

## 1. VIP Customers: Top 10 Customers with the Largest Orders

- **Insight:** identifying the top 10 customers based on the number of orders and their revenue contribution. Tracking VIP customers allows focusing marketing strategies on them.
- **Recommendation:** Implement loyalty programs for the top customers and offer personalized promotions to retain them.

	customerid text	number_of_order bigint	revenue double precision
1	12748	209	33720
2	14911	201	143825
3	17841	124	40992
4	13089	97	58826
5	14606	93	12157
6	15311	91	60768
7	12971	86	11190
8	14646	73	280206
9	16029	63	81025
10	13408	62	28117

## 2. Top Products Sold for Each Month

- **Insight:** ranking products sold monthly, highlighting the best-selling product each month. This can provide insights into product seasonality and trends.
- **Recommendation:** Align inventory and marketing efforts with seasonal trends. If certain products peak during specific months, prepare marketing campaigns accordingly.

	year numeric	month numeric	description text	count_description bigint
1	2010	12	WHITE HANGING HEART T-LIGHT HOLDER	207
2	2011	1	WHITE HANGING HEART T-LIGHT HOLDER	160
3	2011	2	SET OF 3 CAKE TINS PANTRY DESIGN	129
4	2011	3	WHITE HANGING HEART T-LIGHT HOLDER	171
5	2011	4	PARTY BUNTING	163
6	2011	5	PARTY BUNTING	211
7	2011	6	PARTY BUNTING	180
8	2011	7	PARTY BUNTING	158
9	2011	8	JUMBO BAG RED RETROSPOT	158
10	2011	9	HOT WATER BOTTLE KEEP CALM	193
11	2011	10	PAPER CHAIN KIT 50'S CHRISTMAS	205
12	2011	11	RABBIT NIGHT LIGHT	466

### 3. Top Products Sold for Each Country

- **Insight:** helping to identify the top-selling products in different countries, which can assist in understanding regional preferences.
- **Recommendation:** Customize marketing strategies for different countries based on their top-selling products. Consider tailoring product listings and advertisements to regional tastes.

	country text	description text	count_description bigint
1	Austria	POSTAGE	14
2	Belgium	POSTAGE	96
3	Denmark	POSTAGE	13
4	EIRE	CARRIAGE	98
5	Finland	POSTAGE	37
6	France	POSTAGE	300
7	Germany	POSTAGE	374
8	Italy	POSTAGE	17
9	Netherlands	POSTAGE	37
10	Norway	POSTAGE	20
11	Portugal	POSTAGE	30
12	Spain	POSTAGE	62
13	Sweden	POSTAGE	22
14	Switzerland	POSTAGE	31
15	United Kingdom	WHITE HANGING HEART T-LIGHT HOLDER	1940

#### 4. Monthly Revenue Growth Rate

- **Insight:** By comparing revenue across months, this query helps to analyze revenue growth. A clear visualization of these trends can reveal positive or negative growth.
- **Recommendation:** Investigate months with poor performance and adjust sales strategies, pricing, or promotional campaigns to boost revenue growth during slower periods.

## 5. Monthly Orders' Contribution to Total Orders

- **Insight:** calculating the percentage of monthly orders relative to the total number of orders in the dataset, revealing the busiest periods.
- **Recommendation:** allocate resources (e.g., warehouse staff or shipping capabilities) more effectively during peak months. Plan promotions during slower months to drive up orders.

	year numeric 🔒	month numeric 🔒	num_of_order bigint 🔒	total_order numeric 🔒	percent_from_total numeric 🔒
1	2010	12	1400	18532	7.55
2	2011	1	987	18532	5.33
3	2011	2	997	18532	5.38
4	2011	3	1321	18532	7.13
5	2011	4	1149	18532	6.20
6	2011	5	1555	18532	8.39
7	2011	6	1393	18532	7.52
8	2011	7	1331	18532	7.18
9	2011	8	1280	18532	6.91
10	2011	9	1755	18532	9.47
11	2011	10	1929	18532	10.41
12	2011	11	2657	18532	14.34
13	2011	12	778	18532	4.20

## 6. Sales Growth Rate for Products Priced Below \$10

- **Insight:** showing the sales growth rate for low-priced products. Products in this price range can either be loss leaders or the core of a budget-focused strategy.
- **Recommendation:** If these low-priced products contribute significantly to overall revenue, consider bundling them with higher-priced items or offering volume discounts.

	year numeric	month numeric	total_sales numeric	prev_month_sales numeric	growth_rate text
1	2010	12	523205.17	[null]	[null]
2	2011	1	532645.82	523205.17	1.80%
3	2011	2	417834.76	532645.82	-21.55%
4	2011	3	540327.62	417834.76	29.32%
5	2011	4	426832.79	540327.62	-21.00%
6	2011	5	619113.37	426832.79	45.05%
7	2011	6	579938.49	619113.37	-6.33%
8	2011	7	559872.78	579938.49	-3.46%
9	2011	8	608479.44	559872.78	8.68%
10	2011	9	906886.05	608479.44	49.04%
11	2011	10	939357.85	906886.05	3.58%
12	2011	11	1092921.05	939357.85	16.35%
13	2011	12	496240.70	1092921.05	-54.60%

## 7. Number of Customers, Orders, and Items per Country

- **Insight:** ranking countries based on the number of customers, orders, and items purchased. This provides a country-wise view of engagement.
- **Recommendation:** Focus expansion strategies or marketing campaigns on high-performing countries. For low-performing regions, evaluate possible barriers (e.g., language, shipping costs) and address them.

	country text	customers_country bigint	over_all_customers numeric	orders_country bigint	over_all_orders numeric	items_country bigint	over_all_items numeric
1	United Kingdom	3920	4346	16646	18532	354321	397884
2	Germany	94	4346	457	18532	9040	397884
3	France	87	4346	389	18532	8341	397884
4	Spain	30	4346	90	18532	2484	397884
5	Belgium	25	4346	98	18532	2031	397884
6	Switzerland	21	4346	51	18532	1841	397884
7	Portugal	19	4346	57	18532	1462	397884
8	Italy	14	4346	38	18532	758	397884
9	Finland	12	4346	41	18532	685	397884
10	Austria	11	4346	17	18532	398	397884
11	Norway	10	4346	36	18532	1071	397884
12	Netherlands	9	4346	94	18532	2359	397884
13	Australia	9	4346	57	18532	1182	397884
14	Channel Islands	9	4346	26	18532	748	397884
15	Denmark	9	4346	18	18532	380	397884
16	Sweden	8	4346	36	18532	451	397884
17	Japan	8	4346	19	18532	321	397884

## 8. Monthly Customer, Orders, and Items Overview for the United Kingdom

- **Insight:** focusing on the United Kingdom, tracking the number of customers, orders, and items sold monthly. It can reveal trends specific to this key market.
- **Recommendation:** Use this data to refine your marketing campaigns in the UK and plan product promotions based on when customers are most active.

	year numeric	month numeric	total_customers bigint	over_all_customers_vistingoveryear numeric	total_orders bigint	over_all_orders_overyear numeric	total_items bigint	over_all_items_overyear numeric
1	2010	12	815	11790	1291	16646	23942	354321
2	2011	1	647	11790	874	16646	18158	354321
3	2011	2	679	11790	896	16646	17758	354321
4	2011	3	880	11790	1177	16646	24012	354321
5	2011	4	784	11790	1058	16646	20865	354321
6	2011	5	962	11790	1403	16646	25202	354321
7	2011	6	889	11790	1249	16646	23714	354321
8	2011	7	859	11790	1200	16646	23598	354321
9	2011	8	834	11790	1133	16646	23104	354321
10	2011	9	1146	11790	1568	16646	35634	354321
11	2011	10	1230	11790	1705	16646	43733	354321
12	2011	11	1505	11790	2386	16646	58800	354321
13	2011	12	560	11790	706	16646	15801	354321



## 9. Rank Each Customer Based on Total Spending

- **Insight:** ranking customers by total spending and compares their spending with their immediate neighbors. This ranking highlights the most valuable customers.
- **Recommendation:** Focus on retaining high-spending customers with exclusive offers or early access to sales, while targeting customers close to the top tier to encourage them to spend more.

	customerid text	total_spending numeric	spending_rank bigint	prev_spending numeric	next_spending numeric
1	14646	280206.02	1	[null]	259657.30
2	18102	259657.30	2	280206.02	194550.79
3	17450	194550.79	3	259657.30	143825.06
4	14911	143825.06	4	194550.79	124914.53
5	12415	124914.53	5	143825.06	117379.63
6	14156	117379.63	6	124914.53	91062.38
7	17511	91062.38	7	117379.63	81024.84
8	16029	81024.84	8	91062.38	66653.56
9	16684	66653.56	9	81024.84	65164.79
10	14096	65164.79	10	66653.56	65039.62
11	13694	65039.62	11	65164.79	60767.90
12	15311	60767.90	12	65039.62	58825.83

## 10. Monthly Percentage of Orders Relative to the Total Orders

- **Insight:** providing the percentage of total orders each month contributes to the year's total orders, showing which months are most active.
- **Recommendation:** plan for high-demand months and increase marketing efforts in slower periods. Promotions like flash sales or discounts during low-percentage months can help balance sales across the year.

	year numeric	month numeric	num_of_order bigint	total_order_year numeric	percentage text
1	2010	12	1400	1400	100.00%
2	2011	1	987	17132	5.76%
3	2011	2	997	17132	5.82%
4	2011	3	1321	17132	7.71%
5	2011	4	1149	17132	6.71%
6	2011	5	1555	17132	9.08%
7	2011	6	1393	17132	8.13%
8	2011	7	1331	17132	7.77%
9	2011	8	1280	17132	7.47%
10	2011	9	1755	17132	10.24%
11	2011	10	1929	17132	11.26%
12	2011	11	2657	17132	15.51%