**SQL Case Study 4: Texture Tales**



**INTRODUCTION:**

Texture Tales Clothing Company prides themselves on providing an optimized range of clothing and lifestyle wear for the modern adventurer!

I, the CEO of this trendy fashion company is asking you to assist the team’s merchandising teams analyze their sales performance and generate a basic financial report to share with the wider business.

**SCHEMA USED**

|  |  |
| --- | --- |
| product\_details | |
| product\_id | varchar |
| price | int |
| product\_name | varchar |
| category\_id | int |
| segment\_id | int |
| style\_id | int |
| category\_name | varchar |
| segment\_name | varchar |
| style\_name | varchar |

|  |  |  |
| --- | --- | --- |
| sales | | |
| prod\_id | varchar |
| qty | | int |
| price | | int |
| discount | | int |
| member | | varchar |
| txn\_id | | varchar |
| start\_txn\_time | | varchar |

|  |  |
| --- | --- |
| Product\_hierarchy | |
| id | int |
| product\_id | int |
| price | int |
| start\_date | date |
| end\_date | date |

|  |  |
| --- | --- |
| product\_prices | |
| id | int |
| product\_id | varchar |
| price | int |

**CASE STUDY QUESTIONS**

1. What was the total quantity sold for all products?
2. What is the total generated revenue for all products before discounts?
3. What was the total discount amount for all products?
4. How many unique transactions were there?
5. What are the average unique products purchased in each transaction?
6. What is the average discount value per transaction?
7. What is the average revenue for member transactions and non-member transactions?
8. What are the top 3 products by total revenue before discount?
9. What are the total quantity, revenue and discount for each segment?
10. What is the top selling product for each segment?
11. What are the total quantity, revenue and discount for each category?
12. What is the top selling product for each category?

**SOLUTION**

1. What was the total quantity sold for all products?

Select prod\_id , SUM(qty) As 'Total Quantity Sold'

From sales

Group by prod\_id

order by [Total Quantity Sold] Desc;

**[OR]**

SELECT

details.product\_name,

SUM(sales.qty) AS sale\_counts

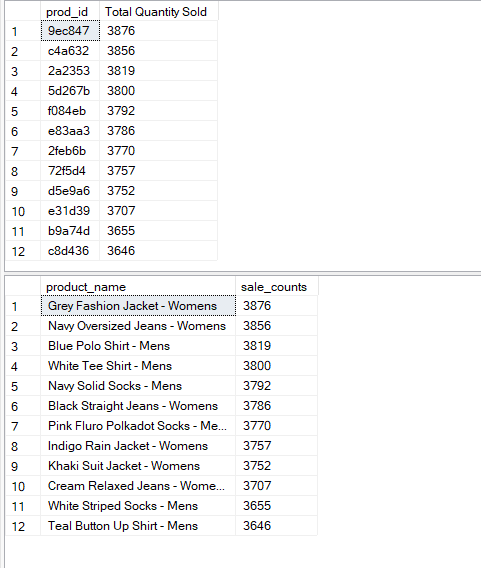
FROM sales AS sales

INNER JOIN product\_details AS details

ON sales.prod\_id = details.product\_id

GROUP BY details.product\_name

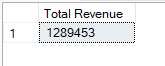
ORDER BY sale\_counts DESC;



2.What is the total generated revenue for all products before discounts?

Select Sum(qty\*price) as 'Total Revenue'

From sales;

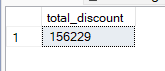


3.What was the total discount amount for all products?

SELECT

SUM(price \* qty \* discount)/100 AS total\_discount

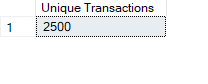
FROM sales;



4. How many unique transactions were there?

Select count(distinct(txn\_id)) as 'Unique Transactions'

from sales;



5. What are the average unique products purchased in each

transaction?

WITH cte\_transaction\_products AS (

SELECT

txn\_id,

COUNT(DISTINCT prod\_id) AS product\_count

FROM sales

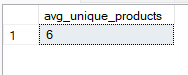
GROUP BY txn\_id

)

SELECT

AVG(product\_count) AS avg\_unique\_products

FROM cte\_transaction\_products;



6. What is the average discount value per transaction?

WITH cte\_transaction\_discounts AS (

SELECT

txn\_id,

SUM(price \* qty \* discount)/100 AS total\_discount

FROM sales

GROUP BY txn\_id

)

SELECT

ROUND(AVG(total\_discount),2) AS avg\_unique\_products

FROM cte\_transaction\_discounts;



7. What is the average revenue for member transactions and non-

member transactions?

WITH cte\_member\_revenue AS (

SELECT

member,

txn\_id,

SUM(price \* qty) AS revenue

FROM sales

GROUP BY

member,

txn\_id

)

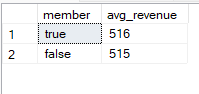
SELECT

member,

ROUND(AVG(revenue), 2) AS avg\_revenue

FROM cte\_member\_revenue

GROUP BY member;



8. What are the top 3 products by total revenue before discount?

SELECT Top 3

details.product\_name,

SUM(sales.qty \* sales.price) AS nodis\_revenue

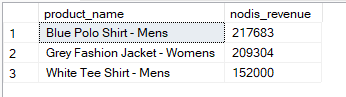
FROM sales AS sales

INNER JOIN product\_details AS details

ON sales.prod\_id = details.product\_id

GROUP BY details.product\_name

ORDER BY nodis\_revenue DESC;



9. What are the total quantity, revenue and discount for each

segment?

SELECT

details.segment\_id,

details.segment\_name,

SUM(sales.qty) AS total\_quantity,

SUM(sales.qty \* sales.price) AS total\_revenue,

SUM(sales.qty \* sales.price \* sales.discount)/100 AS total\_discount

FROM sales AS sales

INNER JOIN product\_details AS details

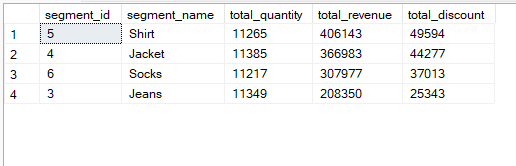
ON sales.prod\_id = details.product\_id

GROUP BY

details.segment\_id,

details.segment\_name

ORDER BY total\_revenue DESC;



10. What is the top selling product for each segment?

SELECT Top 5

details.segment\_id,

details.segment\_name,

details.product\_id,

details.product\_name,

SUM(sales.qty) AS product\_quantity

FROM sales AS sales

INNER JOIN product\_details AS details

ON sales.prod\_id = details.product\_id

GROUP BY

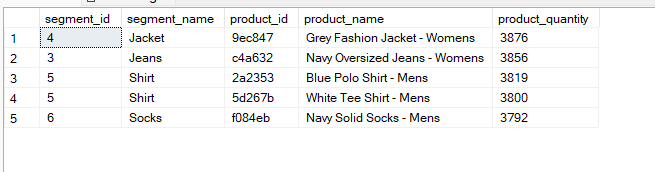
details.segment\_id,

details.segment\_name,

details.product\_id,

details.product\_name

ORDER BY product\_quantity DESC ;



11. What are the total quantity, revenue and discount for each

category?

SELECT

details.category\_id,

details.category\_name,

SUM(sales.qty) AS total\_quantity,

SUM(sales.qty \* sales.price) AS total\_revenue,

SUM(sales.qty \* sales.price \* sales.discount)/100 AS total\_discount

FROM sales AS sales

INNER JOIN product\_details AS details

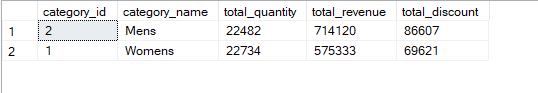
ON sales.prod\_id = details.product\_id

GROUP BY

details.category\_id,

details.category\_name

ORDER BY total\_revenue DESC;



12. What is the top selling product for each category?

SELECT Top 5

details.category\_id,

details.category\_name,

details.product\_id,

details.product\_name,

SUM(sales.qty) AS product\_quantity

FROM sales AS sales

INNER JOIN product\_details AS details

ON sales.prod\_id = details.product\_id

GROUP BY

details.category\_id , details.category\_name , details.product\_id , details.product\_name

ORDER BY product\_quantity DESC;

