

PL-300 ANALYZING DATA WITH PBI UPDATED Part - III



Microsoft | Power BI

QUESTION 2

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.

Values	Answer Area
<div>Calendar</div>	Date =
<div>Calendarauto</div>	var var1= <div></div> (<div></div> ())
<div>Date</div>	return
<div>Eomonth</div>	<div>Value</div>
<div>Today</div>	(Date (var1 -9, 01, 01),
<div>Year</div>	Date (var1, 12, 31)
)

YEAR, Today, Calendar

Testlet 1

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 3

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.

Answer Area

Category Revenue Contribution =

Var AllcategoryRev

(Sum ([Revenue]),

(ProductList[ProductCategory]))

RETURN

(Sum([Revenue]), All CategoryRev)

- A) CALCULATE
- B) CALCULATE TABLE

- A) ALL

B) ALL SELECTED

A) DIVIDE

B) SUM

ANSWER

CALCULATE, ALL, DIVIDE

QUESTION 4

One the Profit and loss dataset is created, which four actions should you sequence to ensure that the Business unit analysts see the appropriate profit and loss data? To answer, move the appropriate actions to the answer area and arrange them in the correct order.

Actions.

1. From powerbi.com, assign the analysts the Contributor role to the workspace.
2. From Power BI Desktop, create four roles
3. From Power BI Desktop, Add a table Filter DAX Expression to the roles
4. From Power BI Desktop, Publish the dataset to Powerbi.com.
5. From powerbi.com, add roles member to the roles

2,3,4,5

QUESTION 6

You need to update the Power BI model to ensure that the analysts can build drill- downs from business unit to product in a visual.

What should you create?

- ☐ A. a calculated table
- ☐ B. a calculated column
- ☐ C. a group
- ☒ D. a hierarchy

QUESTION 7

You need to ensure that the data is updated to meet the report requirements. The solutions must minimize configuration effort.

What should you do?

- ☐ A. From each report in powerbi.com, select **Refresh visuals**
- ☒ **B. Configure a scheduled refresh without using an on-premises data gateway**
- ☐ C. Configure a scheduled refresh by using an on-premises data gateway
- ☐ D. From Power BI Desktop, download the PBIX file and refresh the data

QUESTION 8

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 relationships cardinality?

- ☐ A. Many to many
- ☐ B. One to one
- ☒ **C. One to many**
- ☐ D. Many to one

QUESTION 9

You are Building a Power BI report.

User will view the report by using their mobile device.

You need to configure the report to display data based on each user's locations.

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

- ☐ A. Create a hierarchy for column of the geography data type
- ☐ B. From Power Query Editor, detect the data types of the relevant columns
- ☒ **C. Use the Columns of the geography data type in all visuals**
- ☐ D. For the relevant columns, set synonyms to match common geographical terms
- ☒ **E. In data Category, set the geographic data category for the relevant columns**

QUESTION 11

You Have a Power BI dashboard named Dashboard that contains a TileA . TileA contains a treemap visual from a report name 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 the answer are and arrange them in the correct order.

Actions

From ReportA, select the treemap visual options, and the select Spotlight

From ReportA, select **Get Insights**

From DashboardA, select **TileA**, to open ReportA

Answer Area

From DashboardA, select **TileA** options, and then select **View Insights**

From Focus mode, review the generated visuals

From Focus mode, pin the relevant visual to Dashboard

QUESTION 12

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 the dashboard theme and pin each chart as a tile
- ☒ B. Pin the report page as a live tile
- ☐ C. Pin each chart as a tile
- ☐ D. Edit interactions in the report and set all interactions to **Filter**

QUESTION 13

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

Which type of visualization should you use?

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

QUESTION 14

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.

QUESTION 15

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 scales
- ☒ B. Rules
- ☐ C. Filled value

QUESTION 16

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.

Values

ALL

CALCULATE

COUNTROWS

EVALUATE

SUM

SUMX

Answer Area

Count Email =

VAR Email = (Email Address)

RETURN

CALCULATE

(

COUNTROWS

(Customer),

ALL

(Customer),

Customer (Email Address) * Email

)

QUESTION 17

You have a dataset that is used in frequently and refreshes every hour.

You receive a notification that the refresh was disabled due to inactivity.

Which two actions will cause the scheduled refresh scheduled to resume? Each correct answer presents a complete solution.

- ☐ A. From PowerShell, run the `get – powerbireport cmdlet`
- ☒ B. From the Power BI service, open a dashboard that uses the dataset
- ☐ C. Enable query caching for the dataset
- ☒ D. From the Power BI service, open a report that uses the dataset
- ☐ E. Import the dataset to Microsoft Excel

QUESTION 18

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. Deploy an on-premises data gateway
- ☐ B. Create a subscription to the report
- ☐ C. Upload the Excel file to a Power BI workspace
- ☐ D. Edit the data source credentials

QUESTION 19

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.

1. Full outer
2. Inner
3. Left Anti
4. Left outer
5. Right anti
6. Right outer

ANSWER AREA

Left Table

Product

ProductSubcategory

Right Table

ProductSubCategory

ProductCategory

Join King

Inner

Left Outer

QUESTION 21

For the sales department at your company, you publish a Power BI report the 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 dataflows
- ☐ B. an Excel workbook
- ☐ C. a Sharepoint folder
- ☒ **D. Power BI dataset**

QUESTION 22

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

Department	Stage	School 1	School 2	School 3	School 4
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, more the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions

Group by [Department], [School1], [School2], [School3], [School4] and create a new column named (Avg Score) that uses the AVERAGE function on the [Stage]column.

Select and unpivot the [Department] and [Stage] columns.

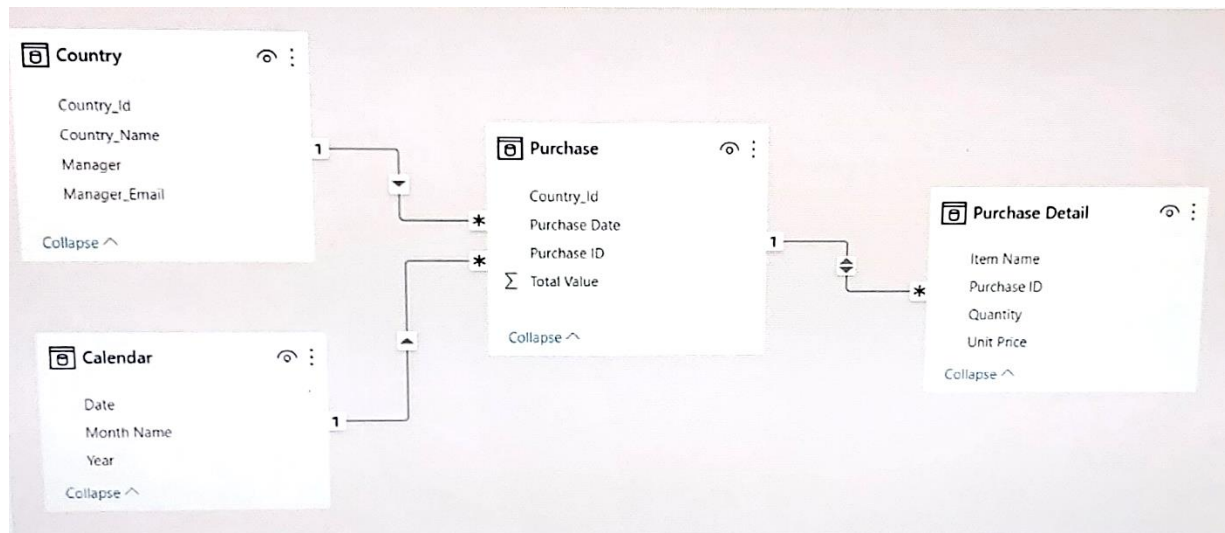
Answer Area

Select the [Department] and [Stage] columns and unpivot the other columns.

Rename the [Attribute] column as [School] and the [Value] column as [Score].

Group by [Department] and [School] and create a new column named [Avg Score] that uses the Average function on the [Score] column.

QUESTION 24



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.

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

QUESTION 25

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. Set the Data type of the Plant Image field to **Binary**
- ☐ B. From the Formatting tab, select **Values**, and then set URL icons to **ON** for the table
- ☒ C. Set the Data category of the Plant image field to **Image URL**
- ☐ D. Set the Data category of the Plant image field to **Web URL**

QUESTION 26

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.

Answer Area

Sales Previous Year =

Calculate (

[Total Sales],

SAMEPERIODLASTYEAR

(Date [date]))

QUESTION 27

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.

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

QUESTION 28

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 table:

Table name	Column name	Data type
Sales - Region	region – id	Interger
	name	Varchar
Region - Manager	region – id	Interger
	manager – id	Interger
Sales - Manager	sales – manager – id	Interger
	name	Varchar
	region – id	Interger
Manager	manager - id	Interger
	name	Varchar

The model has the following relationships:

- There is a one-to one relationships 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 Sales_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 associate 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 correct order.

Actions

1.Merge [Sales_Region] and [Region_Manager] by using a right join as a new query named [Sales_Region_and_Region_Manager]

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

3. Merge [Sales_Region] and [Sales_Manager] by using an inner join

4. Merge [Region_Manager] and [Manager] by using an inner join

6. Merge [Sales_Region] and [Sales_Manager] by using a inner join as a new query named [Sales_Region_and_Manager]

7. Merge [Sales_Manager] and [Sales_Region] by using a left join

2,3,5

QUESTION 29

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 question based on the contents of Excel1 and pin visuals based on their queries to 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 to correct order.

Actions

From Excel, create a named range by using the data in Excel1

From powerbi.com, pin a range from Excel 1 to DashboardA

From powerbi.com, add a tile for the Excel1 dataset to DashboardA

From Excel, format the data in Excel1 as a table

From powerbi.com, upload Excel1

From powerbi.com, import Excel1 as a dataset

Answer Area

1,5,2