SALES PERFORMANCE ANALYSES OF WALMART

I USE ADVANCED MYSQL TO EXTRACT ALL THESE DATA SHOWN BELOW

IDENTIFYING THE TOP BRANCH BY SALES GROWTH RATE

WALMART WANTS TO IDENTIFY WHICH BRANCH HAS EXHIBITED THE HIGHEST SALES GROWTH OVER TIME. ANALYZE THE TOTAL SALES FOR EACH BRANCH AND COMPARE THE GROWTH RATE ACROSS MONTHS TO FIND THE TOP PERFORMER.

- SELECT
- branch,
- MONTH(STR_TO_DATE(sales_date, '%d-%m-%Y')) AS month,-- extract month from sale_date--
- SUM(total) AS monthly_sales,
- SUM(SUM(total)) OVER (PARTITION BY branch ORDER BY MONTH(STR_TO_DATE(sales_date, '%d-%m-%Y'))) AS cumulative_sales
- FROM walmartsales2
- GROUP BY branch, MONTH(STR_TO_DATE(sales_date, '%d-%m-%Y'))
- ORDER BY branch, month;

branch	month	monthly_sales	cumulative_sales
A	1	38681.1285	38681.1285
A	2	29860.120500000005	68541.249000000001
A	3	37659.121500000001	106200.370500000002
B	1	37176.058500000014	37176.058500000014
B	2	34424.270999999999	71600.3295
B	3	34597.3425	106197.672
C	1	40434.680999999999	40434.680999999999
C	2	32934.982500000006	73369.6635
C	3	37199.043	110568.7065

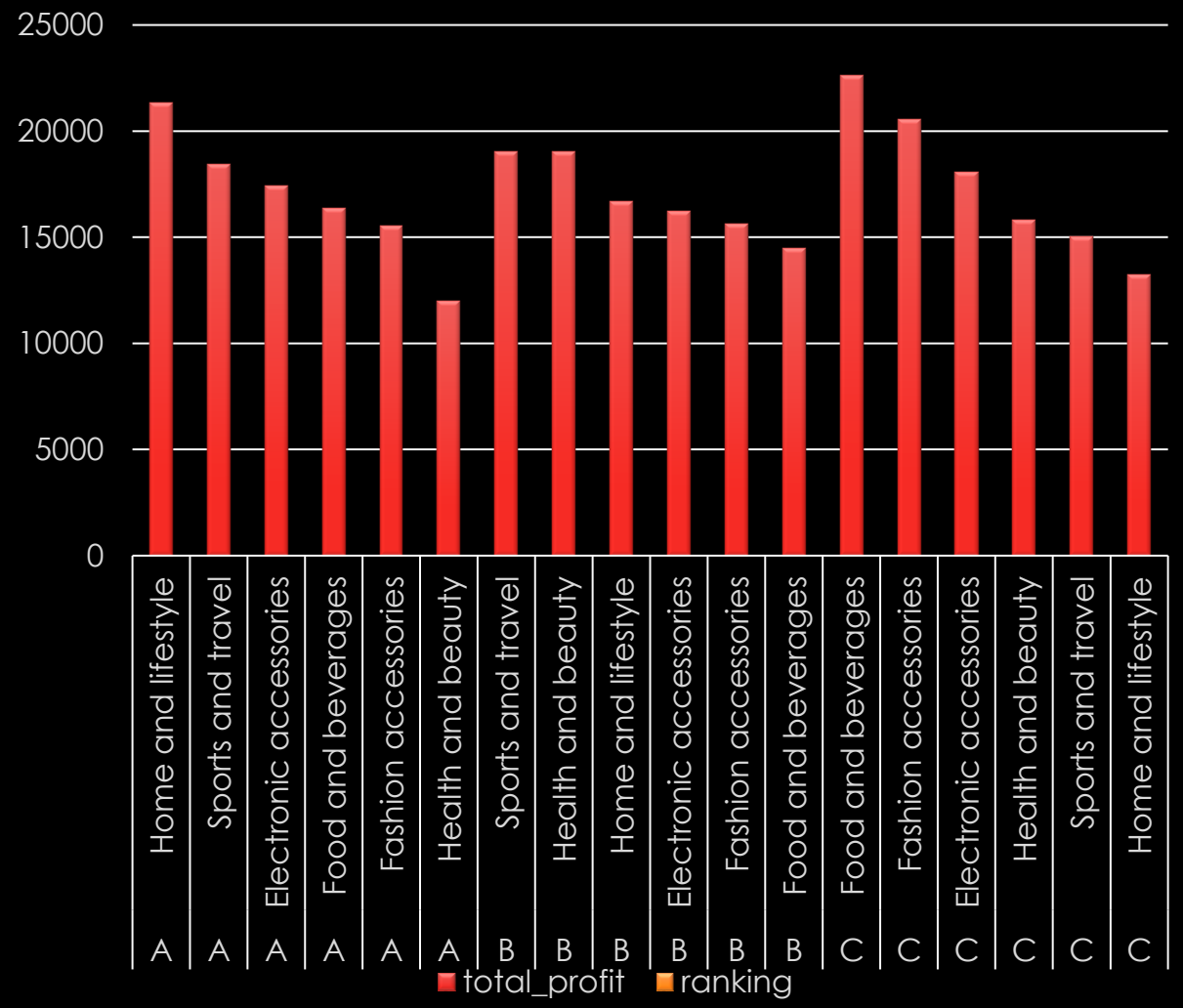
FINDING THE MOST PROFITABLE PRODUCT LINE FOR EACH BRANCH

WALMART MUST DETERMINE WHICH PRODUCT LINE CONTRIBUTES THE HIGHEST PROFIT TO EACH BRANCH. THE PROFIT MARGIN SHOULD BE CALCULATED BASED ON THE DIFFERENCE BETWEEN THE GROSS INCOME AND COST OF GOODS SOLD.

```
SELECT
 Branch,
product_line,
SUM(cogs-'gross income') AS total_profit,
 RANK() OVER (PARTITION BY Branch ORDER BY SUM(cogs- 'gross income') DESC) AS ranking
FROM    walmartsales2
GROUP BY    Branch, product_line;
```

ANALYSIS BY BRANCH AND PRODUCT LINE

Branch	product_line	total_profit	ranking
A	Home and lifestyle	21349.710000000003	1
A	Sports and travel	18450.190000000002	2
A	Electronic accessories	17444.869999999995	3
A	Food and beverages	16345.809999999998	4
A	Fashion accessories	15554.77	5
A	Health and beauty	11997.859999999999	6
B	Sports and travel	19036.38	1
B	Health and beauty	19029.199999999997	2
B	Home and lifestyle	16713.490000000005	3
B	Electronic accessories	16239.470000000001	4
B	Fashion accessories	15631.729999999998	5
B	Food and beverages	14490.369999999999	6
C	Food and beverages	22635.1	1
C	Fashion accessories	20533.399999999998	2
C	Electronic accessories	18065.690000000006	3
C	Health and beauty	15824.119999999999	4
C	Sports and travel	15011.360000000002	5
C	Home and lifestyle	13233.86	6



ANALYZING CUSTOMER SEGMENTATION BASED ON SPENDING

WALMART WANTS TO SEGMENT CUSTOMERS BASED ON THEIR AVERAGE SPENDING BEHAVIOR. CLASSIFY CUSTOMERS INTO THREE TIERS: HIGH, MEDIUM, AND LOW SPENDERS BASED ON THEIR TOTAL PURCHASE AMOUNTS.

```
SELECT    distinct Customer_ID,
customer_type,    Total,
(total) AS avg_spending,
case
when total>800 then 'high'
when total<500 then 'low'
else 'medium'
end as spender_based
FROM    walmartsales2
GROUP BY    customer_id, customer_type, total;
```

Customer_ID	customer_type	Total	avg_spending	spender_based
9	Normal	192.843	192.843	low
10	Member	77.931	77.931	low
10	Normal	351.099	351.099	low
4	Member	520.4115	520.4115	medium
13	Member	166.005	166.005	low
3	Member	318.108	318.108	low
15	Member	166.635	166.635	low
4	Normal	70.287	70.287	low
5	Member	614.943	614.943	medium
15	Normal	827.085	827.085	high
4	Member	19.2465	19.2465	low
12	Normal	939.54	939.54	high
10	Normal	652.26	652.26	medium
5	Member	152.838	152.838	low
8	Normal	478.233	478.233	low
8	Normal	705.6315	705.6315	medium
1	Normal	437.325	437.325	low
6	Member	463.428	463.428	low
7	Member	189.0945	189.0945	low
10	Member	822.255	822.255	high
7	Normal	106.995	106.995	low

DETECTING ANOMALIES IN SALES TRANSACTIONS

WALMART SUSPECTS THAT SOME TRANSACTIONS HAVE UNUSUALLY HIGH OR LOW SALES COMPARED TO THE AVERAGE FOR THE PRODUCT LINE. IDENTIFY THESE ANOMALIES.

```
select branch,
product_line,
avg(total),
Case
when avg(total)>350 then 'high anomaly'
when avg(total)<300 then 'low'
else 'medium' end as anomalies
from walmartsales2
group by branch, product_line;
```

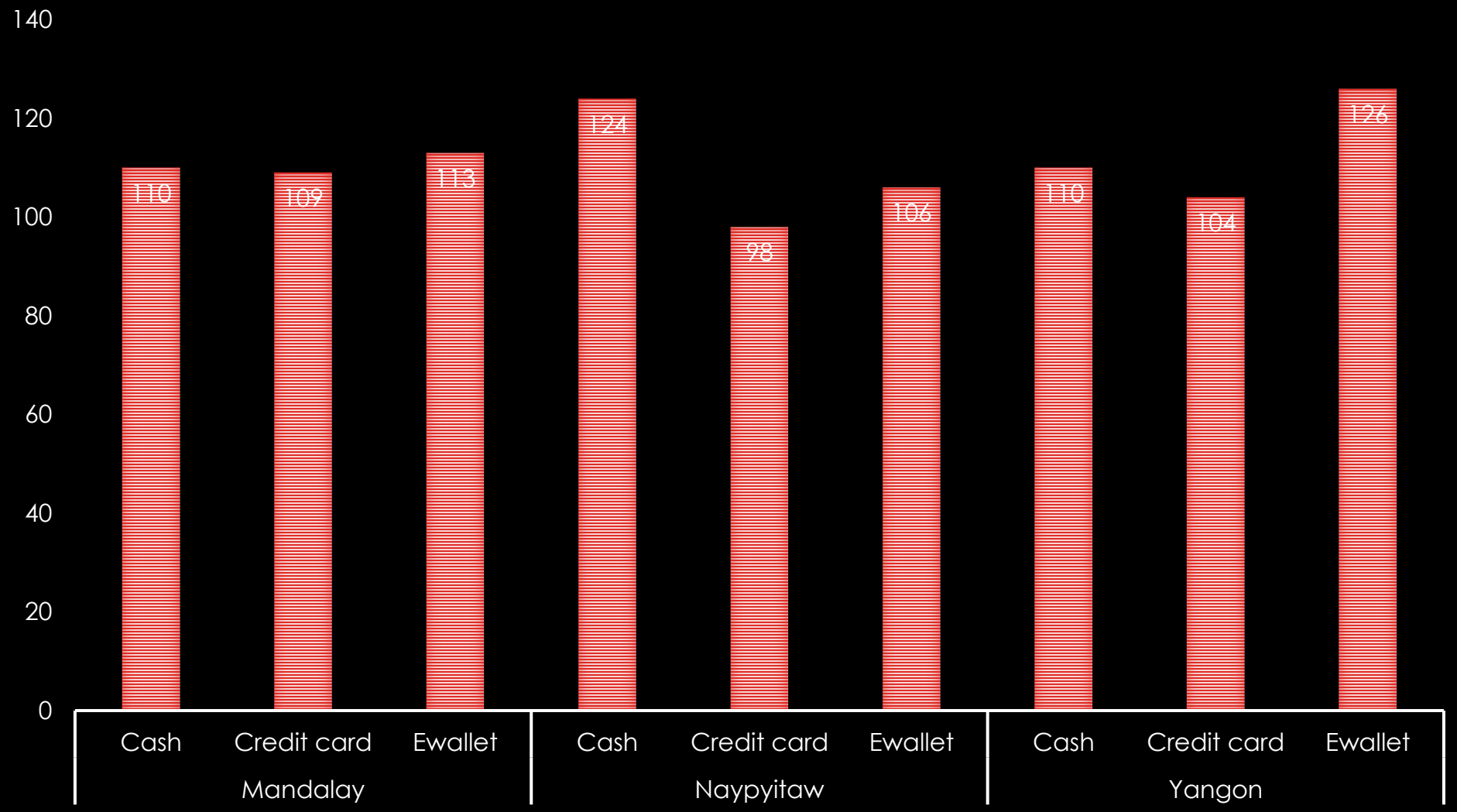
branch	product_line	avg(total)	anomalies
A	Health and beauty	268.0372979	low
C	Electronic accessories	344.8904455	medium
A	Home and lifestyle	344.8799308	medium
A	Sports and travel	328.350839	medium
A	Electronic accessories	305.285225	medium
C	Home and lifestyle	308.7900667	medium
B	Food and beverages	304.29777	medium
B	Fashion accessories	264.7309113	low
B	Electronic accessories	310.0262455	medium
A	Food and beverages	295.9155259	low
B	Sports and travel	322.3903065	medium
B	Home and lifestyle	350.98329	high anomaly
B	Health and beauty	376.9935849	high anomaly
A	Fashion accessories	320.2452647	medium
C	Food and beverages	360.1038636	high anomaly
C	Sports and travel	350.2650667	high anomaly
C	Health and beauty	319.5255	medium
C	Fashion accessories	331.6933846	medium

MOST POPULAR PAYMENT METHOD BY CITY

WALMART NEEDS TO DETERMINE THE MOST POPULAR PAYMENT METHOD IN EACH CITY TO TAILOR MARKETING STRATEGIES

```
select
payment, City,
 count(payment),
rank() over(partition by city order by count(payment) desc) as
position
from walmartsales2
Group by payment, city;
```

MODE OF PAYMENT USE BY CUSTOMERS IN CITIES

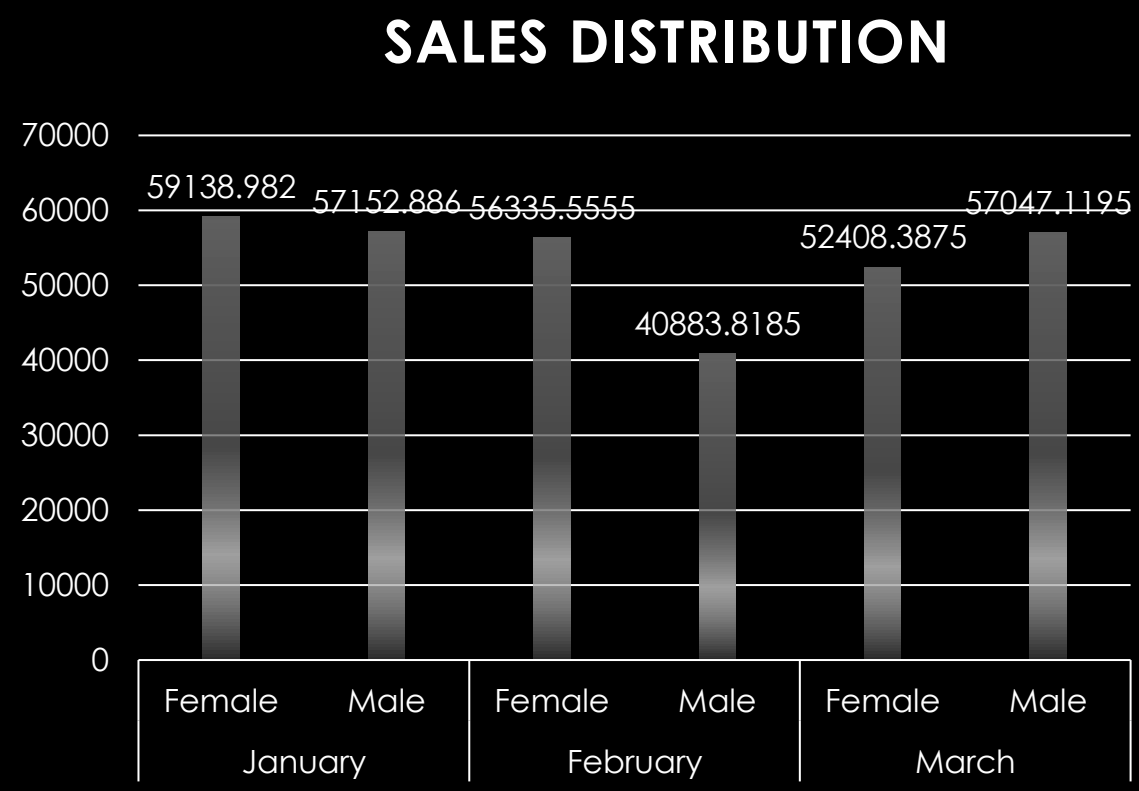


MONTHLY SALES DISTRIBUTION BY GENDER

WALMART WANTS TO UNDERSTAND THE SALES DISTRIBUTION BETWEEN MALE AND FEMALE CUSTOMERS ON A MONTHLY BASIS.

```
SELECT
gender,
DATE_FORMAT(STR_TO_DATE(sales_date, '%d-%m-%y'), '%M') AS month,
 SUM(total) AS sales_distribution
FROM    walmartsales2
GROUP BY    gender,
 DATE_FORMAT(STR_TO_DATE(sales_date, '%d-%m-%y'), '%M');
```

month&gender	sales_distribution
January	**116291.868**
Female	59138.982
Male	57152.886
February	**97219.374**
Female	56335.5555
Male	40883.8185
March	**109455.507**
Female	52408.3875
Male	57047.1195



BEST PRODUCT LINE BY CUSTOMER TYPE

WALMART WANTS TO KNOW WHICH PRODUCT LINES ARE PREFERRED BY DIFFERENT CUSTOMER TYPES(MEMBER VS. NORMAL).

```
select
distinct Product_line,
customer_type,
count(customer_id) as number_of_customer,
rank() over(partition by Customer_type order by count(customer_id) desc) as
ranking_
from walmartsales2
group by Customer_type, Product_line;
```

Product_line	customer_type	number_of_customer	ranking_
Food and beverages	Member	94	1
Sports and travel	Member	87	2
Fashion accessories	Member	86	3
Home and lifestyle	Member	83	4
Electronic accessories	Member	78	5
Health and beauty	Member	73	6
Electronic accessories	Normal	92	1
Fashion accessories	Normal	92	1
Food and beverages	Normal	80	3
Sports and travel	Normal	79	4
Health and beauty	Normal	79	4
Home and lifestyle	Normal	77	6

IDENTIFYING REPEAT CUSTOMERS

WALMART NEEDS TO IDENTIFY CUSTOMERS WHO MADE REPEAT PURCHASES WITHIN A SPECIFIC TIME FRAME (E.G., WITHIN 30 DAYS).

```
SELECT
Branch,
 Product_line,
customer_id,
 Total,
 DATEDIFF('2019-01-31', '2019-01-01') AS
days_between
FROM walmartsales2
GROUP BY Branch,
Product_line,
 customer_id,
Total
LIMIT 2;
```

Branch	Product_line	customer_id	Total	days_between
A	Health and beauty	2	548.9715	30
C	Electronic accessories	3	80.22	30

FINDING TOP 5 CUSTOMERS BY SALES VOLUME

WALMART WANTS TO REWARD ITS TOP 5 CUSTOMERS WHO HAVE GENERATED THE MOST SALES REVENUE.

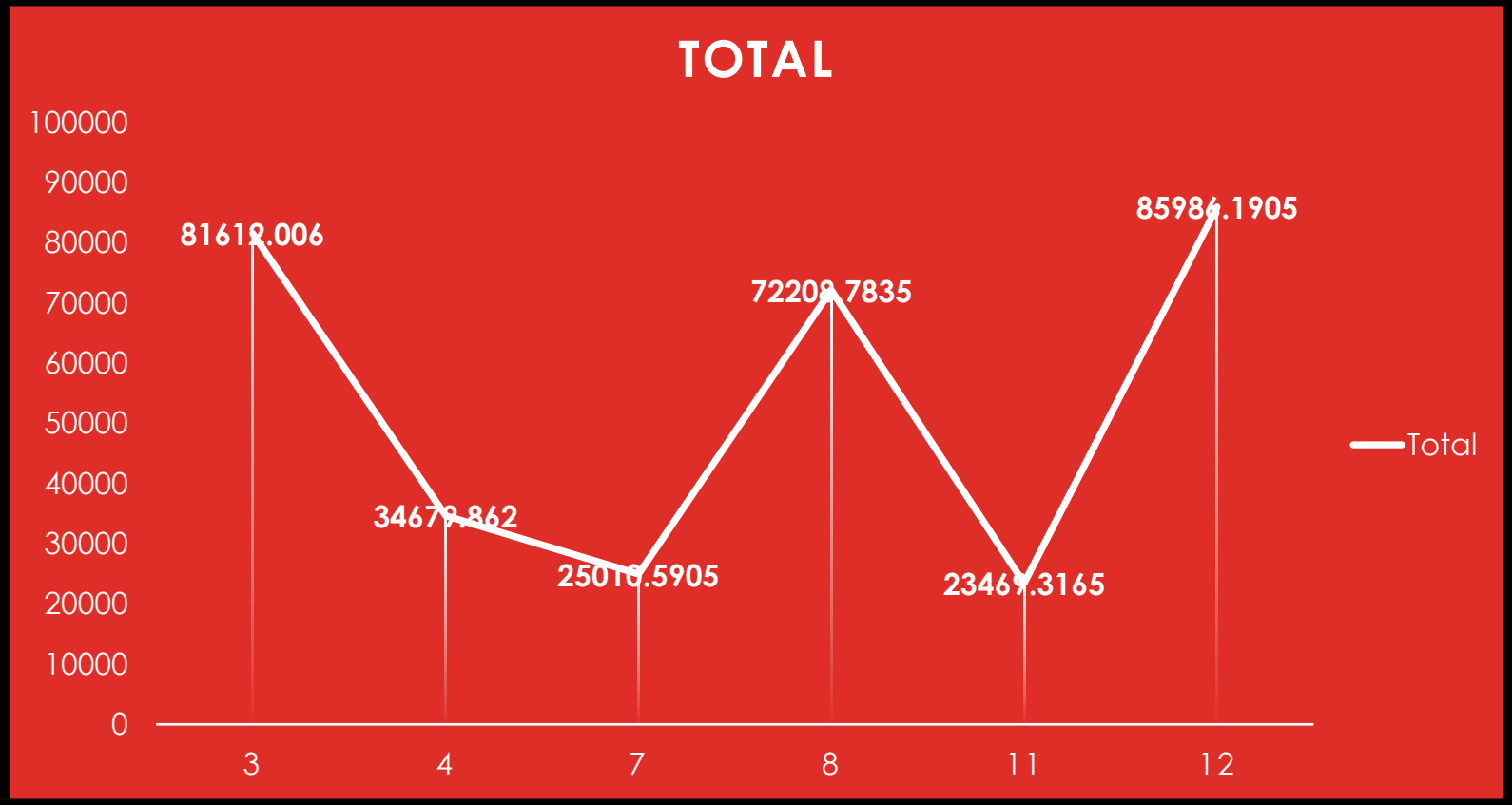
```
SELECT
customer_id,
 branch,
  city,
gender,
product_line,
SUM(quantity * total) AS sales_volume,
 sales_Date
FROM    walmartsales2
GROUP BY customer_id , branch , city ,
 , product_line , sales_Date
ORDER BY sales_volume DESC
LIMIT 5;
```

customer_id	branch	city	gender	product_line	sales_volume	sales_Date
11	C	Naypyitaw	Female	Fashion accessories	10426.5	15-02-2019
9	A	Yangon	Male	Fashion accessories	10392.9	08-02-2019
3	C	Naypyitaw	Female	Food and beverages	10344.6	30-01-2019
1	C	Naypyitaw	Male	Home and lifestyle	10237.5	12-01-2019
4	B	Mandalay	Female	Home and lifestyle	10224.9	02-03-2019

ANALYZING SALES TRENDS BY DAY OF THE WEEK

WALMART WANTS TO ANALYZE THE SALES PATTERNS TO DETERMINE WHICH DAY OF THE WEEK BRINGS THE HIGHEST SALES.

```
 SELECT
 WEEK(STR_TO_DATE(sales_date, '%Y-%m-%d'),1) as sale_week,
SUM(total) AS total_sales
FROM     walmartsales2
WHERE     sales_date IS NOT NULL
 GROUP BY     WEEK(STR_TO_DATE(sales_date, '%Y-%m-%d'), 1)
ORDER BY     sale_week;
```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3
4
7
8
11
12
Total

VIDEO LINK-

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