1. **Loading the dataset in Power Bi from diff source**

* Sales (folder by year)
* Categories (Excel)
* Geography (Excel)
* Product (CSV / Database)
* SalesRep (Excel)
* Subcategories (Excel)

1. **Transforming and cleaning data in power query**

In the Power Query Editor, select the Geography table. Right-click on the table and choose "Using First Row as Headers" to transform the first row into column headers.

In the Power Query Editor, select the SalesRep table. Right-click on the table and choose "Using First Row as Headers" to transform the first row into column headers.

Replacing "ID -" with NULL in the salesrepID column:

Select the salesrepID column.

Go to the "Transform" tab and choose "Replacing Values."

In the dialog box, enter "ID -" in the "Value To Find" field and leave the "Replace With" field empty.

Click "OK" to replace all occurrences of "ID -" with NULL.

In the Power Query Editor, select the SubCategory table.

Right-click on the table and choose "Using First Row as Headers" to transform the first row into column headers.

Replacing "ID -" with NULL in the Categorykey column:

Select the Categorykey column.

Go to the "Transform" tab and choose "Replacing Values."

In the dialog box, enter "ID -" in the "Value To Find" field and leave the "Replace With" field empty.

Click "OK" to replace all occurrences of "ID -" with NULL.

In the Power Query Editor, select the Sales table.

Select the Location column.

Go to the "Transform" tab and choose "Splitting Column" > "By Delimiter."

In the dialog box, enter ":" as the delimiter.

Click "OK" to split the column into two separate columns: Country and Town.

In the Power Query Editor, select the Product table.

Go to the "Home" tab and choose "Removing Rows" > "Removing Duplicates" to remove any duplicate rows.

In the Power Query Editor, select the Geography table.

Go to the "Adding Column" tab and choose "Creating Custom Column."

In the formula bar, enter "GeoKey" as the column name.

In the formula field, enter a unique identifier for each row, such as combining the country and town columns.

Click "OK" to add the GeoKey column to the table.

In the Power Query Editor, select the Sales table.

Go to the "Home" tab and choose "Merging Queries" > "Merging Queries as New."

In the dialog box, select the Geography table as the second table to merge with.

Choose the common column between the Sales and Geography tables (e.g., GeoKey).

Select only the GeoKey column from the Geography table and uncheck the country and town columns.

Click "OK" to merge the tables, creating a new table with the selected columns.

Close the Power Query Editor and return to Power BI Desktop.

In the "Fields" pane, review the relationships between the tables and ensure they are correctly established based on the common column names.

1. **Calculations and creating a new calendar table using DAX**

Date master = CALENDAR(FIRSTDATE(Sales[Date]),LASTDATE(Sales[Date]))

Year = YEAR(Datemaster[Date].[Date])

Month Name = FORMAT(Datemaster[Date],"MMM")

QTR = QUARTER(Datemaster[Date])

WeekNum = WEEKNUM(Datemaster[Date])

Weekday = FORMAT(Datemaster[Date],"DDD")

1. **DAX Calculations**

Calculating **Total Revenue** in Sales table, using the Product’s Retail Price, and multiplying it by the Units.

Total Revenue = Sales[Units]\*RELATED('Product'[RetailPrice])

Calculating **Total Cost** in Sales table, using the Product’s Standard Cost, and multiplying it by the Units.

Total Cost = Sales[Units]\*RELATED('Product'[StandardCost])

Calculating **Gross Profit** in Sales: Total Revenue – Total Cost

Gross Profit = Sales[Total Revenue]-Sales[Total Cost]

Created a new measure Total Rev

Total Revenue = Sales[Units]\*RELATED('Product'[RetailPrice])

Created a new measure previous quarter

Prev Qtr = calculate([Total Rev],PREVIOUSQUARTER(Datemaster[Date]))

Created a new measure QoQ Growth

QoQ Growth = ([Total Rev]-[Prev Qtr]/[Prev Qtr])

Created a new measure Total Profit

Total Profit = sum(Sales[Gross Profit])

Created a new measure Prev Month Profit

Prev Month Profit = CALCULATE([Total Profit],PREVIOUSMONTH(Datemaster[Date]))

Calculated a new measure Mom Growth

Mom Growth = ([Total Profit]-[Prev Month Profit])

**Added Text boxes, cards, cards, multi-row cards, slicers, rollers, waterfall chart, stacked column chart, pie, Line Chart and a donut chart to create a report.**