Sales Trend Analysis Using Aggregations

Analyze monthly revenue and order volume

Dataset: online_sales

1. Quires

*SELECT * FROM suhasdb.order;*

Transaction ID	Date	Product Category	Product Name	Units Sold	Unit Price	Total Revenue	Region	Payment Method
10001	2024-01-01	Electronics	iPhone 14 Pro	2	999.99	1999.98	North America	Credit Card
10002	2024-01-02	Home Appliances	Dyson V11 Vacuum	1	499.99	499.99	Europe	PayPal
10003	2024-01-03	Clothing	Levi's 501 Jeans	3	69.99	209.97	Asia	Debit Card
10004	2024-01-04	Books	The Da Vinci Code	4	15.99	63.96	North America	Credit Card
10005	2024-01-05	Beauty Products	Neutrogena Skincare Set	1	89.99	89.99	Europe	PayPal
10006	2024-01-06	Sports	Wilson Evolution Basketball	5	29.99	149.95	Asia	Credit Card
10007	2024-01-07	Electronics	MacBook Pro 16-inch	1	2499.99	2499.99	North America	Credit Card
10008	2024-01-08	Home Appliances	Blueair Classic 480i	2	599.99	1199.98	Europe	PayPal
10009	2024-01-09	Clothing	Nike Air Force 1	6	89.99	539.94	Asia	Debit Card
10010	2024-01-10	Books	Dune by Frank Herbert	2	25.99	51.98	North America	Credit Card
10011	2024-01-11	Beauty Products	Chanel No. 5 Perfume	1	129.99	129.99	Europe	PayPal
10012	2024-01-12	Sports	Babolat Pure Drive Tennis ...	3	199.99	599.97	Asia	Credit Card
10013	2024-01-13	Electronics	Samsung Galaxy Tab S8	2	749.99	1499.98	North America	Credit Card
10014	2024-01-14	Home Appliances	Keurig K-Elite Coffee Maker	1	189.99	189.99	Europe	PayPal

2. Extract Month and Year

```
SELECT
   EXTRACT(YEAR FROM Date) AS Year,
   EXTRACT(MONTH FROM Date) AS Month
  FROM suhasdb.order
GROUP BY EXTRACT(YEAR FROM Date), EXTRACT(MONTH FROM Date);
```

Result Grid | Filter Rows:

Year	Month
2024	1
2024	2
2024	3
2024	4
2024	5
2024	6
2024	7
2024	8

3. Monthly Revenue by Payment Method

```
SELECT
   EXTRACT(YEAR FROM Date) AS Year,
   EXTRACT(MONTH FROM Date) AS Month,
   'Payment Method',
   SUM(`Total Revenue`) AS Total_Revenue
FROM suhasdb.order
GROUP BY EXTRACT(YEAR FROM Date), EXTRACT(MONTH FROM Date), 'Payment Method'
ORDER BY Year DESC, Month DESC, Total_Revenue DESC;
```

Result Grid | Filter Rows: | Export:

Year	Month	Payment Method	Total_Revenue
2024	8	Payment Method	7278.109999999999
2024	7	Payment Method	6797.08
2024	6	Payment Method	7384.549999999998
2024	5	Payment Method	8455.49
2024	4	Payment Method	12451.689999999995
2024	3	Payment Method	12849.239999999996
2024	2	Payment Method	10803.369999999999
2024	1	Payment Method	14548.319999999992

4. COUNT(DISTINCT) for Volume

```
SELECT
   EXTRACT(YEAR FROM Date) AS Year,
   EXTRACT(MONTH FROM Date) AS Month,
   COUNT('DISTINCT Transaction ID') AS Volume
FROM suhasdb.order
GROUP BY EXTRACT(YEAR FROM Date), EXTRACT(MONTH FROM Date);
```

Result Grid | Filter Rows:

Year	Month	Volume
2024	1	31
2024	2	29
2024	3	31
2024	4	30
2024	5	31
2024	6	30
2024	7	31
2024	8	27

5. *ORDER BY for Sorting*

```
SELECT
   EXTRACT(YEAR FROM Date) AS Year,
   EXTRACT(MONTH FROM Date) AS Month,
   SUM(`Total Revenue`) AS Revenue,
   COUNT('DISTINCT Transaction ID') AS Volume
FROM suhasdb.order
GROUP BY EXTRACT(YEAR FROM Date), EXTRACT(MONTH FROM Date)
ORDER BY Year DESC, Month DESC;
```

Result Grid | Filter Rows: | Export

Year	Month	Revenue	Volume
2024	8	7278.109999999999	27
2024	7	6797.08	31
2024	6	7384.549999999998	30
2024	5	8455.49	31
2024	4	12451.689999999995	30
2024	3	12849.239999999996	31
2024	2	10803.369999999999	29
2024	1	14548.319999999992	31

6. Total Revenue by Year (Without Month)

```
SELECT
   EXTRACT(YEAR FROM Date) AS Year,
   COUNT('DISTINCT Transaction ID') AS Volume
FROM suhasdb.order
GROUP BY EXTRACT(YEAR FROM Date);
```

Result Grid | Filter

Year	Volume
2024	240

7. Top 5 Month by Revenue

```
SELECT
   EXTRACT(MONTH FROM Date) AS Year,
   SUM(`Total Revenue`) AS Revenue
FROM suhasdb.order
GROUP BY EXTRACT(MONTH FROM Date)
ORDER BY Revenue DESC
LIMIT 5;
```

Result Grid | Filter Rows:

Year	Revenue
1	14548.319999999992
3	12849.239999999996
4	12451.689999999995
2	10803.369999999999
5	8455.49

8. Revenue for Each Month in a Specific Date Range

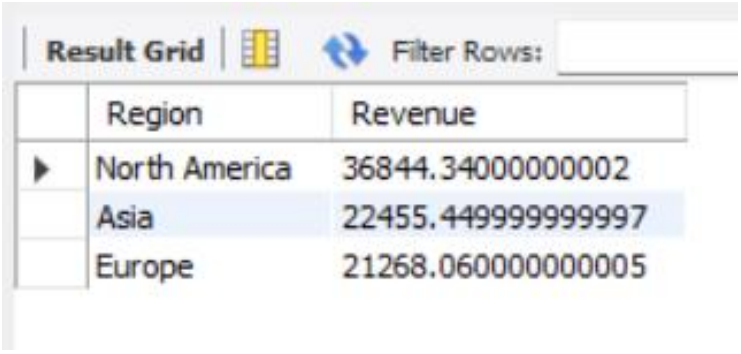
```
SELECT
   EXTRACT(YEAR FROM Date) AS Year,
   EXTRACT(MONTH FROM Date) AS Month,
   AVG(`Total Revenue`) AS Avg_Revenue_Per_Order
FROM suhasdb.order
GROUP BY EXTRACT(YEAR FROM Date), EXTRACT(MONTH FROM Date)
ORDER BY Year DESC, Month DESC;
```

Result Grid | Filter Rows: | Ex

Year	Month	Avg_Revenue_Per_Order
2024	8	269.55962962962957
2024	7	219.2606451612903
2024	6	246.1516666666666
2024	5	272.75774193548386
2024	4	415.05633333333316
2024	3	414.4916129032257
2024	2	372.53
2024	1	469.3006451612901

9. Total Revenue by Region

```
SELECT
   Region,
   SUM(`Total Revenue`) AS Revenue
FROM suhasdb.order
GROUP BY Region
ORDER BY Revenue DESC;
```



Region	Revenue
North America	36844.34000000002
Asia	22455.449999999997
Europe	21268.060000000005