Textile Sales Analysis

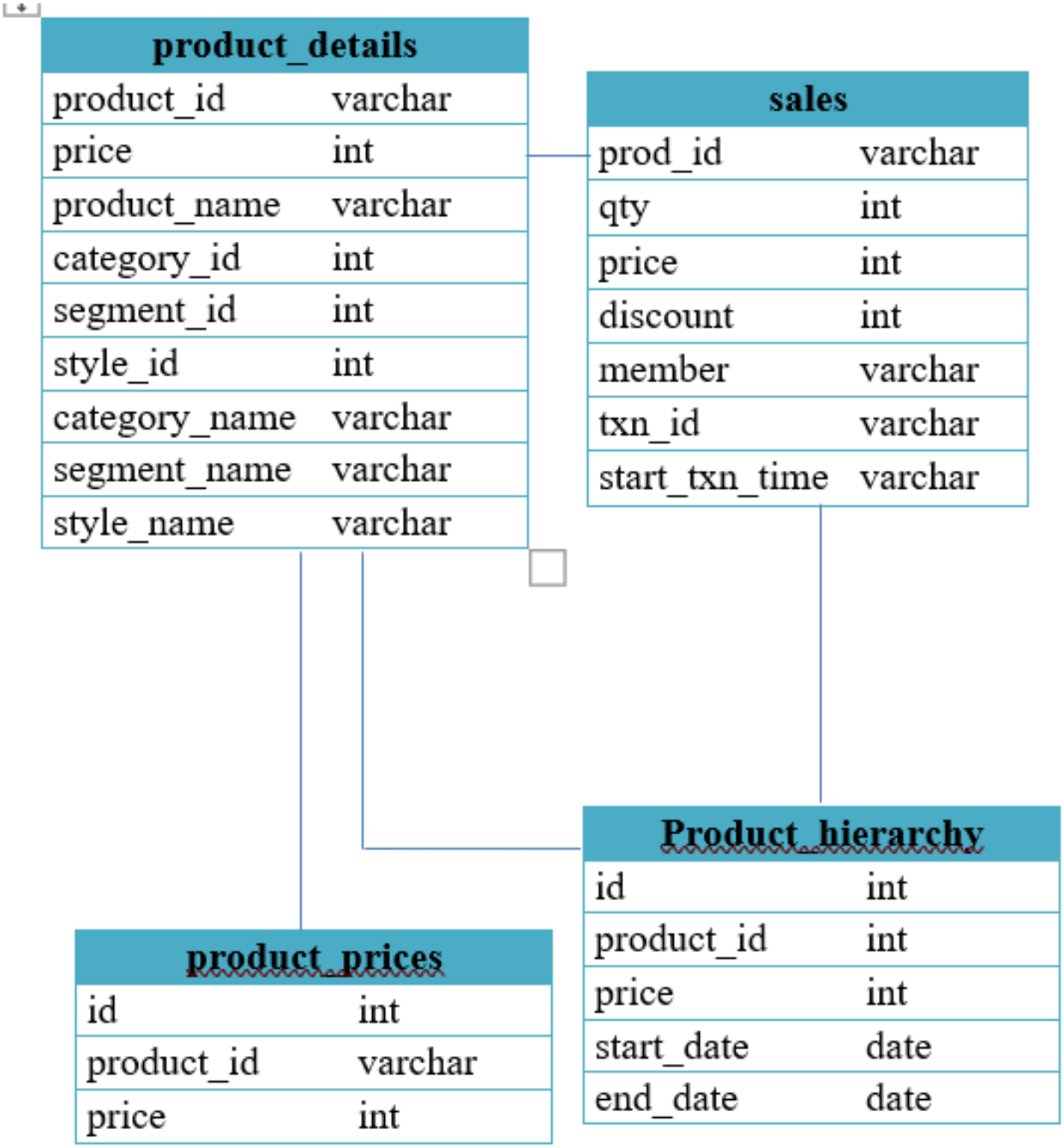
Description

Therma Tales Clothing Company prides themselves on providing an optimized range of clothing and lifestyle wear for the modern adventurer. Analyze their sales performance and generate a basic financial report to share with the wider business.

Analyze following 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?

Schema


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

Details of Product_Details table

Product_Details table

```
6 •  select *
7    from product_details ;
8
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

product_id	price	product_name	category_id	segment_id	style_id	category_name	segment_name	style_name
2a2353	57	Blue Polo Shirt - Mens	2	5	15	Mens	Shirt	Blue Polo
2feb6b	29	Pink Fluro Polkadot Socks - Mens	2	6	18	Mens	Socks	Pink Fluro Polkadot
5d267b	40	White Tee Shirt - Mens	2	5	13	Mens	Shirt	White Tee
72f5d4	19	Indigo Rain Jacket - Womens	1	4	11	Womens	Jacket	Indigo Rain
9ec847	54	Grey Fashion Jacket - Womens	1	4	12	Womens	Jacket	Grey Fashion
b9a74d	17	White Striped Socks - Mens	2	6	17	Mens	Socks	White Striped
c4a632	13	Navy Oversized Jeans - Womens	1	3	7	Womens	Jeans	Navy Oversized
c8d436	10	Teal Button Up Shirt - Mens	2	5	14	Mens	Shirt	Teal Button Up
d5e9a6	23	Khaki Suit Jacket - Womens	1	4	10	Womens	Jacket	Khaki Suit
e31d39	10	Cream Relaxed Jeans - Womens	1	3	9	Womens	Jeans	Cream Relaxed
e83aa3	32	Black Straight Jeans - Womens	1	3	8	Womens	Jeans	Black Straight
f084eb	36	Navy Solid Socks - Mens	2	6	16	Mens	Socks	Navy Solid
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

There are total 12 entries in Product_details table

```
11 •  select count(*) as Total_Entries    -- (There are total 12 rows in table)
12    from product_details ;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Total_Entries
12

Columns description in Product_details table

```
9 •  desc product_details ;
```

Result Grid | Filter Rows: | Export: | W

Field	Type	Null	Key	Default	Extr
product_id	varchar(6)	NO	PRI	NULL	
price	int	NO		NULL	
product_name	varchar(32)	NO		NULL	
category_id	int	NO		NULL	
segment_id	int	NO		NULL	
style_id	int	NO		NULL	
category_name	varchar(6)	NO		NULL	
segment_name	varchar(6)	NO		NULL	
style_name	varchar(19)	NO		NULL	

Details of Product_Prices table

Product_Prices table

```
26 •  select *
27    from product_prices ;
```

Result Grid | Filter Rows:

id	product_id	price
7	c4a632	13
8	e83aa3	32
9	e31d39	10
10	d5e9a6	23
11	72f5d4	19
12	9ec847	54
13	5d267b	40
14	c8d436	10
15	2a2353	57
16	f084eb	36
17	b9a74d	17
18	2feb6b	29

product_prices 10

There are total 12 entries in Product_Prices table

```
31 •  select count(*) as Total_entries
32    from product_prices ;  -- (There are 12 rows in this table)
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Total_entries
12

Columns description in Product_Prices table

```
29 •  desc product_prices ;  -- (There are 3 columns in this table)
30
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	
product_id	varchar(6)	NO		NULL	
price	int	NO		NULL	

Details of Product_Hierarchy table

Product_Hierarchy table

```
16 •  select *
17    from product_hierarchy ;
18
```

Result Grid | Filter Rows: | Edit: | Export/Import:

id	parent_id	level_text	level_name
1	NULL	Womens	Category
2	NULL	Mens	Category
3	1	Jeans	Segment
4	1	Jacket	Segment
5	2	Shirt	Segment
6	2	Socks	Segment
7	3	Navy Oversized	Style
8	3	Black Straight	Style
9	3	Cream Relaxed	Style
10	4	Khaki Suit	Style
11	4	Indigo Rain	Style
12	4	Grey Fashion	Style

There are total 18 entries in Product_Hierarchy table

```
21 •  select count(*) as Total_entries
22    from product_hierarchy ;  -- (There are 18 rows in this table)
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Total_entries
18

Columns description in Product_Hierarchy table

```
19 •  desc product_hierarchy ;  -- (There are 4 columns in this table)
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	
parent_id	int	YES		NULL	
level_text	varchar(19)	NO		NULL	
level_name	varchar(8)	NO		NULL	

Details of Sales table

Sales table

```
36 •  select *
37    from sales ;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch r

prod_id	qty	price	discount	member	txn_id	start_txn_time
c4a632	4	13	17	true	54f307	2021-02-13T01:59:43.296Z
5d267b	4	40	17	true	54f307	2021-02-13T01:59:43.296Z
b9a74d	4	17	17	true	54f307	2021-02-13T01:59:43.296Z
2feb6b	2	29	17	true	54f307	2021-02-13T01:59:43.296Z
c4a632	5	13	21	true	26cc98	2021-01-19T01:39:00.346Z
e31d39	2	10	21	true	26cc98	2021-01-19T01:39:00.346Z
72f5d4	3	19	21	true	26cc98	2021-01-19T01:39:00.346Z
2a2353	3	57	21	true	26cc98	2021-01-19T01:39:00.346Z
f084eb	3	36	21	true	26cc98	2021-01-19T01:39:00.346Z
c4a632	1	13	21	false	ef648d	2021-01-27T02:18:17.165Z
e83aa3	5	32	21	false	ef648d	2021-01-27T02:18:17.165Z
d5e9a6	1	23	21	false	ef648d	2021-01-27T02:18:17.165Z
72f5d4	1	19	21	false	ef648d	2021-01-27T02:18:17.165Z
5d267b	3	40	21	false	ef648d	2021-01-27T02:18:17.165Z

sales 14 ×

There are total 15,095 entries in Sales table

```
41 •  select count(*) as Total_entries
42    from sales ;   -- (There are total 15095 rows in this table)
43
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Total_entries
15095

Columns description in Sales table

```
39 •  desc sales ;  -- (There are 7 columns in this table)
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
prod_id	varchar(6)	NO		NULL	
qty	int	NO		NULL	
price	int	NO		NULL	
discount	int	NO		NULL	
member	varchar(5)	NO		NULL	
txn_id	varchar(6)	NO		NULL	
start_txn_time	varchar(24)	NO		NULL	

Analysis

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

```
56      -- Q.1) : What was the total quantity sold for all products?
57
58      select pd.product_name,
59      sum(sa.qty) as Sales_count
60      from product_details pd
61      inner join sales sa
62      on pd.product_id=sa.prod_id
63      group by pd.product_name
64      order by sales_count desc ;
65
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

product_name	Sales_count
Grey Fashion Jacket - Womens	3876
Navy Oversized Jeans - Womens	3856
Blue Polo Shirt - Mens	3819
White Tee Shirt - Mens	3800
Navy Solid Socks - Mens	3792
Black Straight Jeans - Womens	3786
Pink Fluro Polkadot Socks - Mens	3770
Indigo Rain Jacket - Womens	3757
Khaki Suit Jacket - Womens	3752
Cream Relaxed Jeans - Womens	3707
White Striped Socks - Mens	3655
Teal Button Up Shirt - Mens	3646

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

```
65      -- Q.2) : What is the total generated revenue for all products before
66
67      select *
68      from sales ;
69
70      select sum(price*qty) as No_discount_revenue
71      from sales ;
72
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

No_discount_revenue
1289453

Analysis

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

```
73
74      -- Q.3) : What was the total discount amount for all products?
75
76 •    select sum(price*qty*discount)/100 as Total_discount
77      from sales ;
78
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Total_discount
156229.1400

4) How many unique transactions were there?

```
79      -- Q.4) : How many unique transactions were there?
80
81 •    select *
82      from sales ;
83
84 •    select count(distinct txn_id) as Total_Unique_transactions
85      from sales ;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Total_Unique_transactions
2500

Analysis

5) What are the average unique products purchased in each transaction?

```
87
88      -- Q.5) : What are the average unique products purchased in each transaction?
89
90      select *
91      from sales ;
92
93      with cte1 as
94      (select txn_id ,
95      count(distinct prod_id) as Total_count
96      from sales
97      group by txn_id )
98      select  round(avg(total_count)) as avg_product
99      from cte1 ;
100
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

avg_product
6

6) What is the average discount value per transaction?

```
102     -- Q.6) : What is the average discount value per transaction?
103
104     select *
105     from sales ;
106
107     with cte2 as
108     (select txn_id , sum(price*qty*discount)/100 as Total_Discount
109     from sales
110     group by txn_id )
111     select round(avg(total_discount)) as Avg_discount_per_transaction
112     from cte2 ;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Avg_discount_per_transaction
62

Analysis

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

```
114     -- Q.7) : What is the average revenue for member transactions and non-member transactions?
115
116 •   select *
117     from sales ;
118
119 •   with cte3 as
120     (select member ,txn_id , sum(qty*price) as Total
121     from sales
122     group by member , txn_id )
123     select member , round(avg(total),2) as Avg_revenue
124     from cte3
125     group by member ;
126
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

member	Avg_revenue
true	516.27
false	515.04

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

```
127     -- Q.8) : What are the top 3 products by total revenue before discount?
128
129 •   select *
130     from sales;
131
132 •   select pd.product_name,sum(sa.qty*sa.price) as Total_revenue
133     from product_details pd
134     inner join sales sa
135     on pd.product_id=sa.prod_id
136     group by pd.product_name
137     order by total_revenue desc
138     limit 3 ;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

product_name	Total_revenue
Blue Polo Shirt - Mens	217683
Grey Fashion Jacket - Womens	209304
White Tee Shirt - Mens	152000

Analysis

9) What are the total quantity, revenue and discount for each segment?

```
148     -- Q.9) What are the total quantity, revenue and discount for each segment?
149
150 •   select pd.segment_id ,segment_name, sum(sa.qty) as Total_quantity ,
151     sum(sa.qty*sa.price) as Total_revenue ,
152     sum(sa.price*qty*discount)/100 as Total_discount
153     from product_details pd
154     inner join sales sa
155     on pd.product_id=sa.prod_id
156     group by pd.segment_id ,segment_name
157     order by segment_id ;
158
159
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

segment_id	segment_name	Total_quantity	Total_revenue	Total_discount
3	Jeans	11349	208350	25343.9700
4	Jacket	11385	366983	44277.4600
5	Shirt	11265	406143	49594.2700
6	Socks	11217	307977	37013.4400

Analysis

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

```
160     -- Q.10) What is the top selling product for each segment?
161     select *
162     from product_details ;
163     select *
164     from sales ;
165
166     with cte1 as
167     (select segment_id, segment_name,product_id,product_name,sum(sa.qty) as Tota
168     from product_details pd
169     inner join sales sa
170     on pd.product_id=sa.prod_id
171     group by segment_id, segment_name,product_id,product_name
172     order by segment_id )
173     select *
174     from (select *,
175     dense_rank()over(partition by segment_id order by total desc ) ds
176     from cte1) X
177     where X.ds = 1 ;
178
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

segment_id	segment_name	product_id	product_name	Total	ds
3	Jeans	c4a632	Navy Oversized Jeans - Womens	3856	1
4	Jacket	9ec847	Grey Fashion Jacket - Womens	3876	1
5	Shirt	2a2353	Blue Polo Shirt - Mens	3819	1
6	Socks	f084eb	Navy Solid Socks - Mens	3792	1

Analysis

11) What are the total quantity, revenue and discount for each category?

```
178     -- Q.11)  What are the total quantity, revenue and discount for each category?
179
180 •   select *
181     from product_details ;
182 •   select *
183     from sales ;
184
185 •   select pd.category_name , sum(sa.qty) as Total_quantity ,
186     sum(sa.price*sa.qty) as Total_revenue ,
187     sum(sa.price*sa.qty*sa.discount)/100 as Total_discount
188     from product_details pd
189     inner join sales sa
190     on pd.product_id=sa.prod_id
191     group by pd.category_name ;
192
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

category_name	Total_quantity	Total_revenue	Total_discount
Womens	22734	575333	69621.4300
Mens	22482	714120	86607.7100

Analysis

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

```
195     -- Q.12) What is the top selling product for each category ?
196
197     with cte4 as
198     (select category_id, category_name , product_id , product_name , sum(sa.qty) as Total
199     from product_details pd
200     inner join sales sa
201     on pd.product_id=sa.prod_id
202     group by category_id, category_name ,product_name, product_id
203     order by total desc )
204
205     select *
206     from
207     (select *,
208     dense_rank()over(partition by category_name order by total desc) as Ds
209     from cte4) X
210     where X.ds = 1 ;
211
212
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

category_id	category_name	product_id	product_name	Total	Ds
2	Mens	2a2353	Blue Polo Shirt - Mens	3819	1
1	Womens	9ec847	Grey Fashion Jacket - Womens	3876	1