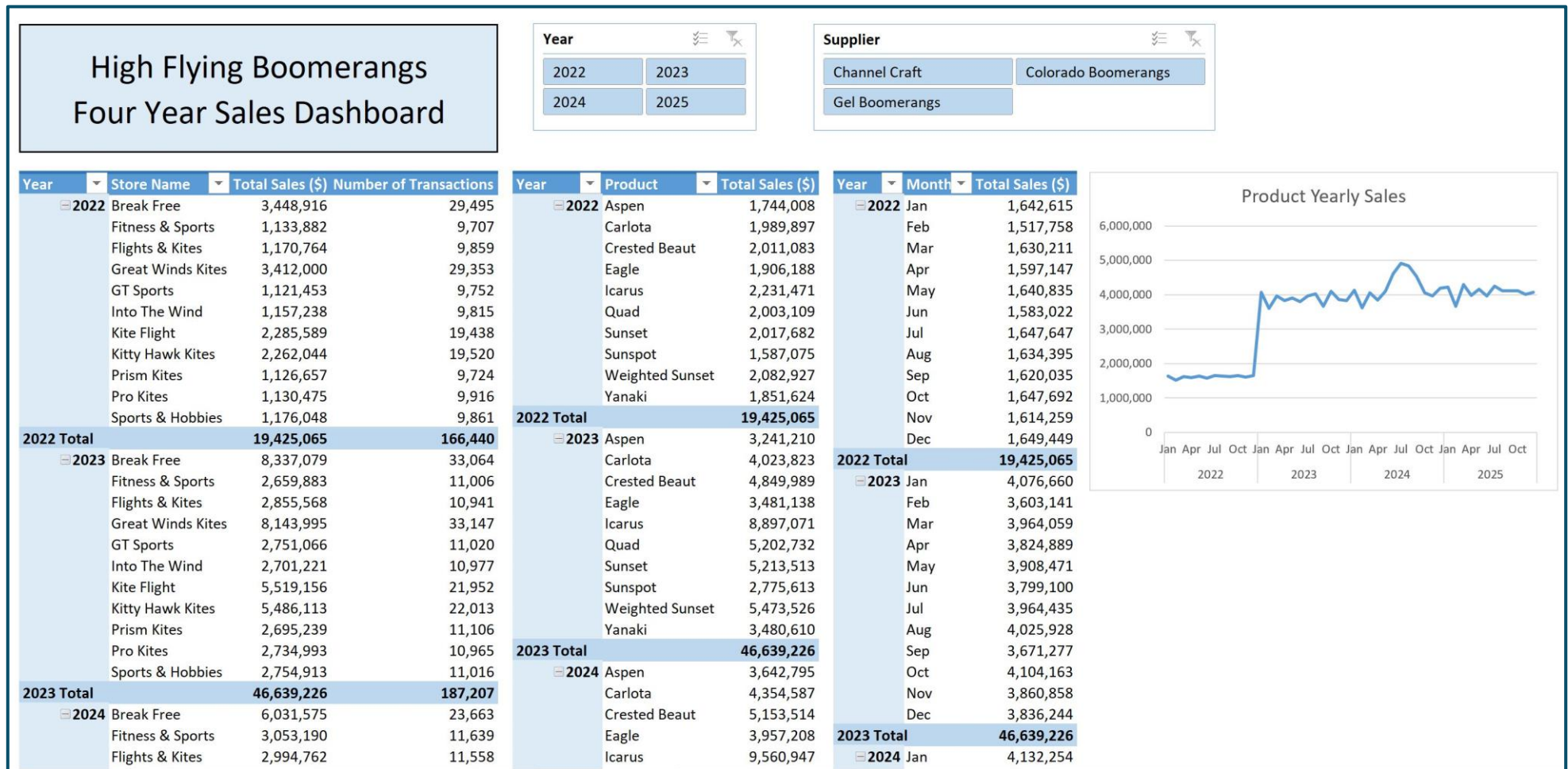# BI 348 Project 04

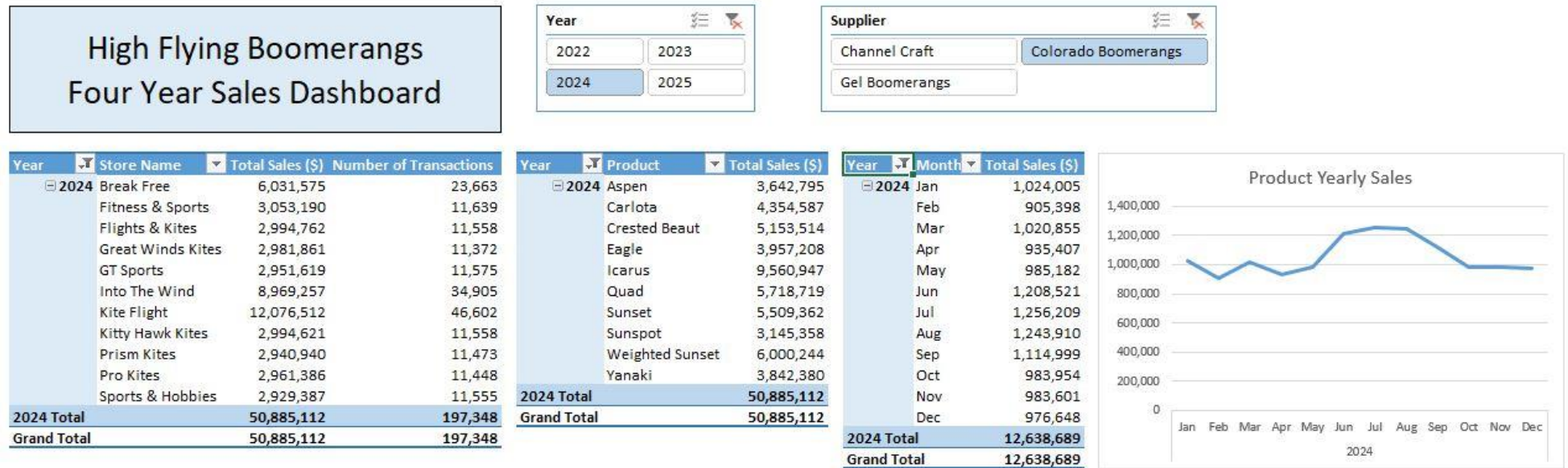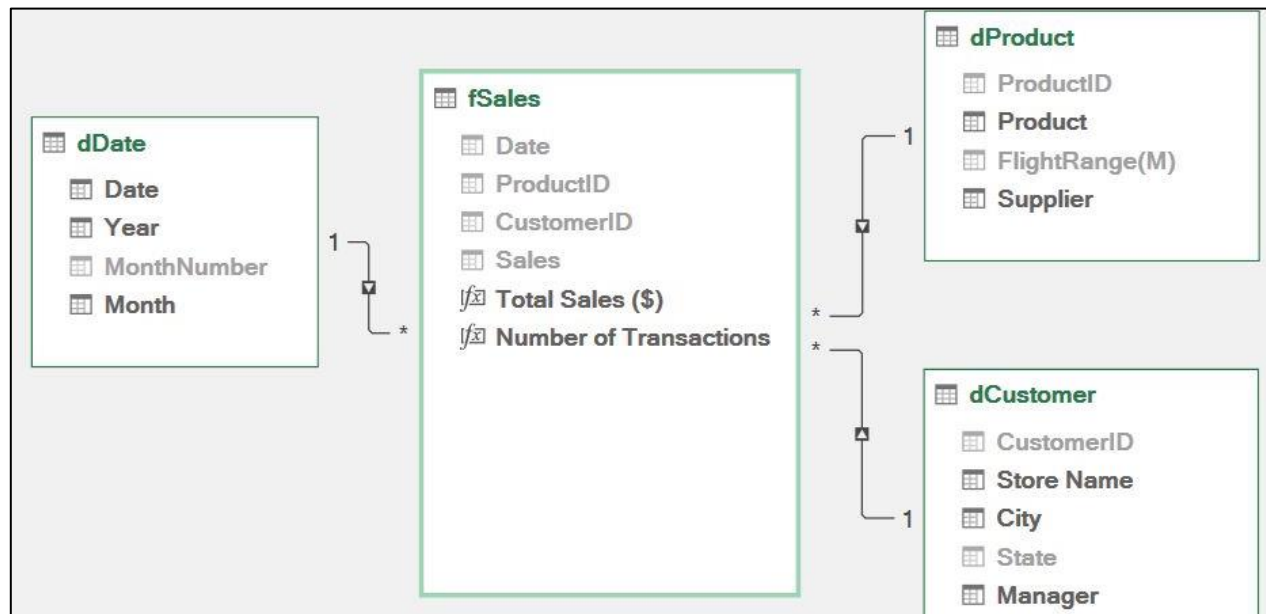# Spring 2025

Here are the steps for this project:

1) When you are done with this project you will create a data model and a dashboard in an Excel file. Then you will create a Data Model and a dashboard in a Power BI Desktop file. You will upload both files to the Project 4 Upload links in the Home area of Canvas.
2) The first data analysis goal for this project is to create this Excel finished sales dashboard as is shown in the picture below, where you will create three Data Model PivotTables, two Slicers, a Line Chart and a Textbox with a dashboard title:
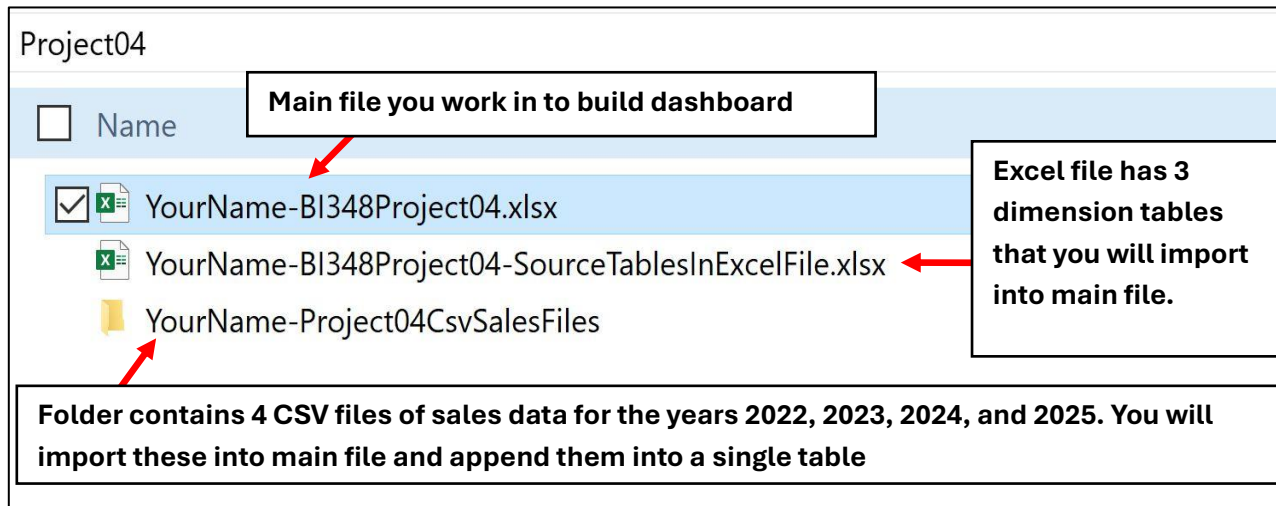
Here is a picture of the same Excel dashboard with the Slicers selected for the Supplier Colorado Boomerangs in the year 2024:

High Flying Boomerangs
Four Year Sales Dashboard

Year
| 2022 | 2023 |
| 2024 | 2025 |

Supplier
| Channel Craft | Colorado Boomerangs |
| Gel Boomerangs | |

Year	Store Name	Total Sales ($)	Number of Transactions
2024	Break Free	6,031,575	23,663
	Fitness & Sports	3,053,190	11,639
	Flights & Kites	2,994,762	11,558
	Great Winds Kites	2,981,861	11,372
	GT Sports	2,951,619	11,575
	Into The Wind	8,969,257	34,905
	Kite Flight	12,076,512	46,602
	Kitty Hawk Kites	2,994,621	11,558
	Prism Kites	2,940,940	11,473
	Pro Kites	2,961,386	11,448
	Sports & Hobbies	2,929,387	11,555
2024 Total		50,885,112	197,348
Grand Total		50,885,112	197,348

Year	Product	Total Sales ($)
2024	Aspen	3,642,795
	Carlota	4,354,587
	Crested Beaut	5,153,514
	Eagle	3,957,208
	Icarus	9,560,947
	Quad	5,718,719
	Sunset	5,509,362
	Sunspot	3,145,358
	Weighted Sunset	6,000,244
	Yanaki	3,842,380
2024 Total		50,885,112
Grand Total		50,885,112

Year	Month	Total Sales ($)
2024	Jan	1,024,005
	Feb	905,398
	Mar	1,020,855
	Apr	935,407
	May	985,182
	Jun	1,208,521
	Jul	1,256,209
	Aug	1,243,910
	Sep	1,114,999
	Oct	983,954
	Nov	983,601
	Dec	976,648
2024 Total		12,638,689
Grand Total		12,638,689

Product Yearly Sales
(chart: monthly sales Jan–Dec 2024, values ranging approximately 900,000–1,300,000)

3) You will create a Power Pivot Data Model with tables, Relationships, DAX Measures, and hidden fields as is shown below:

dDate
- Date
- Year
- MonthNumber
- Month

fSales
- Date
- ProductID
- CustomerID
- Sales
- Total Sales ($)
- Number of Transactions

dProduct
- ProductID
- Product
- FlightRange(M)
- Supplier

dCustomer
- CustomerID
- Store Name
- City
- State
- Manager

4) Below is a picture of the files you downloaded for this project. Add your name to the names of the two project files and one project folder.

Project04

Main file you work in to build dashboard

Name

☑ 🗎 YourName-BI348Project04.xlsx

🗎 YourName-BI348Project04-SourceTablesInExcelFile.xlsx ← **Excel file has 3 dimension tables that you will import into main file.**

📁 YourName-Project04CsvSalesFiles

Folder contains 4 CSV files of sales data for the years 2022, 2023, 2024, and 2025. You will import these into main file and append them into a single table

5) Look inside the folder (XX-Project04CsvSalesFiles) and open one of the csv files to familiarize yourself with the sales data (about 200,000 rows of data in each csv file). Close the csv file.
6) Open the Excel file (XX-BI348Project04-SourceTablesInExcelFile.xlsx) and familiarize yourself with the dimension tables. Close the Excel file.
7) After making sure that you close any project file that you had previously opened, start the data analysis tasks in this Excel file (XX-BI348Project04.xlsx)
8) Using the **Power Query From Excel Workbook feature**, import the three dimension tables (look tables) "dProduct", "dCustomer", & "dDate" from the Excel file "XX-BI348Project04-SourceTablesInExcelFile.xlsx" and load them to the Data Model.
   - When you load to the Data Model, remember to select "Only Create Connection" AND "Add this data to the Data Model".
9) Using the **Power Query From Folder feature**, import the four csv files from the folder named "XX-Project04CsvSalesFiles", append them into a single table with the name "fSales", and then load the single appended table to the Data Model.
   - Note: There are a total of 750,000 rows of data after you combine the csv files.
   - When you load to the Data Model, remember to select "Only Create Connection" AND "Add this data to the Data Model".
10) In the Power Pivot Design View, create the **relationships** between the tables and **hide fields** that you do not want to show the reporting area.
11) In Data View, in the dDate table, **sort the Month (Month Name)** column by the MonthNumber column.
12) In Data View, in the Measure Grid under the fSales table, create the **DAX Measures**: Total Sales ($) and Number of Transactions.
13) On the worksheet named "Dashboard", create your sales dashboard.

14) When you create the 3 PivotTables, **name each PivotTable** (Right-click PivotTable, PivotTable Options, PivotTable Name text box). Name the 3 PivotTables:
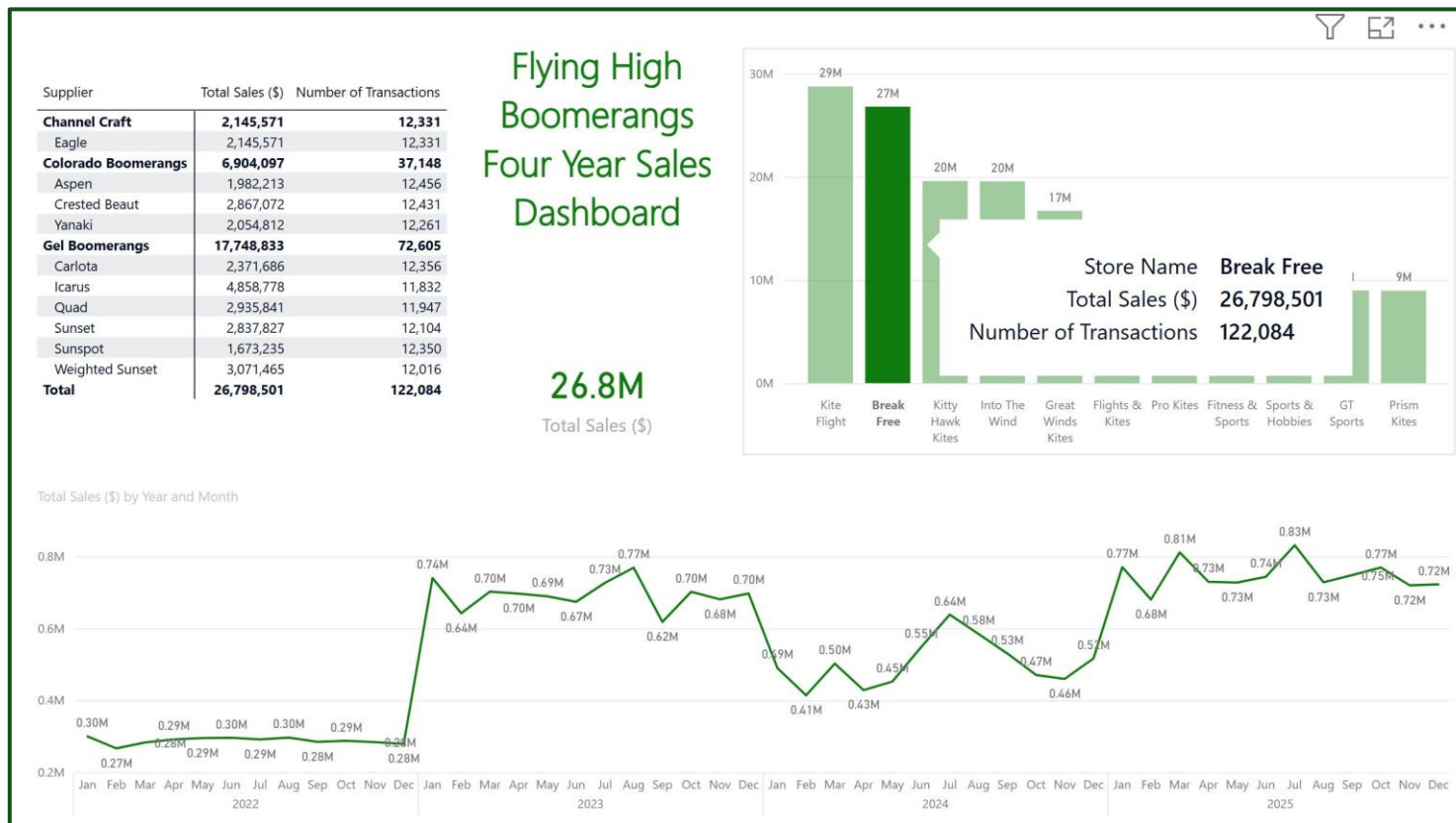- CustomerStoreSalesPT
- ProductPT
- YearPT

15) **Add one Slicer for Year and a second Slicer for Supplier**. Connect all 3 PivotTables to each of the Slicers. To connect PivotTables to Slicers, right-click the Slicer, click Report Connections, click check boxes for all 3 PivotTables).
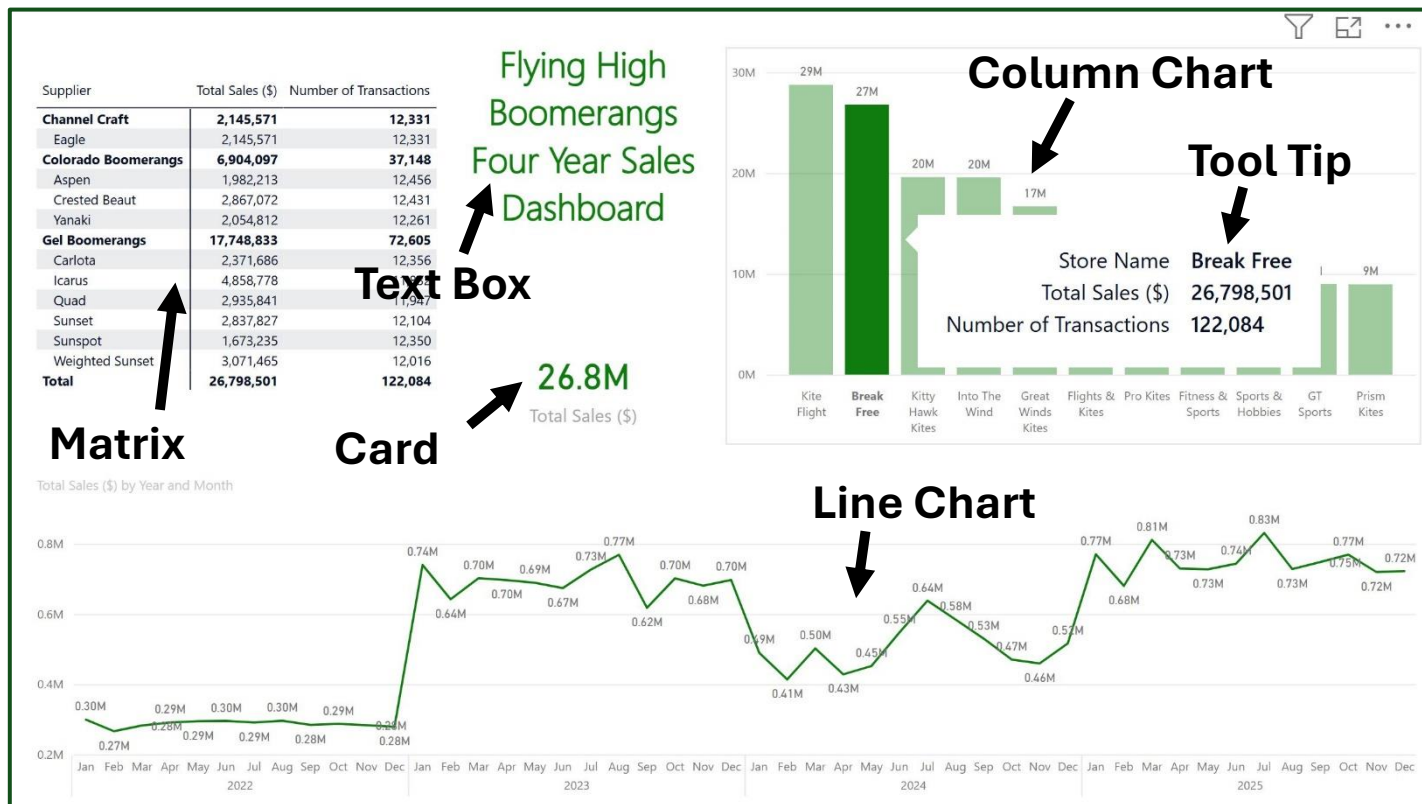
16) When you complete your work in the XX-BI348Project04.xlsx file, save the file and close it.

17) Open a new **Power BI Desktop file** and give the file the name: YourName-BI348Project04.pbix.

18) From within the Power BI Desktop file, **import the Data Model from the XX-BI348Project04.xlsx file**.

19) In the Power BI Desktop file in Report view, **create the dashboard** as shown below (types of visuals shown in 2nd dashboard):

Flying High Boomerangs Four Year Sales Dashboard

Matrix

Supplier	Total Sales ($)	Number of Transactions
Channel Craft	**2,145,571**	**12,331**
Eagle	2,145,571	12,331
Colorado Boomerangs	**6,904,097**	**37,148**
Aspen	1,982,213	12,456
Crested Beaut	2,867,072	12,431
Yanaki	2,054,812	12,261
Gel Boomerangs	**17,748,833**	**72,605**
Carlota	2,371,686	12,356
Icarus	4,858,778	
Quad	2,935,841	11,947
Sunset	2,837,827	12,104
Sunspot	1,673,235	12,350
Weighted Sunset	3,071,465	12,016
Total	**26,798,501**	**122,084**

Text Box

Card

26.8M
Total Sales ($)

Column Chart

Tool Tip

Store Name — Break Free
Total Sales ($) — 26,798,501
Number of Transactions — 122,084

Line Chart

20) When you complete the Power BI Desktop dashboard, save the Power BI Desktop file and close the file.

21) Upload The Excel dashboard file and the Power BI Desktop dashboard file to the Project 4 Upload link in the Home area of Canvas. You will upload both files to the Project 4 Upload link. Together, the two projects are worth 100 points.