

VitaSip SQL Add-On Analysis

This project extends the IEUK Excel-based analysis of VitaSip's 2024 sales data using SQL. The SQL queries validate the integrity of the dataset, investigate sales performance over time, and segment customer and channel-level patterns.

1. Data Validation

- Confirmed no missing values in key fields: Total_Sale, Channel, Customer_Type, Product.
- Min/max checks showed Quantity ranged from 1 to 15, and Total Sales ranged from £2.70 to £1,111.
- Used PRAGMA to inspect table structure, confirming correct data types.

2. Sales Performance Over Time

- Top sales day generated £1,114 in revenue - likely due to a bulk order or promotion.
- Lowest sales days were as low as £2.70, highlighting underperforming dates.
- Highest product quantity sold was on 07/01/2024 (26 units), aligning with early January demand.
- A 7-day rolling average query captured momentum shifts in short-term trends.

3. Channel and Customer Insights

- New customers purchasing via Third-Party Retail generated the highest revenue overall.
- Online Subscriptions and Returning Online Customers also performed well.
- These combinations mirror the Excel and Tableau results and provide strong direction for marketing strategy.

4. SQL Output Tables

Below are screenshots of the SQL query results used to support the analysis above:

Output Table 1

	Date_of_Sale	daily_sales
1	NULL	16.0
2	01/01/2024	28.0
3	01/02/2024	22.5
4	01/06/2024	7.0
5	01/08/2024	12.0
6	02/01/2024	26.5
7	02/02/2024	3.5
8	02/06/2024	84.7
9	02/07/2024	25.0
10	02/08/2024	40.0

Output Table 2

	Date_of_Sale	daily_sales
1	17/09/2024	1114.0
2	30/12/2024	100.0
3	07/01/2024	93.5
4	03/01/2024	86.2
5	02/06/2024	84.7

Output Table 3

	Date_of_Sale	daily_sales
1	10/02/2024	2.7
2	16/02/2024	3.0
3	02/02/2024	3.5
4	10/06/2024	3.5
5	27/02/2024	3.6

Output Table 4

	Date_of_Sale	total_quantity
1	07/01/2024	26
2	02/06/2024	24
3	03/01/2024	22
4	11/06/2024	21
5	23/01/2024	20

Output Table 5

	Date_of_Sale	rolling_avg_7days
38	08/08/2024	30.05
39	09/01/2024	30.7642857142857
40	09/02/2024	23.0
41	09/07/2024	22.6428571428571
42	09/08/2024	29.6428571428571
43	09/11/2024	30.7142857142857
44	10/01/2024	30.5714285714286
45	10/02/2024	25.9571428571429
46	10/06/2024	22.8857142857143
47	10/08/2024	23.7428571428571
48	10/11/2024	23.8428571428571
49	11/01/2024	17.7

Output Table 6

	Channel	Customer_Type	combo_sales
1	Third-Party Retail	New	1475.5
2	Online	Subscription	542.25
3	Online	Returning	513.0
4	Boutique Fitness Studios	New	473.5
5	Boutique Fitness Studios	Returning	427.0
6	Online	New	319.5
7	Third-Party Retail	Returning	296.0
8	Boutique Fitness Studios	Subscription	98.55
9	Third-Party Retail	Unknown	27.0