



Supply Chain Data Analysis using MySQL

A data-driven approach to optimising logistics and inventory management.

Analysis 2: Most Popular Product

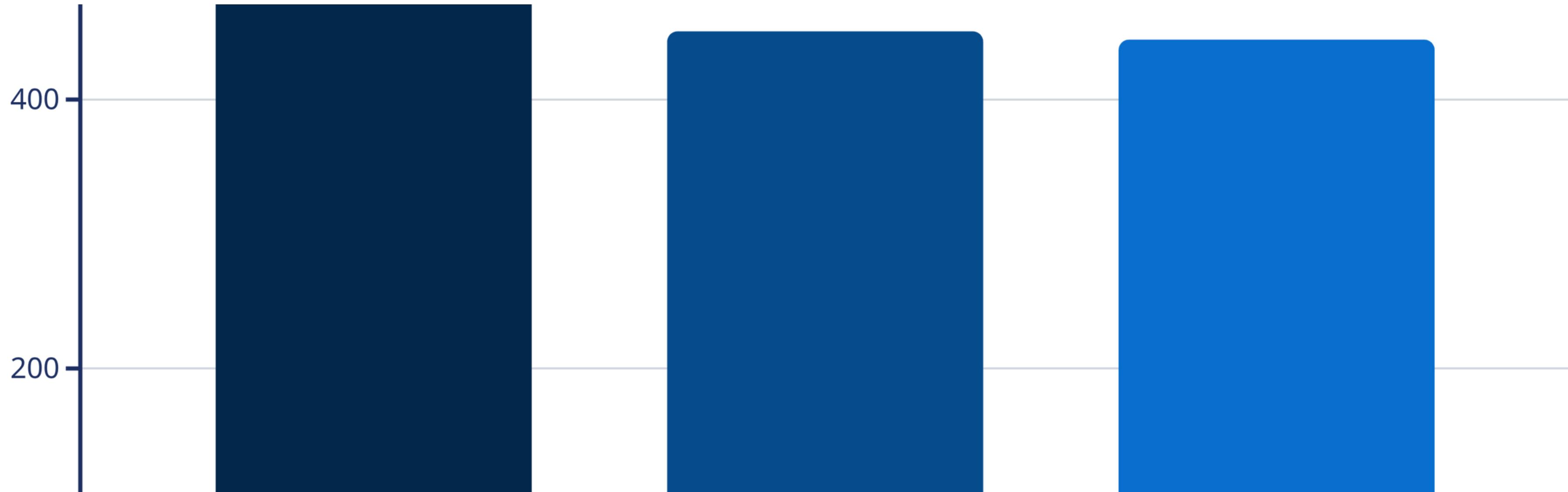
Category

Identifying the leading product category provides high-level insight into customer purchasing behaviour, critical for inventory prioritisation.

```
4      # Most popular product category
5 •  SELECT
6      Category,
7      COUNT(*) AS total_orders
8  FROM supplychain
9  GROUP BY Category
10 ORDER BY total_orders DESC;
```

Result Grid | Filter Rows: Export: Wrap Cell Content:

	Category	total_orders
▶	Office Supplies	277
	Furniture	101
	Technology	88

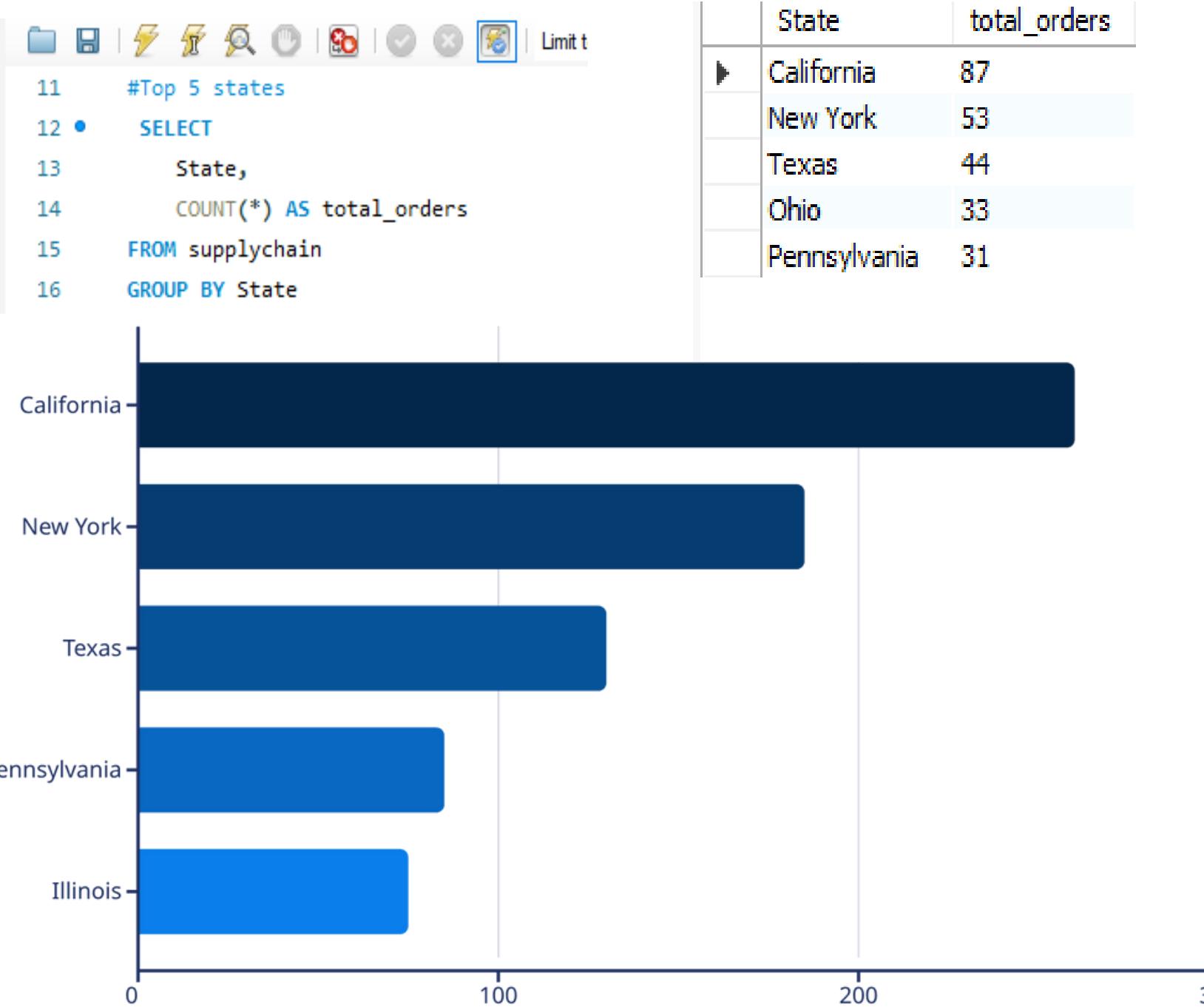


Analysis 3 & 6: Geographical Order

Distribution

A geographical breakdown reveals where demand is concentrated, assisting in optimising distribution centres and regional sales strategies.

Top 5 States by Orders



California and New York are the dominant states, with New York City showing significant volume. This data is key for capacity planning.

Top 5 Clients by Orders

Screenshot of a database query interface showing the top 5 clients by total orders:

city	total_orders
New York City	39
Los Angeles	34
Philadelphia	31
San Francisco	29
Houston	24

Below the table is a donut chart illustrating the distribution of total orders among the top 5 clients:

City	Percentage of Total Orders
New York City	~25%
Los Angeles	~18%
Philadelphia	~15%
San Francisco	~12%
Houston	~10%

The chart indicates that New York City accounts for the largest share of total orders, followed by Los Angeles, Philadelphia, San Francisco, and Houston.

Analysis 4: Top 10 Products Sold

Focusing on the most frequently sold individual items allows for precise inventory management and identification of 'fast movers' that require continuous stocking.

- 1 Binders
 - 2 Staplers
 - 3 Phones
 - 4 Chairs
 - 5 Labels
 - 6 Storage Bins
 - 7 Envelopes
 - 8 Art Supplies
- ```
#top 10 product sold
SELECT
 `Product Name`,
 COUNT(*) AS total_orders
FROM supplychain
GROUP BY `Product Name`
ORDER BY total_orders DESC
LIMIT 10;
```

Result Grid | Filter Rows:  Export:

| Product Name                                       | total_orders |
|----------------------------------------------------|--------------|
| Atlantic Metals Mobile 3-Shelf Bookcases, Custo... | 3            |
| Imation Secure + Hardware Encrypted USB 2.0 ...    | 3            |
| Global Deluxe High-Back Manager's Chair            | 3            |
| Panasonic Kx-TS550                                 | 3            |
| Easy-staple paper                                  | 3            |
| Hon Deluxe Fabric Upholstered Stacking Chairs,...  | 2            |
| Southworth 25% Cotton Antique Laid Paper & E...    | 2            |
| Bretford CR4500 Series Slim Rectangular Table      | 2            |
| Safco Industrial Wire Shelving                     | 2            |

# Analysis 5: Subcategory Performance

Drilling down into subcategories provides a finer understanding of which specific product lines within the broader categories are driving the highest order volume.

```
27 #subcategory wise product count
28 • SELECT
29 `Sub Category`,
30 COUNT(*) AS total_orders
31 FROM supplychain
32 GROUP BY `Sub Category`
33 ORDER BY total_orders DESC
34 LIMIT 10;
35
```

|   | Sub Category | total_orders |
|---|--------------|--------------|
| ▶ | Binders      | 61           |
|   | Paper        | 57           |
|   | Storage      | 50           |
|   | Art          | 44           |
|   | Furnishings  | 40           |
|   | Accessories  | 39           |
|   | Phones       | 37           |
|   | Chairs       | 32           |

| Sub Category | Key Insight                                                                 |
|--------------|-----------------------------------------------------------------------------|
| Binders      | Highest volume item, essential for office supply stock management.          |
| Paper        | Consumable with consistently high demand.                                   |
| Phones       | Leading subcategory within Technology, indicating strong B2B sales.         |
| Chairs       | The top-performing Furniture item, requiring stable supplier relationships. |

# Key Insights and Strategic Conclusions

The data analysis provides clear direction for inventory optimisation and logistical strategy across high-demand areas and product lines.

## Inventory Focus

Prioritise stocking of Binders and Phones, as they represent the highest volume products across subcategories.

## Logistics Strategy

Concentrate efforts on establishing regional distribution efficiency in California, New York, and Texas to meet peak demand.

## Future Planning

The strong performance of the Technology category warrants further analysis into specific tech products and forecasting future trends.

