Business / Functional Requirement Document

1). Data Gathering/ Requirement:

Assemble a sales report with different visuals to best show the sales insights in maximum one-two page report. Feel free to use your imagination to best represent the data you have available.

1) Sales (Year Wise Fact Tables-given in a folder)
2) Categories (Dim Table)
3) Geography (Dim Table)
4) Product (Dim Table)
5) Sales Rep (Dim Table)
6) Subcategories (Dim Table)

Task 1.1:

Create a mechanism to load all the files from the sales folder onto a single Sales fact table. The mechanism needs to be resilient as:

-removing a file from the sales folder does not create an error for missing files.

-Adding a new yearly sales file will automatically be loaded in the fact query upon refresh.

2). Data Cleaning and Modeling:

Task 2.1:

Do the respective transformation to the sales fact table to split the country from city in the in the field “Location”. Make sure you set up the correct data type for all fields.

Task 2.2:

Create unique key (Geokey) in sales and geography table- (Create this by adding “Index column” in geography table first, then you can have it in sales table by merging sales and geography table. Note that after merging we only need Geokey from geography table.

Task 2.3:

The Dimensional queries SalesRep and subcategory need additional treatment. Some ID columns have the following format:

SalesRep ID
ID-6

ID-7
ID-5
ID-3
ID-2
ID-4

Create a function that removes the “ID- “part of these columns that you can invoke and reuse for these two queries to clean the IDs. Also, make sure that dimension tables have no duplicates.

Task 2.4:

Create a dedicated Date Table i.e., Datemaster for time intelligence functions.

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

Task 2.5:

Create the Data Model connecting all the fact, Datemaster, and dimension tables.

3). Dax Calculations:

Task 3.1:

Calculate the **Total Revenue** in sales table, using the Product’s Retail Price, and multiplying it by the units.

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

Task 3.2:

Calculate **Total Cost** in sales table, using the Product’s standard Cost, and multiplying it by the units.

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

Task 3.3:

Calculate **Gross Profit** in Sales table, Total Revenue-Total Cost.

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

Task 3.4:

Calculate a **Gross profit %** measure, using Gross Profit / Total Revenue.

Task 3.5:

Calculate a measure for AVG Sales per Month-this is the average sum of total Revenue per month based on the dates of actual sales.

Task 3.6:

Calculate the following time measures:

-Total Revenue

```
Total Revenue = SUM(Sales[Total Revenue])
```

-Total Revenue by QTR

```
CALCULATE ([Total Revenue],QUARTER(DateMaster[Date]))
```

-Previous QTR Revenue

```
CALCULATE ([Total Revenue],PREVIOUSQUARTER(DateMaster[Date]))
```

- QoQ Growth

```
= ([Total Revenue]- [Previous QTR Revenue])/[Previous QTR Revenue]
```

- Total Gross Profit

```
SUM (Sales[Gross Profit])
```

- Previous Month Gross Profit

```
CALCULATE ([Total Gross Profit], PREVIOUSMONTH(DateMaster[Date]))
```

- MoM Gross Profit Growth

```
([Total Gross Profit]-[Previous Month Gross Profit])/[Previous Month Gross Profit]
```

4). Visualization and Report Creation

Use the measures and calculations to assemble a sales report with different visuals to best show the sales insights in one-two page report/ dashboard. Feel free to use your imagination to best represent the data you have available.

If you plot Month on x-axis, make sure the months are sorted from Jan-Dec