#### 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.

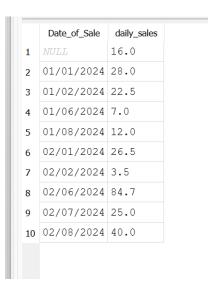
#### 3. Channel and Customer Insights

- 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



# 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        |