MARKETING ANALYSIS

SQL SCHEMA

```
-- Create the table
CREATE TABLE sustainable_clothing (
product_id INT PRIMARY KEY,
product_name VARCHAR(100),
category VARCHAR(50),
size VARCHAR(10),
price FLOAT
);
-- Insert data into the table
INSERT INTO sustainable_clothing (product_id, product_name,
category, size, price)
VALUES
(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),
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(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);
-- Create the table
CREATE TABLE marketing_campaigns (
campaign_id INT PRIMARY KEY,
campaign_name VARCHAR(100),
product_id INT,
start_date DATE,
end_date DATE,
FOREIGN KEY (product_id) REFERENCES sustainable_clothing (product_id)
);
-- Insert data into the table
INSERT INTO marketing_campaigns (campaign_id, campaign_name, product_id,
start_date, end_date)
VALUES
(1, 'Summer Sale', 2, '2023-06-01', '2023-06-30'),
(2, 'New Collection Launch', 10, '2023-07-15', '2023-08-15'),
(3, 'Super Save', 7, '2023-08-20', '2023-09-15');
```

```
-- Create the table
CREATE TABLE transactions (
transaction_id INT PRIMARY KEY,
product_id INT,
quantity INT,
purchase_date DATE,
FOREIGN KEY (product_id) REFERENCES sustainable_clothing
(product_id)
);
-- Insert data into the table
INSERT INTO transactions (transaction_id, product_id, quantity,
purchase_date)
VALUES
(1, 2, 2, '2023-06-02'),
(2, 14, 1, '2023-06-02'),
(3, 5, 2, '2023-06-05'),
(4, 2, 1, '2023-06-07'),
(5, 19, 2, '2023-06-10'),
(6, 2, 1, '2023-06-13'),
(7, 16, 1, '2023-06-13'),
(8, 10, 2, '2023-06-15'),
(9, 2, 1, '2023-06-18'),
(10, 4, 1, '2023-06-22'),
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(11, 18, 2, '2023-06-26'),
(12, 2, 1, '2023-06-30'),
(13, 13, 1, '2023-06-30'),
(14, 4, 1, '2023-07-04'),
(15, 6, 2, '2023-07-08'),
(16, 15, 1, '2023-07-08'),
(17, 9, 2, '2023-07-12'),
(18, 20, 1, '2023-07-12'),
(19, 11, 1, '2023-07-16'),
(20, 10, 1, '2023-07-20'),
(21, 12, 2, '2023-07-24'),
(22, 5, 1, '2023-07-29'),
(23, 10, 1, '2023-07-29'),
(24, 10, 1, '2023-08-03'),
(25, 19, 2, '2023-08-08'),
(26, 3, 1, '2023-08-14'),
(27, 10, 1, '2023-08-14'),
(28, 16, 2, '2023-08-20'),
(29, 18, 1, '2023-08-27'),
(30, 12, 2, '2023-09-01'),
(31, 13, 1, '2023-09-05'),
(32, 7, 1, '2023-09-05'),
(33, 6, 1, '2023-09-10'),

(34, 15, 2, '2023-09-14'),
(35, 9, 1, '2023-09-14'),
(36, 11, 2, '2023-09-19'),
(37, 17, 1, '2023-09-23'),
(38, 2, 1, '2023-09-28'),
(39, 14, 1, '2023-09-28'),
(40, 5, 2, '2023-09-30'),
(41, 16, 1, '2023-10-01'),
(42, 12, 2, '2023-10-01'),
(43, 1, 1, '2023-10-01'),
(44, 7, 1, '2023-10-02'),
(45, 18, 2, '2023-10-03'),
(46, 12, 1, '2023-10-03'),
(47, 13, 1, '2023-10-04'),
(48, 4, 1, '2023-10-05'),
(49, 12, 2, '2023-10-05'),
(50, 7, 1, '2023-10-06'),
(51, 4, 2, '2023-10-08'),
(52, 8, 2, '2023-10-08'),
(53, 16, 1, '2023-10-09'),
(54, 19, 1, '2023-10-09'),
(55, 1, 1, '2023-10-10'),

(56, 18, 2, '2023-10-10'),
(57, 2, 1, '2023-10-10'),
(58, 15, 2, '2023-10-11'),
(59, 17, 2, '2023-10-13'),
(60, 13, 1, '2023-10-13'),
(61, 10, 2, '2023-10-13'),
(62, 9, 1, '2023-10-13'),
(63, 19, 2, '2023-10-13'),
(64, 20, 1, '2023-10-14')

QUESTIONS

1. How many transactions were completed during each marketing campaign?
2. Which product had 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

sustainable_clothing

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

marketing_campaigns

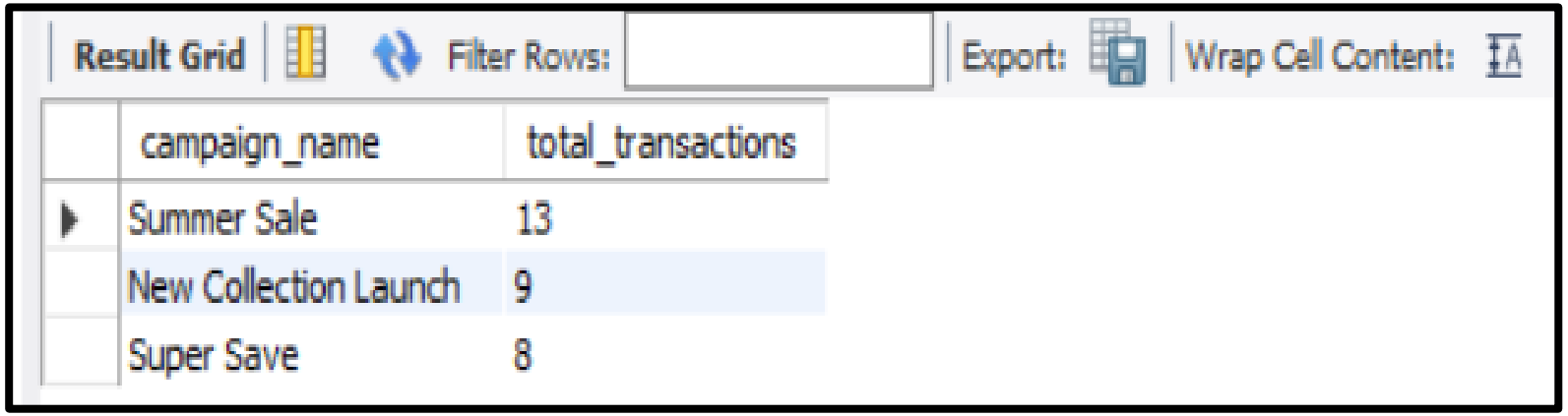
campaign_id	campaign_name	product_id	start_date	end_date
1	Summer Sale	2	2023-06-01	2023-06-30
2	New Collection Launch	10	2023-07-15	2023-08-15
3	Super Save	7	2023-08-20	2023-09-15

transactions (first 10 shown)

transaction_id	product_id	quantity	purcahse_date
1	2	2	2023-06-02
1	14	1	2023-06-02
2	5	2	2023-06-05
3	2	1	2023-06-07
4	19	2	2023-06-10
5	2	1	2023-06-13
5	16	1	2023-06-13
6	10	2	2023-06-15
7	2	1	2023-06-18
8	4	1	2023-06-22
9	18	2	2023-06-26
10	2	1	2023-06-30
10	13	1	2023-06-30

1. How many transactions were completed during each marketing campaign?

```
SELECT m.campaign_name, COUNT(t.transaction_id) AS total_transactions
FROM marketing_campaigns mJOIN transactions t ON t.purchase_date BETWEEN m.start_date AND m.end_date
GROUP BY campaign_name;
```



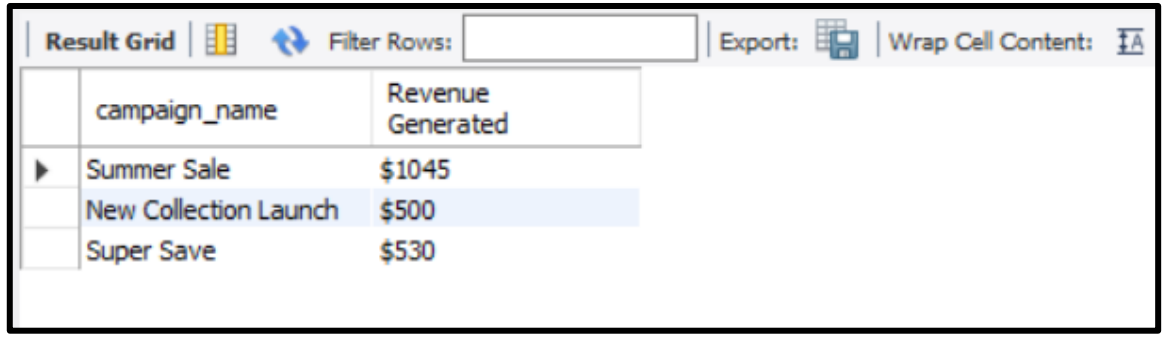
campaign_name	total_transactions
Summer Sale	13
New Collection Launch	9
Super Save	8

2. Which product had the highest sales quantity?

```
SELECT s.product_name, SUM(t.quantity) AS sales_quantityFROM sustainable_clothing s
JOIN transactions t ON s.product_id = t.product_id
GROUP BY product_nameORDER BY sales_quantity DESC LIMIT 1;
```

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

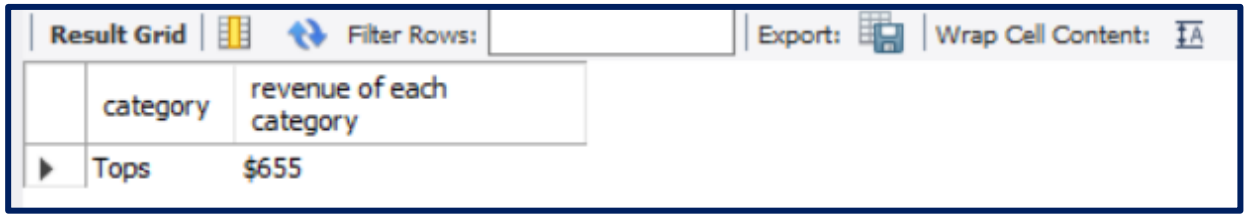
```
SELECT campaign_name, CONCAT('$','',ROUND(SUM(t.quantity*s.price))) AS "revenue of each compaign"FROM
sustainable_clothing s
INNER JOIN transactions t ON t.product_id=c.product_id
JOIN marketing_campaigns m ON t.purchase_date BETWEEN m.start_date AND m.end_date
GROUP BY campaign_name
ORDER BY "revenue of each compaign" DESC;
```



campaign_name	Revenue Generated
Summer Sale	$1045
New Collection Launch	$500
Super Save	$530

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

```
SELECT category, CONCAT('$','',ROUND(SUM(t.quantity*s.price))) AS "revenue of each category"FROM sustainable_clothing s
LEFT JOIN transactions t ON t.product_id = s.product_id
GROUP BY categoryORDER BY "revenue of each category" DESCLIMIT 1;
```



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

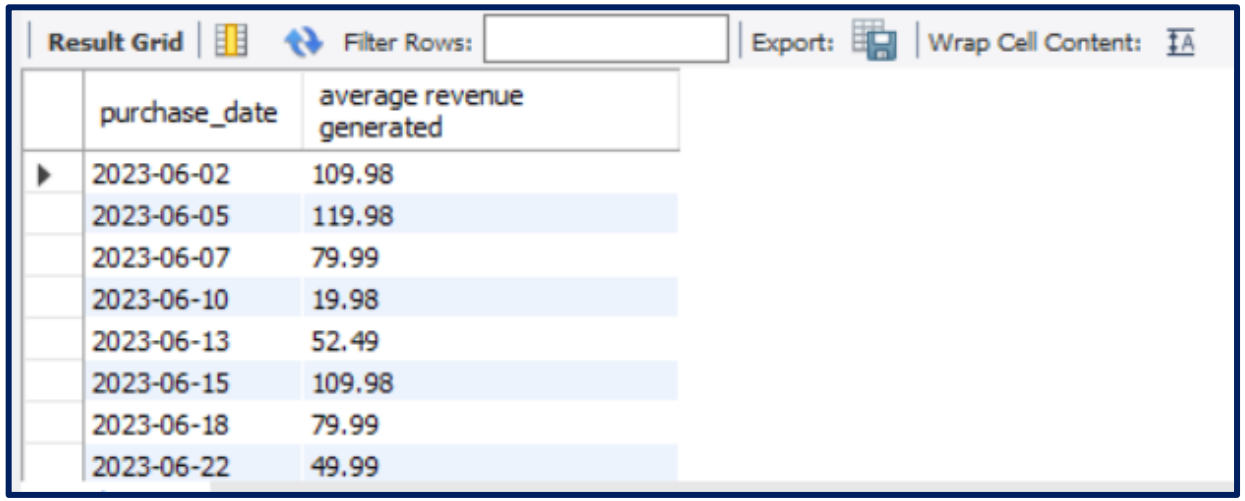
```
SELECT product_name, SUM(quantity) AS "quantity sold", AVG(quantity) AS "avg quantity"FROM sustainable_clothing c
LEFT JOIN transactions t ON t.product_id=c.product_id
GROUP BY product_name
HAVING SUM(quantity) > AVG(quantity);
```

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

product_name	quantity sold	avg quantity
Organic Cotton T-Shirt	2	1.0000
Recycled Denim Jeans	8	1.1429
Bamboo Lounge Pants	5	1.2500
Eco-Friendly Hoodie	5	1.6667
Linen Button-Down Shirt	3	1.5000
Organic Cotton Dress	3	1.0000
Recycled Polyester Jacket	4	1.3333
Bamboo Yoga Leggings	8	1.3333

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

```
SELECT purchase_date, ROUND(AVG(c.price*t.quantity),2) AS "average revenue generated"FROM transactions t
JOIN sustainable_clothing c ON t.product_id=c.product_id
JOIN marketing_campaigns m ON t.purchase_date BETWEEN m.start_date AND m.end_date
GROUP BY purchase_date
ORDER BY "average revenue generated" DESC;
```



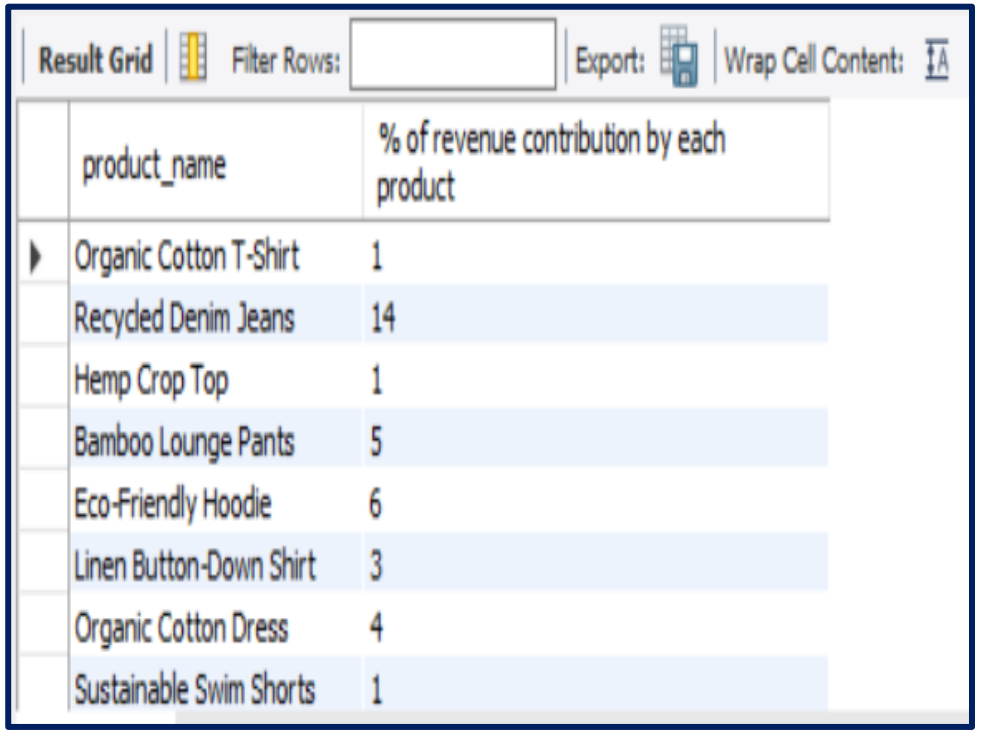
purchase_date	average revenue generated
2023-06-02	109.98
2023-06-05	119.98
2023-06-07	79.99
2023-06-10	19.98
2023-06-13	52.49
2023-06-15	109.98
2023-06-18	79.99
2023-06-22	49.99

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

```
WITH cte_total_revenue AS (
SELECT SUM(t.quantity*c.price) AS total_revenue
FROM sustainable_clothing c
JOIN transactions t ON t.product_id=c.product_id),

cte_total_product_revenue AS (
select product_name,SUM(t.quantity*c.price) AS total_product_revenue
FROM sustainable_clothing c
JOIN transactions t ON t.product_id=c.product_id
GROUP BY product_name)

SELECT
product_name,ROUND((total_product_revenue*100)/total_revenue) AS "%
of revenue contribution by each product“
FROM cte_total_product_revenue, cte_total_revenue
ORDER BY "% of revenue contribution by each product" DESC;
```



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

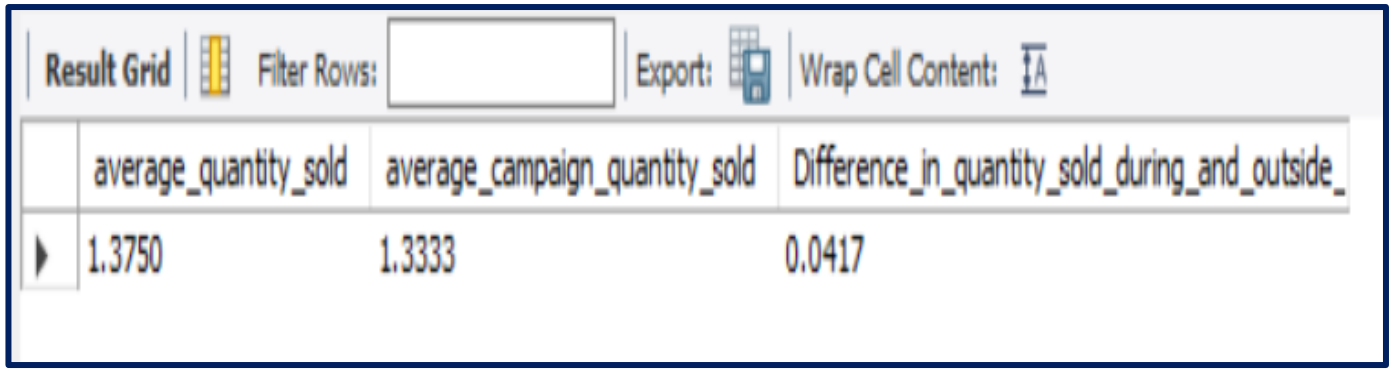
product_name	% of revenue contribution by each product
Organic Cotton T-Shirt	1
Recycled Denim Jeans	14
Hemp Crop Top	1
Bamboo Lounge Pants	5
Eco-Friendly Hoodie	6
Linen Button-Down Shirt	3
Organic Cotton Dress	4
Sustainable Swim Shorts	1

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

```
WITH campaign_quantity AS (SELECT AVG(quantity) AS average_campaign_quantity_sold
FROM transactions t
JOIN marketing_campaigns m on t.purchase_date BETWEEN m.start_date AND m.end_date),

total_quantity AS (SELECT AVG(quantity) AS average_quantity_sold
FROM transactions)

SELECT average_quantity_sold , average_campaign_quantity_sold,(average_quantity_sold -
average_campaign_quantity_sold) AS Difference_in_quantity_sold_during_and_outside_campaignFROM total_quantity,
campaign_quantity;
```



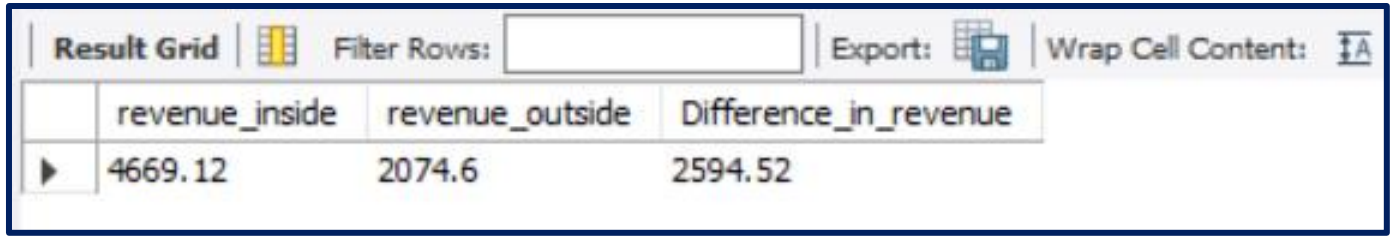
average_quantity_sold	average_campaign_quantity_sold	Difference_in_quantity_sold_during_and_outside_
1.3750	1.3333	0.0417

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

```
WITH campaign_revenue AS (SELECT SUM(t.quantity*s.price) AS campaign_revenue_generated
FROM transactions t
JOIN sustainable_clothing s ON t.product_id=s.product_id
JOIN marketing_campaigns m ON t.purchase_date BETWEEN m.start_date AND m.end_date),

total_revenue AS (SELECT SUM(t.quantity*s.price) AS total_revenue_generated
FROM transactions t
JOIN sustainable_clothing s ON t.product_id=s.product_id)

SELECT ROUND(total_revenue_generated,2) AS revenue_inside, ROUND(campaign_revenue_generated,2) AS
revenue_outside,ROUND((total_revenue_generated - campaign_revenue_generated),2) AS Difference_in_revenue
FROM total_revenue, campaign_revenue;
```



revenue_inside	revenue_outside	Difference_in_revenue
4669.12	2074.6	2594.52

10. Rank the products by their average daily quantity sold

```
WITH cte_avgq AS (SELECT product_name, AVG(quantity) AS average_quantity_sold
FROM transactions t
JOIN sustainable_clothing c ON c.product_id=t.product_id
GROUP BY product_name)

SELECT product_name, ROUND(average_quantity_sold,2) AS avg_daily_quantity_sold,DENSE_RANK()
OVER(ORDER BY average_quantity_sold) AS rank_of_products_by_average_quantity_soldFROM cte_avgq;
```

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

product_name	avg_daily_quantity_sold	rank_of_products_by_average_quantity_sold
Organic Cotton T-Shirt	1.00	1
Hemp Crop Top	1.00	1
Organic Cotton Dress	1.00	1
Cork Sandals	1.00	1
Recycled Nylon Backpack	1.00	1
Bamboo Bathrobe	1.00	1
Recycled Denim Jeans	1.14	2
Bamboo Lounge Pants	1.25	3