**Generic Questions**

**-- 1,How many distinct cities are present in the dataset?**

**select distinct city AS Distinct\_City from walmasaledata ;**

**-- 2,In which city is each branch situated?**

**select City ,Branch from walmasaledata**

**group by City , Branch ;**

**-- Product Analysis**

**-- 1,How many distinct product lines are there in the dataset?**

**select count(distinct Product\_line) AS Distinct\_product\_lines from walmasaledata ;**

**-- 2, What is the most common payment method?**

**select payment , count(Payment) AS count\_Payment**

**from walmasaledata**

**group by payment**

**order by count\_Payment desc ;**

**-- 3, What is the most selling product line?**

**select Product\_line , count(product\_line) As Most\_selling\_product\_line**

**from walmasaledata**

**group by Product\_line**

**order by Most\_selling\_product\_line desc ;**

**-- 4, What is the total revenue by month?**

**select month\_name , sum(Total) AS total\_revenue\_by\_month**

**from walmasaledata**

**group by month\_name**

**order by total\_revenue\_by\_month desc;**

**-- 5, Which month recorded the highest Cost of Goods Sold (COGS)?**

**select month\_name , count(cogs) AS highest\_Cost\_of\_Goods\_Sold\_COGS from walmasaledata**

**group by month\_name**

**order by highest\_Cost\_of\_Goods\_Sold\_COGS desc limit 1;**

**-- 6, Which product line generated the highest revenue?**

**select Product\_line , sum(total) AS product\_line\_generated\_the\_highest\_revenue**

**from walmasaledata**

**group by Product\_line**

**order by product\_line\_generated\_the\_highest\_revenue desc limit 1;**

**-- 7, Which city has the highest revenue?**

**select city , sum(Total) AS Highest\_Revenue**

**from walmasaledata**

**group by city**

**order by Highest\_Revenue desc limit 1 ;**

**-- -- 9.Retrieve each product line and add a column product\_category, indicating**

**-- 'Good' or 'Bad,'based on whether its sales are above the average.**

**ALTER TABLE walmasaledata ADD COLUMN product\_category VARCHAR(20);**

**UPDATE walmasaledata**

**JOIN (**

**SELECT AVG(total) AS avg\_total**

**FROM walmasaledata**

**) AS avg\_sales**

**ON 1=1**

**SET walmasaledata.product\_category = (**

**CASE**

**WHEN walmasaledata.total >= avg\_sales.avg\_total THEN 'Good'**

**ELSE 'Bad'**

**END**

**);**

**-- 10 Which branch sold more products than the average product sold?**

**select Branch , sum(Quantity) AS Quantity from walmasaledata**

**group by Branch**

**HAVING SUM(quantity) > AVG(quantity) ORDER BY quantity DESC LIMIT 1;**

**-- 11, Most Common Product Line by Gender:**

**select Gender , Product\_line , count(\*) Total\_count**

**from walmasaledata**

**group by Gender , Product\_line**

**order by Total\_count desc ;**

**-- 12,Average Rating of Each Product Line:**

**SELECT Product\_line, ROUND(AVG(Rating), 2) AS AvgRating**

**FROM walmasaledata**

**GROUP BY Product\_line**

**ORDER BY AvgRating DESC;**

**-- Sales Analysis**

**-- 1, Number of Sales Made in Each Time of the Day per Weekday**

**SELECT day\_name, time\_of\_day, COUNT(invoice\_id) AS total\_sales**

**FROM walmasaledata**

**WHERE day\_name NOT IN ('Sunday', 'Saturday')**

**GROUP BY day\_name, time\_of\_day;**

**-- 2, Identify the Customer Type that Generates the Highest Revenue**

**select Customer\_type , sum(Total) As Highest\_Revenue**

**from walmasaledata**

**group by Customer\_type**

**order by Highest\_Revenue desc limit 1;**

**-- 3, Which City Has the Largest Tax Percent/VAT?**

**SELECT City, SUM(`Tax5%`) AS HighestTAX**

**FROM walmasaledata**

**GROUP BY City**

**ORDER BY HighestTAX DESC**

**LIMIT 1;**

**-- 4, Which Customer Type Pays the Most in VAT?**

**select Customer\_type , sum(`Tax5%`) MOST TAX**

**from walmasaledata**

**group by Customer\_type**

**order by MOSTTAX desc limit 1 ;**

**-- Customer Analysis**

**-- 1, How Many Unique Customer Types Does the Data Have?**

**select count(distinct Customer\_type) AS Distinct\_Customers**

**from walmasaledata ;**

**-- 2, How Many Unique Payment Methods Does the Data Have?**

**select count(distinct Payment) AS Unique\_Payment\_Methods**

**from walmasaledata ;**

**-- 3,Which is the Most Common Customer Type?**

**select Customer\_type , count(Customer\_type) AS Most\_Common\_Type**

**from walmasaledata**

**group by Customer\_type**

**order by Most\_Common\_Type desc limit 1 ;**

**-- 4, Which Customer Type Buys the Most?**

**select Customer\_type , sum(total) As Total\_Sales**

**from walmasaledata**

**group by Customer\_type**

**order by Total\_Sales desc limit 1 ;**

**-- 5, What is the Gender of Most of the Customers?**

**select Gender , count(\*) AS All\_Gender**

**from walmasaledata**

**group by Gender**

**order by All\_Gender Desc limit 1 ;**

**-- 6 , What is the Gender Distribution per Branch?**

**select Branch , Gender , count(Gender) AS Distribution\_of\_Gender**

**from walmasaledata**

**group by Branch , Gender**

**order by Distribution\_of\_Gender ;**

**-- 7, Which Time of the Day Do Customers Give Most Ratings?**

**select time\_of\_day , avg(Rating) AS Avg\_Ratings**

**from walmasaledata**

**group by time\_of\_day**

**order by Avg\_Ratings desc ;**

**-- 8, Which Time of the Day Do Customers Give Most Ratings Per Branch?**

**select \* from walmasaledata ;**

**select time\_of\_day , Branch , avg(Rating) AS avg\_Rating**

**from walmasaledata**

**group by time\_of\_day , Branch**

**order by avg\_Rating desc limit 5;**

**-- 9, Which Day of the Week Has the Best Average Ratings?**

**select \* from walmasaledata ;**

**select day\_name , avg(Rating) AS AvgRating**

**from walmasaledata**

**group by day\_name**

**order by AvgRating desc limit 1 ;**

**-- 10, Which Day of the Week Has the Best Average Ratings Per Branch?**

**SELECT branch, day\_name, AVG(rating) AS average\_rating**

**FROM sales**

**GROUP BY branch, day\_name**

**ORDER BY average\_rating DESC;**