Marketing Analysis for Marketing Campaigns at Sustainable Clothing Co.

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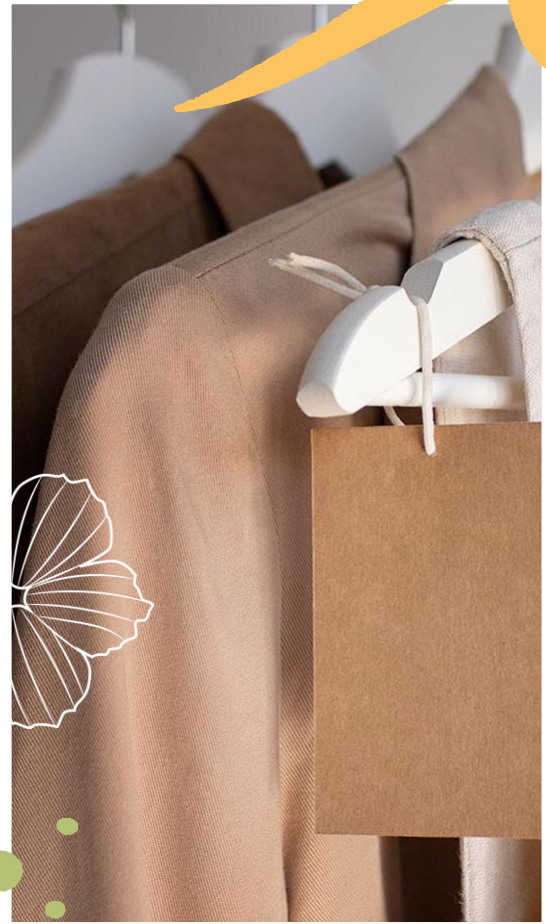
1. Introduction

You are a Marketing Analyst at the '**Sustainable Clothing Co.**' and the company have been running several marketing campaigns and have asked you to provide your insight into that and tell them whether their campaigns are running successful or not. Analyze the datasets provided and answer the questions provided and also provide some others insights which help them to improve their marketing campaigns.



2.Problem Statement

1. How many Transactions are done during each Marketing Campaigns?
2. Which product has the highest sales quantity.
3. What is the total revenue generated from each marketing campaign?
4. What is the top-selling product category based on the total revenue generated?
5. Which products had a higher quantity sold compared to the average quantity sold?
6. What is the average revenue generated per day during the marketing campaigns?
7. What is the percentage contribution of each product to the total revenue?
8. Compare the average quantity sold during marketing campaigns to outside the marketing campaigns.
9. Compare the revenue generated by products inside the marketing campaigns to outside the campaigns
10. Rank the products by their average daily quantity sold.

3. Datasets

Table 1 : sustainable_clothing

campaign_id	campaign_name	product_id	start_date	end_date
1	Summer Sale	2	01-06-2023	30-06-2023
2	New Collection Launch	10	15-07-2023	15-08-2023
3	Super Save	7	20-08-2023	15-09-2023

Table 2: marketing_campaigns

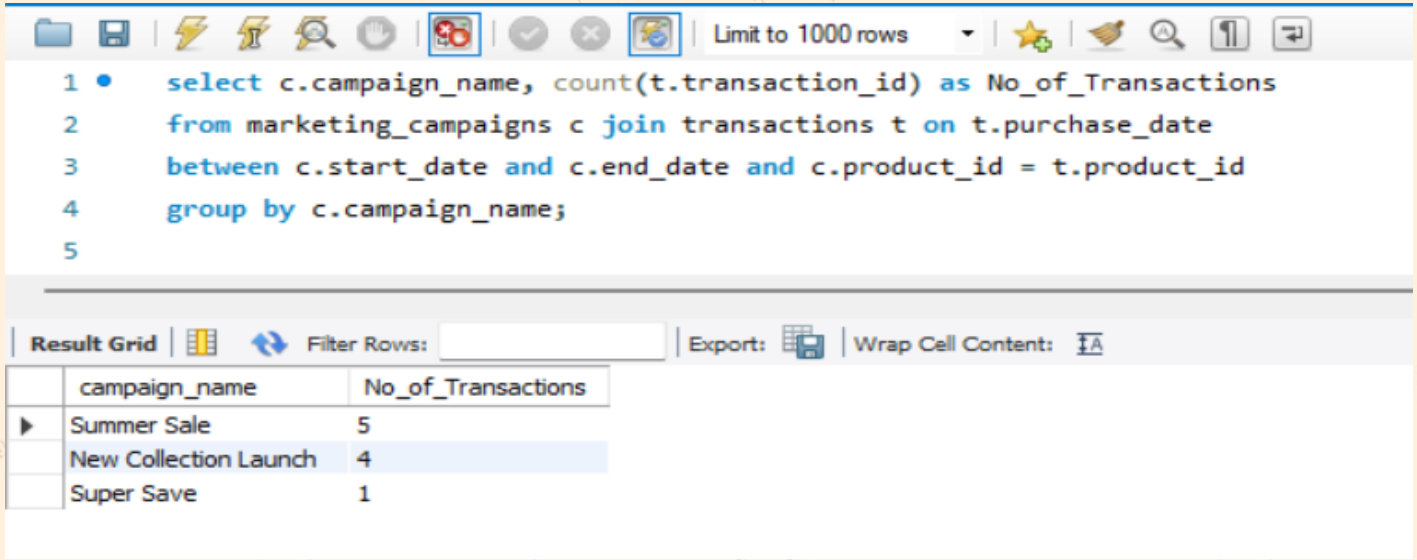
product_id	product_name	category	size	price
1	Organic Cotton T-Shirt	Tops	S	29.99
2	Recycled Denim Jeans	Bottoms	M	79.99
3	Hemp Crop Top	Tops	L	24.99
4	Bamboo Lounge Pants	Bottoms	XS	49.99
5	Eco-Friendly Hoodie	Outerwear	XL	59.99
6	Linen Button-Down Shirt	Tops	M	39.99
7	Organic Cotton Dress	Dresses	S	69.99
8	Sustainable Swim Shorts	Swimwear	L	34.99
9	Recycled Polyester Jacket	Outerwear	XL	89.99
10	Bamboo Yoga Leggings	Activewear	XS	54.99
11	Hemp Overalls	Bottoms	M	74.99
12	Organic Cotton Sweater	Tops	L	49.99
13	Cork Sandals	Footwear	S	39.99
14	Recycled Nylon Backpack	Accessories	One Size	59.99
15	Organic Cotton Skirt	Bottoms	XS	34.99
16	Hemp Baseball Cap	Accessories	One Size	24.99
17	Upcycled Denim Jacket	Outerwear	M	79.99
18	Linen Jumpsuit	Dresses	L	69.99
19	Organic Cotton Socks	Accessories	M	9.99
20	Bamboo Bathrobe	Loungewear	XL	69.99

Table 3: transactions

transaction_id	product_id	quantity	purchase_date
1	2	2	02-06-2023
2	14	1	02-06-2023
3	5	2	05-06-2023
4	2	1	07-06-2023
5	19	2	10-06-2023
6	2	1	13-06-2023
7	16	1	13-06-2023
8	10	2	15-06-2023
9	2	1	18-06-2023
10	4	1	22-06-2023
11	18	2	26-06-2023
12	2	1	30-06-2023
13	13	1	30-06-2023
14	4	1	04-07-2023
15	6	2	08-07-2023
16	15	1	08-07-2023
17	9	2	12-07-2023
18	20	1	12-07-2023
19	11	1	16-07-2023
20	10	1	20-07-2023
21	12	2	24-07-2023

Case Study Questions

1. How many Transactions are done during each Marketing Campaigns?



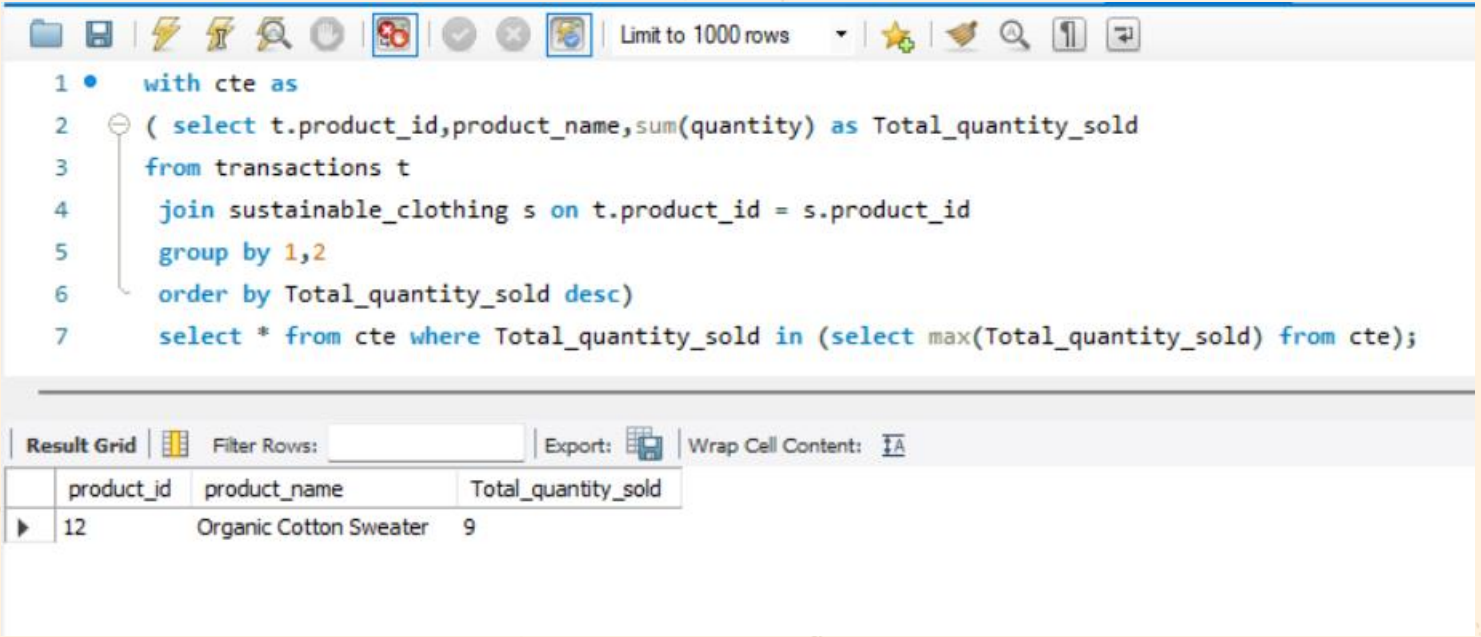
```
Limit to 1000 rows

1  select c.campaign_name, count(t.transaction_id) as No_of_Transactions
2  from marketing_campaigns c join transactions t on t.purchase_date
3  between c.start_date and c.end_date and c.product_id = t.product_id
4  group by c.campaign_name;
5
```

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

campaign_name	No_of_Transactions
Summer Sale	5
New Collection Launch	4
Super Save	1

2. Which product has the highest sales quantity.

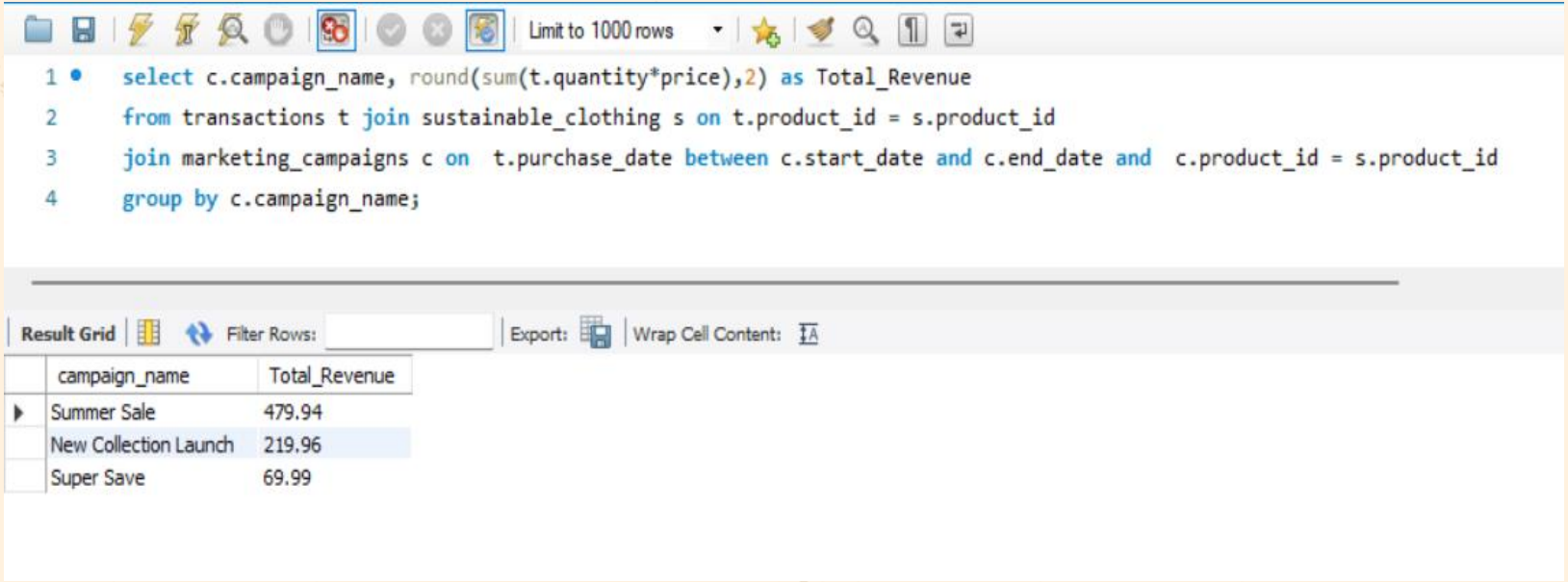


```
1  with cte as
2  ( select t.product_id,product_name,sum(quantity) as Total_quantity_sold
3  from transactions t
4   join sustainable_clothing s on t.product_id = s.product_id
5   group by 1,2
6   order by Total_quantity_sold desc)
7   select * from cte where Total_quantity_sold in (select max(Total_quantity_sold) from cte);
```

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

product_id	product_name	Total_quantity_sold
12	Organic Cotton Sweater	9

3. What is the total revenue generated from each marketing campaign?



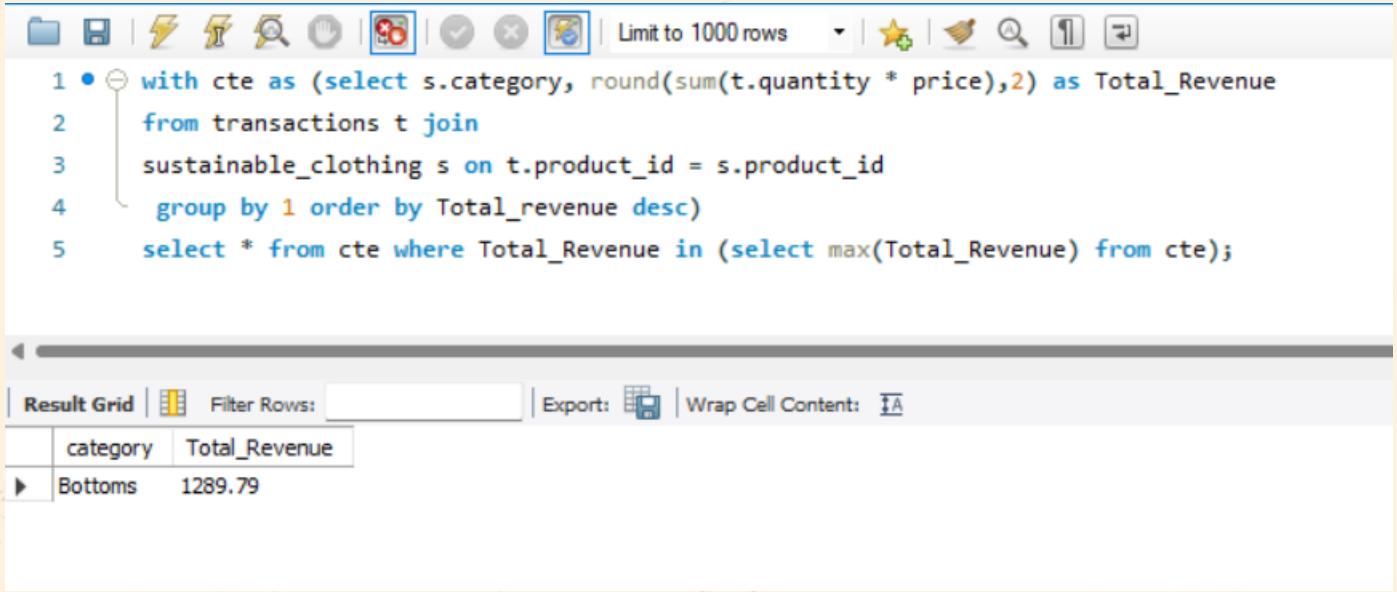
```
Limit to 1000 rows

1  select c.campaign_name, round(sum(t.quantity*price),2) as Total_Revenue
2  from transactions t join sustainable_clothing s on t.product_id = s.product_id
3  join marketing_campaigns c on  t.purchase_date between c.start_date and c.end_date and  c.product_id = s.product_id
4  group by c.campaign_name;
```

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

campaign_name	Total_Revenue
Summer Sale	479.94
New Collection Launch	219.96
Super Save	69.99

4. What is the top-selling product category based on the total revenue generated?

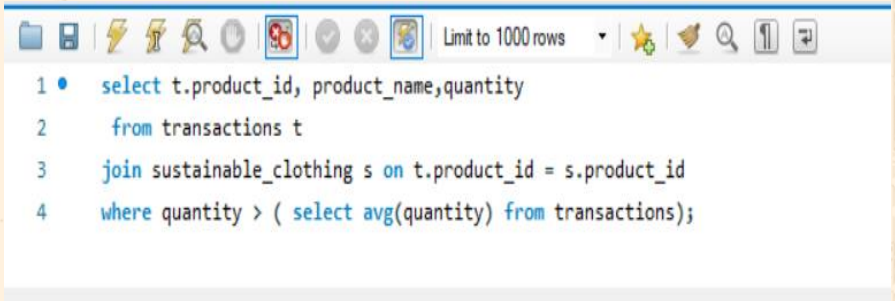


```
with cte as (select s.category, round(sum(t.quantity * price),2) as Total_Revenue
from transactions t join
sustainable_clothing s on t.product_id = s.product_id
 group by 1 order by Total_revenue desc)
select * from cte where Total_Revenue in (select max(Total_Revenue) from cte);
```

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

category	Total_Revenue
Bottoms	1289.79

5. Which products had a higher quantity sold compared to the average quantity sold?



```
Limit to 1000 rows

1  select t.product_id, product_name,quantity
2   from transactions t
3  join sustainable_clothing s on t.product_id = s.product_id
4  where quantity > ( select avg(quantity) from transactions);
```

Result Grid | Filter Rows: | Export:

product_id	product_name	quantity
2	Recycled Denim Jeans	2
5	Eco-Friendly Hoodie	2
19	Organic Cotton Socks	2
10	Bamboo Yoga Leggings	2
18	Linen Jumpsuit	2
6	Linen Button-Down Shirt	2
9	Recycled Polyester Jacket	2
12	Organic Cotton Sweater	2
19	Organic Cotton Socks	2
16	Hemp Baseball Cap	2
12	Organic Cotton Sweater	2
15	Organic Cotton Skirt	2
11	Hemp Overalls	2
5	Eco-Friendly Hoodie	2
12	Organic Cotton Sweater	2
18	Linen Jumpsuit	2
12	Organic Cotton Sweater	2
4	Bamboo Lounge Pants	2
8	Sustainable Swim Shorts	2
18	Linen Jumpsuit	2
15	Organic Cotton Skirt	2
17	Upcycled Denim Jacket	2
10	Bamboo Yoga Leggings	2
19	Organic Cotton Socks	2

6. What is the average revenue generated per day during the marketing campaigns?

```
1  select purchase_date, round(avg(quantity*price),2) as Avg_revenue
2  from transactions t
3  join sustainable_clothing s on t.product_id = s.product_id
4  join marketing_campaigns c on  t.purchase_date between c.start_date and c.end_date and s.product_id = c.product_id
5  group by purchase_date;
```

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

purchase_date	Avg_revenue
2023-06-02	159.98
2023-06-07	79.99
2023-06-13	79.99
2023-06-18	79.99
2023-06-30	79.99
2023-07-20	54.99
2023-07-29	54.99
2023-08-03	54.99
2023-08-14	54.99
2023-09-05	69.99

7. What is the percentage contribution of each product to the total revenue?

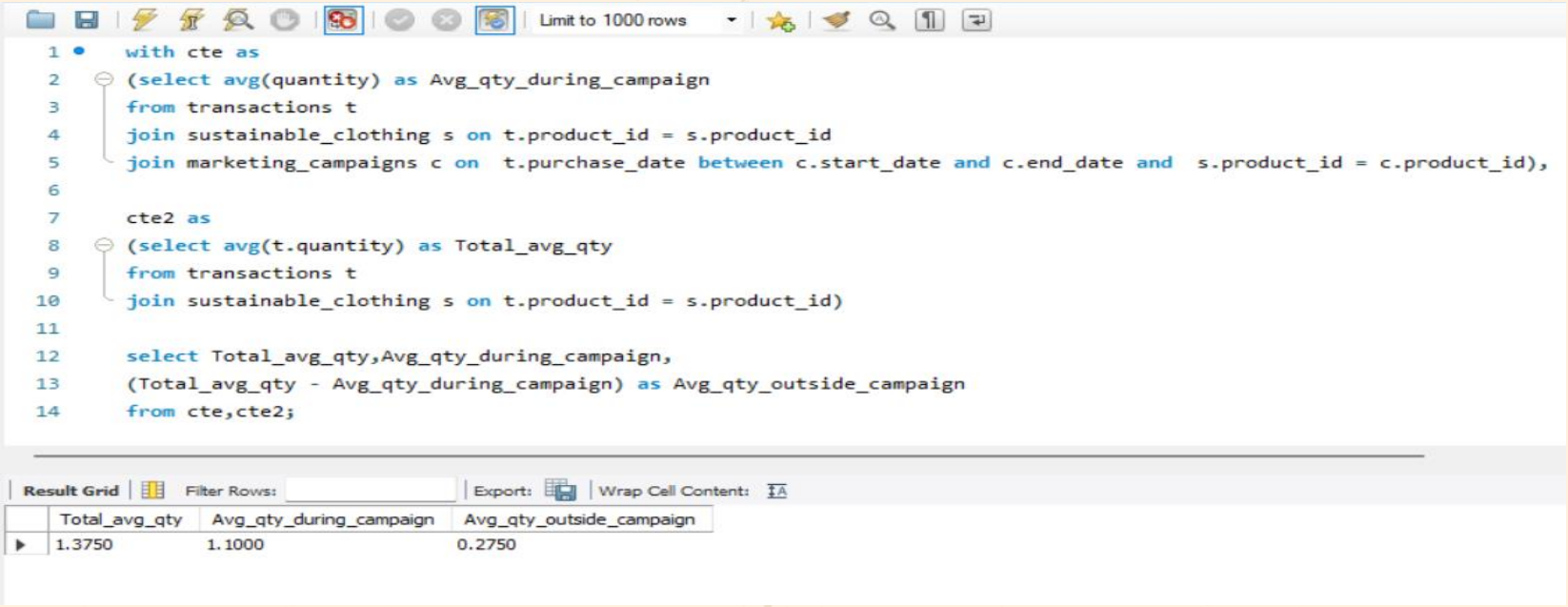
```sql
with cte as (select round(sum(quantity*price),2) as Total_revenue
from transactions t
join sustainable_clothing s on t.product_id = s.product_id),

cte2 as
(select product_name,round(sum(quantity*price),2) as Total_prod_revenue
from transactions t
join sustainable_clothing s on t.product_id = s.product_id
group by product_name)
select product_name,concat(round((Total_prod_revenue*100)/Total_revenue,2),"%") as pct_contri
from cte,cte2;
```

Result Grid | Filter Rows:

product_name	pct_contri
Organic Cotton T-Shirt	1.28%
Recycled Denim Jeans	13.71%
Hemp Crop Top	0.54%
Bamboo Lounge Pants	5.35%
Eco-Friendly Hoodie	6.42%
Linen Button-Down Shirt	2.57%
Organic Cotton Dress	4.5%
Sustainable Swim Shorts	1.5%
Recycled Polyester Jacket	7.71%
Bamboo Yoga Leggings	9.42%
Hemp Overalls	4.82%
Organic Cotton Sweater	9.64%
Cork Sandals	3.43%
Recycled Nylon Backpack	2.57%
Organic Cotton Skirt	3.75%
Hemp Baseball Cap	2.68%
Upcycled Denim Jacket	5.14%
Linen Jumpsuit	10.49%
Organic Cotton Socks	1.5%
Bamboo Bathrobe	3%

8. Compare the average quantity sold during marketing campaigns to outside the marketing campaigns.



```
with cte as
(select avg(quantity) as Avg_qty_during_campaign
from transactions t
join sustainable_clothing s on t.product_id = s.product_id
join marketing_campaigns c on  t.purchase_date between c.start_date and c.end_date and  s.product_id = c.product_id),

cte2 as
(select avg(t.quantity) as Total_avg_qty
from transactions t
join sustainable_clothing s on t.product_id = s.product_id)

select Total_avg_qty,Avg_qty_during_campaign,
(Total_avg_qty - Avg_qty_during_campaign) as Avg_qty_outside_campaign
from cte,cte2;
```

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

Total_avg_qty	Avg_qty_during_campaign	Avg_qty_outside_campaign
1.3750	1.1000	0.2750

9. Compare the revenue generated by products inside the marketing campaigns to outside the campaigns

```
with cte as
( select round(sum(quantity*price),2) as Total_rev_during_campaign
from transactions t
join sustainable_clothing s on t.product_id = s.product_id
join marketing_campaigns c on  t.purchase_date between c.start_date and c.end_date and  t.product_id = c.product_id),

cte2 as
(select round(sum(quantity*price),2) as Total_revenue
from transactions t
join sustainable_clothing s on t.product_id = s.product_id)

select Total_revenue,Total_rev_during_campaign,
    Total_revenue - Total_rev_during_campaign as Total_rev_outside_campaign
    from cte,cte2;
```

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

Total_revenue	Total_rev_during_campaign	Total_rev_outside_campaign
4669.12	769.89	3899.23

10. Rank the products by their average daily quantity sold.

```
with cte as
(select s.product_name,avg(quantity) as Avg_sold_qty
from transactions t
join sustainable_clothing s on t.product_id = s.product_id group by 1)
select product_name,Avg_sold_qty,
dense_rank() over (order by Avg_sold_qty desc) as Rank_avg from cte;
```

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

product_name	Avg_sold_qty	Rank_avg
Sustainable Swim Shorts	2.0000	1
Organic Cotton Sweater	1.8000	2
Linen Jumpsuit	1.7500	3
Organic Cotton Socks	1.7500	3
Eco-Friendly Hoodie	1.6667	4
Organic Cotton Skirt	1.6667	4
Linen Button-Down Shirt	1.5000	5
Hemp Overalls	1.5000	5
Upcycled Denim Jacket	1.5000	5
Recycled Polyester Jacket	1.3333	6
Bamboo Yoga Leggings	1.3333	6
Bamboo Lounge Pants	1.2500	7
Hemp Baseball Cap	1.2500	7
Recycled Denim Jeans	1.1429	8
Organic Cotton T-Shirt	1.0000	9
Hemp Crop Top	1.0000	9
Organic Cotton Dress	1.0000	9
Cork Sandals	1.0000	9
Recycled Nylon Backpack	1.0000	9
Bamboo Bathrobe	1.0000	9

The following topics are completely covered in this case study:

- Joins in SQL
- Where clause
- Aggregate functions
- Group by clause
- Order by clause
- Limit in SQL
- Window Functions
- CTEs

The following insights can be gathered for this case study:

- The Summer Sale has the maximum number of transactions with the total revenue of 480, i.e., it has the maximum success rate as compared to the other campaigns.
- Organic cotton sweater is the Hot Selling Product, while Recycled Denim jeans has given the maximum revenue i.e., 13%.
- The maximum average revenue that has been generated in a day of campaign is 159.9 after that the revenue goes on decreasing.
- The average number of quantities sold is more during campaigns but the total revenue generated is more outside the campaign as compared to the total revenue during campaign

Thanks!

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