



# SALES & OPERATIONS PERFORMANCE ANALYSIS

**Tool Used:** PostgreSQL

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## BUSINESS PROBLEM

A retail company wants to analyze its sales and operations performance to improve revenue, track target achievement, and reduce delivery delays.

The management wants answers to:

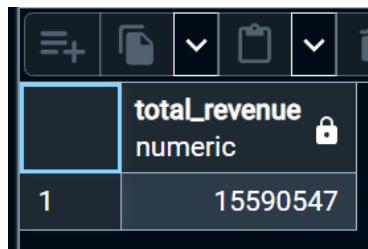
- What is the total revenue generated?
  - Are sales teams achieving their targets?
  - Which region and salesperson are performing best?
  - Which managers are driving the most revenue?
  - How are delivery delays affecting revenue?
  - Which warehouse has the highest operational issues?
- 



## SECTION 1: COMPANY-WIDE KPIs

### 1 What is the total revenue?

```
SELECT SUM(revenue) AS total_revenue
FROM sales_data;
```



	total_revenue
	numeric
1	15590547

### 2 What is the total target amount?

```
SELECT SUM(target_amount) AS total_target
FROM sales_data;
```

		≡+	⬇	⬇	⬇	⬇
		total_target		locked		
1		17916076				

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### 3 What is the total achieved amount?

```
SELECT SUM(achieved_amount) AS total_achieved
FROM sales_data;
```

		≡+	⬇	⬇	⬇	⬇	⬇
		total_achieved		locked			
1		15472825					

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### 4 What is overall achievement percentage?

```
SELECT
    ROUND(SUM(achieved_amount) * 100.0 / SUM(target_amount), 2)
    AS overall_achievement_percentage
FROM sales_data;
```

		≡+	⬇	⬇	⬇	⬇	⬇	⬇
		overall_achievement_percentage		locked				
1		86.3628006489813953						

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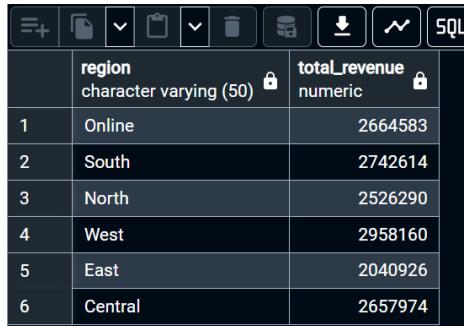
## 📌 SECTION 2: REGION PERFORMANCE

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### 5 What is total revenue by region?

```
SELECT
    region,
    SUM(revenue) AS total_revenue
```

```
FROM sales_data  
GROUP BY region;
```

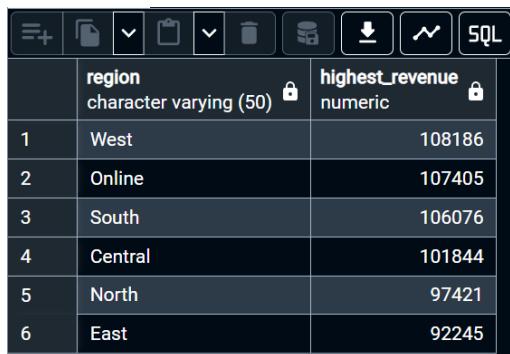


	region character varying (50) 	total_revenue numeric 
1	Online	2664583
2	South	2742614
3	North	2526290
4	West	2958160
5	East	2040926
6	Central	2657974

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## 6 Which region has the highest revenue?

```
SELECT  
    region,  
    SUM(revenue) AS total_revenue  
FROM sales_data  
GROUP BY region  
ORDER BY total_revenue DESC  
LIMIT 1;
```



	region character varying (50) 	highest_revenue numeric 
1	West	108186
2	Online	107405
3	South	106076
4	Central	101844
5	North	97421
6	East	92245

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## 7 Which region has the lowest achievement %?

```
SELECT  
    region,  
    ROUND(SUM(achieved_amount) * 100.0 / SUM(target_amount), 2) AS  
achievement_percentage  
FROM sales_data  
GROUP BY region  
ORDER BY achievement_percentage ASC  
LIMIT 1;
```

A screenshot of a database interface showing a single row of results. The columns are labeled 'region' and 'achievement\_percentage\_lowest'. The 'region' column contains 'South' and the 'achievement\_percentage\_lowest' column contains '84.11'. The interface includes standard database navigation buttons like back, forward, and search.

	region character varying (50)	achievement_percentage_lowest numeric
1	South	84.11

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## SECTION 3: SALESPERSON PERFORMANCE

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### 8 What is total revenue generated by each salesperson?

```
SELECT
    salesperson,
    SUM(revenue) AS total_revenue
FROM sales_data
GROUP BY salesperson;
```

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### 9 What is achievement % by each salesperson?

```
SELECT
    salesperson,
    ROUND(SUM(achieved_amount) * 100.0 / SUM(target_amount), 2)
        AS achievement_percentage
FROM sales_data
GROUP BY salesperson
ORDER BY achievement_percentage DESC;
```

A screenshot of a database interface showing a list of salespeople with their achievement percentages. The columns are labeled 'salesperson' and 'achievement\_percentage'. The 'salesperson' column lists 'Neha Kapoor', 'Sneha Iyer', 'Arjun Mehta', 'Karan Malhotra', and 'Pooja Das'. The 'achievement\_percentage' column shows values of 82.78, 83.23, 83.81, 84.32, and 86.43 respectively. The interface includes standard database navigation buttons.

	salesperson character varying (100)	achievement_percentage numeric
1	Neha Kapoor	82.78
2	Sneha Iyer	83.23
3	Arjun Mehta	83.81
4	Karan Malhotra	84.32
5	Pooja Das	86.43

### 10 Who are the top 5 salespersons by revenue?

```
SELECT
    salesperson,
    SUM(revenue) AS total_revenue
```

```
FROM sales_data
GROUP BY salesperson
ORDER BY total_revenue DESC
LIMIT 5;
```

A screenshot of a SQL query interface. At the top, there are several icons: a plus sign, a file icon, a dropdown arrow, a clipboard icon, another dropdown arrow, a trash bin, a save icon, a download icon, a refresh icon, and a SQL tab. Below this is a table with two columns: 'salesperson' and 'top\_sales\_persons'. The data shows the top 5 salespersons based on total revenue.

	salesperson	top_sales_persons
1	Arjun Mehta	2037932
2	Pooja Das	1987057
3	Amit Sharma	1735291
4	Vikram Rao	1689565
5	Sneha Iyer	1634513

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## 1 1 Who are the bottom 5 salespersons by achievement %?

```
SELECT
    salesperson,
    ROUND(SUM(achieved_amount) * 100.0 / SUM(target_amount), 2)
    AS achievement_percentage
FROM sales_data
GROUP BY salesperson
ORDER BY achievement_percentage ASC
LIMIT 5;
```

A screenshot of a SQL query interface. At the top, there are several icons: a plus sign, a file icon, a dropdown arrow, a clipboard icon, another dropdown arrow, a trash bin, a save icon, a download icon, a refresh icon, and a SQL tab. Below this is a table with two columns: 'salesperson' and 'achievement\_percentage'. The data shows the bottom 5 salespersons based on achievement percentage.

	salesperson	achievement_percentage
1	Rahul Verma	91.29
2	Amit Sharma	89.25
3	Vikram Rao	88.21
4	Anjali Nair	87.95
5	Priya Singh	87.14
6	Pooja Das	86.43
7	Karan Malhotra	84.32
8	Arjun Mehta	83.81
9	Sneha Iyer	83.23
10	Neha Kapoor	82.78

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## 📌 SECTION 4: OPERATIONS ANALYSIS

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### 1 2 Number of delayed orders by region?

```

SELECT
    sd.region,
    COUNT(*) AS delayed_orders
FROM operations_data op
JOIN sales_data sd
    ON sd.order_id = op.order_id
WHERE op.delivery_status = 'Delayed'
GROUP BY sd.region
ORDER BY delayed_orders DESC;

```

	region character varying (50)	delayed_orders bigint
1	Online	42
2	Central	41
3	West	40
4	East	40
5	North	39
6	South	37

## 1 3 Which warehouse has most delayed orders?

```

SELECT
    warehouse,
    COUNT(*) AS delayed_orders
FROM operations_data
WHERE delivery_status = 'Delayed'
GROUP BY warehouse
ORDER BY delayed_orders DESC
LIMIT 1;

```

	warehouse character varying (50)	most_delayed bigint
1	Chennai WH	79

## SECTION 5: JOIN ANALYSIS

## 1 4 What is revenue generated by each manager?

```

SELECT
    em.manager,
    SUM(sd.revenue) AS total_revenue
FROM sales_data sd
JOIN employee_master em
    ON sd.salesperson = em.salesperson
GROUP BY em.manager
ORDER BY total_revenue DESC;

```

The screenshot shows a SQL query results interface with various icons for file operations and a 'SQL' button. The results table has two columns: 'manager' and 'total\_revenue\_generated\_by\_manager'. The data shows three rows: Sunita Reddy with 8006752, Raj Malhotra with 5894230, and Manish Gupta with 1689565.

	manager character varying (100)	total_revenue_generated_by_manager numeric
1	Sunita Reddy	8006752
2	Raj Malhotra	5894230
3	Manish Gupta	1689565

## 1 5 What is total revenue for delayed vs on-time orders?

```

SELECT
    op.delivery_status,
    SUM(sd.revenue) AS total_revenue
FROM operations_data op
JOIN sales_data sd
    ON sd.order_id = op.order_id
GROUP BY op.delivery_status;

```

The screenshot shows a SQL query results interface with various icons for file operations and a 'SQL' button. The results table has two columns: 'delivery\_status' and 'total\_revenue\_delayed\_vs\_on\_time'. The data shows two rows: On-Time with 3214680 and Delayed with 12375867.

	delivery_status character varying (50)	total_revenue_delayed_vs_on_time numeric
1	On-Time	3214680
2	Delayed	12375867

## 🎯 SKILLS DEMONSTRATED

- Data Aggregation (SUM, COUNT)
- GROUP BY
- ORDER BY
- LIMIT

- INNER JOIN
- KPI Calculation
- Business-Oriented Query Writing
- Percentage Analysis