shown in the following table.

Name	Stage	Server URL
db-powerbi-dev	Development	dev.database.windows.net
db-powerbi-uat	Test	uat.database.windows.net
db-powerbi-prod	Production	prod.database.windows.net

You plan to build a single PBIX file to meet the following requirements:

- Data must be consumed from the database that corresponds to each stage of the development lifecycle.
- Power BI deployment pipelines must NOT be used.
- The solution must minimize administrative effort.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Create:

▼

One parameter

Two parameters

Three parameters

Parameter type:

▼

Text

True/False

Decimal number

Answer Area

Create:

▼

One parameter

Two parameters

Three parameters

Correct Answer:

Parameter type:

▼

Text

True/False

Decimal number

You are creating a query to be used as a Country dimension in a star schema.

A snapshot of the source data is shown in the following table.

Country	City
USA	Seattle
USA	New York
USA	Denver
UK	Manchester
UK	London
Japan	Tokyo
Brazil	Rio
Brazil	Sao Paulo

You need to create the dimension. The dimension must contain a list of unique countries.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Delete the Country column.
- B. Remove duplicates from the table.
- C. Remove duplicates from the City column.
- D. Delete the City column.
- E. Remove duplicates from the Country column.

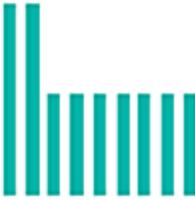
Correct Answer: DE

Community vote distribution

DE (100%)

DRAG DROP

You use Power Query Editor to preview the data shown in the following exhibit.

ABC SKU	123 price	ABC 123 discount
● Valid ● Error ● Empty	100% 0% 0%	100% 0% 0%
		
11 distinct, 11 unique	9 distinct, 7 unique	
P00001	100	0.08
P00002	150	0.03
P00003	130	Error
P00004	200	0.06
P00005	80	Error
P00006	350	Error
P00007	100	Error
P00008	200	0.05
P00009	135	Error
P00010	90	Error
P00011	120	Error

You need to clean and transform the query so that all the rows of data are maintained, and error values in the discount column are replaced with a discount of 0.05. The solution must minimize administrative effort.

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

 Select the **discount** column.

 Select the **price** column.

 For the discount column, change Data Type to **Decimal Number**.

 For the discount column, change Data Type to **Whole Number**.

 Select **Replace Errors** to replace each error value with 0.05.

Answer Area



Answer Area

 Select the **discount** column.

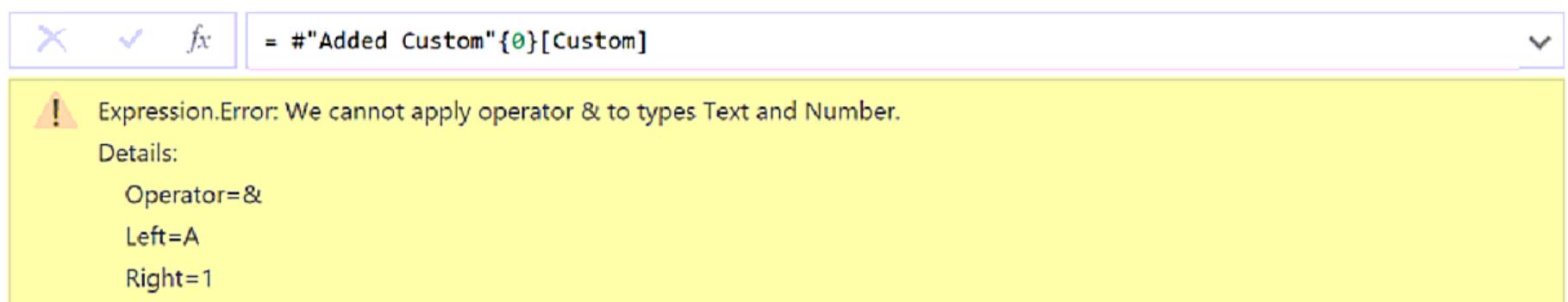
Correct Answer:

 Select **Replace Errors** to replace each error value with 0.05.

 For the discount column, change Data Type to **Decimal Number**.

HOTSPOT

You attempt to use Power Query Editor to create a custom column and receive the error message 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.

Answer Area

The error is caused by [answer choice].

▼
error values in the source data mismatched data types NULL values

The desired outcome of the custom column is [answer choice].

▼
1A A&1 A1

Answer Area

The error is caused by [answer choice].

Correct Answer:

The desired outcome of the custom column is [answer choice].

▼
error values in the source data mismatched data types NULL values

▼
1A A&1 A1

From Power Query Editor, you attempt to execute a query and receive the following error message.

Datasource.Error: Could not find file.

What are two possible causes of the error? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. You do not have permissions to the file.
- B. An incorrect privacy level was used for the data source.
- C. The file is locked.
- D. The referenced file was moved to a new location.

Correct Answer: AD

Community vote distribution

AD (80%) CD (20%)

You have data in a Microsoft Excel worksheet as shown in the following table.

	A	B	C
1	SKU	price	discount
2	P00001	100	0.08
3	P00002	150	0.03
4	P00003	130	#DIV/0!
5	P00004	200	0.06
6	P00005	80	#NAME?
7	P00006	350	#N/A
8	P00007	100	#NULL!
9	P00008	200	0.05
10	P00009	135	#NUM!
11	P00010	90	#REF!
12	P00011	120	#VALUE!

You need to use Power Query to clean and transform the dataset. The solution must meet the following requirements:

- If the discount column returns an error, a discount of 0.05 must be used.
- All the rows of data must be maintained.
- Administrative effort must be minimized.

What should you do in Power Query Editor?

- Select Replace Errors.
- Edit the query in the Query Errors group.
- Select Remove Errors.
- Select Keep Errors.

Correct Answer: A

Community vote distribution

A (100%)

Topic 2 - Question Set 2

Question #1

Topic 2

You are creating a report in Power BI Desktop.

You load a data extract that includes a free text field named col1.

You need to analyze the frequency distribution of the string lengths in col1. The solution must not affect the size of the model.

What should you do?

- A. In the report, add a DAX calculated column that calculates the length of col1
- B. In the report, add a DAX function that calculates the average length of col1
- C. From Power Query Editor, add a column that calculates the length of col1
- D. From Power Query Editor, change the distribution for the Column profile to group by length for col1

Correct Answer: A

The LEN DAX function returns the number of characters in a text string.

Note: DAX is a collection of Power BI functions, operators, and constants that can be used in a formula, or expression, to calculate and return one or more values.

Stated more simply, DAX helps you create new information from data already in your model.

Reference:

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

<https://docs.microsoft.com/en-us/power-bi/transform-model/desktop-quickstart-learn-dax-basics>

Community vote distribution

D (89%) 6%

Question #2

Topic 2

You have a collection of reports for the HR department of your company. The datasets use row-level security (RLS). The company has multiple sales regions.

Each sales region has an HR manager.

You need to ensure that the HR managers can interact with the data from their region only. The HR managers must be prevented from changing the layout of the reports.

How should you provision access to the reports for the HR managers?

- A. Publish the reports in an app and grant the HR managers access permission.
- B. Create a new workspace, copy the datasets and reports, and add the HR managers as members of the workspace.
- C. Publish the reports to a different workspace other than the one hosting the datasets.
- D. Add the HR managers as members of the existing workspace that hosts the reports and the datasets.

Correct Answer: A

Reference:

<https://kunaltripathy.com/2021/10/06/bring-your-power-bi-to-power-apps-portal-part-ii/>

Community vote distribution

A (100%)

You need to provide a user with the ability to add members to a workspace. The solution must use the principle of least privilege.
Which role should you assign to the user?

- A. Viewer
- B. Admin
- C. Contributor
- D. Member

Correct Answer: D

Member role allows adding members or other with lower permissions to the workspace.

Workspace roles

Capability	Admin	Member	Contributor	Viewer
Update and delete the workspace.	✓			
Add/remove people, including other admins.	✓			
Allow Contributors to update the app for the workspace	✓			
Add members or others with lower permissions.	✓	✓		

Reference:

<https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-roles-new-workspaces>

Community vote distribution

D (100%)

You have a Power BI query named Sales that imports the columns shown in the following table.

Name	Description	Sample value
ID	A unique value that represents a sale	10253
Sale_Date	Sales date A column to extract the date of the sale	2021-11-23T09:53:00
Customer_ID	Represents a unique customer ID number	13158
Delivery_Time	Elapsed delivery time in hours Can contain null values	51.52
Status	Sales status Contains only the following two values: Finished and Canceled	Finished
Canceled_Date	Cancellation date and time Can contain null values	2021-11-24T14:11:23

Users only use the date part of the Sales_Date field. Only rows with a Status of Finished are used in analysis.

You need to reduce the load times of the query without affecting the analysis.

Which two actions achieve this goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Remove the rows in which Sales[Status] has a value of Canceled.
- B. Remove Sales[Sale_Date].
- C. Change the data type of Sale[Delivery_Time] to Integer.
- D. Split Sales[Sale_Date] into separate date and time columns.
- E. Remove Sales[Canceled Date].

Correct Answer: AD

A: Removing uninteresting rows will increase query performance.

D: Splitting the Sales_Date column will make comparisons on the Sales date faster.

Community vote distribution

AE (68%)

AD (32%)

You build a report to analyze customer transactions from a database that contains the tables shown in the following table.

Table name	Column name
Customer	CustomerID (primary key)
	Name
	State
	Email
Transaction	TransactionID (primary key)
	CustomerID (foreign key)
	Date
	Amount

You import the tables.

Which relationship should you use to link the tables?

- A. one-to-many from Transaction to Customer
- B. one-to-one between Customer and Transaction
- C. many-to-many between Customer and Transaction
- D. one-to-many from Customer to Transaction

Correct Answer: D

One on the primary Key side (customer table), many on the foreign key side (Transaction table) of the relation.

Community vote distribution

D (100%)

You have a custom connector that returns ID, From, To, Subject, Body, and Has Attachments for every email sent during the past year. More than 10 million records are returned.

You build a report analyzing the internal networks of employees based on whom they send emails to.

You need to prevent report recipients from reading the analyzed emails. The solution must minimize the model size.

What should you do?

- A. From Model view, set the Subject and Body columns to Hidden.
- B. Remove the Subject and Body columns during the import.
- C. Implement row-level security (RLS) so that the report recipients can only see results based on the emails they sent.

Correct Answer: B

The Subject and the Body are not needed in the report. Dropping them resolves the security problem and minimizes the model.

Community vote distribution

B (100%)

HOTSPOT -

You create a Power BI dataset that contains the table shown in the following exhibit.

Business Unit	⋮
Cost Center	
Headcount	
ID	
Name	

Collapse ^

You need to make the table available as an organizational data type in Microsoft Excel.

How should you configure the properties of the table? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Row label:

Cost Center	▼
Headcount	
ID	
Name	

Key column:

Cost Center	▼
Headcount	
ID	
Name	

Is featured table:

No	▼
Yes	

Answer Area

Row label:

	▼
Cost Center	
Headcount	
ID	
Name	

Correct Answer:

Key column:

	▼
Cost Center	
Headcount	
ID	
Name	

Is featured table:

	▼
No	
Yes	

Box 1: Cost Center -

The Row label field value is used in Excel so users can easily identify the row. It appears as the cell value for a linked cell, in the Data Selector pane, and in the Information card.

Set up this featured table

The data in featured tables is discoverable in connected products. [Learn more](#)

Description *

List of customers and their contact information.

Row label *

CompanyName

Key column *

CustomerID

Save

Cancel

Box 2: ID -

The Key column field value provides the unique ID for the row. This value enables Excel to link a cell to a specific row in the table.

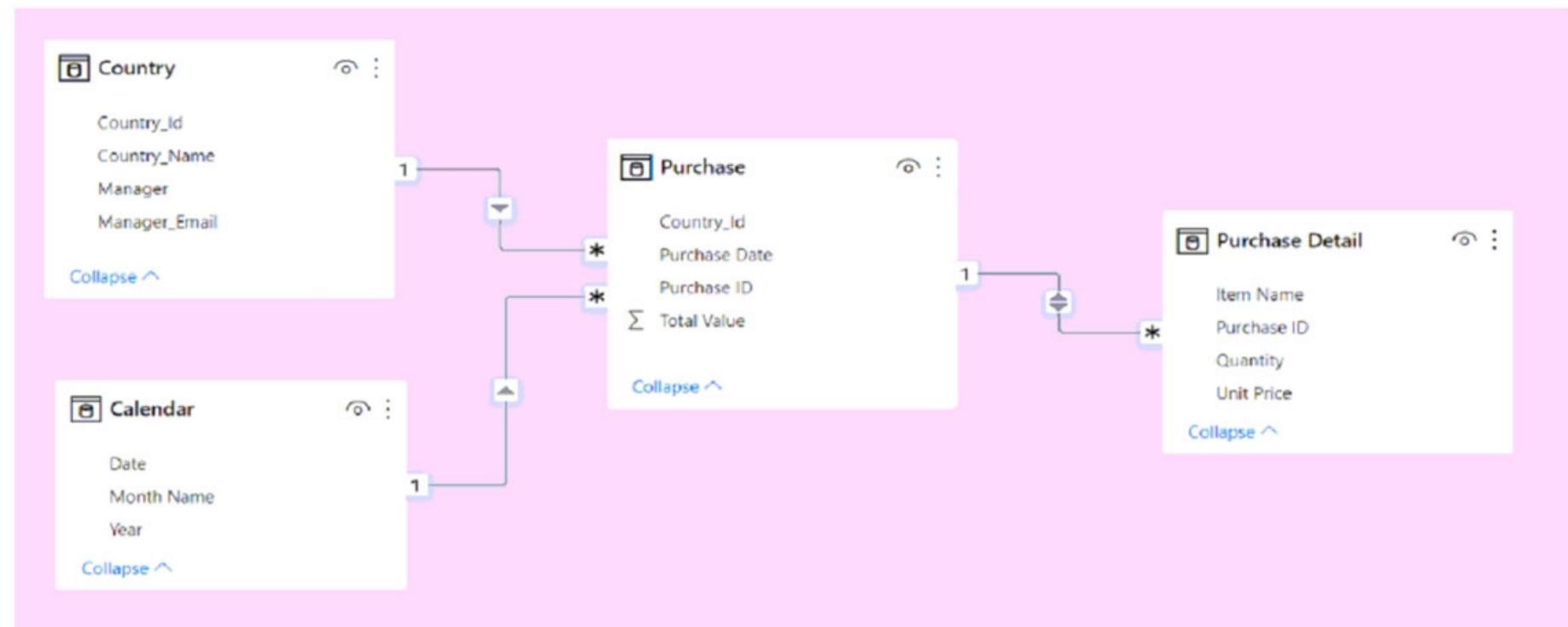
Box 3: Yes -

In the Data Types Gallery in Excel, your users can find data from featured tables in your Power BI datasets.

Reference:

<https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-create-excel-featured-tables>

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



A manager can represent only a single country.

You need to use row-level security (RLS) to meet the following requirements:

- The managers must only see the data of their respective country.
- The number of RLS roles must be minimized.

Which two actions should you perform? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Create a single role that filters Country[Manager_Email] by using the USERNAME DAX function.
- B. Create a single role that filters Country[Manager_Email] by using the USEROBJECTID DAX function.
- C. For the relationship between Purchase Detail and Purchase, select Apply security filter in both directions.
- D. Create one role for each country.
- E. For the relationship between Purchase and Purchase Detail, change the Cross filter direction to Single.

Correct Answer: AC

A: You can take advantage of the DAX functions username() or userprincipalname() within your dataset. You can use them within expressions in Power BI

Desktop. When you publish your model, it will be used within the Power BI service.

Note: To define security roles, follow these steps.

Import data into your Power BI Desktop report, or configure a DirectQuery connection.

1. From the Modeling tab, select Manage Roles.
2. From the Manage roles window, select Create.
3. Under Roles, provide a name for the role.
4. Under Tables, select the table to which you want to apply a DAX rule.
5. In the Table filter DAX expression box, enter the DAX expressions. This expression returns a value of true or false. For example: [Entity ID] = `=<Value>`.
6. After you've created the DAX expression, select the checkmark above the expression box to validate the expression.

Note: You can use username() within this expression.

7. Select Save.

C: By default, row-level security filtering uses single-directional filters, whether the relationships are set to single direction or bi-directional. You can manually enable bi-directional cross-filtering with row-level security by selecting the relationship and checking the Apply security filter in both directions checkbox. Select this option when you've also implemented dynamic row-level security at the server level, where row-level security is based on username or login ID.

Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-rls>

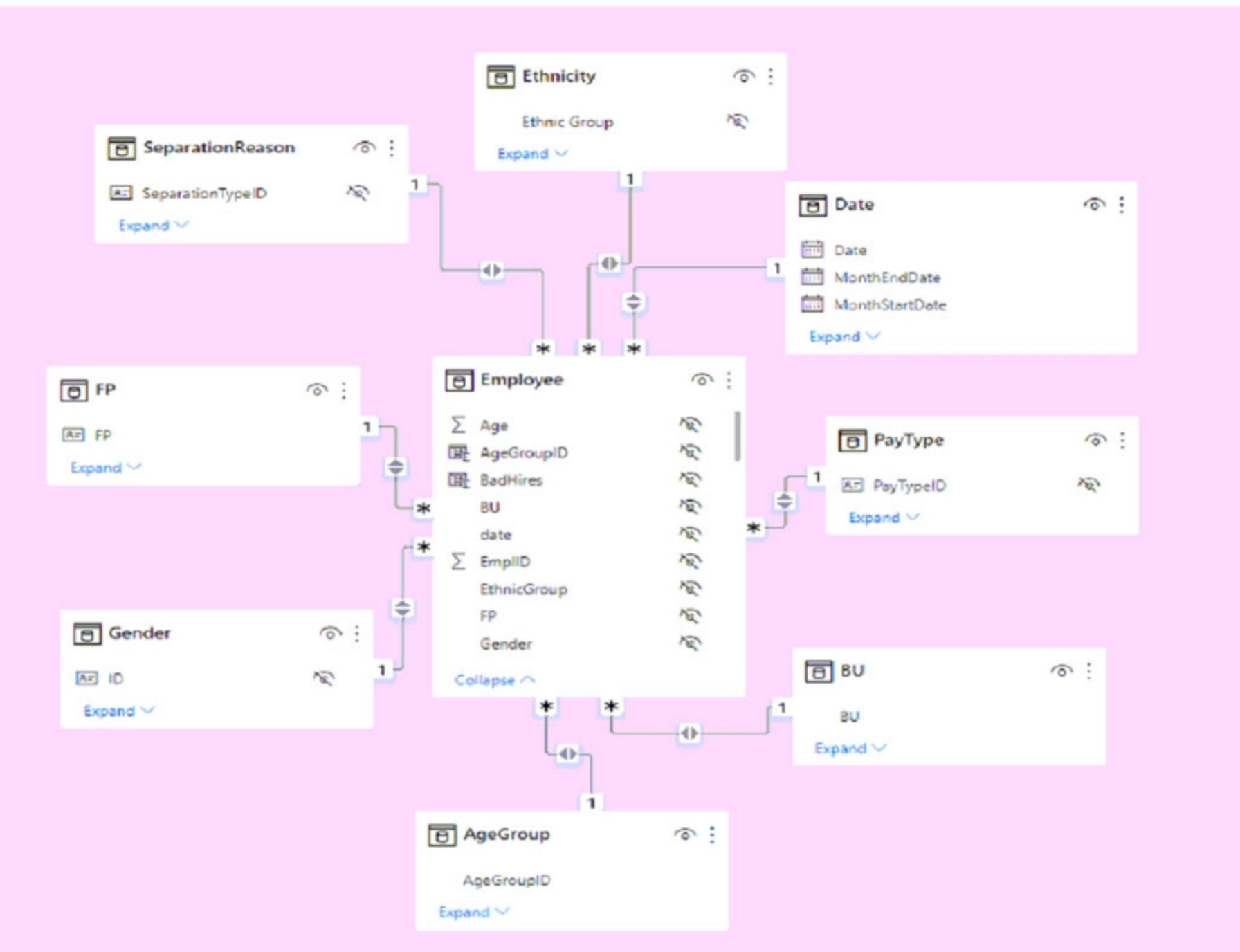
Community vote distribution

AC (77%)

AD (17%) 6%

HOTSPOT -

You have a Power BI imported dataset that contains the data model 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.

Hot Area:

Answer Area

Changing the **[answer choke]** setting of the relationships will improve report query performance.

▼
Cardinality
Cross filter direction
Assume Referential Integrity

The data model is organized into a **[answer choice]**.

▼
star schema
snowflake schema
denormalized table

Correct Answer:

Answer Area

Changing the [answer choke] setting of the relationships will improve report query performance.

▼
Cardinality
Cross filter direction
Assume Referential Integrity

The data model is organized into a [answer choice].

▼
star schema
snowflake schema
denormalized table

Box 1: Assume Referential Integrity

When connecting to a data source using DirectQuery, you can use the Assume Referential Integrity selection to enable running more efficient queries against your data source. This feature has a few requirements of the underlying data, and it is only available when using DirectQuery.

Note: The following requirements are necessary for Assume referential integrity to work properly:

Data in the From column in the relationship is never Null or blank

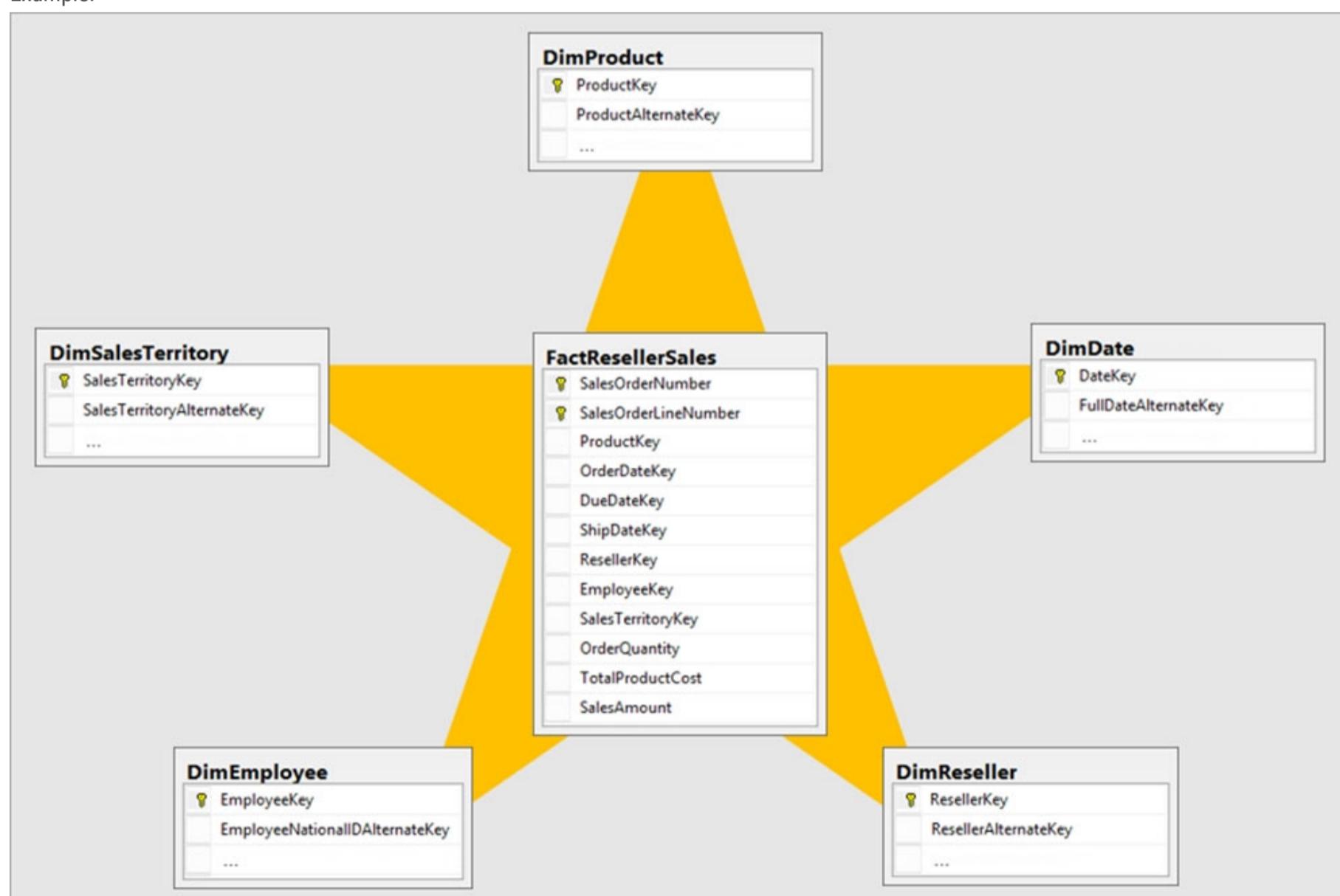
For each value in the From column, there is a corresponding value in the To column

Box 2: Star schema -

Star schema is a mature modeling approach widely adopted by relational data warehouses. It requires modelers to classify their model tables as either dimension or fact.

Generally, dimension tables contain a relatively small number of rows. Fact tables, on the other hand, can contain a very large number of rows and continue to grow over time.

Example:



Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/desktop-assume-referential-integrity> <https://docs.microsoft.com/en-us/power-bi/guidance/star-schema>

HOTSPOT -

You have a Power BI model that contains a table named Sales and a related date table. Sales contains a measure named Total Sales.

You need to create a measure that calculates the total sales from the equivalent month of the previous year.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Sales Previous Year =

	▼
CALCULATE	
EVALUATE	
SUM	
SUMX	

[Total Sales],

	▼
DATESMTD	
PARALLELPERIOD	
SAMEPERIODLASTYEAR	
TOTALMTD	

	▼
[Date]	
'Date' [Date]	
'Date' [Month]	

)

)

```

Sales Previous Year =


|           |   |
|-----------|---|
|           | ▼ |
| CALCULATE |   |
| EVALUATE  |   |
| SUM       |   |
| SUMX      |   |


[Total Sales],
(


|                    |   |
|--------------------|---|
|                    | ▼ |
| DATESMTD           |   |
| PARALLELPERIOD     |   |
| SAMEPERIODLASTYEAR |   |
| TOTALMTD           |   |



|                |   |
|----------------|---|
|                | ▼ |
| [Date]         |   |
| 'Date' [Date]  |   |
| 'Date' [Month] |   |


)
)

```

Box 1: CALCULATE -

Box 2: PARALLELPERIOD -

PARALLELPERIOD returns a table that contains a column of dates that represents a period parallel to the dates in the specified dates column, in the current context, with the dates shifted a number of intervals either forward in time or back in time.

Syntax: PARALLELPERIOD(<dates>,<number_of_intervals>,<interval>) dates: A column that contains dates. interval: The interval by which to shift the dates. The value for interval can be one of the following: year, quarter, month.

Incorrect:

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>)

DATESMTD returns a table that contains a column of the dates for the month to date, in the current context.

Syntax: DATESMTD(<dates>)

Box 3: 'DATE' [Month]

Reference:

<https://docs.microsoft.com/en-us/dax/parallelperiod-function-dax> <https://docs.microsoft.com/en-us/dax/sameperiodlastyear-function-dax>

DRAG DROP -

You plan to create a report that will display sales data from the last year for multiple regions.

You need to restrict access to individual rows of the data on a per region-basis by using roles.

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.

Select and Place:

Actions	Answer Area
Publish the report.	
Assign users to the role.	>
Add a filter to the report.	<
Create a role definition.	
Import the data to Power BI Desktop.	

Correct Answer:

Actions	Answer Area
	>
Add a filter to the report.	<

You can define roles and rules within Power BI Desktop. When you publish to Power BI, it also publishes the role definitions.

To define security roles, follow these steps.

1. Import data into your Power BI Desktop report (Step 1)
2. From the Modeling tab, select Manage Roles.
3. From the Manage roles window, select Create. (Step 2)
4. Under Roles, provide a name for the role.
5. Under Tables, select the table to which you want to apply a DAX rule.
6. In the Table filter DAX expression box, enter the DAX expressions. This expression returns a value of true or false. For example: [Entity ID] = `Value`(Step 3)
7. After you've created the DAX expression, select the checkmark above the expression box to validate the expression.
8. Select Save.

Step 3: Assign Users to the role.

You can't assign users to a role within Power BI Desktop. You assign them in the Power BI service.

After you've created your roles, test the results of the roles within Power BI Desktop.

Step 4: Publish the report.

Now that you're done validating the roles in Power BI Desktop, go ahead and publish your report to the Power BI service.

Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-rls>

DRAG DROP -

You create a data model in Power BI.

Report developers and users provide feedback that the data model is too complex.

The model contains the following tables.

Table name	Column name	Data type
Sales_Region	region_id	Integer
	name	Varchar
Region_Manager	region_id	Integer
	manager_id	Integer
Sales_Manager	sales_manager_id	Integer
	name	Varchar
	region_id	Integer
Manager	manager_id	Integer
	name	Varchar

The model has the following relationships:

- ⇒ There is a one-to-one relationship between Sales_Region and Region_Manager.
- ⇒ There are more records in Manager than in Region_Manager, but every record in Region_Manager has a corresponding record in Manager.
- ⇒ There are more records in Sales_Manager than in Sales_Region, but every record in Sales_Region has a corresponding record in Sales_Manager.

You need to denormalize the model into a single table. Only managers who are associated to a sales region must be included in the reports.

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.

NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.

Select and Place:

Actions	Answer Area
Merge [Region_Manager] and [Manager] by using an inner join.	>
Merge [Sales_Manager] and [Sales_Region] by using a left join.	<
Merge [Sales_Region] and [Sales_Manager] by using an inner join.	>
Merge [Sales_Region] and [Sales_Manager] by using an inner join as a new query named [Sales_Region_and_Manager].	<
Merge [Sales_Region] and [Region_Manager] by using a right join as a new query named [Sales_Region_and_Region_Manager].	>
Merge [Sales_Region] and [Region_Manager] by using an inner join.	<

Correct Answer:

Actions	Answer Area
Merge [Sales_Manager] and [Sales_Region] by using a left join.	>
Merge [Sales_Region] and [Sales_Manager] by using an inner join as a new query named [Sales_Region_and_Manager].	<
Merge [Sales_Region] and [Region_Manager] by using an inner join.	>

Merge [Sales_Region] and [Region_Manager] by using an inner join.

Step 1: Merge [Sales_Region] and [Sales_Manager] by using an inner join.

Inner Join: Returns the rows present in both Left and right table only if there is a match. Otherwise, it returns zero records.

Note: Sales_Region and Sales_manager

There is a one-to-one relationship between Sales_Region and Region_Manager.

There are more records in Sales_Manager than in Sales_Region, but every record in Sales_Region has a corresponding record in Sales_Manager.

Step 2: Merge [Region_Manager] and [Manager] by using inner join.

Only managers who are associated to a sales region must be included in the reports.

Note: Region_Manager and Manager.

There are more records in Manager than in Region_Manager, but every record in Region_Manager has a corresponding record in Manager.

Step 3: Merge [Sales_region] and [Region_Manager] by using a right join as new query named [Sales_region_and_Region_Manager]

Reference:

<https://www.tutorialgateway.org/joins-in-power-bi/>

Question #13

Topic 2

You have a Microsoft Power BI report. The size of PBIX file is 550 MB. The report is accessed by using an App workspace in shared capacity of powerbi.com.

The report uses an imported dataset that contains one fact table. The fact table contains 12 million rows. The dataset is scheduled to refresh twice a day at 08:00 and 17:00.

The report is a single page that contains 15 AppSource visuals and 10 default visuals.

Users say that the report is slow to load the visuals when they access and interact with the report.

You need to recommend a solution to improve the performance of the report.

What should you recommend?

- A. Change any DAX measures to use iterator functions.
- B. Enable visual interactions.
- C. Replace the default visuals with AppSource visuals.
- D. Split the visuals onto multiple pages.

Correct Answer: D

One page with many visuals may also make your report loading slow. Please appropriately reduce the number of visualizations on one page.

Reference:

<https://community.powerbi.com/t5/Desktop/Visuals-are-loading-extremely-slow/td-p/1565668>

Community vote distribution

D (100%)

HOTSPOT -

You are creating a Microsoft Power BI imported data model to perform basket analysis. The goal of the analysis is to identify which products are usually bought together in the same transaction across and within sales territories.

You import a fact table named Sales as shown in the exhibit. (Click the Exhibit tab.)

	SalesRowID	ProductKey	OrderDateKey	OrderDate	CustomerKey	SalesTerritoryKey	SalesOrderNumber	SalesOrderLineNumber	OrderQuantity	LineTotal	TaxAmt	Freight	LastModified	AuditID
1	1	310	20101229	2010-12-29 00:00:00.000	21768	6	SO43697	1	1	3578.27	286.2616	89.4568	2011-01-10 00:00:00.000	127
2	2	346	20101229	2010-12-29 00:00:00.000	28389	7	SO43698	1	1	3399.99	271.9992	84.9998	2011-01-10 00:00:00.000	127
3	3	346	20101229	2010-12-29 00:00:00.000	25863	1	SO43699	1	1	3399.99	271.9992	84.9998	2011-01-10 00:00:00.000	127
4	4	336	20101229	2010-12-29 00:00:00.000	14501	4	SO43700	1	1	699.0982	55.9279	17.4775	2011-01-10 00:00:00.000	127
5	5	346	20101229	2010-12-29 00:00:00.000	11003	9	SO43701	1	1	3399.99	271.9992	84.9998	2011-01-10 00:00:00.000	127
6	6	311	20101230	2010-12-30 00:00:00.000	27645	4	SO43702	1	1	3578.27	286.2616	89.4568	2011-01-11 00:00:00.000	127
7	7	310	20101230	2010-12-30 00:00:00.000	16624	9	SO43703	1	1	3578.27	286.2616	89.4568	2011-01-11 00:00:00.000	127

The related dimension tables are imported into the model.

Sales contains the data shown in the following table.

Column name	Data type	Description
SalesRowID	Integer	ID of the row from the source system, which represents a unique combination of SalesOrderNumber and SalesOrderLineNumber
ProductKey	Integer	Surrogate key that relates to the product dimension
OrderDateKey	Integer	Surrogate key that relates to the date dimension and is in the YYYYMMDD format
OrderDate	Datetime	Date and time an order was processed
CustomerKey	Integer	Surrogate key that relates to the customer dimension
SalesTerritoryKey	Integer	Surrogate key that relates to the sales territory dimension
SalesOrderNumber	Text	Unique identifier of an order
SalesOrderLineNumber	Integer	Unique identifier of a line within an order
OrderQuantity	Integer	Quantity of the product ordered
LineTotal	Decimal	Total sales amount of a line before tax
TaxAmt	Decimal	Amount of tax charged for the items on a specified line within an order
Freight	Decimal	Amount of freight charged for the items on a specified line within an order
LastModified	Datetime	The date and time that a row was last modified in the source system
AuditID	Integer	The ID of the data load process that last updated a row

You are evaluating how to optimize the model.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
The SalesRowID and AuditID columns can be removed from the model without impeding the analysis goals.	<input type="radio"/>	<input type="radio"/>
Both the OrderDateKey and OrderDate columns are necessary to perform the basket analysis.	<input type="radio"/>	<input type="radio"/>
The TaxAmt column must retain the current number of decimal places to perform the basket analysis.	<input type="radio"/>	<input type="radio"/>

Correct Answer:

Answer Area

Statements	Yes	No
The SalesRowID and AuditID columns can be removed from the model without impeding the analysis goals.	<input checked="" type="radio"/>	<input type="radio"/>
Both the OrderDateKey and OrderDate columns are necessary to perform the basket analysis.	<input type="radio"/>	<input checked="" type="radio"/>
The TaxAmt column must retain the current number of decimal places to perform the basket analysis.	<input type="radio"/>	<input checked="" type="radio"/>

Box 1: Yes -

Those two columns not need in the analysis.

Box 2: No -

Can remove the surrogate key OrderDateKey from the analysis.

Box 3: No -

Tax charged not relevant for the analysis.

Question #15

Topic 2

You have a Microsoft Power BI data model that contains three tables named Orders, Date, and City. There is a one-to-many relationship between Date and Orders and between City and Orders.

The model contains two row-level security (RLS) roles named Role1 and Role2. Role1 contains the following filter.

City[State Province] = "Kentucky"

Role2 contains the following filter.

Date[Calendar Year] = 2020 -

If a user is a member of both Role1 and Role2, what data will they see in a report that uses the model?

- A. The user will see data for which the State Province value is Kentucky or where the Calendar Year is 2020.
- B. The user will receive an error and will not be able to see the data in the report.
- C. The user will only see data for which the State Province value is Kentucky.
- D. The user will only see data for which the State Province value is Kentucky and the Calendar Year is 2020.

Correct Answer: D

Row-level security (RLS) with Power BI can be used to restrict data access for given users. Filters restrict data access at the row level, and you can define filters within roles.

Both Roles are applied, and both role filters must be met.

Incorrect:

Not B: A model relationship is limited when there's no guaranteed "one" side. You get an error message if you belong to multiple RLS roles and at least one of the roles relies on a limited relationship. But here both relationships have a guaranteed 1 side.

Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-rls>

Community vote distribution

A (86%)

14%

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 are modeling data by using Microsoft Power BI. Part of the data model is a large Microsoft SQL Server table named Order that has more than 100 million records.

During the development process, you need to import a sample of the data from the Order table.

Solution: From Power Query Editor, you import the table and then add a filter step to the query.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

This would load the entire table in the first step.

Instead: You add a WHERE clause to the SQL statement.

Reference:

<https://docs.microsoft.com/en-us/power-query/native-database-query>

Community vote distribution

B (54%)

A (46%)

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 are modeling data by using Microsoft Power BI. Part of the data model is a large Microsoft SQL Server table named Order that has more than 100 million records.

During the development process, you need to import a sample of the data from the Order table.

Solution: You write a DAX expression that uses the FILTER function.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

Instead: You add a WHERE clause to the SQL statement.

Note: DAX is not a language designed to fetch the data like SQL rather than used for data analysis purposes. It is always a better and recommended approach to transform the data as close to the data source itself. For example, your data source is a relational database; then, it's better to go with T-SQL.

SQL is a structured query language, whereas DAX is a formula language used for data analysis purposes. When our data is stored in some structured database systems like SQL server management studio, MySQL, or others, we have to use SQL to fetch the stored data.

Reference:

<https://www.learndax.com/dax-vs-sql-when-to-use-dax-over-sql/>

Community vote distribution

B (100%)

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 are modeling data by using Microsoft Power BI. Part of the data model is a large Microsoft SQL Server table named Order that has more than 100 million records.

During the development process, you need to import a sample of the data from the Order table.

Solution: You add a WHERE clause to the SQL statement.

Does this meet the goal?

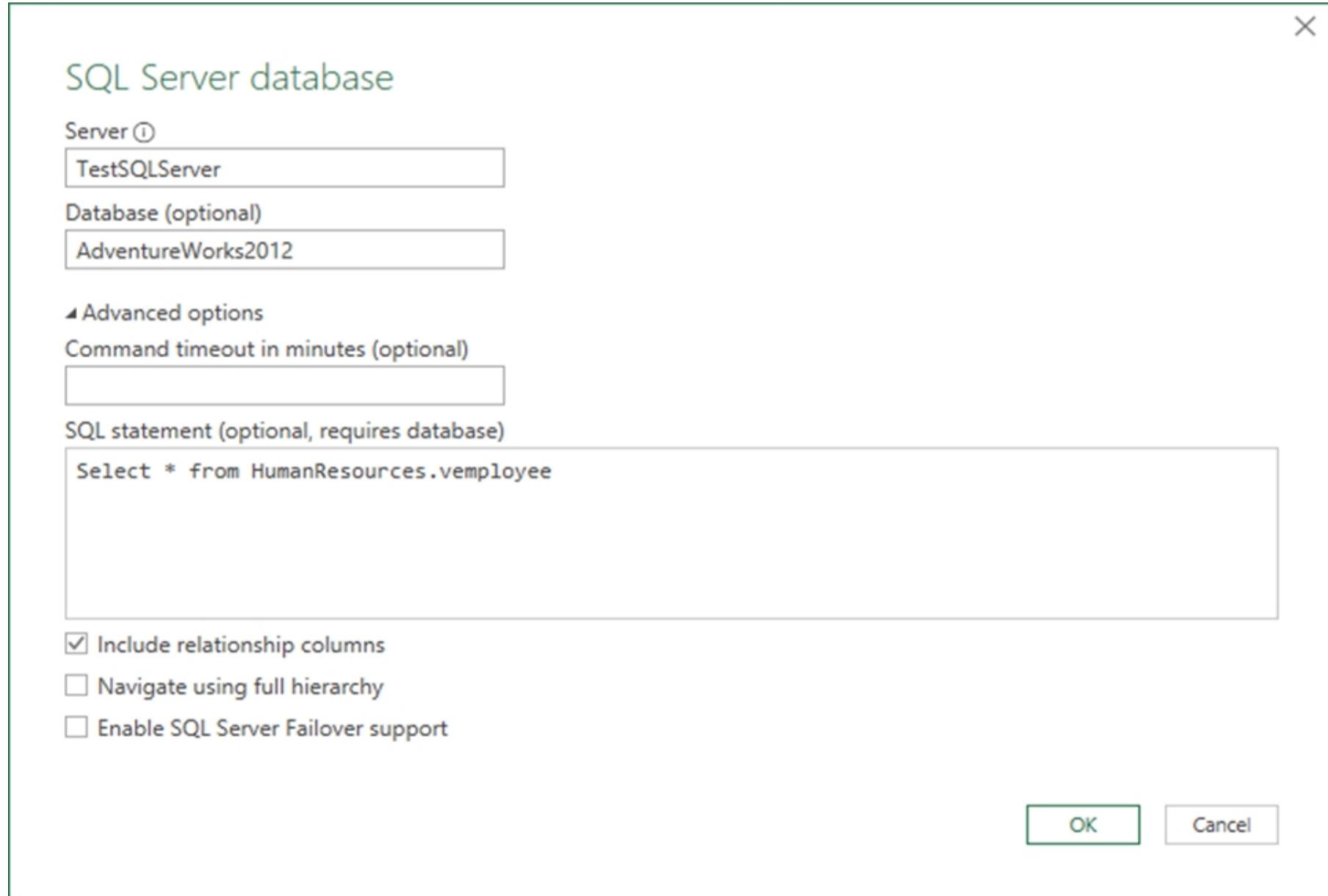
A. Yes

B. No

Correct Answer: A

Power Query enables you to specify your native database query in a text box under Advanced options when connecting to a database. In the example below, you'll import data from a SQL Server database using a native database query entered in the SQL statement text box.

1. Connect to a SQL Server database using Power Query. Select the SQL Server database option in the connector selection.
2. In the SQL Server database popup window:
3. Specify the Server and Database where you want to import data from using native database query.
4. Under Advanced options, select the SQL statement field and paste or enter your native database query, then select OK.



Reference:

<https://docs.microsoft.com/en-us/power-query/native-database-query>

Community vote distribution

A (100%)

DRAG DROP -

You are preparing a financial report in Power BI.

You connect to the data stored in a Microsoft Excel spreadsheet by using Power Query Editor as shown in the following exhibit.

	A ^B C Column1	1.2 Column2	1.2 Column3	1.2 Column4	1.2 Column5	1.2 Column6
1	Measure	2016		2017		2018
2	Revenue		0.5		0.55	0.61
3	Overheads		0.11	0.330410907	0.167055779	0.360178153
4	Cost of Goods	0.204388253		0.165848321		0.17
						0.109073918

You need to prepare the data to support the following:

- Visualizations that include all measures in the data over time
- Year-over-year calculations for all the measures

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.

Select and Place:

Actions	Answer Area
Use headers as the first row.	> <
Rename the Measure column as Year.	
Rename the Attribute column as Year.	
Use the first row as headers.	
Transpose the table.	
Unpivot all the columns other than Measure.	
Change the data type of the Year column to Date.	

Correct Answer:

Actions	Answer Area
Use headers as the first row.	Transpose the table.
Rename the Attribute column as Year.	Use the first row as headers.
Change the data type of the Year column to Date.	Unpivot all the columns other than Measure.
	Rename the Measure column as Year.

Reference:

<https://docs.microsoft.com/en-us/power-query/unpivot-column>

HOTSPOT -

You are creating an analytics report that will consume data from the tables shown in the following table.

Table name	Column name	Data type
Sales	sales_id	Integer
	sales_date	Datetime
	Customer_id	Integer
	sales_amount	Floating
	employee_id	Integer
	sales_ship_date	Datetime
	store_id	Varchar(100)
Employee	employee_id	Integer
	first_name	Varchar(100)
	last_name	Varchar(100)
	employee_photo	Binary

There is a relationship between the tables.

There are no reporting requirements on employee_id and employee_photo.

You need to optimize the data model.

What should you configure for employee_id and employee_photo? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Employee_id:

Change Type
Delete
Hide
Sort

Employee_photo:

Change Type
Delete
Hide
Sort

Answer Area

Correct Answer:

Employee_id:

Change Type
Delete
Hide
Sort

Employee_photo:

Change Type
Delete
Hide
Sort

Box 1: Hide -

Need in the relation, so cannot delete it.

Box 2: Delete -

Reference:

<https://community.powerbi.com/t5/Desktop/How-to-Hide-a-Column-in-power-Bi/m-p/414470>

HOTSPOT -

You plan to create Power BI dataset to analyze attendance at a school. Data will come from two separate views named View1 and View2 in an Azure SQL database.

View1 contains the columns shown in the following table.

Name	Data type
Attendance Date	Date
Student ID	Bigint
Period Number	Tinyint
Class ID	Int

View2 contains the columns shown in the following table.

Name	Data type
Class ID	Bigint
Class Name	Varchar(200)
Class Subject	Varchar(100)
Teacher ID	Int
Teacher First Name	Varchar(100)
Teacher Last Name	Varchar(100)
Period Number	Tinyint
School Year	Varchar(50)
Period Start Time	Time
Period End Time	Time

The views can be related based on the Class ID column.

Class ID is the unique identifier for the specified class, period, teacher, and school year. For example, the same class can be taught by the same teacher during two different periods, but the class will have a different class ID.

You need to design a star schema data model by using the data in both views. The solution must facilitate the following analysis:

- The count of classes that occur by period
- The count of students in attendance by period by day
- The average number of students attending a class each month

In which table should you include the Teacher First Name and Period Number fields? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Teacher First Name:

Attendance fact
Class dimension
Teacher dimension
Teacher fact

Period Number:

Attendance fact
Class dimension
Teacher dimension
Teacher fact

Answer Area

Correct Answer:

Teacher First Name:

Attendance fact
Class dimension
Teacher dimension
Teacher fact

Period Number:

Attendance fact
Class dimension
Teacher dimension
Teacher fact

Box 1: Teacher fact -

Fact tables store observations or events, and can be sales orders, stock balances, exchange rates, temperatures, etc. A fact table contains dimension key columns that relate to dimension tables, and numeric measure columns.

Note: Star schema is a mature modeling approach widely adopted by relational data warehouses. It requires modelers to classify their model tables as either dimension or fact.

Box 2: Attendance fact -

Incorrect:

æ"

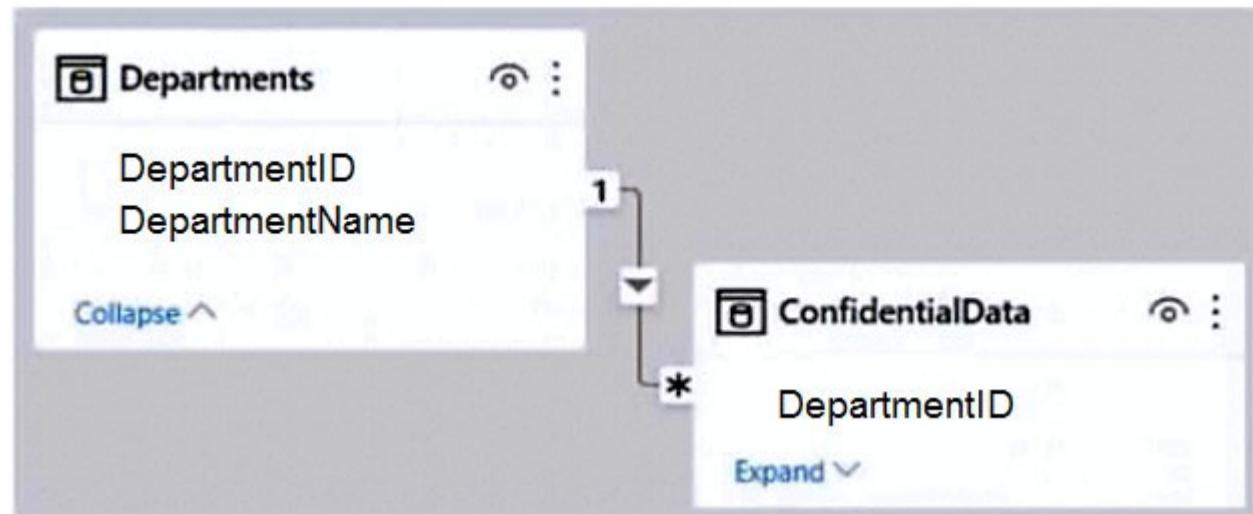
Dimension tables describe business entities

the things you model. Entities can include products, people, places, and concepts including time itself. The most consistent table you'll find in a star schema is a date dimension table. A dimension table contains a key column (or columns) that acts as a unique identifier, and descriptive columns.

Reference:

<https://docs.microsoft.com/en-us/power-bi/guidance/star-schema>

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



There are four departments in the Departments table.

You need to ensure that users can see the data of their respective department only.

What should you do?

- A. Create a slicer that filters Departments based on DepartmentID.
- B. Create a row-level security (RLS) role for each department, and then define the membership of the role.
- C. Create a DepartmentID parameter to filter the Departments table.
- D. To the ConfidentialData table, add a calculated measure that uses the CURRENTGROUP DAX function.

Correct Answer: B

Row-level security (RLS) with Power BI can be used to restrict data access for given users. Filters restrict data access at the row level, and you can define filters within roles.

Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-rls>

Community vote distribution

B (88%)

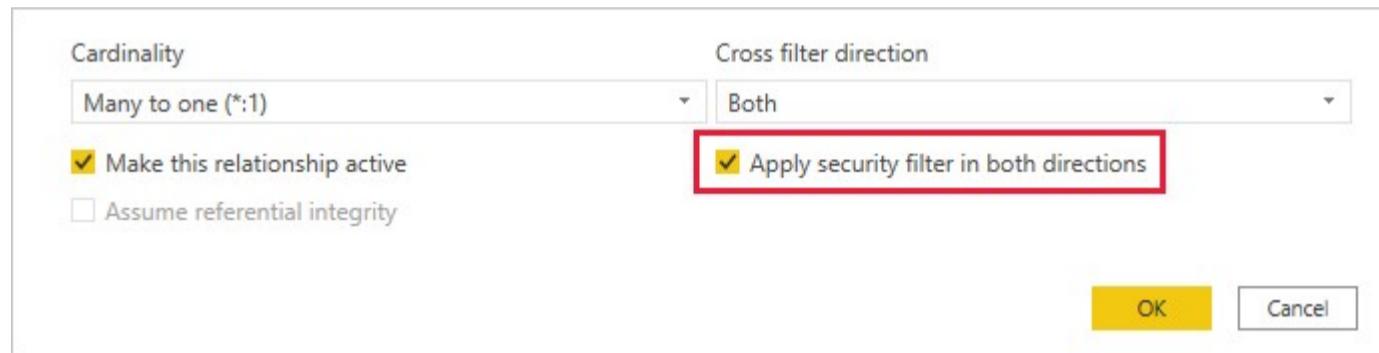
12%

In Power BI Desktop, you are building a sales report that contains two tables. Both tables have row-level security (RLS) configured. You need to create a relationship between the tables. The solution must ensure that bidirectional cross-filtering honors the RLS settings. What should you do?

- A. Create an inactive relationship between the tables and select Apply security filter in both directions.
- B. Create an active relationship between the tables and select Apply security filter in both directions.
- C. Create an inactive relationship between the tables and select Assume referential integrity.
- D. Create an active relationship between the tables and select Assume referential integrity.

Correct Answer: B

By default, row-level security filtering uses single-directional filters, whether the relationships are set to single direction or bi-directional. You can manually enable bi-directional cross-filtering with row-level security by selecting the relationship and checking the Apply security filter in both directions checkbox. Select this option when you've also implemented dynamic row-level security at the server level, where row-level security is based on username or login ID.



Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-rls>

Community vote distribution

B (100%)

HOTSPOT -

You have a column named UnitsInStock as shown in the following exhibit.

The screenshot shows the 'Properties' pane on the left and the 'Fields' pane on the right. In the 'Properties' pane, under 'Data type', 'Whole number' is selected. Under 'Format', 'Whole number' is also selected. Under 'Advanced', 'Sort by column' is set to 'UnitsInStock (Default)', 'Data category' is 'Uncategorized', 'Summarize by' is 'None', and 'Is nullable' is set to 'Yes'. In the 'Fields' pane, the 'Products' table is selected. The 'UnitsInStock' column is highlighted with a gray background. Other columns listed include CategoryID, Discontinued, ProductID, ProductName, QuantityPerUnit, ReorderLevel, SupplierID, and UnitPrice.

UnitsInStock has 75 non-null values, of which 51 are unique.

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.

Hot Area:

Answer Area

When a table visual is created in a report and UnitsInStock is added to the values, there will be [answer choice] in the table.

0 rows
1 row
51 rows
75 rows

Changing the Summarize by setting of the UnitsInStock column, and then adding the column to a table visual, will [answer choice] the number of rows in the table visual.

maintain
reduce
increase

Correct Answer:

Answer Area

When a table visual is created in a report and UnitsInStock is added to the values, there will be [answer choice] in the table.

0 rows
1 row
51 rows
75 rows

Changing the Summarize by setting of the UnitsInStock column, and then adding the column to a table visual, will [answer choice] the number of rows in the table visual.

maintain
reduce
increase

Box 1: 75 rows -

Is nullable allows NULL values in the column.

Box 2: reduce -

Reference:

<https://blog.crossjoin.co.uk/2019/01/20/is-nullable-column-property-power-bi/>

HOTSPOT -

You have a Power BI report.

You have the following tables.

Name	Description
Balances	The table contains daily records of closing balances for every active bank account. The closing balances appear for every day the account is live, including the last day.
Date	The table contains a record per day for the calendar years of 2000 to 2025. There is a hierarchy for financial year, quarter, month, and day.

You have the following DAX measure.

Accounts :=

```
CALCULATE (
DISTINCTCOUNT(Balances[AccountID]),
LASTDATE('Date'[Date]))
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
A table visual that displays the date hierarchy at the year level and the [Accounts] measure will show the total number of accounts that were live throughout the year.	<input type="radio"/>	<input type="radio"/>
A table visual that displays the date hierarchy at the month level and the [Accounts] measure will show the total number of accounts that were live throughout the month.	<input type="radio"/>	<input type="radio"/>
A table visual that displays the date hierarchy at the day level and the [Accounts] measure will show the total number of accounts that were live that day.	<input type="radio"/>	<input type="radio"/>

Correct Answer:**Answer Area**

Statements	Yes	No
A table visual that displays the date hierarchy at the year level and the [Accounts] measure will show the total number of accounts that were live throughout the year.	<input type="radio"/>	<input checked="" type="radio"/>
A table visual that displays the date hierarchy at the month level and the [Accounts] measure will show the total number of accounts that were live throughout the month.	<input type="radio"/>	<input checked="" type="radio"/>
A table visual that displays the date hierarchy at the day level and the [Accounts] measure will show the total number of accounts that were live that day.	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: No -

It will show the total number of accounts that were live at the last day of the year only.

Note:

DISTINCTCOUNT counts the number of distinct values in a column.

LASTDATE returns the last date in the current context for the specified column of dates.

Box 2: No -

It will show the total number of accounts that were live at the last day of the month only.

Box 3: Yes -

Reference:

<https://docs.microsoft.com/en-us/dax/distinctcount-function-dax> <https://docs.microsoft.com/en-us/dax/lastdate-function-dax>

Question #26

Topic 2

You have the tables shown in the following table.

Table name	Column name
Campaigns	Campaign_ID
	Name
Ads	Ad_id
	Name
	Campaign_id
Impressions	Impression_id
	Ad_id
	Site_name
	Impression_time
	Impression_date

The Impressions table contains approximately 30 million records per month.

You need to create an ad analytics system to meet the following requirements:

Present ad impression counts for the day, campaign, and site_name. The analytics for the last year are required.

Minimize the data model size.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Create one-to-many relationships between the tables.
- B. Group the Impressions query in Power Query by Ad_id, Site_name, and Impression_date. Aggregate by using the CountRows function.
- C. Create a calculated table that contains Ad_id, Site_name, and Impression_date.
- D. Create a calculated measure that aggregates by using the COUNTROWS function.

Correct Answer: AB

Incorrect:

Not C: A calculated table would increase the data model size.

Not D: Need Impression_date etc.

Community vote distribution

AB (100%)

HOTSPOT -

You are creating a Microsoft Power BI data model that has the tables shown in the following table.

Table name	Column name
Sales	SalesID
	ProductID
	DateKey
	SalesAmount
Products	ProductID
	ProductName
	ProductCategoryID
ProductCategory	ProductCategoryID
	CategoryName

The Products table is related to the ProductCategory table through the ProductCategoryID column. Each product has one product category.

You need to ensure that you can analyze sales by product category.

How should you configure the relationship from ProductCategory to Products? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Cardinality:

- One-to-many
- One-to-one
- Many-to-many

Cross-filter direction:

- Single
- Both

Answer Area

Cardinality:

- One-to-many
- One-to-one
- Many-to-many

Correct Answer:

Cross-filter direction:

- Single
- Both

Box 1: One-to-many -

The one-to-many and many-to-one cardinality options are essentially the same, and they're also the most common cardinality types.

Incorrect: A many-to-many relationship means both columns can contain duplicate values. This cardinality type is infrequently used. It's typically useful when designing complex model requirements. You can use it to relate many-to-many facts or to relate higher grain facts. For example, when sales target facts are stored at product category level and the product dimension table is stored at product level.

Box 2: Single -

Incorrect:

Bear in mind that bi-directional relationships can impact negatively on performance. Further, attempting to configure a bi-directional relationship could result in ambiguous filter propagation paths. In this case, Power BI Desktop may fail to commit the relationship change and will alert you with an error message.

Reference:

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

Question #28

Topic 2

You import a Power BI dataset that contains the following tables:

- Date
- Product
- Product Inventory

The Product Inventory table contains 25 million rows. A sample of the data is shown in the following table.

ProductKey	DateKey	MovementDate	UnitCost	UnitsIn	UnitsOut	UnitsBalance
167	20101228	28-Dec-10	0.19	0	0	875
167	20101229	29-Dec-10	0.19	0	0	875
167	20110119	19-Jan-11	0.19	0	0	875
167	20110121	21-Jan-11	0.19	0	0	875
167	20110122	22-Jan-11	0.19	0	0	875

The Product Inventory table relates to the Date table by using the DateKey column. The Product Inventory table relates to the Product table by using the ProductKey column.

You need to reduce the size of the data model without losing information.

What should you do?

- A. Change Summarization for DateKey to Don't Summarize.
- B. Remove the relationship between Date and Product Inventory
- C. Change the data type of UnitCost to Integer.
- D. Remove MovementDate.

Correct Answer: A

The DateKey and MovementDate columns have the same information. Movementdate can be removed.

Incorrect:

Not C: Integer data type would lose data.

Community vote distribution

D (88%) 12%

HOTSPOT -

You are enhancing a Power BI model that has DAX calculations.

You need to create a measure that returns the year-to-date total sales from the same date of the previous calendar year.

Which DAX functions should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
Sales PYTD =  
VAR startyear =  
    STARTOFTYEAR ( PREVIOUSYEAR ( 'Calendar'[Date] ) )  
VAR enddate =  
    LASTDATE ( Sales[Date] ) - 365  
RETURN  


CALCULATE (



DATESBETWEEN (



SAMEPERIODLASTYEAR (



SUM (



CALCULATE



DATESBETWEEN



SAMEPERIODLASTYEAR



SUM



CALCULATE



DATESBETWEEN



SAMEPERIODLASTYEAR



SUM



) ( 'Calendar'[Date], startyear, enddate )


```

Correct Answer:

Answer Area

```
Sales PYTD =  
VAR startyear =  
    STARTOFTYEAR ( PREVIOUSYEAR ( 'Calendar'[Date] ) )  
VAR enddate =  
    LASTDATE ( Sales[Date] ) - 365  
RETURN  


|                                                          |                                                                             |                                          |
|----------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------|
| CALCULATE<br>DATESBETWEEN<br>SAMEPERIODLASTYEAR<br>SUM ( | ( Sales[sales] ),<br>CALCULATE<br>DATESBETWEEN<br>SAMEPERIODLASTYEAR<br>SUM | ( 'Calendar'[Date], startyear, enddate ) |
| CALCULATE<br>DATESBETWEEN<br>SAMEPERIODLASTYEAR<br>SUM   | )                                                                           |                                          |


```

Box 1: CALCULATE -

Example:

Total sales on the last selected date =

```
CALCULATE (  
SUM ( Sales[Sales Amount] ),  
'Sales'[OrderDateKey] = MAX ( 'Sales'[OrderDateKey] )  
)
```

Box 2: SUM -

Box 3: SAMEPERIODLASTYEAR -

SAMEPERIODLASTYEAR returns a set of dates in the current selection from the previous year.

Example:

-- SAMEPERIODLASTYEAR returns the selected period shifted back one year.

EVALUATE -

```
VAR StartDate = DATE ( 2008, 07, 25 )
```

```
VAR EndDate = DATE ( 2008, 07, 31 )
```

RETURN -

```
CALCULATETABLE (
```

```
SAMEPERIODLASTYEAR ( 'Date'[Date] ),
```

```
'Date'[Date] >= StartDate &&
```

```
'Date'[Date] <= EndDate
```

```
)
```

```
ORDER BY [Date]
```

Reference:

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

<https://dax.guide/sameperiodlastyear/>

Question #30

Topic 2

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 are modeling data by using Microsoft Power BI. Part of the data model is a large Microsoft SQL Server table named Order that has more than 100 million records.

During the development process, you need to import a sample of the data from the Order table.

Solution: You add a report-level filter that filters based on the order date.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

You want the raw data, not a report with the data.

Instead add a WHERE clause to the SQL statement.

Reference:

<https://docs.microsoft.com/en-us/power-query/native-database-query>

Community vote distribution

B (93%)

7%

Question #31

Topic 2

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 report that imports a date table and a sales table from an Azure SQL database data source. The sales table has the following date foreign keys:

- Due Date
- Order Date
- Delivery Date

You need to support the analysis of sales over time based on all the date foreign keys.

Solution: For each date foreign key, you add inactive relationships between the sales table and the date table.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

Instead: Solution: From the Fields pane, you rename the date table as Due Date. You use a DAX expression to create Order Date and Delivery Date as calculated tables.

Reference:

<https://docs.microsoft.com/en-us/power-bi/guidance/relationships-active-inactive>

Community vote distribution

B (85%)

A (15%)

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 report that imports a date table and a sales table from an Azure SQL database data source. The sales table has the following date foreign keys:

- Due Date
- Order Date
- Delivery Date

You need to support the analysis of sales over time based on all the date foreign keys.

Solution: From Power Query Editor, you rename the date query as Due Date. You reference the Due Date query twice to make the queries for Order

Date and

Delivery Date.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

Instead: Solution: From the Fields pane, you rename the date table as Due Date. You use a DAX expression to create Order Date and Delivery Date as calculated tables.

Reference:

<https://docs.microsoft.com/en-us/power-bi/guidance/relationships-active-inactive>

Community vote distribution

A (57%)

B (43%)

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 report that imports a date table and a sales table from an Azure SQL database data source. The sales table has the following date foreign keys:

- Due Date
- Order Date
- Delivery Date

You need to support the analysis of sales over time based on all the date foreign keys.

Solution: From the Fields pane, you rename the date table as Due Date. You use a DAX expression to create Order Date and Delivery Date as calculated tables.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: A

Refactoring methodology -

Here's a methodology to refactor a model from a single role-playing dimension-type table, to a design with one table per role.

1. Remove any inactive relationships.
2. Consider renaming the role-playing dimension-type table to better describe its role. In the example (not present here), the Airport table is related to the

ArrivalAirport column of the Flight table, so it's renamed as Arrival Airport.

3. Create a copy of the role-playing table, providing it with a name that reflects its role. If it's an Import table, we recommend defining a calculated table. If it's a

DirectQuery table, you can duplicate the Power Query query.

In the example, the Departure Airport table was created by using the following calculated table definition.

Departure Airport = 'Arrival Airport'

Create an active relationship to relate the new table.

4. Consider renaming the columns in the tables so they accurately reflect their role. In the example, all columns are prefixed with the word Departure or Arrival.

These names ensure report visuals, by default, will have self-describing and non-ambiguous labels. It also improves the Q&A experience, allowing users to easily write their questions.

5. Consider adding descriptions to role-playing tables. (In the Fields pane, a description appears in a tooltip when a report author hovers their cursor over the table.) This way, you can communicate any additional filter propagation details to your report authors.

Reference:

<https://docs.microsoft.com/en-us/power-bi/guidance/relationships-active-inactive>

Community vote distribution

A (94%)	6%
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DRAG DROP -

You receive revenue data that must be included in Microsoft Power BI reports.

You preview the data from a Microsoft Excel source in Power Query as shown in the following exhibit.

	ABC Column1	ABC Column2	123 Column3	123 Column4	123 Column5	123 Column6
	● Valid ● Error ● Empty	100% 0% 0%	● Valid ● Error ● Empty	100% 0% 0%	● Valid ● Error ● Empty	100% 0% 0%
1	Department	Product		2016	2017	2018
2	Bikes	Carbon mountainbike		1002815	1006617	1007814
3	Bikes	Aluminium road bike		1007024	1001454	1005842
4	Bikes	Touring bike		1003676	1005171	1001669
5	Accessories	Bell		76713	10247	60590
6	Accessories	Bottle holder		26690	29613	67955
7	Accessories	Satnav		83189	40113	71684
8	Accessories	Mobilephone holder		68641	80336	58099
						45706

You plan to create several visuals from the data, including a visual that shows revenue split by year and product.

You need to transform the data to ensure that you can build the visuals. The solution must ensure that the columns are named appropriately for the data that they contain.

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.

Select and Place:

Actions	Answer Area
Select Department and Product and Unpivot Columns .	
Select Use First Row as Headers .	
Select Department and Product and Unpivot Other Columns .	
Rename the Attribute column to Year and the Value column to Revenue.	
Select Use Header as First Row .	
Rename the Attribute column to Revenue and the Value column to Year.	

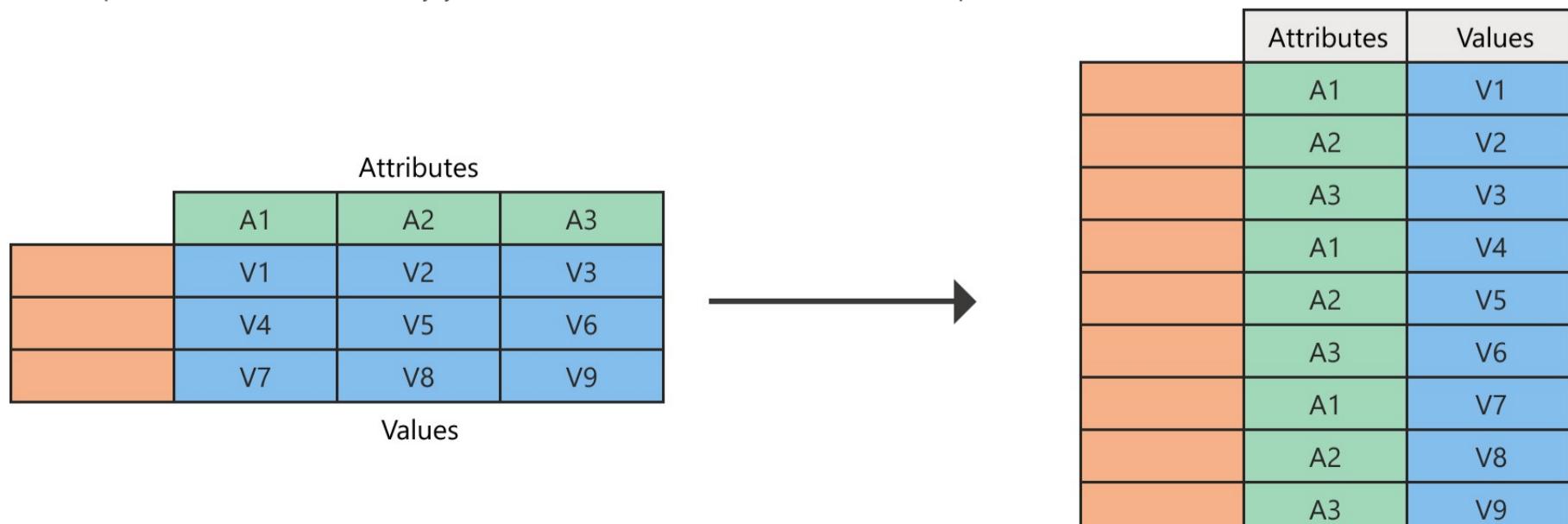
Correct Answer:

Actions	Answer Area
Select Department and Product and Unpivot Columns .	Select Department and Product and Unpivot Other Columns .
Select Use First Row as Headers .	
Select Department and Product and Unpivot Other Columns .	
Rename the Attribute column to Revenue and the Value column to Year.	Rename the Attribute column to Revenue and the Value column to Year.
Select Use Header as First Row .	
Rename the Attribute column to Revenue and the Value column to Year.	

Step 1: Select Department and Product and Unpivot Other Columns

The Unpivot Other Columns command unpivots unselected columns. Use this command in a query when not all columns are known. New columns added during a refresh operation are also unpivoted.

Note: Unpivot columns: In Power Query, you can transform columns into attribute-value pairs, where columns become rows.



Step 2: Rename the Attribute column to Year and the Value Column to Revenue

Need to do this after the unpivot.

Power Query will always create the attribute-value pair by using two columns:

Attribute: The name of the column headings that were unpivoted.

Value: The values that were underneath each of the unpivoted column headings.

Step 3: Select Use the First Row as Headers

Reference:

<https://docs.microsoft.com/en-us/power-query/unpivot-column>

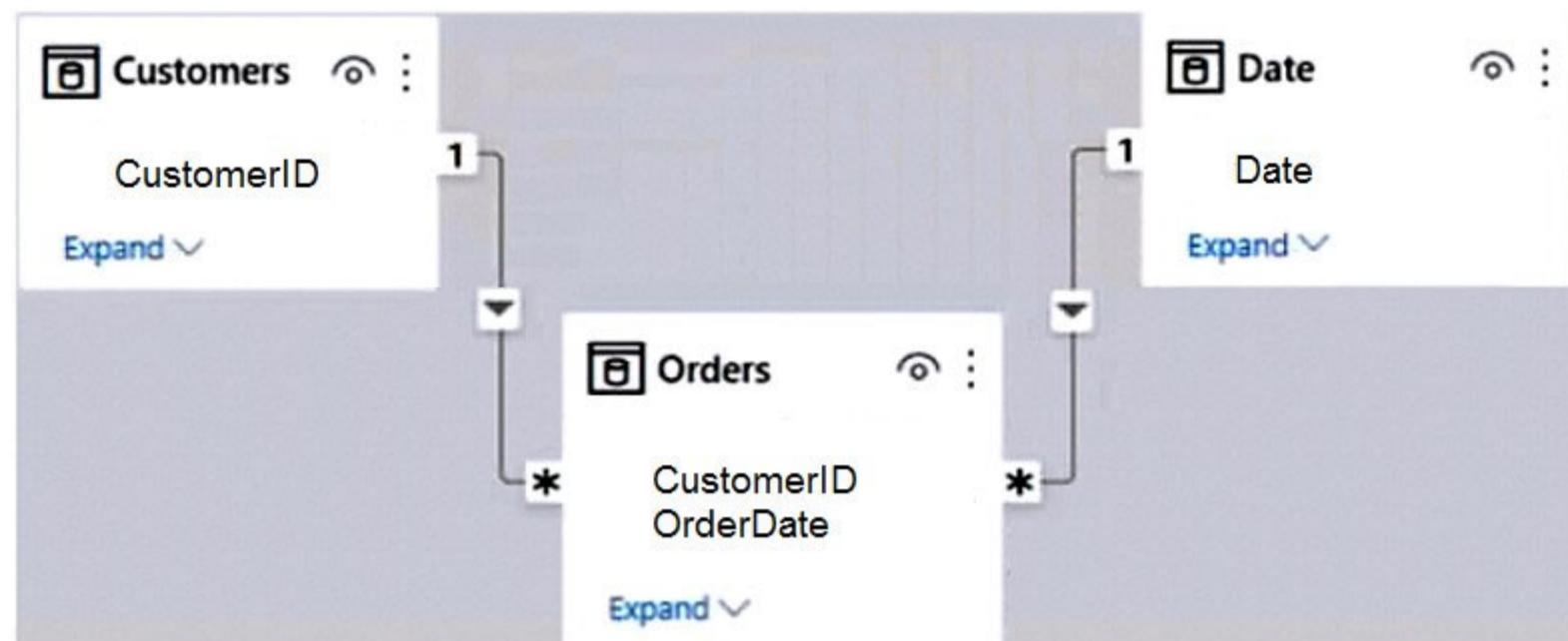
HOTSPOT -

You have a Power BI report named Orders that supports the following analysis:

- Total sales over time
- The count of orders over time
- New and repeat customer counts

The data model size is nearing the limit for a dataset in shared capacity.

The model view for the dataset is shown in the following exhibit.



The data view for the Orders table is shown in the following exhibit.

OrderID	CustomerID	OrderDate	ProductID	UnitPrice	Quantity	Discount	SalesTotal
10293	TORTU	8/29/1996 12:00:00 AM	18	\$50	12	0	600
10294	TORTU	8/29/1996 12:00:00 AM	63	\$35.1	5	0	175.5
10295	TORTU	8/29/1996 12:00:00 AM	75	\$6.2	6	0	37.2
10296	RATTC	8/29/1996 12:00:00 AM	1	\$14.4	18	0	259.2

The Orders table relates to the Customers table by using the CustomerID column.

The Orders table relates to the Date table by using the OrderDate column.

For each of the following statements, select Yes if the statement is true, Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area**Statements**

Summarizing Orders by the CustomerID, OrderID, and OrderDate columns will reduce the model size while still supporting the current analysis.

Removing the CustomerID column from Orders will reduce the model size while still supporting the current analysis.

Removing the UnitPrice and Discount columns from Orders will reduce the model size while still supporting the current analysis.

Correct Answer:

Answer Area

Statements	Yes	No
Summarizing Orders by the CustomerID, OrderID, and OrderDate columns will reduce the model size while still supporting the current analysis.	<input type="radio"/>	<input checked="" type="radio"/>
Removing the CustomerID column from Orders will reduce the model size while still supporting the current analysis.	<input type="radio"/>	<input checked="" type="radio"/>
Removing the UnitPrice and Discount columns from Orders will reduce the model size while still supporting the current analysis.	<input checked="" type="radio"/>	<input type="radio"/>

Box 1: No -

Would not support total sales over time.

Box 2: No -

Would not support new and repeat customer counts

Box 3: Yes

HOTSPOT -

You are building a financial report by using Power BI.

You have a table named financials that contains a column named Date and a column named Sales.

You need to create a measure that calculates the relative change in sales as compared to the previous quarter.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Sales QoQ% =

IF(

ISFILTERED('financials'[Date]),

ERROR("Uh oh."),

VAR PREV_QUARTER =



(SUM('financials'[Sales]),

('financials'[Date].[Date], -1, QUARTER)

)
RETURN

CALCULATE
CALCULATETABLE
DATEADD
DIVIDE
FILTER
FIND

(SUM('financials'[Sales]) - PREV_QUARTER, PREV_QUARTER)

)



Correct Answer:

Answer Area

```
Sales QoQ% =  
IF(  
    ISFILTERED('financials'[Date]),  
    ERROR("Uh oh."),  
    VAR PREV_QUARTER =  
        CALCULATE  
        CALCULATETABLE  
        DATEADD  
        DIVIDE  
        FILTER  
        FIND  
        (SUM('financials'[Sales]),  
         ('financials'[Date].[Date], -1, QUARTER))  
        )  
    RETURN  
        CALCULATE  
        CALCULATETABLE  
        DATEADD  
        DIVIDE  
        FILTER  
        FIND  
        (SUM('financials'[Sales]) - PREV_QUARTER, PREV_QUARTER)  
)
```

Box 1: CALCULATE -

Calculate the sum.

Box 2: DATEADD -

DATEADD -1 QUARTER will give the previous month.

Box 3: DIVIDE -

Use DIVIDE to get the relative change.

DRAG DROP -

You are creating a Power BI model and report.

You have a single table in a data model named Product. Product contains the following fields:

- ID
- Name
- Color
- Category
- Total Sales

You need to create a calculated table that shows only the top eight products based on the highest value in Total Sales.

How should you complete the DAX expression? To answer, drag the appropriate values to the correct 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.

Select and Place:

Values	Answer Area
ASC	
DESC	
RELATEDTABLE	
CALCULATETABLE	
MAXX	
TOPN	

Top 8 Products = (8, 'Product', 'Product'[Total Sales],)

Correct Answer:

Values	Answer Area
ASC	
DESC	
RELATEDTABLE	
CALCULATETABLE	
MAXX	
TOPN	

Top 8 Products = TOPN (8, 'Product', 'Product'[Total Sales], DESC)

Box 1: TOPN -

TOPN returns the top N rows of the specified table.

Syntax: TOPN(<n_value>, <table>, <orderBy_expression>, [<order>[, <orderBy_expression>, [<order>]]])

Box 2: DESC -

Descending order to get the highest values first.

Reference:

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

You are creating a sales report in Power BI for the NorthWest region sales territory of your company. Data will come from a view in a Microsoft SQL Server database. A sample of the data is shown in the following table:

ID	ProductKey	OrderDate	ShipDate	CustomerKey	SalesTerritoryRegion	SalesOrderNumber	SalesOrderLineNumber	OrderQuantity	UnitPrice	SalesAmount	TaxAmount	Freight
1	310	2010-12-29	2011-01-05	21768	Canada	SO43697	1	1	3578.27	3578.27	286.2616	89.4568
2	346	2010-12-29	2011-01-05	27365	France	SO43698	1	1	3399.99	3399.99	271.9992	84.9998
3	346	2010-12-29	2011-01-05	76537	NorthWest	SO43699	1	1	3399.99	3399.99	271.9992	84.9998
4	336	2010-12-29	2011-01-05	34256	SouthWest	SO43700	1	1	699.0982	699.0982	55.9279	17.4775
5	346	2010-12-29	2011-01-05	34253	Australia	SO43701	1	1	3399.99	3399.99	271.9992	84.9998
6	311	2010-12-30	2011-01-06	12543	SouthWest	SO43702	1	1	3578.27	3578.27	286.2616	89.4568
7	310	2010-12-30	2011-01-06	76545	Australia	SO43703	1	1	3578.27	3578.27	286.2616	89.4568

The report will facilitate the following analysis:

- The count of orders and the sum of total sales by Order Date
- The count of customers who placed an order
- The average quantity per order

You need to reduce data refresh times and report query times.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Set the data type for SalesOrderNumber to Decimal Number.
- B. Remove the CustomerKey and ProductKey columns.
- C. Remove the TaxAmt and Freight columns.
- D. Filter the data to only the NorthWest region sales territory.

Correct Answer: CD

C: Remove columns that are not used in the report.

D: Reduce the number of rows.

Incorrect:

Not A: Not possible.

Not B: Need CustomerKey to count of customers who placed an order

Community vote distribution

CD (100%)

You are creating a Power BI model that contains a table named Store. Store contains the following fields.

Name	Data type
Store ID	Whole Number
Store Name	Text
City	Text
State/Province	Text
Country	Text

You plan to create a map visual that will show store locations and provide the ability to drill down from Country to State/Province to City.

What should you do to ensure that the locations are mapped properly?

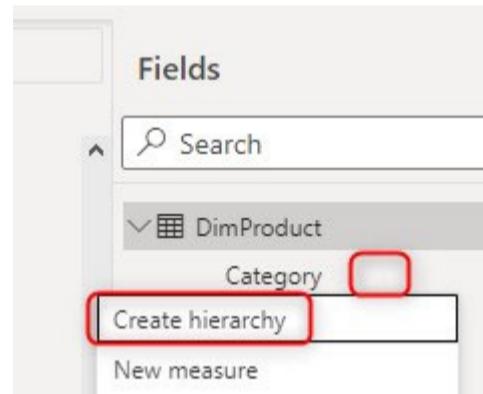
- A. Change the data type of City, State/Province, and Country.
- B. Set Summarization for City, State/Province, and Country to Don't summarize.
- C. Set the data category of City, State/Province, and Country.
- D. Create a calculated column that concatenates the values in City, State/Province, and Country.

Correct Answer: C

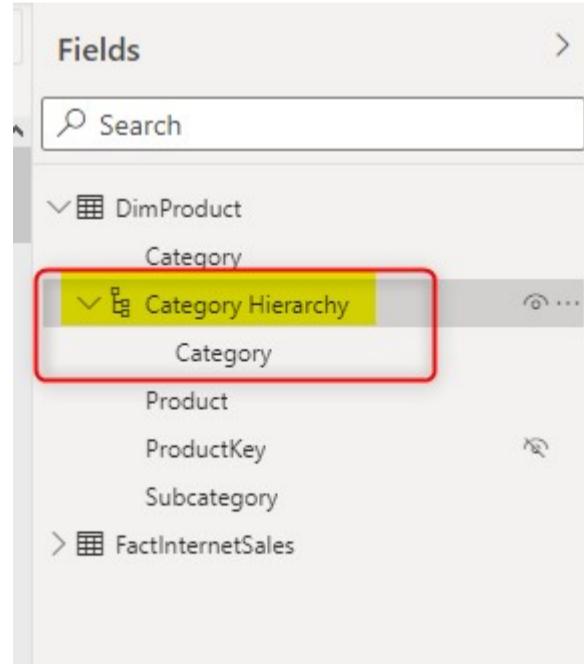
A hierarchy is a set of fields categorized in a hierarchical way that one level is the parent of another level. Values of the parent level can be drilled down to the lower level.

Create Hierarchy -

Right-click on the field you want to set as level 1 of the hierarchy in the fields list, and then select Create Hierarchy.



After that, you will see a new hierarchy created named your field name + 'Hierarchy'. This would have a hierarchy icon beside it and also an option to expand to the fields of the hierarchy. If you expand, you will see a copy of the Category field in there too.



Etc.

Reference:

<https://radacad.com/what-a-power-bi-hierarchy-is-and-how-to-use-it>

Community vote distribution

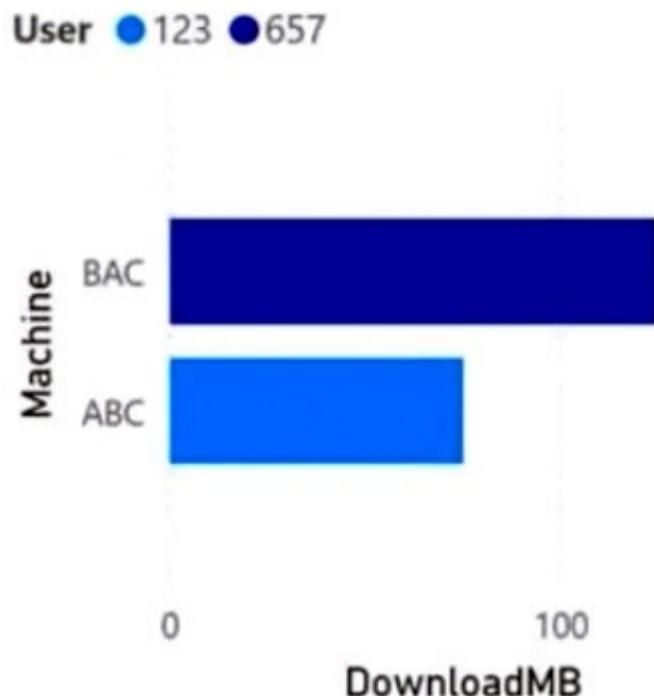
C (100%)

You are building a data model for a Power BI report.

You have data formatted as shown in the following table.

Machine-User	DownloadMB
ABC-123	75
BAC-657	125

You need to create a clustered bar chart as shown in the following exhibit.



What should you do?

- A. From Power Query Editor, split the Machine-User column by using a delimiter.
- B. From Power Query Editor, create a column that contains the last three digits of the Machine-User column.
- C. In a DAX function, create two calculated columns named Machine and User by using the SUBSTITUTE function.
- D. In a DAX function, create two measures named Machine and User by using the SUBSTITUTE function.

Correct Answer: A

Split a column of text (Power Query)

You can split a column with a text data type into two or more columns by using a common delimiter character. For example, a Name column that contains values written as <LastName>, <FirstName> can be split into two columns using the comma (,) character.

Note: Power Query is an Extract Transform Load (ETL) tool. It allows us to

Download and fetch data from different sources. We call this data ingestion

Combine, clean, and model this data. We call this data wrangling

Reference:

<https://support.microsoft.com/en-us/office/split-a-column-of-text-power-query-5282d425-6dd0-46ca-95bf-8e0da9539662>

Community vote distribution

A (100%)

DRAG DROP -

You need create a date table in Power BI that must contain 10 full calendar years, including the current year.

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.

Select and Place:

Values	Answer Area
CALENDAR	Date =
CALENDARAUTO	var var1 = <input type="text"/> Value (<input type="text"/> Value)()
DATE	return
EOMONTH	<input type="text"/> Value (
TODAY	DATE(var1 -9, 01, 01),
YEAR	DATE(var1, 12, 31)
)

Correct Answer:

Values	Answer Area
CALENDAR	Date =
CALENDARAUTO	var var1 = <input type="text"/> YEAR (<input type="text"/> TODAY)()
DATE	return
EOMONTH	<input type="text"/> CALENDAR (
TODAY	DATE(var1 -9, 01, 01),
YEAR	DATE(var1, 12, 31)
)

Box 1: YEAR -

Get the current year.

Box 2: TODAY -

TODAY returns the current date.

Box 3: CALENDAR -

CALENDAR returns a table with a single column named `date` containing a contiguous set of dates. The range of dates is from the specified start date to the specified end date, inclusive of those two dates.

The following formula returns a table with dates between January 1st, 2005 and December 31st, 2015.

CALENDAR(

DATE(2005, 1, 1),

DATE(2015, 12, 31)

Reference:

<https://dax.guide/calendar/>

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- Due Date
- Order Date
- Delivery Date

You need to support the analysis of sales over time based on all the date foreign keys.

Solution: You create measures that use the USERELATIONSHIP DAX function to filter sales on the active relationship between the sales table and the date table.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: B

Instead: Solution: From the Fields pane, you rename the date table as Due Date. You use a DAX expression to create Order Date and Delivery Date as calculated tables.

Reference:

<https://docs.microsoft.com/en-us/power-bi/guidance/relationships-active-inactive>

Community vote distribution
B (96%)

HOTSPOT -

You have a Power BI report that contains a measure named Total Sales.

You need to create a new measure that will return the sum of Total Sales for a year up to a selected date.

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.

Hot Area:

Answer Area

Measure =

TOTALYTD
CALCULATE
SUM
EVALUATE

[Total Sales],

'Date'[Date]
TODAY()
EOMONTH('Date'[Date])
LASTDATE('Date'[Date])

Answer Area

Measure =

TOTALYTD
CALCULATE
SUM
EVALUATE

Correct Answer:

[Total Sales],

'Date'[Date]
TODAY()
EOMONTH('Date'[Date])
LASTDATE('Date'[Date])

Box 1: TOTALYTD -

TOTALYTD evaluates the specified expression over the interval which begins on the first day of the year and ends with the last date in the specified date column after applying specified filters.

Syntax: TOTALYTD (

<Expression>,

<Dates>

[, <Filter>]

[, <YearEndDate>]

Expression - The expression to be evaluated.

Dates - The name of a column containing dates or a one column table containing dates.

Example:

TOTALYTD (-- 2007-01-01 : 2007-05-12

[Sales Amount],

'Date'[Date]

Box 2: 'Date'[Date]

Reference:

<https://dax.guide/totalytd/>

DRAG DROP -

You are modifying a Power BI model by using Power BI Desktop.

You have a table named Sales that contains the following fields.

Name	Data type
Transaction ID	Whole Number
Customer Key	Whole Number
Sales Date Key	Date
Sales Amount	Whole Number

You have a table named Transaction Size that contains the following data.

Transaction Size ID	Transaction Size	Min	Max
1	Small	0	10,000
2	Medium	10,001	100,000
3	Large	100,001	999,999,999

You need to create a calculated column to classify each transaction as small, medium, or large based on the value in Sales Amount.

How should you complete the code? To answer, drag the appropriate values to the correct 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.

Select and Place:

Values	Answer Area
ALL	Transaction Size =
AND	VAR SalesTotal = 'Sales'[Sales]
CALCULATE	VAR FilterSegment =
FILTER	Value (
OR	'Transaction Size',
SUM	Value (
	'Transaction Size'[Min] <= SalesTotal,
	'Transaction Size'[Max] >= SalesTotal
)
)
	VAR Result =
	Value (DISTINCT ('Transaction Size'[Transaction Size]), FilterSegment)
	RETURN
	Result

Correct Answer:

Values	Answer Area
ALL	Transaction Size =
AND	VAR SalesTotal = 'Sales'[Sales]
CALCULATE	VAR FilterSegment =
FILTER	CALCULATE (
OR	'Transaction Size',
SUM	AND (
	'Transaction Size'[Min] <= SalesTotal,
	'Transaction Size'[Max] >= SalesTotal
)
)
	VAR Result =
	FILTER (DISTINCT ('Transaction Size'[Transaction Size]), FilterSegment)
	RETURN
	Result

Box 1: CALCULATE -

CALCULATE evaluates an expression in a modified filter context.

Syntax: CALCULATE(<expression>[, <filter1> [, <filter2> [, ..., <filterN>]]])

The expression used as the first parameter is essentially the same as a measure.

Filters can be:

Boolean filter expressions -

Table filter expressions -

Filter modification functions -

Table filter expression -

A table expression filter applies a table object as a filter. It could be a reference to a model table, but more likely it's a function that returns a table object. You can use the FILTER function to apply complex filter conditions, including those that cannot be defined by a Boolean filter expression.

Box 2: AND -

Box 3: FILTER -

FILTER returns a table that represents a subset of another table or expression.

Syntax: FILTER(<table>,<filter>)

Note: DISTINCT returns a one-column table that contains the distinct values from the specified column. In other words, duplicate values are removed and only unique values are returned.

Reference:

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

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

You have a Power BI report for the procurement department. The report contains data from the following tables.

Table name	Source	Description	Column name	Approximate record count
Suppliers	Microsoft Dynamics 365	A list of all the suppliers approved for use by the company.	<ul style="list-style-type: none"> • ID • Name • Country 	100,000
LineItems	Microsoft Dynamics 365	All individual purchases made by employees across the company. An average of five line items per invoice.	<ul style="list-style-type: none"> • ID • Invoice ID • Invoice Date • Supplier ID • Description • Units • Price per Unit • Discount • Price 	1,000,000,000

There is a one-to-many relationship from Suppliers to LineItems that uses the ID and Supplier ID columns.

The report contains the visuals shown in the following table.

Name	Used field	Filter
Supplier usage by count and value of invoices	Suppliers[ID] Suppliers[Name] LineItems[Invoice ID] LineItems[Price]	None
Spend by supplier location	Suppliers[Country] LineItems[Price]	None
Top 10 largest invoices last month	LineItems[Invoice ID] LineItems[Price]	LineItems[Invoice Date] in last calendar month

You need to minimize the size of the dataset without affecting the visuals.

What should you do?

- A. Merge Suppliers and LineItems.
- B. Remove the LineItems[Description] column.
- C. Remove the rows from LineItems where LineItems[Invoice Date] is before the beginning of last month.
- D. Group LineItems by LineItems[Invoice ID] and LineItems[Invoice Date] with a sum of LineItems[Price].

Correct Answer: B

Remove a column that is not used in the visuals reduces the size of the dataset.

Incorrect:

Not A: Merging the tables would increase the dataset.

Not C: Two of the visuals need historical data.

Not D: Grouping would not affect size.

Community vote distribution

B (97%)

You have a Power BI report for the marketing department. The report reports on web traffic to a blog and contains data from the following tables.

Table name	Source	Description	Column name
Posts	Blog RSS feed	An XML representation of all the blog posts from your company's website	<ul style="list-style-type: none"> • Publish Date • URL • Title • Full Text • Summary
Traffic	Website logs	Activity data from your company's entire website	<ul style="list-style-type: none"> • DateTime • URL Visited • IP Address • Browser Agent • Referring URL

There is a one-to-many relationship from Posts to Traffic that uses the URL and URL Visited columns.

The report contains the visuals shown in the following table.

Name	Used field	Filter
Top 10 blog posts of all time	Posts[Title] Traffic[DateTime]	<i>None</i>
Top 10 blog posts from the last seven days	Posts[Title] Traffic[DateTime]	Traffic[DateTime] is in the last 7 days
Blog visits over time	Traffic[DateTime] Traffic[URL Visited]	Traffic[URL Visited] contains "blog"
Top 10 external referrals to the blog of all time	Traffic[Referring URL]	Traffic[URL Visited] contains "blog" AND Traffic[Referring URL] does not start with "/"

The dataset takes a long time to refresh.

You need to modify Posts and Traffic queries to reduce load times.

Which two actions will reduce the load times? Each correct answer presents part of the solution.

NOTE:

Each correct selection is worth one point.

- A. Remove the rows in Posts in which Posts[Publish Date] is in the last seven days.
- B. Remove the rows in Traffic in which Traffic[URL Visited] does not contain "blog".
- C. Remove Traffic[IP Address], Traffic[Browser Agent], and Traffic[Referring URL].
- D. Remove Posts[Full Text] and Posts[Summary].
- E. Remove the rows in Traffic in which Traffic[Referring URL] does not start with "/".

Correct Answer: BD

B: Only blog posts rows are useful for the visuals.

D: These two columns are not used in the visuals and can be removed.

Incorrect:

Not A: Three visuals need historical data.

Not C: Traffic[Referring URL] is used in one of the visuals and therefore cannot be removed.

Not E: These rows are used in 3 visuals.

Community vote distribution

BD (100%)

HOTSPOT

You are creating a quick measure as shown in the following exhibit.

Quick measures

Calculation**Rolling average**

Calculate the average of base value over a certain number of periods before and/or after each date.

[Learn more](#)**Base value** ⓘ**Date** ⓘ**Period** ⓘ**Days****Periods before** ⓘ**1****Periods after** ⓘ**0****Fields**

- Search
- ▼ Customer
 - ▼ Product
 - ^ Sales
 - Date
 - Gross Margin
 - Month
 - Σ MonthNumberOfYear
 - Σ Quarter
 - Sales_SRC
 - Time Intelligence
 - Total Cost
 - Total Order Qty
 - Total Sales
 - Total Sales rolling average
 - Unit Price
 - Σ Year

You need to create a monthly rolling average measure for Sales over time.

How should you configure the quick measure calculation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Base value:

Month
 Total Cost
 Total Order Qty
 Total Sales
 Year

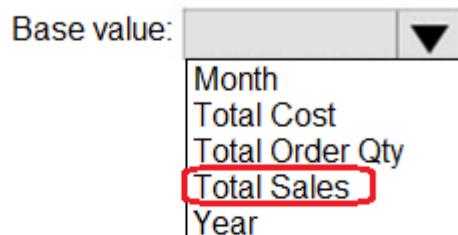
Date:

Date
 Month
 Total Sales
 Year

Period:

Days
 Months
 Quarters
 Years

Answer Area



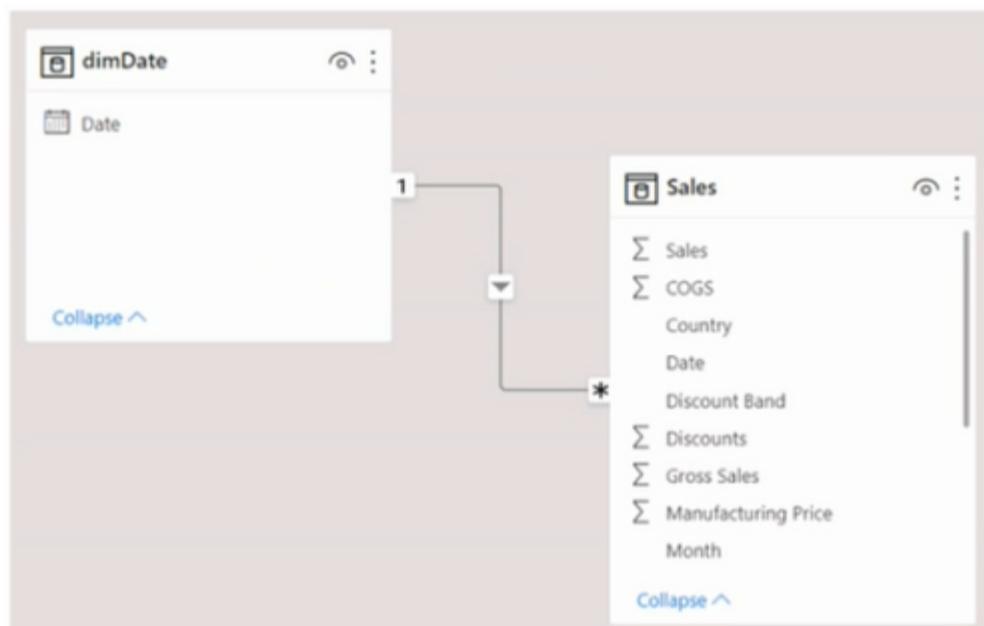
Correct Answer:



Question #48

Topic 2

You have the Power BI data model shown in the following exhibit.



The Sales table contains records of sales by day from the last five years up until today's date.

You plan to create a measure to return the total sales of March 2021 when March 2022 is selected.

Which DAX expression should you use?

- A. Calculate (Sum(Sales[Sales])), PREVIOUSYEAR(dimDate[Date])
- B. TOTALYTD (SUM(Sales[Sales]), dimDate[Date])
- C. Calculate (SUM(Sales[Sales]), SAMEPERIODLASTYEAR(dimDate[Date]))
- D. SUM(Sales[Sales])

Correct Answer: C

Community vote distribution

C (100%)

You use Power BI Desktop to load data from a Microsoft SQL Server database.

While waiting for the data to load, you receive the following error.

```
ERROR [08001] timeout expired
```

You need to resolve the error.

What are two ways to achieve the goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Reduce the number of rows and columns returned by each query.
- B. Split log running queries into subsets of columns and use Power Query to merge the queries.
- C. Use Power Query to combine log running queries into one query.
- D. Disable query folding on long running queries.

Correct Answer: AB

Community vote distribution

AB (100%)

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.

From Power Query Editor, you profile the data shown in the following exhibit.

	A IoT GUID	B IoT DateTime	C IoT ID
● Valid	100%	● Valid	100%
● Error	0%	● Error	0%
● Empty	0%	● Empty	0%
1	48196321-38D9-EC11-BB3D-0022489A2...	21/05/2022 18:59:25	100001000
2	49196321-38D9-EC11-BB3D-0022489A2...	21/05/2022 18:59:26	100001001
3	0300C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001002
4	0400C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001003
5	0500C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001004
6	0600C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001005

The IoT GUID and IoT ID columns are unique to each row in the query.

You need to analyze IoT events by the hour and day of the year. The solution must improve dataset performance.

Solution: You split the IoT DateTime column into a column named Date and a column named Time.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

Community vote distribution

A (85%)

B (15%)

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.

From Power Query Editor, you profile the data shown in the following exhibit.

	A IoT GUID	B IoT DateTime	C IoT ID
● Valid	100%	● Valid	100%
● Error	0%	● Error	0%
● Empty	0%	● Empty	0%
1	48196321-38D9-EC11-BB3D-0022489A2...	21/05/2022 18:59:25	100001000
2	49196321-38D9-EC11-BB3D-0022489A2...	21/05/2022 18:59:26	100001001
3	0300C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001002
4	0400C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001003
5	0500C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001004
6	0600C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001005

The IoT GUID and IoT ID columns are unique to each row in the query.

You need to analyze IoT events by the hour and day of the year. The solution must improve dataset performance.

Solution: You remove the IoT GUID column and retain the IoT ID column.

Does this meet the goal?

A. Yes

B. No

Correct Answer: A

Community vote distribution

A (71%)

B (29%)

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.

From Power Query Editor, you profile the data shown in the following exhibit.

	A IoT GUID	B IoT DateTime	C IoT ID
● Valid	100%	● Valid	100%
● Error	0%	● Error	0%
● Empty	0%	● Empty	0%
1	48196321-38D9-EC11-BB3D-0022489A2...	21/05/2022 18:59:25	100001000
2	49196321-38D9-EC11-BB3D-0022489A2...	21/05/2022 18:59:26	100001001
3	0300C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001002
4	0400C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001003
5	0500C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001004
6	0600C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001005

The IoT GUID and IoT ID columns are unique to each row in the query.

You need to analyze IoT events by the hour and day of the year. The solution must improve dataset performance.

Solution: You change the IoT DateTime column to the Date data type.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

Community vote distribution

B (100%)

You have a Microsoft Power BI report. The size of PBIX file is 550 MB. The report is accessed by using an App workspace in shared capacity of powerbi.com.

The report uses an imported dataset that contains one fact table. The fact table contains 12 million rows. The dataset is scheduled to refresh twice a day at 08:00 and 17:00.

The report is a single page that contains 15 AppSource visuals and 10 default visuals.

Users say that the report is slow to load the visuals when they access and interact with the report.

You need to recommend a solution to improve the performance of the report.

What should you recommend?

- A. Change any DAX measures to use iterator functions.
- B. Remove unused columns from tables in the data model.
- C. Replace the default visuals with AppSource visuals.
- D. Increase the number of times that the dataset is refreshed.

Correct Answer: B

Community vote distribution

B (100%)

DRAG DROP

You have a Power BI data model that contains two tables named Products and Sales.

A one-to-many relationship exists between the tables.

You have a report that contains a report-level filter for Products.

You need to create a measure that will return the percent of total sales for each product. The measure must respect the report-level filter when calculating the total.

How should you complete the DAX measure? To answer, drag the appropriate DAX functions to the correct targets. Each function 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.

DAX Function**Answer Area**

ALL

```
Percent of Product Sales =  
VAR ProductSales = SUM ('Sales'[Sales])
```

ALLSELECTED

```
VAR AllSales =
```

CALCULATE

```
(SUM('Sales'[Sales]),
```

```
('Products'[Product]))
```

```
RETURN
```

FILTER

```
DIVIDE (ProductSales, AllSales)
```

SELECTEDVALUE

Answer Area

Percent of Product Sales =
VAR ProductSales = SUM ('Sales'[Sales])

Correct Answer: VAR AllSales =

```
CALCULATE (SUM('Sales'[Sales]), FILTER
```

```
('Products'[Product]))
```

```
RETURN
```

```
DIVIDE (ProductSales, AllSales)
```

You have a Power BI data model that analyzes product sales over time. The data model contains the following tables.

Table name	Column name	Data type
Product	Product ID	Whole number
	Product Name	Text
	Product Category	Text
Sales	Product ID	Whole number
	Order Date	Date
	Ship Date	Date
	Delivered Date	Date
	Invoice Number	Whole number
	Quantity	Whole number
	Sales Amount	Decimal number

A one-to-many relationship exists between the tables.

The auto date/time option for the data model is enabled.

You need to reduce the size of the data model while maintaining the ability to analyze product sales by month and quarter.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct answer is worth one point.

- A. Create a relationship between the Date table and the Sales table.
- B. Disable the auto date/time option.
- C. Create a Date table and select Mark as Date Table.
- D. Disable the load on the Date table.
- E. Remove the relationship between the Product table and the Sales table.

Correct Answer: AC

Community vote distribution

AC (84%)

Other

You have a Microsoft Power BI report. The size of PBIX file is 550 MB. The report is accessed by using an App workspace in shared capacity of powerbi.com.

The report uses an imported dataset that contains one fact table. The fact table contains 12 million rows. The dataset is scheduled to refresh twice a day at 08:00 and 17:00.

The report is a single page that contains 15 AppSource visuals and 10 default visuals.

Users say that the report is slow to load the visuals when they access and interact with the report.

You need to recommend a solution to improve the performance of the report.

What should you recommend?

- A. Implement row-level security (RLS).
- B. Remove unused columns from tables in the data model.
- C. Replace the default visuals with AppSource visuals.
- D. Enable visual interactions.

Correct Answer: B

Community vote distribution

B (100%)

HOTSPOT

You have a Power BI data model that contains a table named Stores. The table has the following columns:

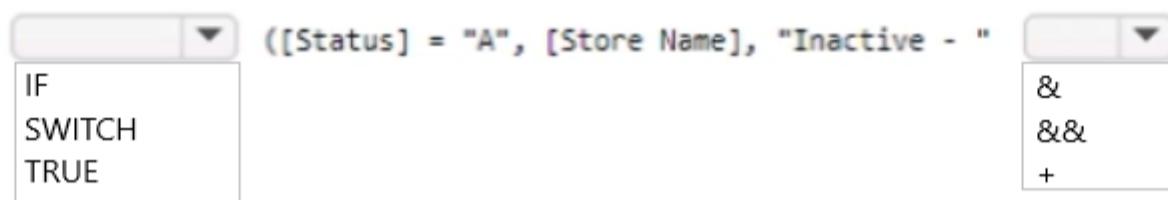
- Store Name
- Open Date
- Status
- State
- City

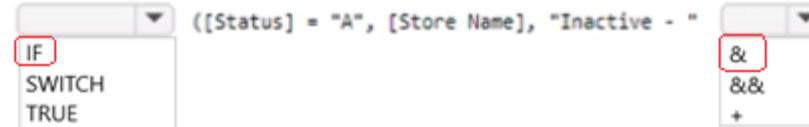
You need to create a calculated column named Active Store Name that meets the following requirements:

- When the value of the Status column is "A", the value in the Store Name column must be returned.
- When the value of the Status column is NOT "A", the value in the Store Name column that is prefixed with "Inactive - " must be returned.

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.

Active Store Name = 

Correct Answer: 

You have a CSV file that contains user complaints. The file contains a column named Logged. Logged contains the date and time each complaint occurred. The data in Logged is in the following format: 2018-12-31 at 08:59.

You need to be able to analyze the complaints by the logged date and use a built-in date hierarchy.

What should you do?

- A. Apply a transformation to extract the first 11 characters of the logged column.
- B. Add a conditional column that outputs 2018 if the Logged column starts with 2018 and set the data type of the new column to Whole Number.
- C. Create a column by example that starts with 2018-12-31 and set the data type of the new column to Date.
- D. Apply a transformation to extract the last 11 characters of the Logged column and set the data type of the new column to Date.

Correct Answer: B

Community vote distribution

C (97%)

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.

From Power Query Editor, you profile the data shown in the following exhibit.

	A IoT GUID	B IoT DateTime	C IoT ID	
	● Valid ● Error ● Empty	100% 0% 0%	● Valid ● Error ● Empty	100% 0% 0%
1	48196321-38D9-EC11-BB3D-0022489A2...	21/05/2022 18:59:25	100001000	
2	49196321-38D9-EC11-BB3D-0022489A2...	21/05/2022 18:59:26	100001001	
3	0300C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001002	
4	0400C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001003	
5	0500C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001004	
6	0600C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001005	

The IoT GUID and IoT ID columns are unique to each row in the query.

You need to analyze IoT events by the hour and day of the year. The solution must improve dataset performance.

Solution: You create a custom column that concatenates the IoT GUID column and the IoT ID column and then delete the IoT GUID and IoT ID columns.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: B

Community vote distribution

B (60%)

A (40%)

You have a Power BI model that contains a table named Employee. The table contains the following data.

Name	EmployeeID	ParentEmployeeID
David	100	100
Simon	101	100
Wenanta	102	100
Conrad	103	101
Priyish	104	103
Sunil	105	103
Pavel	106	102

Each employee has one manager as shown in the ParentEmployeeID column.

All reporting paths lead to the CEO at the top of the organizational hierarchy.

You need to create a calculated column that returns the count of levels from each employee to the CEO.

Which DAX expression should you use?

- A. PATHLENGTH(PATH(Employee[EmployeeID],Employee[ParentEmployeeID]))
- B. PATHITEM(PATH(Employee[EmployeeID],Employee[ParentEmployeeID]),1,INTEGER)
- C. PATHCONTAINS(PATH(Employee[EmployeeID],Employee[ParentEmployeeID]),1)
- D. PATH(Employee[EmployeeID],Employee[ParentEmployeeID])

Correct Answer: A

Community vote distribution

A (93%)

7%

You have a Microsoft Power BI report. The size of PBIX file is 550 MB. The report is accessed by using an App workspace in shared capacity of powerbi.com.

The report uses an imported dataset that contains one fact table. The fact table contains 12 million rows. The dataset is scheduled to refresh twice a day at 08:00 and 17:00.

The report is a single page that contains 15 AppSource visuals and 10 default visuals.

Users say that the report is slow to load the visuals when they access and interact with the report.

You need to recommend a solution to improve the performance of the report.

What should you recommend?

- A. Replace the default visuals with AppSource visuals.
- B. Remove unused columns from tables in the data model.
- C. Change the imported dataset to DirectQuery
- D. Increase the number of times that the dataset is refreshed.

Correct Answer: B

Community vote distribution

B (91%) 9%

You have a CSV file that contains user complaints. The file contains a column named Logged. Logged contains the date and time each complaint occurred. The data in Logged is in the following format: 2018-12-31 at 08:59.

You need to be able to analyze the complaints by the logged date and use a built-in date hierarchy.

What should you do?

- A. Change the data type of the Logged column to Date.
- B. Split the Logged column by using at as the delimiter.
- C. Add a conditional column that outputs 2018 if the Logged column starts with 2018 and set the data type of the new column to Whole Number.
- D. Apply the Parse function from the Date transformations options to the Logged column.

Correct Answer: C

Community vote distribution

B (86%) 14%

HOTSPOT

You have the Power BI data model shown in the following exhibit.



You need to create a measure to count the number of product categories that had products sold during a selected period.

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.

Product Categories Sold =

CALCULATE ([DISTINCTCOUNT('Product'[ProductCategory]),
COUNT('Product'[ProductCategory]),
DISTINCTCOUNT('Sales'[ProductID]),
SUM('Sales'[SalesQuantity]),
[Sales]
[Product]
[Product][ProductCategory]
[Date])

Product Categories Sold =

Correct Answer: **CALCULATE (** [DISTINCTCOUNT('Product'[ProductCategory]),
COUNT('Product'[ProductCategory]),
DISTINCTCOUNT('Sales'[ProductID]),
SUM('Sales'[SalesQuantity]),
[Sales]
[Product]
[Product][ProductCategory]
Date)

You have a Microsoft Power BI report. The size of PBIX file is 550 MB. The report is accessed by using an App workspace in shared capacity of powerbi.com.

The report uses an imported dataset that contains one fact table. The fact table contains 12 million rows. The dataset is scheduled to refresh twice a day at 08:00 and 17:00.

The report is a single page that contains 15 AppSource visuals and 10 default visuals.

Users say that the report is slow to load the visuals when they access and interact with the report.

You need to recommend a solution to improve the performance of the report.

What should you recommend?

- A. Enable visual interactions.
- B. Change any DAX measures to use iterator functions.
- C. Implement row-level security (RLS).
- D. Remove unused columns from tables in the data model.

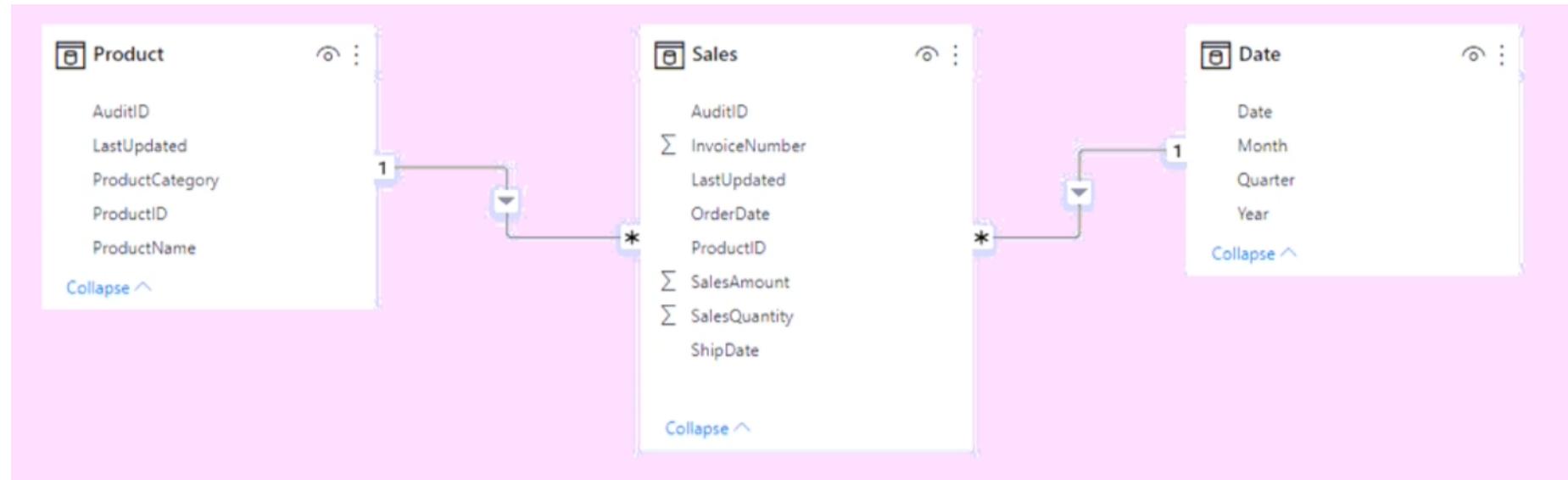
Correct Answer: D

Community vote distribution

D (100%)

HOTSPOT

You have the Power BI data model shown in the following exhibit.



The Sales table has the following columns.

Name	Data type	Sample value
ProductID	Whole number	1
InvoiceNumber	Whole number	100005
OrderDate	Date	2022-05-09
ShipDate	Date	2022-05-12
SalesAmount	Decimal number	1500.75
SalesQuantity	Whole number	3
LastUpdated	Date/time	5/22/2022 11:45:30 AM
AuditID	Whole number	123212

The data model must support the following analysis:

- Total sales by product by month in which the order was placed
- Quantities sold by product by day on which the order was placed
- Number of sales transactions by quarter in which the order was placed

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Statements

Removing the LastUpdated column from the Sales table reduces the model size while still supporting the required analysis.

 Yes No

Removing the ProductID column from the Sales table reduces the model size while still supporting the required analysis.

 Yes No

Removing the ShipDate column from the Sales table reduces the model size while still supporting the required analysis.

 Yes No
Statements

Removing the LastUpdated column from the Sales table reduces the model size while still supporting the required analysis.

Yes No

Correct Answer: Removing the ProductID column from the Sales table reduces the model size while still supporting the required analysis.

Yes No

Removing the ShipDate column from the Sales table reduces the model size while still supporting the required analysis.

Yes No

You have a CSV file that contains user complaints. The file contains a column named Logged. Logged contains the date and time each complaint occurred. The data in Logged is in the following format: 2018-12-31 at 08:59.

You need to be able to analyze the complaints by the logged date and use a built-in date hierarchy.

What should you do?

- A. Create a column by example that starts with 2018-12-31 and set the data type of the new column to Date
- B. Create a column by example that starts with 2018-12-31
- C. Apply a transformation to extract the last 11 characters of the Logged column
- D. Add a conditional column that outputs 2018 if the Logged column starts with 2018 and set the data type of the new column to Whole Number

Correct Answer: D

Community vote distribution

A (93%) 7%

You have a Power BI data model that contains a table named Employees. The table has the following columns:

- Employee Name
- Email Address
- Start Date
- Job Title

You are implementing dynamic row-level security (RLS).

You need to create a table filter to meet the following requirements:

- Users must see only their own employee data.
- The DAX expression must work in both Power BI Desktop and the Power BI service.

Which expression should you use?

- A. [Email Address] - USERNAME()
- B. [Employee Name] - USERPRINCIPALNAME()
- C. [Employee Name] = USERNAME()
- D. [Email Address] = USERPRINCIPALNAME()

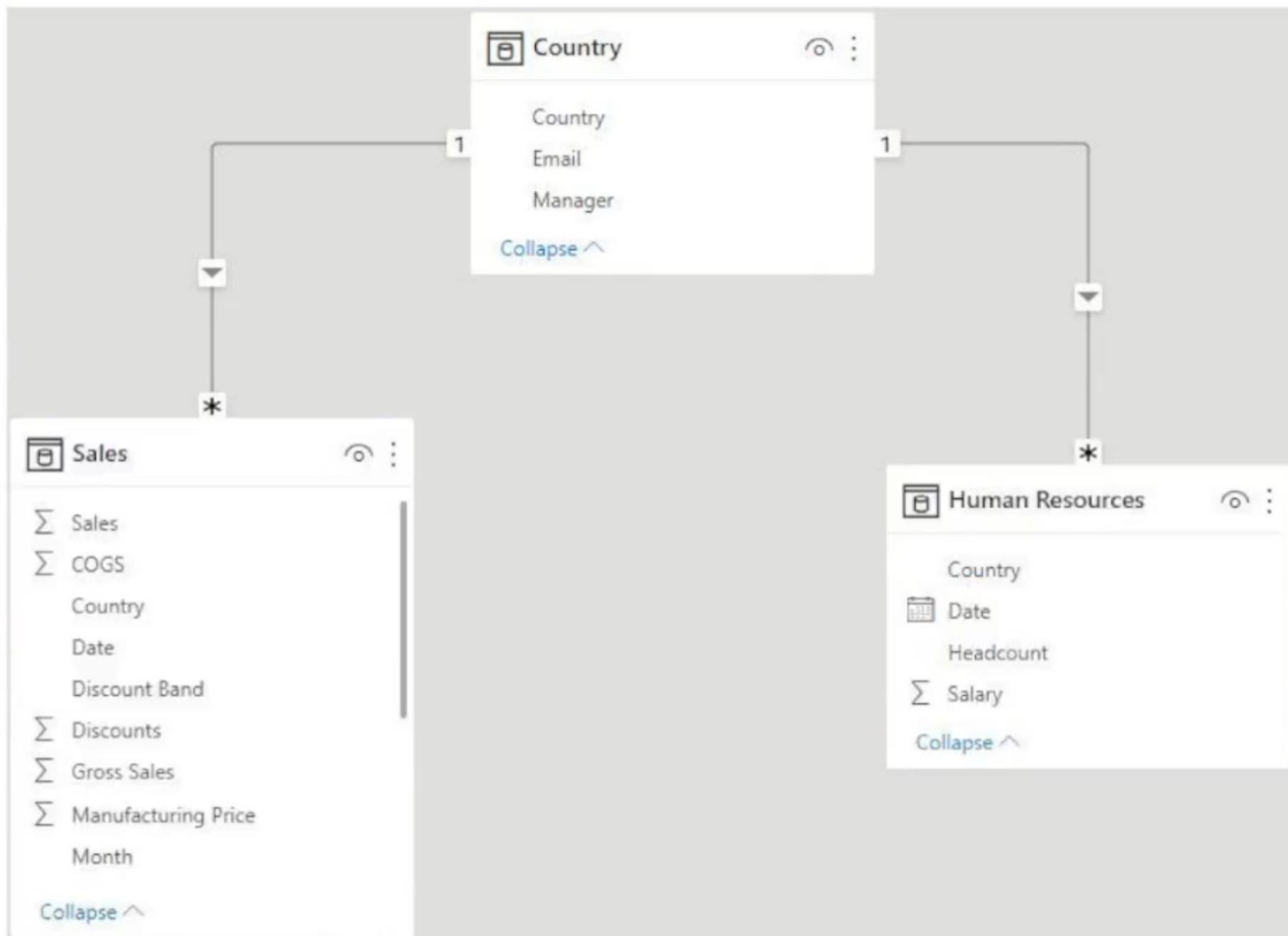
Correct Answer: D

Community vote distribution

D (97%)

DRAG DROP

You have the Power BI data model shown in the following exhibit.



The Country table contains the following data.

Country	Manager	Email
USA	CFO	cfo@msn.com
France	Phillipe	phillipe@msn.com
Brazil	Juan	juan@msn.com
Singapore	Srini	srini@msn.com

You create two row-level security (RLS) roles named Manager and CFO.

You plan to publish the dataset to the Power BI service.

You need to create DAX expressions for the RLS filters. The solution must meet the following requirements:

- Each manager must see only the data in the Sales and Human Resources tables for their own country.
- The CFO must be prevented from seeing the data in the Human Resources table.
- The CFO must see the sales data of all countries.

How should you complete the DAX expressions to meet the requirements? To answer, drag the appropriate expressions to the correct targets. Each expression 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.

Table Filter DAX Expression [Country]= "USA" [Email]= userprincipalname() [Manager]= "CFO" False() True()**Answer Area**

Human Resources:

Country:

Answer AreaHuman Resources: [Manager]= "CFO"**Correct Answer:**Country: [Email]= userprincipalname()

Question #69

Topic 2

You have a Power BI data model that imports data from a Microsoft Excel spreadsheet.

You use Power Query to load a query that contains both renamed and custom columns.

Later, you attempt to reload the query and receive the following error message.

Expression.Error: The column 'Category' of the table wasn't found.

What are two possible causes of the error? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. The column was removed from the source file.
- B. The column was renamed in the source file.
- C. The file is no longer in the specified location.
- D. The data type of the column was changed.

Correct Answer: AB*Community vote distribution*

AB (100%)

You have a Power BI model that contains a table named Sales. The Sales table contains the following columns:

- Order Line ID
- Product ID
- Unit Price
- Order ID
- Quantity

Orders are uniquely identified by using the order ID and can have multiple order lines. Each order line within an order contains a different product ID.

You need to write a DAX measure that counts the number of orders.

Which formula should you use?

- A. Count('Sales'[Order ID])
- B. CountA('Sales' [Order ID])
- C. CountRows('Sales')
- D. DistinctCount('Sales' [Order ID])

Correct Answer: D

Community vote distribution

D (61%) A (39%)

HOTSPOT

You are creating a Power BI model in Power BI Desktop.

You need to create a calculated table named Numbers that will contain all the integers from -100 to 100.

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

NOTE: Each correct selection is worth one point.

Answer Area

Numbers =

GENERATE
GENERATEALL
GENERATESERIES

(100, 1, 200)
(-100, 100, 1)
(-1, -100, 100)

Answer Area

Numbers =

Correct Answer:

GENERATE
GENERATEALL
GENERATESERIES

(100, 1, 200)
(-100, 100, 1)
(-1, -100, 100)

In Power Query Editor, you have a query named Sales Data that contains the following columns.

Name	Data type
Sale date	Date
Product ID	Whole number
Product name	Text
Product category	Text
Customer ID	Whole number

You need to create two queries named Product Dimension and Sales Fact based on the Sales Data query. The solution must minimize maintenance effort and the size of the dataset.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Reference the Sales Data query to create the new queries.
- B. Disable the load for the Sales Fact query.
- C. Duplicate the Sales Data query to create the new queries.
- D. Clear Include in report refresh for the Sales Data query.
- E. Disable the load for the Sales Data query.

Correct Answer: AE

Community vote distribution

AE (85%)

You have a Power BI model that contains a table named Date. The Date table contains the following columns:

- Date
- Fiscal Year
- Fiscal Quarter
- Month Name
- Calendar Year
- Week Number
- Month Number
- Calendar Quarter

You need to create a calculated table based on the Date table. The calculated table must contain only unique combinations of values for Calendar Year, Calendar Quarter, and Calendar Month.

Which DAX function should you include in the table definition?

- A. ADDCOLUMNS
- B. CALCULATE
- C. SUMMARIZE
- D. DATATABLE

Correct Answer: A

Community vote distribution

C (85%) Other

HOTSPOT

You have a Power BI model that contains the following data.

Table name	Column name	Description	Data type
Date	Date	Calendar date	Date
	Month	Calendar month	Text
	Year	Calendar year	Integer
Sales	Sale	Sales value	Decimal number
	Date	Calendar date	Date

The Date table relates to the Sales table by using the Date columns.

You need to create a calculated table that will contain the following:

- A row for each year
- A column that contains the total sales per year

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

NOTE: Each correct selection is worth one point.

Answer Area

SalesSummary=

--	--

```
( Sales, Date[Date], "Sales", SUM (Sales[Sale] ) )
ROLLUP
SELECTCOLUMNS
SUMMARIZE
```

Answer Area

SalesSummary=

Correct Answer:

--	--

```
( Sales, Date[Date], "Sales", SUM (Sales[Sale] ) )
ROLLUP
SELECTCOLUMNS
SUMMARIZE
```

You use Power Query Editor to import and preview sales data from the years 2020 and 2021 in a Microsoft Excel file as shown in the following exhibit.

A ^B _C Month	1 ² ₃ 2020	1 ² ₃ 2021	
● Valid	100%	100%	
● Error	0%	0%	
● Empty	0%	0%	
	12 distinct, 12 unique		12 distinct, 12 unique
January		4400	
February		2988	
March		5230	
April		4500	
May		3850	
June		6215	
July		2507	
August		3605	
September		4680	
October		3955	
November		6510	
December		5200	
		4908	
		3722	
		4815	
		5031	
		4354	
		6019	
		3922	
		3740	
		4850	
		4612	
		6480	
		5155	

You need to shape the query to display the following three columns:

- Month
- Sales
- Year

What should you select in Power Query Editor?

- A. Merge columns
- B. Transpose
- C. Unpivot columns
- D. Pivot column

Correct Answer: C

Community vote distribution

C (92%)

8%

HOTSPOT

You are creating a Power BI model to analyze inventory.

You load data into three tables named Date, Product, and Inventory. The Inventory table relates to the Date and Product tables by using one-to-many relationships.

Inventory data is recorded daily with no exceptions. The correct inventory quantity for a given product in a month is the last recorded value for that month.

You need to write a DAX measure that will show the correct inventory value when a user analyzes inventory by year, month, or date.

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

NOTE: Each correct selection is worth one point.

Answer Area

Last Inventory Count =

AllSelected
Calculate
CalculateTable

SUM ('Inventory'[QuantityAvailable]),

LastDate
LastNonBlankValue
Max

Answer Area

Last Inventory Count =

AllSelected
Calculate
CalculateTable

SUM ('Inventory'[QuantityAvailable]),

LastDate
LastNonBlankValue
Max

Correct Answer:

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 report that imports a date table and a sales table from an Azure SQL database data source. The sales table has the following date foreign keys:

- Due Date
- Order Date
- Delivery Date

You need to support the analysis of sales over time based on all three dates at the same time.

Solution: From the Fields pane, you rename the date table as Due Date. You use a DAX expression to create Order Date and Delivery Date as calculated tables. You create active relationships between the sales table and each date table.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: A

Community vote distribution

A (83%) B (17%)

Topic 3 - Question Set 3

Question #1

Topic 3

DRAG DROP -

You have a Microsoft Excel spreadsheet that contains the data shown in the following table.

Department	Stage	School1	School2	School3	School4
Mathematics	1	75	65	90	70
Mathematics	2	80	70	80	75
Geography	1	95	65	80	75
Geography	2	80	70	80	75

You plan to build a data model for a Power BI report.

You need to prepare the data so that it is available to the model in the format shown in the following table.

Department	School	Avg Score
Mathematics	School1	77.5
Geography	School1	87.5

Which three actions should you perform in sequence in Power Query Editor? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Select the [Department] and [Stage] columns and unpivot the other columns.	
Select and unpivot the [Department] and [Stage] columns.	
Group by [Department] and [School] and create a new column named [Avg Score] that uses the AVERAGE function on the [Score] column.	
Rename the [Attribute] column as [School] and the [Value] column as [Score].	
Group by [Department],[School1],[School2],[School3],[School4] and create a new column named [Avg Score] that uses the AVERAGE function on the [Stage] column.	

Correct Answer:

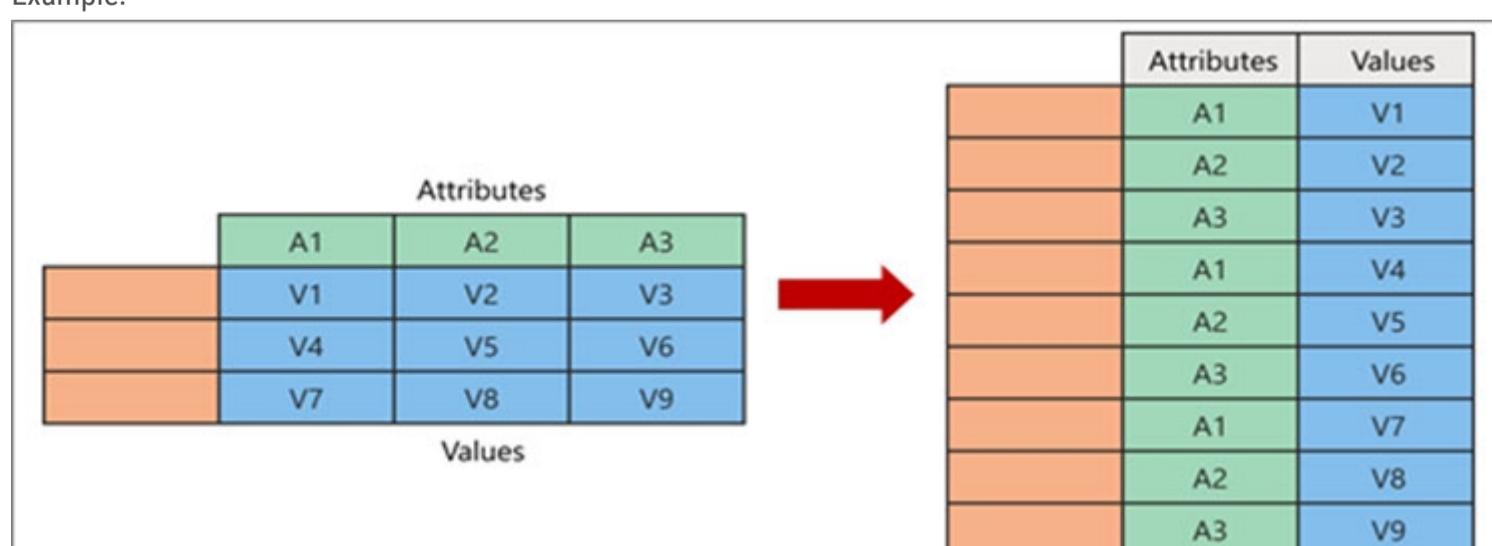
Actions	Answer Area
Select and unpivot the [Department] and [Stage] columns.	Select the [Department] and [Stage] columns and unpivot the other columns.
Group by [Department],[School1],[School2],[School3],[School4] and create a new column named [Avg Score] that uses the AVERAGE function on the [Stage] column.	Rename the [Attribute] column as [School] and the [Value] column as [Score].

Step 1: Select the [Department] and [Stage] columns and unpivot the other columns.

We unpivot the School1, School2, School3, and the School4 columns.

You might want to unpivot data, sometimes called flattening the data, to put it in a matrix format so that all similar values are in one column.

Example:



When you unpivot, you unpack the attribute-value pairs that represent an intersection point of the new columns and re-orient them into flattened columns:

* Values (in blue on the left) are unpivoted into a new column (in blue on the right).

* Attributes (in green on the left) are unpivoted into a new column (in green on the right) and duplicates are correspondingly mapped to the new Values column.

Step 2: Rename the [Attribute] column as [School] and the [Value] column as [Score],

Step 3: Group by [Department] and [School] and..

Reference:

<https://support.microsoft.com/en-us/office/unpivot-columns-power-query-0f7bad4b-9ea1-49c1-9d95-f588221c7098>

Question #2

Topic 3

You have a report that contains a bar chart and a column chart. The bar chart shows customer count by customer segment. The column chart shows sales by month.

You need to ensure that when a segment is selected in the bar chart, you see which portion of the total sales for the month belongs to the customer segment.

How should the visual interactions be set on the column chart when the bar chart is selected?

- A. highlight
- B. filter
- C. no impact

Correct Answer: A

In most visuals, highlighting doesn't remove the unrelated data. Instead it highlights the related data. The rest of the data remains visible but dimmed.

Note: By default, visualizations on a report page can be used to cross-filter and cross-highlight the other visualizations on the page. For example, selecting a state on a map visualization highlights the column chart and filters the line chart to display only data that applies to that one state.

Incorrect:

Not B: Filters remove all but the data you want to focus on.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/power-bi-reports-filters-and-highlighting>

Community vote distribution

A (97%)

A user creates a Power BI report named ReportA that uses a custom theme.

You create a dashboard named DashboardA.

You need to ensure that DashboardA uses the custom theme. The solution must minimize development effort.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Publish ReportA to Power BI.
- B. From ReportA save the current theme.
- C. Publish ReportA to the Microsoft Power BI Community theme gallery.
- D. From DashboardA, create a custom theme.
- E. From DashboardA, upload a JSON theme.

Correct Answer: AE

A: With Power BI Desktop report themes, you can apply design changes to your entire report, such as using corporate colors, changing icon sets, or applying new default visual formatting.

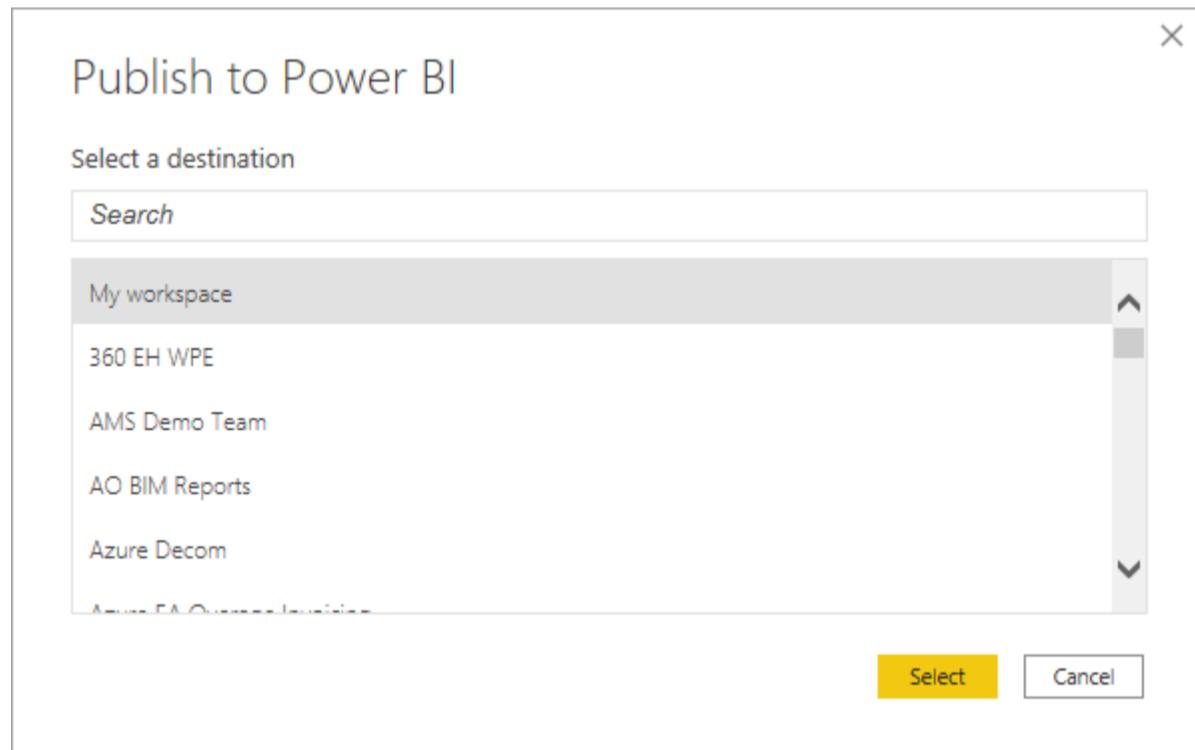
When you publish a Power BI Desktop file to the Power BI service, you publish the data in the model to your Power BI workspace. The same is true for any reports you created in Report view.

To publish a Power BI Desktop dataset and reports

1. In Power BI Desktop, choose File > Publish > Publish to Power BI or select Publish on the ribbon.

Sign in to Power BI, if you aren't already signed in.

2. Select the destination. You can search your list of available workspaces to find the workspace into which you want to publish. The search box lets you filter your workspaces. Select the workspace, and then click the Select button to publish.



3. Etc.

E: One way to create a custom theme is to upload a JSON file that has settings for all the colors you'd like to use for your dashboard. In Power BI Desktop, report creators use JSON files to create themes for reports. You can upload these same JSON files for dashboards, or find and upload JSON files from the Theme gallery page in the Power BI Community.

You can also save your custom theme as a JSON file and then share it with other dashboard creators.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-upload-desktop-files> <https://docs.microsoft.com/en-us/power-bi/create-reports/service-dashboard-themes>

Community vote distribution

BE (92%)

8%

You need to create a visualization that compares revenue and cost over time.

Which type of visualization should you use?

- A. waterfall chart
- B. stacked area chart
- C. line chart
- D. donut chart

Correct Answer: C

Line charts can have many different lines, for example both revenue and cost over time.

Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-line-chart>

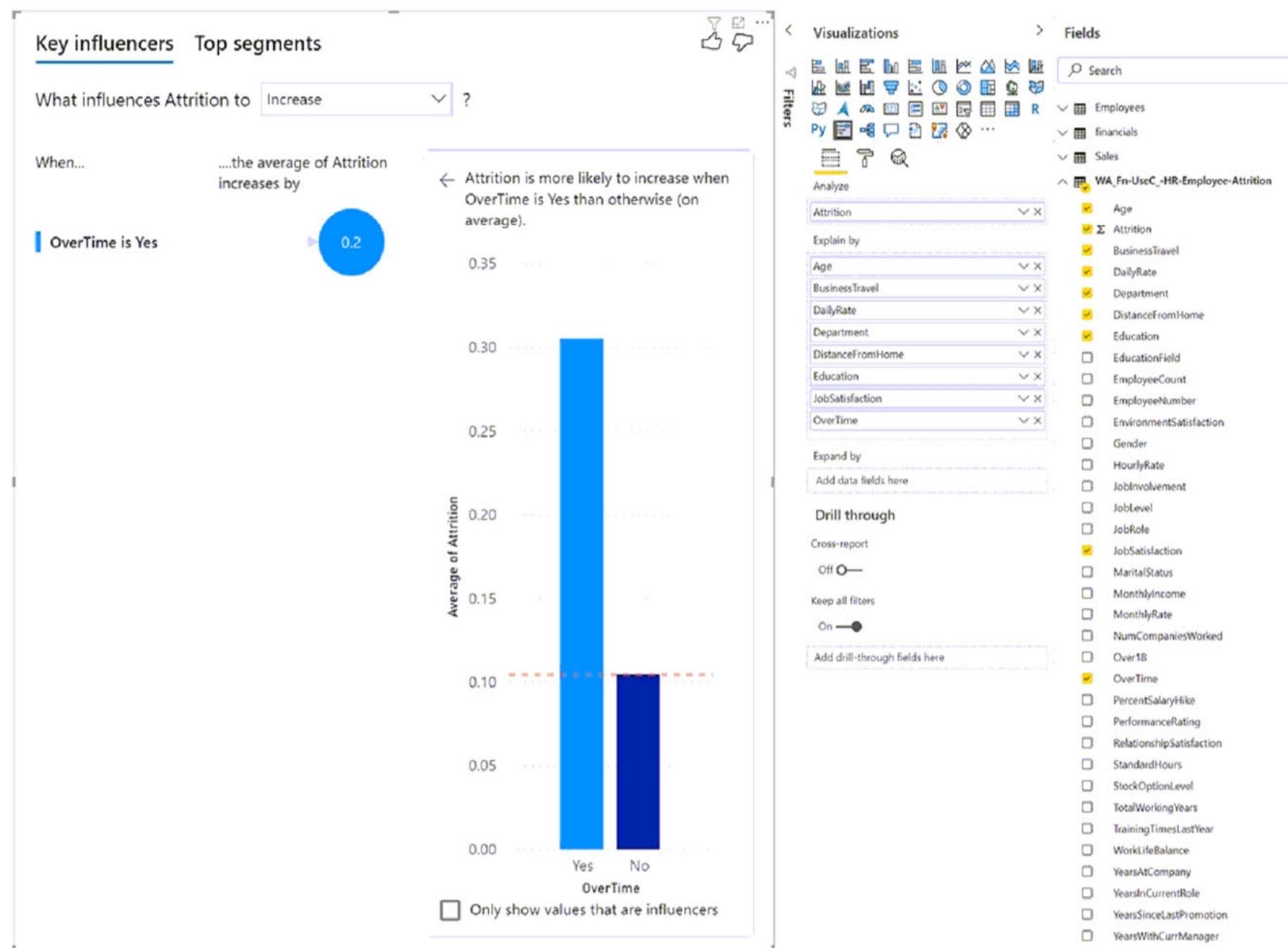
Community vote distribution

C (65%) B (35%)

HOTSPOT -

You have a report in Power BI Desktop.

You add a key influencers visual as shown in the exhibit. (Click the Exhibit tab.)



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.

Hot Area:

Answer Area

Identifying additional factors that increase attrition can be achieved by [answer choice].

- turning on Cross-report
- adding more fields to Explain by
- adding more fields to Expand by
- moving fields from Explain by to Expand by

Employee attrition is [answer choice] times greater when employees work overtime.

0.11
.2
1
3

Correct Answer:**Answer Area**

Identifying additional factors that increase attrition can be achieved by [answer choice].

turning on Cross-report
adding more fields to Explain by
adding more fields to Expand by
moving fields from Explain by to Expand by

Employee attrition is [answer choice] times greater when employees work overtime.

▼
0.11
.2
1
3

Box 1: moving fields from Explain by to Expand by

You can use Expand By to add fields you want to use for setting the level of the analysis without looking for new influencers.

Why do certain factors become influencers or stop being influencers as I move more fields into the Explain by field?

The visualization evaluates all explanatory factors together. A factor might be an influencer by itself, but when it's considered with other factors it might not.

Box 2: 3 -

0.30 instead of 0.10. A factor of 3 greater.

Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-influencers>

Question #6

Topic 3

You build a report to help the sales team understand its performance and the drivers of sales.

The team needs to have a single visualization to identify which factors affect success.

Which type of visualization should you use?

- A. Key influencers
- B. Line and clustered column chart
- C. Q&A
- D. Funnel chart

Correct Answer: A

The key influencers visual helps you understand the factors that drive a metric you're interested in. It analyzes your data, ranks the factors that matter, and displays them as key influencers. For example, suppose you want to figure out what influences employee turnover, which is also known as churn. One factor might be employment contract length, and another factor might be commute time.

When to use key influencers.

The key influencers visual is a great choice if you want to:

See which factors affect the metric being analyzed.

Contrast the relative importance of these factors. For example, do short-term contracts affect churn more than long-term contracts?

Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-influencers>

Community vote distribution

A (100%)

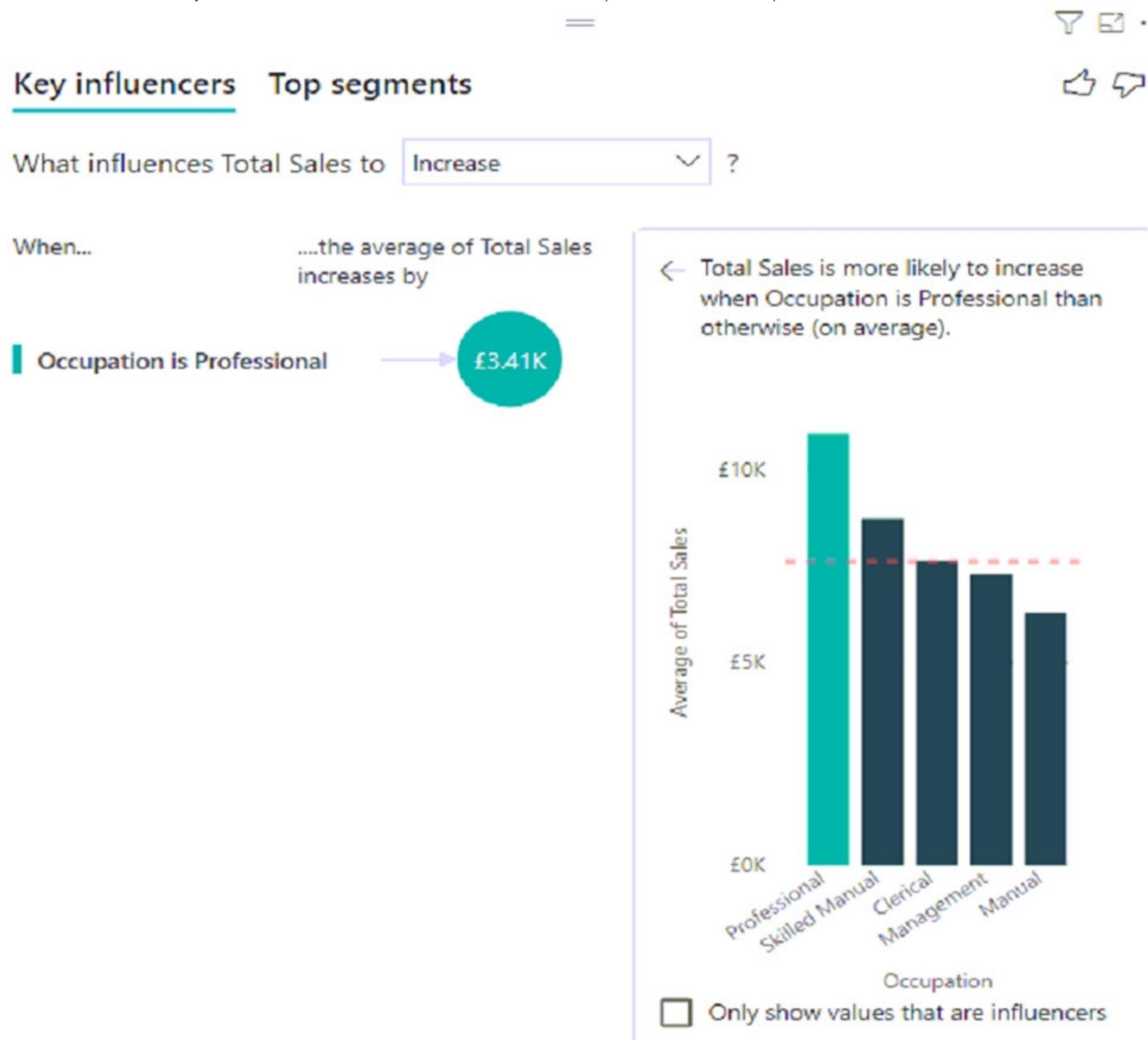
HOTSPOT -

You have a table that contains the following three columns:

City -

-
- Total Sales
- Occupation

You need to create a key influencers visualization as shown in the exhibit. (Click the Exhibit tab.)



How should you configure the visualization? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Analyze:

	▼
City	▼
Occupation	▼
Total Sales	▼

Explain by:

	▼
City	▼
Occupation	▼
Total Sales	▼

Answer Area

Analyze:

	▼
City	▼
Occupation	▼
Total Sales	▼

Correct Answer:

Explain by:

	▼
City	▼
Occupation	▼
Total Sales	▼

Box 1: Total Sales -

The key influencers visual helps you understand the factors that drive a metric you're interested in, here Total Sales. It analyzes your data, ranks the factors that matter, and displays them as key influencers.

Box 2: Occupation -

Measures and summarized columns are automatically analyzed at the level of the Explain by fields used.

Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-influencers>

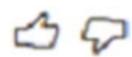
You are using the key influencers visual to identify which factors affect the quantity of items sold in an order.

You add the following fields to the Explain By field:

- Customer Country
- Product Category
- Supplier Country
- Sales Employee
- Supplier Name
- Product Name
- Customer City

The key influencers visual returns the results shown in the following exhibit.

Key influencers Top segments



What influences Quantity Per Order to Increase



When...

....the average of Quantity Per Order increases by

Customer City is Cunewalde

22.39

Customer City is Graz

22.21

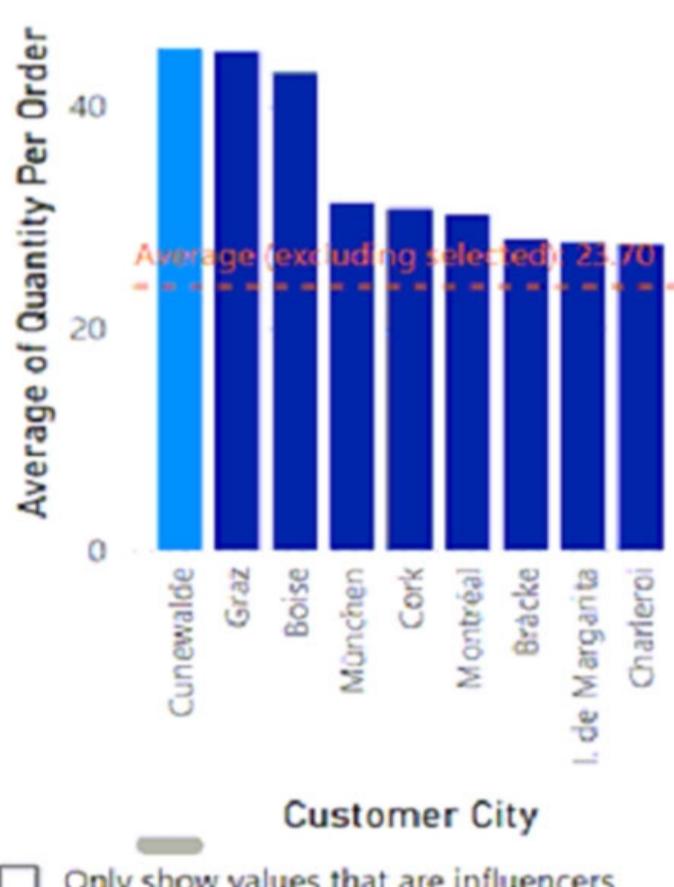
Customer City is Boise

20.37

Customer Country is Austria

18.8

← Quantity Per Order is more likely to increase when Customer City is Cunewalde than otherwise (on average).



What can you identify from the visual?

- Customers in Austria order 18.8 more units than the average order quantity.
- Customers in Boise order 20.37 percent more than the average order quantity.
- Product Category positively influences the quantity per order.
- Customers in Cork order lower quantities than average.

Correct Answer: A

Average quantity of units is displayed.

Incorrect:

Not B: Average quantity of units is displayed, not percentage.

Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-influencers>

Community vote distribution

Question #9

You have a report that contains four pages. Each page contains slicers for the same four fields.

Users report that when they select values in a slicer on one page, the selections are not persisted on other pages.

You need to recommend a solution to ensure that users can select a value once to filter the results on all the pages.

What are two possible recommendations to achieve this goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Create a bookmark for each slicer value.
- B. Replace the slicers with report-level filters.
- C. Sync the slicers across the pages.
- D. Replace the slicers with page-level filters.
- E. Replace the slicers with visual-level filters.

Correct Answer: BC

C: You can sync a slicer and use it on any or all pages in a report.

B: You can set filters at three different levels for the report: visual-level, page-level, and report-level.

Note: Suppose you want your report readers to be able to look at overall sales metrics, but also highlight performance for individual district managers and different time frames. You could create separate reports or comparative charts. You could add filters in the Filters pane. Or you could use slicers. Slicers are another way of filtering. They narrow the portion of the dataset that is shown in the other report visualizations.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/power-bi-report-add-filter> <https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-slicers>

Community vote distribution

BC (92%)

8%

You have a report that includes a card visualization.

You need to apply the following conditional formatting to the card while minimizing design effort:

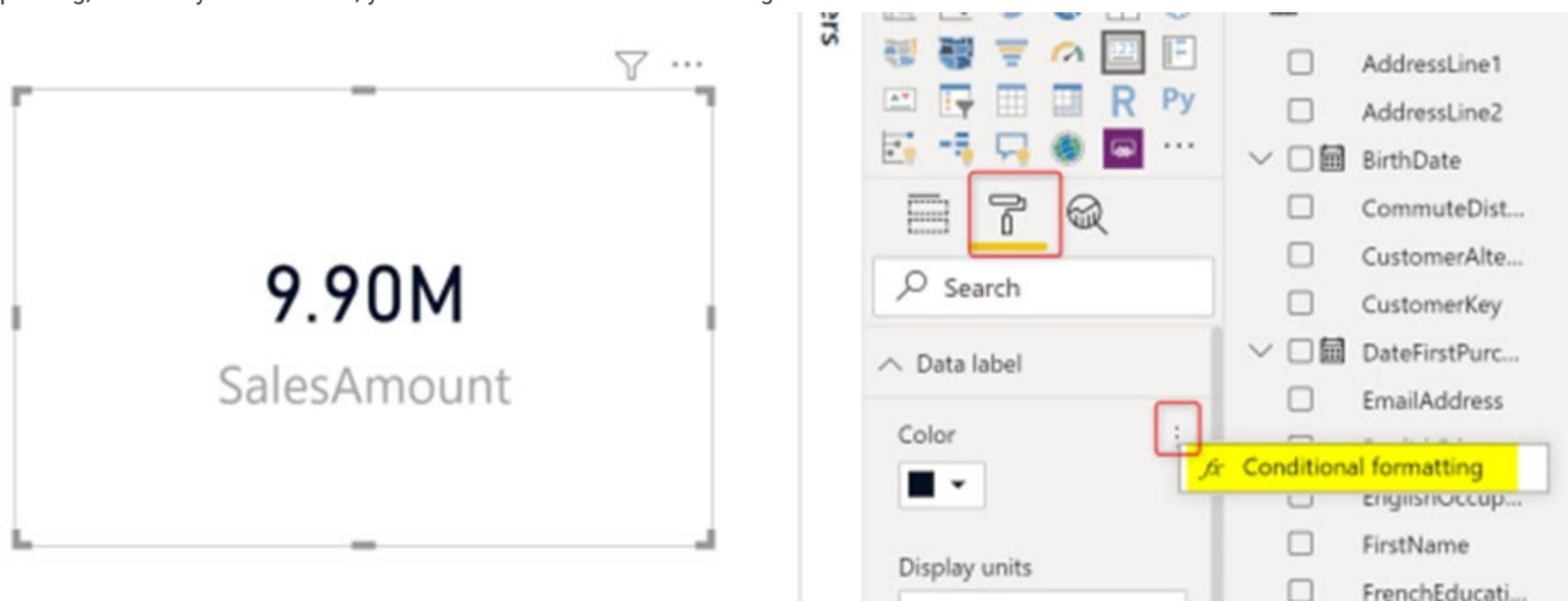
- ☞ For values that are greater than or equal to 100, the font of the data label must be dark red.
- ☞ For values that are less than 100, the font of the data label must be dark gray.

Which type of format should you use?

- A. Color scale
- B. Rules
- C. Field value

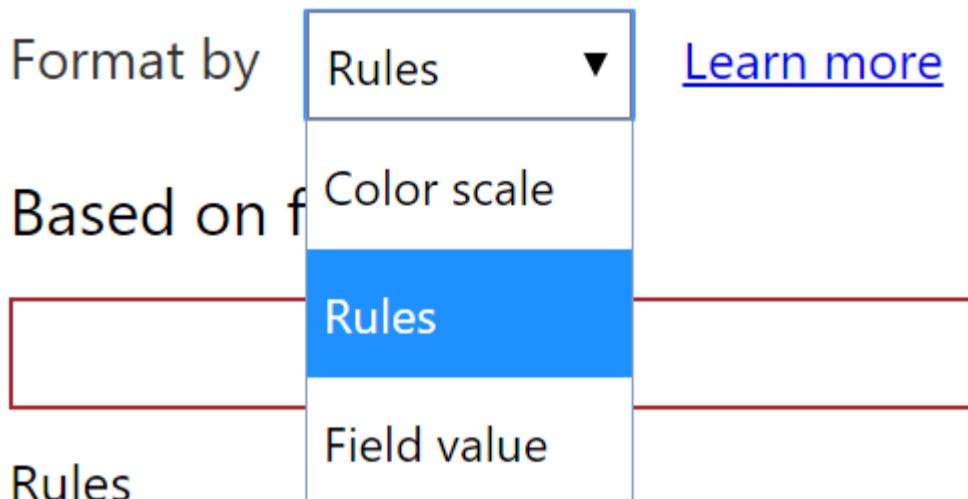
Correct Answer: B

Finding the conditional formatting in the card visual is a bit tricky. There is no separate option for that. You need to go to the Format tab of the visual, and then expand the Data Label. The right beside the Data Label's colour you need to hover your mouse, and you will find a three dots icon appearing, which if you click on it, you will see Conditional Formatting.



Now in the Conditional Formatting tab, you can apply it in different methods. for example, you can choose Rules, and then

Color



The Rules mode will give you the ability to put custom roles as below;

X

Color

Format by **Rules** ▾ [Learn more](#)

Based on field

Summarization

Sum of SalesAmount ▾

Sum ▾

Rules

Reverse color order

+ New rule

If value is greater than or equal to	0	and	is less than	5000000	then	█	↑ ↓ X
If value is greater than or equal to	5000001	and	is less than	8000000	then	█	↑ ↓ X
If value is greater than or equal to	8000001	and	is less than	15000000	then	█	↑ ↓ X

Reference:

<https://radacad.com/enhance-the-card-visual-in-power-bi-with-conditional-formatting>

Community vote distribution

B (100%)

DRAG DROP -

You have a Power BI dashboard named DashboardA that contains a tile named TileA. TileA contains a treemap visual from a report named ReportA.

You need to provide the users of DashboardA with additional tiles that relate to the contents of TileA.

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.

Select and Place:

Actions	Answer Area
From Focus mode, pin the relevant visuals to DashboardA.	> <
From Focus mode, review the generated visuals.	> <
From DashboardA, select the TileA options, and then select View insights .	> <
From ReportA, select the treemap visual options, and then select Spotlight .	> <
From ReportA, select Get Insights .	> <
From DashboardA, select TileA to open ReportA.	> <

Correct Answer:

Actions	Answer Area
From Focus mode, review the generated visuals.	From ReportA, select Get Insights .
From ReportA, select the treemap visual options, and then select Spotlight .	From DashboardA, select the TileA options, and then select View insights .
From DashboardA, select TileA to open ReportA.	From Focus mode, pin the relevant visuals to DashboardA.

Step 1: From ReportA, select Get Insights

Then select 'Get Insights'! From the Datasets + dataflows tab, select More options (...) next to the dataset, and then choose Get insights.

Power BI Quick Insights will now scan the data related to the tile and display a list of potential insights you may want to explore further. To drill into a specific data point, you can even select data in the visual and Quick Insights will focus on that data point when searching for insights.

Power BI My workspace

My workspace

+ New ▾

All Content Datasets + dataflows

Name	Type	Owner
Contoso Q2 Division Sales	Dataset	MOD Administrator
Customer Profitability Sample	Analyze in Excel	MOD Administrator
IT Spend Analysis Sample	Create report	MOD Administrator
Opportunity Analysis Sample	Create paginated report	MOD Administrator
Procurement Analysis Sample	Delete	MOD Administrator
Retail Analysis Sample	Get quick insights	MOD Administrator
Sales and Marketing Sample	Rename	MOD Administrator
Supplier Quality Analysis Sample	Settings	MOD Administrator
Supplier Quality Analysis Sample	Manage permissions	MOD Administrator
Supplier Quality Analysis Sample	View lineage	MOD Administrator

Power BI uses various algorithms to search for trends in your dataset.

Searching for insights

Searching Supplier Quality Analysis Sample. We will notify you when your insights are ready.

Within seconds, your insights are ready. Select View insights to display visualizations.

✓ Insights are ready

You have insights for Supplier Quality Analysis Sample.

View insights

The visualizations display in a special Quick Insights canvas with up to 32 separate insight cards. Each card has a chart or graph plus a short description.

Step 2: From DashboardA, select the TileA options, and then select View Insights

The insight screen opens in Focus mode.

Step 3: From Focus mode, pin the relevant visuals to DashboardA

Go to 'in focus mode' on a dashboard tile for data loaded into Power BI.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-insights>

You are creating a dashboard by using the Power BI service.
You have an existing report page that contains three charts.
You need to add the charts to the dashboard while maintaining the interactivity between the charts.
What should you do?

- A. Edit interactions in the report and set all interactions to Filter.
- B. Pin each chart as a tile.
- C. Edit the dashboard theme and pin each chart as a tile.
- D. Pin the report page as a live tile.

Correct Answer: D

One way to add a new dashboard tile is by pinning an entire report page. This is an easy way to pin more than one visualization at a time. Also, when you pin an entire page, the tiles are live; you can interact with them right there on the dashboard. And changes you make to any of the visualizations back in the report editor, like adding a filter or changing the fields used in the chart, are reflected in the dashboard tile as well. Pinning live tiles from reports to dashboards is only available in Power BI service (app.powerbi.com).

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-dashboard-pin-live-tile-from-report>

Community vote distribution

D (76%) B (24%)

HOTSPOT -

You need to create a visual as shown in the following exhibit.

Month Name	Total Sales	Sales Last Year	% Growth to Last Year
January	£559,263.79	£144,365.51	74.19%
February	£583,915.29	£215,923.28	63.02%
March	£684,091.92	£211,347.46	69.11%
April	£957,686.49	£350,270.97	63.43%
May	£841,473.26	£310,708.65	63.08%
June	£876,911.71	£298,356.83	65.98%
July	£922,410.09	£348,435.28	62.23%
August	£1,002,219.24	£388,213.68	61.26%
September	£1,152,976.22	£407,595.76	64.65%
October	£1,262,647.67	£465,583.06	63.13%
November	£555,548.44	£555,548.44	0.00%
December	£553,615.45	£553,615.45	0.00%
Total	£9,952,759.56	£4,249,964.36	57.30%

The indicator color for Total Sales will be based on % Growth to Last Year.

The solution must use the existing calculations only.

How should you configure the visual? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Conditional
formatting:

- ▼
- Background color
- Data bars
- Font color
- Icons
- Web URL

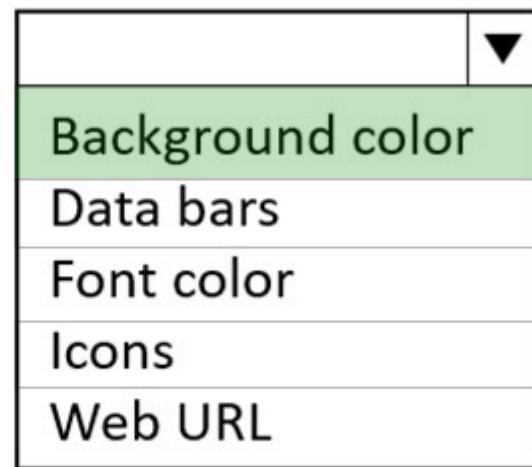
Format by:

- ▼
- Color scale
- Field value
- Rules

Answer Area

Conditional
formatting:

Correct Answer:



Format by:



Box 1: Background color -

To apply conditional formatting, select a Table or Matrix visualization in Power BI Desktop. In the Visualizations pane, right-click or select the down-arrow next to the field in the Values well that you want to format. Select Conditional formatting, and then select the type of formatting to apply.

The screenshot shows the Power BI Desktop interface with a 'Table' visualization selected. The Visualizations pane on the left lists fields: Overall rank, Filters, Visualizations, Fields, and Values. The 'Values' section contains three fields: State, Weather, and Affordability. A context menu is open over the 'Affordability' field, with 'Conditional formatting' highlighted. Other options in the menu include Remove field, Rename, Move, Remove conditional formatting, Don't summarize, Sum (which is checked), and Average.

Box 2: Rules -

To format cell background or font color by rules, in the Format by field of the Background color or Font color dialog box, select Rules.

Background color - Affordability

Format by Rules **Apply to** Values only

Based on field Sum of Affordability **Summarization** Sum

Rules

If value is greater than or equal to 0 Percent and is less than 33 Percent then Green
If value is greater than or equal to 34 Percent and is less than 66 Percent then Yellow
If value is greater than or equal to 67 Percent and is less than 100 Number then Red

Learn more **OK** **Cancel**

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

Question #14

Topic 3

DRAG DROP -

You are using existing reports to build a dashboard that will be viewed frequently in portrait mode on mobile phones.

You need to build the dashboard.

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.

Select and Place:

Actions	Answer Area
Pin items from the reports to the dashboard.	 
Open the dashboard.	
Create a phone layout for the existing reports.	
Edit the Dashboard mobile view.	
Rearrange, resize, or remove items from the mobile layout.	

Correct Answer:

Actions	Answer Area
	 
Create a phone layout for the existing reports.	
Edit the Dashboard mobile view.	
Pin items from the reports to the dashboard.	
Open the dashboard.	

Step 1: Edit the dashboard mobile view

Open a report in Editing view.

Step 2: Pin items from the reports to the dashboard

Step 3: Open the dashboard.

Open the dashboard to see the pinned live tile,

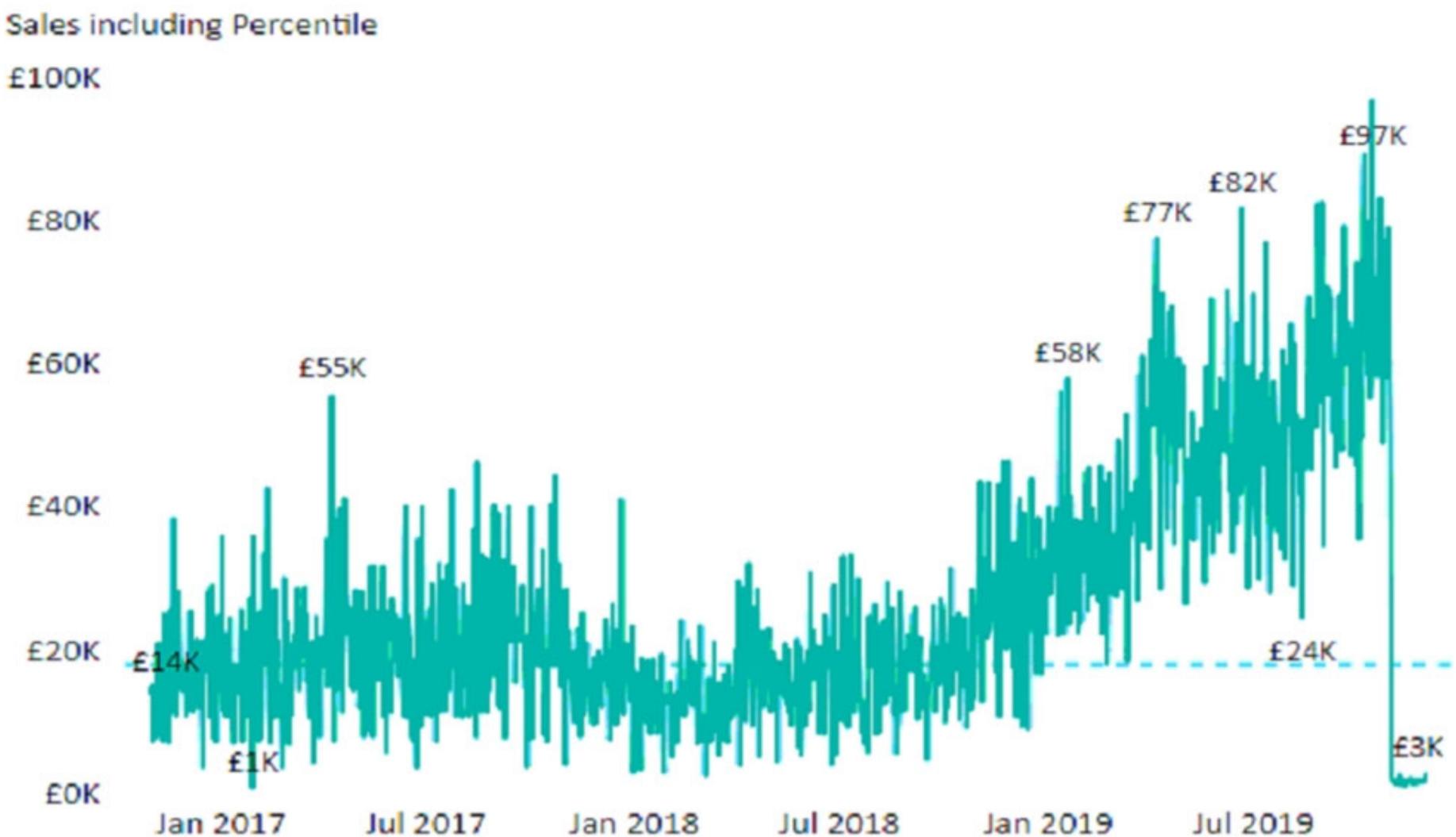
From the nav pane, select the dashboard with the new live tile. There, you can do things like rename, resize, link, and move the pinned report page.

Step 4: Rearrange, resize, or remove items from the mobile layout

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-dashboard-pin-live-tile-from-report>

You plan to create the chart shown in the following exhibit.



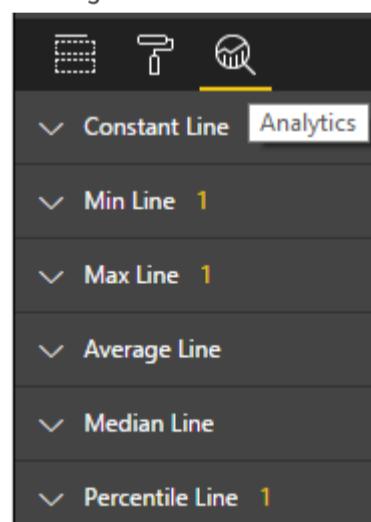
How should you create the dashed horizontal line denoting the 40th percentile of daily sales for the period shown?

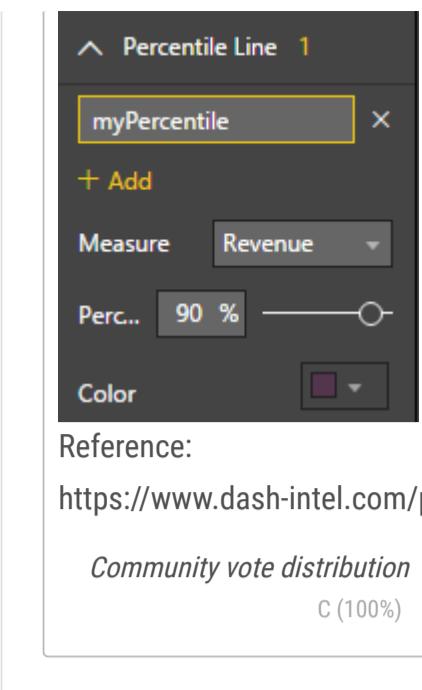
- A. Add a measure to the visual that uses the following DAX expression. Measure1 = PERCENTILEX.INC (Sales,sales[Total Sales],0.40)
- B. Add a measure to the visual that uses the following DAX expression. Measure1 = PERCENTILEX.EXC (Sales,sales[Total Sales],0.40)
- C. Add a new percentile line that uses Total Sales as the measure and 40% as the percentile.
- D. Create a horizontal line that has a fixed value of 24,000.

Correct Answer: C

The analytics feature enables you to show percentiles across groups specified along a specific axis.

1. Click on the analytics tab
2. Select Percentile
3. You can choose a specific percentile along with other formatting options.
4. Drag a date or non-numeric dimension into the Axis of a column chart





You are building a Power BI report.

Users will view the report by using their mobile device.

You need to configure the report to display data based on each user's location.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. From Power Query Editor, detect the data types of the relevant columns.
- B. In Data Category, set the geographic data category for the relevant columns.
- C. Create a hierarchy for columns of the geography data type.
- D. Use the columns of the geography data type in all visuals.
- E. For the relevant columns, set synonyms to match common geographical terms.

Correct Answer: BD

B: Identify geographic data in your report

1. In Power BI Desktop, switch to Data View Data View icon.
2. Select a column with geographic data " for example, a City column.
3. On the Modeling tab, select Data Category, then the correct category " in this example, City.

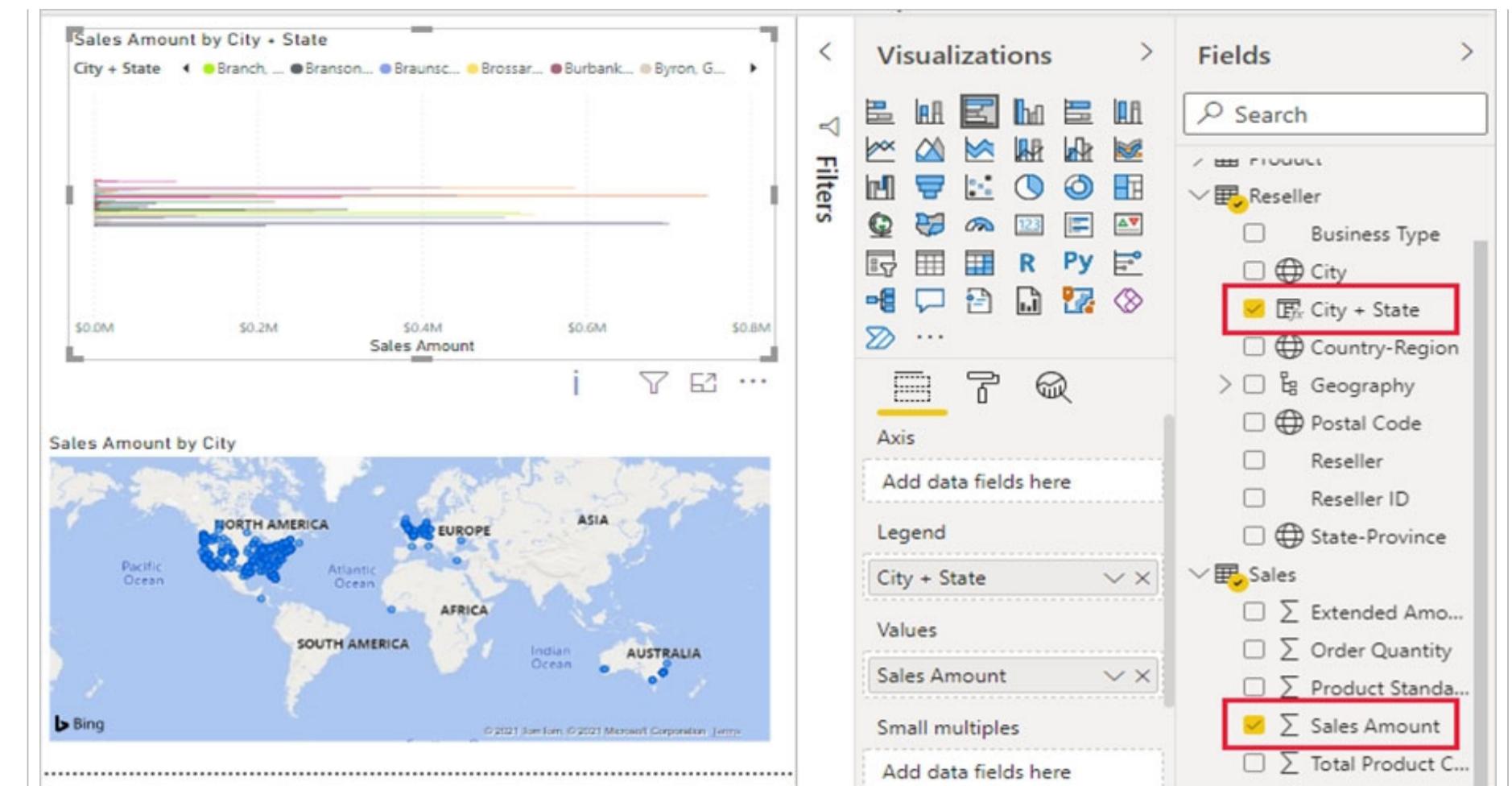
The screenshot shows the 'Column tools' ribbon in Power BI. The 'Data category' dropdown is open, showing 'City' selected. A red box highlights the 'City' option. To the right of the ribbon, there is a list of categories: Address, Place, County, State or Province, Postal code, Country, Continent, and Latitude. Below the ribbon, a table is displayed with columns: Reseller, City, State-Prov, Place, and Postal Cod. The 'City' column contains values like Alhambra, Alpine, Auburn, Baldwin Park, Barstow, Bell Gardens, Camarillo, and Canoga Park. The 'Place' column contains values like California, California, California, California, California, California, California, and California. The 'Postal Cod' column contains values like 91801, 91901, 95603, 91706, 92311, 90201, 93010, 93010, and 91303.

Reseller	City	State-Prov	Place	Postal Cod
Apple Accessories Company	Alhambra	California	City	91801
Apple Shipping Service	Alpine	California	County	91901
Apple Sports Equipment	Auburn	California	State or Province	95603
Apple Store	Baldwin Park	California	Postal code	91706
Apple Bikes Company	Barstow	California	Country	92311
Apple Exercise Company	Bell Gardens	California	Continent	90201
Apple Clothing Goods	Camarillo	California	Latitude	93010
Apple Bike Store	Camarillo	California		93010
Apple Supplies	Canoga Park	California		91303

4. Continue setting geographic data categories for any other fields in the model.

D: Create visuals with your geographic data

Switch to Report view Report View icon, and create visuals that use the geographic fields in your data.



In this example, the model also contains a calculated column that brings city and state together in one column.

This screenshot shows a portion of the Power BI Fields pane. It displays the "Reseller" hierarchy. Under "Reseller", the "City + State" field is selected and highlighted with a red box. Other fields listed include "Business Type", "City", "Country-Region", "Geography", and "Postal Code".

Publish the report to the Power BI service.

Reference:

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

Community vote distribution

BD (74%)

BC (18%) 9%

You have a report that contains a donut chart and a clustered column chart. Interactions between the visuals use the default settings.

You need to modify the report so that when you select a column in the column chart, the donut chart redraws by using the data from the selected column.

What should you do?

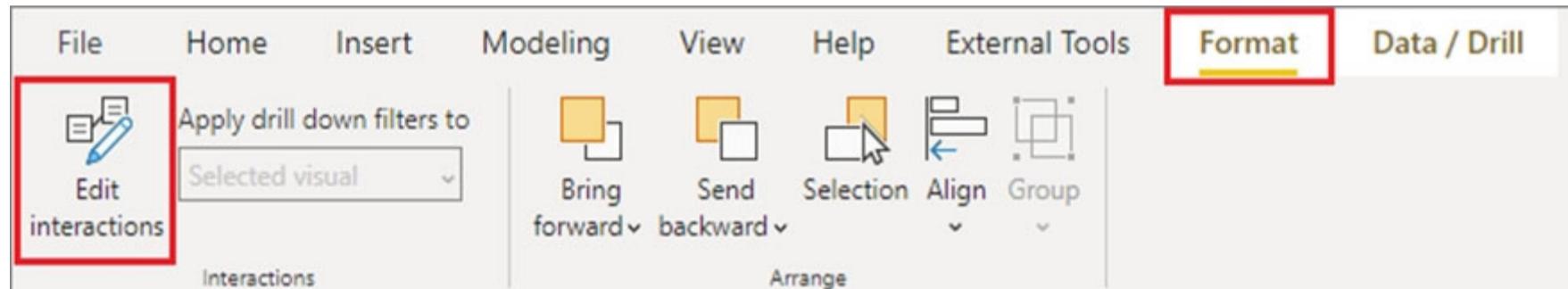
- Select the donut chart and set the column chart interaction to Filter.
- Select the column chart and set the donut chart interaction to Filter.
- Select the donut chart and set the column chart interaction to None.
- Select the column chart and set the donut chart interaction to None.

Correct Answer: B

Filters remove all but the data you want to focus on.

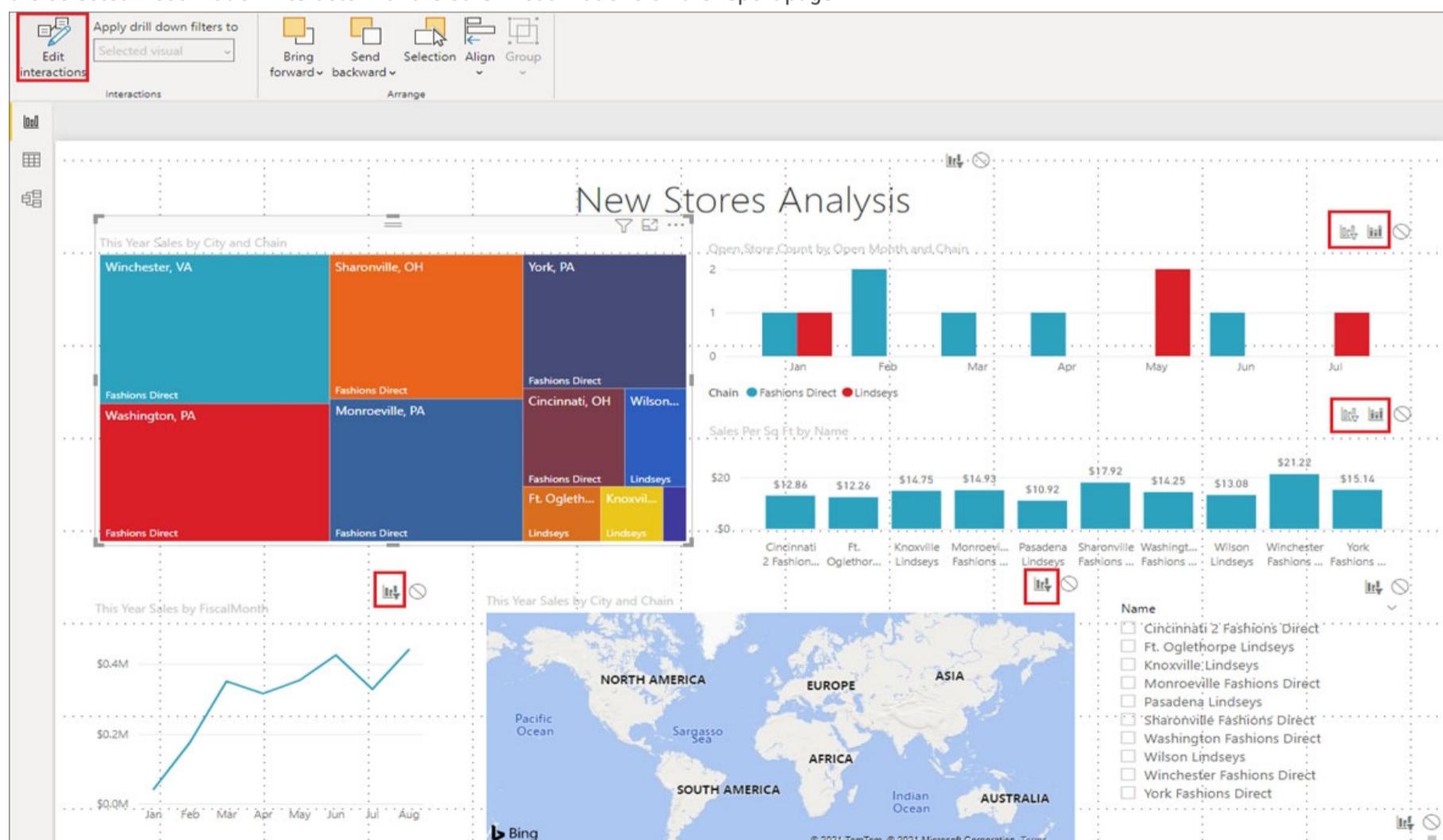
Note: Enable the visual interaction controls.

- Select a visualization to make it active.
- Display the Visual Interactions options.
- In Power BI Desktop, select Format > Edit interactions.



- To display the visualization interaction controls, select Edit interactions. Power BI adds filter and highlight icons to all of the other visualizations on the report page.

We can see that the tree map is cross-filtering the line chart and the map, and is cross-highlighting the column chart. You can now change how the selected visualization interacts with the other visualizations on the report page.



Reference:

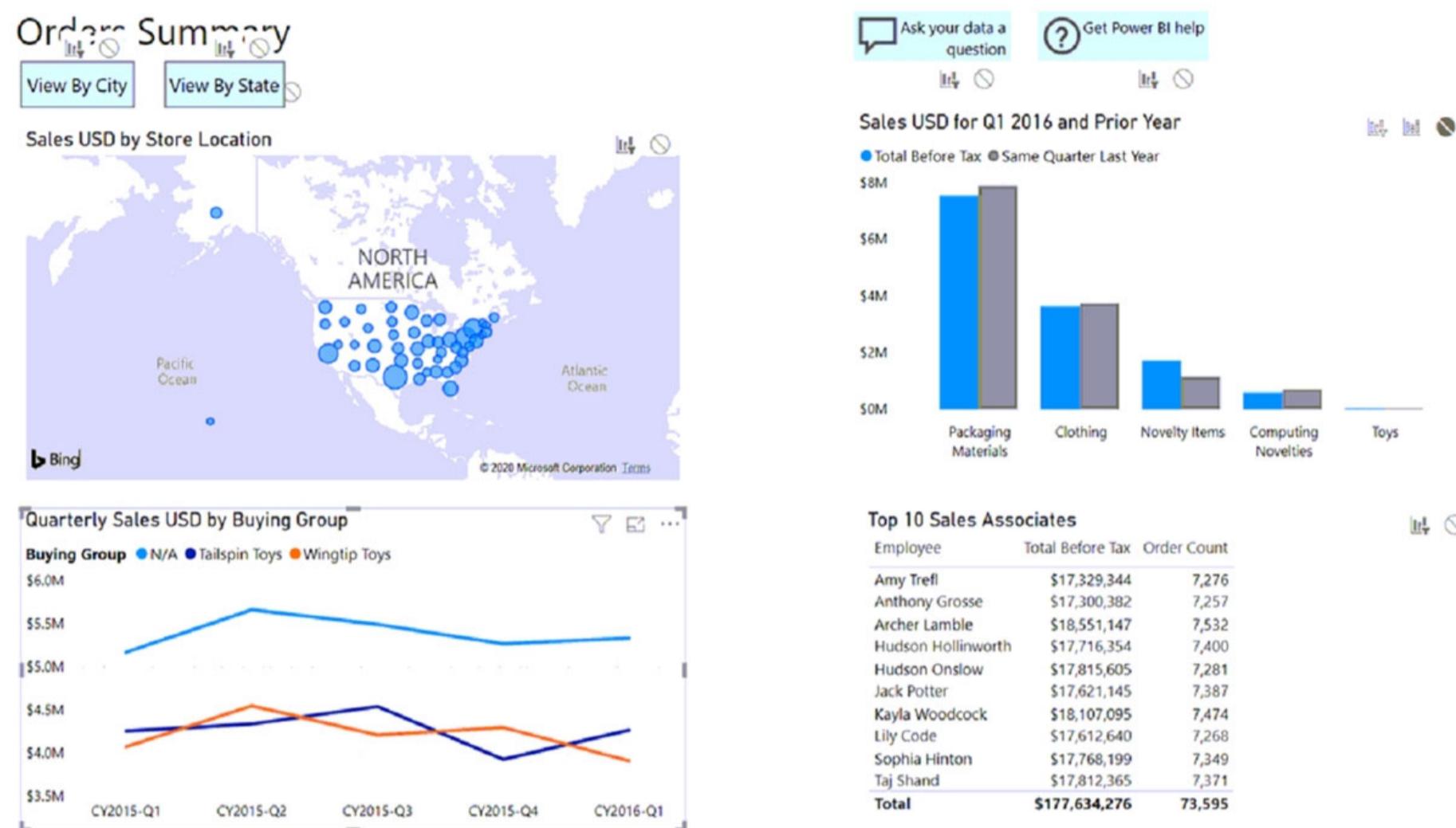
<https://docs.microsoft.com/en-us/power-bi/create-reports/service-reports-visual-interactions>

Community vote distribution

B (100%)

HOTSPOT -

You have a report page that contains the visuals 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.

Hot Area:

Answer Area

Selecting a quarter on the line chart will [answer choice] the clustered column chart.

▼
cross-filter
cross-highlight
not affect

Selecting a data point on the Tailspin Toys line on the line chart will [answer choice] the map.

▼
cross-filter
cross-highlight
not affect

Correct Answer:**Answer Area**

Selecting a quarter on the line chart will [answer choice] the clustered column chart.

▼
cross-filter
cross-highlight
not affect

Selecting a data point on the Tailspin Toys line on the line chart will [answer choice] the map.

▼
cross-filter
cross-highlight
not affect

Box 1: cross-filter -

The Cluster column chart has the filter icon active.



Box 2: cross-highlight -

The map has the cross-highlight icon active.



Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-reports-visual-interactions>

Question #19

Topic 3

You are creating a Power BI report by using Power BI Desktop.

You need to include a visual that shows trends and other useful information automatically. The visual must update based on selections in other visuals.

Which type of visual should you use?

- A. Q&A
- B. smart narrative
- C. key influencers
- D. decomposition tree

Correct Answer: B

The smart narrative visualization helps you quickly summarize visuals and reports. It provides relevant innovative insights that you can customize.

Use smart narrative summaries in your reports to address key takeaways, to point out trends, and to edit the language and format for a specific audience. In

PowerPoint, instead of pasting a screenshot of your report's key takeaways, you can add narratives that are updated with every refresh. Your audience can use the summaries to understand the data, get to key points faster, and explain the data to others.

Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-smart-narrative>

Community vote distribution

B (100%)

In Power BI Desktop, you have a dataset that contains a table.

You create a table visual on a Power BI report page as shown in the following exhibit.

Plant Name	Plant Image
Pothos	https://raw.githubusercontent.com/ml
Spider plant	https://raw.githubusercontent.com/ml
philodendron	https://raw.githubusercontent.com/ml
ZZ plant	https://raw.githubusercontent.com/ml

You need to configure the visual to display the referenced image instead of the URL in the Plant Image column.

What should you do?

- A. From the Formatting tab, select Values, and then set URL icons to On for the table.
- B. Set the Data category of the Plant Image field to Web URL.
- C. Set the Data type of the Plant Image field to Binary.
- D. Set the Data category of the Plant Image field to Image URL.

Correct Answer: D

Add images to your report -

1. Create a column with the URLs of the images. See Considerations later in this article for requirements.

2. Select that column. On the Column tools ribbon, for Data category, select Image URL.

3. Add the column to a table, matrix, slicer, or multi-row card.

Step 3: From powerbi.com, add a tile for Excel1 dataset to DashboardA.

In the Power BI service (app.powerbi.com), a dashboard contains tiles pinned from one or more datasets, so you can ask questions about any of the data contained in any of those datasets.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/power-bi-images-tables> <https://docs.microsoft.com/en-us/power-bi/create-reports/power-bi-tutorial-q-and-a>

Community vote distribution

D (100%)

DRAG DROP -

You have a Microsoft Excel spreadsheet named Excel1 that contains survey results.

You have a Power BI dashboard named DashboardA that has Q&A enabled.

You need to ensure that users who can access DashboardA can ask questions based on the contents of Excel1 and pin visuals based on their queries to

DashboardA. The solution must minimize development time.

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.

Select and Place:

Actions	Answer Area
From powerbi.com, pin a range from Excel1 to DashboardA.	>
From Excel, format the data in Excel1 as a table.	
From powerbi.com, import Excel1 as a dataset.	<
From powerbi.com, add a tile for the Excel1 dataset to DashboardA.	
From Excel, create a named range by using the data in Excel1.	
From powerbi.com, upload Excel1.	

Correct Answer:

Actions	Answer Area
From powerbi.com, pin a range from Excel1 to DashboardA.	From powerbi.com, upload Excel1.
From Excel, format the data in Excel1 as a table.	
From Excel, create a named range by using the data in Excel1.	From powerbi.com, import Excel1 as a dataset.

Step 1: From powerbi.com, upload Excel1.

Upload your Excel file to the Power BI service.

The Power BI service connects to many data sources, including Excel files that live on your computer.

1. Sign in to the Power BI service.
2. In My workspace, select New > Upload a file.
3. Select Local File, browse to where you saved the Financial Sample Excel file, and select Open.
4. On the Local File page, select Import.

Now you have a Financial Sample dataset. Power BI also automatically created a blank dashboard. If you don't see the dashboard, refresh your browser.

Step 2: From powerbi.com, import Excel1 as a dataset.

Step 3: From powerbi.com, add a tile for the Excel1 dataset to DashboardA.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-from-excel-to-stunning-report>

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 clustered bar chart that contains a measure named Salary as the value and a field named Employee as the axis. Salary is present in the data as a numerical amount representing US dollars.

You need to create a reference line to show which employees are above the median salary.

Solution: You create a constant line and set the value to .5.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

Instead: You create a percentile line by using the Salary measure and set the percentile to 50%.

The median is the middle value or the 50th percentile of a data set.

Reference:

https://dash-intel.com/powerbi/statistical_functions_median.php

Community vote distribution

B (100%)

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 clustered bar chart that contains a measure named Salary as the value and a field named Employee as the axis. Salary is present in the data as a numerical amount representing US dollars.

You need to create a reference line to show which employees are above the median salary.

Solution: You create an average line by using the Salary measure.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

Average is not Median.

Instead: You create a percentile line by using the Salary measure and set the percentile to 50%.

The median is the middle value or the 50th percentile of a data set.

Reference:

https://dash-intel.com/powerbi/statistical_functions_median.php

Community vote distribution

B (100%)

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 clustered bar chart that contains a measure named Salary as the value and a field named Employee as the axis. Salary is present in the data as a numerical amount representing US dollars.

You need to create a reference line to show which employees are above the median salary.

Solution: You create a percentile line by using the Salary measure and set the percentile to 50%.

Does this meet the goal?

A. Yes

B. No

Correct Answer: A

The median is the middle value or the 50th percentile of a data set.

Reference:

https://dash-intel.com/powerbi/statistical_functions_median.php

Community vote distribution

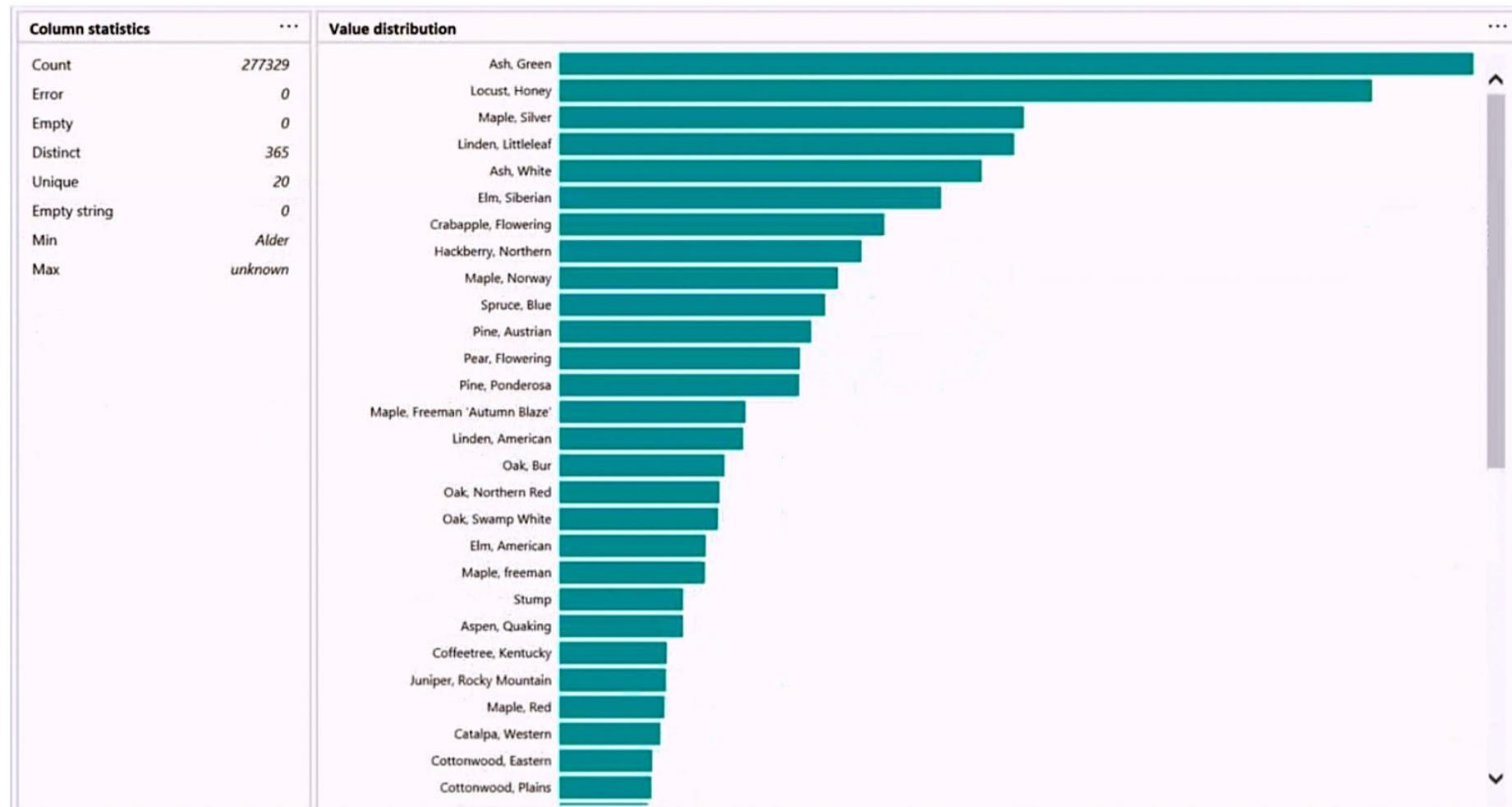
A (89%)

11%

HOTSPOT -

You are profiling data by using Power Query Editor.

You have a table that contains a column named column1. Column statistics and Value distribution for column1 are 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.

Hot Area:

Answer Area

There **[answer choice]** only once.

- are 20 values that occur
- are 365 values that occur
- are 277,329 values that occur
- is one value that occurs

The Pear, Flowering species is found more often in column1 than the **[answer choice]** species.

- Ash, Green
- Crabapple, Flowering
- Elm, American
- Spruce, Blue

Correct Answer:

Answer Area

There **[answer choice]** only once.

are 20 values that occur
are 365 values that occur
are 277,329 values that occur
is one value that occurs

The Pear, Flowering species is found more often in column1
than the **[answer choice]** species.

Ash, Green
Crabapple, Flowering
Elm, American
Spruce, Blue

Box 1: are 20 values that occur -

There are 20 unique values.

Box 2: Elm, American -

Elm, American is below Peer, flowering species in the graphic.

You have a Power BI report hosted on powerbi.com that displays expenses by department for department managers.

The report contains a line chart that shows expenses by month.

You need to enable users to choose between viewing the report as a line chart or a column chart. The solution must minimize development and maintenance effort.

What should you do?

- A. Enable report readers to personalize visuals.
- B. Create a separate report page for users to view the column chart.
- C. Add a column chart, a bookmark, and a button for users to choose a visual.
- D. Create a mobile report that contains a column chart.

Correct Answer: C

Let users personalize visuals in a report

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 the Power BI (powerbi.com) service, go to Settings for your report.

The screenshot shows the Power BI service's Content page. At the top, there are three tabs: 'All', 'Content' (which is selected and highlighted in yellow), and 'Datasets + dataflows'. Below the tabs is a table with columns for 'Name' and 'Type'. There are ten items listed:

Name	Type
Customer Profitability Sample	Dashboard
Customer Profitability Sample	Report
Customer Profitability Sample	Analyze in Excel
Opportunity Analysis Sample	Delete
Opportunity Analysis Sample	Quick insights
Procurement Analysis Sample	Save a copy
Procurement Analysis Sample	Settings
Retail Analysis Sample	View usage metrics report
Retail Analysis Sample	View lineage

A context menu is open over the second report ('Customer Profitability Sample'). The menu items are: Analyze in Excel, Delete, Quick insights, Save a copy, Settings (which is highlighted with a red box), View usage metrics report, View lineage, Create paginated report, and Manage permissions.

Turn on Personalize visuals > Save.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/power-bi-personalize-visuals?tabs=powerbi-service#enable-personalization-in-a-report>

Community vote distribution

A (59%)

C (41%)

You have two Power BI reports named ReportA and ReportB that each uses a distinct color palette.

You are creating a Power BI dashboard that will include two visuals from each report.

You need to use a consistent dark theme for the dashboard. The solution must preserve the original colors of the reports.

Which two actions should you perform? Each correct answer presents part of the solution.

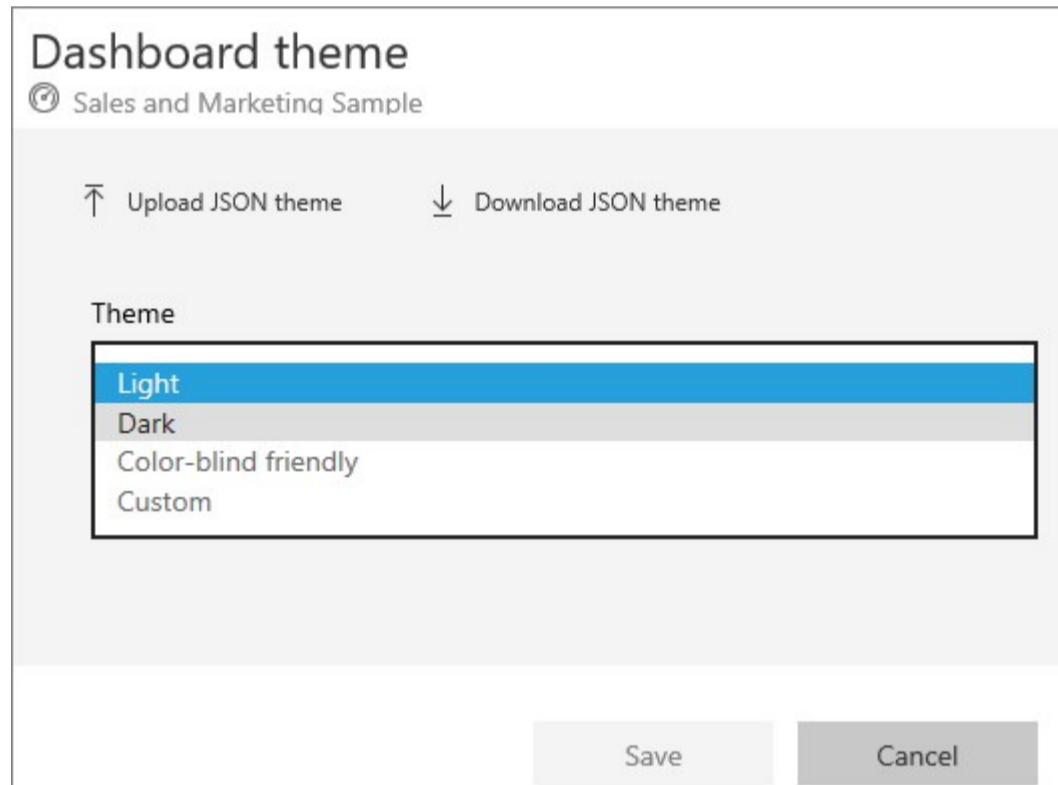
NOTE: Each correct selection is worth one point.

- A. Upload a snapshot.
- B. For the browser, set the color preference to dark mode.
- C. When pinning visuals to the dashboard, select Use destination theme.
- D. Select the dark dashboard theme.
- E. Turn on tile flow.

Correct Answer: CD

D: With dashboard themes you can apply a color theme to your entire dashboard, such as corporate colors, seasonal coloring, or any other color theme you might want to apply. When you apply a dashboard theme, all visuals on your dashboard use the colors from your selected theme.

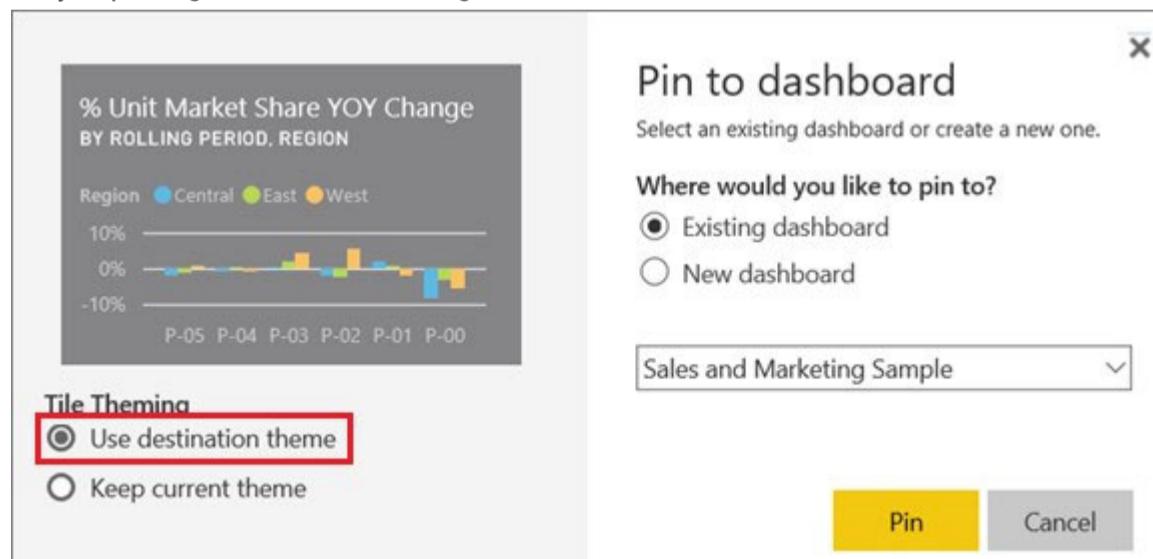
In the dashboard pane that appears, select one of the pre-built themes. In the example below, we've selected Dark.



C: Reports and dashboards with different themes

If your report uses a different theme from the dashboard theme, in most cases you can control whether the visual retains the current report theme or uses the dashboard theme.

* Try re-pinning the tile and selecting Use dashboard theme.



Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-dashboard-themes>

Community vote distribution

CD (90%)

10%

HOTSPOT -

You have a dataset that contains revenue data from the past year.

You need to use anomaly detection in Power BI to show anomalies in the dataset.

What should you configure? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Chart type:

Line
Pie
Treemap

Chart configuration:

Select the Show value as option
Enable Cross-report drill-through
Populate the axis with a date field

Answer Area

Chart type:

Line
Pie
Treemap

Correct Answer:

Chart configuration:

Select the Show value as option
Enable Cross-report drill-through
Populate the axis with a date field

Box 1: Line -

Anomaly detection is only supported for line chart visuals containing time series data in the Axis field.

Box 2: Populate the axis with a date field

Incorrect:

* Anomaly Explanations doesn't work with 'Show Value As' options.

* Drilling down to go to the next level in the hierarchy isn't supported.

Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-anomaly-detection>

You have a line chart that shows the number of employees in a department over time.

You need to see the total salary costs of the employees when you hover over a data point.

What should you do?

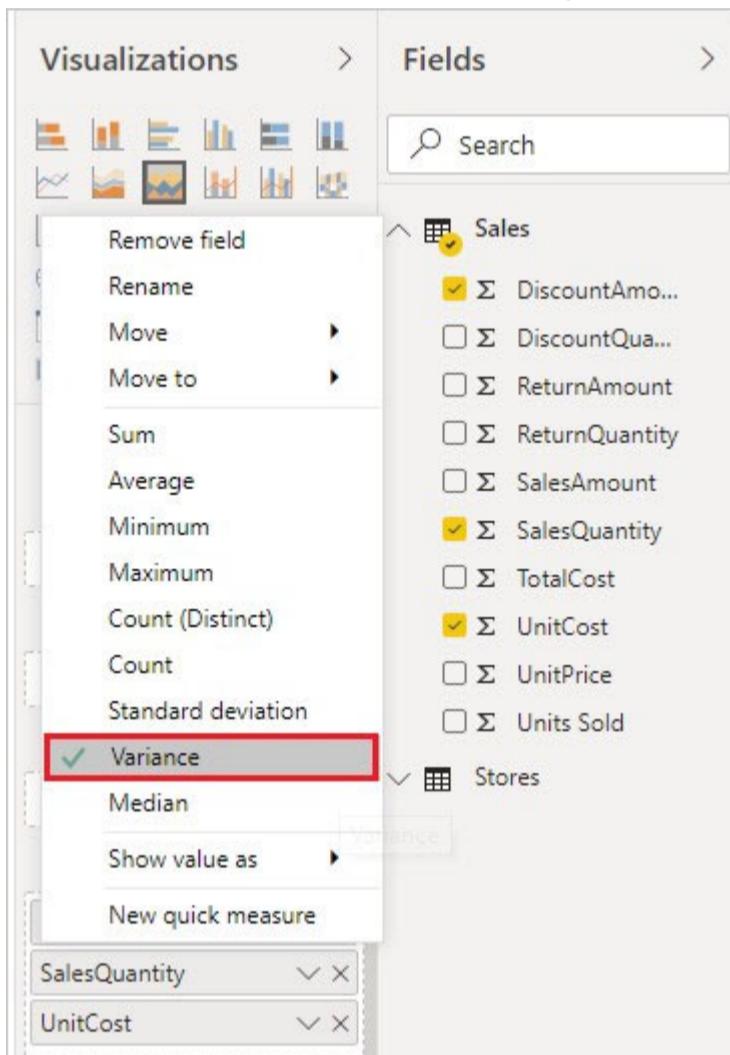
- A. Add salary to the drillthrough fields.
- B. Add salary to the visual filters.
- C. Add salary to the tooltips.

Correct Answer: C

Customize tooltips with aggregation or quick measures

You can customize a tooltip by selecting an aggregation function.

Select the arrow beside the field in the Tooltips bucket. Then, select from the available options.



Note: Tooltips are an elegant way of providing more contextual information and detail to data points on a visual. You can customize tooltips in Power BI Desktop and in the Power BI service.

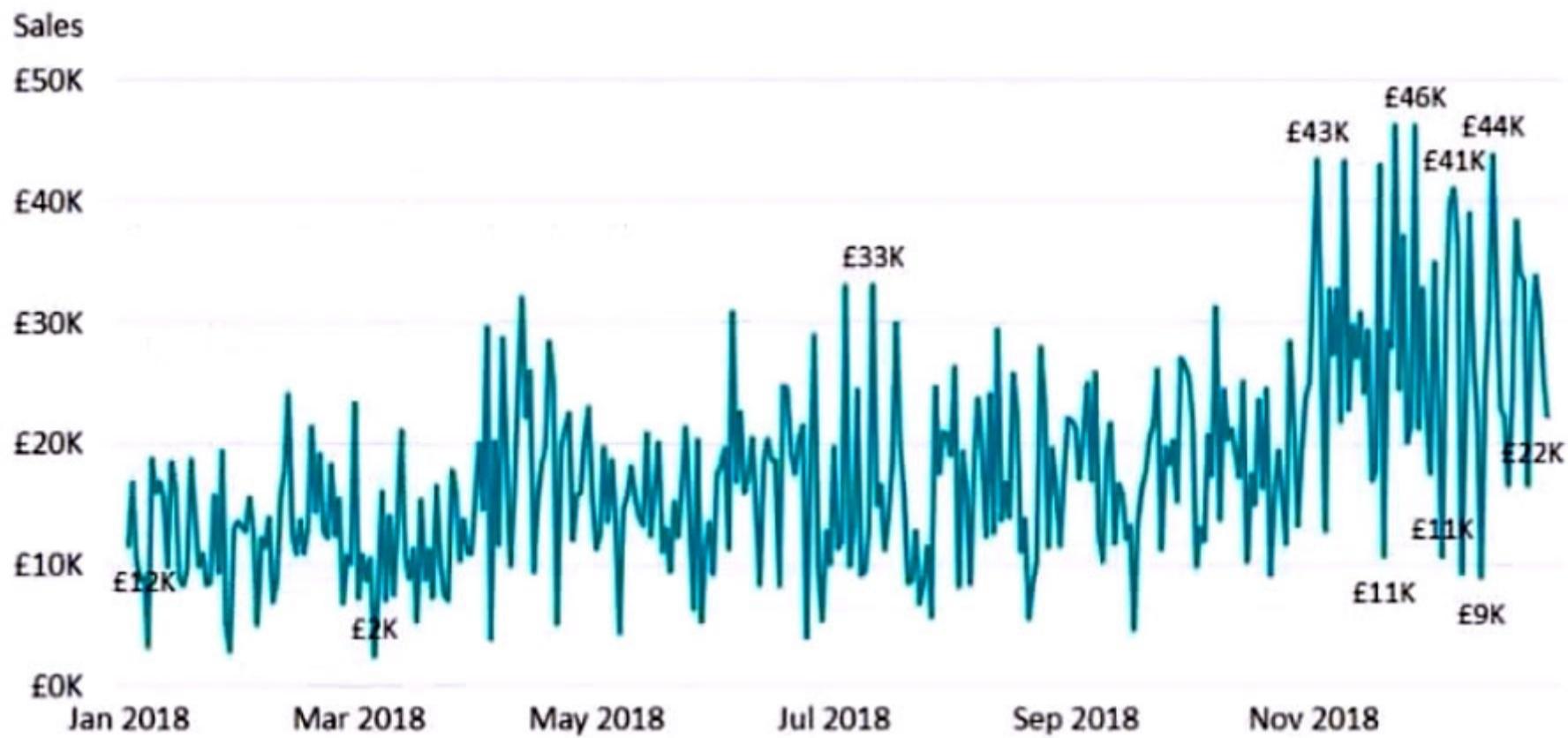
When a visualization is created, the default tooltip displays the data point's value and category.

Reference:

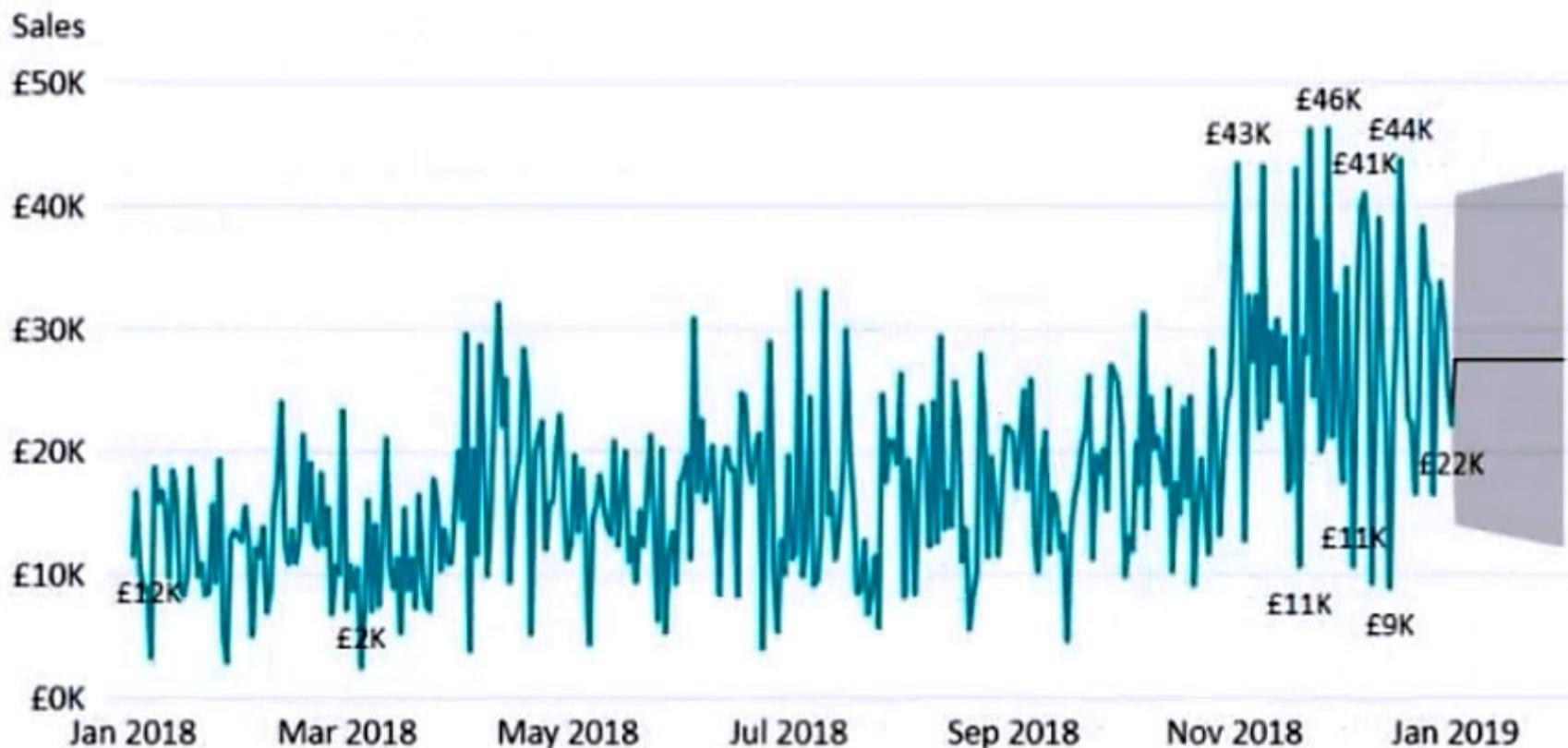
<https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-custom-tooltips>

Community vote distribution
C (100%)

You have the visual shown in the Original exhibit. (Click the Original tab.)



You need to configure the visual as shown in the Modified exhibit. (Click the Modified tab.)

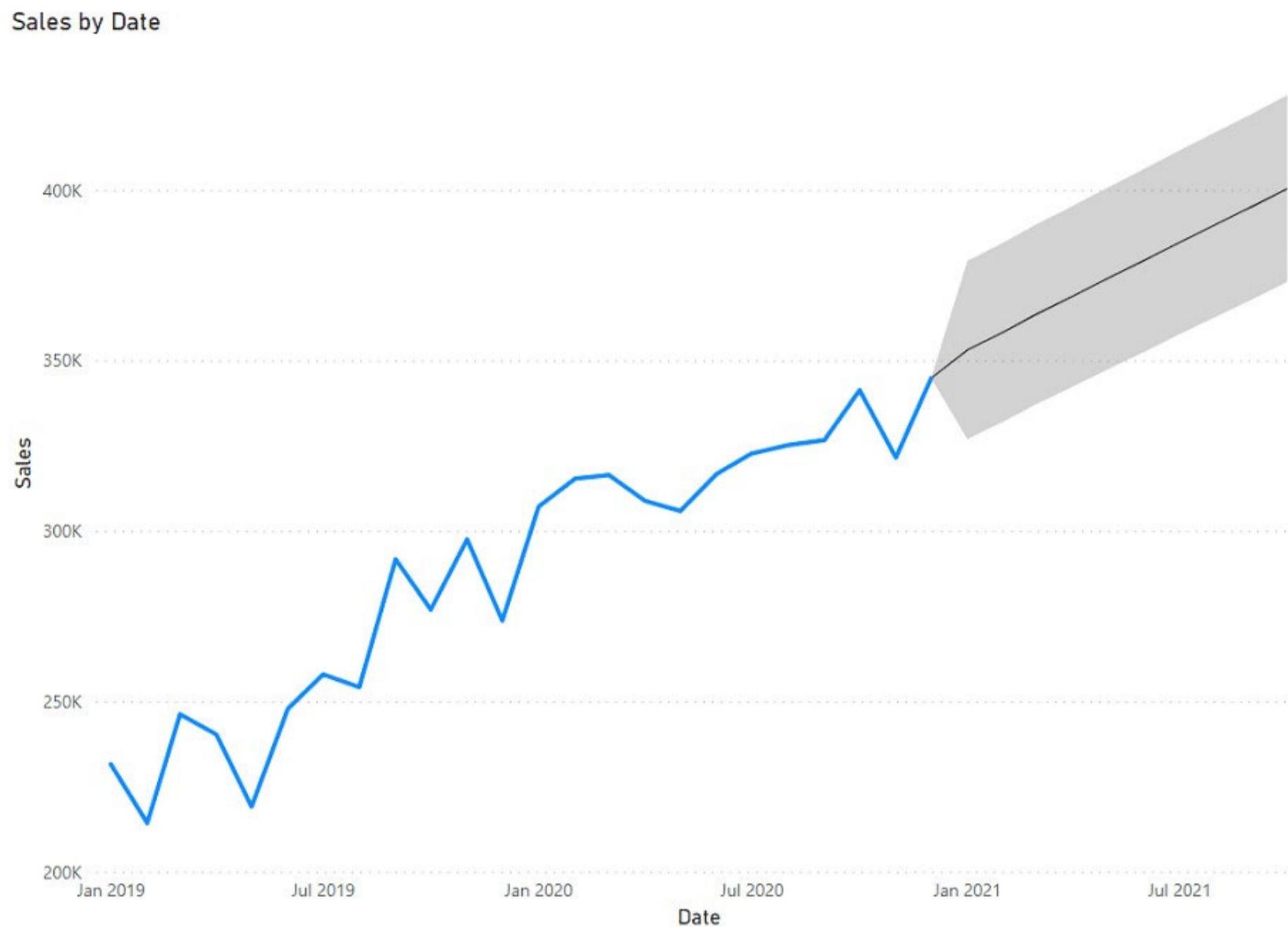


What should you add to the visual?

- A. a measure
- B. an Average line
- C. a trendline
- D. a forecast

Correct Answer: D

For example, here's how the current forecast looks like:



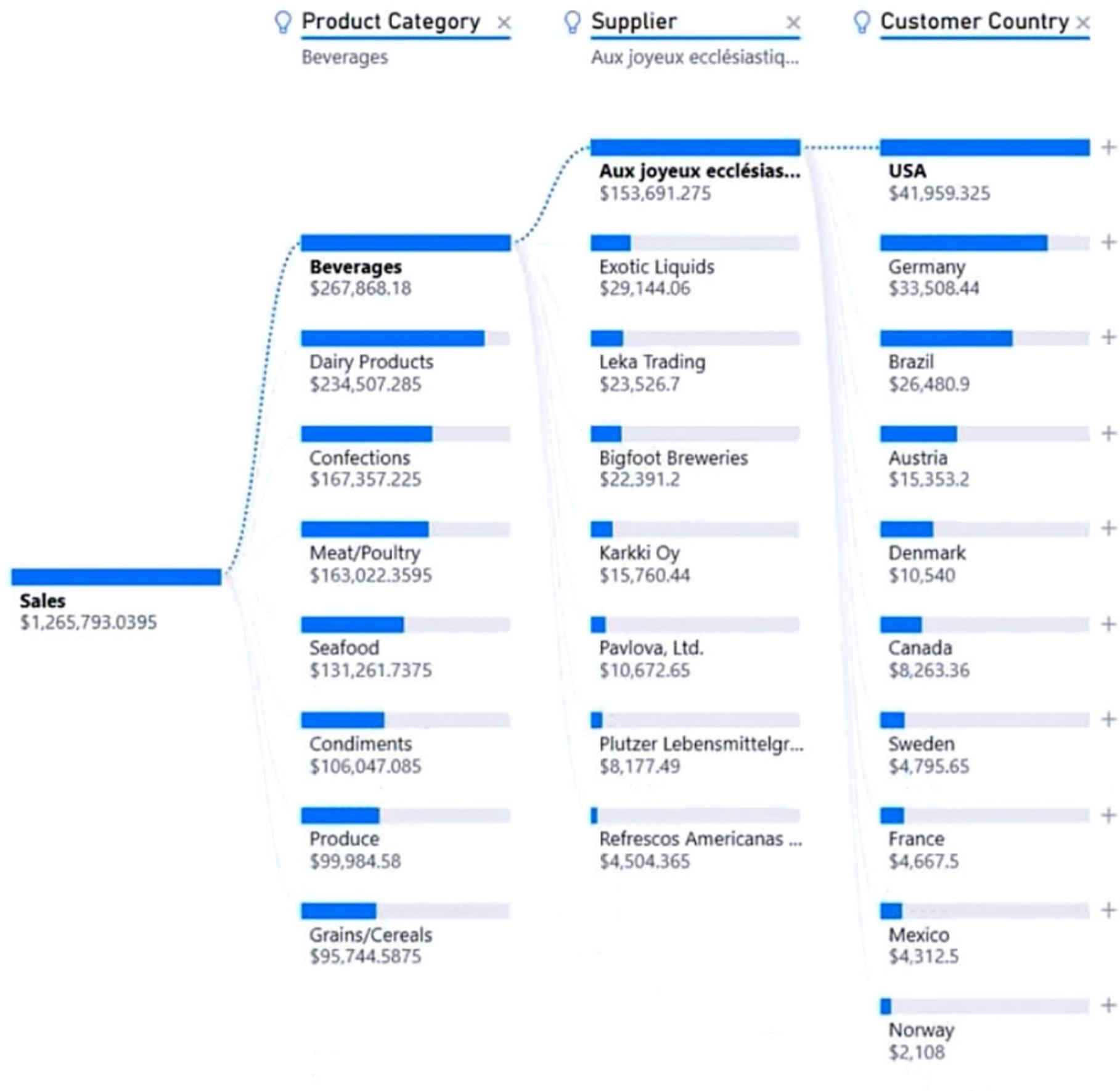
Reference:

<https://spreadsheetso.com/power-bi-forecasting/#intro>

Community vote distribution

D (100%)

You need to create a visual that enables the adhoc exploration of data as shown in the following exhibit.



Which type of visual should you use?

- A. smart narrative
- B. decomposition tree
- C. Q&A
- D. key influencers

Correct Answer: B

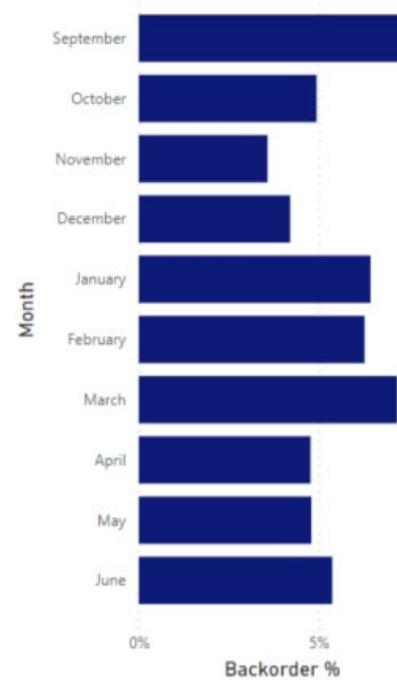
The decomposition tree visual in Power BI lets you visualize data across multiple dimensions. It automatically aggregates data and enables drilling down into your dimensions in any order. It is also an artificial intelligence (AI) visualization, so you can ask it to find the next dimension to drill down into based on certain criteria.

This makes it a valuable tool for ad hoc exploration and conducting root cause analysis.

Example:

Root Cause Analysis

Average of Backorder % by Month



High Risk

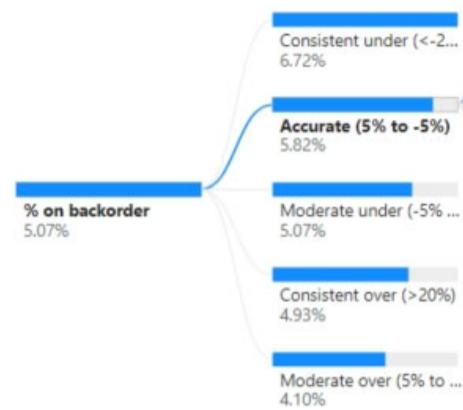
Low Risk

Forecast Bias
Accurate (5% to -5%)

Demand Type
Intermittent

Product Type
Patient Monitoring

Plant
#0288



% on backorder
5.07%

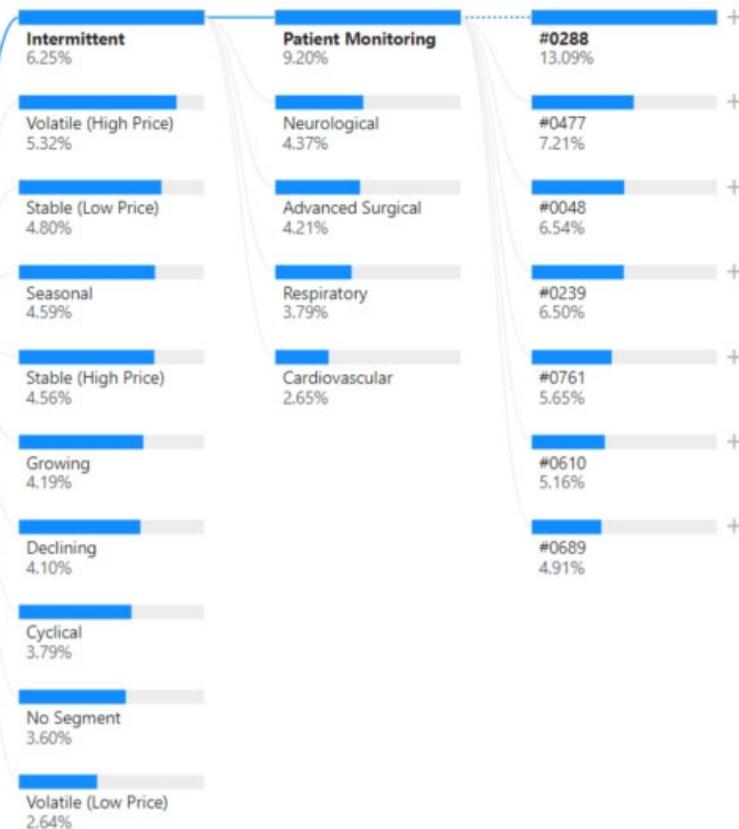
Consistent under (<-2...)
6.72%

Accurate (5% to -5%)
5.82%

Moderate under (-5% ...)
5.07%

Consistent over (>20%)
4.93%

Moderate over (5% to ...)
4.10%



Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-decomposition-tree>

Community vote distribution

B (100%)

Your company has employees in 10 states.

The company recently decided to associate each state to one of the following three regions: East, West, and North.

You have a data model that contains employee information by state. The model does NOT include region information.

You have a report that shows the employees by state.

You need to view the employees by region as quickly as possible.

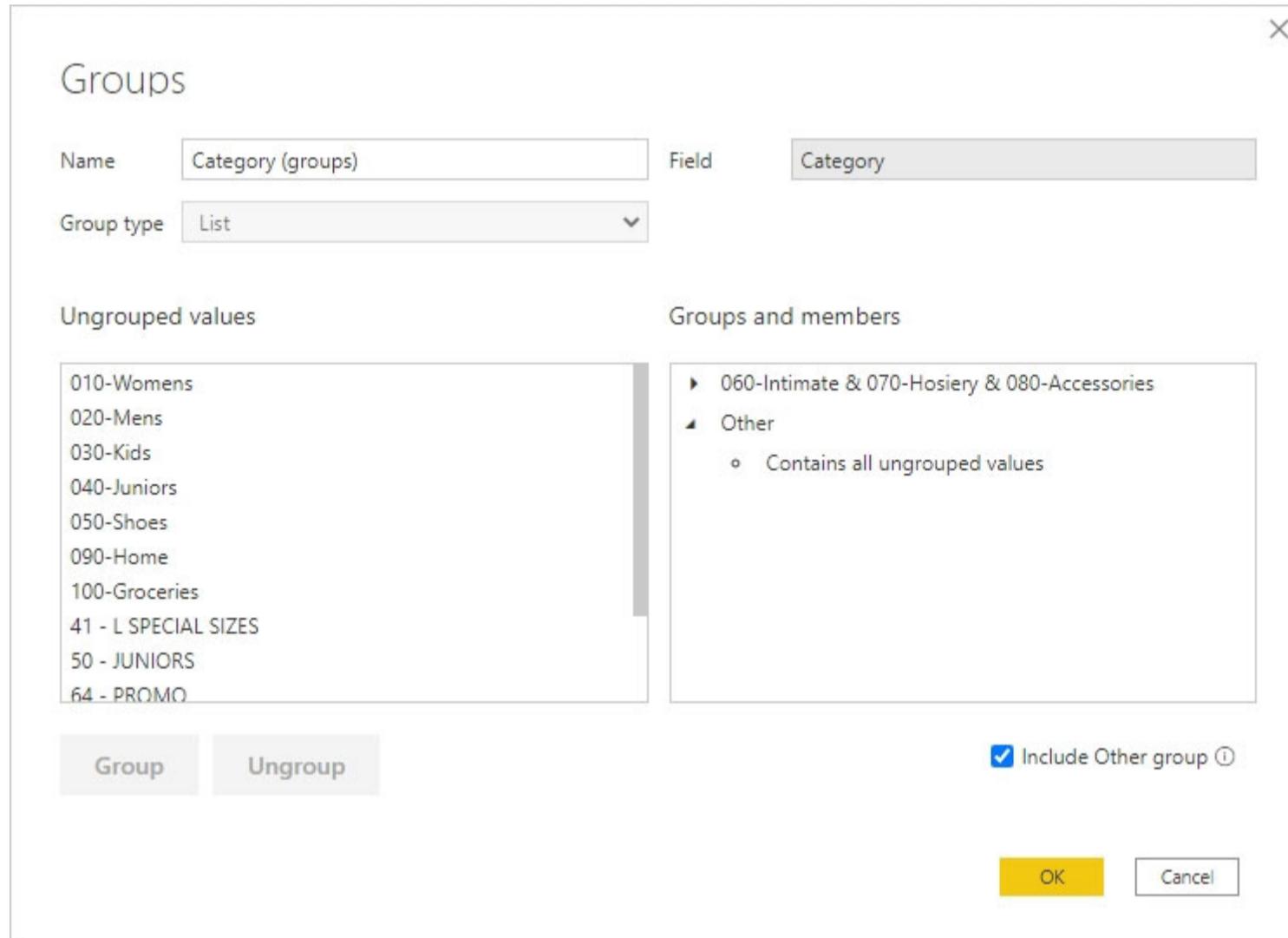
What should you do?

- A. Create a new aggregation that summarizes by state.
- B. Create a new aggregation that summarizes by employee.
- C. Create a new group on the state column and set the Group type to List.
- D. Create a new group on the state column and set the Group type to Bin.

Correct Answer: C

In Power BI Desktop, you can group data points to help you more clearly view, analyze, and explore data and trends in your visuals.

Example:



Incorrect:

Not D: You can also define the bin size to put values into equally sized groups that better enable you to visualize data in ways that are meaningful. This action is often called binning.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-grouping-and-binning>

Community vote distribution
C (100%)

You have a collection of reports for the HR department of your company.

You need to create a visualization for the HR department that shows historical employee counts and predicts trends during the next six months.

Which type of visualization should you use?

- A. ribbon chart
- B. scatter chart
- C. line chart
- D. key influencers

Correct Answer: C

The best data for forecasting is time series data or uniformly increasing whole numbers. The line chart has to have only one line.

Reference:

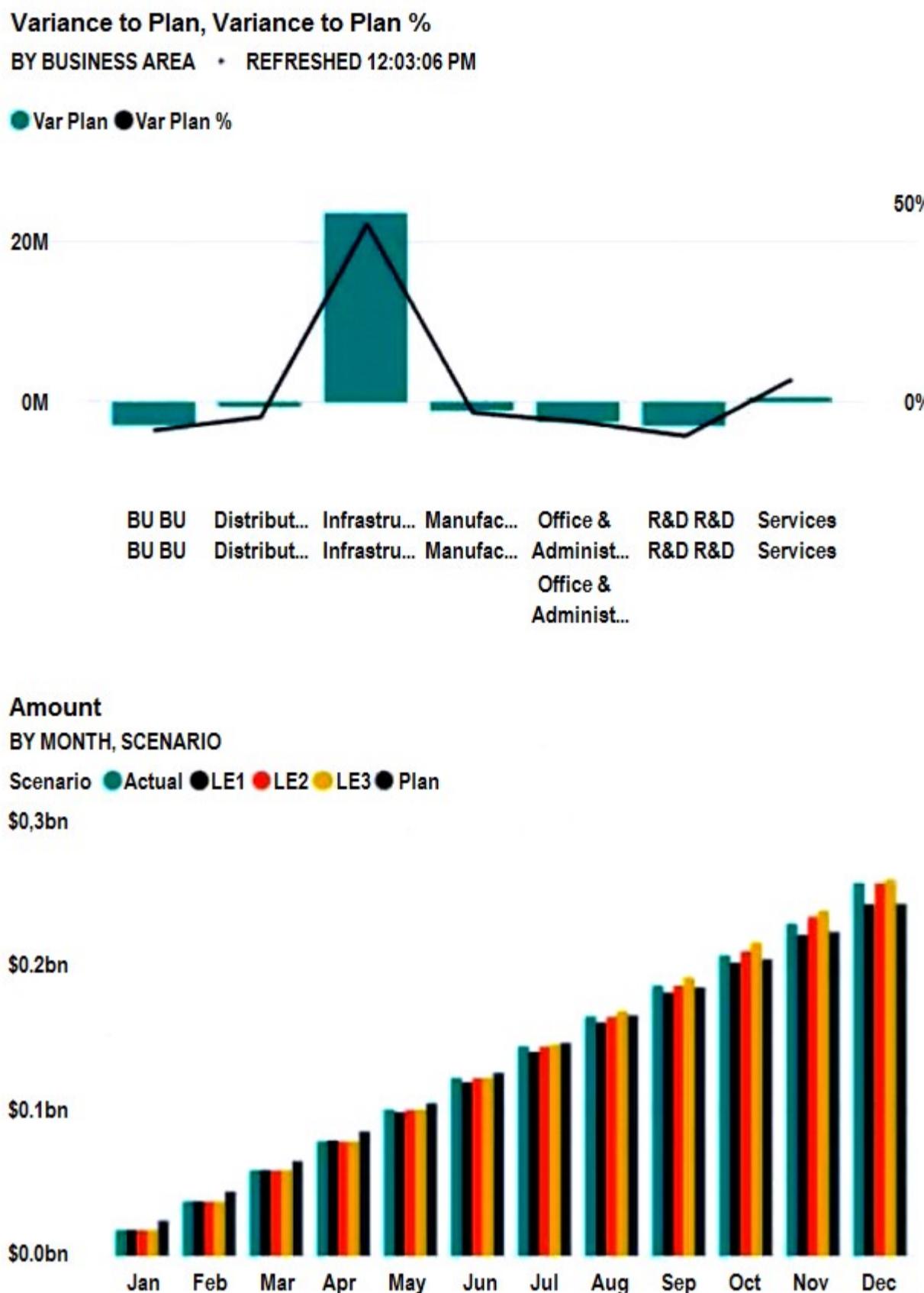
<https://powerbi.microsoft.com/fr-ca/blog/introducing-new-forecasting-capabilities-in-power-view-for-office-365/>

Community vote distribution

C (100%)

You have a Microsoft Power BI dashboard. The report used to create the dashboard uses an imported dataset from a Microsoft SQL Server data source.

The dashboard is shown in the exhibit. (Click the Exhibit tab.)



What occurred at 12:03:06 PM?

- A. A new transaction was added to the data source.
- B. The dashboard tile cache refreshed.
- C. A user added a comment to a tile.
- D. A user pressed F5.

Correct Answer: D

If you press F5 or hit the refresh button, the dashboard charts gets updated.

Note: Power BI enables you to go from data to insight to action quickly, yet you must make sure the data in your Power BI reports and dashboards is recent.

Knowing how to refresh the data is often critical in delivering accurate results.

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/refresh-data>

Community vote distribution

B (83%)

Other

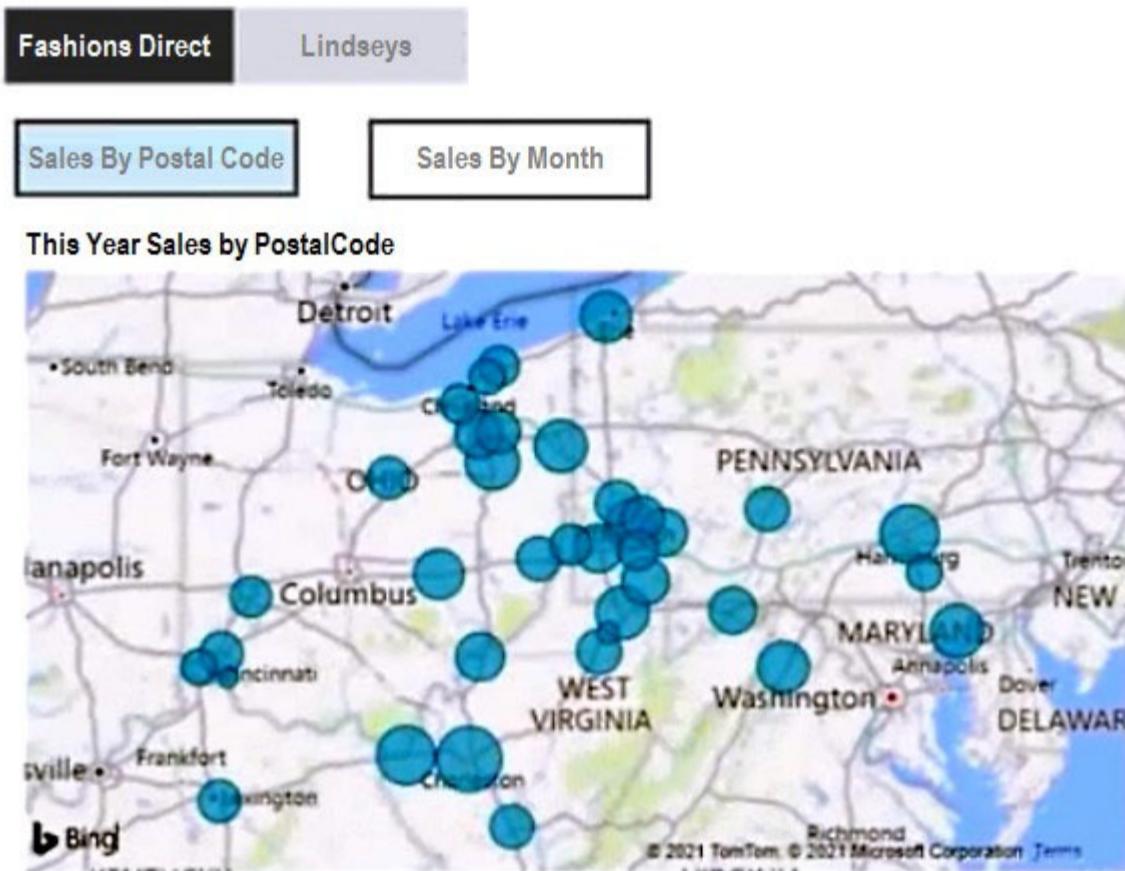
HOTSPOT -

You need to create a Power BI report. The first page of the report must contain the following two views:

- Sales By Postal Code
- Sales by Month

Both views must display a slicer to select a value for a field named Chain.

The Sales By Postal Code view must display a map visual as shown in the following exhibit.

Chain

The Sales By Month view must display a column chart visual as shown in the following exhibit.

Chain

Users must be able to switch between the views by using buttons on the report page. The selected Chain field must be maintained when switching between views.

What is the minimum number of bookmarks required, and which property should you apply to each bookmark? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Minimum number of bookmarks:

1
2
3
4

Property:

Data
Display
Current page

Answer Area

Minimum number of bookmarks:

1
2
3
4

Correct Answer:

Property:

Data
Display
Current page

Box 1: 2 -

One for each visual.

Note: When you edit a report in Power BI Desktop and the Power BI service, you can add report bookmarks to capture the current state of a report page.

Bookmarks save the current filters and slicers, cross-highlighted visuals, sort order, and so on. When others view your report, they can get back to that exact state by selecting your saved bookmark.

Box 2: Display -

Users must be able to switch between the views by using buttons on the report page. The selected Chain field must be maintained when switching between views.

You can select whether each bookmark will apply Data properties, such as filters and slicers; Display properties, such as spotlight and its visibility; and Current page changes, which present the page that was visible when the bookmark was added. These capabilities are useful when you use bookmarks to switch between report views or selections of visuals, in which case you'd likely want to turn off data properties, so that filters aren't reset when users switch views by selecting a bookmark.

Note: When you create a bookmark, the following elements are saved with the bookmark:

The current page -

Filters -

Slicers, including slicer type (for example, dropdown or list) and slicer state

Visual selection state (such as cross-highlight filters)

Sort order -

Drill location -

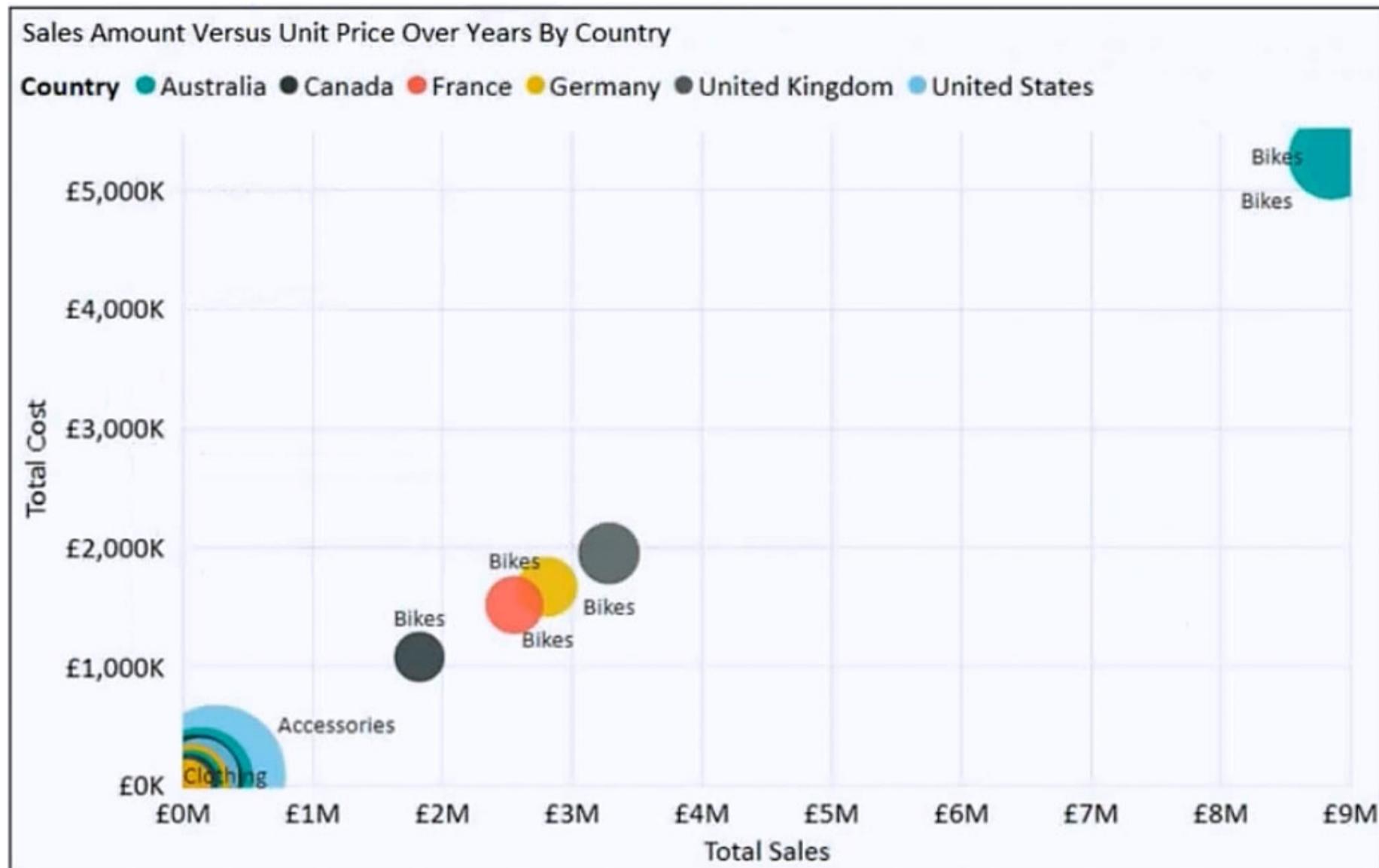
Visibility of an object (by using the Selection pane)

The focus or Spotlight mode of any visible object

Reference:

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

You have the visual shown in the exhibit. (Click the Exhibit tab.)



You need to show the relationship between Total Cost and Total Sales over time.

What should you do?

- Add a play axis.
- From the Analytics pane, add an Average line.
- Add a slicer for the year.
- Create a DAX measure that calculates year-over-year growth.

Correct Answer: A

When to use a slicer -

Slicers are a great choice when you want to:

Display commonly used or important filters on the report canvas for easier access.

Make it easier to see the current filtered state without having to open a drop-down list.

Filter by columns that are unneeded and hidden in the data tables.

Create more focused reports by putting slicers next to important visuals.

Note: Suppose you want your report readers to be able to look at overall sales metrics, but also highlight performance for individual district managers and different time frames. You could create separate reports or comparative charts. You could add filters in the Filters pane. Or you could use slicers. Slicers are another way of filtering. They narrow the portion of the dataset that is shown in the other report visualizations.

Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-slicers>

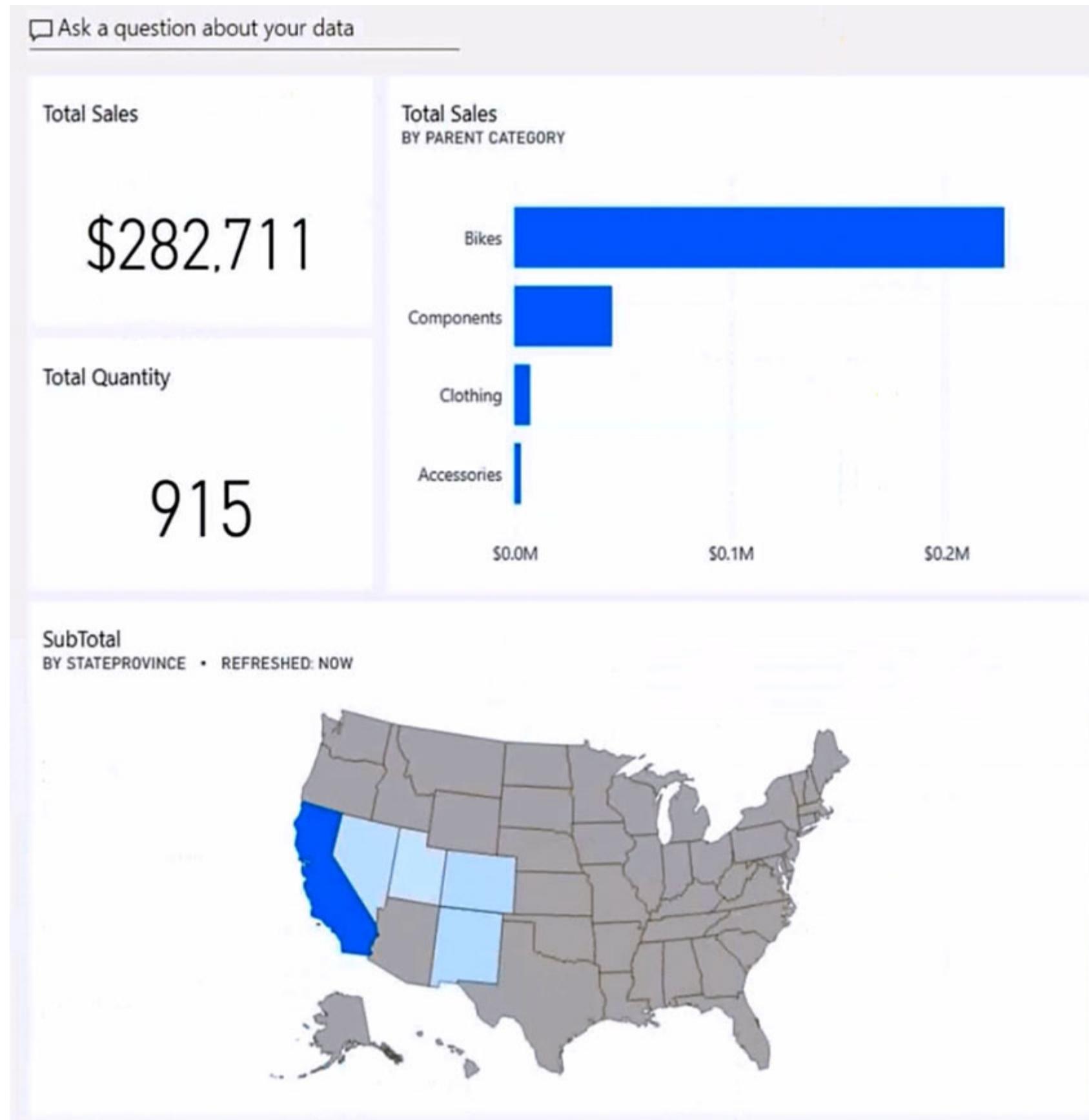
Community vote distribution

A (87%)

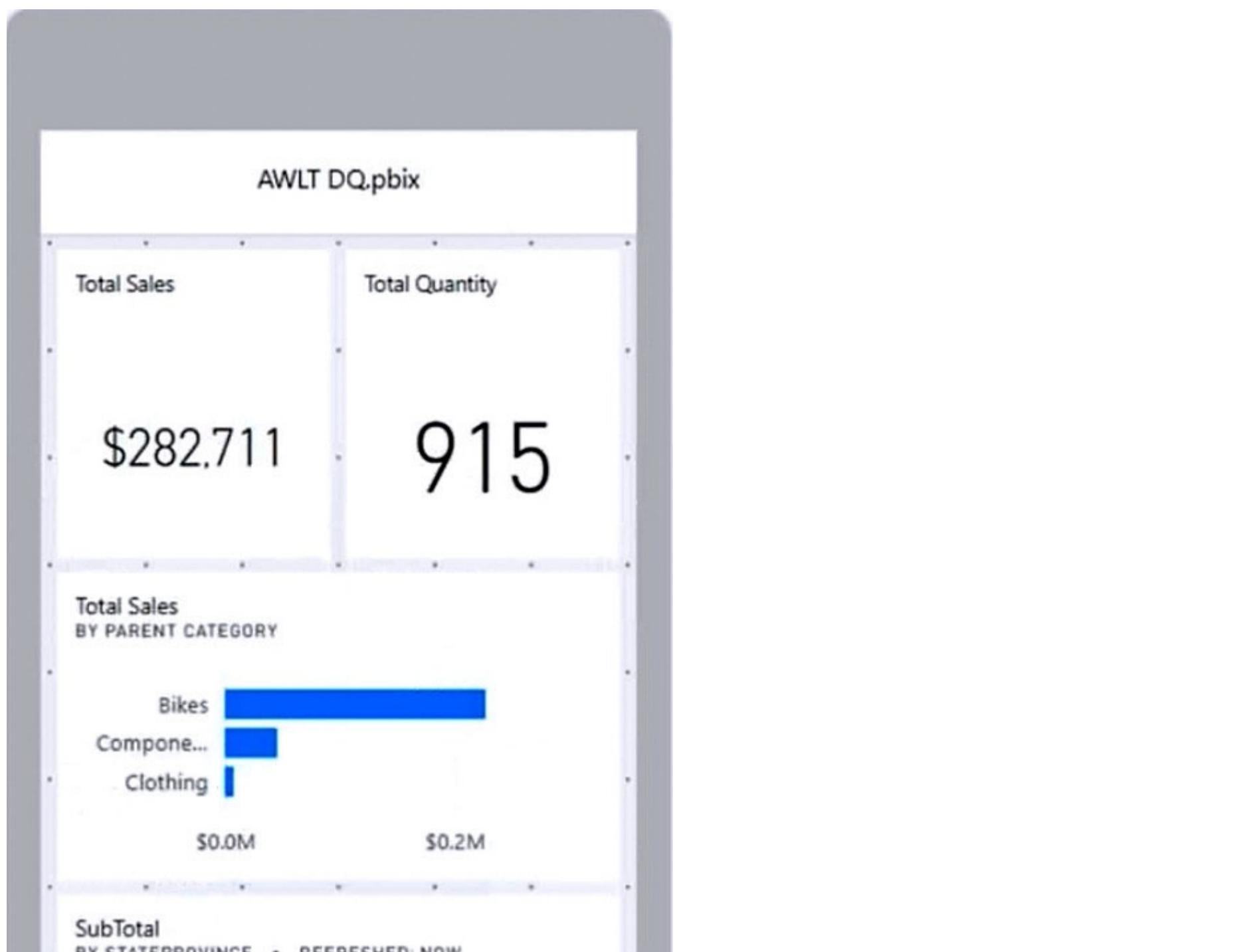
13%

HOTSPOT -

You have the Power BI dashboard shown in the Dashboard exhibit. (Click the Dashboard tab.)



You need to ensure that when users view the dashboard on a mobile device, the dashboard appears as shown in the Mobile exhibit. (Click the Mobile tab.)



What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Update the layout in the:

- Dashboard mobile layout
- Dashboard web layout
- Report mobile layout

Resize and move:

- The SubTotal map tile
- The Total Sales and Total Quantity tiles
- The Total Sales by Parent Category tile

Answer Area

Update the layout in the:

Correct Answer:

Dashboard mobile layout
Dashboard web layout
Report mobile layout

Resize and move:

The SubTotal map tile
The Total Sales and Total Quantity tiles
The Total Sales by Parent Category tile

Box 1: Report mobile layout -

Power BI provides a number of features to help you create mobile-optimized versions of your reports:

- * A mobile layout view where you create your mobile-optimized report by dragging and dropping visuals onto a phone emulator canvas.
- * Etc.

Box 2: The Total Sales by Parent Category tile

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/power-bi-create-mobile-optimized-report-about>

Question #38

Topic 3

You are building a Power BI report to analyze customer segments.

You need to identify customer segments dynamically based on the Bounce Rate across dimensions such as source, geography, and demographics. The solution must minimize analysis effort.

Which type of visualization should you use?

- A. decomposition tree
- B. funnel chart
- C. Q&A
- D. key influencers

Correct Answer: A

The decomposition tree visual in Power BI lets you visualize data across multiple dimensions. It automatically aggregates data and enables drilling down into your dimensions in any order. It is also an artificial intelligence (AI) visualization, so you can ask it to find the next dimension to drill down into based on certain criteria.

This makes it a valuable tool for ad hoc exploration and conducting root cause analysis.

Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-decomposition-tree>

Community vote distribution

A (68%)

D (32%)

You have a table that contains sales data and approximately 1,000 rows.

You need to identify outliers in the table.

Which type of visualization should you use?

- A. area chart
- B. scatter plot
- C. pie chart
- D. donut chart

Correct Answer: B

Outlier Detection in Power BI using Funnel Plot, which is a scatter plot.

Outliers are those data points that lie outside the overall pattern of distribution & the easiest way to detect outliers is through graphs. Box plots,

Scatter plots can help detect them easily.

Reference:

<https://towardsdatascience.com>this-article-is-about-identifying-outliers-through-funnel-plots-using-the-microsoft-power-bi-d7ad16ac9ccc>

Community vote distribution

B (100%)

You have a report that contains three pages. One of the pages contains a KPI visualization.

You need to filter all the visualizations in the report except for the KPI visualization.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Edit the interactions of the KPI visualization.
- B. Add the same slicer to each page and configure Sync slicers.
- C. Edit the interactions of the slicer that is on the same page as the KPI visualization.
- D. Configure a page-level filter.
- E. Configure a report-level filter.

Correct Answer: BC

Slicers are another way of filtering. They narrow the portion of the dataset that is shown in the other report visualizations.

Control which page visuals are affected by slicers

Example: Use visual interactions to keep slicer selections from filtering this chart.

1. Go to the Overview page of the report, and then select the DM slicer you previously created.
2. On the Power BI Desktop menu, select the Format menu under Visual Tools, and then select Edit interactions.
3. Filter controls, each with a Filter and a None option, appear above all the visuals on the page. Initially, the Filter option is preselected on all the controls.
4. Select the None option in the filter control above the Total Sales Variance by FiscalMonth and District Manager chart to stop the DM slicer from filtering it.

Incorrect:

Not D: A page-level filter is used to filter an entire page.

Not E: A report-level filter is used to filter an entire report.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/power-bi-report-add-filter>

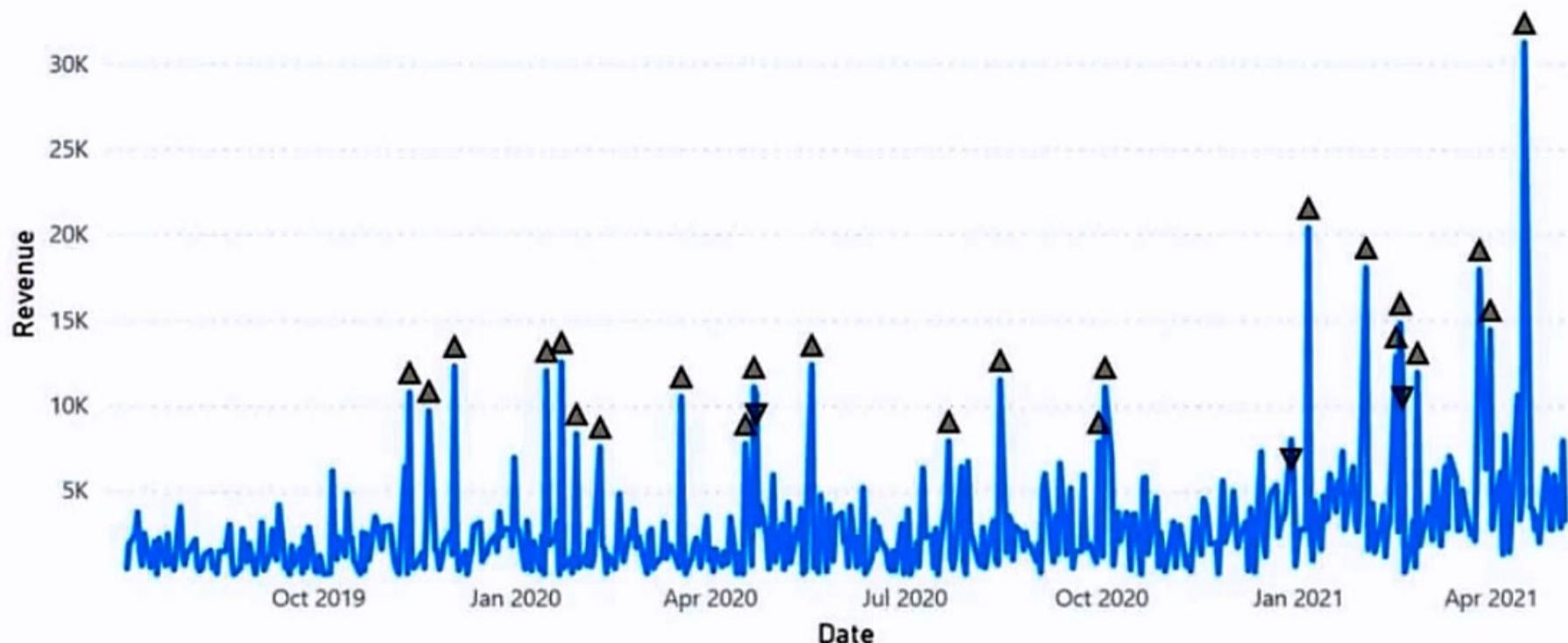
Community vote distribution

BC (94%)

6%

HOTSPOT -

You have a Power BI visual that uses indicators to show values that are out of range as shown in the following exhibit.

Revenue by Date

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.

Hot Area:

Answer Area

The visual type is [answer choice] chart.

- a line
- a line and clustered column
- an area

The visual indicators that show values out of range are created by using [answer choice].

- a custom visual
- a trendline
- anomaly detection
- line chart markers

Correct Answer:

Answer Area

The visual type is [answer choice] chart.

- a line
- a line and clustered column
- an area

The visual indicators that show values out of range are created by using [answer choice].

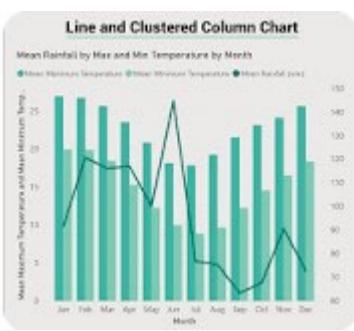
- a custom visual
- a trendline
- anomaly detection
- line chart markers

Box 1: a line -

Incorrect:

* not line and clustered column

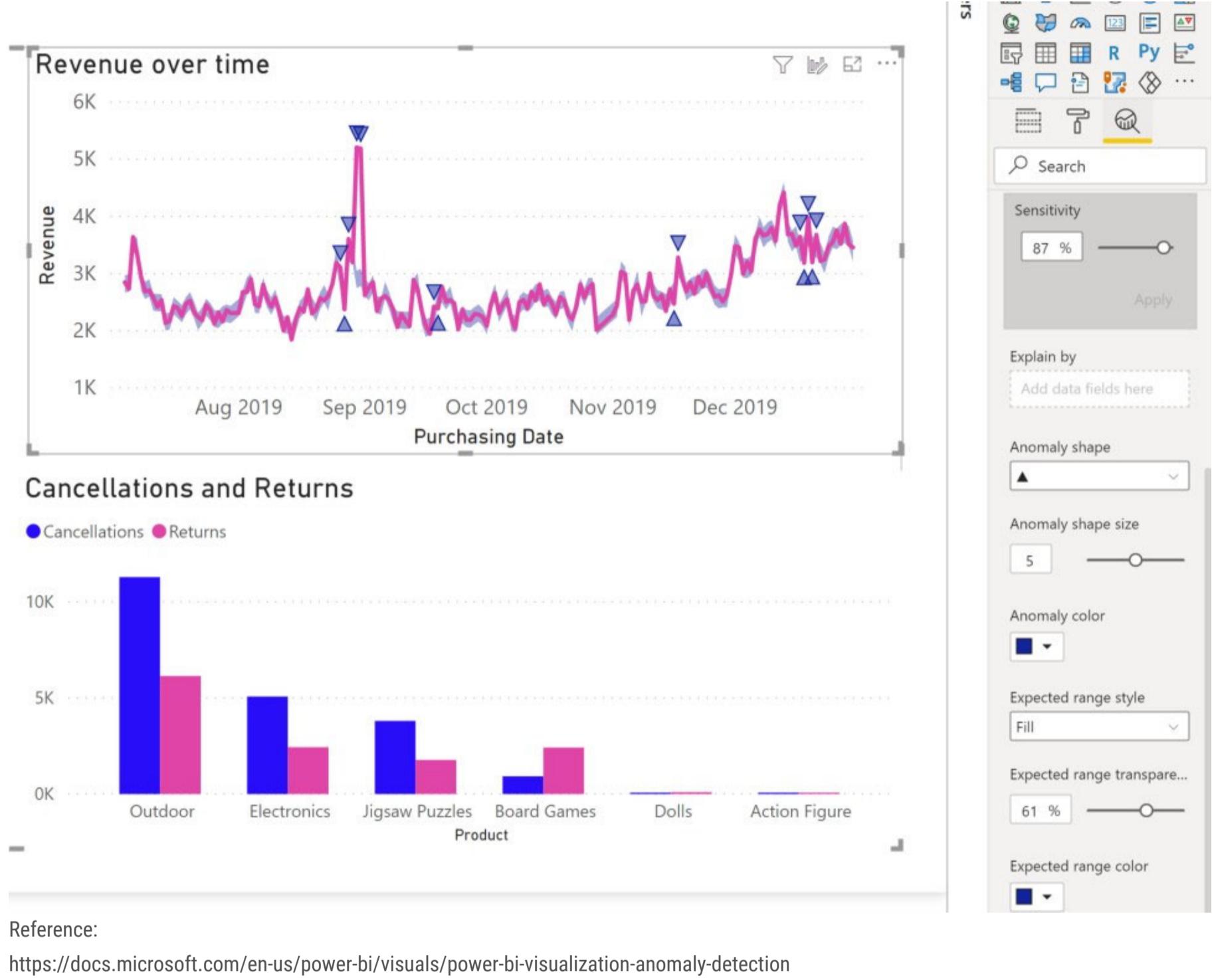
The Line and Clustered Column Chart is a combo charts that combines the Line chart and Column chart together in one visual. By combining these two visuals together, you can make a very quick comparison between two sets of measures.



Box 2: anomaly detection -

Anomaly detection helps you enhance your line charts by automatically detecting anomalies in your time series data. It also provides explanations for the anomalies to help with root cause analysis. With just a couple of clicks, you can easily find insights without slicing and dicing the data.

Example:



You are creating a Power BI report to analyze consumer purchasing patterns from a table named Transactions. The Transactions table contains a numeric field named Spend.

You need to include a visual that identifies which fields have the greatest impact on Spend.

Which type of visual should you use?

- A. Q&A
- B. smart narrative
- C. decomposition tree
- D. key influencers

Correct Answer: D

The key influencers visual helps you understand the factors that drive a metric you're interested in. It analyzes your data, ranks the factors that matter, and displays them as key influencers. For example, suppose you want to figure out what influences employee turnover, which is also known as churn. One factor might be employment contract length, and another factor might be commute time.

When to use key influencers -

The key influencers visual is a great choice if you want to:

See which factors affect the metric being analyzed.

Contrast the relative importance of these factors. For example, do short-term contracts affect churn more than long-term contracts?

Reference:

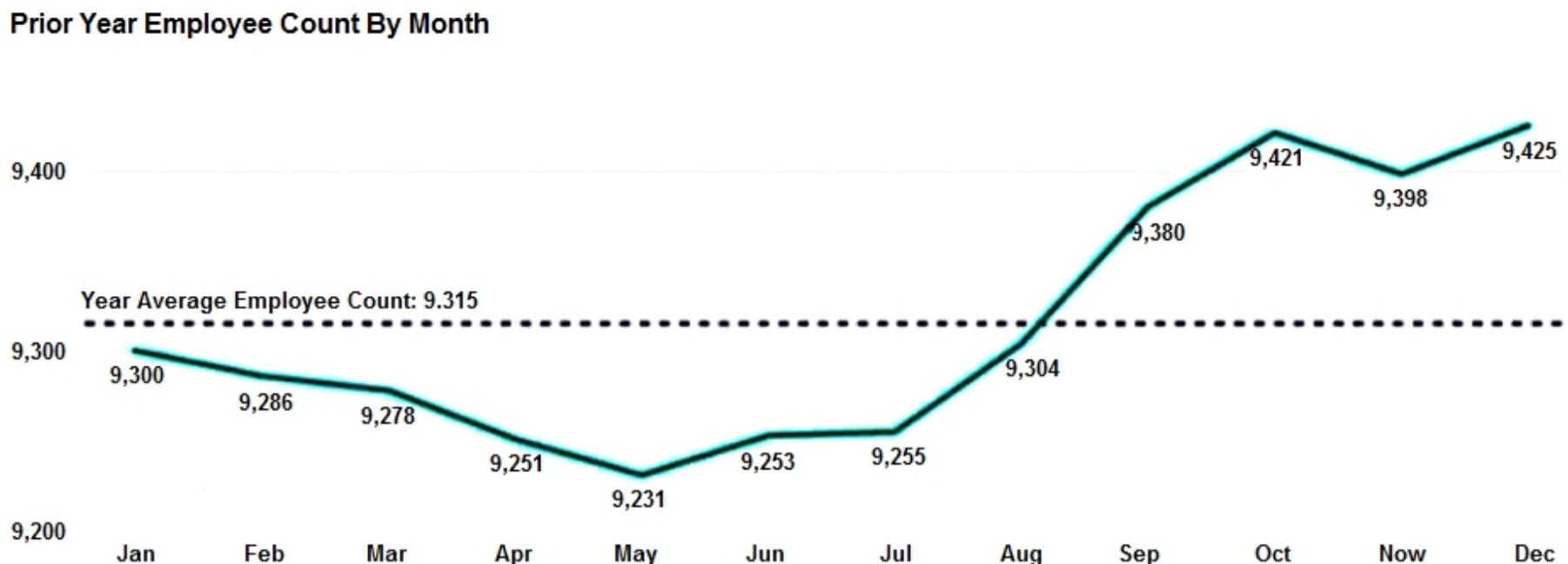
<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-influencers>

Community vote distribution

D (100%)

HOTSPOT -

You are creating a line chart in a Power BI report as 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.

Hot Area:

Answer Area

The dashed line representing the Year Average Employee Count was created by using [answer choice].

a trend line
a secondary axis
an average reference line
two measures in the Values bucket

To enable users to drill down to weeks or days, add the Weeks and Days field to the [answer choice] bucket.

Axis
Values
Legend
Secondary values

Correct Answer:**Answer Area**

The dashed line representing the Year Average Employee Count was created by using [answer choice].

a trend line
a secondary axis
an average reference line
two measures in the Values bucket

To enable users to drill down to weeks or days, add the Weeks and Days field to the [answer choice] bucket.

Axis
Values
Legend
Secondary values

Box 1: an average reference line

With the Analytics pane in Power BI Desktop, you can add dynamic reference lines to visuals, and provide focus for important trends or insights.

Box 2: Values -

Add a measure to drillthrough -

You can add a measure or a summarized numeric column to the drillthrough area. Drag the drillthrough field to the Drillthrough card on the drillthrough target page to apply it.

When you add a measure or summarized numeric column, you can drill through to the page when the field is used in the Value area of a visual.

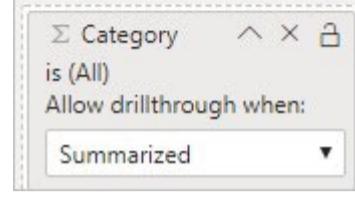
Drillthrough

Cross-report

Off

Keep all filters

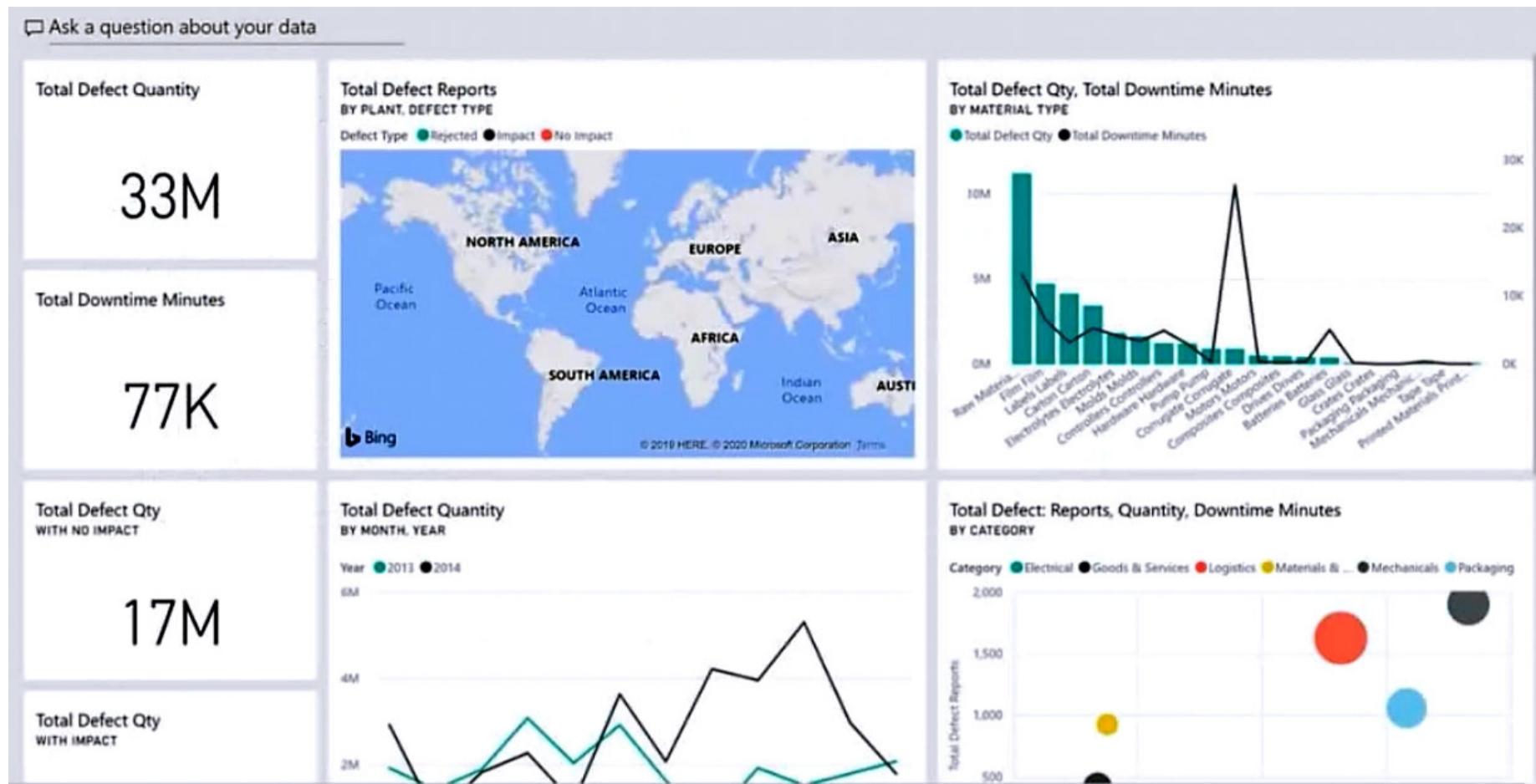
On



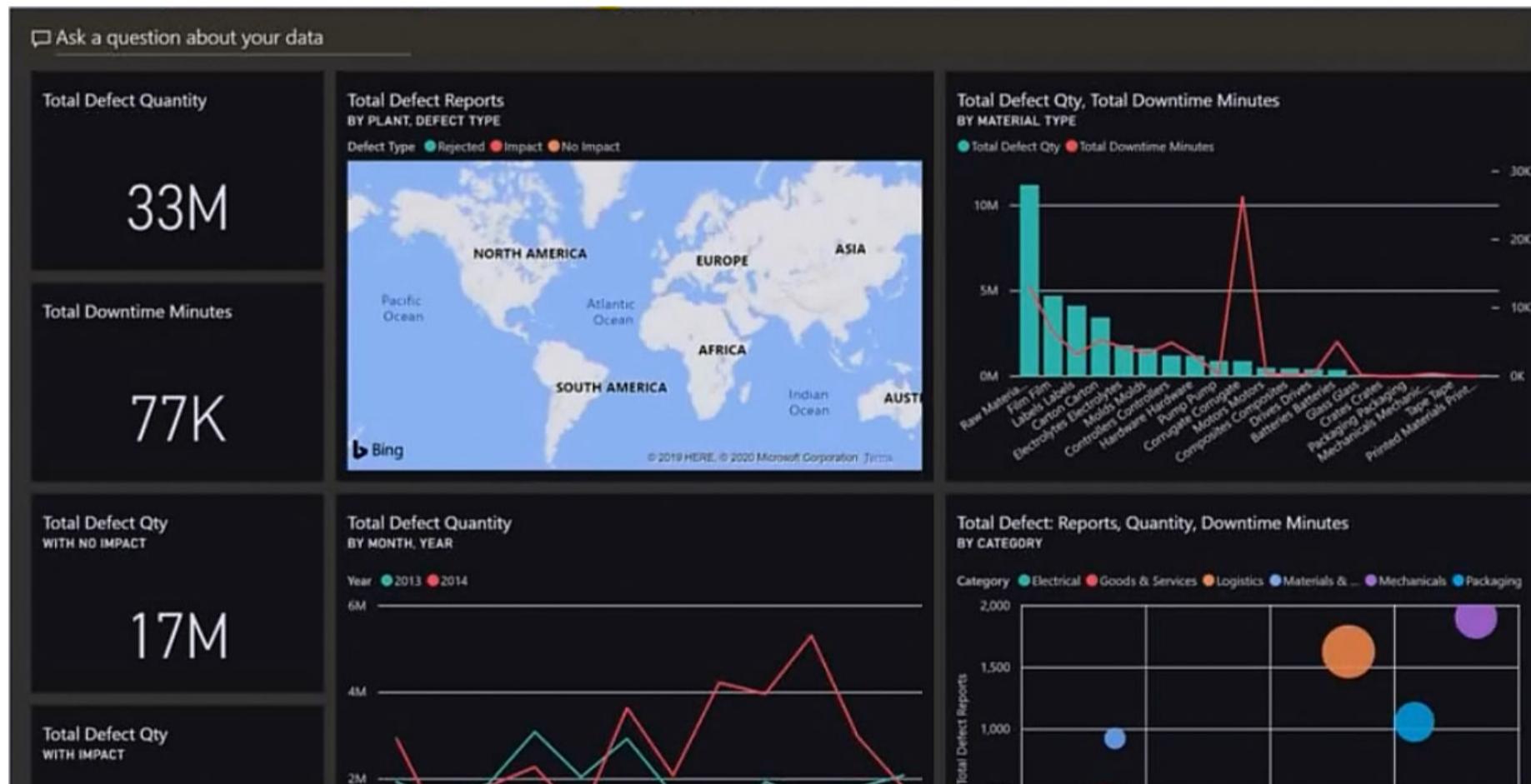
Reference:

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

You have a dashboard that contains tiles pinned from a single report as shown in the Original Dashboard exhibit. (Click the Original Dashboard tab.)



You need to modify the dashboard to appear as shown in the Modified Dashboard exhibit. (Click the Modified Dashboard tab.)



What should you do?

- Change the report theme.
- Change the dashboard theme.
- Edit the details of each tile.
- Create a custom CSS file.

Correct Answer: B

With dashboard themes you can apply a color theme to your entire dashboard, such as corporate colors, seasonal coloring, or any other color theme you might want to apply. When you apply a dashboard theme, all visuals on your dashboard use the colors from your selected theme.

Incorrect:

Not A: With Power BI Desktop report themes, you can apply design changes to your entire report, such as using corporate colors, changing icon

sets, or applying new default visual formatting.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-dashboard-themes>

Community vote distribution

B (100%)

Question #45

Topic 3

You have a Power BI report. The report contains a visual that shows gross sales by date. The visual has anomaly detection enabled.

No anomalies are detected.

You need to increase the likelihood that anomaly detection will identify anomalies in the report.

What should you do?

- A. Increase the Expected range transparency setting.
- B. Add a data field to the Legend field well.
- C. Increase the Sensitivity setting.
- D. Add a data field to the Secondary values field well.

Correct Answer: A

Adding anomaly detection automatically enriches the chart with anomalies, and the expected range of values. When a value goes outside this expected boundary, it's marked as an anomaly.

Reference:

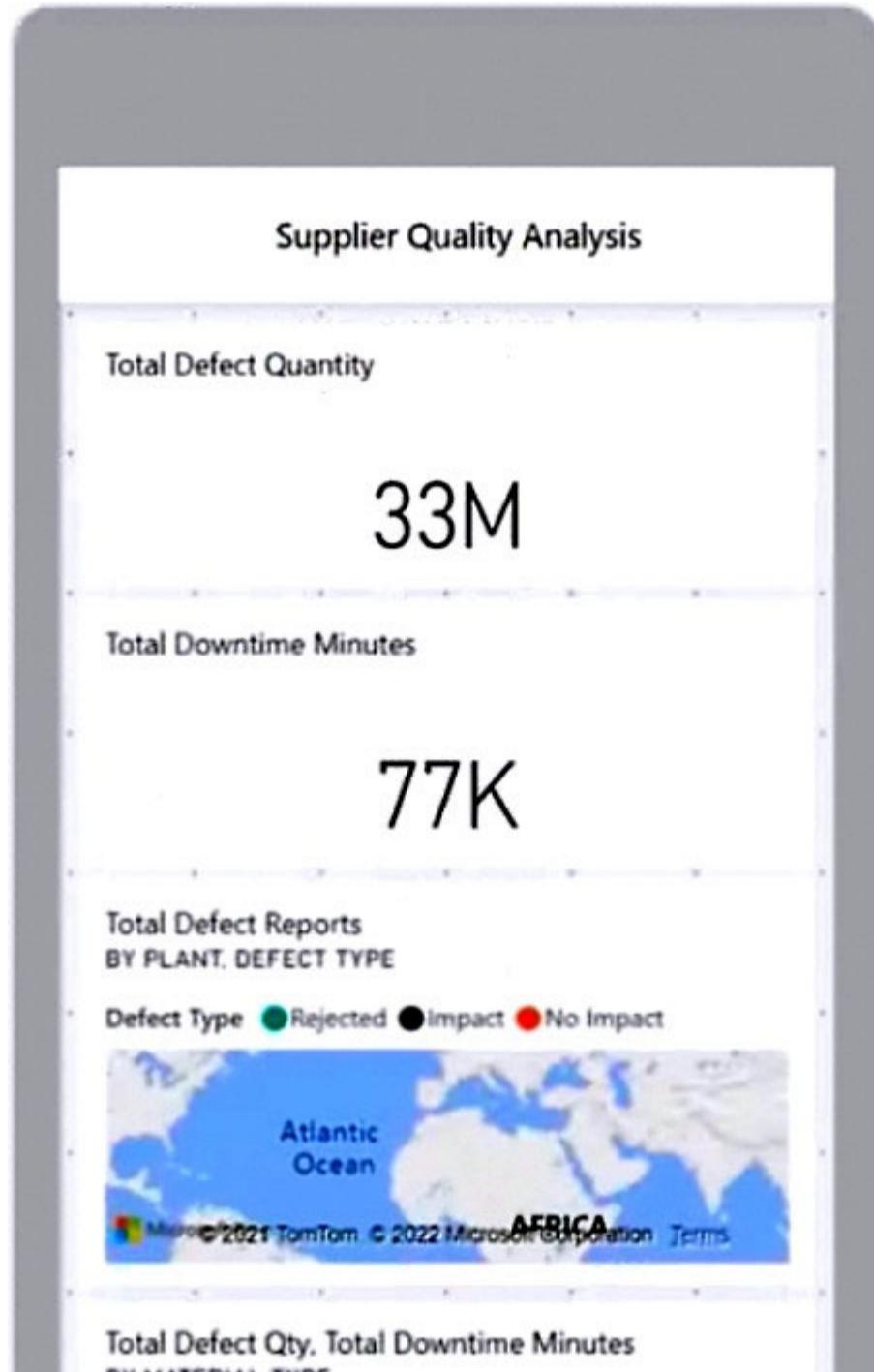
<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-anomaly-detection>

Community vote distribution

C (100%)

You maintain a Power BI workspace that contains a supplier quality dashboard. The dashboard contains 10 card visuals, two map visuals and five bar chart visuals.

The dashboard mobile layout is shown in the exhibit. (Click the Exhibit tab.)



You need to modify the dashboard mobile layout to meet the following requirements:

- Only show single-value visuals.
- Minimize scrolling.

What should you do?

- A. Decrease the size of the card visuals. Remove the map and bar chart visuals.
- B. Decrease the size of the map and bar chart visuals. Move all the card visuals to the top of the layout.
- C. Remove the card visuals. Increase the size of the map and bar chart visuals.
- D. Move the bar chart visuals to the top of the layout. Remove the map visuals. Decrease the size of the card visuals.

Correct Answer: A

Community vote distribution

A (100%)

You have a Power BI report.

You have a table named Data1 that contains 10 million rows.

Data1 is used in the following visuals:

- A card that shows the number of records
- A bar chart that shows total transaction amount by territory
- A scatter plot that shows transaction amount and profit amount on the axes and points colored by territory

You need to modify the scatter plot to make it easier for users to identify meaningful patterns. The solution must not affect the accuracy of the other visuals.

What should you do?

- A. Add a count field of the transaction amount to the size bucket of the scatter plot.
- B. Add a trend line to the scatter plot.
- C. Enable high-density sampling on the scatter plot.
- D. Apply a row filter to the Data1 query in Power Query Editor.

Correct Answer: B

A trend line is a straight line that best represents the points on a scatterplot. The trend line may go through some points but need not go through them all. The trend line is used to show the pattern of the data. This trend line may show a positive trend or a negative trend.

Reference:

<https://flexbooks.ck12.org/cbook/ck-12-interactive-middle-school-math-8-for-ccss/section/6.3/related/lesson/use-a-scatterplot-to-interpret-data-msm8/>

Community vote distribution

C (79%) B (19%)

You have a Power BI workspace named Inventory that contains a dataset, a report, and a dashboard.

You need to add an additional tile to the dashboard. The tile must show inventory by location. This information is NOT visualized in the report. The solution must minimize the impact on 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. Ask a question by using Q&A.
- B. Hide the report page.
- C. Pin the visual to the dashboard.
- D. Use quick insights on the dashboard.
- E. Add the visual to the report.

Correct Answer: AC

In the Power BI service (app.powerbi.com), a dashboard contains tiles pinned from one or more datasets, so you can ask questions about any of the data contained in any of those datasets. T

The answer to your question is displayed as an interactive visualization and updates as you modify the question.

Open a dashboard and place your cursor in the question box. Even before you start typing, Q&A displays a new screen with suggestions to help you form your question. You see phrases and complete questions containing the names of the tables in the underlying datasets and may even see complete questions listed if the dataset owner has created featured questions,

The screenshot shows the Power BI Q&A interface. At the top, there's a navigation bar with icons for Power BI, a report titled "Customer Profitability S...", a search icon, and a user profile icon. Below the navigation bar, there's a sidebar with icons for Home, Favorites, Recent, and Help. The main area has a header "Ask a question about your data". Below it, a section titled "Try one of these to get started" contains a grid of eight suggested questions. The first four questions in the top row are highlighted with a red border: "top country/regions by total revenue", "top country/regions by sum of revenue", "what is the total COGS by country/region", and "what is the sum of taxes by country/region". The second row contains: "top country/regions by YoY gross margin % variance", "top country/regions by revenue % variance to budget", "what is the ytd cogs by business unit", and "what is the YoY YTD gross margin growth by business unit". The third row contains: "what is the YoY revenue growth by business unit division" and "count country/regions". At the bottom right of the suggestion grid, there's a link "Show fewer suggestions".

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/power-bi-tutorial-q-and-a>

Community vote distribution

AC (77%)

AD (23%)

HOTSPOT -

You have a dataset named Pens that contains the following columns:

- Item
- Unit Price
- Quantity Ordered

You need to create a visualization that shows the relationship between Unit Price and Quantity Ordered. The solution must highlight orders that have a similar unit price and ordered quantity.

Which type of visualization and which feature should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area**Visualization:**

- A column chart of Quantity Ordered and Unit Price by year
- A line chart of Quantity Ordered and Unit Price by item
- A scatter plot of Quantity Ordered and Unit Price by item

Feature:

- Automatically find clusters
- Explain the decrease
- Find where the distribution is different

Correct Answer:

Answer Area**Visualization:**

- A column chart of Quantity Ordered and Unit Price by year
- A line chart of Quantity Ordered and Unit Price by item
- A scatter plot of Quantity Ordered and Unit Price by item

Feature:

- Automatically find clusters
- Explain the decrease
- Find where the distribution is different

Box 1: A scatter plot of Quantity Ordered and Unit Price by item

A scatter chart shows the relationship between two numerical values.

Note: Scatter charts are a great choice:

To show relationships between two numerical values.

To plot two groups of numbers as one series of x and y coordinates.

To use instead of a line chart when you want to change the scale of the horizontal axis.

To turn the horizontal axis into a logarithmic scale.

To display worksheet data that includes pairs or grouped sets of values.

To show patterns in large sets of data, for example by showing linear or non-linear trends, clusters, and outliers.

To compare large numbers of data points without regard to time. The more data that you include in a Scatter chart, the better the comparisons that you can make.

Box 2: Automatically find clusters

Scatter charts are a great choice:

* To show patterns in large sets of data, for example by showing linear or non-linear trends, clusters, and outliers.

Reference:

<https://github.com/Microsoft/powerbi-visuals-corrplot/>

Question #50

Topic 3

You have a Power BI report that contains three pages named Page1, Page2, and Page3. All the pages have the same slicers.

You need to ensure that all the filters applied to Page1 apply to Page1 and Page3 only.

What should you do?

- A. On each page, modify the interactions of the slicer.
- B. Enable visibility of the slicers on Page1 and Page3. Disable visibility of the slicer on Page2.
- C. Sync the slicers on Page1 and Page3.

Correct Answer: A

Control which page visuals are affected by slicers

By default, slicers on report pages affect all the other visualizations on that page, including each other. As you choose values in the list and date slicers that you just created, notice the effects on the other visualizations. The filtered data is an intersection of the values selected in both slicers.

Use visual interactions to exclude some page visualizations from being affected by others. On the Overview page, the Total Sales Variance by FiscalMonth and

District Manager chart shows overall comparative data for district managers by month, which is information that you want to keep visible. Use visual interactions to keep slicer selections from filtering this chart.

1. Go to the Overview page of the report, and then select the DM slicer you previously created.
2. On the Power BI Desktop menu, select the Format menu under Visual Tools, and then select Edit interactions.
3. Filter controls, each with a Filter and a None option, appear above all the visuals on the page. Initially, the Filter option is preselected on all the controls.
4. Select the None option in the filter control above the Total Sales Variance by FiscalMonth and District Manager chart to stop the DM slicer from filtering it.

Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-slicers>

Community vote distribution

C (96%)

You have a Power BI report that contains five pages.

Pages 1 to 4 are visible and page 5 is hidden.

You need to create a solution that will enable users to quickly navigate from the first page to all the other visible pages. The solution must minimize development and maintenance effort as pages are added to the report.

What should you do first?

- A. Add a blank button to page 1.
- B. Add a page navigation button to page 1.
- C. Create a bookmark for each page.
- D. Add a bookmark navigation button to page 1.

Correct Answer: C

Community vote distribution

B (100%)

You build a Power BI report that displays IoT temperature data streaming from a refrigerator.

You publish the report to the Power BI service.

You need to be notified when the temperature rises above four degrees Celsius.

What should you do?

- A. Set an alert on a KPI visual in the report.
- B. Pin a card visual to a dashboard and create a subscription.
- C. Pin a card visual to a dashboard and set an alert on the tile.
- D. Pin a report page to a dashboard and set an alert on the page.

Correct Answer: D

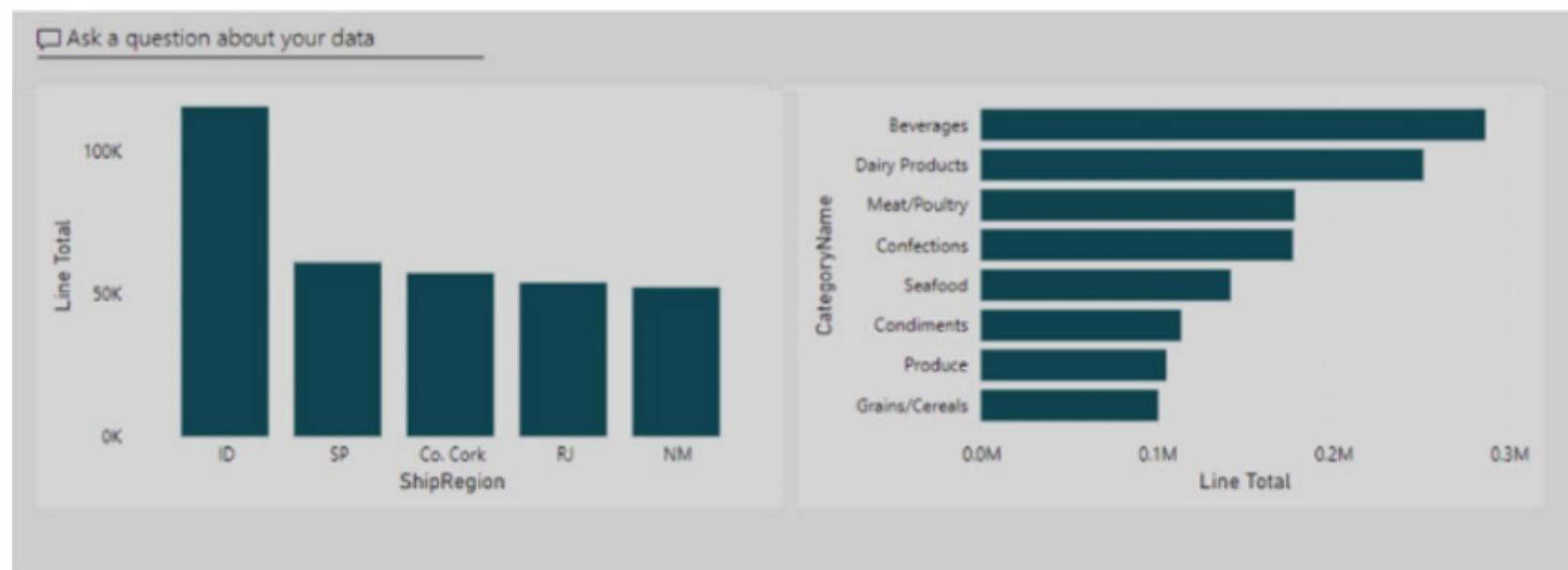
Community vote distribution

C (100%)

You have the dashboard shown in the following exhibit.



You need to modify the dashboard to display as shown in the following exhibit.



What should you do?

- A. Create and apply a custom dashboard theme.
- B. Change the colors of the visuals in the report.
- C. Apply the Dark dashboard theme.
- D. Upload a snapshot image of the dashboard.

Correct Answer: B

Community vote distribution

A (82%)

B (18%)

You need to create a Power BI theme that will be used in multiple reports. The theme will include corporate branding for font size, color, and bar chart formatting.

What should you do?

- A. From Power BI Desktop, customize the current theme.
- B. From Power BI Desktop, use a built-in report theme.
- C. Create a theme as a PBIVIZ file and import the theme into Power BI Desktop.
- D. Create a theme as a JSON file and import the theme into Power BI Desktop.

Correct Answer: A

Community vote distribution

D (81%) A (19%)

You have a Power BI report that contains one page. The page contains two line charts and one bar chart.

You need to ensure that users can perform the following tasks for all three visuals:

- Switch the measures used in the visuals.
- Change the visualization type.
- Add a legend.

The solution must minimize development effort.

What should you do?

- A. Create a bookmark for each acceptable combination of visualization type, measure, and legend in the bar chart.
- B. Edit the interactions between the three visuals.
- C. Enable personalization for the report.
- D. Enable personalization for each visual.

Correct Answer: C

Community vote distribution

C (100%)

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 clustered bar chart that contains a measure named Salary as the value and a field named Employee as the axis. Salary is present in the data as a numerical amount representing US dollars.

You need to create a reference line to show which employees are above the median salary.

Solution: You create a median line by using the Salary measure.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: B

Community vote distribution

A (100%)

DRAG DROP

You have a Power BI report that contains a table visual with a measure named Revenue. The Revenue measure returns values within a range of 0 to 5.

You need to format the visual so that the Revenue column displays a specific background color based on the value range shown in the following table.

Range	Background color
Values equal to zero	#FFFFFF
Values above 0 and less than or equal to 2	#FFC000
Values above 2 and less than or equal to 3	#E2EFDA
Values above 3 and less than or equal to 4	#A9D062
Values above 4	#00B050

Which three actions should you perform in sequence in Power BI Desktop? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions

- Set Format style to **Rules**.
- Add and configure a new rule for each value range.
- Set Format style to **Field value**.
- Open the **Background color** dialog for the Revenue column.
- Open the **Font color** dialog for the Revenue column.

Answer Area



Correct Answer:

- Open the **Background color** dialog for the Revenue column.
- Set Format style to **Rules**.
- Add and configure a new rule for each value range.

You have a Power BI report that contains four pages.

All the pages contain a slicer for a field named Country.

You need to ensure that when a user selects a country on page 1, the selection is retained on page 2 and page 3. The solution must prevent page 4 from being affected by selections on the other pages.

What should you do?

- A. Remove the Country slicer from page 1, page 2, and page 3. Add the Country field to the page-level filters.
- B. Remove the Country slicer from page 1, page 2, and page 3. Add the Country field to the report-level filters.
- C. Move the Country slicer from page 2 and page 3 to page 1.
- D. Sync the Country slicer on page 1, page 2, and page 3.

Correct Answer: D

Community vote distribution

D (100%)

DRAG DROP

You use Power BI Desktop to create a Power BI data model and a blank report.

You need to add the Word Cloud visual shown in the following exhibit to the report.

Defect Descriptions



The solution must minimize development effort.

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 a web browser, download the PBIVIZ file for the Word Cloud visual from Microsoft AppSource.

Format the data colors and title.

From Power BI Desktop, get the Word Cloud visual from Microsoft AppSource.

Populate the drillthrough fields.

Populate the Category, Value, and Excludes fields.



Answer Area

Answer Area	
	From a web browser, download the PBIVIZ file for the Word Cloud visual from Microsoft AppSource.
Correct Answer:	From Power BI Desktop, get the Word Cloud visual from Microsoft AppSource.
	Populate the drillthrough fields.

DRAG DROP

You have a Power BI report that contains five bookmarks.

You need to add an object to the report from which users can navigate between three specific bookmarks.

How should you complete the task? To answer, drag the appropriate actions to the correct steps. Each action 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.

Actions Add a Bookmark button. Change the Bookmark property for the button. Group the other two bookmarks. Group the three bookmarks.**Answer Area**

First step: Add a Bookmark navigator button.

Second step:

Third step:

Answer Area

First step: Add a Bookmark navigator button.

Correct Answer:

Second step: Change the Bookmark property for the button.

Third step: Group the three bookmarks.

You plan to use Power BI to create sales invoices for customers. The solution must meet the following requirements:

- Sales invoices must be exported in a PDF format.
- The PDF exports must show all columns and rows clearly.

What should you create?

- A. a paginated report that contains a tablix
- B. a dashboard that contains a table
- C. an interactive report that contains a table
- D. an interactive report that contains a matrix

Correct Answer: A

Community vote distribution

A (100%)

DRAG DROP

You have a Power BI report that contains three pages. The pages are used to analyze sales across various countries.

You add a slicer named Country to each page of the report.

You need to configure the report to meet the following requirements:

- When a user selects a country on the first page, the report must filter the other pages.
- The second and third pages must display only the filtered results.

Which task should you perform for each requirement? To answer, drag the appropriate task to the correct requirement. Each task 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.

Tasks

Add the Country field to the filters on all the pages

Configure the Country slicer to sync across all the pages

Configure the Country slicer to sync only on the second and third pages

Hide the Country slicer on the second and third pages

Answer Area

When a user selects a country on the first page, the report must filter the other pages:

The second and third pages must display only the filtered results:

Correct Answer:

When a user selects a country on the first page, the report must filter the other pages:

The second and third pages must display only the filtered results:

Add the Country field to the filters on all the pages

Configure the Country slicer to sync only on the second and third pages

You have a Power BI report that contains a page. The page contains the following:

- A shape named Shape1
- A card named Sales Summary
- A clustered bar chart named Sales by Region

You need to ensure that Sales Summary renders on top of Shape1.

What should you modify?

- A. Tab order in the Selection pane
- B. Layer order in the Selection pane
- C. Maintain layer order in the General visual settings
- D. Vertical alignment in the Canvas settings

Correct Answer: B

Community vote distribution

B (100%)

You have a Power BI report named Report1 and a dashboard named Dashboard1. Report1 contains a line chart named Sales by month.

You pin the Sales by month visual to Dashboard1.

In Report1, you change the Sales by month visual to a bar chart.

You need to ensure that the bar chart displays on Dashboard1.

What should you do?

- A. Refresh the dataset used by Report1 and Dashboard1.
- B. Pin the Sales by month bar chart to Dashboard1.
- C. Select Refresh visuals for Dashboard1.
- D. Edit the details for the dashboard tile of Dashboard1.

Correct Answer: B

Community vote distribution

B (100%)

In Power BI Desktop, you are creating a report that will contain three pages.

You need to create a custom tooltip page and prepare the page for use.

Which three actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. For the tooltip page, set Allow use as tooltip to On.
- B. For the target page, set Allow use as tooltip to On.
- C. Configure filters on the target visual.
- D. For the tooltip page, configure filters.
- E. Add and configure visuals on the tooltip page.

Correct Answer: BCE

Community vote distribution

ADE (59%) BDE (22%) Other

DRAG DROP

You need to use AI insights to add a column of enhanced data based on the customer feedback. The solution must identify the following:

- What the customers most often provide feedback about
- Whether the customers like your company's product
- The language of the feedback

Which AI insights service should you use for each output? To answer, drag the appropriate services to the correct outputs. Each service 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.

AI Insights services Image Tagging Key Phrase Extraction Language Detection Sentiment Analysis**Answer Area**

What the customers most often provide feedback about:

Whether the customers like your company's product:

The language of the feedback:

Answer Area

What the customers most often provide feedback about: Key Phrase Extraction

Correct Answer:

Whether the customers like your company's product: Sentiment Analysis

The language of the feedback: Language Detection

You have a Power BI report named ReportA.

You have a Power BI tenant that allows users to export data.

You need to ensure that consumers of ReportA cannot export any data from visuals.

Which two actions should you perform? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. From Power BI Desktop, modify the Report settings.
- B. From Power BI Desktop, modify the Data Load settings.
- C. From the Power BI service, modify the dataset permissions.
- D. From the Power BI service, modify the Report settings.

Correct Answer: AD

Community vote distribution

AD (100%)

You have a Power BI report that will be rendered on a vertical display.

You need to maximize the portion of the screen area used by the report.

What should you do?

- A. From the Canvas background setting of Power BI Desktop, configure the Image fit setting.
- B. From the Canvas settings of Power BI Desktop, set a custom width and height.
- C. From Power BI Desktop, select Personalize visuals.
- D. From the Power BI service, enable the Pages pane.

Correct Answer: B

Community vote distribution

B (100%)

You need to create a visual that compares profit across 10 product categories for a selected quarter.

What is the best visual to use to achieve the goal?

- A. an area chart
- B. a funnel chart
- C. a clustered bar chart
- D. a line chart

Correct Answer: C

Community vote distribution

C (100%)

You have a Power BI dataset named Finance that is hosted in a Power BI workspace.

The finance team at your company is NOT currently a member of any Power BI workspace roles.

You need to enable the finance team to use Microsoft Excel to analyze the Finance dataset.

What should you do?

- A. Grant the finance team build permissions to the Finance dataset.
- B. Provide an Excel workbook that is connected to the Finance dataset.
- C. Create a row-level security (RLS) role and add the finance team to the role as members.
- D. Grant the finance team write permissions to the Finance dataset.

Correct Answer: A

Community vote distribution

A (100%)

You have a Power BI report that contains a visual. The visual contains a measure.

You need to ensure that the report meets the following requirements:

- All values must be set to two decimal places.
- All negative values must be displayed in red font and parentheses.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. For the visual, apply conditional formatting to the background color.
- B. Configure the measure to use a custom format.
- C. For the visual, apply conditional formatting to the font color.
- D. For the visual, set Value decimal places to 2.

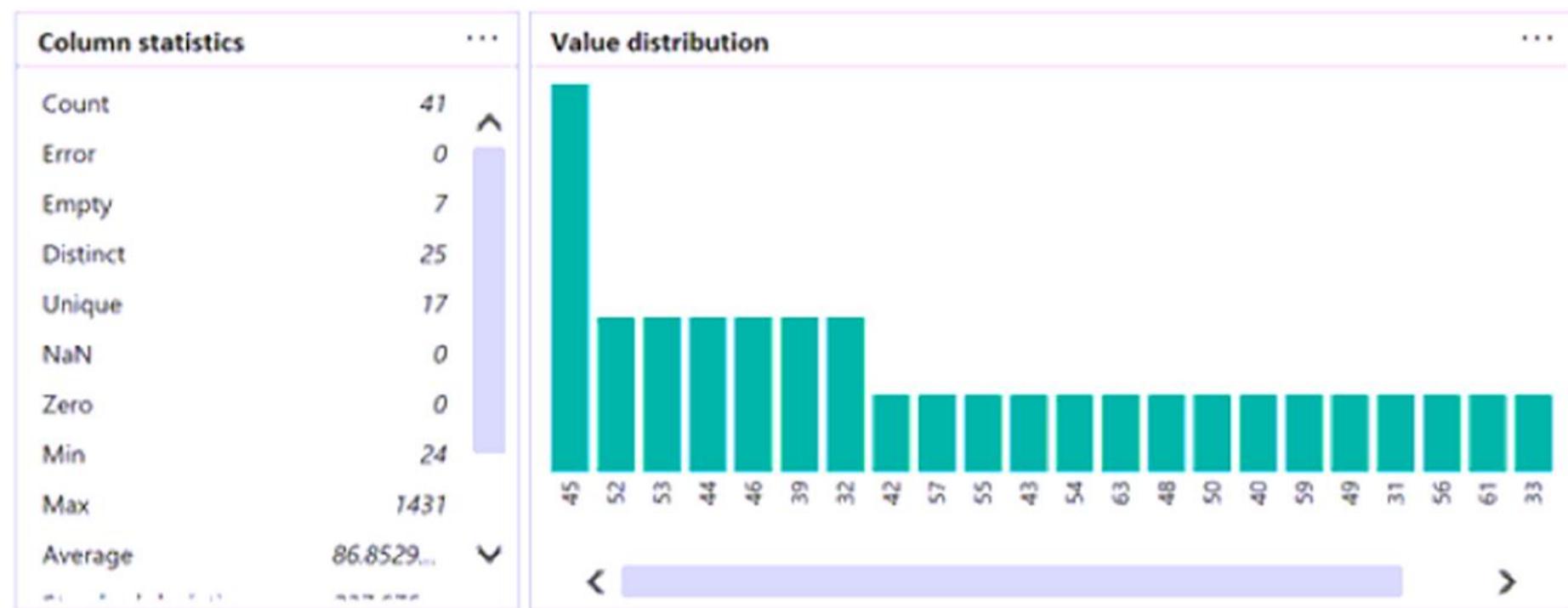
Correct Answer: CD

Community vote distribution

BC (100%)

HOTSPOT

You are using Power Query Editor to preview the data in a column named Max Temp. The column statistics and value distribution are 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.

Answer Area

The value that occurs most frequently in the column is [answer choice].

25
41
45
1431

The smallest non-NULL value in the column is [answer choice].

0
17
24
33

Answer Area

The value that occurs most frequently in the column is [answer choice].

25
41
45
1431

Correct Answer:

The smallest non-NULL value in the column is [answer choice].

0
17
24
33

HOTSPOT

You have a Power BI report that contains a page. The page contains the following visuals:

- A card
- A matrix
- A bar chart

You need to configure the page to ensure that the card and the bar chart are unaffected when a user drills down in the matrix. The card and the bar chart must change when a user selects a cell in the matrix.

What should you configure? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Visual type:

Bar chart
Card
Matrix

Set:

Edit Interactions to Filter
Edit Interactions to None
Apply drill down filters to Selected visual

Answer Area

Visual type:

Bar chart
Card
Matrix

Set:

Edit Interactions to Filter
Edit Interactions to None
Apply drill down filters to Selected visual

Correct Answer:

Question #1

Topic 4

HOTSPOT -

You have a Power BI tenant that hosts the datasets shown in the following table.

Name	Contents	Used to generate
Sales	Sales targets Sales data Employee salary data	Daily performance reports Quarterly reports used to calculate bonuses
Operations	Environmental sensor data	Reports that show average sensor readings over time
Finance	Financial transaction data	Budget planning reports Monthly board reports

You have the following requirements:

The export of reports that contain Personally Identifiable Information (PII) must be prevented.

Data used for financial decisions must be reviewed and approved before use.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
The Sales dataset requires a sensitivity label.	<input type="radio"/>	<input type="radio"/>
The Operations dataset requires a sensitivity label and must be certified.	<input type="radio"/>	<input type="radio"/>
The Finance dataset requires a sensitivity label and must be certified.	<input type="radio"/>	<input type="radio"/>

Correct Answer:

Answer Area

Statements	Yes	No
The Sales dataset requires a sensitivity label.	<input checked="" type="radio"/>	<input type="radio"/>
The Operations dataset requires a sensitivity label and must be certified.	<input type="radio"/>	<input checked="" type="radio"/>
The Finance dataset requires a sensitivity label and must be certified.	<input checked="" type="radio"/>	<input type="radio"/>

Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-security-sensitivity-label-overview>

You have a Power BI tenant.
You have reports that use financial datasets and are exported as PDF files.
You need to ensure that the reports are encrypted.
What should you implement?

- A. Microsoft Intune policies
- B. row-level security (RLS)
- C. sensitivity labels
- D. dataset certifications

Correct Answer: C

When you create a sensitivity label, you can restrict access to content that the label will be applied to.

When a document or email is encrypted, access to the content is restricted, so that it:

Can be decrypted only by users authorized by the label's encryption settings.

Remains encrypted no matter where it resides, inside or outside your organization, even if the file's renamed.

Incorrect:

Not B: Row-level security (RLS) with Power BI can be used to restrict data access for given users. Filters restrict data access at the row level, and you can define filters within roles.

Current limitations for row-level security:

Reference:

<https://docs.microsoft.com/en-us/microsoft-365/compliance/encryption-sensitivity-labels>

Community vote distribution
C (100%)

You have a Microsoft Excel file on a file server.
You create a Power BI report and import a table from the Excel file.
You publish the report.
You need to ensure that the data refreshes every four hours.
What should you do first?

- A. Upload the Excel file to a Power BI workspace.
- B. Create a subscription to the report.
- C. Deploy an on-premises data gateway.
- D. Edit the data source credentials.

Correct Answer: C

You can schedule refresh for the On-premises data gateway (personal mode) and the On-premises data gateway. You specify refresh options in the following areas of the Power BI service: Gateway connection, Data source credentials, and Scheduled refresh.

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/refresh-scheduled-refresh>

Community vote distribution
C (92%) 8%

You have a dataset that is used infrequently and refreshes every hour.

You receive a notification that the refresh was disabled due to inactivity.

Which two actions will cause the scheduled refresh schedule to resume? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Enable query caching for the dataset.
- B. Import the dataset to Microsoft Excel.
- C. From the Power BI service, open a dashboard that uses the dataset.
- D. From the Power BI service, open a report that uses the dataset.
- E. From PowerShell, run the get-powerbireport cmdlet.

Correct Answer: CD

After two months of inactivity, scheduled refresh on your dataset is paused. A dataset is considered inactive when no user has visited any dashboard or report built on the dataset. At that time, the dataset owner is sent an email indicating the scheduled refresh is paused. The refresh schedule for the dataset is then displayed as disabled. To resume scheduled refresh, simply revisit any dashboard or report built on the dataset.

Incorrect:

Not E: get-powerbireport retrieves a list of Power BI reports that match the specified search criteria and scope.

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/refresh-scheduled-refresh>

Community vote distribution

CD (100%)

You have a Power BI workspace that contains a dataset, a report, and a dashboard. The following groups have access:

- External users can access the dashboard.
- Managers can access the dashboard and a manager-specific report.
- Employees can access the dashboard and a row-level security (RLS) constrained report.

You need all users, including the external users, to be able to tag workspace administrators if they identify an issue with the dashboard. The solution must ensure that other users see the issues that were raised.

What should you use?

- A. comments
- B. chat in Microsoft Teams
- C. alerts
- D. subscriptions

Correct Answer: A

Add a personal comment or start a conversation about a dashboard or report with your colleagues. The comment feature is just one of the ways a business user can collaborate with others.

Note: Comments can be added to an entire dashboard, to individual visuals on a dashboard, to a report page, to a paginated report, and to individual visuals on a report page. Add a general comment or add a comment targeted at specific colleagues.

Reference:

<https://docs.microsoft.com/en-us/power-bi/consumer/end-user-comment>

Community vote distribution

A (100%)

You have a PBIX file that imports several tables from an Azure SQL database.
The data will be migrated to another Azure SQL database.
You need to change the connections in the PBIX file. The solution must minimize administrative effort.
What should you do?

- A. From Power Query Editor, create new queries.
- B. From Power Query Editor, modify the source of each query.
- C. Create a PBIT file, open the file, and change the data sources when prompted.
- D. Modify the Data source settings.

Correct Answer: D

Open the PBIX file with Microsoft Power BI Desktop.

Then choose File -> Options and settings -> Data source settings >Right click data sources and change source.

Note:

Incorrect:

Not C: PBIT is a template file.

The PBIT file keeps your report structure and contains 'DataModelSchema File' instead of "DataModel File". However, If you choose import mode, the PBIX file stores all imported data from data sources and the report structure.

Reference:

<https://windowsreport.com/open-pbix-file/>

Community vote distribution

D (97%)

You have a Power BI workspace that contains several reports.

You need to provide a user with the ability to create a dashboard that will use the visuals from the reports.

What should you do?

- A. Create a row-level security (RLS) role and add the user to the role.
- B. Share the reports with the user.
- C. Grant the Read permission for the datasets to the user.
- D. Add the user as a member of the workspace.
- E. Add the user as a Viewer of the workspace.

Correct Answer: D

To grant access to a new workspace, assign those user groups or individuals to one of the workspace roles: Admin, Member, Contributor, or Viewer.

Workspace roles -

Capability	Admin	Member	Contributor	Viewer
Create, edit, and delete content, such as reports, in the workspace.	✓	✓	✓	
Publish reports to the workspace, delete content.	✓	✓	✓	
Create a report in another workspace based on a dataset in this workspace. ³	✓	✓	✓	
Copy a report. ³	✓	✓	✓	

Reference:

<https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-roles-new-workspaces>

Community vote distribution

D (100%)

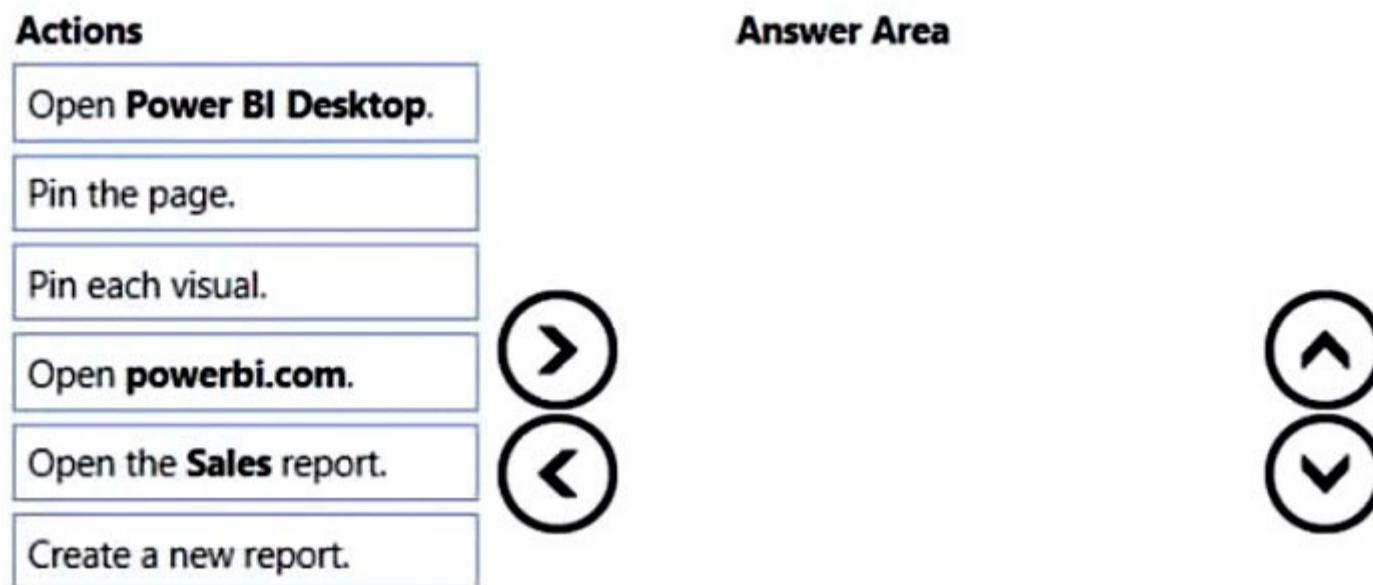
DRAG DROP -

You have a Power BI workspace that contains a single-page report named Sales.

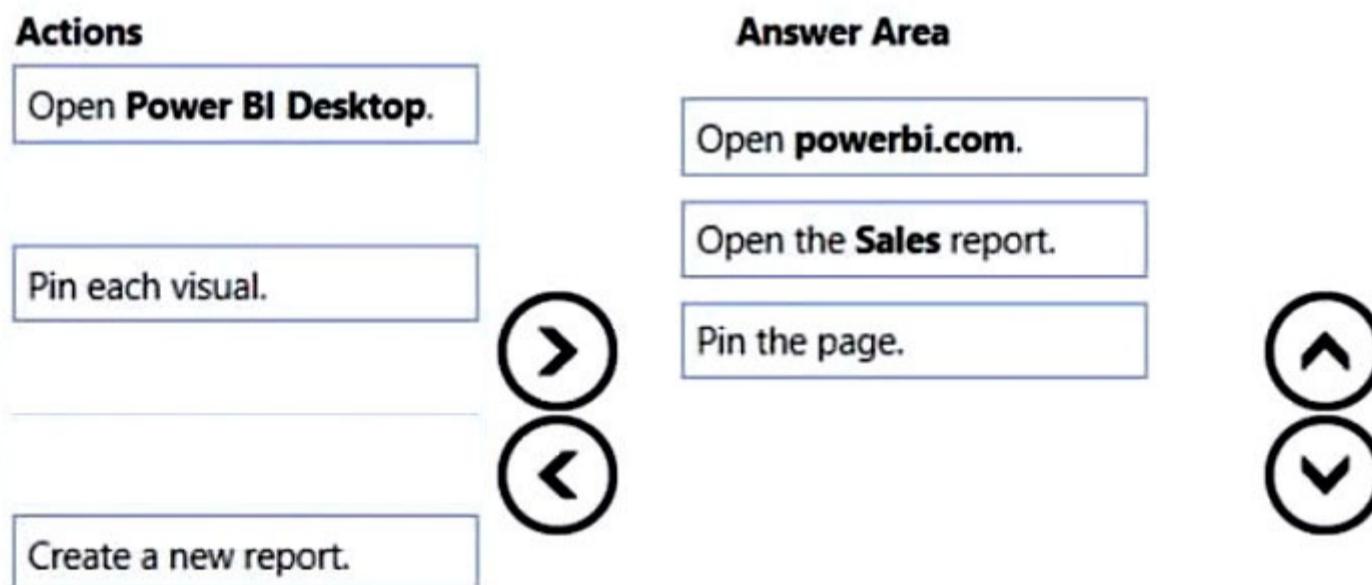
You need to add all the visuals from Sales to a dashboard. The solution must ensure that additional visuals added to the page are added automatically to the dashboard.

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.

Select and Place:



Correct Answer:



An entire report page can be pinned to a dashboard, which is called pinning a live tile. It's called a live tile because you can interact with the tile on the dashboard.

Unlike with individual visualization tiles, changes made in the report are automatically synced with the dashboard.

Step 2: Open the Sales report -

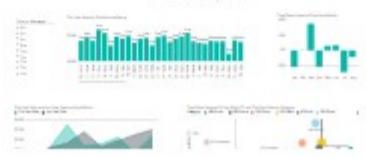
Step 3: Pin the page.

1. Open a report in Editing view.
2. With no visualizations selected, from the menu bar, select Pin to a dashboard.
3. Pin the tile to an existing dashboard or to a new dashboard. Notice the highlighted text: Pin live page enables changes to reports to appear in the dashboard tile when the page is refreshed.

Preview: Last saved state

Retail Analysis Sample

DISTRICT MONTHLY SALES



Pin to dashboard

Select an existing dashboard or create a new one.

Where would you like to pin to?

Existing dashboard

New dashboard

Retail Analysis Sample

ⓘ Pin live page enables changes to reports to appear in the dashboard tile when the page is refreshed.

Pin live Cancel

4. Select Pin live. A Success message (near the top right corner) lets you know the page was added, as a tile, to your dashboard.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-dashboard-pin-live-tile-from-report>

You have a report in Power BI named report1 that is based on a shared dataset.

You need to minimize the risk of data exfiltration for report. The solution must prevent other reports from being affected.

What should you do?

- A. Clear Allow recipients to share your dashboard and Allow users to build new content using the underlying datasets for the dataset.
- B. Apply row-level security (RLS) to the shared dataset.
- C. Select the Allow end users to export both summarized and underlying data from the service or Report Server Export data option for the report.
- D. Select the Don't allow end users to export any data from the service or Report Server Export data option for the report.

Correct Answer: D

Besides the various permissions you can set, there are also two different options to disable the export functionality. First of all is the Export data in general and second the Export to Excel as a specific setting. Both have the same setup for permissions

Export Data -

- ◀ Export data
Enabled for the entire organization
Users in the organization can export data from a tile or visualization. This also controls Analyze in Excel, export to .csv, dataset downloads, and Power BI Service Live Connect features.



Apply to:

- The entire organization
- Specific security groups
- Except specific security groups

Apply

Cancel

Reference:

<https://data-marc.com/2020/04/13/power-bi-governance-why-you-should-consider-to-disable-export-to-excel/>

Community vote distribution

D (98%)

In Power BI Desktop, you are creating visualizations in a report based on an imported dataset.

You need to allow Power BI users to export the summarized data used to create the visualizations but prevent the users from exporting the underlying data.

What should you do?

- A. From the Power BI service, configure the dataset permissions.
- B. From Power BI Desktop, configure the Data Load settings for the current file.
- C. From Power BI Desktop, modify the data source permissions.
- D. From Power BI Desktop, configure the Report settings for the current file.

Correct Answer: A

Dataset permissions in the Power BI service

The table below describes the four levels of permission that control access to datasets in the Power BI service.

* Reshare

Allows user to share the content of the dataset with other users who will get read, reshare, or build permissions for it.

* Read

* Build

* Write

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/service-datasets-permissions>

Community vote distribution

D (96%)

You have a Power BI report that uses row-level security (RLS).

You need to transfer RLS membership maintenance to an Azure network security team. The solution must NOT provide the Azure network security team with the ability to manage reports, datasets, or dashboards.

What should you do?

- A. Grant the Read and Build permissions for the Power BI datasets to the Azure network security team.
- B. Configure custom instructions for the Request access feature that instructs users to contact the Azure network security team.
- C. Instruct the Azure network security team to create security groups. Configure RLS to use the groups.
- D. Add the Azure network security team as members of the RLS role.

Correct Answer: C

Configure row-level security group membership, Working with members

Add members -

In the Power BI service, you can add a member to the role by typing in the email address or name of the user or security group.

You can use the following groups to set up row level security.

Distribution Group -

Mail-enabled Group -

Security Group -

Incorrect:

Not A: Build permission applies to datasets. When you give users Build permission, they can build new content on your dataset, such as reports, dashboards, pinned tiles from Q&A, paginated reports, and Insights Discovery.

Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-rls>

Community vote distribution

C (100%)

You have four sales regions. Each region has multiple sales managers.

You implement row-level security (RLS) in a data model. You assign the relevant mail-enabled security group to each role.

You have sales reports that enable analysis by region. The sales managers can view the sales records of their region. The sales managers are prevented from viewing records from other regions.

A sales manager changes to a different region.

You need to ensure that the sales manager can see the correct sales data.

What should you do?

- A. Change the Microsoft Power BI license type of the sales manager.
- B. From Microsoft Power BI Desktop, edit the Row-Level Security setting for the reports.
- C. Manage the permissions of the underlying dataset.
- D. Request that the sales manager be added to the correct Azure Active Directory group.

Correct Answer: D

You can use the following groups to set up row level security.

* Distribution Group

* Mail-enabled Group - This group also contains a list of email addresses of members and can also be used to control access to OneDrive and SharePoint.

The Mail-Enabled Security Group can be created in the Office 365 Admin Portal.

* Security Group - This is also known as an Active Directory Security Group. This group lives within Active Directory and Azure Active Directory.

Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-rls> <https://www.fourmoo.com/2020/04/01/power-bi-which-groups-can-be-used-to-set-permissions-in-power-bi/>

Community vote distribution

D (100%)

You have more than 100 published datasets.

Ten of the datasets were verified to meet your corporate quality standards.

You need to ensure that the 10 verified datasets appear at the top of the list of published datasets whenever users search for existing datasets.

What should you do?

- A. Promote the datasets.
- B. Certify the datasets.
- C. Feature the dataset on the home page.
- D. Publish the datasets in an app.

Correct Answer: B

Once logged in, you will be presented with a list of datasets that you can access from your various workspaces. This is one reason why having official datasets promoted and certified is recommended, as these will appear at the top of the list, with certified datasets appearing before promoted datasets.

Note: Power BI provides two ways you can endorse your valuable, high-quality content to increase its visibility: promotion and certification.

Promotion: Promotion is a way to highlight content you think is valuable and worthwhile for others to use. It encourages the collaborative use and spread of content within an organization.

Any content owner, as well as any member with write permissions on the workspace where the content is located, can promote the content when they think it's good enough for sharing.

Certification: Certification means that the content meets the organization's quality standards and can be regarded as reliable, authoritative, and ready for use across the organization.

Currently it is possible to endorse

Datasets -

Dataflows -

Reports -

Apps -

If dataset discoverability has been enabled in your organization, endorsed datasets can be made discoverable. When a dataset is discoverable, users who don't have access to it will be able to find it and request access.

Reference:

<https://excelleratorbi.com.au/new-power-bi-reports-golden-dataset/> <https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-endorse-content>

Community vote distribution

B (100%)

DRAG DROP -

You have a Microsoft Power BI workspace.

You need to grant the user capabilities shown in the following table.

User name	Task
User1	Create and publish apps.
User2	Publish reports to the workspace and delete dashboards.

The solution must use the principle of least privilege.

Which user role should you assign to each user? To answer, drag the appropriate roles to the correct users. Each role may be used once, more than once, or not at all. You may need to drag the split bar.

NOTE: Each correct selection is worth one point.

Select and Place:

Roles

Admin	Contributor
Member	Viewer

Answer Area

User1:

User2:

Roles

Admin	Contributor
Member	Viewer

Answer Area

User1: Member

User2: Contributor

Correct Answer:

Box 1: Member -

Only Admin and Member can publish, unpublish, and change permissions for an app.

Incorrect:

Contributors can update the app associated with the workspace, if the workspace Admin delegates this permission to them. However, they can't publish a new app or change who has permission to it.

Box 2: Contributor -

Admin, Member and Contributor can create, edit, and delete content, such as reports, in the workspace.

Note: Contributor - This role can access and interact with reports and dashboards. Additionally, this role can create, edit, copy, and delete items in a workspace, publish reports, schedule refreshes, and modify gateways.

Incorrect:

Viewer - This role provides read only access to workspace items. Read access does provide report / dashboard consumers the ability to not only view, but also interact with visuals. Interaction does not mean changing a visual.

Reference:

<https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-roles-new-workspaces>

<https://www.mssqltips.com/sqlservertip/6487/power-bi-workspace-permissions-and-roles>

Question #15

Topic 4

You create a dashboard by using the Microsoft Power BI Service. The dashboard contains a card visual that shows total sales from the current year.

You grant users access to the dashboard by using the Viewer role on the workspace.

A user wants to receive daily notifications of the number shown on the card visual.

You need to automate the notifications.

What should you do?

- A. Create a subscription.
- B. Create a data alert.
- C. Share the dashboard to the user.
- D. Tag the user in a comment.

Correct Answer: B

Set alerts to notify you when data in your dashboards changes beyond limits you set.

Alerts can only be set on tiles pinned from report visuals, and only on gauges, KPIs, and cards.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-set-data-alerts>

Community vote distribution

A (98%)

You have a Power BI workspace named Workspace1 that contains a dataset named DS1 and a report named RPT1.

A user wants to create a report by using the data in DS1 and publish the report to another workspace.

You need to provide the user with the appropriate access. The solution must minimize the number of access permissions granted to the user.

What should you do?

- A. Add the user as a Viewer of Workspace1.
- B. Grant the Build permission for DS1 to the user.
- C. Share RPT1 with the user.
- D. Add the user as a member of Workspace1.

Correct Answer: B

More granular permissions -

Power BI provides the Build permission as a complement to the existing permissions, Read and Reshare. All users who already had Read permission for datasets via app permissions, sharing, or workspace access at that time also got Build permission for those same datasets.

They got Build permission automatically because Read permission already granted them the right to build new content on top of the dataset, by using Analyze in Excel or Export.

With this more granular Build permission, you can choose who can only view the content in the existing report or dashboard and who can create content connected to the underlying datasets.

If your dataset is being used by a report outside the dataset workspace, you can't delete that dataset. Instead, you see an error message.

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/service-datasets-build-permissions>

Community vote distribution

B (89%) 11%

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 five reports and two dashboards in a workspace.

You need to grant all organizational users read access to one dashboard and three reports.

Solution: You publish an app to the entire organization.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: B

Instead: You create an Azure Active Directory group that contains all the users. You share each selected report and the one dashboard to the group.

Reference:

<https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-share-dashboards>

Community vote distribution

A (92%) 8%

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 five reports and two dashboards in a workspace.

You need to grant all organizational users read access to one dashboard and three reports.

Solution: You enable included in app for all assets.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

You need to specify the dashboard and the three reports to be included in the app.

Instead: You create an Azure Active Directory group that contains all the users. You share each selected report and the one dashboard to the group.

Note: A published App can provide the required access.

When the dashboards and reports in your workspace are ready, you choose which dashboards and reports you want to publish, then publish them as an app.

In Power BI, you can create official packaged content, then distribute it to a broad audience as an app. You create apps in workspaces, where you can collaborate on Power BI content with your colleagues. Then you can publish the finished app to large groups of people in your organization.

Reference:

<https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-create-distribute-apps>

Community vote distribution

B (100%)

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 five reports and two dashboards in a workspace.

You need to grant all organizational users read access to one dashboard and three reports.

Solution: You assign all the users the Viewer role to the workspace.

Does this meet the goal?

A. Yes

B. No

Correct Answer: A

Instead: You create an Azure Active Directory group that contains all the users. You share each selected report and the one dashboard to the group.

Reference:

<https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-share-dashboards>

Community vote distribution

B (83%)

A (17%)

From Power BI Desktop, you publish a new dataset and report to a Power BI workspace. The dataset has a row-level security (RLS) role named HR. You need to ensure that the HR team members have RLS applied when they view reports based on the dataset. What should you do?

- A. From powerbi.com, add users to the HR role for the dataset.
- B. From powerbi.com, share the dataset to the HR team members.
- C. From Power BI Desktop, change the Row-Level Security settings.
- D. From Power BI Desktop, import a table that contains the HR team members.

Correct Answer: A

Working with members -

Add members -

In the Power BI service, you can add a member to the role by typing in the email address or name of the user or security group.

Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-rls>

Community vote distribution

A (97%)

You have a Power BI dashboard that monitors the quality of manufacturing processes. The dashboard contains the following elements:

- A line chart that shows the number of defective products manufactured by day
- A KPI visual that shows the current daily percentage of defective products manufactured

You need to be notified when the daily percentage of defective products manufactured exceeds 3%.

What should you create?

- A. a subscription
- B. an alert
- C. a smart narrative visual
- D. a Q&A visual

Correct Answer: B

Set alerts in the Power BI service to notify you when data on a dashboard changes above or below limits you set. Alerts can be set on tiles pinned from report visuals or from Power BI Q&A, and only on gauges, KPIs, and cards.

Reference:

<https://docs.microsoft.com/en-us/power-bi/consumer/end-user-alerts>

Community vote distribution

B (100%)

You create a report by using Microsoft Power BI Desktop.

The report uses data from a Microsoft SQL Server Analysis Services (SSAS) cube located on your company's internal network.

You plan to publish the report to the Power BI Service.

What should you implement to ensure that users who consume the report from the Power BI Service have the most up-to-date data from the cube?

- A. an OData feed
- B. an On-premises data gateway
- C. a subscription
- D. a scheduled refresh of the dataset

Correct Answer: *B*

After you install the on-premises data gateway, you need to add data sources that can be used with the gateway. You can work with gateways and SQL Server

Analysis Services (SSAS) data sources that are used either for scheduled refresh or for live connections.

Note: Power BI service is a cloud-based business analytics and data visualization service that enables anyone to visualize and analyze data with greater speed, efficiency, and understanding.

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/service-gateway-enterprise-manage-ssas>

Community vote distribution

B (100%)

You have five sales regions. Each region is assigned a single salesperson.

You have an imported dataset that has a dynamic row-level security (RLS) role named Sales. The Sales role filters sales transaction data by salesperson.

Salespeople must see only the data from their region.

You publish the dataset to powerbi.com, set RLS role membership, and distribute the dataset and related reports to the salespeople.

A salesperson reports that she believes she should see more data.

You need to verify what data the salesperson currently sees.

What should you do?

- A. Use the Test as role option to view data as the salesperson's user account.
- B. Use the Test as role option to view data as the Sales role.
- C. Instruct the salesperson to open the report in Microsoft Power BI Desktop.
- D. Filter the data in the reports to match the intended logic in the filter on the sales transaction table.

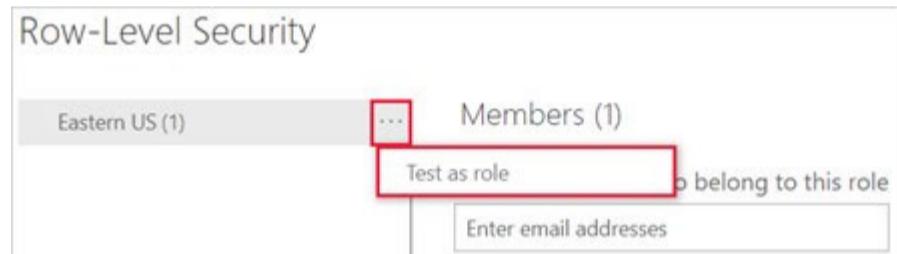
Correct Answer: B

Validating the role within the Power BI service

You can validate that the role you defined is working correctly in the Power BI service by testing the role.

1. Select More options (...) next to the role.

2. Select Test data as role.



You'll see reports that are available for this role. Dashboards aren't shown in this view. In the page header, the role being applied is shown.

Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-rls>

Community vote distribution
A (100%)

You have multiple dashboards.

You need to ensure that when users browse the available dashboards from powerbi.com, they can see which dashboards contain Personally Identifiable

Information (PII). The solution must minimize configuration effort and impact on the dashboard design.

What should you use?

- A. Microsoft Information Protection sensitivity labels
- B. tiles
- C. comments
- D. Active Directory groups

Correct Answer: A

In the Power BI service, sensitivity labels can be applied to datasets, reports, dashboards, and dataflows.

Sensitivity labels on reports, dashboards, datasets, and dataflows are visible from many places in the Power BI service. Sensitivity labels on reports and dashboards are also visible in the Power BI iOS and Android mobile apps and in embedded visuals. In Desktop, you can see the sensitivity label in the status bar.

Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-security-sensitivity-label-overview>

Community vote distribution

A (100%)

HOTSPOT -

You have a dataset that has the permissions shown in the following exhibit.

 Add user

Links **Direct access**

People and groups with access

Email Address ↑

Permissions

 Ben Smith	bensmith@contoso.com	Owner
 corp	corp@contoso.com	Read, Reshare, Build
 finance	finance@contoso.com	Read, Build

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.

Hot Area:

Answer Area

Users in the finance group can [answer choice] the dataset.

assign sensitivity labels to
use Analyze in Excel with
delete

Users in the corp group can [answer choice] the dataset.

grant the Build permission for
grant the Read permission for
remove a table from

Correct Answer:

Answer Area

Users in the finance group can [answer choice] the dataset.

assign sensitivity labels to
use Analyze in Excel with
delete

Users in the corp group can [answer choice] the dataset.

grant the Build permission for
grant the Read permission for
remove a table from

Box 1: use Analyze in Excel -

Build permission applies to datasets. When you give users Build permission, they can build new content on your dataset, such as reports, dashboards, pinned tiles from Q&A, paginated reports, and Insights Discovery.

Users also need Build permissions to work with the data outside Power BI:

To export the underlying data.

To build new content on the dataset such as with Analyze in Excel.

To access the data via the XMLA endpoint.

Box 2: grant the Read permission for

The Corp group has read, share and rebuild permissions.

As a property of the Power BI App, you can allow users to share the app and underlying dataset with share permissions.

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/service-datasets-build-permissions> <https://data-marc.com/2021/07/30/transform-a-local-into-a-global-power-bi-solution-request-access-to-content/>

Question #26

Topic 4

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 five reports and two dashboards in a workspace.

You need to grant all organizational users read access to one dashboard and three reports.

Solution: You create an Azure Active Directory group that contains all the users. You share each selected report and the one dashboard to the group.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B

Share with more than 100 separate users

At most, you can share with 100 users or groups in a single share action. However, you can give more than 500 users access to an item. Here are some suggestions:

Share multiple times by specifying the users individually.

Share with a user group that contains all the users.

Create the report or dashboard in a workspace, then create an app from the workspace. You can share the app with many more people.

Reference:

<https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-share-dashboards>

Community vote distribution

A (86%)

14%

DRAG DROP -

You have a Power BI table named Customer that contains a field named Email Address.

You discover that multiple records contain the same email address.

You need to create a calculated column to identify which records have duplicate email addresses.

How should you complete the DAX expression for the calculated column? To answer, drag the appropriate values to the correct 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.

Select and Place:

Values	Answer Area
	Count Email =
ALL	VAR Email = [Email Address]
CALCULATE	RETURN
COUNTROWS	<input type="text"/> (
EVALUATE	<input type="text"/> (Customer),
SUM	<input type="text"/> (Customer),
SUMX	Customer[Email Address] = Email)

Values	Answer Area
	Count Email =
ALL	VAR Email = [Email Address]
CALCULATE	RETURN
COUNTROWS	<input type="text"/> CALCULATE (
EVALUATE	<input type="text"/> COUNTROWS (Customer),
SUM	<input type="text"/> ALL (Customer),
SUMX	Customer[Email Address] = Email)

Correct Answer:

You have a Power BI dataset and a connected report.

You need to ensure that users can analyze data in Microsoft Excel only by connecting directly to the dataset.

You grant the users the Build permission for the dataset.

What should you do next?

- A. Certify the dataset used by the report.
- B. Change the default visual interaction for the report.
- C. For the report, change the Export data setting to None.
- D. For the report, change the Export data setting to Summarized data, data with current layout and underlying data.

Correct Answer: C

Community vote distribution

C (74%) D (26%)

HOTSPOT

You have two Power BI workspaces named WorkspaceA and WorkspaceB. WorkspaceA contains two datasets named Sales and HR.

You need to provide a user named User1 with access to the WorkspaceB. The solution must meet the following requirements:

- Create reports that use the HR dataset.
- Publish the reports to WorkspaceB.
- Prevent the ability to modify the HR dataset.
- Prevent the ability to add users to Workspaces.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

To access the HR dataset:

Assign User1 the Contributor role for WorkspaceA.
Grant User1 the Build permission for the HR dataset.
Grant User1 read permissions for the HR dataset.
Grant User1 share permissions for the HR dataset.

To publish reports to WorkspaceB:

Assign User1 the Admin role for Workspaces.
Assign User1 the Contributor role for WorkspaceA.
Assign User1 the Contributor role for WorkspaceB.
Assign User1 the Member role for WorkspaceB.

Answer Area

To access the HR dataset:

Assign User1 the Contributor role for WorkspaceA.
Grant User1 the Build permission for the HR dataset.
Grant User1 read permissions for the HR dataset.
Grant User1 share permissions for the HR dataset.

Correct Answer:

To publish reports to WorkspaceB:

Assign User1 the Admin role for Workspaces.
Assign User1 the Contributor role for WorkspaceA.
Assign User1 the Contributor role for WorkspaceB.
Assign User1 the Member role for WorkspaceB.

You have a Power BI workspace named BI Data that contains a dataset named BI Finance.

You have the Build permission for the BI Finance dataset, but you do NOT have permissions for the workspace.

You need to connect to BI Finance and create a report.

Which two actions should you perform? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. From the Power BI service, create a dataflow to the dataset by using DirectQuery.
- B. From Power BI Desktop, connect to a Dataverse data source.
- C. From the Power BI service, create a new report and select a published dataset.
- D. From Power BI Desktop, connect to a shared dataset.

Correct Answer: CD

Community vote distribution

CD (100%)

Introductory Info

Case Study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment and problem statements. If the case study has an

All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Litware, Inc. is an online retailer that uses Power BI.

Litware plans to leverage data from an Azure SQL database that stores data for the company's live e-commerce website.

Litware uses Azure Active Directory (Azure AD) to authenticate users.

Existing Environment. Sales Data

Litware has online sales data that has the SQL schema shown in the following table.

Table name	Column name	Data type
Sales_Region	region_id	Integer
	name	Varchar
Region_Manager	region_id	Integer
	manager_id	Integer
Sales_Manager	sales_manager_id	Integer
	name	Varchar
	username	Varchar
Manager	manager_id	Integer
	name	Varchar
Sales	sales_id	Integer
	sales_date_id	Integer
	sales_amount	Float
	customer_id	Integer
	sales_ship_date_id	Integer
	region_id	Varchar
Date	date_id	Integer
	date	Date
	month	Integer
	week	Integer
	year	Integer
Weekly_Returns	week_id	Integer
	total_returns	Float
	sales_region_id	Varchar
Targets	target_id	Integer
	sales_target	Decimal
	date_id	Integer
	region_id	Integer

In the Date table, the date_id column has a format of yyymmdd and the month column has a format of yyymmm.

The week column in the Date table and the week_id column in the Weekly_Returns table have a format of yyyyww.

In the Sales table, the sales_id column represents a unique transaction.

The region id column can be managed by only one sales manager.

Existing Environment. Data Concerns

You are concerned with the quality and completeness of the sales data. You must ensure that negative and missing sales_amount values do NOT contribute to the total sales amount calculation.

Existing Environment. Reporting Requirements

Litware identifies the following reporting requirements:

Executives require a visual that shows sales by region.

Executives require a visual that shows returns by region manager and the sales managers that report to them.

The sales managers must be able to see only the sales data of their respective region.

The sales managers require a visual to analyze sales performance versus sales targets.

The sales department requires reports that contain the number of sales transactions.

Users must be able to see the month in each report as shown in the following example: Feb 2020.

The customer service department requires a visual that can be filtered by both sales month and ship month independently.

The maximum allowed latency to include transactions in reports is five minutes.

Question

You need to create the required relationship for the executive's visual.

What should you do before you can create the relationship?

- A. Change the data type of Sales[region_id] to Whole Number.
- B. Change the data type of Sales[region_id] to Decimal Number.
- C. In the Sales table, add a measure for Sum(sales_amount).
- D. Change the data type of Sales[sales_id] to Text.

Correct Answer: A

Executives require a visual that shows sales by region.

The data type of Sales[region_id] must be changed from varchar to Whole Number, as Sales[region_id] is Integer.

Community vote distribution

A (94%)	6%
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Introductory Info

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Existing Environment. Sales Data

Litware has online sales data that has the SQL schema shown in the following table.

Table name	Column name	Data type
Sales_Region	region_id	Integer
	name	Varchar
Region_Manager	region_id	Integer
	manager_id	Integer
Sales_Manager	sales_manager_id	Integer
	name	Varchar
	username	Varchar
Manager	manager_id	Integer
	name	Varchar
Sales	sales_id	Integer
	sales_date_id	Integer
	sales_amount	Float
	customer_id	Integer
	sales_ship_date_id	Integer
	region_id	Varchar
Date	date_id	Integer
	date	Date
	month	Integer
	week	Integer
	year	Integer
Weekly_Returns	week_id	Integer
	total_returns	Float
	sales_region_id	Varchar
Targets	target_id	Integer
	sales_target	Decimal
	date_id	Integer
	region_id	Integer

In the Date table, the date_id column has a format of yyymmdd and the month column has a format of yyyy-mm.

The week column in the Date table and the week_id column in the Weekly_Returns table have a format of yyyyww.

In the Sales table, the sales_id column represents a unique transaction.

The region id column can be managed by only one sales manager.

Existing Environment. Data Concerns

You are concerned with the quality and completeness of the sales data. You must ensure that negative and missing sales_amount values do NOT contribute to the total sales amount calculation.

Existing Environment. Reporting Requirements

Litware identifies the following reporting requirements:

Executives require a visual that shows sales by region.

Executives require a visual that shows returns by region manager and the sales managers that report to them.

The sales managers must be able to see only the sales data of their respective region.

The sales managers require a visual to analyze sales performance versus sales targets.

The sales department requires reports that contain the number of sales transactions.

Users must be able to see the month in each report as shown in the following example: Feb 2020.

The customer service department requires a visual that can be filtered by both sales month and ship month independently.

The maximum allowed latency to include transactions in reports is five minutes.

Question

You need to get data from the Microsoft SQL Server tables.

What should you use to configure the connection?

- A. Import that uses a Microsoft account
- B. Import that uses a database credential
- C. DirectQuery that uses a database credential
- D. DirectQuery that uses the end-user's credentials

Correct Answer: D

Litware plans to leverage data from an Azure SQL database that stores data for the company's live e-commerce website.

With DirectQuery, queries are sent back to your Azure SQL Database as you explore the data in the report view.

After you publish an Azure SQL DirectQuery dataset to the service, you can enable single sign-on (SSO) using Azure Active Directory (Azure AD) OAuth2 for your end users.

When the SSO option is enabled and your users access reports built atop the data source, Power BI sends their authenticated Azure AD credentials in the queries to the Azure SQL database or data warehouse. This option enables Power BI to respect the security settings that are configured at the data source level.

Reference:

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

Community vote distribution

C (55%)

D (45%)

Introductory Info

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Northwind Traders is a specialty food import company.

The company recently implemented Power BI to better understand its top customers, products, and suppliers.

Business Issues -

The sales department relies on the IT department to generate reports in Microsoft SQL Server Reporting Services (SSRS). The IT department takes too long to generate the reports and often misunderstands the report requirements.

Existing Environment. Data Sources

Northwind Traders uses the data sources shown in the following table.

Name	Type	Data size
Source1	Azure SQL database	2 GB
Source2	Microsoft Excel spreadsheet	5 MB

Source2 is exported daily from a third-party system and stored in Microsoft SharePoint Online.

Existing Environment. Customer Worksheet

Source2 contains a single worksheet named Customer Details. The first 11 rows of the worksheet are shown in the following table.

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All the fields in Source2 are mandatory.

The Address column in Customer Details is the billing address, which can differ from the shipping address.

Existing Environment. Azure SQL Database

Source1 contains the following tables:

Orders

Products

Suppliers

Categories

Order Details

Sales Employees

The Orders table contains the following columns.

Name	Is nullable	Data type	Example value	Key
OrderID	No	Int	10248	Primary key
CustomerID	Yes	NCHAR	VINET	<i>Not applicable</i>
OrderDate	Yes	Date	2021-01-04	<i>Not applicable</i>
RequiredDate	Yes	Date	2021-02-01	<i>Not applicable</i>
ShippedDate	Yes	Date	2021-01-16	<i>Not applicable</i>
Freight	Yes	Decimal	32.38	<i>Not applicable</i>
ShipName	Yes	NVARCHAR	Vins et alcools Chevalier	<i>Not applicable</i>
ShipAddress	Yes	NVARCHAR	59 rue de l'Abbaye	<i>Not applicable</i>
ShipCity	Yes	NVARCHAR	Reims	<i>Not applicable</i>
ShipRegion	Yes	NVARCHAR	FRA	<i>Not applicable</i>
ShipPostalCode	Yes	NVARCHAR	51100	<i>Not applicable</i>
ShipCountry	Yes	NVARCHAR	France	<i>Not applicable</i>

The Order Details table contains the following columns.

Name	Is nullable	Data type	Example value	Key
OrderID	No	Int	10248	Foreign key to Orders
ProductID	No	Int	11	Foreign key to Products
UnitPrice	No	Decimal	14	<i>Not applicable</i>
Quantity	No	Smallint	12	<i>Not applicable</i>
Discount	No	Decimal	0.15	<i>Not applicable</i>

The address in the Orders table is the shipping address, which can differ from the billing address.

The Products table contains the following columns.

Name	Is nullable	Data type	Example value	Key
ProductID	No	Int	11	Primary key
ProductName	No	NVARCHAR	Queso Cabrales	<i>Not applicable</i>
SupplierID	Yes	Int	5	Foreign key to Suppliers
CategoryID	Yes	Int	4	Foreign key to Categories
QuantityPerUnit	Yes	NVARCHAR	1 kg pkg.	<i>Not applicable</i>
Discontinued	No	Bit	0	<i>Not applicable</i>

The Categories table contains the following columns.

Name	Is nullable	Data type	Example value	Key
CategoryID	No	int	4	Primary key
CategoryName	No	nvarchar	Dairy Products	<i>Not applicable</i>
Description	Yes	nvarchar	Cheeses	<i>Not applicable</i>

The Suppliers table contains the following columns.

Name	Is nullable	Data type	Example value	Key
SupplierID	No	Int	5	Primary key
CompanyName	No	NVARCHAR	Cooperativa de Quesos 'Las Cabras'	<i>Not applicable</i>
Address	Yes	NVARCHAR	Calle del Rosal 4	<i>Not applicable</i>
City	Yes	NVARCHAR	Oviedo	<i>Not applicable</i>
Region	Yes	NVARCHAR	Asturias	<i>Not applicable</i>
PostalCode	Yes	NVARCHAR	33007	<i>Not applicable</i>
Country	Yes	NVARCHAR	Spain	<i>Not applicable</i>
Phone	Yes	NVARCHAR	(98) 598 76 54	<i>Not applicable</i>

The Sales Employees table contains the following columns.

Name	Is nullable	Data type	Example value	Key
EmployeeID	No	Int	1	Primary key
LastName	No	NVARCHAR	Davolio	<i>Not applicable</i>
FirstName	No	NVARCHAR	Nancy	<i>Not applicable</i>
Title	Yes	NVARCHAR	Sales Representative	<i>Not applicable</i>
HireDate	Yes	Date	2015-02-01	<i>Not applicable</i>
Region	Yes	NVARCHAR	WA	<i>Not applicable</i>
Country	Yes	NVARCHAR	USA	<i>Not applicable</i>
EmailAddress	No	NVARCHAR	ndavolio@northwindtraders.com	<i>Not applicable</i>

Each employee in the Sales Employees table is assigned to one sales region. Multiple employees can be assigned to each region.

Requirements. Report Requirements

Northwind Traders requires the following reports:

Top Products

Top Customers

On-Time Shipping

The Top Customers report will show the top 20 customers based on the highest sales amounts in a selected order month or quarter, product category, and sales region.

The Top Products report will show the top 20 products based on the highest sales amounts sold in a selected order month or quarter, sales region, and product category. The report must also show which suppliers provide the top products.

The On-Time Shipping report will show the following metrics for a selected shipping month or quarter:

The percentage of orders that were shipped late by country and shipping region

Customers that had multiple late shipments during the last quarter

Northwind Traders defines late orders as those shipped after the required shipping date.

The warehouse shipping department must be notified if the percentage of late orders within the current month exceeds 5%.

The reports must show historical data for the current calendar year and the last three calendar years.

Requirements. Technical Requirements

Northwind Traders identifies the following technical requirements:

A single dataset must support all three reports.

The reports must be stored in a single Power BI workspace.

Report data must be current as of 7 AM Pacific Time each day.

The reports must provide fast response times when users interact with a visualization.

The data model must minimize the size of the dataset as much as possible, while meeting the report requirements and the technical requirements.

Requirements. Security Requirements

Access to the reports must be granted to Azure Active Directory (Azure AD) security groups only. An Azure AD security group exists for each department.

The sales department must be able to perform the following tasks in Power BI:

Create, edit, and delete content in the reports.

Manage permissions for workspaces, datasets, and reports.

Publish, unpublish, update, and change the permissions for an app.

Assign Azure AD groups role-based access to the reports workspace.

Users in the sales department must be able to access only the data of the sales region to which they are assigned in the Sales Employees table.

Power BI has the following row-level security (RLS) Table filter DAX expression for the Sales Employees table.

[EmailAddress] = USERNAME()

RLS will be applied only to the sales department users. Users in all other departments must be able to view all the data.

Question

You need to create the dataset.

Which dataset mode should you use?

- A. Import
- B. DirectQuery
- C. Composite
- D. live connection

Correct Answer: C

The three dataset modes are:

Import -

DirectQuery -

Composite -

Composite mode -

Composite mode can mix Import and DirectQuery modes, or integrate multiple DirectQuery data sources. Models developed in Composite mode support configuring the storage mode for each model table. This mode also supports calculated tables (defined with DAX).

The table storage mode can be configured as Import, DirectQuery, or Dual. A table configured as Dual storage mode is both Import and DirectQuery, and this setting allows the Power BI service to determine the most efficient mode to use on a query-by-query basis.

Note: A single dataset must support all three reports.

The data model must minimize the size of the dataset as much as possible, while meeting the report requirements and the technical requirements.

Northwind Traders requires the following reports:

Top Products -

Top Customers -

On-Time Shipping -

Incorrect:

* DirectQuery mode is an alternative to Import mode. Models developed in DirectQuery mode don't import data. Instead, they consist only of metadata defining the model structure. When the model is queried, native queries are used to retrieve data from the underlying data source.

* Import

However, while there are compelling advantages associated with Import models, there are disadvantages, too:

The entire model must be loaded to memory before Power BI can query the model, which can place pressure on available capacity resources, especially as the number and size of Import models grow

Community vote distribution

C (53%)

A (47%)

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Order Details

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FirstName	No	NVARCHAR	Nancy	Not applicable
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[EmailAddress] = USERNAME()

RLS will be applied only to the sales department users. Users in all other departments must be able to view all the data.

Question

You need to configure access for the sales department users. The solution must meet the security requirements.

What should you do?

- A. Share each report to the Azure Active Directory group of the sales department.
- B. Add the Azure Active Directory group of the sales department as an Admin of the reports workspace.
- C. Distribute an app to the users in the Azure Active Directory group of the sales department.
- D. Add the sales department as a member of the reports workspace.

Correct Answer: B

Access to the reports must be granted to Azure Active Directory (Azure AD) security groups only. An Azure AD security group exists for each department.

The sales department must be able to perform the following tasks in Power BI:

- ❑ Create, edit, and delete content in the reports.
- ❑ Manage permissions for workspaces, datasets, and reports.
- ❑ Publish, unpublish, update, and change the permissions for an app.
- ❑ Assign Azure AD groups role-based access to the reports workspace.

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C (55%) D (34%) 5%

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Existing Environment. Azure SQL Database

Source1 contains the following tables:

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Order Details

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The Order Details table contains the following columns.

Name	Is nullable	Data type	Example value	Key
OrderID	No	Int	10248	Foreign key to Orders
ProductID	No	Int	11	Foreign key to Products
UnitPrice	No	Decimal	14	<i>Not applicable</i>
Quantity	No	Smallint	12	<i>Not applicable</i>
Discount	No	Decimal	0.15	<i>Not applicable</i>

The address in the Orders table is the shipping address, which can differ from the billing address.

The Products table contains the following columns.

Name	Is nullable	Data type	Example value	Key
ProductID	No	Int	11	Primary key
ProductName	No	NVARCHAR	Queso Cabrales	<i>Not applicable</i>
SupplierID	Yes	Int	5	Foreign key to Suppliers
CategoryID	Yes	Int	4	Foreign key to Categories
QuantityPerUnit	Yes	NVARCHAR	1 kg pkg.	<i>Not applicable</i>
Discontinued	No	Bit	0	<i>Not applicable</i>

The Categories table contains the following columns.

Name	Is nullable	Data type	Example value	Key
CategoryID	No	int	4	Primary key
CategoryName	No	nvarchar	Dairy Products	<i>Not applicable</i>
Description	Yes	nvarchar	Cheeses	<i>Not applicable</i>

The Suppliers table contains the following columns.

Name	Is nullable	Data type	Example value	Key
SupplierID	No	Int	5	Primary key
CompanyName	No	NVARCHAR	Cooperativa de Quesos 'Las Cabras'	<i>Not applicable</i>
Address	Yes	NVARCHAR	Calle del Rosal 4	<i>Not applicable</i>
City	Yes	NVARCHAR	Oviedo	<i>Not applicable</i>
Region	Yes	NVARCHAR	Asturias	<i>Not applicable</i>
PostalCode	Yes	NVARCHAR	33007	<i>Not applicable</i>
Country	Yes	NVARCHAR	Spain	<i>Not applicable</i>
Phone	Yes	NVARCHAR	(98) 598 76 54	<i>Not applicable</i>

The Sales Employees table contains the following columns.

Name	Is nullable	Data type	Example value	Key
EmployeeID	No	Int	1	Primary key
LastName	No	NVARCHAR	Davolio	<i>Not applicable</i>
FirstName	No	NVARCHAR	Nancy	<i>Not applicable</i>
Title	Yes	NVARCHAR	Sales Representative	<i>Not applicable</i>
HireDate	Yes	Date	2015-02-01	<i>Not applicable</i>
Region	Yes	NVARCHAR	WA	<i>Not applicable</i>
Country	Yes	NVARCHAR	USA	<i>Not applicable</i>
EmailAddress	No	NVARCHAR	ndavolio@northwindtraders.com	<i>Not applicable</i>

Each employee in the Sales Employees table is assigned to one sales region. Multiple employees can be assigned to each region.

Requirements. Report Requirements

Northwind Traders requires the following reports:

Top Products

Top Customers

On-Time Shipping

The Top Customers report will show the top 20 customers based on the highest sales amounts in a selected order month or quarter, product category, and sales region.

The Top Products report will show the top 20 products based on the highest sales amounts sold in a selected order month or quarter, sales region, and product category. The report must also show which suppliers provide the top products.

The On-Time Shipping report will show the following metrics for a selected shipping month or quarter:

The percentage of orders that were shipped late by country and shipping region

Customers that had multiple late shipments during the last quarter

Northwind Traders defines late orders as those shipped after the required shipping date.

The warehouse shipping department must be notified if the percentage of late orders within the current month exceeds 5%.

The reports must show historical data for the current calendar year and the last three calendar years.

Requirements. Technical Requirements

Northwind Traders identifies the following technical requirements:

A single dataset must support all three reports.

The reports must be stored in a single Power BI workspace.

Report data must be current as of 7 AM Pacific Time each day.

The reports must provide fast response times when users interact with a visualization.

The data model must minimize the size of the dataset as much as possible, while meeting the report requirements and the technical requirements.

Requirements. Security Requirements

Access to the reports must be granted to Azure Active Directory (Azure AD) security groups only. An Azure AD security group exists for each department.

The sales department must be able to perform the following tasks in Power BI:

Create, edit, and delete content in the reports.

Manage permissions for workspaces, datasets, and reports.

Publish, unpublish, update, and change the permissions for an app.

Assign Azure AD groups role-based access to the reports workspace.

Users in the sales department must be able to access only the data of the sales region to which they are assigned in the Sales Employees table.

Power BI has the following row-level security (RLS) Table filter DAX expression for the Sales Employees table.

[EmailAddress] = USERNAME()

RLS will be applied only to the sales department users. Users in all other departments must be able to view all the data.

Question

HOTSPOT -

You need to create a solution to meet the notification requirements of the warehouse shipping department.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Populate a

report
bookmark
dashboard

by using a card visualization that shows the percentage of late

orders in the current month, and then configure a

data alert.
phone view.
subscription.

Correct Answer:

Answer Area

Populate a

report
bookmark
dashboard

by using a card visualization that shows the percentage of late

orders in the current month, and then configure a

data alert.
phone view.
subscription.

Box 1: dashboard -

The warehouse shipping department must be notified if the percentage of late orders within the current month exceeds 5%.

You can set alerts to notify you when data in your dashboards changes beyond limits you set.

Box 2: data alert -

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-set-data-alerts>

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Overview -

Contoso, Ltd. is a manufacturing company that produces sports equipment. Contoso holds quarterly board meetings for which financial analysts manually prepare

Microsoft Excel reports, including balance sheets and profit and loss statements for each of the company's four business units.

Existing Environment -

Data and Sources -

Data for the reports comes from the sources shown in the following table.

Data type	Description
Azure SQL database	Detailed revenue, cost, and expense data Uses a public endpoint
Microsoft Dynamics 365 Business Central	Summary balance sheet data and product catalog data

The balance sheet data is unrelated to the profit and loss results other than they both relate to dates.

Balance Sheet Data -

The balance sheet data is imported and includes the final monthly balances of each account in the format shown in the following table.

AccountCategory	Account	Month	Year	BalanceAmount
Current assets	Cash and cash equivalents	3	2020	20,289
Current assets	Inventories	3	2020	4,855
Long-term liabilities	Long-term debt	3	2020	50,207
Current assets	Cash and cash equivalents	2	2020	28,209
Current assets	Inventories	2	2020	5,845
Long-term liabilities	Long-term debt	2	2020	49,887
Current assets	Cash and cash equivalents	1	2020	25,567
Current assets	Inventories	1	2020	65,998
Long-term liabilities	Long-term debt	1	2020	46,124

The balance sheet data always includes a row for each account for each month.

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The product catalog shows how products roll up to product categories, which roll up to the business units. The product list is provided in the

format shown in the following table.

Product ID	Product name	Product description	Product category	Business unit
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FD-2342	Front Derailleur	Wide-link design	Components	Unit A

Revenue data is provided at the date and product level. Expense data is provided at the date and department level.

Business Issues -

Historically, it has taken two analysts a week to prepare the reports for the quarterly board meetings. Also, there is usually at least one issue each quarter where a value in a report is wrong because of a bad cell reference in an Excel formula. On occasion, there are conflicting results in the reports because the products and departments that roll up to each business unit are not defined consistently.

Requirements -

Planned Changes -

Contoso plans to automate and standardize the quarterly reporting process by using Power BI. The company wants to reduce how long it takes to populate the reports to less than two days. The company wants to create common logic for the business units, products, and departments. The logic will be used across all reports, including but not limited to the quarterly reporting for the board.

Technical Requirements -

Contoso wants the reports and datasets refreshed with minimum manual effort.

The company wants to provide the board with a single package of reports that will contain custom navigation and links to supplementary information.

Maintenance, including manually updating data and access, must be minimized as much as possible.

Security Requirements -

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Analysts must be able to access all balance sheet and product catalog data.

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Analysts must NOT be able to share the quarterly reports with anyone.

Analysts must NOT be able to make new reports by using the balance sheet data.

Report Requirements -

You plan to relate the balance sheet table to a date table in Power BI in a many-to-one relationship based on the last day of the month. At least one of the balance sheet reports in the quarterly reporting package must show the ending balances for the quarter, as well as for the previous quarter.

The date table will contain the columns shown in the following table.

Column name	Data type	Sample value
Date	Date	4-Apr-2020
Month	Integer	202004
Month Name	Text	February
Quarter	Integer	20202
Year	Integer	2020

The definitions and attributes for the products, departments, and business units must be consistent across all the reports.

The board must be able to get the following information from the quarterly reports:

Revenue trends over time

The ending balances of each account

Changes in long-term liabilities from the previous quarter

The percent of total revenue contributed by each product category

A comparison of quarterly revenue versus the same quarter from the previous year

-

The reports must be updated with the latest data by 5 AM each day.

Question

You need to create the relationship between the product list and the revenue results. The solution must minimize the time it takes to render visuals.

What should you set as the relationship cardinality?

- A. One to one
- B. Many to many
- C. Many to one
- D. One to many

Correct Answer: D

One product in the product list can occur many times in the revenue results.

Note 1: One to many (1:*) : In a one-to-many relationship, the column in one table has only one instance of a particular value, and the other related table can have more than one instance of a value.

Note 2:

Revenue data is provided at the date and product level.

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Reference:

<https://docs.microsoft.com/en-us/power-bi/transform-model/desktop-create-and-manage-relationships>

Community vote distribution

D (92%)

8%

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Revenue data is provided at the date and product level. Expense data is provided at the date and department level.

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-

The reports must be updated with the latest data by 5 AM each day.

Question

HOTSPOT -

You need to create a measure that returns the percent of revenue by product category.

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

NOTE: Each correct selection is worth one point.

Hot Area:

```
Category Revenue Contribution =
VAR AllCategoryRev =
```

▼	(SUM ([Revenue]),
ALL	
ALLEXCEPT	
CALCULATE	
DIVIDE	
FILTER	

```
(ProductList[ProductCategory]))
```

▼	
ALL	
ALLEXCEPT	
CALCULATE	
DIVIDE	
FILTER	

RETURN

```
(SUM([Revenue]), AllCategoryRev)
```

▼	
ALL	
ALLEXCEPT	
CALCULATE	
DIVIDE	
FILTER	

```
Category Revenue Contribution =  
VAR AllCategoryRev =
```

▼	(SUM ([Revenue]),
ALL	
ALLEXCEPT	
CALCULATE	
DIVIDE	
FILTER	

Correct Answer:

▼	(ProductList[ProductCategory]))
ALL	
ALLEXCEPT	
CALCULATE	
DIVIDE	
FILTER	

RETURN

▼	(SUM([Revenue]), AllCategoryRev)
ALL	
ALLEXCEPT	
CALCULATE	
DIVIDE	
FILTER	

Box 1: CALCULATE -

CALCULATE evaluates an expression in a modified filter context.

Syntax: CALCULATE(<expression>[, <filter1> [, <filter2> [, ...]]])

Box 2: REMOVEFILTERS -

REMOVEFILTERS clear filters from the specified tables or columns.

Box 3: DIVIDE -

DIVIDE performs a division.

Example: MEASURE FactInternetSales[%Sales] = DIVIDE([TotalSales], CALCULATE([TotalSales], REMOVEFILTERS()))

Note: The RETURN keyword consumes variables defined in previous VAR statements.

Reference:

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

<https://docs.microsoft.com/en-us/dax/removefilters-function-dax> <https://dax.guide/st/return/>

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A comparison of quarterly revenue versus the same quarter from the previous year

-

The reports must be updated with the latest data by 5 AM each day.

Question

DRAG DROP -

Once the profit and loss dataset is created, which four actions should you perform in sequence to ensure that the business unit analysts see the appropriate profit and loss data? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions

From powerbi.com, assign the analysts the Contributor role to the workspace.

From Power BI Desktop, add a Table Filter DAX Expression to the roles.

From powerbi.com, add role members to the roles.

From Power BI Desktop, create four roles.

From Power BI Desktop, publish the dataset to powerbi.com.

Answer Area



Correct Answer:

Actions

From powerbi.com, assign the analysts the Contributor role to the workspace.

Answer Area

From Power BI Desktop, create four roles.

From Power BI Desktop, add a Table Filter DAX Expression to the roles.

From powerbi.com, add role members to the roles.

Step 1: From BI Desktop, create four roles

You can define roles and rules within Power BI Desktop.

Step 2: From BI Desktop, add a Table Filter DAX Expression to the roles.

To define security roles, follow these steps.

1. From the Modeling tab, select Manage Roles.

2. Select Manage Roles

3. From the Manage roles window, select Create.

4. Select Create

5. Under Roles, provide a name for the role.

6. Under Tables, select the table to which you want to apply a DAX rule.

7. In the Table filter DAX expression box, enter the DAX expressions. This expression returns a value of true or false. For example: [Entity ID] = `Value`.

After you've created the DAX expression, select the checkmark above the expression box to validate the expression.

8. Select Save.

Step 3: From powerbi.com, add role members to the roles.

You can't assign users to a role within Power BI Desktop. You assign them in the Power BI service.

Step 4: From BI Desktop, publish the dataset to powerbi.com

Now that you're done validating the roles in Power BI Desktop, go ahead and publish your report to the Power BI service.

Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-rls>

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Azure SQL database	Detailed revenue, cost, and expense data Uses a public endpoint
Microsoft Dynamics 365 Business Central	Summary balance sheet data and product catalog data

The balance sheet data is unrelated to the profit and loss results other than they both relate to dates.

Balance Sheet Data -

The balance sheet data is imported and includes the final monthly balances of each account in the format shown in the following table.

AccountCategory	Account	Month	Year	BalanceAmount
Current assets	Cash and cash equivalents	3	2020	20,289
Current assets	Inventories	3	2020	4,855
Long-term liabilities	Long-term debt	3	2020	50,207
Current assets	Cash and cash equivalents	2	2020	28,209
Current assets	Inventories	2	2020	5,845
Long-term liabilities	Long-term debt	2	2020	49,887
Current assets	Cash and cash equivalents	1	2020	25,567
Current assets	Inventories	1	2020	65,998
Long-term liabilities	Long-term debt	1	2020	46,124

The balance sheet data always includes a row for each account for each month.

Product Catalog Data -

The product catalog shows how products roll up to product categories, which roll up to the business units. The product list is provided in the format shown in the following table.

Product ID	Product name	Product description	Product category	Business unit
HL-U509-R	Sport-100 Helmet, Red	Universal fit, well-vented, lightweight, snap-on visor	Accessories	Unit A
RA-H123	Hitch Rack - 4-Bike	Carries four bikes securely, steel construction, fits a 2-inch receiver hitch	Accessories	Unit A
BK-M18S-40	Mountain-500 Silver, 40	Suitable for any type of riding, on- or off-road, fits any budget, smooth-shifting with a comfortable ride	Bikes	Unit B
FD-2342	Front Derailleur	Wide-link design	Components	Unit A

Revenue data is provided at the date and product level. Expense data is provided at the date and department level.

Business Issues -

Historically, it has taken two analysts a week to prepare the reports for the quarterly board meetings. Also, there is usually at least one issue each quarter where a value in a report is wrong because of a bad cell reference in an Excel formula. On occasion, there are conflicting results in the reports because the products and departments that roll up to each business unit are not defined consistently.

Requirements -

Planned Changes -

Contoso plans to automate and standardize the quarterly reporting process by using Power BI. The company wants to reduce how long it takes to populate the reports to less than two days. The company wants to create common logic for the business units, products, and departments. The logic will be used across all reports, including but not limited to the quarterly reporting for the board.

Technical Requirements -

Contoso wants the reports and datasets refreshed with minimum manual effort.

The company wants to provide the board with a single package of reports that will contain custom navigation and links to supplementary information.

Maintenance, including manually updating data and access, must be minimized as much as possible.

Security Requirements -

The reports must be made available to the board from powerbi.com. An Azure Active Directory (Azure AD) group will be used to share information with the board.

Contoso identifies the following security requirements for analyst access:

Analysts must be able to access all balance sheet and product catalog data.

Analysts must be able to access only the profit and loss data of their respective business unit.

Analysts must be able to create new reports from the dataset that contains the profit and loss data, but the reports built by the analysts must NOT be included in the quarterly reports for the board.

Analysts must NOT be able to share the quarterly reports with anyone.

Analysts must NOT be able to make new reports by using the balance sheet data.

Report Requirements -

You plan to relate the balance sheet table to a date table in Power BI in a many-to-one relationship based on the last day of the month. At least one of the balance sheet reports in the quarterly reporting package must show the ending balances for the quarter, as well as for the previous quarter.

The date table will contain the columns shown in the following table.

Column name	Data type	Sample value
Date	Date	4-Apr-2020
Month	Integer	202004
Month Name	Text	February
Quarter	Integer	20202
Year	Integer	2020

The definitions and attributes for the products, departments, and business units must be consistent across all the reports.

The board must be able to get the following information from the quarterly reports:

- Revenue trends over time

- The ending balances of each account

- Changes in long-term liabilities from the previous quarter

- The percent of total revenue contributed by each product category

- A comparison of quarterly revenue versus the same quarter from the previous year

- The reports must be updated with the latest data by 5 AM each day.

Question

Which DAX expression should you use to get the ending balances in the balance sheet reports?

- A. CALCULATE (SUM(BalanceSheet[BalanceAmount]), LASTDATE ('Date'[Date]))
- B. CALCULATE (SUM(BalanceSheet[BalanceAmount]), DATESQTD('Date'[Date]))
- C. FIRSTNONBLANK ('Date'[Date] SUM(BalanceSheet[BalanceAmount]))
- D. CALCULATE (MAX(BalanceSheet[BalanceAmount]), LASTDATE ('Date'[Date]))

Correct Answer: B

Use the CALCULATE, the SUM, and the DATESQTD functions.

DATESQTD returns a table that contains a column of the dates for the quarter to date, in the current context.

Syntax: DATESQTD(<dates>)

Note: At least one of the balance sheet reports in the quarterly reporting package must show the ending balances for the quarter, as well as for the previous quarter.

Reference:

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

Community vote distribution

A (62%)

B (38%)

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Overview -

Litware, Inc. is an online retailer that uses Power BI.

Litware plans to leverage data from an Azure SQL database that stores data for the company's live e-commerce website.

Litware uses Azure Active Directory (Azure AD) to authenticate users.

Existing Environment. Sales Data

Litware has online sales data that has the SQL schema shown in the following table.

Table name	Column name	Data type
Sales_Region	region_id	Integer
	name	Varchar
Region_Manager	region_id	Integer
	manager_id	Integer
Sales_Manager	sales_manager_id	Integer
	name	Varchar
	username	Varchar
Manager	manager_id	Integer
	name	Varchar
Sales	sales_id	Integer
	sales_date_id	Integer
	sales_amount	Float
	customer_id	Integer
	sales_ship_date_id	Integer
	region_id	Varchar
Date	date_id	Integer
	date	Date
	month	Integer
	week	Integer
	year	Integer
Weekly_Returns	week_id	Integer
	total_returns	Float
	sales_region_id	Varchar
Targets	target_id	Integer
	sales_target	Decimal
	date_id	Integer
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In the Date table, the date_id column has a format of yyymmdd and the month column has a format of yyymmm.

The week column in the Date table and the week_id column in the Weekly_Returns table have a format of yyyyww.

In the Sales table, the sales_id column represents a unique transaction.

The region id column can be managed by only one sales manager.

Existing Environment. Data Concerns

You are concerned with the quality and completeness of the sales data. You must ensure that negative and missing sales_amount values do NOT contribute to the total sales amount calculation.

Existing Environment. Reporting Requirements

Litware identifies the following reporting requirements:

Executives require a visual that shows sales by region.

Executives require a visual that shows returns by region manager and the sales managers that report to them.

The sales managers must be able to see only the sales data of their respective region.

The sales managers require a visual to analyze sales performance versus sales targets.

The sales department requires reports that contain the number of sales transactions.

Users must be able to see the month in each report as shown in the following example: Feb 2020.

The customer service department requires a visual that can be filtered by both sales month and ship month independently.

The maximum allowed latency to include transactions in reports is five minutes.

Question

You need to create relationships to meet the reporting requirements of the customer service department.

What should you create?

- A. a one-to-many relationship from Date[date_id] to Sales[sales_date_id] and another one-to-many relationship from Date[date_id] to Weekly_Returns[week_id]
- B. a one-to-many relationship from Sales[sales_date_id] to Date[date_id] and a one-to-many relationship from Sales[sales_ship_date_id] to Date[date_id]
- C. an additional date table named ShipDate, a many-to-many relationship from Sales[sales_date_id] to Date[date_id], and a many-to-many relationship from Sales[sales_ship_date_id] to ShipDate[date_id]
- D. an additional date table named ShipDate, a one-to-many relationship from Date[date_id] to Sales[sales_date_id], and a one-to-many relationship from ShipDate[date_id] to Sales[sales_skip_date_id]

Correct Answer: A

The customer service department requires a visual that can be filtered by both sales month and ship month independently.

Need two date tables. Add a one-to-many relationship from both the Date tables to Sales table.

Reference:

<https://docs.microsoft.com/en-us/power-bi/guidance/relationships-active-inactive>

Community vote distribution

D (90%)

6%

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Manager	manager_id	Integer
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Executives require a visual that shows sales by region.

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The sales managers require a visual to analyze sales performance versus sales targets.

The sales department requires reports that contain the number of sales transactions.

Users must be able to see the month in each report as shown in the following example: Feb 2020.

The customer service department requires a visual that can be filtered by both sales month and ship month independently.

The maximum allowed latency to include transactions in reports is five minutes.

Question

You need to provide a solution to provide the sales managers with the required access.

What should you include in the solution?

- A. Create a security role that has a table filter on the Sales Manager table where username = UserName().
- B. Create a security role that has a table filter on the Sales Manager table where username = sales_manager_id.
- C. Create a security role that has a table filter on the Region Manager table where sales_manager_id = UserPrincipalName().
- D. Create a security role that has a table filter on the Sales_Manager table where name = UserName().

Correct Answer: A

The sales managers must be able to see only the sales data of their respective region.

Use the username field of the Sales_manager table.

Also use the Username() DAX function to validate the username.

Reference:

<https://powerbi.microsoft.com/en-my/blog/using-username-in-dax-with-row-level-security/>

Community vote distribution

A (88%)

13%

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Question

You merge data from Sales_Region, Region_Manager, Sales_Manager, and Manager into a single table named Region.

What should you do next to meet the reporting requirements of the executives?

- A. Create a DAX calculated column that retrieves the region manager from the Weekly_Returns table based on the sales_region_id column.
- B. Apply row-level security (RLS) to the Region table based on the sales manager username.
- C. Configure a bi-directional relationship between Region and Sales_Region.
- D. In the Region table, create a hierarchy that has the manager name, and then the sales manager name.

Correct Answer: A

Executives require a visual that shows returns by region manager and the sales managers that report to them.

A hierarchy is a set of fields categorized in a hierarchical way that one level is the parent of another level. Values of the parent level can be drilled down to the lower level.

Reference:

<https://radacad.com/what-a-power-bi-hierarchy-is-and-how-to-use-it>

Community vote distribution

D (100%)

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The sales department requires reports that contain the number of sales transactions.

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The customer service department requires a visual that can be filtered by both sales month and ship month independently.

The maximum allowed latency to include transactions in reports is five minutes.

Question

What should you create to meet the reporting requirements of the sales department?

- A. a measure that uses a formula of COUNTROWS(Sales)
- B. a calculated column that use a formula of COUNTA(Sales[sales_id])
- C. a calculated column that uses a formula of SUM(Sales[sales_id])
- D. a measure that uses a formula of SUM(Sales[sales_id])

Correct Answer: A

The sales department requires reports that contain the number of sales transactions.

The COUNTROWS function counts the number of rows in the specified table, or in a table defined by an expression.

Incorrect:

The COUNTA function counts the number of cells in a column that are not empty.

Reference:

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

Community vote distribution

A (100%)

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Question

What should you do to address the existing environment data concerns?

- A. a calculated column that uses the following formula: ABS(Sales[sales_amount])
- B. a measure that uses the following formula: SUMX(FILTER('Sales', 'Sales'[sales_amount] > 0)),[sales_amount])
- C. a measure that uses the following formula: SUM(Sales[sales_amount])
- D. a calculated column that uses the following formula: IF(ISBLANK(Sales[sales_amount]),0, (Sales[sales_amount]))

Correct Answer: B

You are concerned with the quality and completeness of the sales data. You must ensure that negative and missing sales_amount values do NOT contribute to the total sales amount calculation.

Community vote distribution

B (81%)

D (19%)

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	date_id	Integer
	region_id	Integer

In the Date table, the date_id column has a format of yyyyymmdd and the month column has a format of yyymmm.

The week column in the Date table and the week_id column in the Weekly_Returns table have a format of yyyyww.

In the Sales table, the sales_id column represents a unique transaction.

The region id column can be managed by only one sales manager.

Existing Environment. Data Concerns

You are concerned with the quality and completeness of the sales data. You must ensure that negative and missing sales_amount values do NOT contribute to the total sales amount calculation.

Existing Environment. Reporting Requirements

Litware identifies the following reporting requirements:

Executives require a visual that shows sales by region.

Executives require a visual that shows returns by region manager and the sales managers that report to them.

The sales managers must be able to see only the sales data of their respective region.

The sales managers require a visual to analyze sales performance versus sales targets.

The sales department requires reports that contain the number of sales transactions.

Users must be able to see the month in each report as shown in the following example: Feb 2020.

The customer service department requires a visual that can be filtered by both sales month and ship month independently.

The maximum allowed latency to include transactions in reports is five minutes.

Question

You need to create a calculated column to display the month based on the reporting requirements.

Which DAX expression should you use?

- A. `FORMAT('Date'[date], „MMM YYYY“)`
- B. `FORMAT('Date'[date_id], „MMM“) & „ “ & FORMAT('Date'[year], „#“))`
- C. `FORMAT('Date'[date_id], „MMM YYYY“)`
- D. `FORMAT('Date'[date], „M YY“)`

Correct Answer: A

Users must be able to see the month in each report as shown in the following example: Feb 2020.

Custom date/time formats -

The following format characters can be specified in the format_string to create custom date/time formats:

* mmm

Display the month as an abbreviation (Jan-Dec). Localized.

* yyyy

Display the year as a 4-digit number (100-9999).

* Etc.

Reference:

<https://docs.microsoft.com/en-us/dax/format-function-dax#predefined-datetime-formats>

Community vote distribution

A (100%)

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10	BOTTM	Bottom-Dollar Markets	23 Tsawassen Blvd.	Tsawassen	BC	T2F 8M4	Canada	(604) 555-4729

All the fields in Source2 are mandatory.

The Address column in Customer Details is the billing address, which can differ from the shipping address.

Existing Environment. Azure SQL Database

Source1 contains the following tables:

Orders

Products

Suppliers

Categories

Order Details

Sales Employees

The Orders table contains the following columns.

Name	Is nullable	Data type	Example value	Key
OrderID	No	Int	10248	Primary key
CustomerID	Yes	NCHAR	VINET	<i>Not applicable</i>
OrderDate	Yes	Date	2021-01-04	<i>Not applicable</i>
RequiredDate	Yes	Date	2021-02-01	<i>Not applicable</i>
ShippedDate	Yes	Date	2021-01-16	<i>Not applicable</i>
Freight	Yes	Decimal	32.38	<i>Not applicable</i>
ShipName	Yes	NVARCHAR	Vins et alcools Chevalier	<i>Not applicable</i>
ShipAddress	Yes	NVARCHAR	59 rue de l'Abbaye	<i>Not applicable</i>
ShipCity	Yes	NVARCHAR	Reims	<i>Not applicable</i>
ShipRegion	Yes	NVARCHAR	FRA	<i>Not applicable</i>
ShipPostalCode	Yes	NVARCHAR	51100	<i>Not applicable</i>
ShipCountry	Yes	NVARCHAR	France	<i>Not applicable</i>

The Order Details table contains the following columns.

Name	Is nullable	Data type	Example value	Key
OrderID	No	Int	10248	Foreign key to Orders
ProductID	No	Int	11	Foreign key to Products
UnitPrice	No	Decimal	14	<i>Not applicable</i>
Quantity	No	Smallint	12	<i>Not applicable</i>
Discount	No	Decimal	0.15	<i>Not applicable</i>

The address in the Orders table is the shipping address, which can differ from the billing address.

The Products table contains the following columns.

Name	Is nullable	Data type	Example value	Key
ProductID	No	Int	11	Primary key
ProductName	No	NVARCHAR	Queso Cabrales	<i>Not applicable</i>
SupplierID	Yes	Int	5	Foreign key to Suppliers
CategoryID	Yes	Int	4	Foreign key to Categories
QuantityPerUnit	Yes	NVARCHAR	1 kg pkg.	<i>Not applicable</i>
Discontinued	No	Bit	0	<i>Not applicable</i>

The Categories table contains the following columns.

Name	Is nullable	Data type	Example value	Key
CategoryID	No	int	4	Primary key
CategoryName	No	nvarchar	Dairy Products	<i>Not applicable</i>
Description	Yes	nvarchar	Cheeses	<i>Not applicable</i>

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Address	Yes	NVARCHAR	Calle del Rosal 4	<i>Not applicable</i>
City	Yes	NVARCHAR	Oviedo	<i>Not applicable</i>
Region	Yes	NVARCHAR	Asturias	<i>Not applicable</i>
PostalCode	Yes	NVARCHAR	33007	<i>Not applicable</i>
Country	Yes	NVARCHAR	Spain	<i>Not applicable</i>
Phone	Yes	NVARCHAR	(98) 598 76 54	<i>Not applicable</i>

The Sales Employees table contains the following columns.

Name	Is nullable	Data type	Example value	Key
EmployeeID	No	Int	1	Primary key
LastName	No	NVARCHAR	Davolio	<i>Not applicable</i>
FirstName	No	NVARCHAR	Nancy	<i>Not applicable</i>
Title	Yes	NVARCHAR	Sales Representative	<i>Not applicable</i>
HireDate	Yes	Date	2015-02-01	<i>Not applicable</i>
Region	Yes	NVARCHAR	WA	<i>Not applicable</i>
Country	Yes	NVARCHAR	USA	<i>Not applicable</i>
EmailAddress	No	NVARCHAR	ndavolio@northwindtraders.com	<i>Not applicable</i>

Each employee in the Sales Employees table is assigned to one sales region. Multiple employees can be assigned to each region.

Requirements. Report Requirements

Northwind Traders requires the following reports:

Top Products

Top Customers

On-Time Shipping

The Top Customers report will show the top 20 customers based on the highest sales amounts in a selected order month or quarter, product category, and sales region.

The Top Products report will show the top 20 products based on the highest sales amounts sold in a selected order month or quarter, sales region, and product category. The report must also show which suppliers provide the top products.

The On-Time Shipping report will show the following metrics for a selected shipping month or quarter:

The percentage of orders that were shipped late by country and shipping region

Customers that had multiple late shipments during the last quarter

Northwind Traders defines late orders as those shipped after the required shipping date.

The warehouse shipping department must be notified if the percentage of late orders within the current month exceeds 5%.

The reports must show historical data for the current calendar year and the last three calendar years.

Requirements. Technical Requirements

Northwind Traders identifies the following technical requirements:

A single dataset must support all three reports.

The reports must be stored in a single Power BI workspace.

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The data model must minimize the size of the dataset as much as possible, while meeting the report requirements and the technical requirements.

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Access to the reports must be granted to Azure Active Directory (Azure AD) security groups only. An Azure AD security group exists for each department.

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Power BI has the following row-level security (RLS) Table filter DAX expression for the Sales Employees table.

[EmailAddress] = USERNAME()

RLS will be applied only to the sales department users. Users in all other departments must be able to view all the data.

Question

HOTSPOT -

You need to design the data model and the relationships for the Customer Details worksheet and the Orders table by using Power BI. The solution must meet the report requirements.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
A relationship must be created between the CustomerID column in the Customer Details worksheet and the CustomerID column in the Orders table.	<input type="radio"/>	<input type="radio"/>
The Data Type of the columns in the relationship between the Customer Details worksheet and the Orders table must be set to Text .	<input type="radio"/>	<input type="radio"/>
The Region field used to filter the Top Customers report must come from the Orders table.	<input type="radio"/>	<input type="radio"/>

Correct Answer:

Answer Area

Statements	Yes	No
A relationship must be created between the CustomerID column in the Customer Details worksheet and the CustomerID column in the Orders table.	<input checked="" type="radio"/>	<input type="radio"/>
The Data Type of the columns in the relationship between the Customer Details worksheet and the Orders table must be set to Text .	<input type="radio"/>	<input checked="" type="radio"/>
The Region field used to filter the Top Customers report must come from the Orders table.	<input type="radio"/>	<input checked="" type="radio"/>

Box 1: Yes -

Need to link the tables for: The Top Customers report will show the top 20 customers based on the highest sales amounts in a selected order month or quarter, product category, and sales region.

Box 2: No -

It should be set to Integer.

Box 3: No -

Can use the Region field of the Customer Details table.

The Orders table only has the ShipRegion field

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All the fields in Source2 are mandatory.

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Existing Environment. Azure SQL Database

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Products

Suppliers

Categories

Order Details

Sales Employees

The Orders table contains the following columns.

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[EmailAddress] = USERNAME()

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Question

HOTSPOT -

You need to create a measure that will return the percentage of late orders.

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.

Hot Area:

Answer Area

```
Late Orders Percent =  
VAR OrderCount =  
    COUNTROWS ( 'Orders' )  
VAR LateOrders =  
  
    SUM  
    COUNTX  
    CALCULATE  
    CALCULATETABLE  
  
    COUNTROWS ( 'Orders' ),  
  
        ( Orders,  
            FILTER  
            ALLEXCEPT  
            CALCULATE  
            DATESBETWEEN  
  
        )  
  
    RETURN  
  
    DIVIDE ( LateOrders, OrderCount )
```

(Orders,	Orders[OrderDate] > Orders[RequiredDate]
	Orders[ShippedDate] >= Orders[OrderDate]
	Orders[ShippedDate] < Orders[RequiredDate]
	Orders[ShippedDate] > Orders[RequiredDate]

Correct Answer:

Answer Area

```
Late Orders Percent =  
VAR OrderCount =  
    COUNTROWS ( 'Orders' )  
VAR LateOrders =  
  
    SUM  
    COUNTX  
    CALCULATE  
    CALCULATETABLE  
  
    COUNTROWS ( 'Orders' ),  
  
        ( Orders,  
            FILTER  
            ALLEXCEPT  
            CALCULATE  
            DATESBETWEEN  
  
        )  
  
    RETURN  
  
    DIVIDE ( LateOrders, OrderCount )
```

(Orders,	Orders[OrderDate] > Orders[RequiredDate]
	Orders[ShippedDate] >= Orders[OrderDate]
	Orders[ShippedDate] < Orders[RequiredDate]
	Orders[ShippedDate] > Orders[RequiredDate]

Box 1: CALCULATE -

CALCULATE evaluates an expression in a modified filter context.

Syntax: CALCULATE(<expression>[, <filter1> [, <filter2> [, ...]]]) expression - The expression to be evaluated. filter1, filter2,... - (Optional) Boolean expressions or table expressions that defines filters, or filter modifier functions.

Incorrect:

* 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.

* CALCULATETABLE evaluates a table expression in a modified filter context.

Syntax: CALCULATETABLE(<expression>[, <filter1> [, <filter2> [, ..., <filterN>]]])

Expression - The table expression to be evaluated.

Box 2: FILTER -

FILTER returns a table that represents a subset of another table or expression.

Syntax: FILTER(<table>,<filter>)

Box 3: Orders[ShippedDate] > Orders[RequiredDate]

Northwind Traders defines late orders as those shipped after the required shipping date.

Reference:

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

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

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10	BOTTM	Bottom-Dollar Markets	23 Tsawassen Blvd.	Tsawassen	BC	T2F 8M4	Canada	(604) 555-4729

All the fields in Source2 are mandatory.

The Address column in Customer Details is the billing address, which can differ from the shipping address.

Existing Environment. Azure SQL Database

Source1 contains the following tables:

Orders

Products

Suppliers

Categories

Order Details

Sales Employees

The Orders table contains the following columns.

Name	Is nullable	Data type	Example value	Key
OrderID	No	Int	10248	Primary key
CustomerID	Yes	NCHAR	VINET	<i>Not applicable</i>
OrderDate	Yes	Date	2021-01-04	<i>Not applicable</i>
RequiredDate	Yes	Date	2021-02-01	<i>Not applicable</i>
ShippedDate	Yes	Date	2021-01-16	<i>Not applicable</i>
Freight	Yes	Decimal	32.38	<i>Not applicable</i>
ShipName	Yes	NVARCHAR	Vins et alcools Chevalier	<i>Not applicable</i>
ShipAddress	Yes	NVARCHAR	59 rue de l'Abbaye	<i>Not applicable</i>
ShipCity	Yes	NVARCHAR	Reims	<i>Not applicable</i>
ShipRegion	Yes	NVARCHAR	FRA	<i>Not applicable</i>
ShipPostalCode	Yes	NVARCHAR	51100	<i>Not applicable</i>
ShipCountry	Yes	NVARCHAR	France	<i>Not applicable</i>

The Order Details table contains the following columns.

Name	Is nullable	Data type	Example value	Key
OrderID	No	Int	10248	Foreign key to Orders
ProductID	No	Int	11	Foreign key to Products
UnitPrice	No	Decimal	14	<i>Not applicable</i>
Quantity	No	Smallint	12	<i>Not applicable</i>
Discount	No	Decimal	0.15	<i>Not applicable</i>

The address in the Orders table is the shipping address, which can differ from the billing address.

The Products table contains the following columns.

Name	Is nullable	Data type	Example value	Key
ProductID	No	Int	11	Primary key
ProductName	No	NVARCHAR	Queso Cabrales	<i>Not applicable</i>
SupplierID	Yes	Int	5	Foreign key to Suppliers
CategoryID	Yes	Int	4	Foreign key to Categories
QuantityPerUnit	Yes	NVARCHAR	1 kg pkg.	<i>Not applicable</i>
Discontinued	No	Bit	0	<i>Not applicable</i>

The Categories table contains the following columns.

Name	Is nullable	Data type	Example value	Key
CategoryID	No	int	4	Primary key
CategoryName	No	nvarchar	Dairy Products	<i>Not applicable</i>
Description	Yes	nvarchar	Cheeses	<i>Not applicable</i>

The Suppliers table contains the following columns.

Name	Is nullable	Data type	Example value	Key
SupplierID	No	Int	5	Primary key
CompanyName	No	NVARCHAR	Cooperativa de Quesos 'Las Cabras'	<i>Not applicable</i>
Address	Yes	NVARCHAR	Calle del Rosal 4	<i>Not applicable</i>
City	Yes	NVARCHAR	Oviedo	<i>Not applicable</i>
Region	Yes	NVARCHAR	Asturias	<i>Not applicable</i>
PostalCode	Yes	NVARCHAR	33007	<i>Not applicable</i>
Country	Yes	NVARCHAR	Spain	<i>Not applicable</i>
Phone	Yes	NVARCHAR	(98) 598 76 54	<i>Not applicable</i>

The Sales Employees table contains the following columns.

Name	Is nullable	Data type	Example value	Key
EmployeeID	No	Int	1	Primary key
LastName	No	NVARCHAR	Davolio	Not applicable
FirstName	No	NVARCHAR	Nancy	Not applicable
Title	Yes	NVARCHAR	Sales Representative	Not applicable
HireDate	Yes	Date	2015-02-01	Not applicable
Region	Yes	NVARCHAR	WA	Not applicable
Country	Yes	NVARCHAR	USA	Not applicable
EmailAddress	No	NVARCHAR	ndavolio@northwindtraders.com	Not applicable

Each employee in the Sales Employees table is assigned to one sales region. Multiple employees can be assigned to each region.

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Northwind Traders requires the following reports:

Top Products

Top Customers

On-Time Shipping

The Top Customers report will show the top 20 customers based on the highest sales amounts in a selected order month or quarter, product category, and sales region.

The Top Products report will show the top 20 products based on the highest sales amounts sold in a selected order month or quarter, sales region, and product category. The report must also show which suppliers provide the top products.

The On-Time Shipping report will show the following metrics for a selected shipping month or quarter:

The percentage of orders that were shipped late by country and shipping region

Customers that had multiple late shipments during the last quarter

Northwind Traders defines late orders as those shipped after the required shipping date.

The warehouse shipping department must be notified if the percentage of late orders within the current month exceeds 5%.

The reports must show historical data for the current calendar year and the last three calendar years.

Requirements. Technical Requirements

Northwind Traders identifies the following technical requirements:

A single dataset must support all three reports.

The reports must be stored in a single Power BI workspace.

Report data must be current as of 7 AM Pacific Time each day.

The reports must provide fast response times when users interact with a visualization.

The data model must minimize the size of the dataset as much as possible, while meeting the report requirements and the technical requirements.

Requirements. Security Requirements

Access to the reports must be granted to Azure Active Directory (Azure AD) security groups only. An Azure AD security group exists for each department.

The sales department must be able to perform the following tasks in Power BI:

Create, edit, and delete content in the reports.

Manage permissions for workspaces, datasets, and reports.

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Users in the sales department must be able to access only the data of the sales region to which they are assigned in the Sales Employees table.

Power BI has the following row-level security (RLS) Table filter DAX expression for the Sales Employees table.

[EmailAddress] = USERNAME()

RLS will be applied only to the sales department users. Users in all other departments must be able to view all the data.

Question

You need to minimize the size of the dataset. The solution must meet the report requirements.

What should you do?

- A. Group the Categories table by the CategoryID column.
- B. Remove the QuantityPerUnit column from the Products table.
- C. Filter out discontinued products while importing the Products table.
- D. Change the OrderID column in the Orders table to the Text data type.

Correct Answer: B

Removing a column which isn't used in the reports reduces the dataset size.

Incorrect:

Not A: Grouping does not affect size.

Not C: Cannot filter out discontinued products as: The reports must show historical data for the current calendar year and the last three calendar years.

Not D: OrderID must be Integer.

Community vote distribution

B (100%)

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General Overview -

Northwind Traders is a specialty food import company.

The company recently implemented Power BI to better understand its top customers, products, and suppliers.

Business Issues -

The sales department relies on the IT department to generate reports in Microsoft SQL Server Reporting Services (SSRS). The IT department takes too long to generate the reports and often misunderstands the report requirements.

Existing Environment. Data Sources

Northwind Traders uses the data sources shown in the following table.

Name	Type	Data size
Source1	Azure SQL database	2 GB
Source2	Microsoft Excel spreadsheet	5 MB

Source2 is exported daily from a third-party system and stored in Microsoft SharePoint Online.

Existing Environment. Customer Worksheet

Source2 contains a single worksheet named Customer Details. The first 11 rows of the worksheet are shown in the following table.

CustomerID	CustomerCRMID	CompanyName	Address	City	Region	PostalCode	Country	Phone
1	ALFKI	Alfreds Futterkiste	Obere Str. 57	Berlin	DE	12209	Germany	030-0074321
2	ANATR	Ana Trujillo Emparedados y helados	Avda. de la Constitución 2222	México D.F.	MX	5021	Mexico	(5) 555-4729
3	ANTON	Antonio Moreno Taquería	Mataderos 2312	México D.F.	MX	5023	Mexico	(5) 555-3932
4	AROUT	Around the Horn	120 Hanover Sq.	London	UK	WA1 1DP	UK	(171) 555-7788
5	BERGS	Berglunds snabbköp	Berguvsvägen 8	Luleå	SWE	S-958 22	Sweden	0921-12 34 65
6	BLAUS	Blauer See Delikatessen	Forsterstr. 57	Mannheim	DE	68306	Germany	0621-08460
7	BLONP	Blondesdssl père et fils	24, place Kléber	Strasbourg	FRA	67000	France	88.60.15.31
8	BOLID	Bólido Comidas preparadas	C/ Araquil, 67	Madrid	SPN	28023	Spain	(91) 555 22 82
9	BONAP	Bon app'	12, rue des Bouchers	Marseille	FRA	13008	France	91.24.45.40
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All the fields in Source2 are mandatory.

The Address column in Customer Details is the billing address, which can differ from the shipping address.

Existing Environment. Azure SQL Database

Source1 contains the following tables:

Orders

Products

Suppliers

Categories

Order Details

Sales Employees

The Orders table contains the following columns.

Name	Is nullable	Data type	Example value	Key
OrderID	No	Int	10248	Primary key
CustomerID	Yes	NCHAR	VINET	<i>Not applicable</i>
OrderDate	Yes	Date	2021-01-04	<i>Not applicable</i>
RequiredDate	Yes	Date	2021-02-01	<i>Not applicable</i>
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OrderID	No	Int	10248	Foreign key to Orders
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UnitPrice	No	Decimal	14	<i>Not applicable</i>
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LastName	No	NVARCHAR	Davolio	<i>Not applicable</i>
FirstName	No	NVARCHAR	Nancy	<i>Not applicable</i>
Title	Yes	NVARCHAR	Sales Representative	<i>Not applicable</i>
HireDate	Yes	Date	2015-02-01	<i>Not applicable</i>
Region	Yes	NVARCHAR	WA	<i>Not applicable</i>
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RLS will be applied only to the sales department users. Users in all other departments must be able to view all the data.

Question

You need to design the data model to meet the report requirements.

What should you do in Power BI Desktop?

- A. From Power Query, add a date table. Create an active relationship to the OrderDate column in the Orders table and an inactive relationship to the ShippedDate column in the Orders table.
- B. From Power Query, add columns to the Orders table to calculate the calendar quarter and the calendar month of the OrderDate column.
- C. From Power BI Desktop, use the Auto date/time option when creating the reports.
- D. From Power Query, use a DAX expression to add columns to the Orders table to calculate the calendar quarter of the OrderDate column, the calendar month of the OrderDate column, the calendar quarter of the ShippedDate column, and the calendar month of the ShippedDate column.

Correct Answer: C

On-Time Shipping report -

The On-Time Shipping report will show the following metrics for a selected shipping month or quarter:

The percentage of orders that were shipped late by country and shipping region

Customers that had multiple late shipments during the last quarter

The Auto date/time is a data load option in Power BI Desktop. The purpose of this option is to support convenient time intelligence reporting based on date columns loaded into a model. Specifically, it allows report authors using your data model to filter, group, and drill down by using calendar time periods (years, quarters, months, and days). What's important is that you don't need to explicitly develop these time intelligence capabilities.

When the option is enabled, Power BI Desktop creates a hidden auto date/time table for each date column, providing all of the following conditions are true:

The table storage mode is Import

The column data type is date or date/time

The column isn't the "many" side of a model relationship

Reference:

<https://docs.microsoft.com/en-us/power-bi/transform-model/desktop-auto-date-time>

Community vote distribution

A (76%) C (24%)

Introductory Info

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Business Issues -

The sales department relies on the IT department to generate reports in Microsoft SQL Server Reporting Services (SSRS). The IT department takes too long to generate the reports and often misunderstands the report requirements.

Existing Environment. Data Sources

Northwind Traders uses the data sources shown in the following table.

Name	Type	Data size
Source1	Azure SQL database	2 GB
Source2	Microsoft Excel spreadsheet	5 MB

Source2 is exported daily from a third-party system and stored in Microsoft SharePoint Online.

Existing Environment. Customer Worksheet

Source2 contains a single worksheet named Customer Details. The first 11 rows of the worksheet are shown in the following table.

CustomerID	CustomerCRMID	CompanyName	Address	City	Region	PostalCode	Country	Phone
1	ALFKI	Alfreds Futterkiste	Obere Str. 57	Berlin	DE	12209	Germany	030-0074321
2	ANATR	Ana Trujillo Emparedados y helados	Avda. de la Constitución 2222	México D.F.	MX	5021	Mexico	(5) 555-4729
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6	BLAUS	Blauer See Delikatessen	Forsterstr. 57	Mannheim	DE	68306	Germany	0621-08460
7	BLONP	Blondesdssl père et fils	24, place Kléber	Strasbourg	FRA	67000	France	88.60.15.31
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All the fields in Source2 are mandatory.

The Address column in Customer Details is the billing address, which can differ from the shipping address.

Existing Environment. Azure SQL Database

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Order Details

Sales Employees

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[EmailAddress] = USERNAME()

RLS will be applied only to the sales department users. Users in all other departments must be able to view all the data.

Question

HOTSPOT -

You need to create a relationship in the dataset for RLS.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Create a

one-to-one
one-to-many
many-to-one
many-to-many

relationship between the Sales Employees table and the

Orders table
Suppliers table
Order Details table
Customer Details worksheet

Correct Answer:

Answer Area

Create a

one-to-one
one-to-many
many-to-one
many-to-many

relationship between the Sales Employees table and the

Orders table
Suppliers table
Order Details table
Customer Details worksheet

Box 1: many-to-many -

Users in the sales department must be able to access only the data of the sales region to which they are assigned in the Sales Employees table. With composite models, you can establish a many-to-many relationship between tables, which removes requirements for unique values in tables. It also removes previous workarounds, such as introducing new tables only to establish relationships.

Box 2: Orders table -

The Orders table has a ShipRegion column.

Reference:

<https://docs.microsoft.com/en-us/power-bi/transform-model/desktop-create-and-manage-relationships>

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All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Contoso, Ltd. is a manufacturing company that produces sports equipment. Contoso holds quarterly board meetings for which financial analysts manually prepare

Microsoft Excel reports, including balance sheets and profit and loss statements for each of the company's four business units.

Existing Environment -

Data and Sources -

Data for the reports comes from the sources shown in the following table.

Data type	Description
Azure SQL database	Detailed revenue, cost, and expense data Uses a public endpoint
Microsoft Dynamics 365 Business Central	Summary balance sheet data and product catalog data

The balance sheet data is unrelated to the profit and loss results other than they both relate to dates.

Balance Sheet Data -

The balance sheet data is imported and includes the final monthly balances of each account in the format shown in the following table.

AccountCategory	Account	Month	Year	BalanceAmount
Current assets	Cash and cash equivalents	3	2020	20,289
Current assets	Inventories	3	2020	4,855
Long-term liabilities	Long-term debt	3	2020	50,207
Current assets	Cash and cash equivalents	2	2020	28,209
Current assets	Inventories	2	2020	5,845
Long-term liabilities	Long-term debt	2	2020	49,887
Current assets	Cash and cash equivalents	1	2020	25,567
Current assets	Inventories	1	2020	65,998
Long-term liabilities	Long-term debt	1	2020	46,124

The balance sheet data always includes a row for each account for each month.

Product Catalog Data -

The product catalog shows how products roll up to product categories, which roll up to the business units. The product list is provided in the

format shown in the following table.

Product ID	Product name	Product description	Product category	Business unit
HL-U509-R	Sport-100 Helmet, Red	Universal fit, well-vented, lightweight, snap-on visor	Accessories	Unit A
RA-H123	Hitch Rack - 4-Bike	Carries four bikes securely, steel construction, fits a 2-inch receiver hitch	Accessories	Unit A
BK-M18S-40	Mountain-500 Silver, 40	Suitable for any type of riding, on- or off-road, fits any budget, smooth-shifting with a comfortable ride	Bikes	Unit B
FD-2342	Front Derailleur	Wide-link design	Components	Unit A

Revenue data is provided at the date and product level. Expense data is provided at the date and department level.

Business Issues -

Historically, it has taken two analysts a week to prepare the reports for the quarterly board meetings. Also, there is usually at least one issue each quarter where a value in a report is wrong because of a bad cell reference in an Excel formula. On occasion, there are conflicting results in the reports because the products and departments that roll up to each business unit are not defined consistently.

Requirements -

Planned Changes -

Contoso plans to automate and standardize the quarterly reporting process by using Power BI. The company wants to reduce how long it takes to populate the reports to less than two days. The company wants to create common logic for the business units, products, and departments. The logic will be used across all reports, including but not limited to the quarterly reporting for the board.

Technical Requirements -

Contoso wants the reports and datasets refreshed with minimum manual effort.

The company wants to provide the board with a single package of reports that will contain custom navigation and links to supplementary information.

Maintenance, including manually updating data and access, must be minimized as much as possible.

Security Requirements -

The reports must be made available to the board from powerbi.com. An Azure Active Directory (Azure AD) group will be used to share information with the board.

Contoso identifies the following security requirements for analyst access:

Analysts must be able to access all balance sheet and product catalog data.

Analysts must be able to access only the profit and loss data of their respective business unit.

Analysts must be able to create new reports from the dataset that contains the profit and loss data, but the reports built by the analysts must NOT be included in the quarterly reports for the board.

Analysts must NOT be able to share the quarterly reports with anyone.

Analysts must NOT be able to make new reports by using the balance sheet data.

Report Requirements -

You plan to relate the balance sheet table to a date table in Power BI in a many-to-one relationship based on the last day of the month. At least one of the balance sheet reports in the quarterly reporting package must show the ending balances for the quarter, as well as for the previous quarter.

The date table will contain the columns shown in the following table.

Column name	Data type	Sample value
Date	Date	4-Apr-2020
Month	Integer	202004
Month Name	Text	February
Quarter	Integer	20202
Year	Integer	2020

The definitions and attributes for the products, departments, and business units must be consistent across all the reports.

The board must be able to get the following information from the quarterly reports:

Revenue trends over time

The ending balances of each account

Changes in long-term liabilities from the previous quarter

The percent of total revenue contributed by each product category

A comparison of quarterly revenue versus the same quarter from the previous year

-

The reports must be updated with the latest data by 5 AM each day.

Question

You need to update the Power BI model to ensure that the analysts can quickly build drill-downs from business unit to product in a visual.

What should you create?

- A. a group
- B. a calculated table
- C. a hierarchy
- D. a calculated column

Correct Answer: C

Drill requires a hierarchy.

When a visual has a hierarchy, you can drill down to reveal additional details.

Reference:

<https://docs.microsoft.com/en-us/power-bi/consumer/end-user-drill>

Community vote distribution

C (100%)

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General Overview -

Northwind Traders is a specialty food import company.

The company recently implemented Power BI to better understand its top customers, products, and suppliers.

Business Issues -

The sales department relies on the IT department to generate reports in Microsoft SQL Server Reporting Services (SSRS). The IT department takes too long to generate the reports and often misunderstands the report requirements.

Existing Environment. Data Sources

Northwind Traders uses the data sources shown in the following table.

Name	Type	Data size
Source1	Azure SQL database	2 GB
Source2	Microsoft Excel spreadsheet	5 MB

Source2 is exported daily from a third-party system and stored in Microsoft SharePoint Online.

Existing Environment. Customer Worksheet

Source2 contains a single worksheet named Customer Details. The first 11 rows of the worksheet are shown in the following table.

CustomerID	CustomerCRMID	CompanyName	Address	City	Region	PostalCode	Country	Phone
1	ALFKI	Alfreds Futterkiste	Obere Str. 57	Berlin	DE	12209	Germany	030-0074321
2	ANATR	Ana Trujillo Emparedados y helados	Avda. de la Constitución 2222	México D.F.	MX	5021	Mexico	(5) 555-4729
3	ANTON	Antonio Moreno Taquería	Mataderos 2312	México D.F.	MX	5023	Mexico	(5) 555-3932
4	AROUT	Around the Horn	120 Hanover Sq.	London	UK	WA1 1DP	UK	(171) 555-7788
5	BERGS	Berglunds snabbköp	Berguvsvägen 8	Luleå	SWE	S-958 22	Sweden	0921-12 34 65
6	BLAUS	Blauer See Delikatessen	Forsterstr. 57	Mannheim	DE	68306	Germany	0621-08460
7	BLONP	Blondesdssl père et fils	24, place Kléber	Strasbourg	FRA	67000	France	88.60.15.31
8	BOLID	Bólido Comidas preparadas	C/ Araquil, 67	Madrid	SPN	28023	Spain	(91) 555 22 82
9	BONAP	Bon app'	12, rue des Bouchers	Marseille	FRA	13008	France	91.24.45.40
10	BOTTM	Bottom-Dollar Markets	23 Tsawassen Blvd.	Tsawassen	BC	T2F 8M4	Canada	(604) 555-4729

All the fields in Source2 are mandatory.

The Address column in Customer Details is the billing address, which can differ from the shipping address.

Existing Environment. Azure SQL Database

Source1 contains the following tables:

Orders

Products

Suppliers

Categories

Order Details

Sales Employees

The Orders table contains the following columns.

Name	Is nullable	Data type	Example value	Key
OrderID	No	Int	10248	Primary key
CustomerID	Yes	NCHAR	VINET	<i>Not applicable</i>
OrderDate	Yes	Date	2021-01-04	<i>Not applicable</i>
RequiredDate	Yes	Date	2021-02-01	<i>Not applicable</i>
ShippedDate	Yes	Date	2021-01-16	<i>Not applicable</i>
Freight	Yes	Decimal	32.38	<i>Not applicable</i>
ShipName	Yes	NVARCHAR	Vins et alcools Chevalier	<i>Not applicable</i>
ShipAddress	Yes	NVARCHAR	59 rue de l'Abbaye	<i>Not applicable</i>
ShipCity	Yes	NVARCHAR	Reims	<i>Not applicable</i>
ShipRegion	Yes	NVARCHAR	FRA	<i>Not applicable</i>
ShipPostalCode	Yes	NVARCHAR	51100	<i>Not applicable</i>
ShipCountry	Yes	NVARCHAR	France	<i>Not applicable</i>

The Order Details table contains the following columns.

Name	Is nullable	Data type	Example value	Key
OrderID	No	Int	10248	Foreign key to Orders
ProductID	No	Int	11	Foreign key to Products
UnitPrice	No	Decimal	14	<i>Not applicable</i>
Quantity	No	Smallint	12	<i>Not applicable</i>
Discount	No	Decimal	0.15	<i>Not applicable</i>

The address in the Orders table is the shipping address, which can differ from the billing address.

The Products table contains the following columns.

Name	Is nullable	Data type	Example value	Key
ProductID	No	Int	11	Primary key
ProductName	No	NVARCHAR	Queso Cabrales	<i>Not applicable</i>
SupplierID	Yes	Int	5	Foreign key to Suppliers
CategoryID	Yes	Int	4	Foreign key to Categories
QuantityPerUnit	Yes	NVARCHAR	1 kg pkg.	<i>Not applicable</i>
Discontinued	No	Bit	0	<i>Not applicable</i>

The Categories table contains the following columns.

Name	Is nullable	Data type	Example value	Key
CategoryID	No	int	4	Primary key
CategoryName	No	nvarchar	Dairy Products	<i>Not applicable</i>
Description	Yes	nvarchar	Cheeses	<i>Not applicable</i>

The Suppliers table contains the following columns.

Name	Is nullable	Data type	Example value	Key
SupplierID	No	Int	5	Primary key
CompanyName	No	NVARCHAR	Cooperativa de Quesos 'Las Cabras'	<i>Not applicable</i>
Address	Yes	NVARCHAR	Calle del Rosal 4	<i>Not applicable</i>
City	Yes	NVARCHAR	Oviedo	<i>Not applicable</i>
Region	Yes	NVARCHAR	Asturias	<i>Not applicable</i>
PostalCode	Yes	NVARCHAR	33007	<i>Not applicable</i>
Country	Yes	NVARCHAR	Spain	<i>Not applicable</i>
Phone	Yes	NVARCHAR	(98) 598 76 54	<i>Not applicable</i>

The Sales Employees table contains the following columns.

Name	Is nullable	Data type	Example value	Key
EmployeeID	No	Int	1	Primary key
LastName	No	NVARCHAR	Davolio	<i>Not applicable</i>
FirstName	No	NVARCHAR	Nancy	<i>Not applicable</i>
Title	Yes	NVARCHAR	Sales Representative	<i>Not applicable</i>
HireDate	Yes	Date	2015-02-01	<i>Not applicable</i>
Region	Yes	NVARCHAR	WA	<i>Not applicable</i>
Country	Yes	NVARCHAR	USA	<i>Not applicable</i>
EmailAddress	No	NVARCHAR	ndavolio@northwindtraders.com	<i>Not applicable</i>

Each employee in the Sales Employees table is assigned to one sales region. Multiple employees can be assigned to each region.

Requirements. Report Requirements

Northwind Traders requires the following reports:

Top Products

Top Customers

On-Time Shipping

The Top Customers report will show the top 20 customers based on the highest sales amounts in a selected order month or quarter, product category, and sales region.

The Top Products report will show the top 20 products based on the highest sales amounts sold in a selected order month or quarter, sales region, and product category. The report must also show which suppliers provide the top products.

The On-Time Shipping report will show the following metrics for a selected shipping month or quarter:

The percentage of orders that were shipped late by country and shipping region

Customers that had multiple late shipments during the last quarter

Northwind Traders defines late orders as those shipped after the required shipping date.

The warehouse shipping department must be notified if the percentage of late orders within the current month exceeds 5%.

The reports must show historical data for the current calendar year and the last three calendar years.

Requirements. Technical Requirements

Northwind Traders identifies the following technical requirements:

A single dataset must support all three reports.

The reports must be stored in a single Power BI workspace.

Report data must be current as of 7 AM Pacific Time each day.

The reports must provide fast response times when users interact with a visualization.

The data model must minimize the size of the dataset as much as possible, while meeting the report requirements and the technical requirements.

Requirements. Security Requirements

Access to the reports must be granted to Azure Active Directory (Azure AD) security groups only. An Azure AD security group exists for each department.

The sales department must be able to perform the following tasks in Power BI:

Create, edit, and delete content in the reports.

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Assign Azure AD groups role-based access to the reports workspace.

Users in the sales department must be able to access only the data of the sales region to which they are assigned in the Sales Employees table.

Power BI has the following row-level security (RLS) Table filter DAX expression for the Sales Employees table.

[EmailAddress] = USERNAME()

RLS will be applied only to the sales department users. Users in all other departments must be able to view all the data.

Question

HOTSPOT -

You need to create the Top Customers report.

Which type of filter should you use, and at which level should you apply the filter? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Filter type:

Top N
Basic
Advanced

Level:

Page
Visual
Report

Correct Answer:

Answer Area

Filter type:

Top N
Basic
Advanced

Level:

Page
Visual
Report

Box 1: Top N -

The Top Customers report will show the top 20 customers based on the highest sales amounts in a selected order month or quarter, product category, and sales region.

Box 2: Visual -

The reports must show historical data for the current calendar year and the last three calendar years.

Applying specific measures to the visual-level filter of a visualization is a very powerful technique to completely customize the items shown in a report. The presence of this filter requires special measures in order to display values related to items not included in the visual level filter.

Reference:

<https://www.sqlbi.com/articles/filtering-the-top-3-products-for-each-category-in-power-bi/>

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RLS will be applied only to the sales department users. Users in all other departments must be able to view all the data.

Question

You need to create the On-Time Shipping report. The report must include a visualization that shows the percentage of late orders.

Which type of visualization should you create?

- A. pie chart
- B. scatterplot
- C. bar chart

Correct Answer: C

The On-Time Shipping report will show the following metrics for a selected shipping month or quarter:

The percentage of orders that were shipped late by country and shipping region

Bar and column charts are some of the most widely used visualization charts in Power BI. They can be used for one or multiple categories. Both these chart types represent data with rectangular bars, where the size of the bar is proportional to the magnitude of data values.

Reference:

<https://www.pluralsight.com/guides/bar-and-column-charts-in-power-bi>

Community vote distribution

C (64%) A (36%)

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Overview -

Litware, Inc. is an online retailer that uses Power BI.

Litware plans to leverage data from an Azure SQL database that stores data for the company's live e-commerce website.

Litware uses Azure Active Directory (Azure AD) to authenticate users.

Existing Environment. Sales Data

Litware has online sales data that has the SQL schema shown in the following table.

Table name	Column name	Data type
Sales_Region	region_id	Integer
	name	Varchar
Region_Manager	region_id	Integer
	manager_id	Integer
Sales_Manager	sales_manager_id	Integer
	name	Varchar
	username	Varchar
Manager	manager_id	Integer
	name	Varchar
Sales	sales_id	Integer
	sales_date_id	Integer
	sales_amount	Float
	customer_id	Integer
	sales_ship_date_id	Integer
	region_id	Varchar
Date	date_id	Integer
	date	Date
	month	Integer
	week	Integer
	year	Integer
Weekly_Returns	week_id	Integer
	total_returns	Float
	sales_region_id	Varchar
Targets	target_id	Integer
	sales_target	Decimal
	date_id	Integer
	region_id	Integer

In the Date table, the date_id column has a format of yyyyymmdd and the month column has a format of yyymmm.

The week column in the Date table and the week_id column in the Weekly_Returns table have a format of yyyyww.

In the Sales table, the sales_id column represents a unique transaction.

The region id column can be managed by only one sales manager.

Existing Environment. Data Concerns

You are concerned with the quality and completeness of the sales data. You must ensure that negative and missing sales_amount values do NOT contribute to the total sales amount calculation.

Existing Environment. Reporting Requirements

Litware identifies the following reporting requirements:

Executives require a visual that shows sales by region.

Executives require a visual that shows returns by region manager and the sales managers that report to them.

The sales managers must be able to see only the sales data of their respective region.

The sales managers require a visual to analyze sales performance versus sales targets.

The sales department requires reports that contain the number of sales transactions.

Users must be able to see the month in each report as shown in the following example: Feb 2020.

The customer service department requires a visual that can be filtered by both sales month and ship month independently.

The maximum allowed latency to include transactions in reports is five minutes.

Question

HOTSPOT -

You need to create a KPI visualization to meet the reporting requirements of the sales managers.

How should you create the visualization? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Indicator:

Date[month]
Sales[sales_amount]
Sales[sales_id]
Targets[sales_target]
Weekly_Returns[total_returns]

Trend axis:

Date[month]
Sales[sales_amount]
Sales[sales_id]
Targets[sales_target]
Weekly_Returns[total_returns]

Target goals:

Date[month]
Sales[sales_amount]
Sales[sales_id]
Targets[sales_target]
Weekly_Returns[total_returns]

Answer Area

Correct Answer:

Indicator:	<table border="1"><tr><td>Date[month]</td></tr><tr><td>Sales[sales_amount]</td></tr><tr><td>Sales[sales_id]</td></tr><tr><td>Targets[sales_target]</td></tr><tr><td>Weekly_Returns[total_returns]</td></tr></table>	Date[month]	Sales[sales_amount]	Sales[sales_id]	Targets[sales_target]	Weekly_Returns[total_returns]
Date[month]						
Sales[sales_amount]						
Sales[sales_id]						
Targets[sales_target]						
Weekly_Returns[total_returns]						
Trend axis:	<table border="1"><tr><td>Date[month]</td></tr><tr><td>Sales[sales_amount]</td></tr><tr><td>Sales[sales_id]</td></tr><tr><td>Targets[sales_target]</td></tr><tr><td>Weekly_Returns[total_returns]</td></tr></table>	Date[month]	Sales[sales_amount]	Sales[sales_id]	Targets[sales_target]	Weekly_Returns[total_returns]
Date[month]						
Sales[sales_amount]						
Sales[sales_id]						
Targets[sales_target]						
Weekly_Returns[total_returns]						
Target goals:	<table border="1"><tr><td>Date[month]</td></tr><tr><td>Sales[sales_amount]</td></tr><tr><td>Sales[sales_id]</td></tr><tr><td>Targets[sales_target]</td></tr><tr><td>Weekly_Returns[total_returns]</td></tr></table>	Date[month]	Sales[sales_amount]	Sales[sales_id]	Targets[sales_target]	Weekly_Returns[total_returns]
Date[month]						
Sales[sales_amount]						
Sales[sales_id]						
Targets[sales_target]						
Weekly_Returns[total_returns]						

The sales managers require a visual to analyze sales performance versus sales targets.

Box 1: Sales[sales_amount]

Value; The main measure which we want to evaluate

Example:

$\text{Sales} = \text{sum}(\text{FactInternetSales}[\text{SalesAmount}])$

Box 2: Date[month]

Trend; How Value performs in a time period, is it going upward, downward?

You can use Months as trend axis.

Box 3: Targets[sales_target]

Target; What we want to compare the Value with

Reference:

<https://radacad.com/kpi-visual-in-power-bi-explained>

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Overview -

Litware, Inc. is an online retailer that uses Power BI.

Litware plans to leverage data from an Azure SQL database that stores data for the company's live e-commerce website.

Litware uses Azure Active Directory (Azure AD) to authenticate users.

Existing Environment. Sales Data

Litware has online sales data that has the SQL schema shown in the following table.

Table name	Column name	Data type
Sales_Region	region_id	Integer
	name	Varchar
Region_Manager	region_id	Integer
	manager_id	Integer
Sales_Manager	sales_manager_id	Integer
	name	Varchar
	username	Varchar
Manager	manager_id	Integer
	name	Varchar
Sales	sales_id	Integer
	sales_date_id	Integer
	sales_amount	Float
	customer_id	Integer
	sales_ship_date_id	Integer
	region_id	Varchar
Date	date_id	Integer
	date	Date
	month	Integer
	week	Integer
	year	Integer
Weekly_Returns	week_id	Integer
	total_returns	Float
	sales_region_id	Varchar
Targets	target_id	Integer
	sales_target	Decimal
	date_id	Integer
	region_id	Integer

In the Date table, the date_id column has a format of yyyyymmdd and the month column has a format of yyymmm.

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The customer service department requires a visual that can be filtered by both sales month and ship month independently.

The maximum allowed latency to include transactions in reports is five minutes.

Question

HOTSPOT -

You publish the dataset to powerbi.com.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Statements	Yes	No
You need an on-premises data gateway to refresh the dataset.	<input type="radio"/>	<input type="radio"/>
You need to configure a scheduled refresh of the dataset.	<input type="radio"/>	<input type="radio"/>
You can use Basic authentication on the dataset to connect to the data.	<input type="radio"/>	<input type="radio"/>

Correct Answer:

Answer Area

Statements	Yes	No
You need an on-premises data gateway to refresh the dataset.	<input checked="" type="radio"/>	<input type="radio"/>
You need to configure a scheduled refresh of the dataset.	<input checked="" type="radio"/>	<input type="radio"/>
You can use Basic authentication on the dataset to connect to the data.	<input type="radio"/>	<input checked="" type="radio"/>

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	username	Varchar
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	name	Varchar
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	sales_date_id	Integer
	sales_amount	Float
	customer_id	Integer
	sales_ship_date_id	Integer
	region_id	Varchar
Date	date_id	Integer
	date	Date
	month	Integer
	week	Integer
	year	Integer
Weekly_Returns	week_id	Integer
	total_returns	Float
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Targets	target_id	Integer
	sales_target	Decimal
	date_id	Integer
	region_id	Integer

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The customer service department requires a visual that can be filtered by both sales month and ship month independently.

The maximum allowed latency to include transactions in reports is five minutes.

Question

What should you create to meet the reporting requirements of the sales department?

- A. a measure column that uses the following formula: `SUMX(FILTER('Sales', 'Sales'[sales_amount] > 0)),[sales_amount])`
- B. a calculated column that uses the following formula: `ABS(Sales[sales_amount])`
- C. a calculated column that uses the following formula: `IF(ISBLANK(Sales[sales_amount]),0, (Sales[sales_amount]))`
- D. a measure that uses the following formula: `SUM(Sales[sales_amount])`

Correct Answer: A

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All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Contoso, Ltd. is a manufacturing company that produces sports equipment. Contoso holds quarterly board meetings for which financial analysts manually prepare

Microsoft Excel reports, including balance sheets and profit and loss statements for each of the company's four business units.

Existing Environment -

Data and Sources -

Data for the reports comes from the sources shown in the following table.

Data type	Description
Azure SQL database	Detailed revenue, cost, and expense data Uses a public endpoint
Microsoft Dynamics 365 Business Central	Summary balance sheet data and product catalog data

The balance sheet data is unrelated to the profit and loss results other than they both relate to dates.

Balance Sheet Data -

The balance sheet data is imported and includes the final monthly balances of each account in the format shown in the following table.

AccountCategory	Account	Month	Year	BalanceAmount
Current assets	Cash and cash equivalents	3	2020	20,289
Current assets	Inventories	3	2020	4,855
Long-term liabilities	Long-term debt	3	2020	50,207
Current assets	Cash and cash equivalents	2	2020	28,209
Current assets	Inventories	2	2020	5,845
Long-term liabilities	Long-term debt	2	2020	49,887
Current assets	Cash and cash equivalents	1	2020	25,567
Current assets	Inventories	1	2020	65,998
Long-term liabilities	Long-term debt	1	2020	46,124

The balance sheet data always includes a row for each account for each month.

Product Catalog Data -

The product catalog shows how products roll up to product categories, which roll up to the business units. The product list is provided in the

format shown in the following table.

Product ID	Product name	Product description	Product category	Business unit
HL-U509-R	Sport-100 Helmet, Red	Universal fit, well-vented, lightweight, snap-on visor	Accessories	Unit A
RA-H123	Hitch Rack - 4-Bike	Carries four bikes securely, steel construction, fits a 2-inch receiver hitch	Accessories	Unit A
BK-M18S-40	Mountain-500 Silver, 40	Suitable for any type of riding, on- or off-road, fits any budget, smooth-shifting with a comfortable ride	Bikes	Unit B
FD-2342	Front Derailleur	Wide-link design	Components	Unit A

Revenue data is provided at the date and product level. Expense data is provided at the date and department level.

Business Issues -

Historically, it has taken two analysts a week to prepare the reports for the quarterly board meetings. Also, there is usually at least one issue each quarter where a value in a report is wrong because of a bad cell reference in an Excel formula. On occasion, there are conflicting results in the reports because the products and departments that roll up to each business unit are not defined consistently.

Requirements -

Planned Changes -

Contoso plans to automate and standardize the quarterly reporting process by using Power BI. The company wants to reduce how long it takes to populate the reports to less than two days. The company wants to create common logic for the business units, products, and departments. The logic will be used across all reports, including but not limited to the quarterly reporting for the board.

Technical Requirements -

Contoso wants the reports and datasets refreshed with minimum manual effort.

The company wants to provide the board with a single package of reports that will contain custom navigation and links to supplementary information.

Maintenance, including manually updating data and access, must be minimized as much as possible.

Security Requirements -

The reports must be made available to the board from powerbi.com. An Azure Active Directory (Azure AD) group will be used to share information with the board.

Contoso identifies the following security requirements for analyst access:

Analysts must be able to access all balance sheet and product catalog data.

Analysts must be able to access only the profit and loss data of their respective business unit.

Analysts must be able to create new reports from the dataset that contains the profit and loss data, but the reports built by the analysts must NOT be included in the quarterly reports for the board.

Analysts must NOT be able to share the quarterly reports with anyone.

Analysts must NOT be able to make new reports by using the balance sheet data.

Report Requirements -

You plan to relate the balance sheet table to a date table in Power BI in a many-to-one relationship based on the last day of the month. At least one of the balance sheet reports in the quarterly reporting package must show the ending balances for the quarter, as well as for the previous quarter.

The date table will contain the columns shown in the following table.

Column name	Data type	Sample value
Date	Date	4-Apr-2020
Month	Integer	202004
Month Name	Text	February
Quarter	Integer	20202
Year	Integer	2020

The definitions and attributes for the products, departments, and business units must be consistent across all the reports.

The board must be able to get the following information from the quarterly reports:

Revenue trends over time

The ending balances of each account

Changes in long-term liabilities from the previous quarter

The percent of total revenue contributed by each product category

A comparison of quarterly revenue versus the same quarter from the previous year

-

The reports must be updated with the latest data by 5 AM each day.

Question

HOTSPOT -

You need to grant access to the business unit analysts.

What should you configure? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Permissions required in powerbi.com:

▼
Access permissions to an app
The Member role to the workspace
The Viewer role to the workspace

Permissions for the profit and loss dataset:

▼
Build
Delete
Reshare

Correct Answer:

Answer Area

Permissions required in powerbi.com:

▼
Access permissions to an app
The Member role to the workspace
The Viewer role to the workspace

Permissions for the profit and loss dataset:

▼
Build
Delete
Reshare

Box 1: App permissions -

App permissions.

This section describes the kinds of permissions you can grant to the specified users

* Allow all users to connect to the app's underlying datasets using the Build permission

This option grants build permission on the app's underlying datasets.

* Etc.

Note: Contoso identifies the following security requirements for analyst access:

- Analysts must be able to access all balance sheet and product catalog data.
- Analysts must be able to access only the profit and loss data of their respective business unit.
- Analysts must be able to create new reports from the dataset that contains the profit and loss data, but the reports built by the analysts must NOT be included in the quarterly reports for the board.
- Analysts must NOT be able to share the quarterly reports with anyone.
- Analysts must NOT be able to make new reports by using the balance sheet data.

Incorrect:

Not Member role: Would grant too much permissions.

Not Viewer role: Need more granular permissions.

Box 2: Reshare -

App permissions,

This section describes the kinds of permissions you can grant to the specified users

* Allow users to share the app and the app's underlying datasets using the share permission

This option grants users reshare permission on the app's underlying datasets.

* Etc.

Note: Analysts must be able to create new reports from the dataset that contains the profit and loss data, but the reports built by the analysts must NOT be included in the quarterly reports for the board.

Reference:

<https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-create-distribute-apps>

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FD-2342	Front Derailleur	Wide-link design	Components	Unit A

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A comparison of quarterly revenue versus the same quarter from the previous year

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The reports must be updated with the latest data by 5 AM each day.

Question

HOTSPOT -

How should you distribute the reports to the board? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Grant access by:

Sharing individual reports	▼
Using a workspace membership	▼
Using an app	▼

Grant access to:

A dynamic distribution list	▼
A mail-enabled security group in Azure Active Directory	▼
Individual user emails	▼

Correct Answer:

Answer Area

Grant access by:

Sharing individual reports	▼
Using a workspace membership	▼
Using an app	▼

Grant access to:

A dynamic distribution list	▼
A mail-enabled security group in Azure Active Directory	▼
Individual user emails	▼

Note 1: The company wants to provide the board with a single package of reports that will contain custom navigation and links to supplementary information.

Sharing is the easiest way to give people access to your reports and dashboards in the Power BI service. You can share with people inside or outside your organization."

Where you can share:

You can share reports and dashboards from My Workspace.

You can share from workspaces other than My Workspace, if you have the Admin or Member role in the workspace. If you have the Contributor or Viewer role, you can share if you have Reshare permissions.

You can share from the Power BI mobile apps.

You can't share directly from Power BI Desktop.

Box 2: A mail-enabled security group in Azure Active Directory

Mail-Enabled Security Group -

This group also contains a list of email addresses of members and can also be used to control access to OneDrive and SharePoint.

The Mail-Enabled Security Group can be created in the Office 365 Admin Portal

Note: The reports must be made available to the board from powerbi.com. An Azure Active Directory (Azure AD) group will be used to share information with the board.

Incorrect:

* Distribution Group

This group can also be called and Distribution List. The Distribution Group is a group which contains a list of email addresses of members, all of whom will be sent an email when an email is sent to the distribution groups email address.

The Distribution Group can be created in the Azure Active Directory

Reference:

<https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-share-dashboards> <https://www.fourmoo.com/2020/04/01/power-bi-which-groups-can-be-used-to-set-permissions-in-power-bi/>

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Overview -

Contoso, Ltd. is a manufacturing company that produces sports equipment. Contoso holds quarterly board meetings for which financial analysts manually prepare

Microsoft Excel reports, including balance sheets and profit and loss statements for each of the company's four business units.

Existing Environment -

Data and Sources -

Data for the reports comes from the sources shown in the following table.

Data type	Description
Azure SQL database	Detailed revenue, cost, and expense data Uses a public endpoint
Microsoft Dynamics 365 Business Central	Summary balance sheet data and product catalog data

The balance sheet data is unrelated to the profit and loss results other than they both relate to dates.

Balance Sheet Data -

The balance sheet data is imported and includes the final monthly balances of each account in the format shown in the following table.

AccountCategory	Account	Month	Year	BalanceAmount
Current assets	Cash and cash equivalents	3	2020	20,289
Current assets	Inventories	3	2020	4,855
Long-term liabilities	Long-term debt	3	2020	50,207
Current assets	Cash and cash equivalents	2	2020	28,209
Current assets	Inventories	2	2020	5,845
Long-term liabilities	Long-term debt	2	2020	49,887
Current assets	Cash and cash equivalents	1	2020	25,567
Current assets	Inventories	1	2020	65,998
Long-term liabilities	Long-term debt	1	2020	46,124

The balance sheet data always includes a row for each account for each month.

Product Catalog Data -

The product catalog shows how products roll up to product categories, which roll up to the business units. The product list is provided in the format shown in the following table.

Product ID	Product name	Product description	Product category	Business unit
HL-U509-R	Sport-100 Helmet, Red	Universal fit, well-vented, lightweight, snap-on visor	Accessories	Unit A
RA-H123	Hitch Rack - 4-Bike	Carries four bikes securely, steel construction, fits a 2-inch receiver hitch	Accessories	Unit A
BK-M18S-40	Mountain-500 Silver, 40	Suitable for any type of riding, on- or off-road, fits any budget, smooth-shifting with a comfortable ride	Bikes	Unit B
FD-2342	Front Derailleur	Wide-link design	Components	Unit A

Revenue data is provided at the date and product level. Expense data is provided at the date and department level.

Business Issues -

Historically, it has taken two analysts a week to prepare the reports for the quarterly board meetings. Also, there is usually at least one issue each quarter where a value in a report is wrong because of a bad cell reference in an Excel formula. On occasion, there are conflicting results in the reports because the products and departments that roll up to each business unit are not defined consistently.

Requirements -

Planned Changes -

Contoso plans to automate and standardize the quarterly reporting process by using Power BI. The company wants to reduce how long it takes to populate the reports to less than two days. The company wants to create common logic for the business units, products, and departments. The logic will be used across all reports, including but not limited to the quarterly reporting for the board.

Technical Requirements -

Contoso wants the reports and datasets refreshed with minimum manual effort.

The company wants to provide the board with a single package of reports that will contain custom navigation and links to supplementary information.

Maintenance, including manually updating data and access, must be minimized as much as possible.

Security Requirements -

The reports must be made available to the board from powerbi.com. An Azure Active Directory (Azure AD) group will be used to share information with the board.

Contoso identifies the following security requirements for analyst access:

Analysts must be able to access all balance sheet and product catalog data.

Analysts must be able to access only the profit and loss data of their respective business unit.

Analysts must be able to create new reports from the dataset that contains the profit and loss data, but the reports built by the analysts must NOT be included in the quarterly reports for the board.

Analysts must NOT be able to share the quarterly reports with anyone.

Analysts must NOT be able to make new reports by using the balance sheet data.

Report Requirements -

You plan to relate the balance sheet table to a date table in Power BI in a many-to-one relationship based on the last day of the month. At least one of the balance sheet reports in the quarterly reporting package must show the ending balances for the quarter, as well as for the previous quarter.

The date table will contain the columns shown in the following table.

Column name	Data type	Sample value
Date	Date	4-Apr-2020
Month	Integer	202004
Month Name	Text	February
Quarter	Integer	20202
Year	Integer	2020

The definitions and attributes for the products, departments, and business units must be consistent across all the reports.

The board must be able to get the following information from the quarterly reports:

Revenue trends over time

The ending balances of each account

Changes in long-term liabilities from the previous quarter

The percent of total revenue contributed by each product category

A comparison of quarterly revenue versus the same quarter from the previous year

▪

The reports must be updated with the latest data by 5 AM each day.

Question

You need to ensure that the data is updated to meet the report requirements. The solution must minimize configuration effort.

What should you do?

- A. From each report in powerbi.com, select Refresh visuals.
- B. From Power BI Desktop, download the PBIX file and refresh the data.
- C. Configure a scheduled refresh without using an on-premises data gateway.
- D. Configure a scheduled refresh by using an on-premises data gateway.

Correct Answer: D

The reports must be updated with the latest data by 5 AM each day.

You have options available with the scheduled refresh for the On-premises data gateway (personal mode) and the On-premises data gateway.

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/refresh-scheduled-refresh>

Community vote distribution

C (100%)

Introductory Info

Case Study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

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A comparison of quarterly revenue versus the same quarter from the previous year

-

The reports must be updated with the latest data by 5 AM each day.

Question

What is the minimum number of Power BI datasets needed to support the reports?

- A. a single imported dataset
- B. two imported datasets
- C. two DirectQuery datasets
- D. a single DirectQuery dataset

Correct Answer: B

Note:

Analysts must be able to create new reports from the dataset that contains the profit and loss data, but the reports built by the analysts must NOT be included in the quarterly reports for the board.

Analysts must NOT be able to make new reports by using the balance sheet data.

Two datasets are required.

Need DAX for: A comparison of quarterly revenue versus the same quarter from the previous year. Also see other questions in this Case study which uses DAX expressions.

Incorrect:

Not DirectQuery: DirectQuery Limited Transformations.

You are not able to use all of the normal Power Query transformation features. Particular DAX functions are not available in this method as well.

So if your data is poorly structured or needing lots of transformation, sometimes Direct Query is not a viable option.

Reference:

<https://www.tessellationtech.io/import-vs-direct-query-power-bi/>

Community vote distribution

B (67%)

A (33%)