Project Title : Global Sales Performance Dashboard

Project brief on sales data analysis
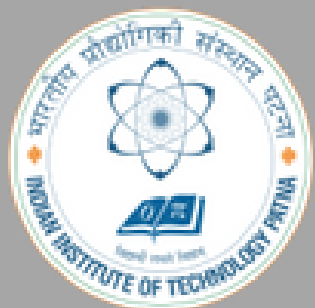
.CSV

Power BI

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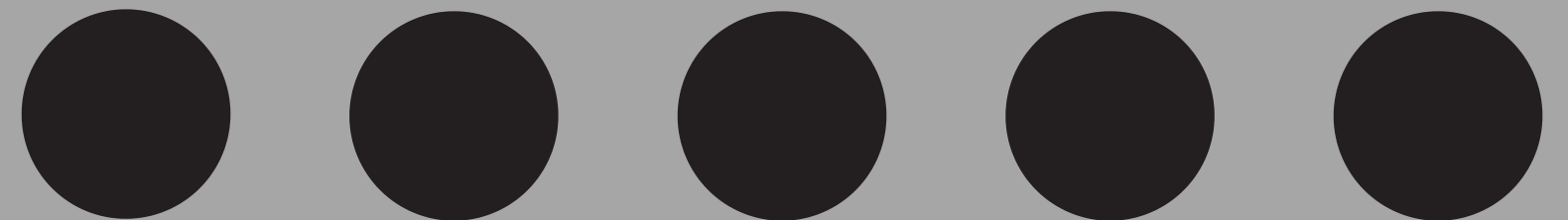
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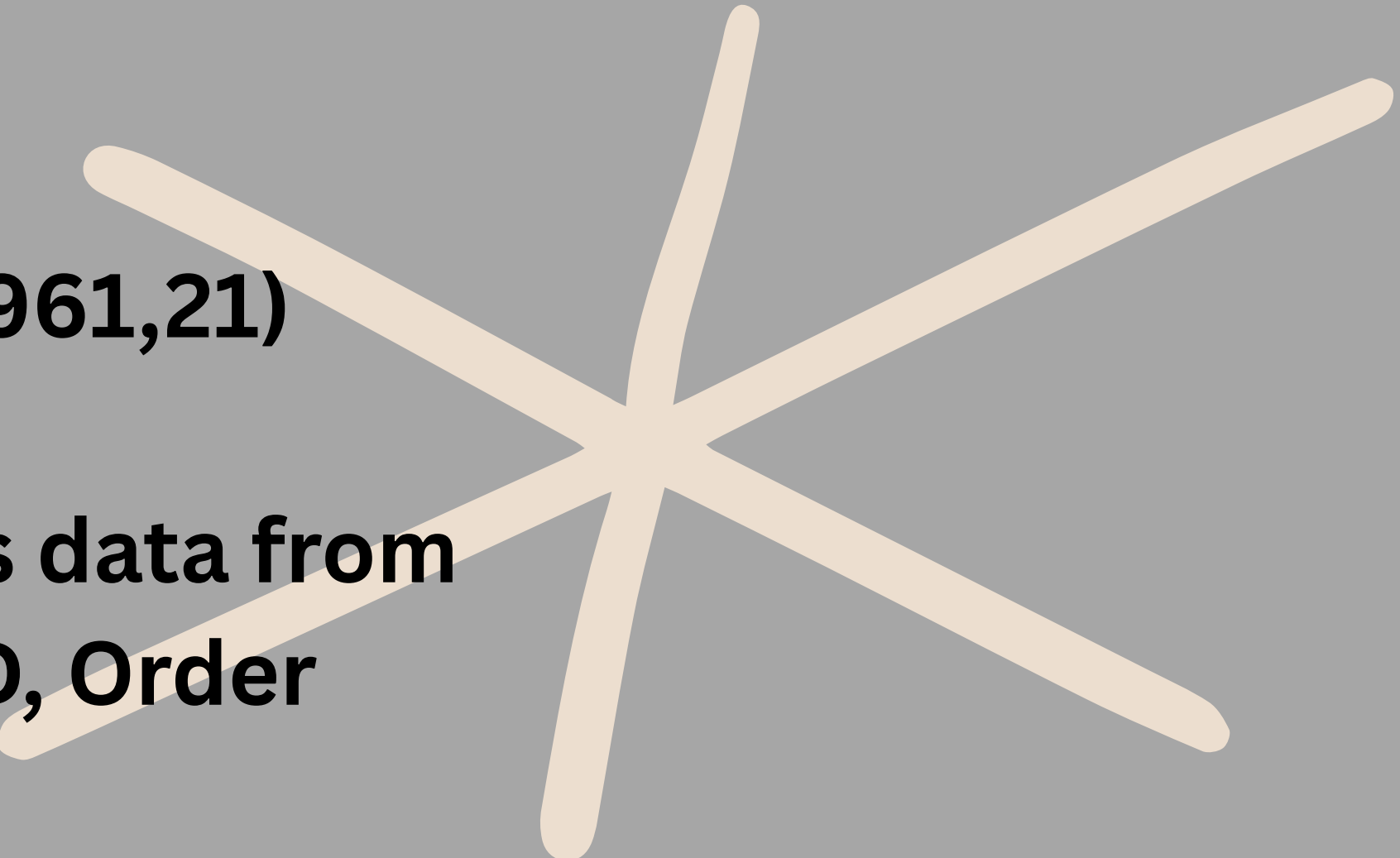Indian Institute of Technology Patna

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Project Objective

Problem Statement: To design an interactive, multi-page Power BI dashboard that enables analysis of global sales performance across continents, evaluates trends in profit, quantity sold, and highlights top-performing regions and underperforming areas and to compare regional sales, profits, and growth over time using map-based and trend visualizations. The goal is to aid strategic business decisions through geographic and temporal data visualization.

Original Dataset : 5961 records (5961,21)
Source: Open Source
CSV format dataset of global sales data from the year of 2018 to 2024 (Order ID, Order Date, Ship Date, Region, Sales,...).
Colab Notebook for data cleaning , preprocessing and basic EDA with python.
Power BI as visualization tool

- **Initial Dataset Shape: 5916 (with duplicates and errors)**
- **Missing Value Handling: Dropped rows with missing/invalid critical fields (Order Date, Ship Date, etc.)**
- **Numeric Conversion: Sales, Profit, Unit Price converted to float**
- **Duplicates: Removed 10 duplicate rows**
- **Text Standardization: Corrected typos and cases in categorical columns**
- **Column Dropping: Dropped not so important attributes.**
- **Final Shape After Cleaning: 5901 records**

Executive Summary

$1.57M	$175.3K	22K	5901
Sum of Sales	Sum of Profit	Sum of Quantity	Count of Customer ID

Ship Mode
All

Region
All

Country
All

Year
2018
2024

Sum of Sales and YoY Sales Growth by Year

● Sum of Sales ● YoY Sales Growth
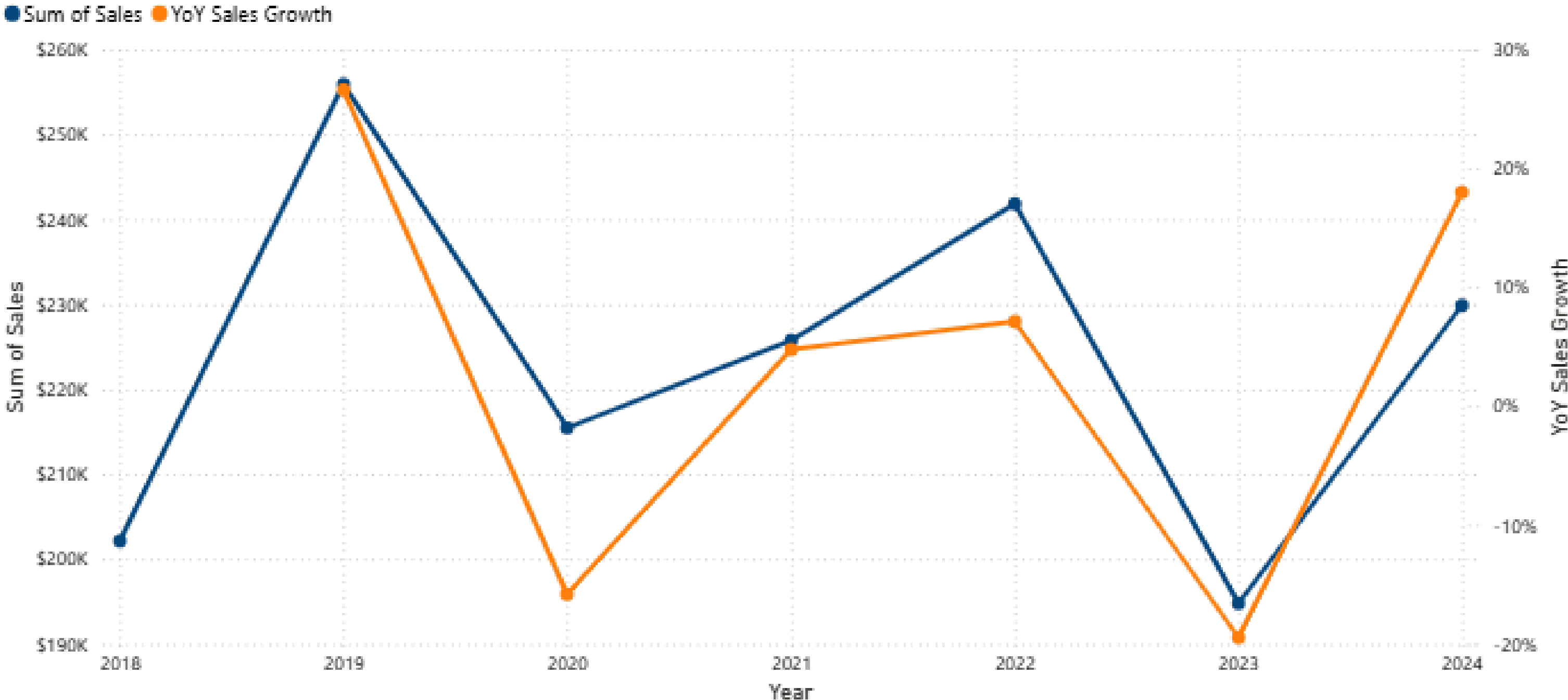
Regional & Segment Analysis

Sum of Profit by Segment
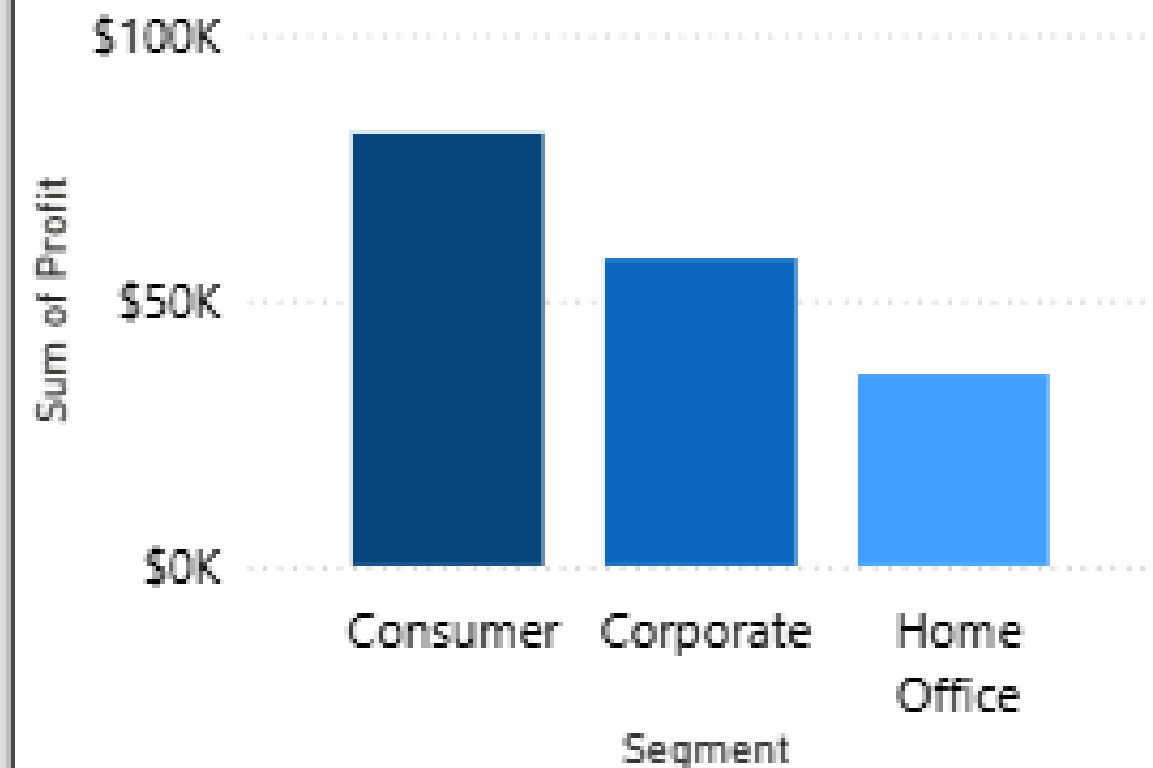
Sum of Sales by Region

Sum of Sales by Segment

$303.06K
(19.35%)

$753....
(48.0...)

Segment
- Consumer
- Corporate
- Home Office

$509.74K
(32.55%)
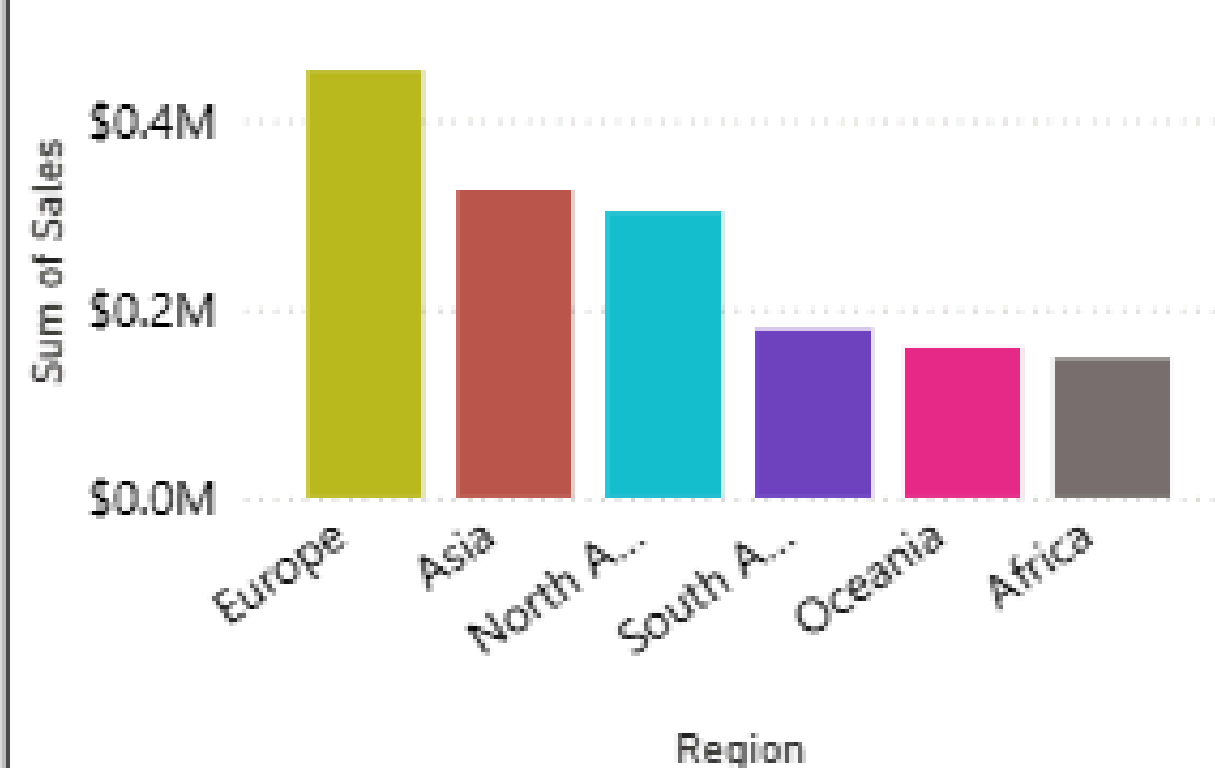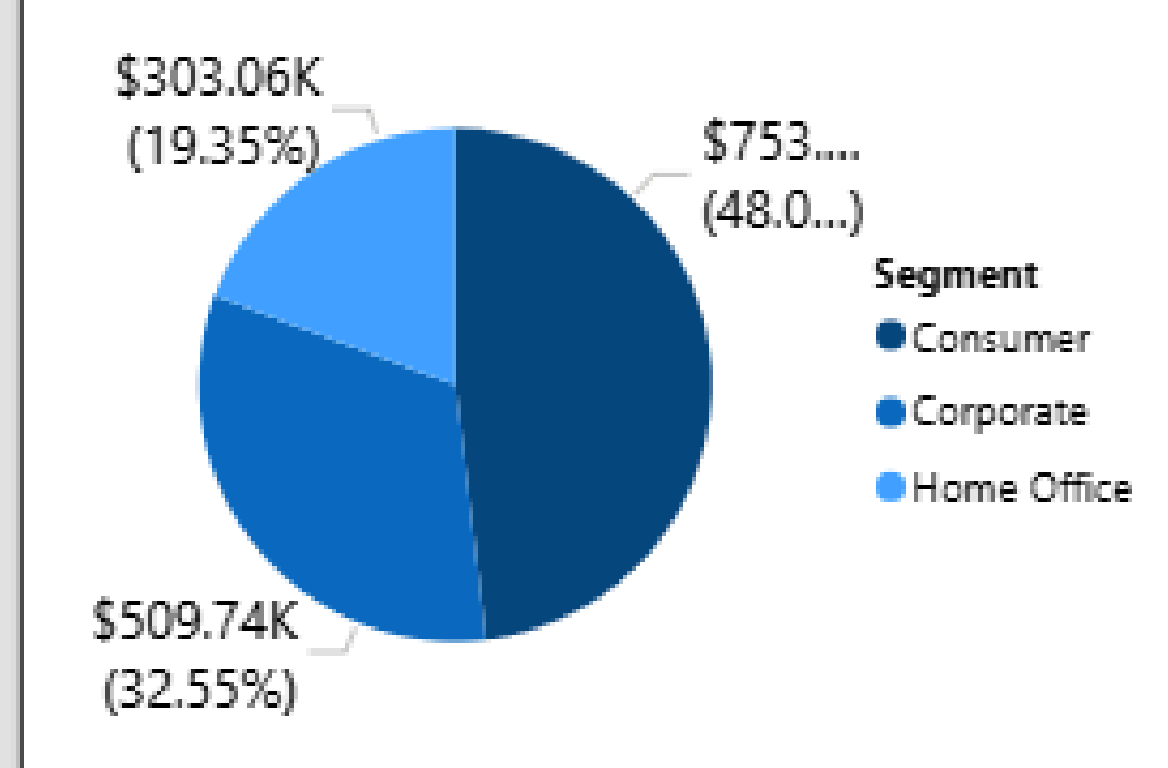
Country	Sum of Sales ▼	Sum of Profit	Profit Margin %
Brazil	$177,736.32	$18,303.2	10.30%
India	$170,173.73	$22,863.8	13.44%
Canada	$167,211.83	$34,546.2	20.66%
Germany	$160,399.47	$16,297.0	10.16%
Australia	$158,570.33	$19,769.5	12.47%
Japan	$155,777.48	$21,417.9	13.75%
France	$149,460.22	$7,836.6	5.24%
Total	**$1,565,804.32**	**$175,262.1**	**11.19%**

Sum of Sales by Country and Continent

Continent ● Africa ● Asia ● Europe ● North America ● Oceania ● South America
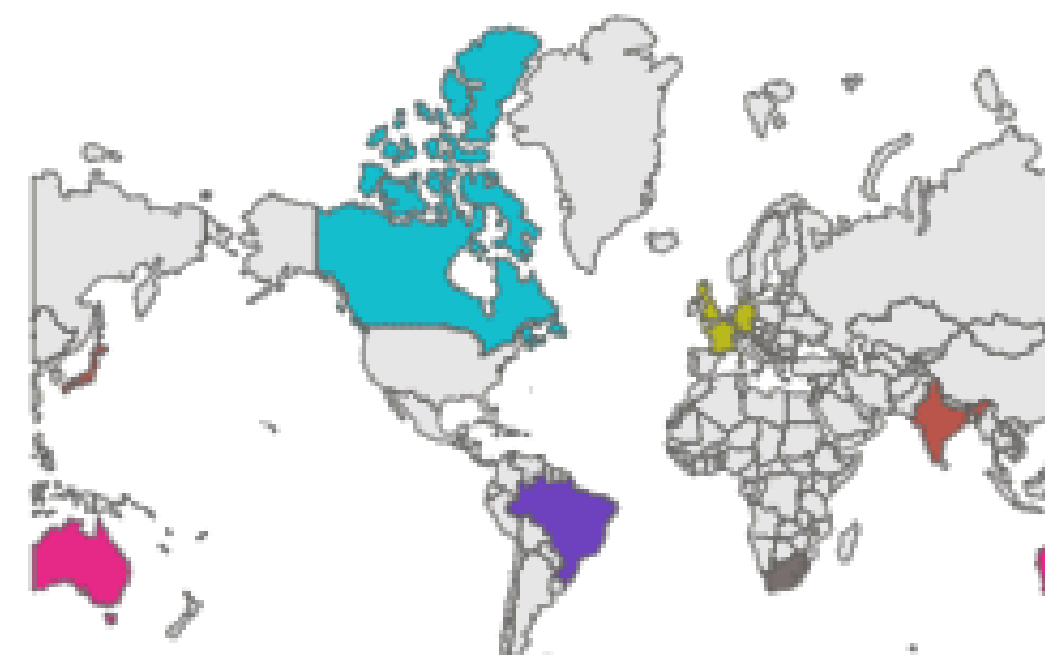
Monthly & Product Performance

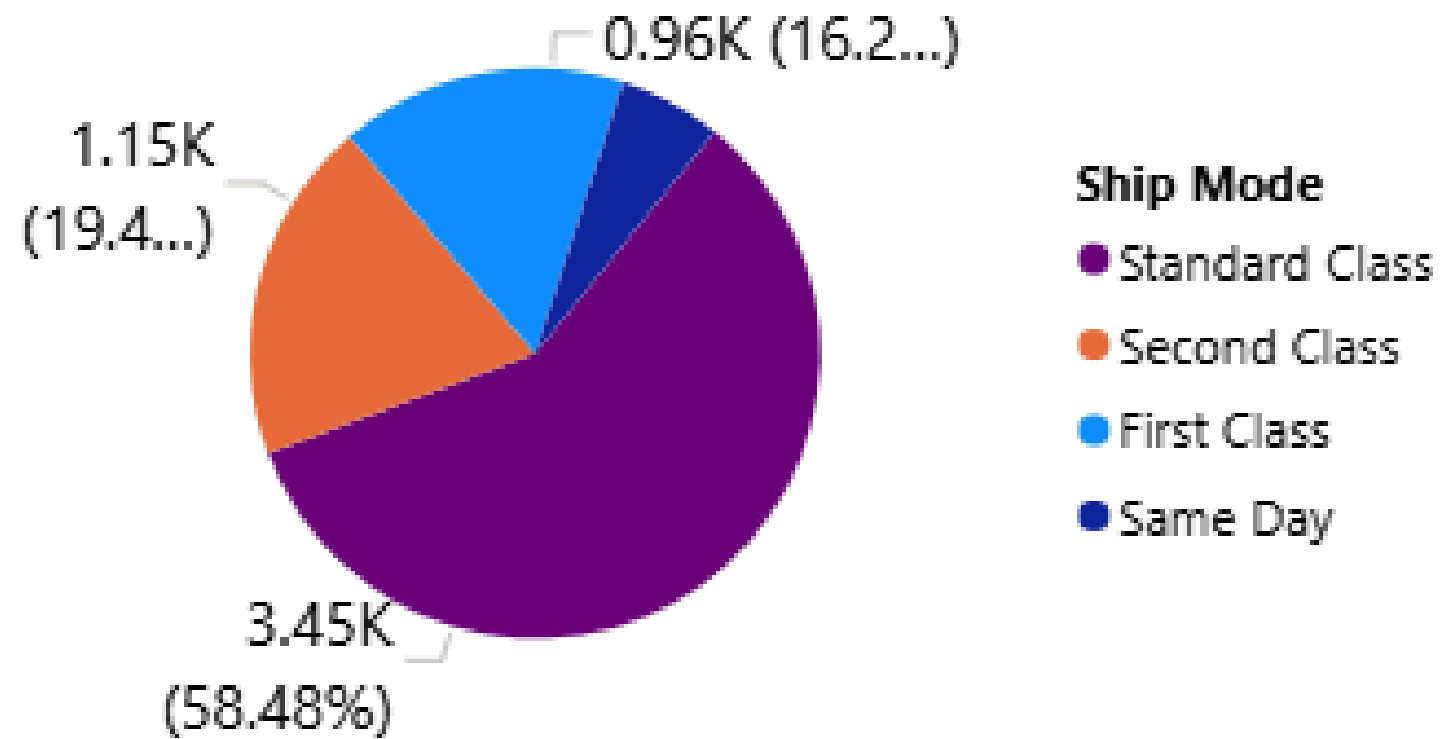| Product ID	Product Name	Sum of Sales
TEC-MA-10001047	3D Systems Cube Printer, 2nd Generation, Magenta	$14,334.89
TEC-CO-10004722	Canon imageCLASS 2200 Advanced Copier	$14,076.82
TEC-CO-10001449	Hewlett Packard LaserJet 3310 Copier	$13,837.73
OFF-BI-10001359	GBC DocuBind TL300 Electric Binding System	$12,890.26
OFF-BI-10004995	GBC DocuBind P400 Electric Binding System	$12,577.11
TEC-PH-10001459	Samsung Galaxy Mega 6.3	$12,370.71
OFF-SU-10002881	Martin Yale Chadless Opener Electric Letter Opener	$12,268.90
FUR-CH-10002024	HON 5400 Series Task Chairs for Big and Tall	$11,887.56
FUR-CH-10001315	Global Troy Executive Leather Low-Back Tilter	$10,317.80
Total		**$124,357.68**

Region	Africa		Asia	
Category	Sum of Sales	Sum of Profit	Sum of Sales	Sum
⊞ Furniture	$46,106.82	$787.1	$93,737.29	
⊞ Office Supplies	$62,581.96	$1,399.1	$136,944.70	
⊞ Technology	$39,306.53	($1,323.0)	$95,269.22	
Total	**$147,995.30**	**$863.1**	**$325,951.21**	

Sum of Sales by Month Name and Year

January 2020

● Sum of Sales $16,935.94
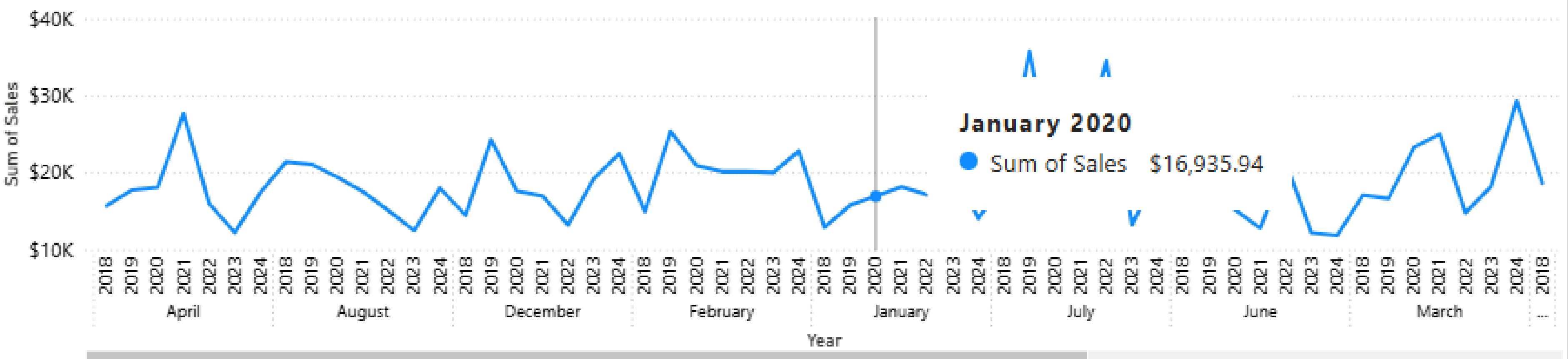
Shipping Analysis & Delivery Performance

Count of Order ID and Average of Shipping Time by Ship Mode

0.96K (16.2...)

1.15K (19.4...)

3.45K (58.48%)

Ship Mode
- ● Standard Class
- ● Second Class
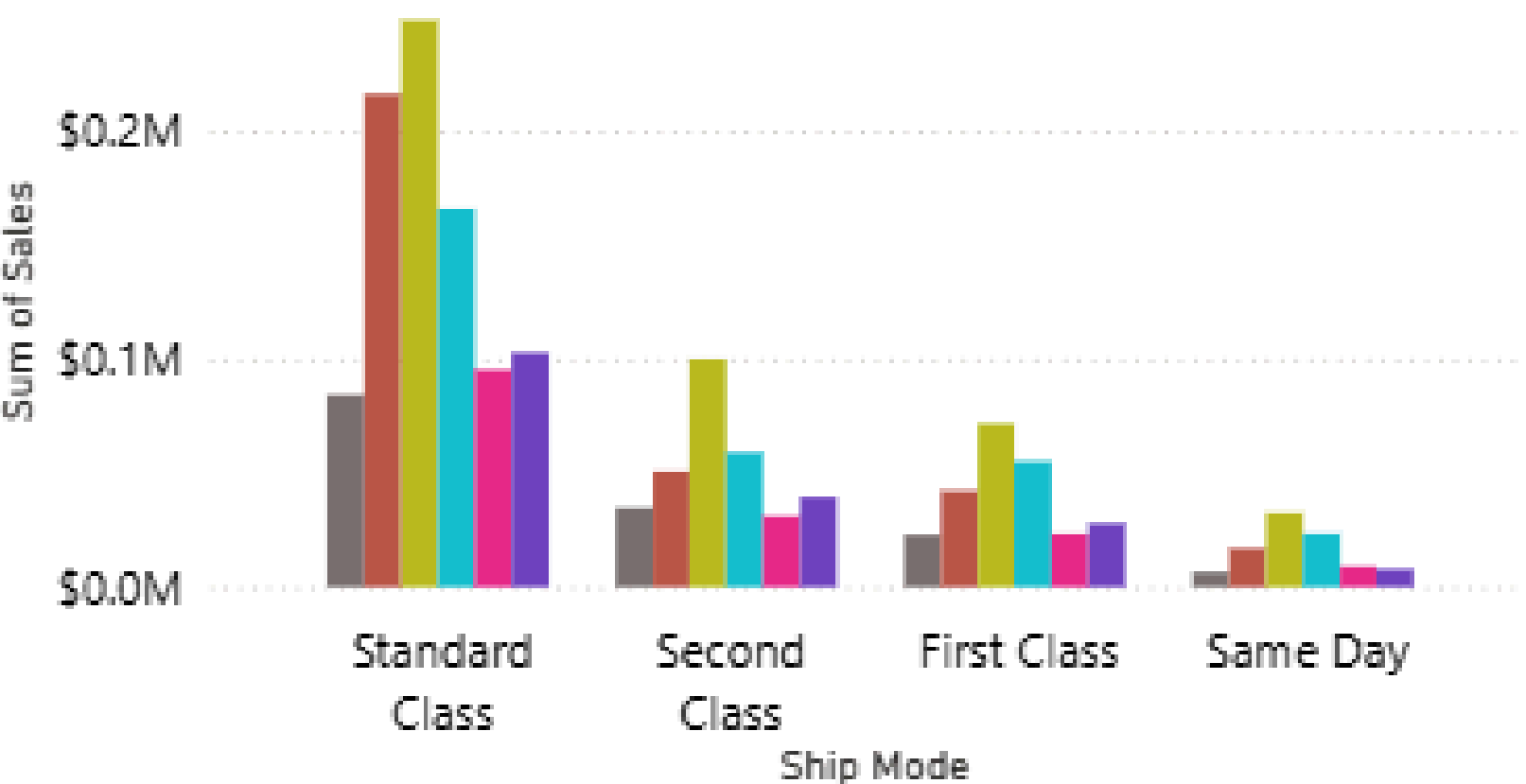- ● First Class
- ● Same Day

Average of Shipping Time by Month Name
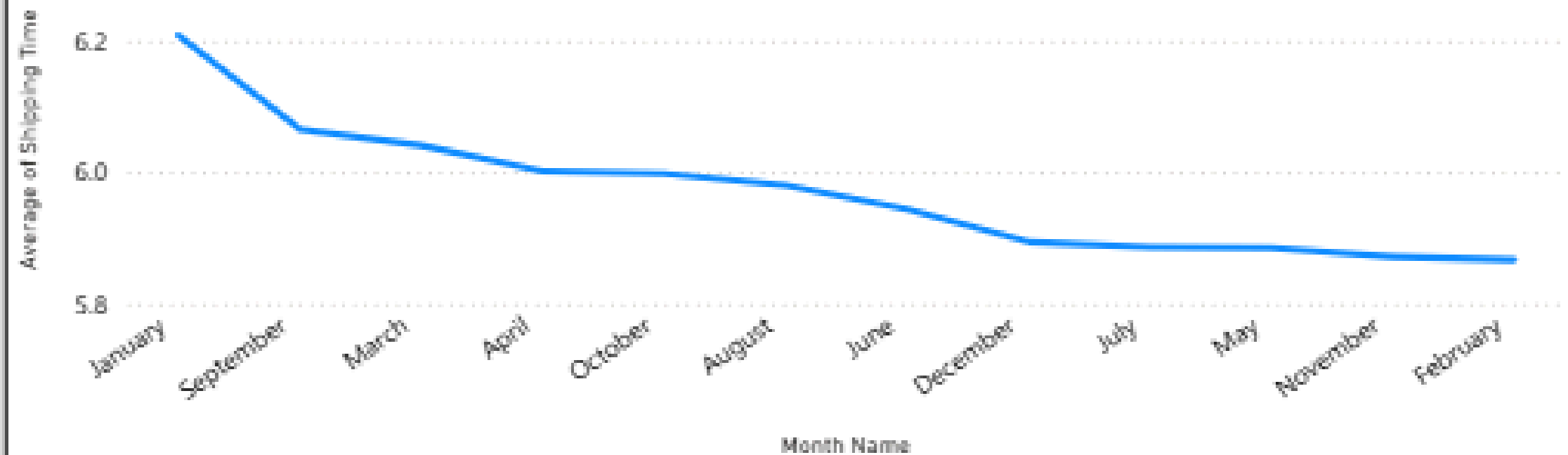
Sum of Sales and Profit Margin % by Ship Mode and Continent

Continent ● Africa ● Asia ● Europe ● North America ● Oceania ● South America

Country	Sum of Profit	Average of Shipping Time
Australia	$19,769.5	5.90
Brazil	$18,303.2	5.94
Canada	$34,546.2	5.78
France	$7,836.6	6.06
Germany	$16,297.0	6.15
India	$22,863.8	5.88
Japan	$21,417.9	6.15
South Africa	$863.1	5.95
United Kingdom	$15,289.4	5.90
United States	$18,075.3	6.03
Total	**$175,262.1**	5.97

Year

All

Region

All

Average Delivery Time(Days)

5.97

- Top 5 Countries by Sales: Brazil, India, Canada, Germany, Australia
- Category Sales Share: Office Supplies > Technology > Furniture
- Some countries (highlighted in red) show profits, indicating potential operational inefficiencies.
- Sales peaked in 2019, followed by a dip and resurgence.
- Map chart (with continent grouping) indicates Europe and Asia as strong continents in sales volume.
- Top segments: Consumer > Corporate > Home Office
- Standard Class is the most used shipping mode, but with moderate delivery performance.
- Average Delivery Time is impacted by ship mode and region.
- Monthly trend analysis shows seasonal fluctuations with spikes in Q2 and Q4.
- Top products belong to Office Supplies and Technology categories.

Conclusion

The four-page dashboard created in Power BI, powered by robust EDA and a clean dataset, allows for dynamic exploration of global sales data. It provides actionable insights into product, regional, and shipping performance. This project satisfies the requirement, combining both visual analytics and business intelligence for decision-making.