



Business Problem

To find the different factors that are effecting the sales of different branches and improve sales

Main Objective

To interpret the factors affecting and to improve sales



Product Analysis



Food and beverages has the highest revenue with 56144.96.



Health and beauty has the lowest revenue with 49193.84.



Fashion accessories holds 4th position with 54306.03 having the highest value tax.



Health and beauty have sales above average.



Food and beverages has a rating of 7.11.



Health and beauty has a rating of 7.0.



The cost of goods are high during February.

Product Analysis

```
3 # 7. In which month did the cost of goods sold reach its peak?
4 WITH month_cog AS ( #creating CTE
5     SELECT MonthName, AVG(cogs/quantity) AS cog FROM sales #
6     GROUP BY MonthName
7     ORDER BY cog DESC
8 )
9 SELECT MonthName FROM month_cog
10 LIMIT 1;
```

MonthName
February

```
16 # 14. Calculate the average rating for each product line.
17
18 SELECT product_line, AVG(rating) AS average_rating FROM sales
19 GROUP BY product_line; #Used aggregate function and grouped b
```

product_line	average_rating
Health and beauty	7.003289457998778
Electronic accessories	6.924705881230971
Home and lifestyle	6.8375
Sports and travel	6.916265062538974
Food and beverages	7.11321838970842
Fashion accessories	7.0292134660013605

```
67 # 5. Which product line has the highest sales?
68 SELECT
69     product_line AS product_line_with_highest_sales,
70     SUM(total) AS total_sales #using SUM to perform
71 FROM Sales
72 GROUP BY product_line_with_highest_sales
73 ORDER BY total_sales DESC #obtaining result in desc
74 LIMIT 1; #limiting the result for highest sales
75
```

product_line_with_highest_s...	total_sales
Food and beverages	56144.96

Sales Analysis



Naypyitaw, branch-C has the highest revenue.



There's a decline in revenue during February.



The sales are high during Saturday then Tuesday at evening's.



Food and beverages has highest sales.



Customer type dominance is almost equal with member = 501 and normal = 409.



Ewallet is the most used payment method.



Yangon, branch-A has exceeded the average no.of sales.

Sales Analysis

```
01 # 9. In which city was the highest revenue recorded?
02 WITH city_revenue AS ( #creating CTE
03     SELECT city, SUM(total) AS revenue FROM sales
04     GROUP BY city
05     ORDER BY revenue DESC
06 )
07 SELECT city FROM city_revenue
08 LIMIT 1;
```

Result Grid

city
Naypyitaw

```
06 # 6. How much revenue is generated each month?
07 SELECT
08     MonthName, #extracting month names from date
09     SUM(total) AS revenue #calculating total
10 FROM sales
11 GROUP BY MonthName; #using month aggregation
```

Result Grid

MonthName	revenue
January	116292.11
March	109455.74
February	97219.58

```
02 # 27. Identify the day of the week with the highest rating frequency
03
04 SELECT dayName, COUNT(rating) AS rating_frequency
05 GROUP BY dayName
06 ORDER BY rating_frequency DESC
07 LIMIT 1;
```

Result Grid

dayName	rating_frequency
Saturday	164

Customer Analysis

Female dominance is observed in food and beverages, fashion accessories and sports and travel product_lines.

Male dominance is observed in health and beauty, electronic accessories and home and lifestyle product_lines.

Customers with membership are generating high revenue.

Customer Analysis

```
# 13. Which product line is most frequently associated with
WITH female_count AS ( #CTE for Female count
    SELECT product_line, COUNT(gender) AS female FROM sales
    WHERE gender = "Female"
    GROUP BY product_line
), male_count AS ( #CTE for Male count
    SELECT product_line, COUNT(gender) AS male FROM sales
    WHERE gender = "Male"
    GROUP BY product_line
)
SELECT f.product_line, f.female, m.male FROM female_count f
INNER JOIN male_count m
ON f.product_line = m.product_line;
```

product_line	female	male
Health and beauty	64	88
Electronic accessories	84	86
Home and lifestyle	79	81
Food and beverages	90	84
Fashion accessories	96	82
Sports and travel	88	78

```
# 11. For each product line, add a column indicating "Good"
WITH average_sales AS ( # CTE for average sales
    SELECT AVG(total) AS sales_average FROM sales
), product_line_average AS ( #CTE for product_line total
    SELECT product_line, AVG(total) AS p_average FROM sales
    GROUP BY product_line
)
SELECT product_line,
    if(p_average > (SELECT sales_average FROM average_sales)
    AS category
FROM product_line_average;
```

product_line	category
Health and beauty	Good
Electronic accessories	Bad
Home and lifestyle	Good
Sports and travel	Good
Food and beverages	Bad
Fashion accessories	Bad

```
#22. Identify the customer type with the highest purchase
SELECT DISTINCT customer_type, COUNT(customer_type) AS frequency
GROUP BY customer_type
ORDER BY frequency DESC
LIMIT 1;
```

customer_type	frequency
Member	501



Findings and suggestions

- The cost of goods are increased during February resulting in a decline in revenue. It is suggested to procure goods with low cost.
- It is observed that the food and beverages has highest revenue with 7.11 rating. It is suggested to create combo offers for attracting more sales.
- To improve the sales of other product_lines. It is suggested to provide them offers only for the members.
- Despite having lowest revenue health and beauty has exceeded average sales with 7.0 rating and dominated by males. It is suggested to give offers on female products to improve the sales.
- As members are contributing for higher revenue, it is suggested to create combo offers or discounts for members to attract normal customers to become a member.



Thank you