Sales Analysis

Hello!!

My name is Ashish Kumar. Throughout this project, i have employed a SQL queries to address inquiries pertaining to Walmart Sales.

Objective

- This project employs SQL for analyzing the dataset of Walmart sales.
- This project aims to explore the Walmart Sales data to understand top performing branches and products, sales trend of different products, customer behaviour. The aims is to study how sales strategies can be improved and optimized.

1. How many unique cities does the data have??

```
SELECT DISTINCT city FROM sales;
```

Result Grid

	city
▶	Yangon
	Naypyitaw
	Mandalay

2. In which city is each branch??

```
SELECT DISTINCT city, branch FROM sales;
```

Result Grid | Filter

city	branch
Yangon	A
Naypyitaw	C
Mandalay	B

3. How many unique product lines does the data have??

```
SELECT
    COUNT(DISTINCT product_line)
FROM
    sales;
```

Result Grid

	COUNT(DISTINCT product_line)
▶	6

4. What is the most common payment method??

```sql
SELECT
    payment_method, COUNT(payment_method) AS most_common_payment
FROM
    sales
GROUP BY payment_method
ORDER BY most_common_payment DESC;
```

Result Grid | Filter Rows:

payment_method	most_common_payment
Cash	344
Ewallet	342
Credit card	309

5. What is the most selling product line??

```sql
SELECT DISTINCT
    product_line,
    COUNT(product_line) AS most_selling_productline
FROM sales
GROUP BY product_line
ORDER BY most_selling_productline DESC;
```

Result Grid | Filter Rows:

product_line	most_selling_productline
Fashion accessories	178
Food and beverages	174
Electronic accessories	169
Sports and travel	163
Home and lifestyle	160
Health and beauty	151

6. What is the total revenue by month??

```sql
SELECT DISTINCT
    month_name AS month, SUM(total) AS total_revenue
FROM
    sales
GROUP BY month
ORDER BY total_revenue DESC;
```

Result Grid | Filter Rows

month	total_revenue
January	116291.8680
March	108867.1500
February	95727.3765

7. What month had the largest COGS??

```sql
SELECT DISTINCT
    month_name AS month, SUM(cogs) AS cogs
FROM
    sales
GROUP BY month
ORDER BY cogs DESC;
```

Result Grid | Filter R

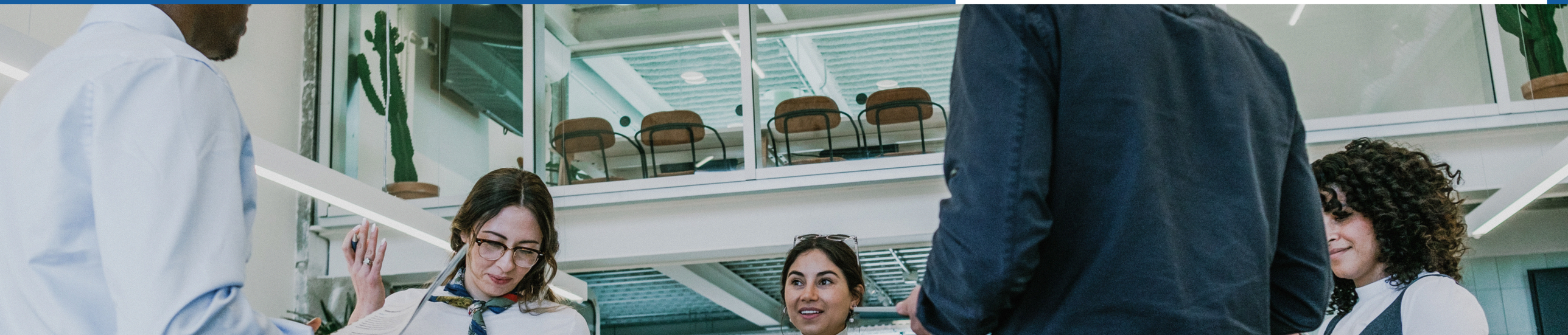
month	cogs
January	110754.16
March	103683.00
February	91168.93

8. What product line had the largest revenue??

```sql
SELECT DISTINCT
    product_line, SUM(total) AS total_revenue
FROM
    sales
GROUP BY product_line
ORDER BY total_revenue DESC;
```

Result Grid | Filter Rows:

product_line	total_revenue
Food and beverages	56144.8440
Fashion accessories	54305.8950
Sports and travel	53936.1270
Home and lifestyle	53861.9130
Electronic accessories	53783.2365
Health and beauty	48854.3790



9. What is the city with the largest revenue??

```sql
SELECT
    city, SUM(total) AS total_revenue
FROM
    sales
GROUP BY city
ORDER BY total_revenue DESC;
```

Result Grid | Filter Rows:

city	total_revenue
Naypyitaw	110490.7755
Yangon	105861.0105
Mandalay	104534.6085

10. What product line had the largest VAT??

```sql
SELECT DISTINCT
    product_line, SUM(VAT) AS largest_vat
FROM
    sales
GROUP BY product_line
ORDER BY largest_vat DESC;
```

Result Grid | Filter Rows:

product_line	largest_vat
Food and beverages	2673.5640
Fashion accessories	2585.9950
Sports and travel	2568.3870
Home and lifestyle	2564.8530
Electronic accessories	2561.1065
Health and beauty	2326.3990

11. Which branch sold more products than average product sold??

```sql
SELECT
    branch, SUM(quantity) AS qty_sum
FROM
    sales
GROUP BY branch
HAVING SUM(quantity) > (SELECT
        AVG(quantity)
    FROM
        sales);
```

Result Grid

branch	qty_sum
A	1849
C	1828
B	1795

12. What is the most common product line by gender??

```sql
SELECT
    gender, product_line, COUNT(gender) AS total_count
FROM
    sales
GROUP BY gender , product_line
ORDER BY total_count DESC;
```

Result Grid | Filter Rows:

gender	product_line	total_count
Female	Fashion accessories	96
Female	Food and beverages	90
Male	Health and beauty	88
Female	Sports and travel	86
Male	Electronic accessories	86
Male	Food and beverages	84
Female	Electronic accessories	83
Male	Fashion accessories	82
Male	Home and lifestyle	81
Female	Home and lifestyle	79

Result 15

13. What is the average rating of each product line??

```
SELECT
    product_line, ROUND(AVG(rating), 1) AS avg_rating
FROM
    sales
GROUP BY product_line
ORDER BY avg_rating DESC;
```

Result Grid | Filter Rows:

product_line	avg_rating
Food and beverages	7.1
Health and beauty	7
Fashion accessories	7
Sports and travel	6.9
Electronic accessories	6.9
Home and lifestyle	6.8

14. Number of sales made in each time of the day per weekday??

```sql
SELECT
    day_name, time_of_day, COUNT(*) AS total_sales
FROM
    sales
WHERE
    day_name = 'monday'
GROUP BY time_of_day
ORDER BY total_sales DESC;
```

Result Grid | Filter Rows:

day_name	time_of_day	total_sales
Monday	Evening	56
Monday	Afternoon	48
Monday	Morning	20

15. Which of the customer types brings the most revenue??

```sql
SELECT DISTINCT
    customer_type, SUM(total) AS revenue
FROM
    sales
GROUP BY customer_type
ORDER BY revenue DESC;
```

Result Grid | Filter Rows:

customer_type	revenue
Member	163625.1015
Normal	157261.2930

16. Which city has the largest tax percent/ VAT (Value Added Tax)??

```sql
SELECT DISTINCT
    city, SUM(VAT) AS largest_tax_pecent
FROM
    sales
GROUP BY city
ORDER BY largest_tax_pecent DESC;
```

Result Grid | Filter Rows:

city	largest_tax_pecent
Naypyitaw	5261.4655
Yangon	5041.0005
Mandalay	4977.8385

17. Which customer type pays the most in VAT??

```sql
SELECT DISTINCT customer_type, SUM(VAT) AS revenue
FROM sales
GROUP BY customer_type
ORDER BY revenue DESC;
```

Result Grid | Filter Rows:

customer_type	revenue
Member	7791.6715
Normal	7488.6330

18. How many unique customer types does the data have??

```sql
SELECT DISTINCT customer_type
FROM sales;
```

Result Grid

customer_type
Normal
Member

19. How many unique payment methods does the data have??

```
SELECT DISTINCT payment_method
FROM sales;
```

Result Grid

payment_method
Credit card
Ewallet
Cash

20. What is the most common customer type??

```
SELECT customer_type, count(*) AS most_common_customer
FROM sales
GROUP BY customer_type;
```

Result Grid | Filter Rows:

customer_type	most_common_customer
Normal	496
Member	499

21. What is the gender of most of the customers??

```
SELECT gender, COUNT(*) AS gender_count
FROM sales
GROUP BY gender;
```

Result Grid | Filter Rows

gender	gender_count
Male	498
Female	497

22. What is the gender distribution per branch??

```sql
SELECT gender, COUNT(gender) AS gender_count
FROM sales
WHERE branch = "A"
GROUP BY gender;
```

Result Grid | Filter Rov

gender	gender_count
Male	179
Female	160

23. Which time of the day do customers give most ratings??

```
SELECT time_of_day, AVG(rating) AS avg_rating
FROM sales
GROUP BY time_of_day
ORDER BY avg_rating DESC;
```

Result Grid | Filter Rows:

time_of_day	avg_rating
Afternoon	7.02340
Morning	6.94474
Evening	6.90536

24. Which day of the week has the best avg ratings??

```
SELECT day_name, AVG(rating) AS avg_rating
FROM sales
GROUP BY day_name
ORDER BY avg_rating DESC;
```

Result Grid | Filter Row

day_name	avg_rating
Monday	7.13065
Friday	7.05507
Tuesday	7.00316
Sunday	6.98864
Saturday	6.90183
Thursday	6.88986
Wednesday	6.76028

25. Which day of the week has the best average ratings per branch??

```sql
SELECT day_name, AVG(rating) AS avg_rating
FROM sales
WHERE branch = "A"
GROUP BY day_name
ORDER BY avg_rating DESC;
```

Result Grid | Filter Rows:

day_name	avg_rating
Friday	7.31200
Monday	7.09792
Sunday	7.07885
Tuesday	7.05882
Thursday	6.95870
Wednesday	6.84286
Saturday	6.74600

THANK YOU!!