SCENARIO

VanArsdel is a company that manufactures and sells sporting goods. The company has offices in the United States (US) and several other countries. Its sales comprise of US sales and International sales. VanArsdel's sales come from its owned manufactured products, as well as other manufacturers' products.

VanArsdel's US office stores the sales data on an Access database. VanArsdel International sales transactions are available as comma separated (CSV) files. They could be generated daily, either manually by someone, or automatically by an automated process. They are available in a dedicated folder. These CSV files have the same column structure as the sales table for the US sales that comes from the SQL Database.

You want to perform analysis on VanArsdel's worldwide sales data for the year 2000 to 2015. You need to bring all these data into Power BI Desktop before you can perform any analysis. Finally, you want to compare VanArsdel's country sales with the country population. You need to import the country population data from a less structured Excel report to Power BI.

Lab overview

Part 1

1. Download and extract the VanArsdel's Access database.

2. Start with a blank Power BI Desktop file.

3. Connect to the Access database by using Get Data and select the Access database file.

4. Select the following tables to be imported: bi_date, bi_geo, bi_manufacturer, bi_product, and bi_salesFact.

5. Edit the query before loading to the data model.

6. Filter the rows on the bi_salesFact query to include dates from January 1st, 2000. (Hint: Apply a Date filter in the Date column to import dates after December 31st, 1999. Before you can apply a date filter, you need to change the Date column's Data Type to Date).

7. Filter the rows on the bi_date query to include dates from January 1st, 2000. (Hint: Apply a Date filter in the Date column to import dates after December 31st, 1999. Before you can apply a date filter, you need to change the Date column's Data Type to Date).

8. Rename the queries as follows:

• bi_date: Date

• bi_geo: Locations

• bi_manufacturer: Manufacturers

• bi_product: Products

• bi_salesFact: Sales

9. Load the data into Power BI Desktop. This might take a few minutes.

10. Explore the imported data in the Data View.

Part 2

Continue with your Power BI file from the previous exercise. You want to create a Query for the International sales and append the Query to the Query from US Sales.

1.Download the zip file containing VanArsdel's international sales data and extract it to a folder. You should see 4 CSV files in the folder.

2.Import the data from the file folder by using the Get Data. To do this, click the Get Data / More option, select Folder and click Connect. Select the folder where you saved the 4 CSV files containing VanArsdel's international sales data.

3.Perform the following steps:

•Name the query International Sales.

•Select to combine (combined binaries) the content of those 4 files.

•Filter the rows that come from the header of the CSV files. (Hint: One way to do this is to filter out the Country column from records containing "Country").

•Filter the rows that are after December 31st, 1999.

4.Edit the Sales Query from the US Sales.

5.Append the International Sales Query to the Sales query from the US Sales.

6.In the Sales query, add a custom column named Country Name which takes the value of the Country column when it is not null and the value of "USA" when the Country column is null.

7.Remove the Country column.

8.Load the data into Power BI Desktop. This might take a few minutes.

9.Explore the imported data in the Data View.

10.Hide the International Sales table from report view.

Part 3

Continue with your Power BI file from the previous exercise. You want to import an Excel report containing population data for the countries that VanArsdel operates.

1.Download the zip file containing the Country Population data. (Data is a subset of the "World Data Bank's Population, total" dataset).

2.Import the data from the file folder by using the Get Data. To do this, click the Get Data / Excel option. Select the Excel file containing the Country Population data.

3.Edit the query and perform the following steps:

•Name the Query Country Population.

•Remove the first four rows of the table.

•Promote the row that represents the title of the column to the table headers.

•Transform the yearly columns to rows and name the resulting columns appropriately. (Hint: You might find the Unpivot Columns feature useful).

•Rename the resulting columns to Year and Population respectively.

•Filter out the year 1999.

•Set the Data Type of both the Year and Population columns to Whole Number.

4.Load the data into Power BI Desktop.

5.Explore the imported data in the Data View.