

Texture Tales

BY ANUSH BHARATHWAJ L

product_details			
product_details.csv			
product_id	price	product_name	category_id
2a2353	57	Blue Polo Shirt - Mens	2
2feb6b	29	Pink Fluro Polkadot Socks - Mens	2
5d267b	40	White Tee Shirt - Mens	2
72f5d4	19	Indigo Rain Jacket - Womens	1
9ec847	54	Grey Fashion Jacket - Womens	1
b9a74d	17	White Striped Socks - Mens	2
c4a632	13	Navy Oversized Jeans - Womens	1
c8d436	10	Teal Button Up Shirt - Mens	2
d5e9a6	23	Khaki Suit Jacket - Womens	1
e31d39	10	Cream Relaxed Jeans - Womens	1
DuckDB 1 ms (1 hour ago) 9 columns · 12 rows			

sales						
sales.csv						
prod_id	qty	price	discount	member	txn_id	start_txn_time
2a2353	3	57	21	true	26cc98	2021-01-19T01:30:00.000Z
f084eb	3	36	21	true	26cc98	2021-01-19T01:30:00.000Z
c4a632	1	13	21	false	ef648d	2021-01-27T02:10:00.000Z
e83aa3	5	32	21	false	ef648d	2021-01-27T02:10:00.000Z
d5e9a6	1	23	21	false	ef648d	2021-01-27T02:10:00.000Z
72f5d4	1	19	21	false	ef648d	2021-01-27T02:10:00.000Z
5d267b	3	40	21	false	ef648d	2021-01-27T02:10:00.000Z
f084eb	4	36	21	false	ef648d	2021-01-27T02:10:00.000Z
b9a74d	4	17	21	false	ef648d	2021-01-27T02:10:00.000Z
c4a632	2	13	23	true	fba96f	2021-03-03T00:00:00.000Z
DuckDB 4 ms (1 hour ago) 7 columns · 15,095 rows						

product_prices			
product_prices.csv			
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	
DuckDB 0 ms (1 hour ago) 3 columns · 18 rows			

product_hierarchy				
product_hierarchy.csv				
id	parent_id	level_text	↑	level_name
8	3	Black Straight		Style
15	5	Blue Polo		Style
9	3	Cream Relaxed		Style
12	4	Grey Fashion		Style
11	4	Indigo Rain		Style
4	1	Jacket		Segment
3	1	Jeans		Segment
10	4	Khaki Suit		Style
2	NULL	Mens		Category
7	3	Navy Oversized		Style
16	6	Navy Solid		Style
18	6	Pink Fluro Polkadot		Style
DuckDB 0 ms (1 hour ago) 4 columns · 18 rows				

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

All Products - Total Qauntity

```
select
  details.product_name as product,
  sum(qty) as qty
from
  product_details as details
  inner join sales on details.product_id = sales.prod_id
group by
  product
order by
  qty desc;
```

product	qty
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

DuckDB

22 ms (1 hour ago)

2 columns · 12 rows

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

Total Generated Revenue

```
select
  concat('$', sum(qty * price)) as Total
from
  sales;
```

Total
\$1289453

DuckDB

2 ms (1 hour ago)

1 column · 1 row

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

Total Discount

```
select  
    concat(sum(price * qty * discount) / 100, '%') as Total  
from  
    sales;
```

Total
156229.14%

DuckDB ⌚ 9 ms (1 hour ago) 📄 1 column · 1 row

D) How many unique transactions were there?

Unique Transactions

```
select  
    count(distinct txn_id)  
from  
    sales;
```

count(DISTINCT txn_id)
2500


DuckDB ⌚ 6 ms (1 hour ago) 📄 1 column · 1 row


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


Average Unique Product Purchased

```
with
  cte_trans as (
    select
      t.txn_id,
      count(distinct p.product_name) as counts
    from
      sales t
      inner join product_details p on p.product_id = t.prod_id
    group by
      t.txn_id
  )
select
  round(avg(counts)) as avg_prod
from
  cte_trans;
```

avg_prod
6

 DuckDB

 16 ms (1 hour ago)

 1 column · 1 row

F) What is the average discount value per transaction?

Average Discount Per Transaction

```
with
  cte_discount as (
    select
      txn_id,
      sum(discount * qty * price) / 100 as discount
    from
      sales
    group by
      txn_id
  )
select
  round(avg(discount)) as avg_discount
from
  cte_discount;
```

avg_discount
62

 DuckDB

 5 ms (1 hour ago)


 1 column · 1 row


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


Average Revenue Member Transactions

```
with
  cte_revenue as (
    select
      member,
      txn_id,
      sum(qty * price) as revenue
    from
      sales
    group by
      member,
      txn_id
  )
select
  member,
  round(avg(revenue)) as avg_revenue
from
  cte_revenue
group by
  member;
```

member	avg_revenue	
true	516	
false	515	

 DuckDB

 7 ms (1 hour ago)

 2 columns · 2 rows

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

Top 3 Products By Revenue

```
select
  p.product_name,
  sum(s.qty * s.price) as revenue
from
  product_details p
  inner join sales s on p.product_id = s.prod_id
group by
  p.product_name
order by
  revenue desc
limit
  3;
```

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

 DuckDB

 11 ms (1 hour ago)

 2 columns · 3 rows

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

Discount For Each Segment

```
select
  p.segment_id,
  p.segment_name,
  sum(s.qty * s.price) as revenue,
  sum(s.qty * s.price * s.discount) / 100 as discount
from
  sales s
  inner join product_details p on p.product_id = s.prod_id
group by
  p.segment_name,
  p.segment_id;
```

segment_id	segment_name	revenue	discount	
3	Jeans	208350	25343.97	
5	Shirt	406143	49594.27	
6	Socks	307977	37013.44	
4	Jacket	366983	44277.46	

DuckDB

12 ms (1 hour ago)

4 columns · 4 rows

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

Top Selling Products By Segment

```
select
  p.product_id,
  p.style_id,
  p.segment_name,
  p.product_name,
  sum(s.qty) as qty
from
  product_details p
  inner join sales s on p.product_id = s.prod_id
group by
  p.segment_name,
  p.product_name,
  p.product_id,
  p.style_id;
```

product_id	style_id	segment_name	product_name	qty	
c4a632	7	Jeans	Navy Oversized Jeans - Womens	3856	
5d267b	13	Shirt	White Tee Shirt - Mens	3800	
b9a74d	17	Socks	White Striped Socks - Mens	3655	
2feb6b	18	Socks	Pink Fluro Polkadot Socks - Mens	3770	
e31d39	9	Jeans	Cream Relaxed Jeans - Womens	3707	
72f5d4	11	Jacket	Indigo Rain Jacket - Womens	3757	
2a2353	15	Shirt	Blue Polo Shirt - Mens	3819	
f084eb	16	Socks	Navy Solid Socks - Mens	3792	
e83aa3	8	Jeans	Black Straight Jeans - Womens	3786	
d5e9a6	10	Jacket	Khaki Suit Jacket - Womens	3752	
9ec847	12	Jacket	Grey Fashion Jacket - Womens	3876	
c8d436	14	Shirt	Teal Button Up Shirt - Mens	3646	

DuckDB

23 ms (1 hour ago)

5 columns · 12 rows

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

Total Features By Category

```
select
  p.category_name,
  sum(s.qty) as qty,
  sum(s.qty * s.price) as revenue,
  sum(s.qty * s.price * s.discount) / 100 as discount
from
  product_details p
  inner join sales s on p.product_id = s.prod_id
group by
  p.category_name;
```

category_name	qty	revenue	discount	
Womens	22734	575333	69621.43	
Mens	22482	714120	86607.71	

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

Top Selling Product By category

```
select
  p.category_name,
  p.product_name,
  sum(s.qty) as qty
from
  sales s
  inner join product_details p on p.product_id = s.prod_id
group by
  p.category_name,
  p.product_name
order by
  qty desc
limit
  5;
```

category_name	product_name	qty	
Womens	Grey Fashion Jacket - Womens	3876	
Womens	Navy Oversized Jeans - Womens	3856	
Mens	Blue Polo Shirt - Mens	3819	
Mens	White Tee Shirt - Mens	3800	
Mens	Navy Solid Socks - Mens	3792	

Sources And Refrences

Query Dataset: <https://drive.google.com/drive/folders/1Hb1DTluGE0gabzZOaDQeIRYtDS2IZBSD>

CSV Dataset: <https://drive.google.com/drive/folders/1etpT6qXWDQ6VASTYPbYY6FYYN-7CSm7n?usp=sharing>

My Portfolio: <https://anushbharathwaj.w3spaces.com/>

Report: https://drive.google.com/file/d/1PSH2s0-YkMxS0f2PQ9uFEgH0D4a_q2OQ/view?usp=sharing