BIKE STORE PROJECT

AGENDA

PROJECT INTRODUCTION

USER REQUIREMNET

RELETION DAIGRAM

SQL ANALYSIS

POWER BI REPORT

PROJECT INTRODUCTION

- The dataset encompasses three years of operational data from a bike store chain with three branches across the United States.
- The data is organized into nine distinct files, providing a comprehensive overview of the business's key aspects.
- These files are:
- 1. Brands: Information on bike brands sold.
- 2. Category: Categorization of bike products.
- 3. Customers: Demographic and transactional data on customers.
- 4. Order: Records of sales transactions.
- 5. Order Item: Detailed breakdown of items within each order.
- 6. Product: Specifications and details of bike models.
- 7. Staff: Information on employees across branches.
- 8. Stock: Inventory management data.
- 9. Store: Details on each of the three branches.

USER REQUIREMNET

User want 3 type analysis Sales report , product report ,customer & staff report

SALES REPORT

- KPI ANALYSIS
- MONTH SALES
- CATEGORY SALES
- STORE SALES IN PER
- CITY SALES
- MONTH SALES DIFFERENCE

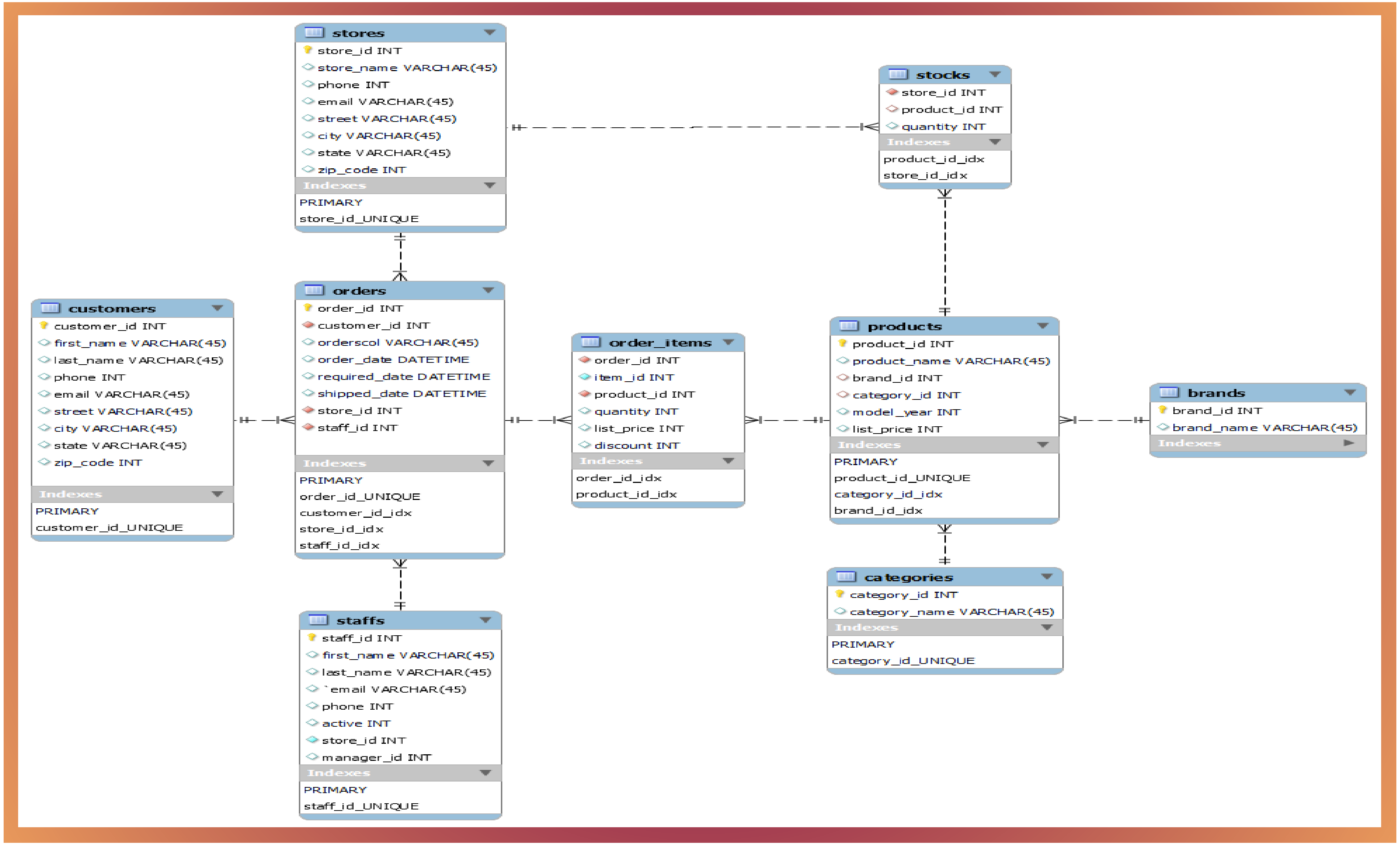
PRODUCT REPORT

- MOST ORDER CATEGORY
- MOST ORDER BRAND
- MOST ORDER PRODUCT
- TOP 5 SALE PRODUCT
- BOTTOM 5 SALE PRODUCT
- TOTAL SALE CATEGORY IN PER
- TOP 5 BRAND SALE IN 5

CUSTOMER & STAFF REPORT

- STORE WISE MOST ACTIVE STAFF
- STORE WISE CUSTOMER
- STORE TOP 5 CUSTOMER

RELETIONSHIP DAIGRAM



stores
- store_id INT
- store_name VARCHAR(45)
- phone INT
- email VARCHAR(45)
- street VARCHAR(45)
- city VARCHAR(45)
- state VARCHAR(45)
- zip_code INT

Indexes
- PRIMARY
- store_id_UNIQUE

stocks
- store_id INT
- product_id INT
- quantity INT

Indexes
- product_id_idx
- store_id_idx

customers
- customer_id INT
- first_name VARCHAR(45)
- last_name VARCHAR(45)
- phone INT
- email VARCHAR(45)
- street VARCHAR(45)
- city VARCHAR(45)
- state VARCHAR(45)
- zip_code INT

Indexes
- PRIMARY
- customer_id_UNIQUE

orders
- order_id INT
- customer_id INT
- orderscol VARCHAR(45)
- order_date DATETIME
- required_date DATETIME
- shipped_date DATETIME
- store_id INT
- staff_id INT

Indexes
- PRIMARY
- order_id_UNIQUE
- customer_id_idx
- store_id_idx
- staff_id_idx

order_items
- order_id INT
- item_id INT
- product_id INT
- quantity INT
- list_price INT
- discount INT

Indexes
- order_id_idx
- product_id_idx

products
- product_id INT
- product_name VARCHAR(45)
- brand_id INT
- category_id INT
- model_year INT
- list_price INT

Indexes
- PRIMARY
- product_id_UNIQUE
- category_id_idx
- brand_id_idx

brands
- brand_id INT
- brand_name VARCHAR(45)

Indexes

staffs
- staff_id INT
- first_name VARCHAR(45)
- last_name VARCHAR(45)
- `email VARCHAR(45)
- phone INT
- active INT
- store_id INT
- manager_id INT

Indexes
- PRIMARY
- staff_id_UNIQUE

categories
- category_id INT
- category_name VARCHAR(45)

Indexes
- PRIMARY
- category_id_UNIQUE

MYSQL ANALYSIS

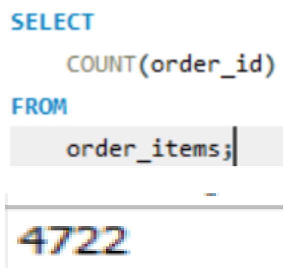
AS A USER REQUIREMNET

SALES REPORT ANALYSIS

- KPI ANALYSIS
- MONTH SALES
- CATEGORY SALES
- STORE SALES IN PER
- CITY SALES
- MONTH SALES DIFFERENCE

KPI

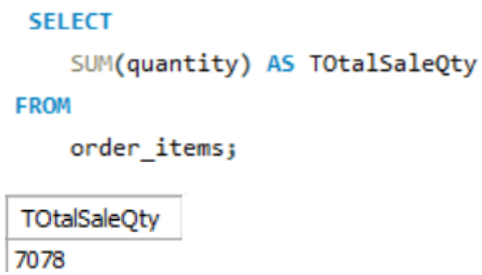
TOTAL ORDER



```sql
SELECT
    COUNT(order_id)
FROM
    order_items;
```

4722

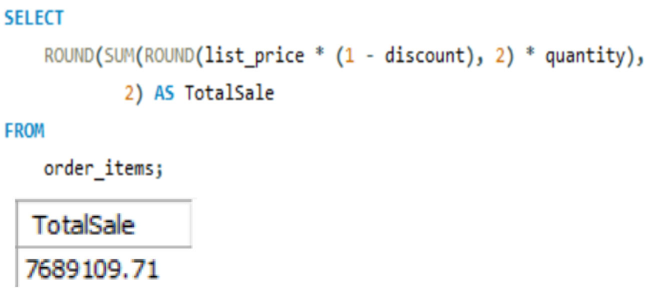
TOTAL SALE QTY



```sql
SELECT
    SUM(quantity) AS TOtalSaleQty
FROM
    order_items;
```

TOtalSaleQty
7078

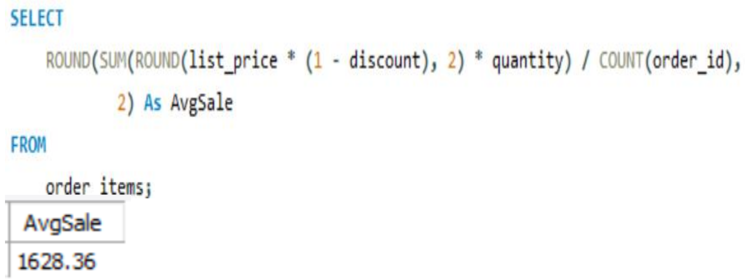
TOTAL SALE



```sql
SELECT
    ROUND(SUM(ROUND(list_price * (1 - discount), 2) * quantity),
            2) AS TotalSale
FROM
    order_items;
```

TotalSale
7689109.71

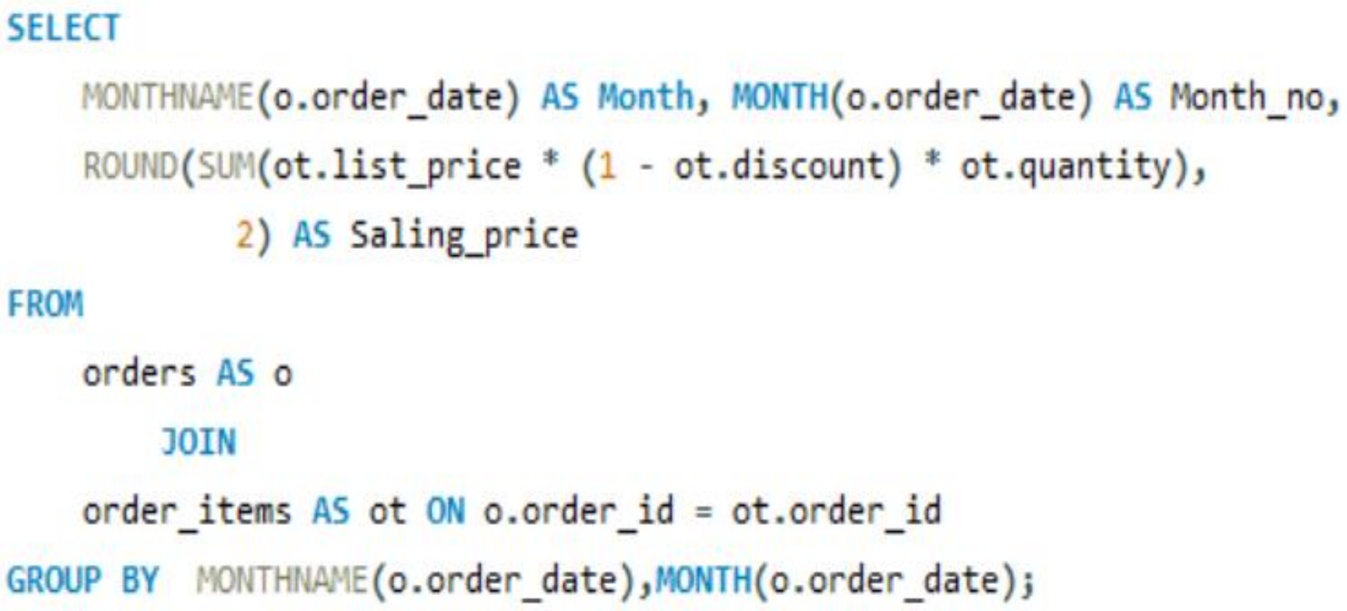
AVG SALE



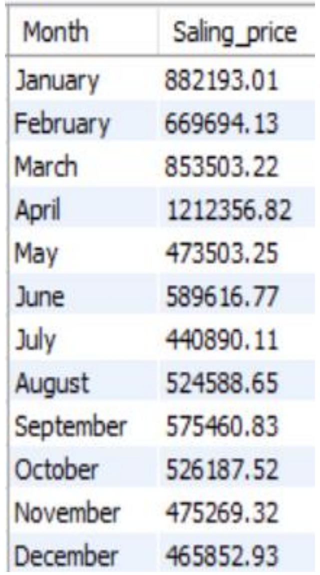
```sql
SELECT
    ROUND(SUM(ROUND(list_price * (1 - discount), 2) * quantity) / COUNT(order_id),
            2) As AvgSale
FROM
    order items;
```

AvgSale
1628.36

MONTH SALE

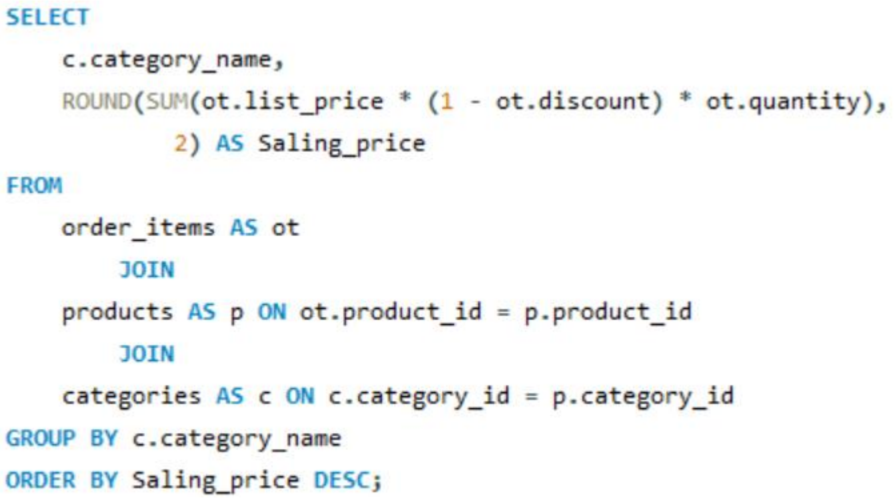


```sql
SELECT
    MONTHNAME(o.order_date) AS Month, MONTH(o.order_date) AS Month_no,
    ROUND(SUM(ot.list_price * (1 - ot.discount) * ot.quantity),
            2) AS Saling_price
FROM
    orders AS o
        JOIN
    order_items AS ot ON o.order_id = ot.order_id
GROUP BY  MONTHNAME(o.order_date),MONTH(o.order_date);
```

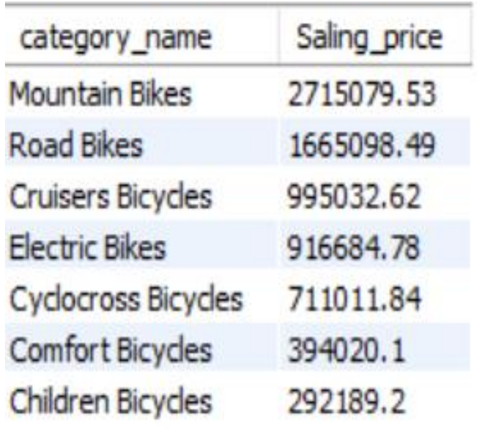


Month	Saling_price
January	882193.01
February	669694.13
March	853503.22
April	1212356.82
May	473503.25
June	589616.77
July	440890.11
August	524588.65
September	575460.83
October	526187.52
November	475269.32
December	465852.93

CATEGORY WISE SAELS

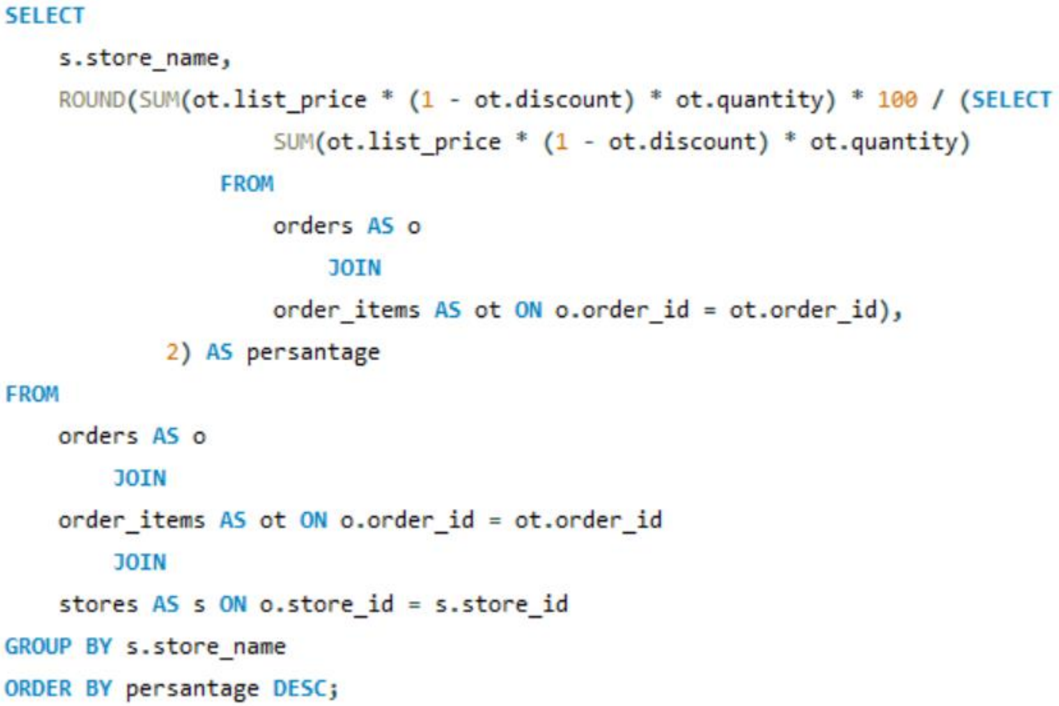


```
SELECT
    c.category_name,
    ROUND(SUM(ot.list_price * (1 - ot.discount) * ot.quantity),
            2) AS Saling_price
FROM
    order_items AS ot
        JOIN
    products AS p ON ot.product_id = p.product_id
        JOIN
    categories AS c ON c.category_id = p.category_id
GROUP BY c.category_name
ORDER BY Saling_price DESC;
```

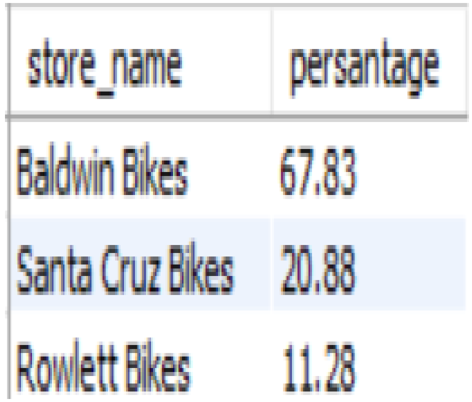


category_name	Saling_price
Mountain Bikes	2715079.53
Road Bikes	1665098.49
Cruisers Bicycles	995032.62
Electric Bikes	916684.78
Cyclocross Bicycles	711011.84
Comfort Bicycles	394020.1
Children Bicycles	292189.2

STORE SALE IN PER

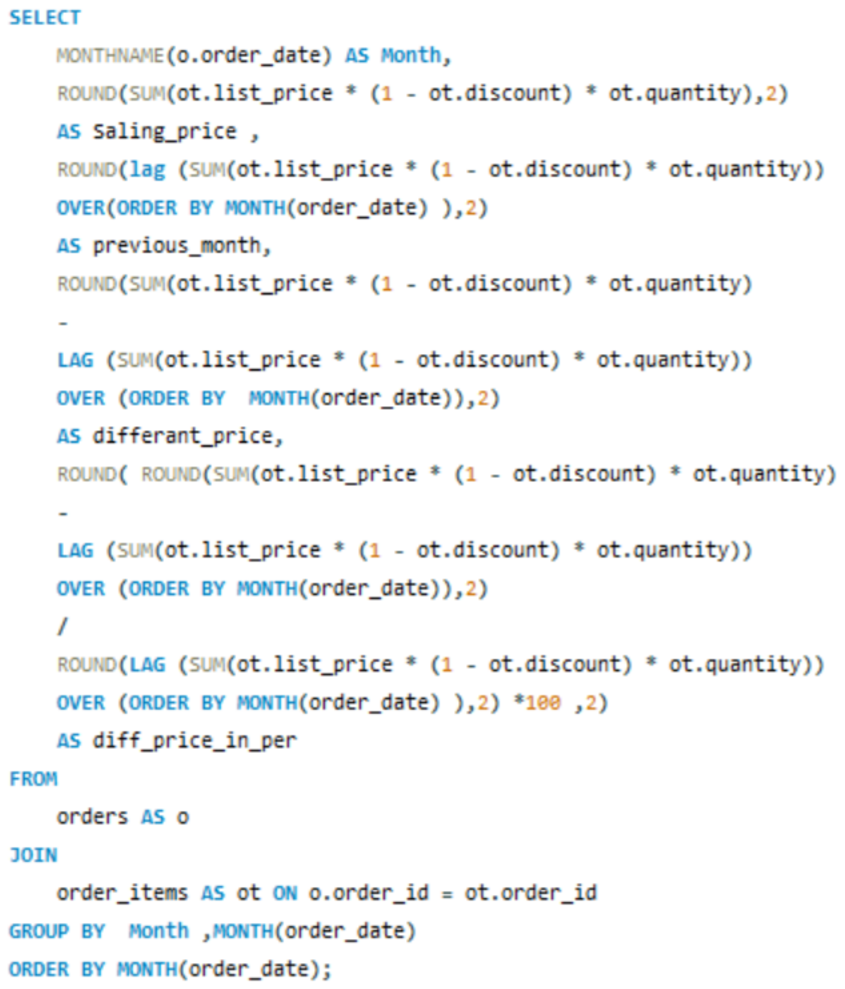


```
SELECT
    s.store_name,
    ROUND(SUM(ot.list_price * (1 - ot.discount) * ot.quantity) * 100 / (SELECT
                SUM(ot.list_price * (1 - ot.discount) * ot.quantity)
            FROM
                orders AS o
                    JOIN
                order_items AS ot ON o.order_id = ot.order_id),
            2) AS persantage
FROM
    orders AS o
        JOIN
    order_items AS ot ON o.order_id = ot.order_id
        JOIN
    stores AS s ON o.store_id = s.store_id
GROUP BY s.store_name
ORDER BY persantage DESC;
```

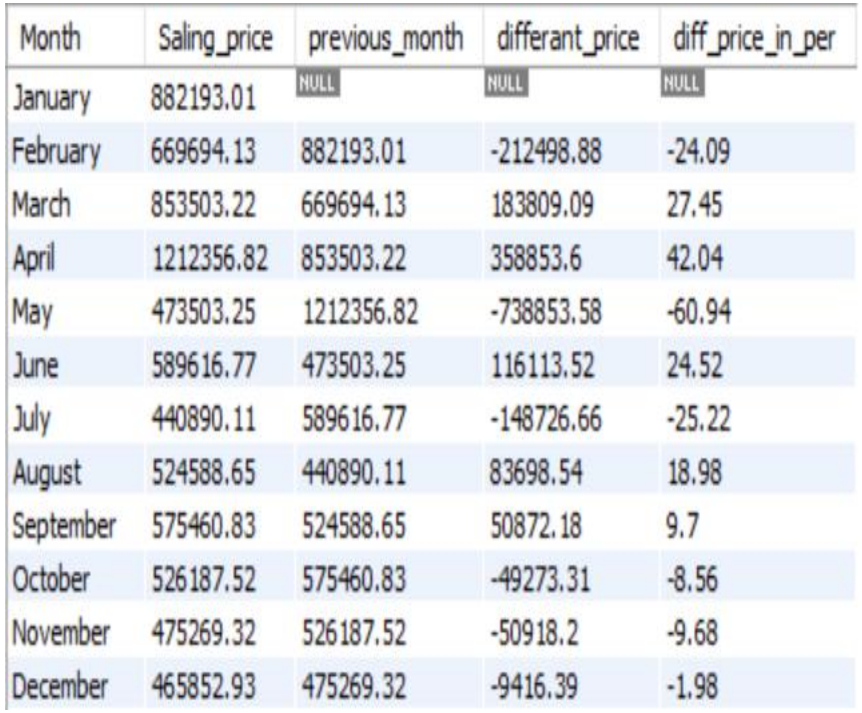


store_name	persantage
Baldwin Bikes	67.83
Santa Cruz Bikes	20.88
Rowlett Bikes	11.28

MATRIX TABLE



```
SELECT
    MONTHNAME(o.order_date) AS Month,
    ROUND(SUM(ot.list_price * (1 - ot.discount) * ot.quantity),2)
    AS Saling_price ,
    ROUND(lag (SUM(ot.list_price * (1 - ot.discount) * ot.quantity))
    OVER(ORDER BY MONTH(order_date) ),2)
    AS previous_month,
    ROUND(SUM(ot.list_price * (1 - ot.discount) * ot.quantity)
    -
    LAG (SUM(ot.list_price * (1 - ot.discount) * ot.quantity))
    OVER (ORDER BY  MONTH(order_date)),2)
    AS differant_price,
    ROUND( ROUND(SUM(ot.list_price * (1 - ot.discount) * ot.quantity)
    -
    LAG (SUM(ot.list_price * (1 - ot.discount) * ot.quantity))
    OVER (ORDER BY MONTH(order_date)),2)
    /
    ROUND(LAG (SUM(ot.list_price * (1 - ot.discount) * ot.quantity))
    OVER (ORDER BY MONTH(order_date) ),2) *100 ,2)
    AS diff_price_in_per
FROM
    orders AS o
JOIN
    order_items AS ot ON o.order_id = ot.order_id
GROUP BY  Month ,MONTH(order_date)
ORDER BY MONTH(order_date);
```

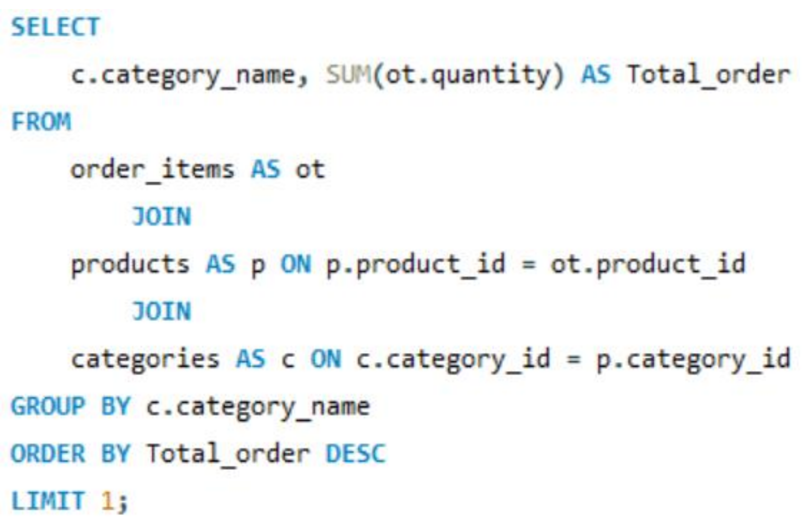


Month	Saling_price	previous_month	differant_price	diff_price_in_per
January	882193.01	NULL	NULL	NULL
February	669694.13	882193.01	-212498.88	-24.09
March	853503.22	669694.13	183809.09	27.45
April	1212356.82	853503.22	358853.6	42.04
May	473503.25	1212356.82	-738853.58	-60.94
June	589616.77	473503.25	116113.52	24.52
July	440890.11	589616.77	-148726.66	-25.22
August	524588.65	440890.11	83698.54	18.98
September	575460.83	524588.65	50872.18	9.7
October	526187.52	575460.83	-49273.31	-8.56
November	475269.32	526187.52	-50918.2	-9.68
December	465852.93	475269.32	-9416.39	-1.98

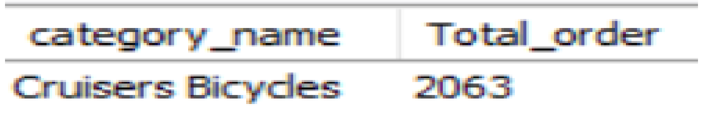
PRODUCT REPORT ANALYSIS

- MOST ORDER CATEGORY
- MOST ORDER BRAND
- MOST ORDER PRODUCT
- TOP 5 SALE PRODUCT
- BOTTOM 5 SALE PRODUCT
- TOTAL SALE CATEGORY IN PER
- TOP 5 BRAND SALE IN 5

MOST ORDER CATEGORY



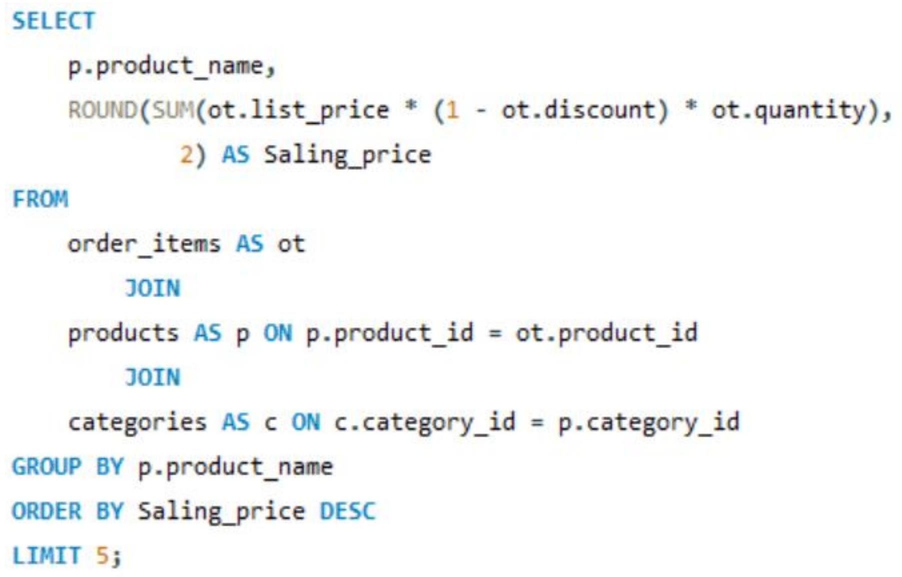
```
SELECT
    c.category_name, SUM(ot.quantity) AS Total_order
FROM
    order_items AS ot
        JOIN
    products AS p ON p.product_id = ot.product_id
        JOIN
    categories AS c ON c.category_id = p.category_id
GROUP BY c.category_name
ORDER BY Total_order DESC
LIMIT 1;
```



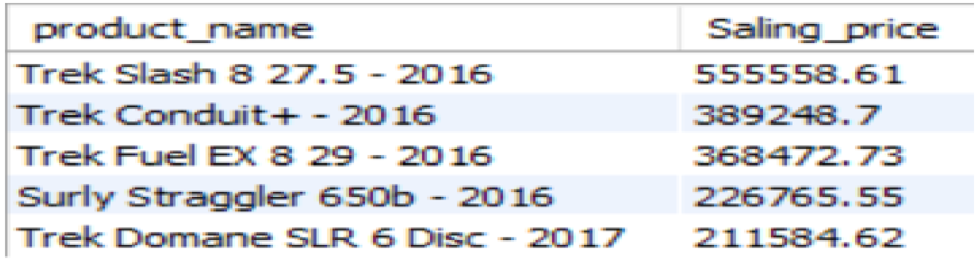
category_name	Total_order
Cruisers Bicycles	2063

NOTE : USING SAME QUERY YOU CAN FIND MOST ORDER BRAND & PRODUCT

TOP 5 SALE PRODUCT



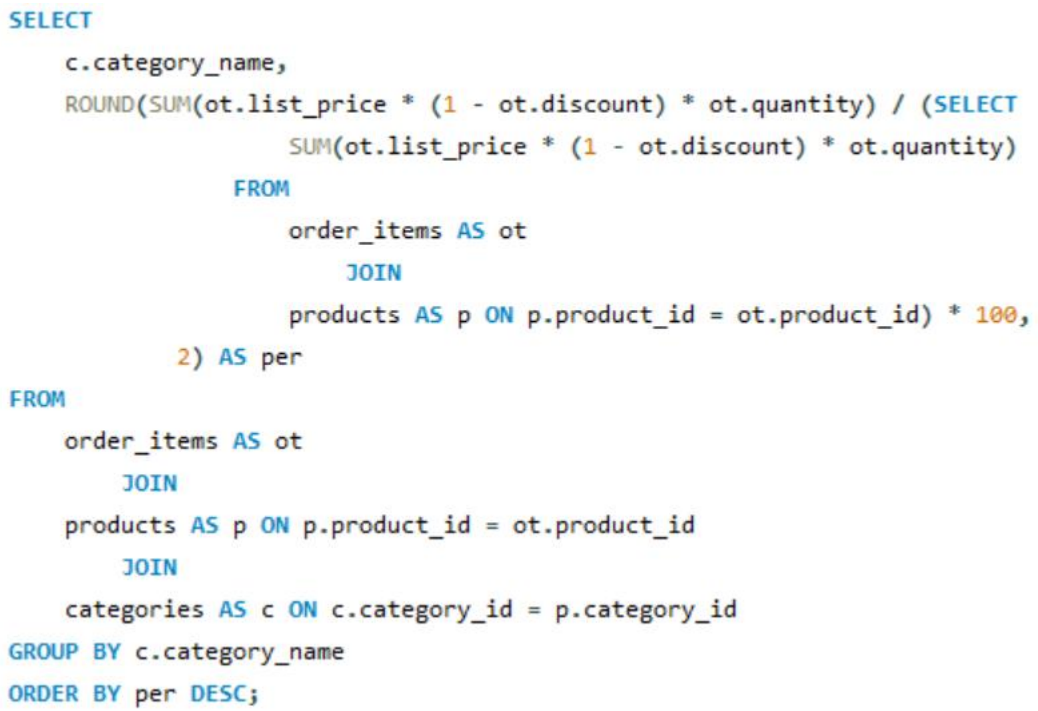
```
SELECT
    p.product_name,
    ROUND(SUM(ot.list_price * (1 - ot.discount) * ot.quantity),
            2) AS Saling_price
FROM
    order_items AS ot
        JOIN
    products AS p ON p.product_id = ot.product_id
        JOIN
    categories AS c ON c.category_id = p.category_id
GROUP BY p.product_name
ORDER BY Saling_price DESC
LIMIT 5;
```



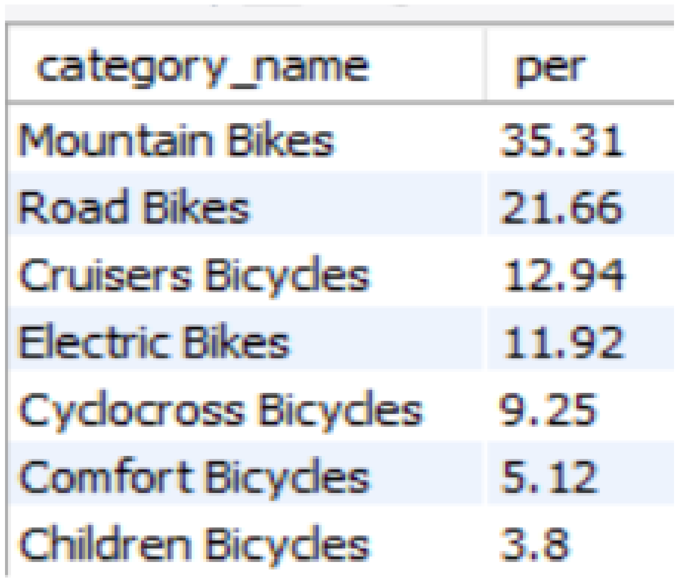
product_name	Saling_price
Trek Slash 8 27.5 - 2016	555558.61
Trek Conduit+ - 2016	389248.7
Trek Fuel EX 8 29 - 2016	368472.73
Surly Straggler 650b - 2016	226765.55
Trek Domane SLR 6 Disc - 2017	211584.62

NOTE : USING SAME QUERY YOU CAN FIND BOTTOM 5 SALE PRODUCT

CATEGORY SALE IN PER



```
SELECT
    c.category_name,
    ROUND(SUM(ot.list_price * (1 - ot.discount) * ot.quantity) / (SELECT
                    SUM(ot.list_price * (1 - ot.discount) * ot.quantity)
                FROM
                    order_items AS ot
                        JOIN
                    products AS p ON p.product_id = ot.product_id) * 100,
            2) AS per
FROM
    order_items AS ot
        JOIN
    products AS p ON p.product_id = ot.product_id
        JOIN
    categories AS c ON c.category_id = p.category_id
GROUP BY c.category_name
ORDER BY per DESC;
```

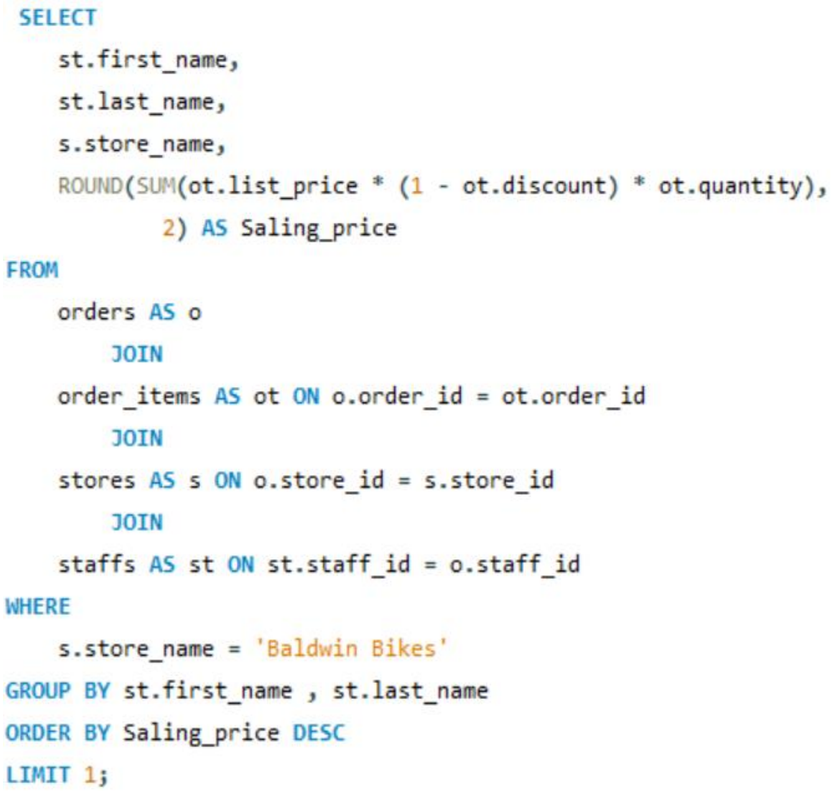


category_name	per
Mountain Bikes	35.31
Road Bikes	21.66
Cruisers Bicycles	12.94
Electric Bikes	11.92
Cyclocross Bicycles	9.25
Comfort Bicycles	5.12
Children Bicycles	3.8

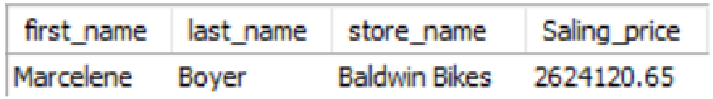
CUSTOMER & STAFF REPORT ANALYSIS

- STORE WISE MOST ACTIVE STAFF
- STORE WISE CUSTOMER
- STORE TOP 5 CUSTOMER

MOST ACTIVE EMPLOYEE

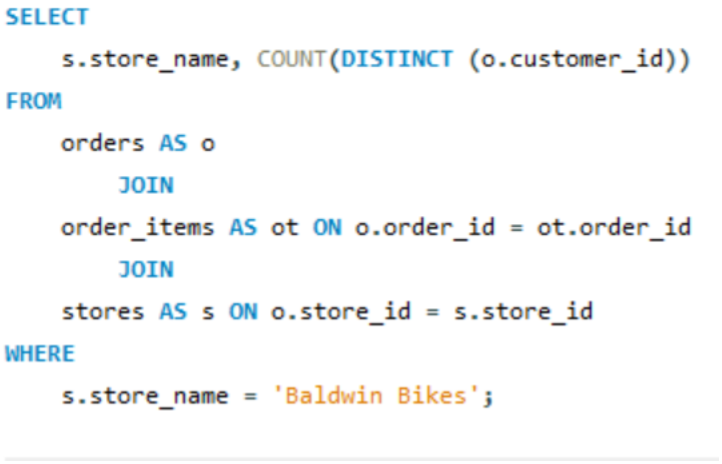


```
 SELECT
    st.first_name,
    st.last_name,
    s.store_name,
    ROUND(SUM(ot.list_price * (1 - ot.discount) * ot.quantity),
            2) AS Saling_price
FROM
    orders AS o
        JOIN
    order_items AS ot ON o.order_id = ot.order_id
        JOIN
    stores AS s ON o.store_id = s.store_id
        JOIN
    staffs AS st ON st.staff_id = o.staff_id
WHERE
    s.store_name = 'Baldwin Bikes'
GROUP BY st.first_name , st.last_name
ORDER BY Saling_price DESC
LIMIT 1;
```

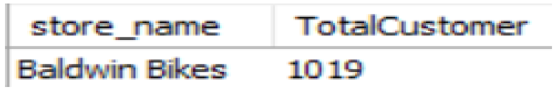


first_name	last_name	store_name	Saling_price
Marcelene	Boyer	Baldwin Bikes	2624120.65

STORE WISE TOTAL CUSTOMER

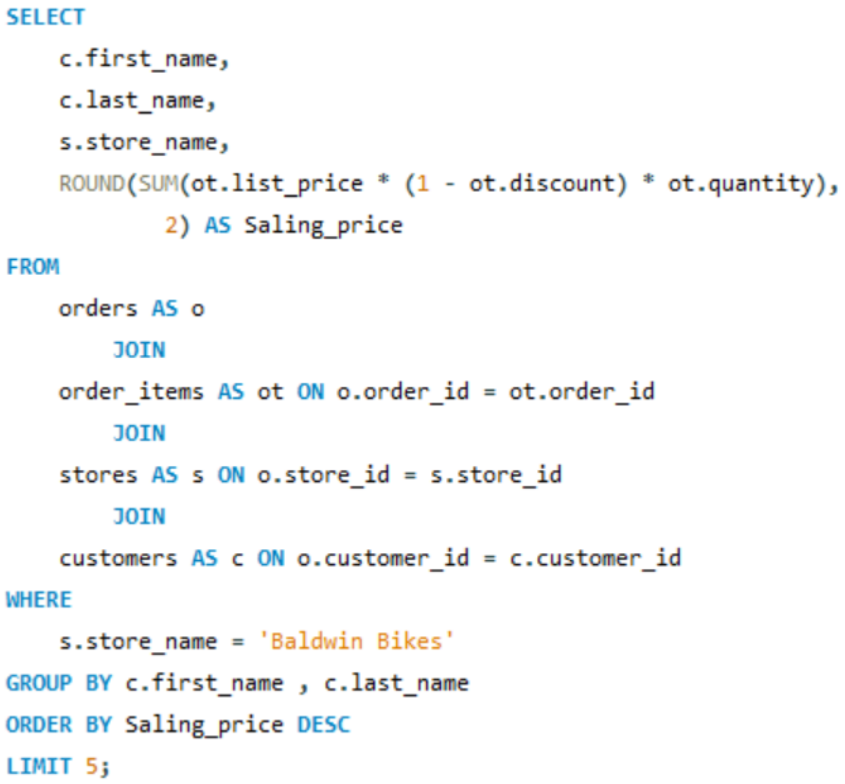


```
SELECT
    s.store_name, COUNT(DISTINCT (o.customer_id))
FROM
    orders AS o
        JOIN
    order_items AS ot ON o.order_id = ot.order_id
        JOIN
    stores AS s ON o.store_id = s.store_id
WHERE
    s.store_name = 'Baldwin Bikes';
```

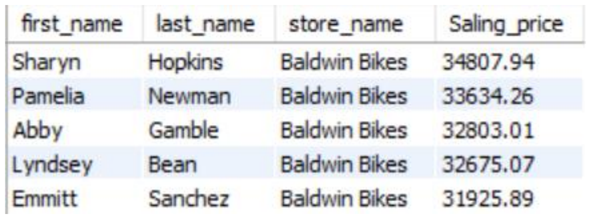


store_name	TotalCustomer
Baldwin Bikes	1019

TOP 5 BIKE STORE CUSTOMER



```
SELECT
    c.first_name,
    c.last_name,
    s.store_name,
    ROUND(SUM(ot.list_price * (1 - ot.discount) * ot.quantity),
            2) AS Saling_price
FROM
    orders AS o
        JOIN
    order_items AS ot ON o.order_id = ot.order_id
        JOIN
    stores AS s ON o.store_id = s.store_id
        JOIN
    customers AS c ON o.customer_id = c.customer_id
WHERE
    s.store_name = 'Baldwin Bikes'
GROUP BY c.first_name , c.last_name
ORDER BY Saling_price DESC
LIMIT 5;
```

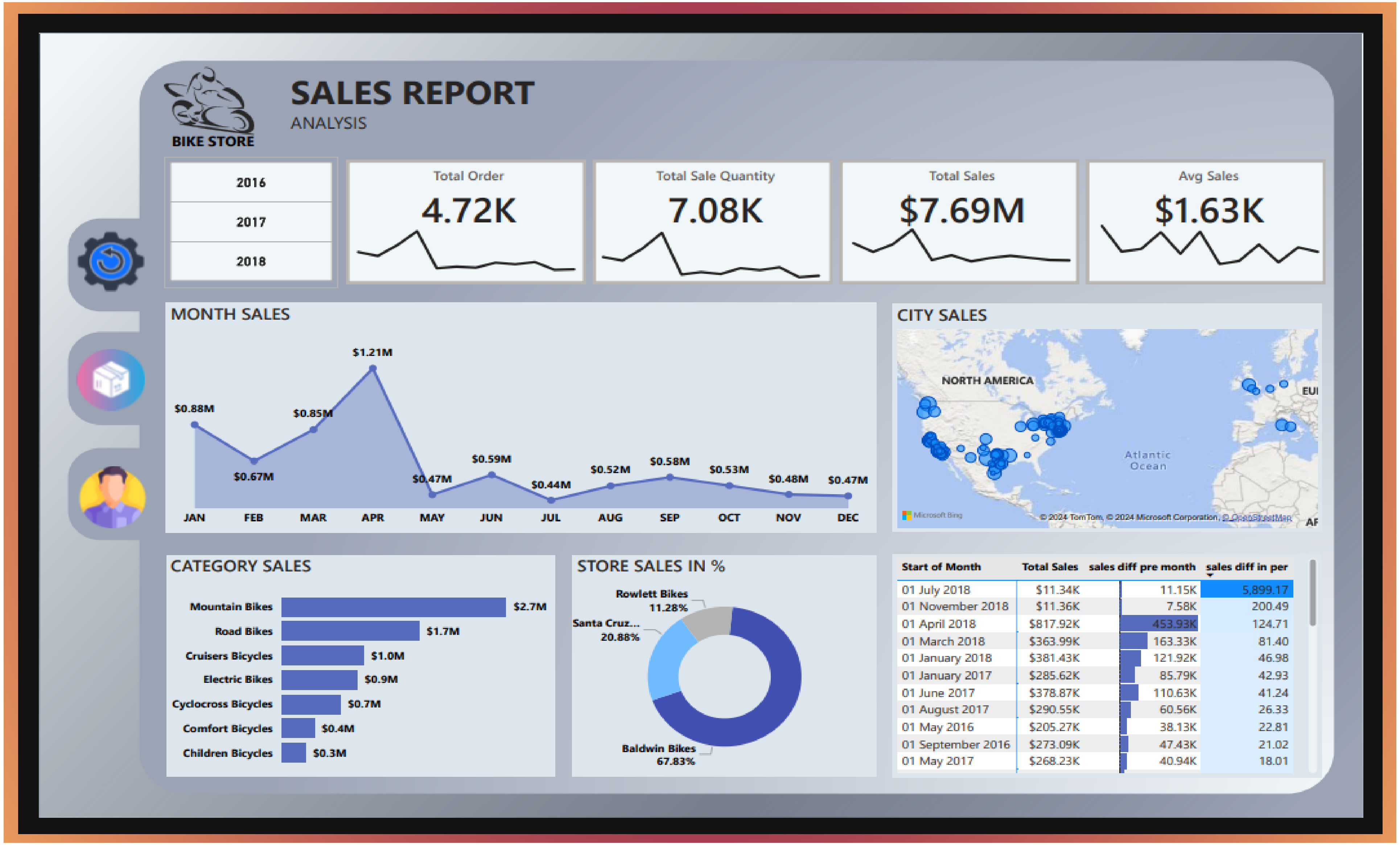


first_name	last_name	store_name	Saling_price
Sharyn	Hopkins	Baldwin Bikes	34807.94
Pamelia	Newman	Baldwin Bikes	33634.26
Abby	Gamble	Baldwin Bikes	32803.01
Lyndsey	Bean	Baldwin Bikes	32675.07
Emmitt	Sanchez	Baldwin Bikes	31925.89

POWER BI DESHBOARD

AS A USER REQUIREMNET

SALES REPORT



SALES REPORT

ANALYSIS

BIKE STORE

2016

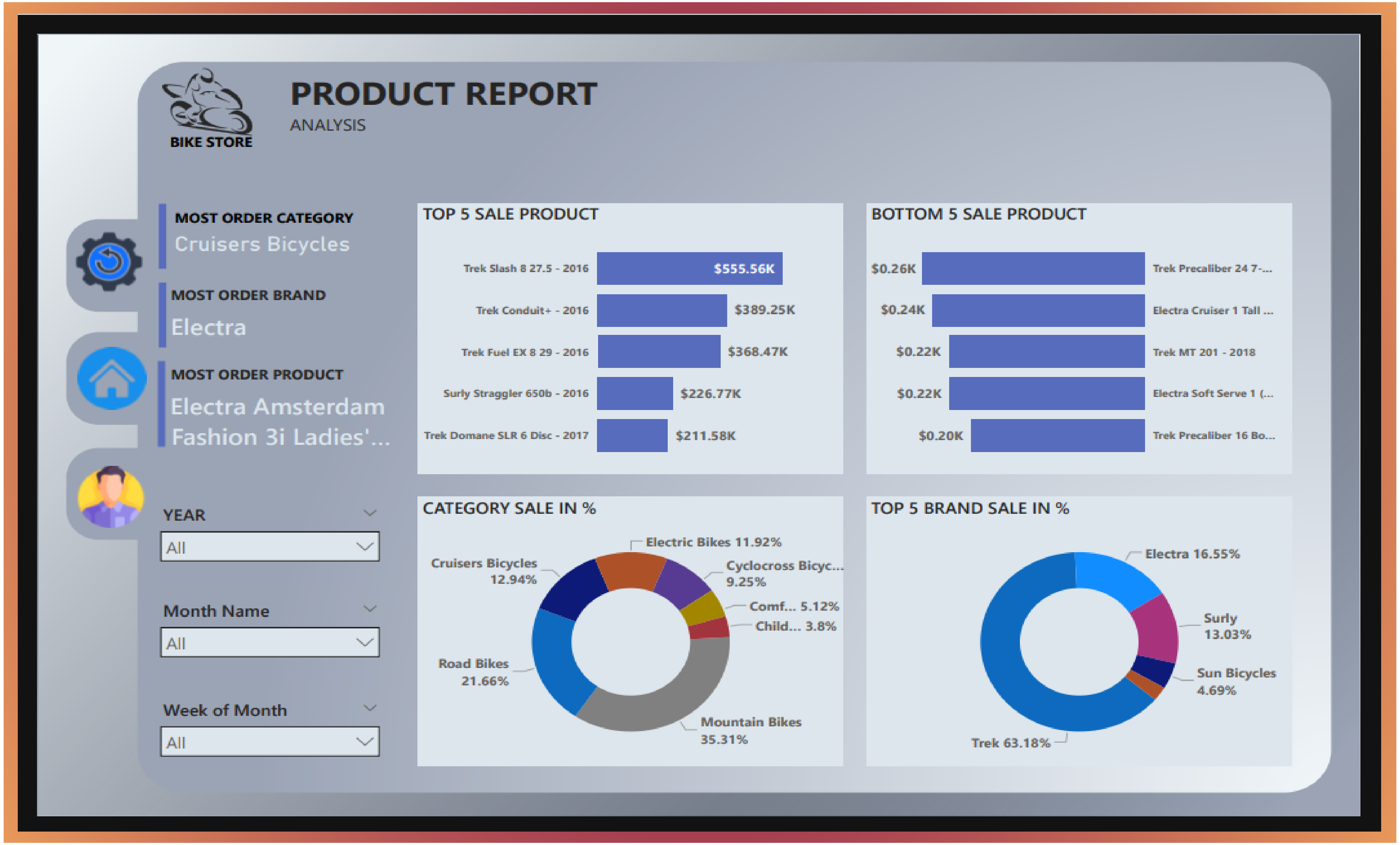
2017

2018

Total Order	Total Sale Quantity	Total Sales	Avg Sales
4.72K	7.08K	$7.69M	$1.63K

Start of Month	Total Sales	sales diff pre month	sales diff in per
01 July 2018	$11.34K	11.15K	5,899.17
01 November 2018	$11.36K	7.58K	200.49
01 April 2018	$817.92K	453.93K	124.71
01 March 2018	$363.99K	163.33K	81.40
01 January 2018	$381.43K	121.92K	46.98
01 January 2017	$285.62K	85.79K	42.93
01 June 2017	$378.87K	110.63K	41.24
01 August 2017	$290.55K	60.56K	26.33
01 May 2016	$205.27K	38.13K	22.81
01 September 2016	$273.09K	47.43K	21.02
01 May 2017	$268.23K	40.94K	18.01

PRODUCT REPORT



BIKE STORE

PRODUCT REPORT

ANALYSIS

MOST ORDER CATEGORY
Cruisers Bicycles

MOST ORDER BRAND
Electra

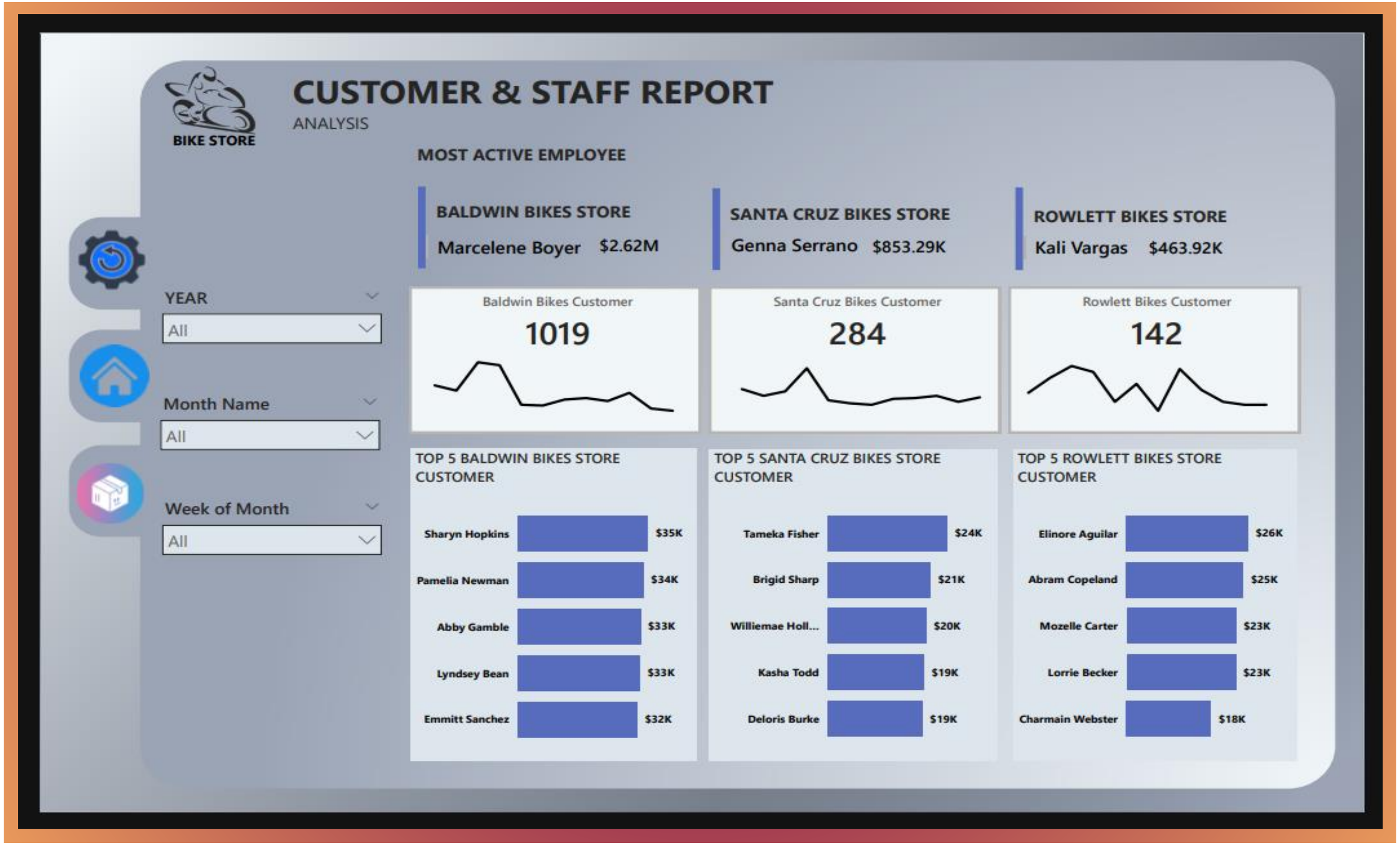
MOST ORDER PRODUCT
Electra Amsterdam Fashion 3i Ladies'...

YEAR: All

Month Name: All

Week of Month: All

CUSTOMER & SATFF REPORT



BIKE STORE

CUSTOMER & STAFF REPORT

ANALYSIS

YEAR: All

Month Name: All

Week of Month: All

MOST ACTIVE EMPLOYEE

Store	Employee	Sales
BALDWIN BIKES STORE	Marcelene Boyer	$2.62M
SANTA CRUZ BIKES STORE	Genna Serrano	$853.29K
ROWLETT BIKES STORE	Kali Vargas	$463.92K

Baldwin Bikes Customer 1019

Santa Cruz Bikes Customer 284

Rowlett Bikes Customer 142

TOP 5 BALDWIN BIKES STORE CUSTOMER

TOP 5 SANTA CRUZ BIKES STORE CUSTOMER

TOP 5 ROWLETT BIKES STORE CUSTOMER

THANK YOU