**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 |

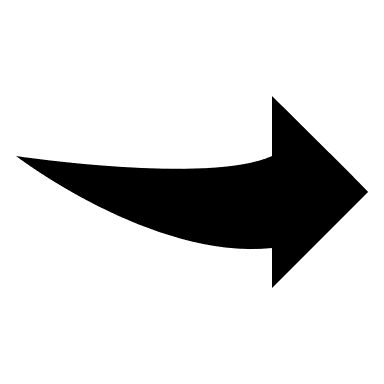
|  |  |  |
| --- | --- | --- |
| sales | | |
| prod\_id | varchar |
| qty | | int |
| price | | int |
| discount | | int |
| member | | varchar |
| txn\_id | | varchar |
| start\_txn\_time | | varchar |

|  |  |
| --- | --- |
| 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?



SELECT

details.product\_name, SUM(sales.qty) AS sale\_counts

FROM

sales AS sales

INNER JOIN

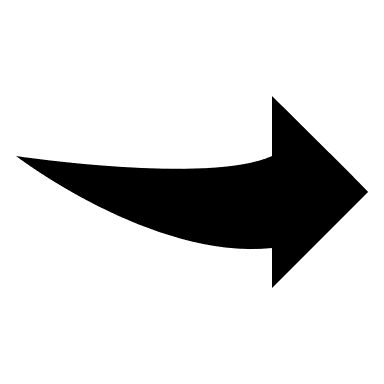
product\_details AS details ON sales.prod\_id = details.product\_id

GROUP BY details.product\_name

ORDER BY sale\_counts DESC;



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

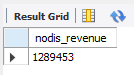


SELECT

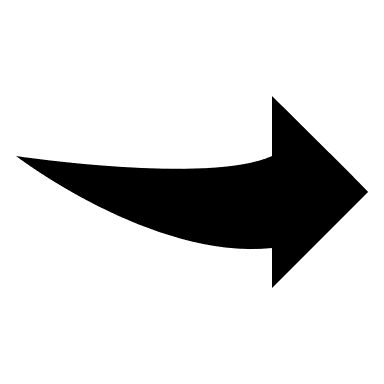
SUM(price \* qty) AS nodis\_revenue

FROM

sales AS sales;



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

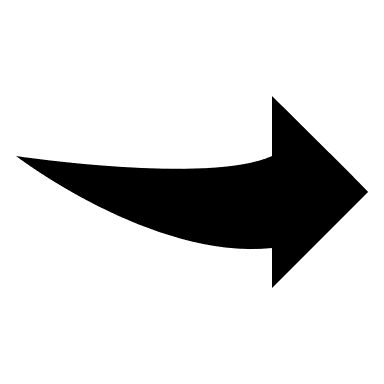
 SELECT

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

FROM sales;

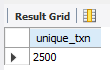


1. How many unique transactions were there?

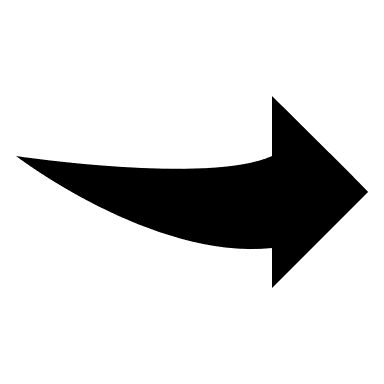
SELECT

COUNT(DISTINCT txn\_id) AS unique\_txn

FROM sales;



1. 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

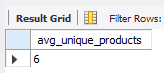
FROM sales

GROUP BY txn\_id)

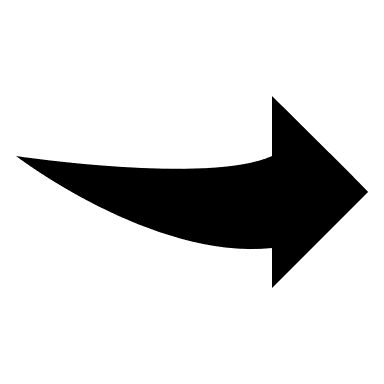
SELECT

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

FROM cte\_transaction\_products;



1. What is the average discount value per transaction?



WITH cte\_transaction\_discounts AS (

SELECT

txn\_id,

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

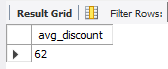
FROM sales

GROUP BY txn\_id)

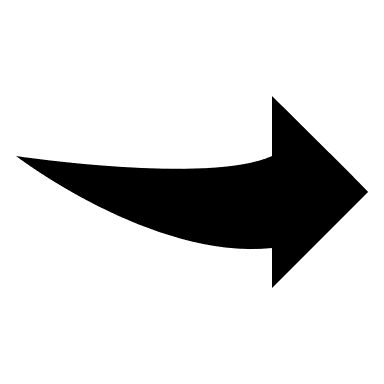
SELECT

ROUND(AVG(total\_discount)) AS avg\_discount

FROM cte\_transaction\_discounts;



1. 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)

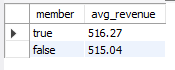
SELECT

member,

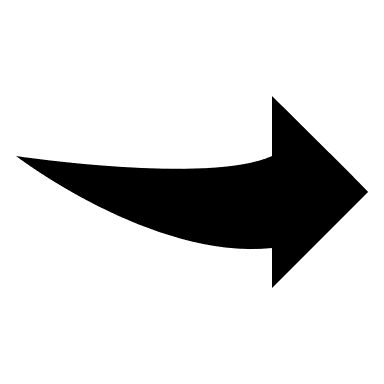
ROUND(AVG(revenue), 2) AS avg\_revenue

FROM cte\_member\_revenue

GROUP BY member;



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



SELECT

details.product\_name,

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

FROM

sales AS sales

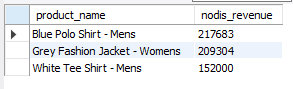
INNER JOIN

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

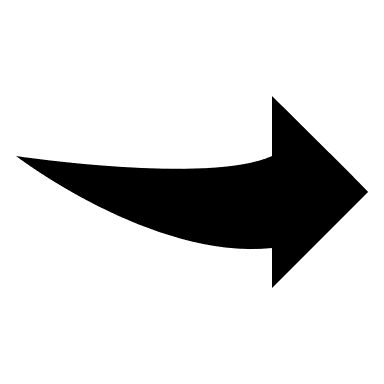
GROUP BY details.product\_name

ORDER BY nodis\_revenue DESC

LIMIT 3;



1. 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

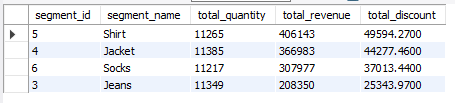
sales AS sales

INNER JOIN

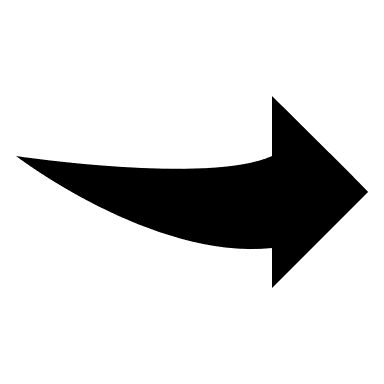
product\_details AS details ON sales.prod\_id = details.product\_id

GROUP BY details.segment\_id , details.segment\_name

ORDER BY total\_revenue DESC;



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



SELECT

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

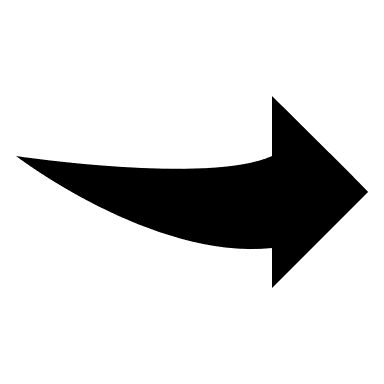
GROUP BY details.segment\_id , details.segment\_name , details.product\_id , details.product\_name

ORDER BY product\_quantity DESC

LIMIT 5;



1. 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

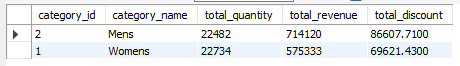
sales AS sales

INNER JOIN

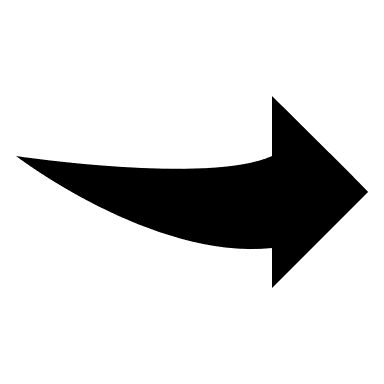
product\_details AS details ON sales.prod\_id = details.product\_id

GROUP BY details.category\_id , details.category\_name

ORDER BY total\_revenue DESC;



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



SELECT

details.category\_id,

details.category\_name,

details.product\_id,

details.product\_name,

SUM(sales.qty) AS product\_quantity

FROM

sales AS sales

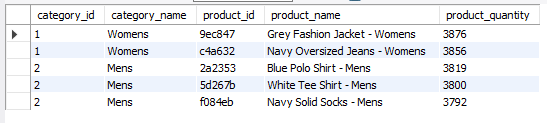
INNER JOIN

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

LIMIT 5;



Hi,

Thank you for providing the instructions and guidance throughout the project. I learned a lot from this real-world scenario case study.

I'd love to connect with you on

LinkedIn: ( <https://www.linkedin.com/in/nikhil-kumar-roy/> ) and share my GitHub profile: ( <https://github.com/NikhilRoyDA> ), where you can find my work on this and different case study.

Thanks again for your support and guidance. I appreciate your help in my learning journey.

Best regards,

Nikhil Kumar Roy

