

Enter your choice (1-9): 1
Enter the CSV file path or name: sales_data.csv

	date(yyyy-mm-dd)	product	category	price	quantity sold \
0	3/5/2025	Headphones	Computers	50969	1
1	2/8/2025	Monitor	Computers	46594	16
2	3/31/2025	Laptop	Accessories	53765	3
3	4/30/2025	Keyboard	Electronics	42111	4
4	3/29/2025	Smartphone	Electronics	25883	19
..
495	2/21/2025	Keyboard	Accessories	20742	8
496	6/10/2025	Printer	Office Supplies	99204	1
497	5/22/2025	Router	Office Supplies	638	3
498	9/5/2025	Mouse	Office Supplies	16552	7
499	8/14/2025	Webcam	Computers	59306	8

	total sales
0	50969
1	745504
2	161295
3	168444
4	491777
..	...
495	165936
496	99204
497	1914
498	115864
499	474448

===== RETAIL ANALYZER MENU =====

- 1. Load Data
 - 2. Clean Data
 - 3. Calculate Metrics
 - 4. Filter Data
 - 5. Display Summary
 - 6. Plot Total Sales by Category (Bar)
 - 7. Plot Sales Trend Over Time (Line)
 - 8. Plot Correlation Heatmap
 - 9. Exit
- Enter your choice (1-9): 3
Total Sales: 277,728,667.00
Average Sale per Transaction: 555,457.33
Most Popular Product: Tablet (Sold: 624)

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Enter your choice (1-9):

9. EXIT
Enter your choice (1-9): 4
Filter by product (leave blank for none):
Filter by category (leave blank for none):
Price min (leave blank for none): 20
Price max (leave blank for none): 90
Total Sale min (leave blank for none):
Total Sale max (leave blank for none):

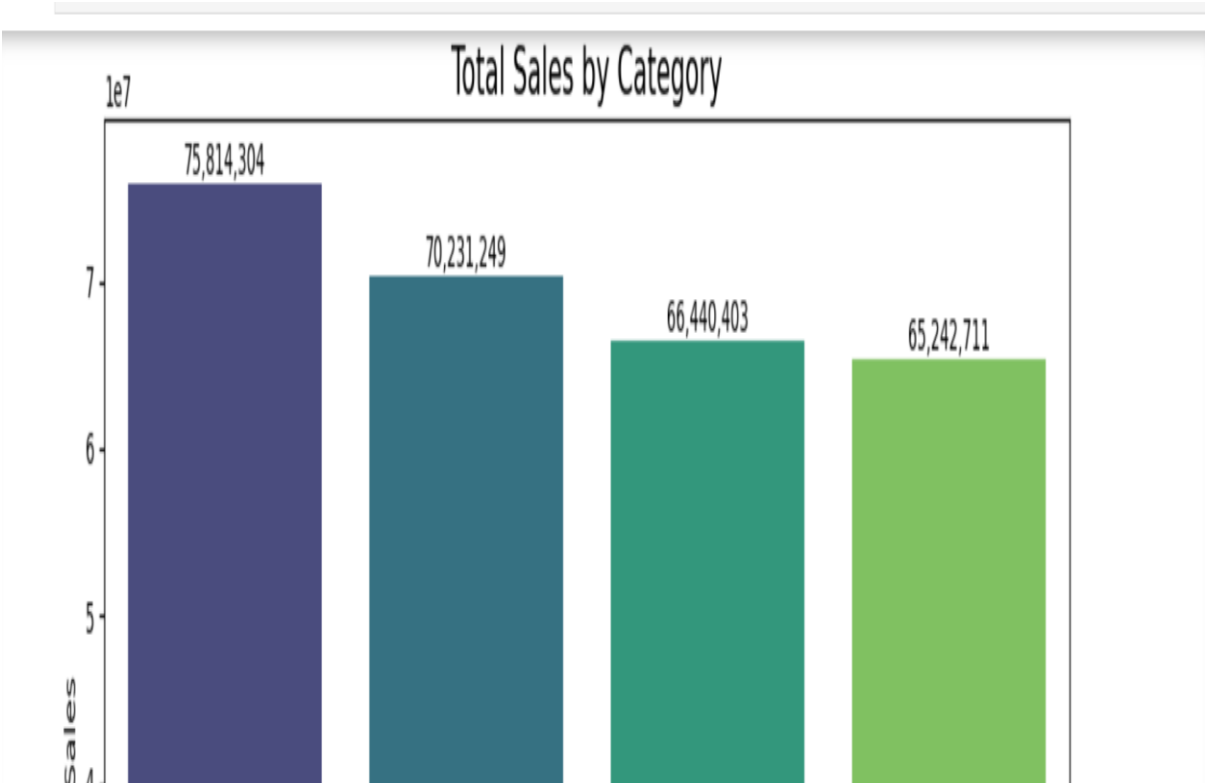
Filtered records: 0

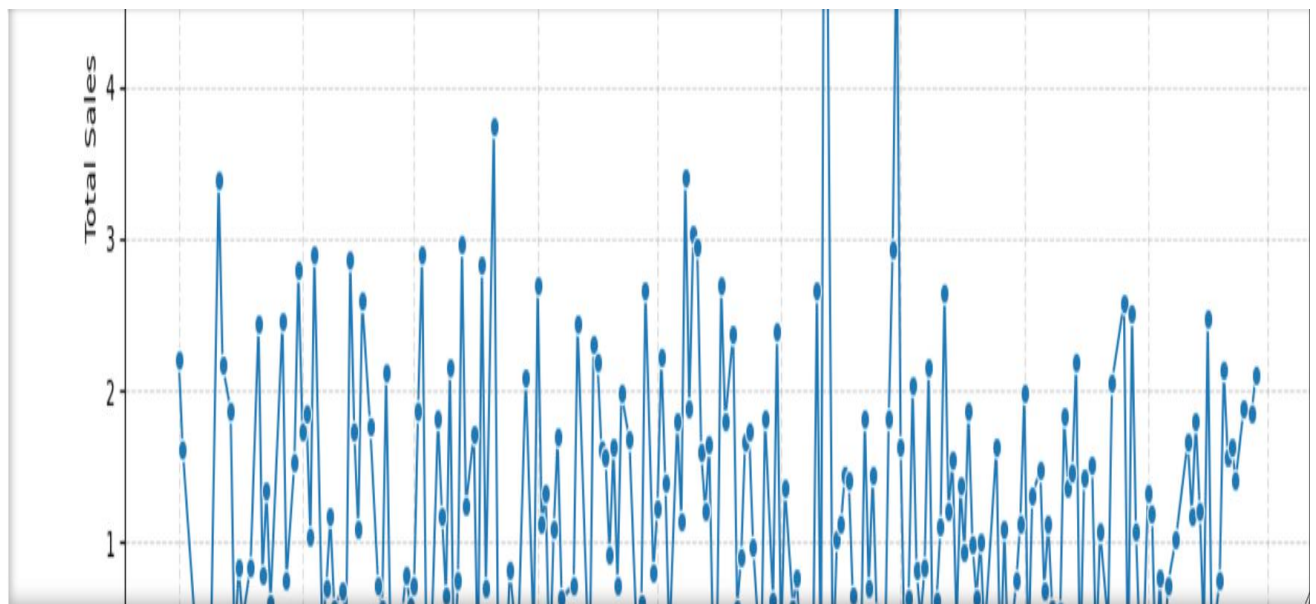
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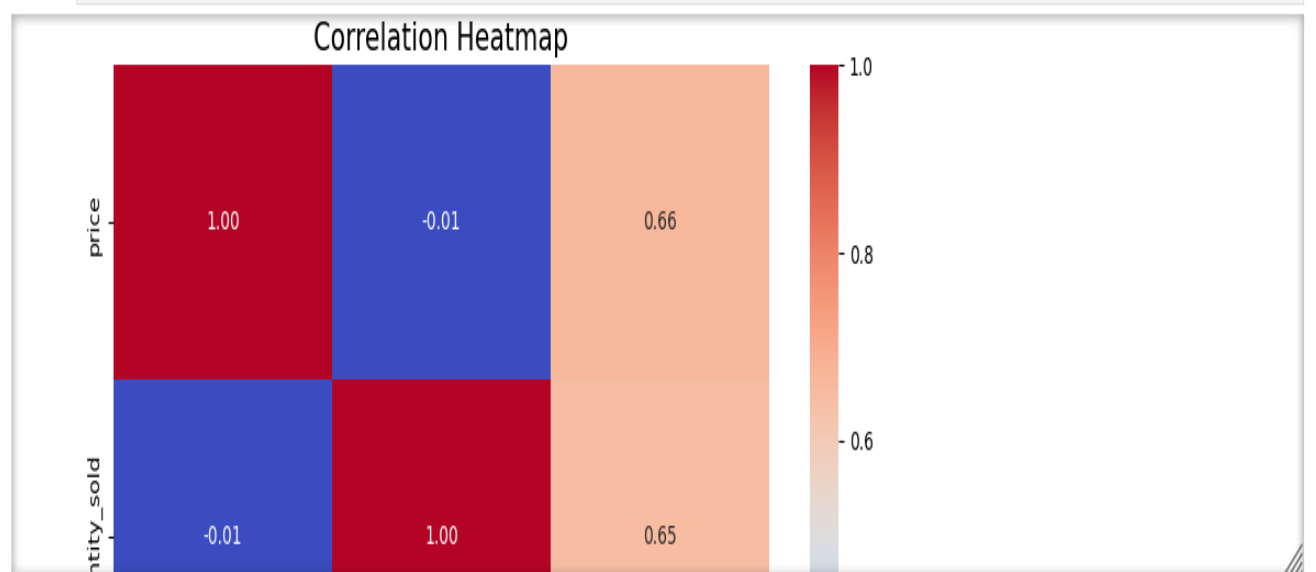
Enter your choice (1-9):

[123]:





```
# ----- USAGE -----  
Analyzer = RetailAnalyzer()  
Analyzer.load_data()  
Analyzer.clean_data()  
Analyzer.calculate_matrices()  
Analyzer.display_summary()  
Analyzer.filter_data()  
Analyzer.plot_total_sales_by_category()  
Analyzer.plot_sales_trend_over_time()  
Analyzer.plot_correlation_heatmap()
```



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Enter your choice (1-9): 9

Exiting... Goodbye!