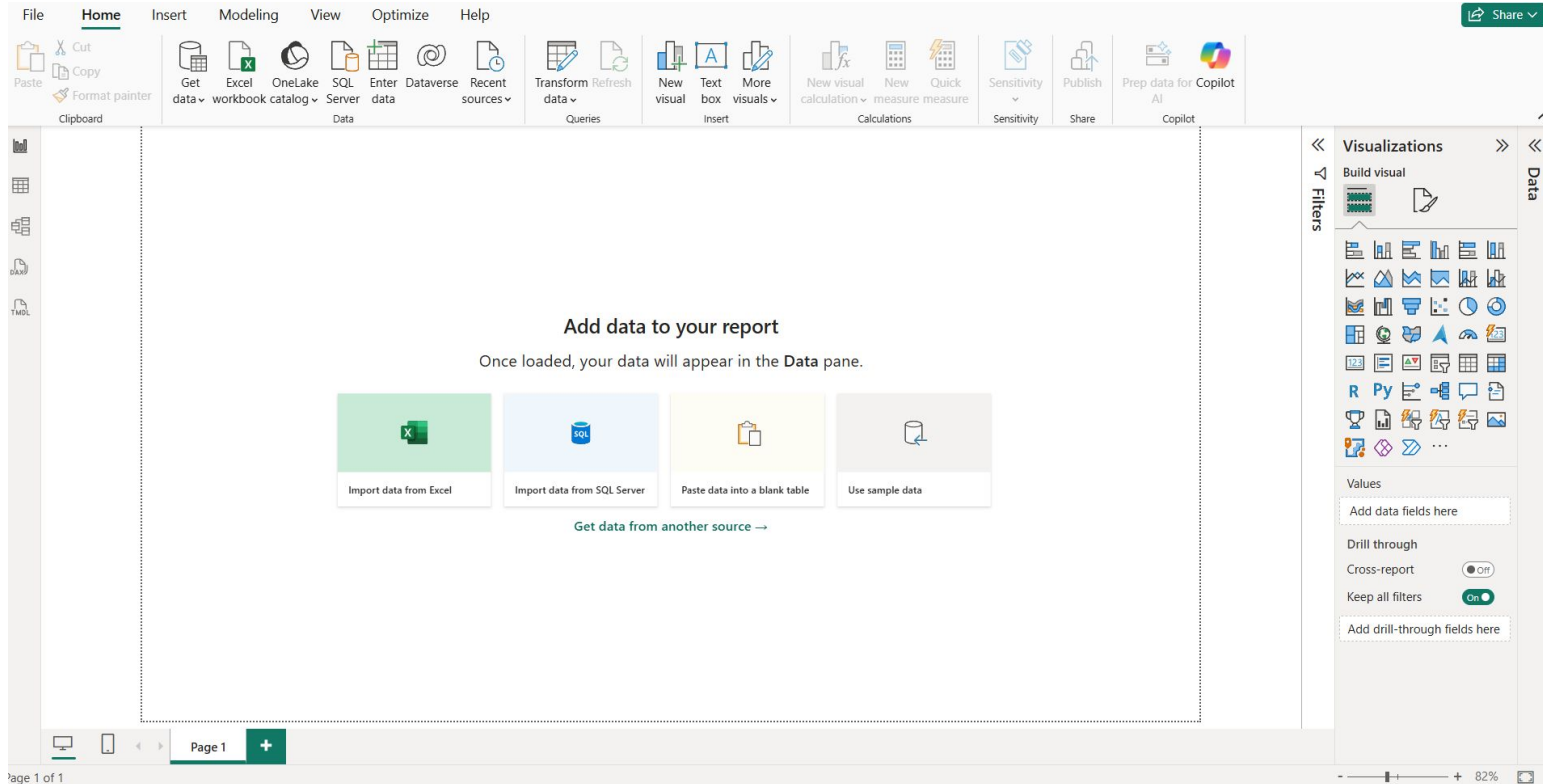


Introduction to Business Intelligence & Power BI

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Instructor: Joseph A. Vistal
IS 107 - Business Intelligence

PART 1 | Step 1: Open Power BI Desktop



PART 1 | Step 2: Load the Dataset

The screenshot displays a software interface for loading and visualizing data. A central window titled "BI_LW1_Basic_Sales_Data.csv" shows a preview of a CSV file. The preview includes a table with columns: Date, Product, Category, Region, and Sales. The data is truncated after 20 rows. Below the table, a message states: "The data in the preview has been truncated due to size limits." At the bottom of the window are three buttons: "Extract Table Using Examples", "Load", and "Transform Data". To the right of the window is a "Visualizations" panel with a "Build visual" section containing various chart icons, a "Filters" section, and a "Values" section with a text input field "Add data fields here". Below this are "Drill through" options: "Cross-report" (set to Off) and "Keep all filters" (set to On). At the bottom of the "Values" section is another text input field "Add drill-through fields here". The top of the interface shows a menu bar with "File", "Home", "Insert", "Modeling", "View", "Optimize", and "Help". The bottom status bar indicates "Page 1 of 1" and "82%".

File Origin: 1252: Western European (Windows) | Delimiter: Comma | Data Type Detection: Based on first 200 rows

Date	Product	Category	Region	Sales
01/01/2024	Product A	Electronics	East	175
02/01/2024	Product B	Furniture	South	378
03/01/2024	Product A	Electronics	North	842
04/01/2024	Product E	Furniture	North	582
05/01/2024	Product A	Electronics	South	245
06/01/2024	Product B	Furniture	North	667
07/01/2024	Product E	Furniture	West	353
08/01/2024	Product B	Furniture	East	609
09/01/2024	Product A	Electronics	West	313
10/01/2024	Product C	Office Supplies	South	434
11/01/2024	Product B	Furniture	North	494
12/01/2024	Product A	Electronics	North	539
13/01/2024	Product C	Office Supplies	East	502
14/01/2024	Product A	Electronics	West	897
15/01/2024	Product E	Furniture	West	277
16/01/2024	Product A	Electronics	East	715
17/01/2024	Product E	Furniture	South	520
18/01/2024	Product A	Electronics	South	196
19/01/2024	Product C	Office Supplies	South	231
20/01/2024	Product A	Electronics	East	539

Extract Table Using Examples | Load | Transform Data | Cancel

Visualizations | Build visual | Filters | Values | Drill through | Cross-report | Keep all filters | Add drill-through fields here

Page 1 of 1 | 82%

PART 1 | Step 3: Verify Data in Data View

File Home Help **Table tools** Share

Name: BI_LW1_Basic_Sales...

Structure

Manage relationships Relationships

New measure Quick measure New column New table Mark as date table Calendars

Structure

Table: BI_LW1_Basic_Sales_Data (400 rows)

Date	Product	Category	Region	Sales
Sunday, 21 January 2024	Product D	Electronics	East	800
Friday, 2 February 2024	Product D	Electronics	West	808
Sunday, 11 February 2024	Product D	Electronics	West	760
Thursday, 15 February 2024	Product D	Electronics	West	311
Sunday, 3 March 2024	Product D	Electronics	West	679
Saturday, 16 March 2024	Product D	Electronics	West	512
Sunday, 17 March 2024	Product D	Electronics	North	628
Tuesday, 26 March 2024	Product D	Electronics	West	647
Friday, 29 March 2024	Product D	Electronics	West	421
Saturday, 13 April 2024	Product D	Electronics	North	473
Friday, 19 April 2024	Product D	Electronics	East	706
Sunday, 5 May 2024	Product D	Electronics	North	280
Sunday, 12 May 2024	Product D	Electronics	South	835
Tuesday, 14 May 2024	Product D	Electronics	West	189
Saturday, 18 May 2024	Product D	Electronics	East	486
Saturday, 25 May 2024	Product D	Electronics	North	770
Sunday, 26 May 2024	Product D	Electronics	South	740
Tuesday, 4 June 2024	Product D	Electronics	West	830
Thursday, 6 June 2024	Product D	Electronics	North	711
Saturday, 8 June 2024	Product D	Electronics	East	743
Sunday, 9 June 2024	Product D	Electronics	West	602
Sunday, 16 June 2024	Product D	Electronics	North	775
Monday, 17 June 2024	Product D	Electronics	South	574
Tuesday, 18 June 2024	Product D	Electronics	West	656
Monday, 24 June 2024	Product D	Electronics	East	833
Tuesday, 25 June 2024	Product D	Electronics	West	777
Thursday, 27 June 2024	Product D	Electronics	East	610
Thursday, 4 July 2024	Product D	Electronics	South	860

PART 1 | Step 3: Verify Data in Data View

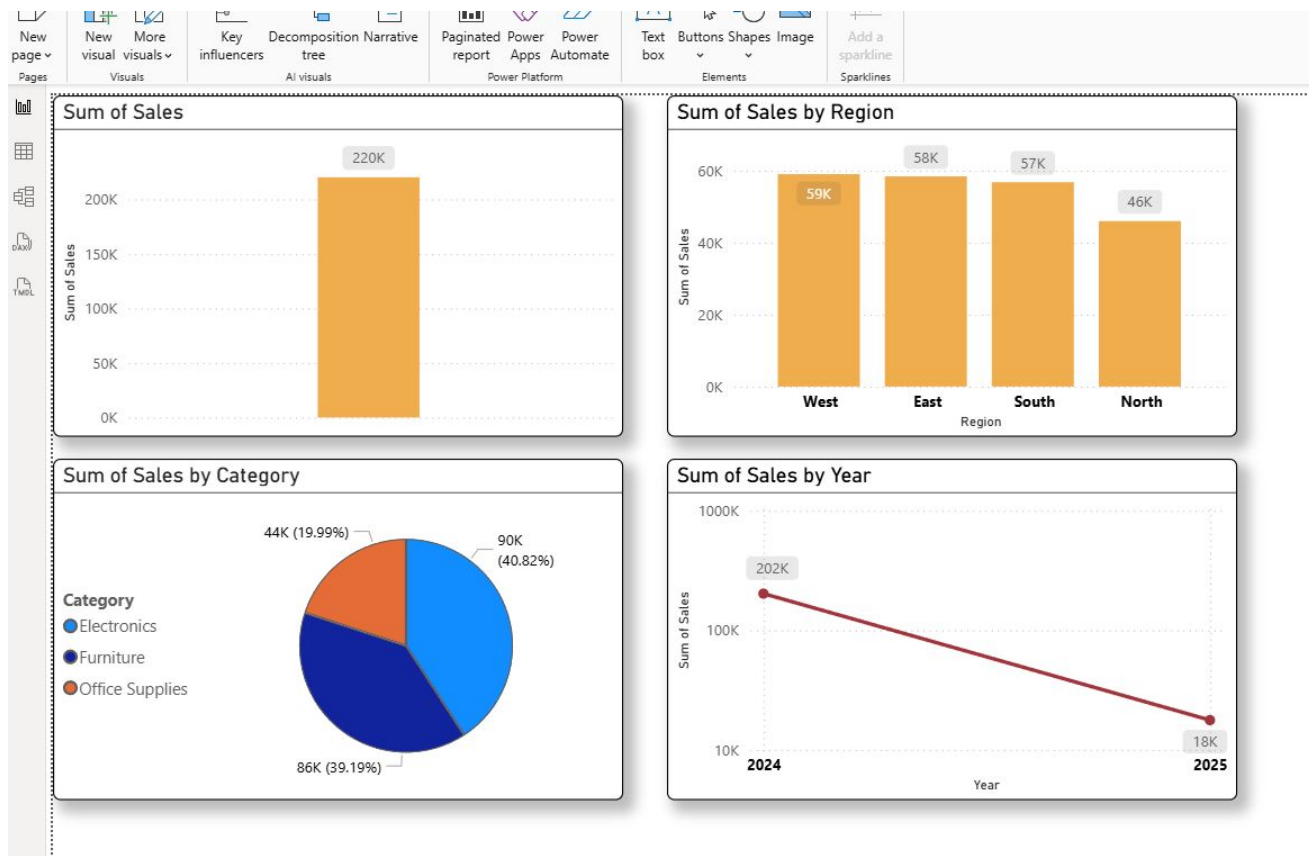
Question:

- Are all columns visible?
- Is “Date” formatted as Date?
- Is “Sales” formatted as Decimal Number?

Answers:

- Yes, all columns are visible in the Data View.
- Yes, all data in date are formatted as date
- No, the sales is not formatted as decimal, it was formatted as whole number

PART 2 | Report View



PART 2 | Data View

Table tools

Name:

Structure Relationships Calculations Calendars

New measure Quick measure column New table Mark as date table

Date	Product	Category	Region	Sales
Sunday, 21 January 2024	Product D	Electronics	East	800
Friday, 2 February 2024	Product D	Electronics	West	808
Sunday, 11 February 2024	Product D	Electronics	West	760
Thursday, 15 February 2024	Product D	Electronics	West	311
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Tuesday, 25 June 2024	Product D	Electronics	West	777
Thursday, 27 June 2024	Product D	Electronics	East	610
Thursday, 4 July 2024	Product D	Electronics	South	860

Table: BI_LW1 Basic Sales Data (400 rows)

Data pane: Search, > BI_LW1_Basic_Sales_Data

PART 2 | Report View

File Home Help

Paste Cut Copy

Get data Excel OneLake SQL Server Enter data Datasource Recent sources

Clipboard

Transform data Refresh data

Queries

Manage relationships Relationships

New measure New column New table Calculation group

Calculations

New parameter Parameters

Manage roles View as

Security

Q&A setup Language Linguistic schema

Q&A

Sensitivity Publish

Sensitivity Share

BI_LW1_Basic_Sales...

- Category
- Date
- Product
- Region
- Sales
- Collapse

Properties

Cards

Show the database in the header when applicable

No

Show related fields when card is collapsed

Yes

Pin related fields to top of card

No

Data

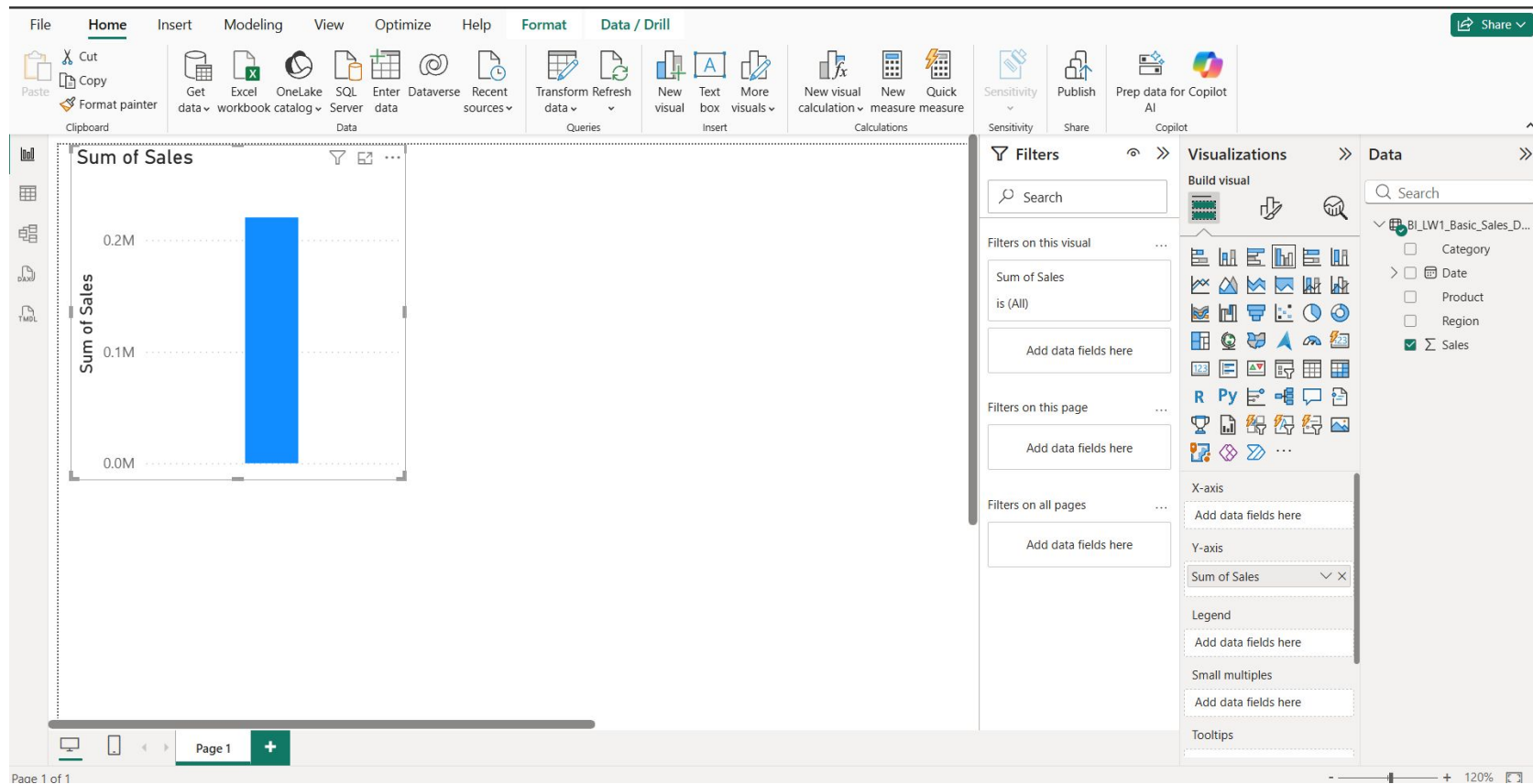
Tables Model

Search

BI_LW1_Basic_Sales_Data

All tables

PART 3 | Step 1: Quick Visualization



PART 3 | Step 1: Quick Visualization

Question:

- What type of chart was created?
- What does it show?

Answers:

- Cluttered column chart
- It shows the sum of sales

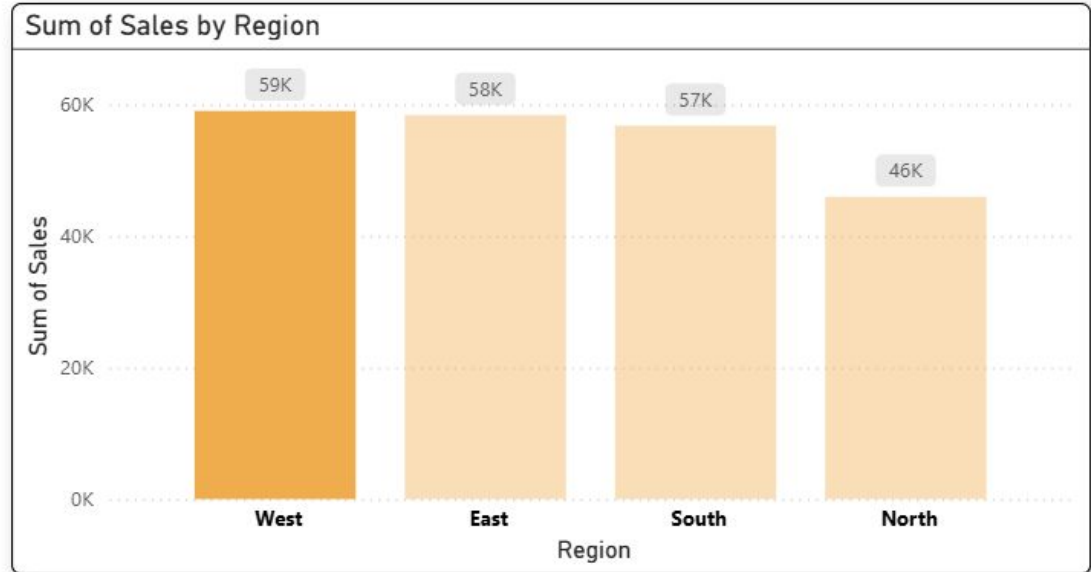
PART 3 | Step 2: Create a Sales by Region Chart

Question:

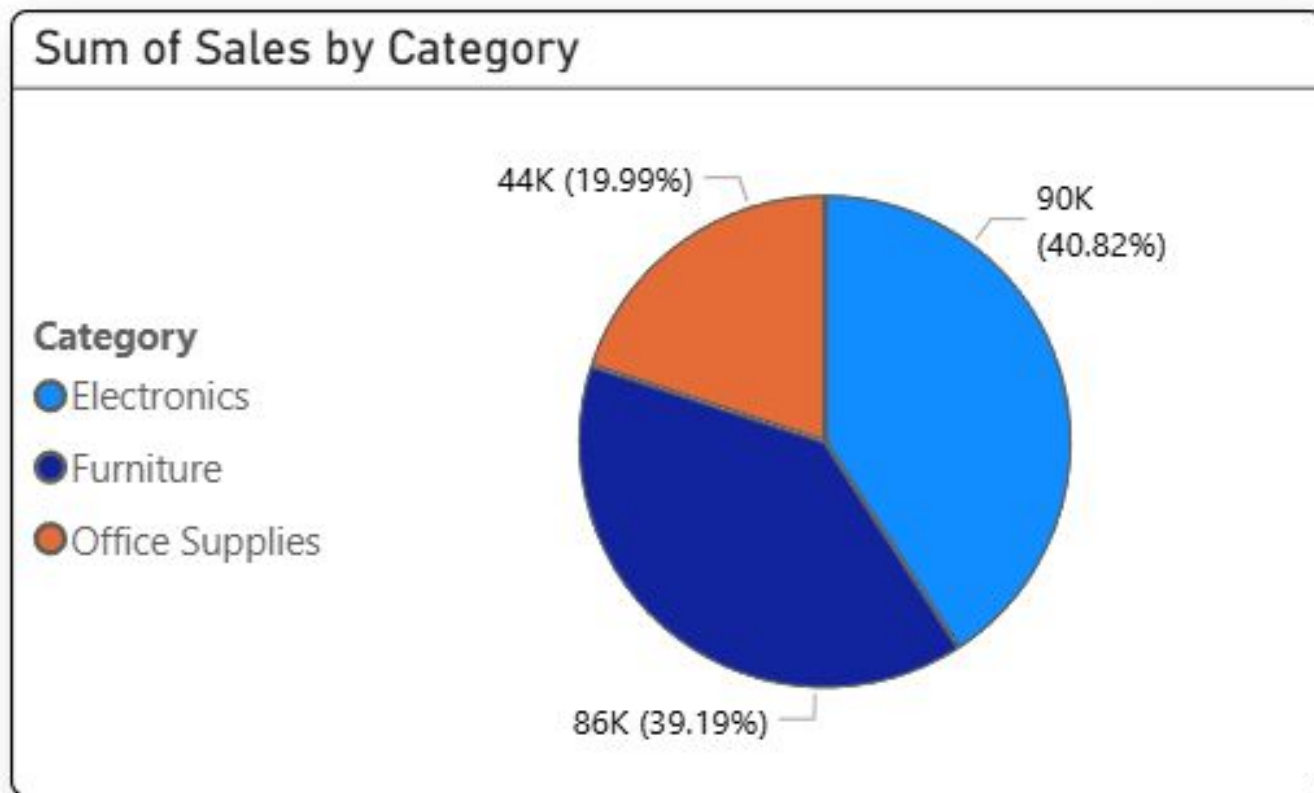
- Which region has highest sales?

Answer:

- The region that is highest is the region West



PART 3 | Step 3: Sales by Category



PART 3 | Step 3: Sales by Category

Questions:

- Which category dominates?
- Is the distribution balanced?

Answers:

- The Electronics category dominates.
- The distribution is moderately balanced between the two larger categories, but overall it is not fully balanced because Office Supplies has a much smaller share.

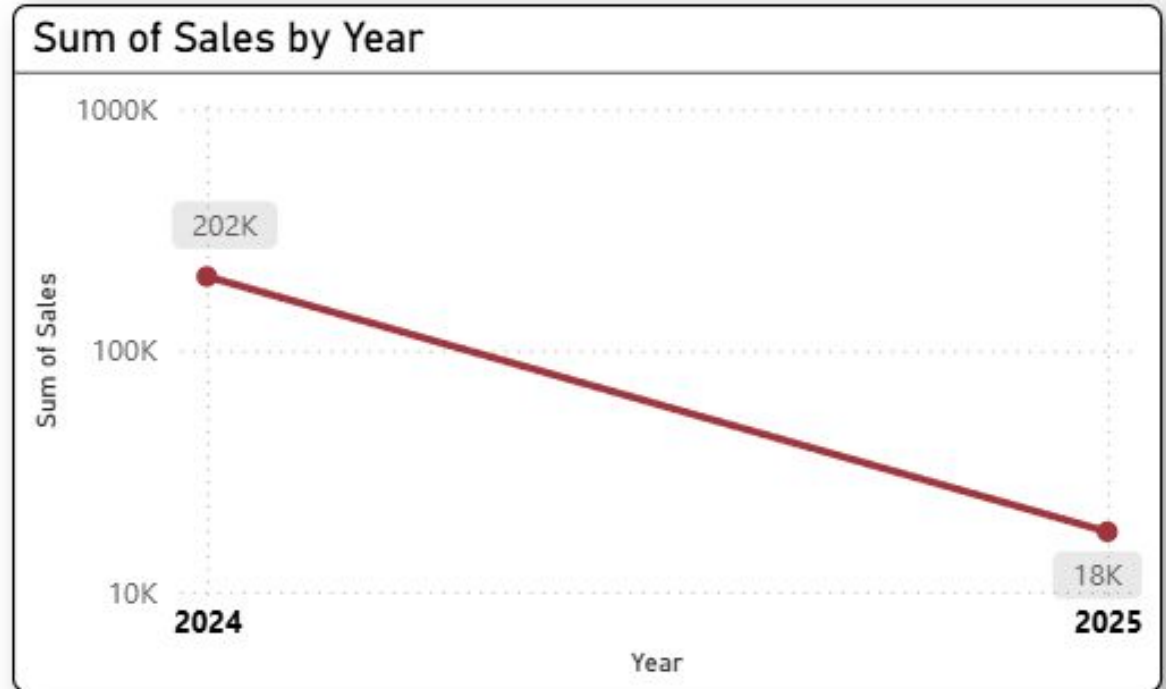
PART 3 | Step 4: Sales Over Time

Questions:

- Is there growth?
- Any noticeable trend?

Answers:

- No, there is no growth
- Yes, there is a downward trend



PART 4 | Basic Data Insight Interpretation

Questions:

- Which region contributes the most revenue?
- Which product category performs best?
- Are sales consistent across dates?
- What business recommendation can you suggest?

Answers:

- The West region contributes the most revenue.
- The Electronics category performs best.
- No, sales are not consistent across dates.
- Investigate the major drop in 2025 sales.

LABORATORY QUESTIONS

Part A – Technical Questions

- What are the five columns in the dataset?
- What data type is assigned to the “Sales” column?
- Which Power BI view allows you to see raw data?
- What chart type is best for showing trends over time?
- What aggregation is automatically applied to Sales?

Answers:

- The five columns in the dataset are Date, Product, Category, Region, and Sales.
- The data type assigned to the Sales column is Decimal Number.
- The Table (Data) View allows you to see raw data.
- A Line Chart is best for showing trends over time.
- The Sum aggregation is automatically applied to Sales.

Part B – Analytical Questions

- Which region has the highest total sales?
- Which category has the lowest performance?
- Are sales increasing, decreasing, or stable?
- If you were a manager, which region would you prioritize?
- Provide one actionable recommendation based on the data.

Answers:

- The West region has the highest total sales.
- Office Supplies has the lowest performance among the categories
- Sales are decreasing.
- If I were the manager, I would prioritize the North region because it has the lowest sales.
- Launch a targeted sales campaign in the North region to improve performance.

Enhancement Section | Task 1: Add a Card Visualization

Question:

What is the total sales amount?

Answer:

The total sales amount is 220,000.

A white rectangular card with a thin black border and rounded corners, featuring a subtle drop shadow. It displays the text '220K' in a large, bold, blue sans-serif font.

220K

Total Sales

Enhancement Section | Task 2: Add Slicer

Question:

What happens to other visuals when you click a region?

Why is filtering important in BI?

Answer:

When you click a region, all other visuals change to show data only for that region.

Filtering helps you focus on specific data so you can understand it faster and make better decisions.

Sum of Sales by Region	
East ₱58,411	South ₱56,793
North ₱45,984	West ₱59,041

Enhancement Section | Task 3: Sort Sales

Question:

Does sorting improve readability?
Why?

Answer:

Yes, sorting makes it easier to compare values quickly. Because it arranges the data from highest to lowest (or lowest to highest), so you can easily see the top and bottom performers.



Enhancement Section | Task 4: Identify Outliers

Questions:

Which region is significantly higher or lower?

What might explain that difference?

Answers:

The North region is lower compared to the others. West, East, and South are all close to 60K and performing similarly.

The North may have fewer customers, stronger competitors, or fewer resources compared to the other regions.

INSIGHT SUMMARY

- The West region achieves the highest revenue among all regions.
- Electronics is the best-performing product category.
- Sales show a downward trend from 2024 to 2025.
- Office Supplies consistently underperform compared to other categories.
- The North region needs focused strategies to boost its sales performance.