TechStyle

Retail Group

Retail Analytics Project

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Results Summary and Explanation

Analysis was done based on a number of business questions that needed to be answered. SQL was used in answering said questions. A summary of the results are as follows:

Sales Analysis

1. What is the monthly revenue trend over the past year?

Table 1 shows the monthly revenue over the past year, from August 2024 to July 2025. There isn't a definitive trend that can be observed. Month on month the revenue figures are sometimes higher, other times lower. The best months on record are October and October and April. The worst months September, December and July. Plotting these results on a line graph would further help in visualising the trend.

Table 1

order_month_num	order_month	order_year	sum_month
1	January	2025	2991.45
2	February	2025	2487.69
3	March	2025	3957.27
4	April	2025	4616.58
5	May	2025	3227.06
6	June	2025	3323.60
7	July	2025	2069.65
8	August	2024	3203.35
9	September	2024	1933.24
10	October	2024	4003.11
11	November	2024	2807.04
12	December	2024	1673.27

2. Which product categories generate the most revenue?

Table 2 shows the top 10 product categories by the amount of revenue they bring in.

Table 2

category	sum_revenue
Outdoor	57573.87
Kitchen	52328.88
Home	29476.74
Fitness	19133.34
Pets	17392.06
Electronics	16687.14
Toys	13796.69
Garden	11298.45
Health	9144.96
Wearable Tech	8999.64

Customer Insights

3. Who are the top 10 customers by lifetime value?

Table 3 shows the top 10 customers by the total amount of money they have spent. It is ordered from highest to lowest. Each customer's name and contact details have also been made available.

Table 3

customer_id	name	email	sum_total
80	Kali Dreakin	kdreakin27@php.net	2052.88
158	Marge Wickerson	mwickerson4d@mit.edu	1756.91
171	Adelice Beauvais	abeauvais4q@buzzfeed.com	1729.66
37	Raimundo Blaber	rblaber10@sbwire.com	1712.43
100	Marcus Hegley	mhegley2r@whitehouse.gov	1695.25
122	Wylie Britian	wbritian3d@nasa.gov	1689.35
17	Zora Tomaselli	ztomasellig@printfriendly.com	1678.26
98	Herman De Courtney	hde2p@virginia.edu	1642.08
109	Ericka Youens	eyouens30@sitemeter.com	1631.55
92	Adel Margerrison	amargerrison2j@spiegel.de	1606.64

4. What percentage of customers made more than one order?

Table 4 shows that 96% percent of customers made more than one order. This Is a great statistic it shows a high prevalence of loyal customers.

Table 4

percnt_of_cust_more_than_one_order
96.000000

Product Performance

5. What are the top 5 best-selling products per category?

Table 5 shows the top 5 best-selling products per category.

Table 5

product_id	name	category	sum_revenue
425	Instant Camera	Photography	40490,7
174	Wall Decals for Kids	Home	38216,84
390	Pineapple Rings	Food - Canned Goods	37393,47
391	Active Racerback Tank	Clothing - Tops	35451,96
242	Glass Food Containers	Kitchen	31067,96

6. Which products have high stock but poor sales?

Table 6 shows the products that most fit this description. After manipulating the combined tables of PRODUCTS and ORDER_ITEMS, the products with the highest stock and those with the poorest sales were analysed separately. It was found that a poor sum_revenue would be a value of about 1000 or less. It was also found that a high quantity_stock would be a value of about 1300 or higher.

Table 6 was ordered according to sum_revenue, where quantity_stock is above 1000. All of these values roughly fit the description, some more than others though.

Table 6

product_id	name	category	quantity_stock	sum_revenue
231	Almond Milk	Food – Dairy	1150	1039,71
309	Chocolate Avocado Pudding	Food – Desserts	1050	1350,72
276	Creamy Tomato Basil Soup	Food – Canned Goods	1200	1429,83
377	High-Waisted Skirt	Clothing – Bottoms	1500	1530,54
292	Roasted Red Pepper Dip	Food – Snacks	1150	1599,9
207	Natural Fruit Snacks	Food – Snacks	1250	1616,01
153	Homestyle Beef Stew	Food – Canned Soups	1100	2355,48
106	Ceramic Planter Set	Home	1350	2520,23
245	Running Shorts	Clothing – Activewear	1350	2784,16
226	Turmeric Ginger Tea	Food – Beverages	1150	2868,1
149	Magnetic Phone Car Mount	Automotive	1400	3187,86
431	Smoked Paprika	Food – Spices	1300	3280,32
272	Thai Green Curry Paste	Food – Sauces	1400	4017,42
351	Training Soccer Ball	Sports	1450	4183,06
408	Outdoor Portable Fire Pit	Outdoor	1200	4539,15

Operational & Data Quality

7. Are there any orders where total_amount doesn't match the sum of items?

An assumption was made as to what is being referred to in terms of sum of items. The assumption is that it's the product of quantity_sold and price in the ORDER_ITEMS table.
With a quick look through the joined table of ORDERS and ORDER_ITEMS, it becomes apparent that the more relevant question would be:
Are there any orders where total_amount **does** match the sum of items (product of quantity_sold and price). The answer to this question is no, as the returned table is empty.

8. Identify duplicate emails in the customer table.

The result of the query is an empty table, hence there are no duplicate emails in the customer table.