SALES REPORT

2019

INTRODUCTION

Welcome to our Sales Report Presentation. Today, we delve into a comprehensive overview of our sales performance, exploring the strategic insights that have shaped our journey. This presentation is more than just numbers, it's a narrative of our collective efforts, showcasing the impact of our sales strategies.

Walmart

MYSELF

My name is K.Charan Teja Reddy, and this project demonstrates my skills in SQL and data analysis. I analyzed Walmart's sales data to uncover key insights about product performance, customer behavior, and sales trends. I applied SQL techniques to extract actionable insights, enabling better understanding of sales dynamics and customer behavior.

ADDING TIME OF DAY

```sql
SELECT time,
(CASE
    WHEN `time` BETWEEN "00:00:00" AND "12:00:00" THEN "Morning"
    WHEN `time` BETWEEN "12:01:00" AND "16:00:00" THEN "Afternoon"
    ELSE "Evening"
END) AS time_of_day
FROM sales;
```

time	time_of_day
13:08:00	Afternoon
10:29:00	Morning
13:23:00	Afternoon
20:33:00	Evening
10:37:00	Morning
18:30:00	Evening
14:36:00	Afternoon

- **Adding a new column to our table called time_of_day based on the time. To add this column we use case statements. We added this column so that we could know on which time of the day the customer has bought the item.**

ADDING DAY NAME

```sql
select date,
dayname(date) as day_name
from sales;
alter table sales add column day_name varchar(20);
update sales
set day_name = dayname(date);
```

date	day_name
2019-01-05	Saturday
2019-03-08	Friday
2019-03-03	Sunday
2019-01-27	Sunday
2019-02-08	Friday
2019-03-25	Monday

- **Adding a new column to our table called day_name based on the date. This function extracts the name of the day from date. In the walmart data there was no day name there was just date, So we used day name function to add the name of the day to the table**

ADDING MONTH NAME

```
select date,
monthname(date) as month_name
from sales;
alter table sales add column month_name varchar(20);
update sales
set month_name = monthname(date);
```

date	month_name
2019-01-05	January
2019-03-08	March
2019-03-03	March
2019-01-27	January
2019-02-08	February
2019-03-25	March
2019-02-25	February

- **Adding a new column to our table called month_name based on the time.To add this column we use the funcion called monthname(), This function extracts the name of the month from the date.**

LIST EACH BRANCH ALONG WITH ITS RESPECTIVE CITY

```
select distinct city, branch
from sales;
```

city	branch
Yangon	A
Naypyitaw	C
Mandalay	B

- Here we retrieved the name of the city and its corresponding branch. We use distinct to remove all the duplicate values.

THE MOST COMMON PAYMENT METHOD

```sql
select payment, count(payment) as common_payment_method
from sales
group by payment
order by count(payment) desc limit 1
;
```

payment	common_payment_method
Ewallet	345

- **Here we retrieved the common payment method made by customers. To find the common payment method we should count the payment and order by descending to find the most used payment method**

THE TOTAL REVENUE BY MONTH

```
select month_name, sum(total) as total_revenue
from sales
group by month_name
order by total_revenue desc
;
```

month_name	total_revenue
January	116291.86800000005
March	109455.50700000004
February	97219.37399999997

- **Here we retrieved the total revenue in each month. To know the total revenue we must use sum() and include total column in the sum it will add the total and since we used group by month the total revenue is calculated for each month.**

AVERAGE RATING OF EACH PRODUCT LINE

```sql
select product_line, round(avg(rating),2) as average_rating
from sales
group by product_line
order by average_rating desc;
```

product_line	average_rating
Food and beverages	7.11
Fashion accessories	7.03
Health and beauty	6.98
Electronic accessories	6.91
Sports and travel	6.86

- **Here we retrieved the average rating for each product line by using the avg(). We should group by product line to know the average rating of each product line. The round() is used to round off the decimal values, Here we used 2 so the number will be round off at 2 decimal values.**

SALES MADE IN EACH TIME OF THE DAY PER WEEKDAY

```sql
select day_name, time_of_day, count(invoice_id) as number_of_sales
from sales
group by day_name, time_of_day
having day_name not in ('saturday','sunday')
;
```

- **Here we retrieved the day name, time of day and the number of sales made at that time of the day and at only week days(weekends are not included).**

day_name	time_of_day	total_sales
Wednesday	Evening	58
Wednesday	Afternoon	61
Wednesday	Morning	22
Tuesday	Evening	69
Tuesday	Afternoon	53
Tuesday	Morning	36

WHICH CUSTOMER TYPE PAYS THE MOST VAT

```sql
select customer_type, sum(vat) as total_vat
from sales
group by customer_type
order by total_vat desc limit 1;
```

- Here we retrieved customer type who pays the most vat(value added tax), To check this we should add the vat using sum() and group by customer type.

customer_type	total_vat
Member	7791.6715

THE MOST COMMON CUSTOMER TYPE

```sql
select customer_type, count(customer_type) as common_customer
from sales
group by customer_type
order by common_customer desc limit 1;
```

customer_type	common_customer
Member	499

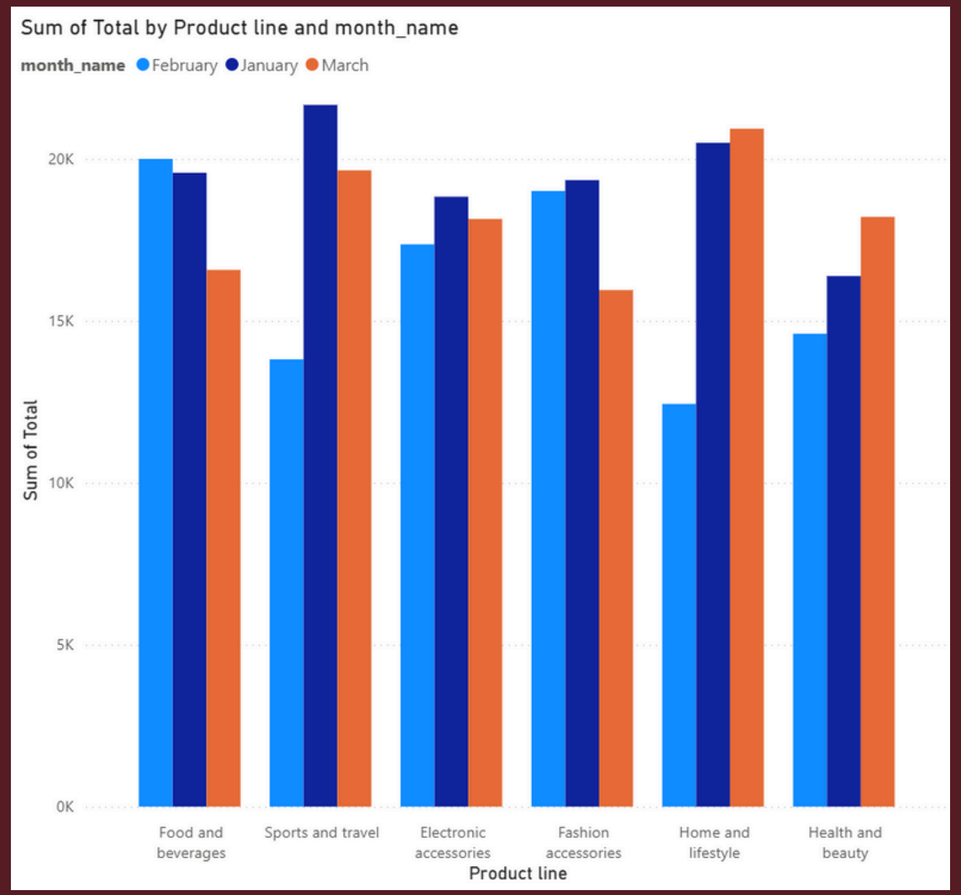
- **Here we retrieved the most common customer type which is ‘member’. We used the count() and grouped the customer type and found the customer type with highest count**

WHICH DAY OF THE WEEK HAS THE BEST AVERAGE RATINGS

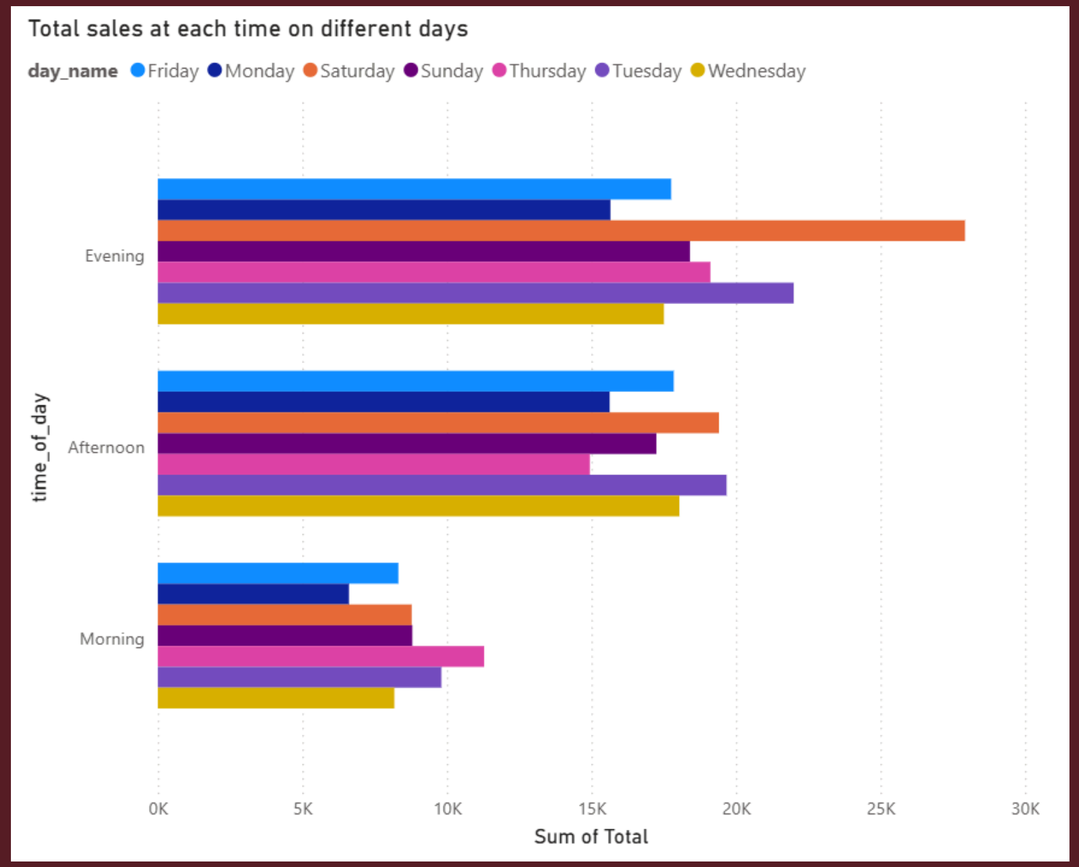
```sql
select day_name, avg(rating) as average_rating
from sales
group by day_name
order by average_rating desc limit 1;
```

- Here we retrieved the day of the week with the best average ratings, We used avg() to know the average rating and grouped day name so that we know the average rating of each day and chos

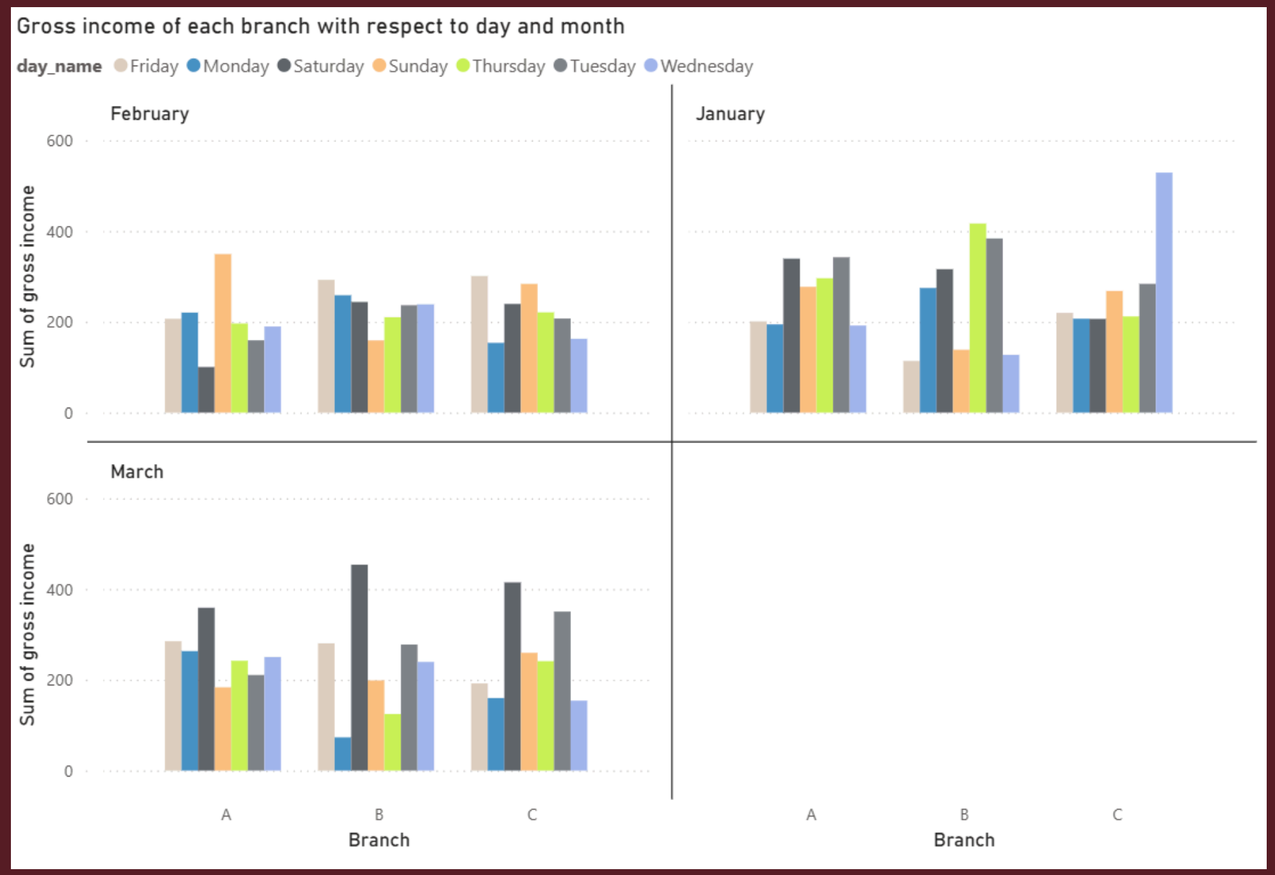
day_name	average_rating
Monday	7.13065



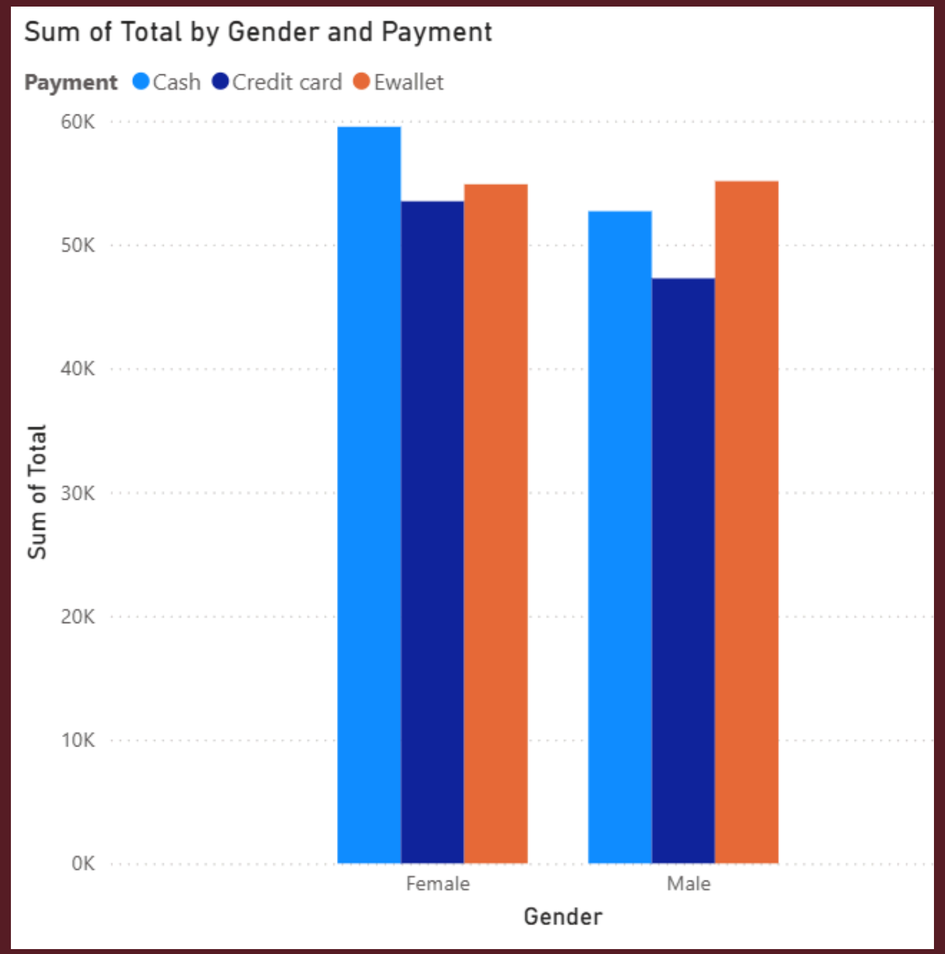
This is the visualization which shows us the total sales for each of the product line for each month. Here the product lines are the 3 blocks and they are a total of 6 product line. The lenght of the product line refers to the total sales i.e how many sales it made in the corresponding month. The colour of the block represents the month, each product line has 3 blocks for 3 months.



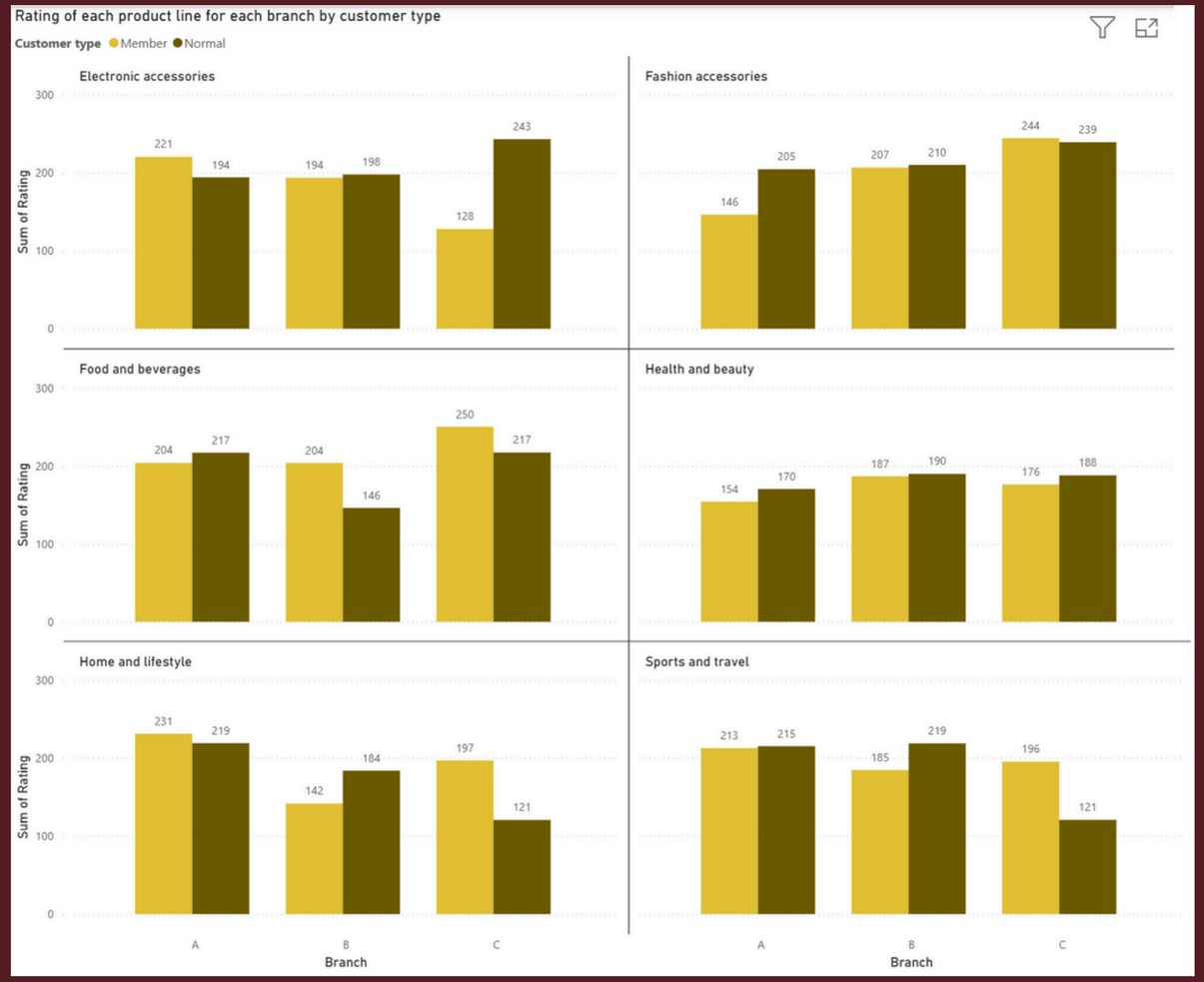
This is the visualization which shows us the total sales at each time of the day for every day. The colour represent the each day and the 3 big blocks represent the time of the day. As you can see we have the highest sales on saturday evening and the lowest sales on monday morning.



This is the visualization which shows us the gross income of the each branch, There are a total of 3 graphs each graph represents the month, And there are a total of 3 blocks in each month these represent the braches of walmart(A,B,C). The coloured small blocks represent the days. From this visualization we can see that how much gross income does each branch have in a day and in a month. The January month has more gross compared to February and March.



This is the visualization which shows us the payment method used by customers. Here most of the customers are women(Female). The 3 small blocks represent the payment methods Cash, Credit card, Ewallet. Most of the females use Cash as their payment metod and most of the Males use Ewallet as their payment method. Out of the 3 payment methods Credit card is the most least used between both the genders.



This is the visualization which shows us the reviews of the product line made by customers. There are 2 types of customers normal and member. There are a total of 6 product lines from 3 branches and the each branch has different reviews from different customers. Here there are a total of 6 graphs each graph representing the product lines and the 3 sets of blocks are branches of walmart the 2 blocks in them are the customer type.

THANK YOU

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