

## MARKETING ANALYSIS CHALLENGE

--> How many transactions were completed during each marketing campaign?

```
SELECT M.CAMPAIGN_ID , M.CAMPAIGN_NAME, COUNT(T.TRANSACTION_ID) AS TRANSACTIONS
FROM MARKETING_CAMPAIGNS AS M
JOIN
TRANSACTIONS AS T
ON M.PRODUCT_ID = T.PRODUCT_ID
GROUP BY M.CAMPAIGN_ID, M.CAMPAIGN_NAME
```

--> Which product had the highest sales quantity?

```
SELECT TOP 1 S.PRODUCT_ID, S.PRODUCT_NAME, SUM(T.QUANTITY) AS QUANTITY
FROM SUSTAINABLE_CLOTHING AS S
JOIN TRANSACTIONS AS T
ON S.PRODUCT_ID = T.PRODUCT_ID
GROUP BY S.PRODUCT_ID, S.PRODUCT_NAME
ORDER BY QUANTITY DESC
```

--> What is the total revenue generated from each marketing campaign?

```
SELECT M.CAMPAIGN_ID , M.CAMPAIGN_NAME, SUM(S.PRICE* T.QUANTITY) AS TOTAL_REVENUE
FROM SUSTAINABLE_CLOTHING AS S
JOIN
TRANSACTIONS AS T
ON S.PRODUCT_ID = T.PRODUCT_ID
JOIN
MARKETING_CAMPAIGNS AS M
ON M.PRODUCT_ID = S.PRODUCT_ID
GROUP BY M.CAMPAIGN_ID, M.CAMPAIGN_NAME
```

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

```
SELECT TOP 1 S.PRODUCT_ID, S.PRODUCT_NAME, S.CATEGORY, SUM(S.PRICE* T.QUANTITY) AS TOTAL_REVENUE
FROM SUSTAINABLE_CLOTHING AS S
JOIN TRANSACTIONS AS T
ON S.PRODUCT_ID = T.PRODUCT_ID
GROUP BY S.PRODUCT_ID, S.PRODUCT_NAME, S.CATEGORY
ORDER BY TOTAL_REVENUE DESC
```

--> Which products had a higher quantity sold compared to the average quantity sold?

```
WITH CTE1 AS (
SELECT S.PRODUCT_ID, S.PRODUCT_NAME, S.CATEGORY, SUM(T.QUANTITY) AS TOTAL_QUANTITY
FROM SUSTAINABLE_CLOTHING AS S
JOIN TRANSACTIONS AS T
ON S.PRODUCT_ID = T.PRODUCT_ID
GROUP BY S.PRODUCT_ID, S.PRODUCT_NAME, S.CATEGORY),
CTE2 AS
( SELECT AVG(TOTAL_QUANTITY) AS AVG_QUANTITY FROM CTE1)
SELECT * FROM CTE1 WHERE TOTAL_QUANTITY > ( SELECT AVG(TOTAL_QUANTITY) AS AVG_QUANTITY FROM CTE1)
```



--> What is the average revenue generated per day during the marketing campaigns?

```
SELECT ROUND(AVG(S.PRICE*T.QUANTITY),2) AS AVG_REVENUE
FROM MARKETING_CAMPAIGNS AS M
RIGHT JOIN TRANSACTIONS AS T
ON M.PRODUCT_ID = T.PRODUCT_ID
JOIN SUSTAINABLE_CLOTHING AS S
ON T.PRODUCT_ID = S.PRODUCT_ID
WHERE M.PRODUCT_ID IS not NULL
```

--> What is the percentage contribution of each product to the total revenue?

```
WITH CTE1 AS (
SELECT S.PRODUCT_ID, S.PRODUCT_NAME, SUM(S.PRICE * T.QUANTITY) AS REVENUE
FROM SUSTAINABLE_CLOTHING AS S
JOIN TRANSACTIONS AS T
ON S.PRODUCT_ID = T.PRODUCT_ID
GROUP BY S.PRODUCT_ID, S.PRODUCT_NAME
),
CTE2 AS
( SELECT PRODUCT_ID, PRODUCT_NAME,REVENUE, SUM(REVENUE) OVER() AS TOTAL_REVENUE FROM CTE1)
SELECT PRODUCT_ID, PRODUCT_NAME,CONCAT(ROUND((REVENUE/TOTAL_REVENUE),2) * 100,'%') AS PERCENT_CONTRIBUTION FROM CTE2
```

-->Compare the total quantity sold during marketing campaigns to outside the marketing campaigns

```
SELECT A AS QUANTITY_OUTSIDE_CAMPAIGNS, B AS QUANTITY_INSIDE_CAMPAIGNS FROM
( SELECT SUM(T.QUANTITY) AS A
FROM MARKETING_CAMPAIGNS AS M
RIGHT JOIN TRANSACTIONS AS T
ON M.PRODUCT_ID = T.PRODUCT_ID
WHERE M.PRODUCT_ID IS NULL ) AS A,

( SELECT SUM(T.QUANTITY) AS B
FROM MARKETING_CAMPAIGNS AS M
RIGHT JOIN TRANSACTIONS AS T
ON M.PRODUCT_ID = T.PRODUCT_ID
WHERE M.PRODUCT_ID IS not NULL ) AS B
```

--> Compare the revenue generated by products inside the marketing campaigns to outside the campaigns

```
SELECT A AS REVENUE_OUTSIDE_CAMPAIGNS, B AS REVENUE_INSIDE_CAMPAIGNS FROM
( SELECT SUM(S.PRICE*T.QUANTITY) AS A
FROM MARKETING_CAMPAIGNS AS M
RIGHT JOIN TRANSACTIONS AS T
ON M.PRODUCT_ID = T.PRODUCT_ID
JOIN SUSTAINABLE_CLOTHING AS S
ON T.PRODUCT_ID = S.PRODUCT_ID
WHERE M.PRODUCT_ID IS NULL ) AS A,

( SELECT SUM(S.PRICE*T.QUANTITY) AS B
FROM MARKETING_CAMPAIGNS AS M
RIGHT JOIN TRANSACTIONS AS T
ON M.PRODUCT_ID = T.PRODUCT_ID
JOIN SUSTAINABLE_CLOTHING AS S
ON T.PRODUCT_ID = S.PRODUCT_ID
WHERE M.PRODUCT_ID IS not NULL ) AS B
```

-->Rank the products by their average quantity sold

```
SELECT PRODUCT_ID, SUM(QUANTITY) AS AVG_QUANTITY, DENSE_RANK() OVER(ORDER BY SUM(QUANTITY)) AS RANKS
FROM
TRANSACTIONS
GROUP BY PRODUCT_ID
```