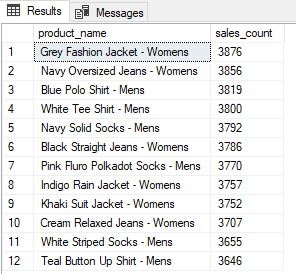
Data Exploration using SQL

**1] What was the total quantity sold for all products?**

Query: select product\_details.product\_name, sum( sales.qty) as sales\_count from sales inner join product\_details on sales.prod\_id=product\_details.product\_id group by product\_details.product\_name order by sales\_count desc;

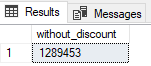
**Output:**

****

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

Query: select sum(price\*qty) as without\_discount from sales;

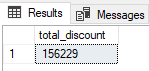
**Output:**



**3] What was the total discount amount for all products?**

Query: select sum( price\*qty\*discount)/100 as total\_discount from sales;

**Output:**

****

**4] How many unique transactions were there?**

Query: select count(distinct txn\_id) as uni\_txn from sales;

**Output:**



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

Query: with cte\_tran\_prod as

(

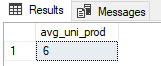
select txn\_id, count(distinct sales.prod\_id) as uni\_prod from sales

group by txn\_id

)

select avg( uni\_prod) as avg\_uni\_prod from cte\_tran\_prod;

**Output:**



**6] What is the average discount value per transaction?**

Query: with cte\_disc\_txn as

(

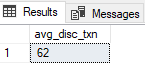
select txn\_id, sum(price\*qty\*discount)/100 as total\_disc from sales

group by txn\_id

)

select avg( total\_disc) as avg\_disc\_txn from cte\_disc\_txn;

**Output:**



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

Query: with cte\_rev\_member as

(

select member, txn\_id, sum( price\*qty) as revenue from sales

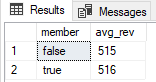
group by member, txn\_id

)

select member, round(avg(revenue),2) as avg\_rev from cte\_rev\_member

group by member;

**Output:**



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

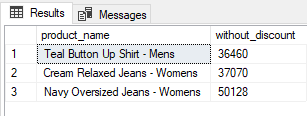
Query: select top 3 product\_details.product\_name, sum(qty\*sales.price) as without\_discount from sales inner join product\_details

on sales.prod\_id=product\_details.product\_id

group by product\_details.product\_name

order by without\_discount ;

**Output:**

****

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

Query: select product\_details.segment\_id, product\_details.segment\_name , sum( sales.qty) as total\_qty ,

sum( sales.qty\*sales.price) as total\_revenue, sum( sales.qty\*sales.price\*sales.discount)/100 as total\_discount

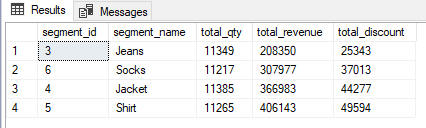
from sales inner join product\_details

on sales.prod\_id=product\_details.product\_id

group by product\_details.segment\_id, product\_details.segment\_name

order by total\_revenue;

**Output:**

****

**10] What is the top selling product for each segment?**

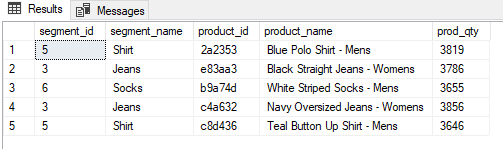
Query: select top 5 details.segment\_id, details.segment\_name, details.product\_id, details.product\_name,

sum( sales.qty) as prod\_qty from sales inner join product\_details as details

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

group by details.segment\_name, details.segment\_id, details.product\_name, details.product\_id;

**Output:**

****

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

Query: select details.category\_id, details.category\_name,

sum( sales.qty) as total\_qty, sum( sales.qty\*sales.price) as total\_revenue, sum( sales.qty\*sales.price\*sales.discount)/100 as total\_discount

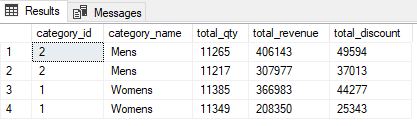
from sales inner join product\_details as details

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

group by details.segment\_name, details.category\_id, details.category\_name

order by category\_name;

**Output:**

****

**12] What is the top selling product for each category?**

Query: select top 5 details.category\_id, details.category\_name, details.product\_id, details.product\_name,

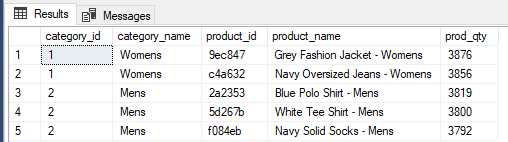
sum( sales.qty) as prod\_qty from sales inner join product\_details as details

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

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

order by prod\_qty desc;

**Output:**

****

**-------------------------------------------------------------------------------------------------------------------**