

SQL Script:-

```
SELECT
    DATE_FORMAT(order_date, '%Y-%m') AS month_year,
    SUM(amount) AS total_revenue,
    COUNT(DISTINCT order_id) AS total_orders
FROM
    orders
WHERE
    order_date BETWEEN '2003-01-01' AND '2004-12-31'
GROUP BY
    DATE_FORMAT(order_date, '%Y-%m')
ORDER BY
    DATE_FORMAT(order_date, '%Y-%m');
```

Output:-

The screenshot displays the SQL Studio interface with the following components:

- Administration Panel (Left):** Shows the database structure for 'Sales_trend_analysis', including tables like 'cleaned_sales_for_...', 'orders', and 'Sales_trends'.
- Query Editor (Top):** Contains the SQL script provided in the previous block.
- Result Grid (Bottom):** Displays the execution results of the query. The grid has three columns: 'month_year', 'total_revenue', and 'total_orders'. The data is grouped by month and year, showing revenue and order counts for each period.
- Action Output (Bottom):** Shows the execution log with timestamps and messages, indicating that the query was executed successfully and returned 23 rows.

month_year	total_revenue	total_orders
2003-01	99323.96	2
2003-02	81965.08	2
2003-03	91861.06	4
2003-04	136903.47	4
2003-05	121219.31	4
2003-06	49796.04	3
2003-07	70429.09	2
2003-08	57413.32	2
2003-09	140089.05	4
2003-10	328024.99	8
2003-11	541069.31	15
2004-01	187660.59	5
2004-02	226537.57	6
2004-03	88225.99	4
2004-04	93611.08	5
2004-05	55918.28	2
2004-06	226099.62	7
2004-07	235135.44	7
2004-08	349427.91	8
2004-09	102017.92	4

Data Cleaning Steps (Python)

```
import pandas as pd

df = pd.read_csv('Superstore_sales_dataset.csv')

df.columns = df.columns.str.strip().str.lower().str.replace(' ', '_')

df['order_date'] = pd.to_datetime(df['order_date'], errors='coerce', dayfirst=False)
df['ship_date'] = pd.to_datetime(df['ship_date'], errors='coerce', dayfirst=False)

df['postal_code'].fillna(method='ffill', inplace=True) # forward fill

df.drop_duplicates(inplace=True)

df.reset_index(drop=True, inplace=True)

df.to_csv('superstore_sales_cleaned.csv', index=False)

print(" Data cleaned and saved as 'superstore_sales_cleaned.csv'")
```