



SQL AND DATABASES:

PROJECT REPORT

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BATCH:- AIML ONLINE AUG 23 B

BUSINESS OVERVIEW

<u>Total Revenue</u>	<u>TOTAL ORDER</u>	<u>TOTAL CUSTOMERS</u>	<u>AVG RATING</u>
1 24.7 M	1 000	994	3.5
<u>LAST QTR REVENUE</u>	<u>LAST QTR ORDER</u>	<u>AVG DAYS TO SHIP</u>	<u>GOOD FEEDBACK</u> %
23.34 M	199	105	45

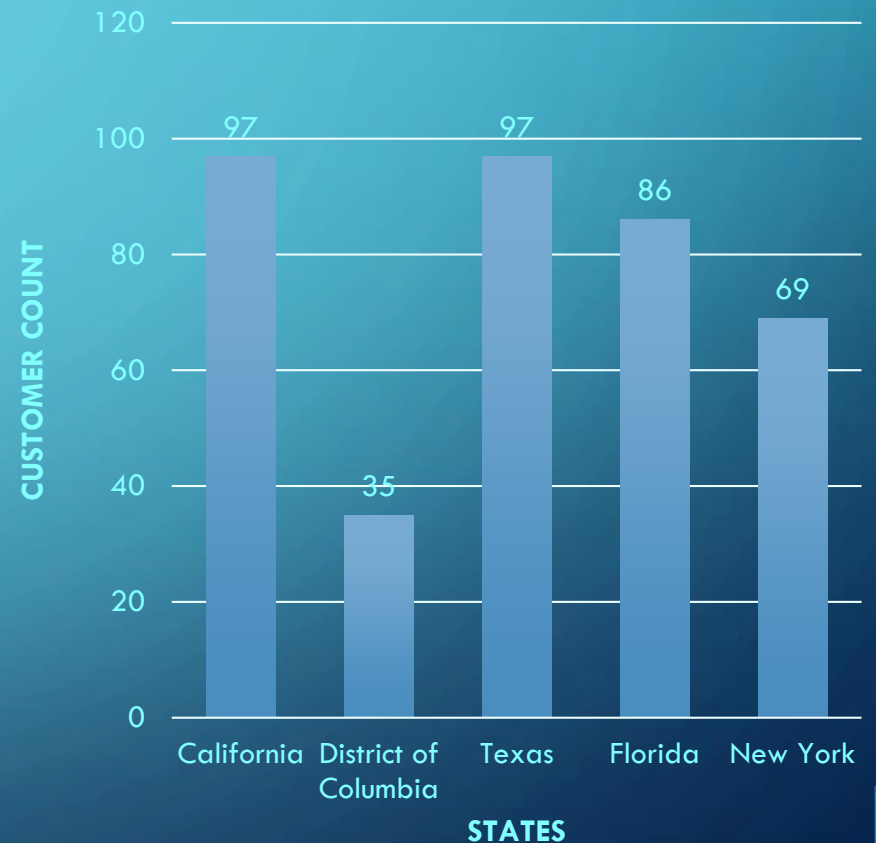
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CUSTOMER METRICS

DISTRIBUTION OF CUSTOMERS ACROSS STATES

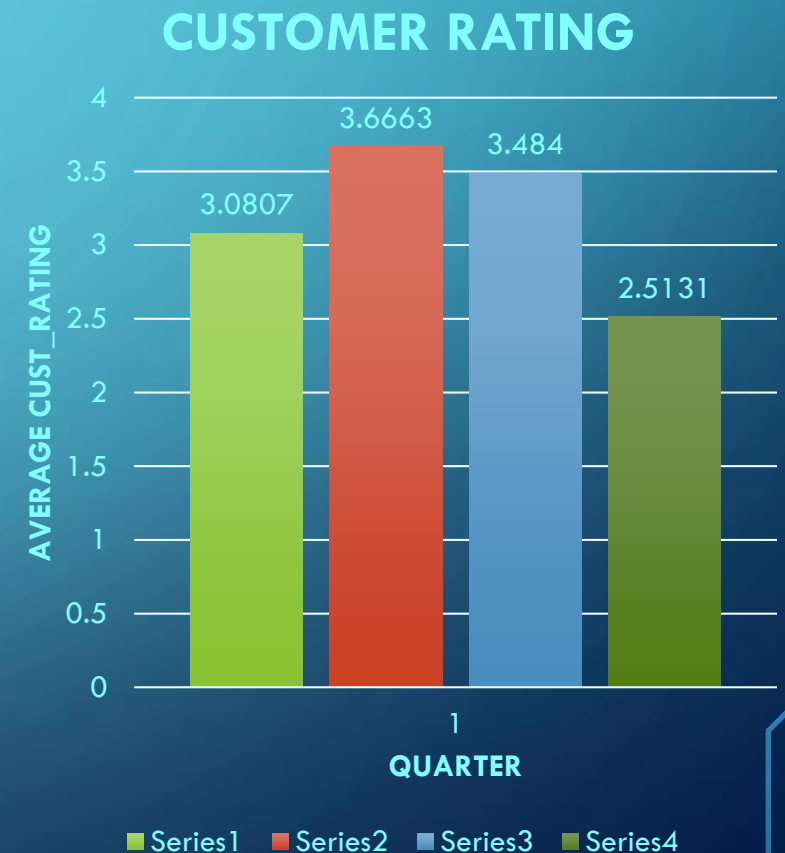
- California and Texas have the highest number of customers, with 97 each.
- Several states have relatively low customer counts, with Maine, Wyoming, and Vermont having the lowest counts of only 1 customer each.
- There seems to be a general pattern of higher customer counts in more populous states
- The District of Columbia has a relatively high customer count compared to its smaller geographical size, possibly indicating a concentration of customers in urban areas.

CUSTOMERS ACROSS STATES



AVERAGE CUSTOMER RATINGS BY QUARTER

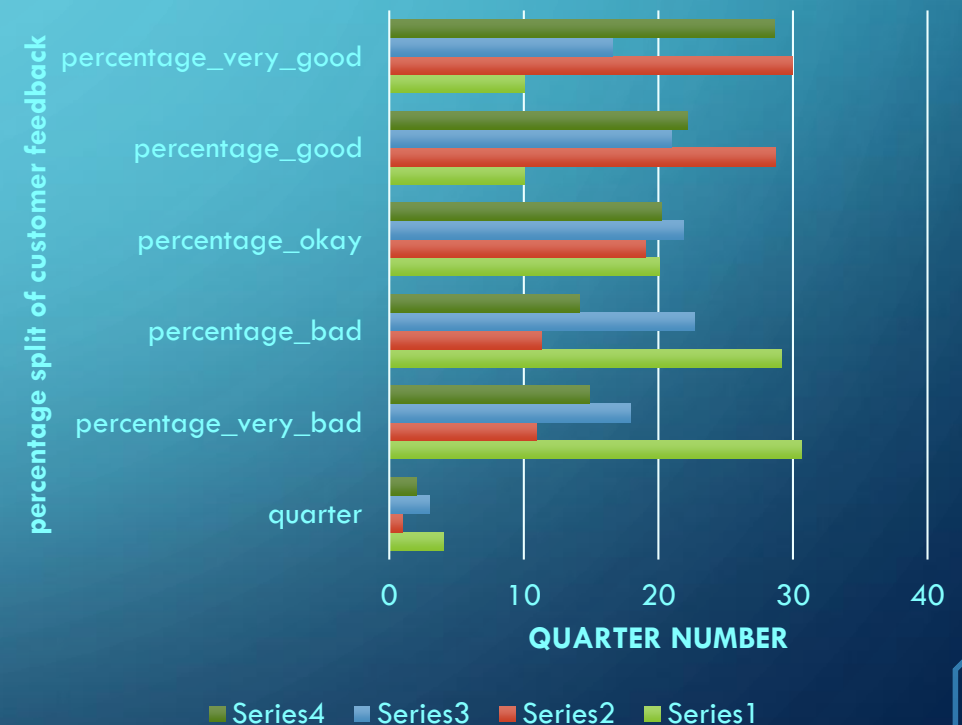
- Quarter 1 has the highest value of 3.6663.
- Quarter 4 has the lowest value of 2.5131.
- Values seem to fluctuate throughout the quarters, indicating potential variability over time



TREND OF CUSTOMER SATISFACTION

- Each quarter has different percentages of responses categorized into five sentiment levels: very bad, bad, okay, good, and very good.
- Quarter 1 has the highest percentage of respondents reporting very good sentiment (30%), while Quarter 4 has the highest percentage of respondents reporting very bad sentiment (30.6533%)
- There is variation in sentiment distribution across quarters, indicating potential fluctuations in customer satisfaction or perception over time.

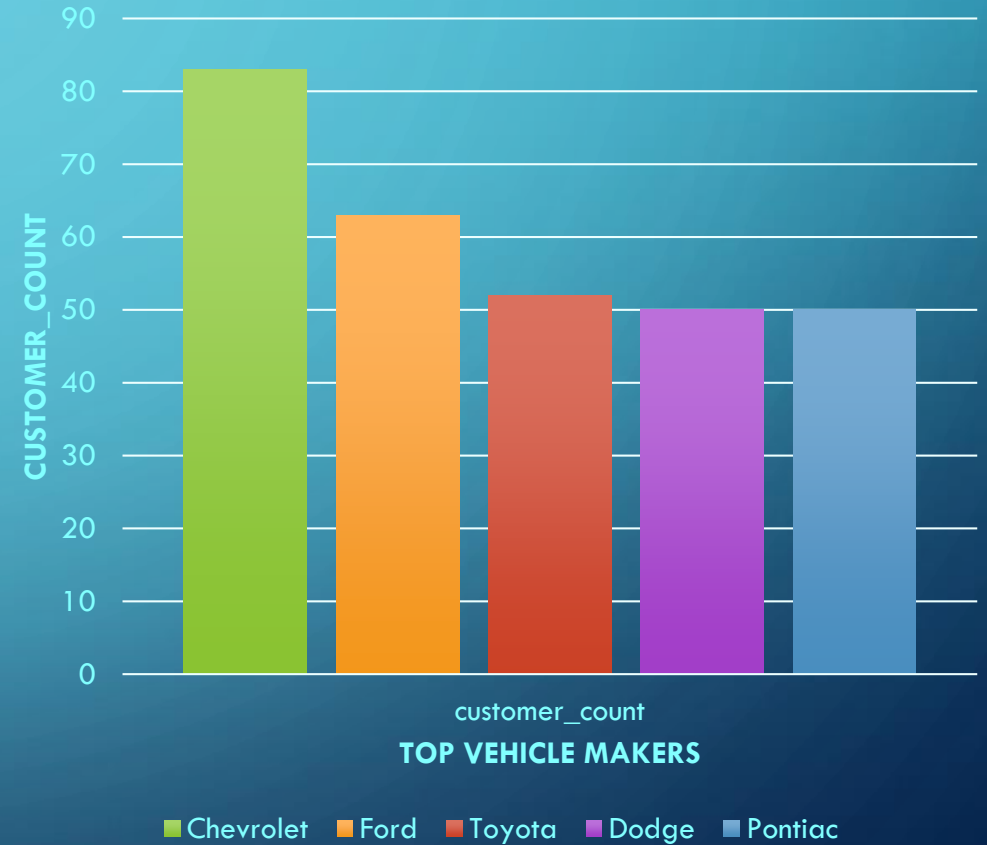
CUSTOMER SATISFACTION TREND



TOP VEHICLE MAKERS PREFERRED BY CUSTOMERS

- Chevrolet has the highest customer count among the listed vehicle makers, with 83 customers.
- Ford follows closely behind with 63 customers.
- Toyota, Dodge, and Pontiac have similar customer counts, with each having 50 customers.
- The distribution of customers among vehicle makers suggests varying levels of popularity or market share within the surveyed population

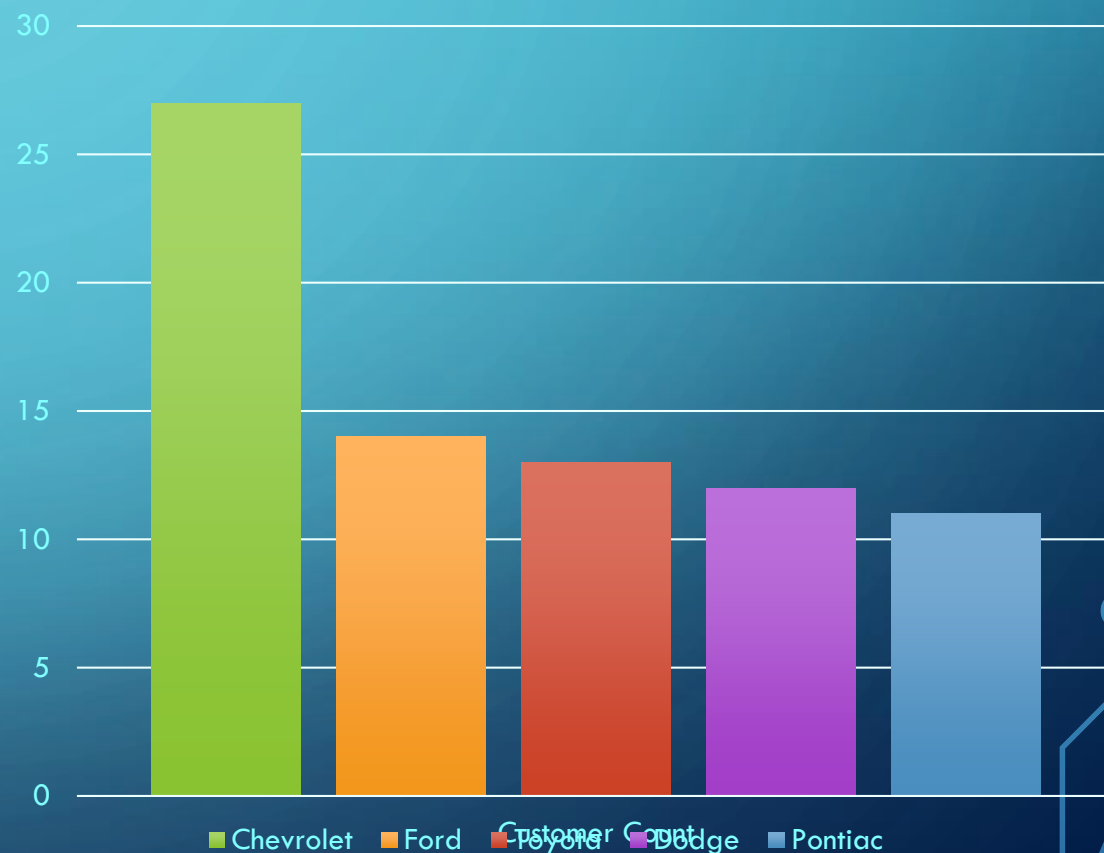
TOP 5 VEHICLE MAKERS



MOST PREFERRED VEHICLE MAKE IN EACH STATE

- Chevrolet appears to be a popular vehicle maker across multiple states, with numerous instances of it being mentioned.
- Ford and Toyota also have a significant presence in several states, indicating their popularity among consumers.
- Certain states exhibit a diverse range of vehicle makers, suggesting a varied automotive market
- Some states show a preference for specific vehicle makers, such as Hawaii with Ford, Toyota, and Pontiac.
- The presence of luxury vehicle makers like Cadillac, Audi, and Mercedes-Benz in various states suggests a demand for high-end vehicles in those regions.

MOST PREFERRED VEHICLE



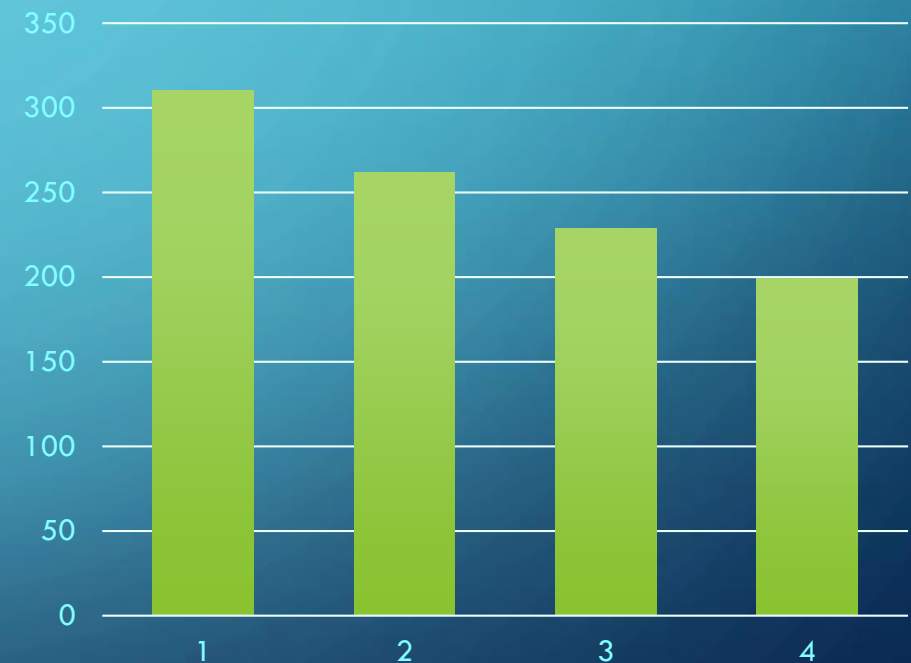
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REVENUE METRICS

TREND OF PURCHASES BY QUARTER

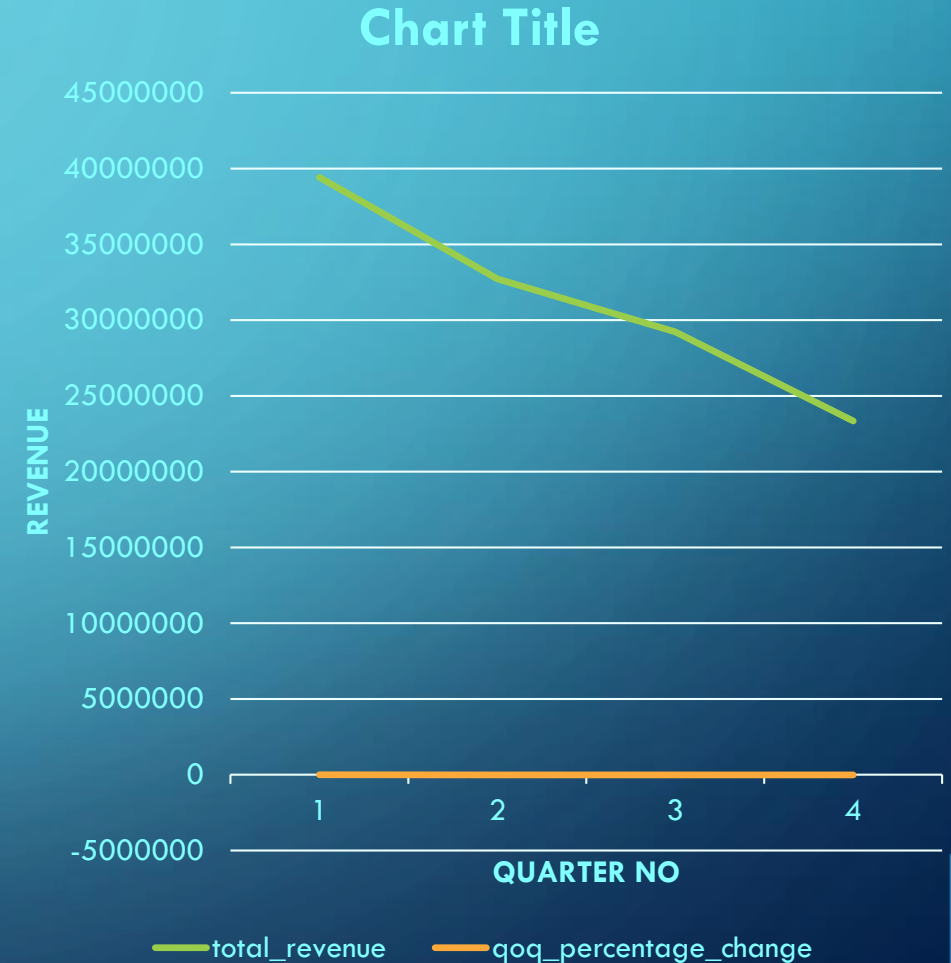
- There is a decreasing trend in order counts from Quarter 1 to Quarter 4, with Quarter 1 having the highest order count of 310 and Quarter 4 having the lowest order count of 199.
- This downward trend suggests a potential seasonal variation or a decrease in business activity as the year progresses.

TREND OF PURCHASES



QUARTER ON QUARTER % CHANGE IN REVENUE

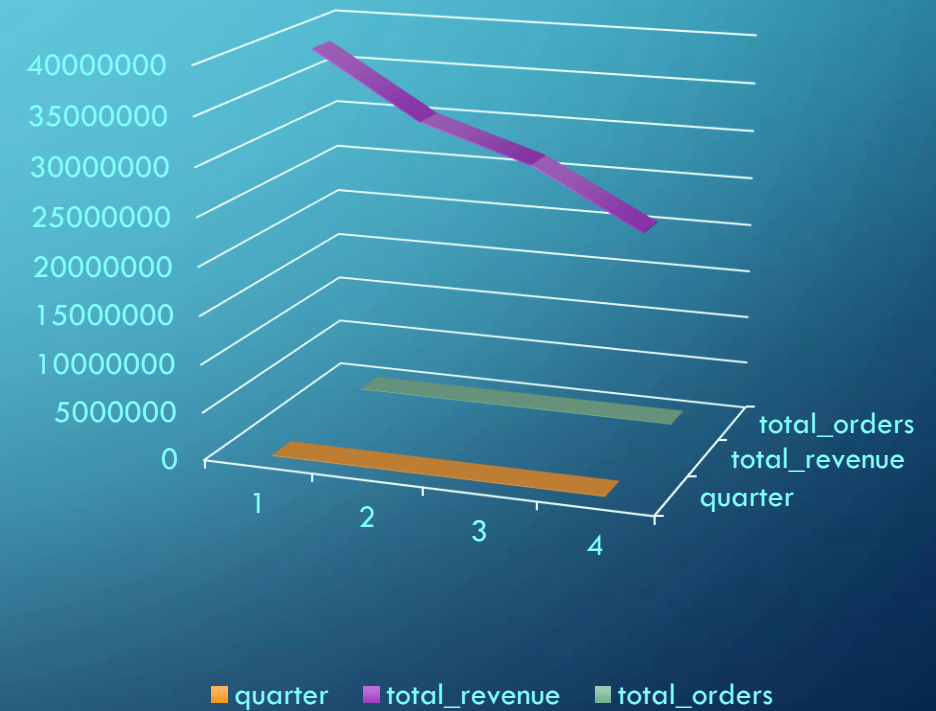
- There is a decreasing trend in total revenue from Quarter 1 to Quarter 4, with Quarter 1 having the highest revenue of approximately \$39.42 million and Quarter 4 having the lowest revenue of approximately \$23.35 million.
- The quarter-over-quarter (QoQ) percentage change indicates the rate of change in revenue from one quarter to the next. There are negative percentage changes indicating a decline in revenue from the previous quarter.
- **Sales Analysis:** Conduct a detailed analysis to understand the factors contributing to the decline in revenue from Quarter 1 to Quarter 4. Identify any specific trends, market dynamics, or external factors affecting car sales during each quarter.
- **Product Mix:** Evaluate the performance of different vehicle models or product categories to identify top-performing products and areas for improvement. Adjust the product mix or inventory levels to meet changing customer demand and maximize revenue potential.



TREND OF REVENUE AND ORDERS BY QUARTER

- Total revenue shows a declining trend over the quarters, decreasing from \$39,421,580.16 in Quarter 1 to \$23,346,779.63 in Quarter 4.
- total orders exhibit a decreasing trend over the quarters, declining from 310 orders in Quarter 1 to 199 orders in Quarter 4
- The decline in both revenue and orders suggests a potential seasonal or market trend affecting business performance
- Conducting a thorough analysis to understand the factors behind the revenue and order decline. Evaluate market trends, customer preferences, and competitive dynamics.

TREND OF REVENUE & ORDERS

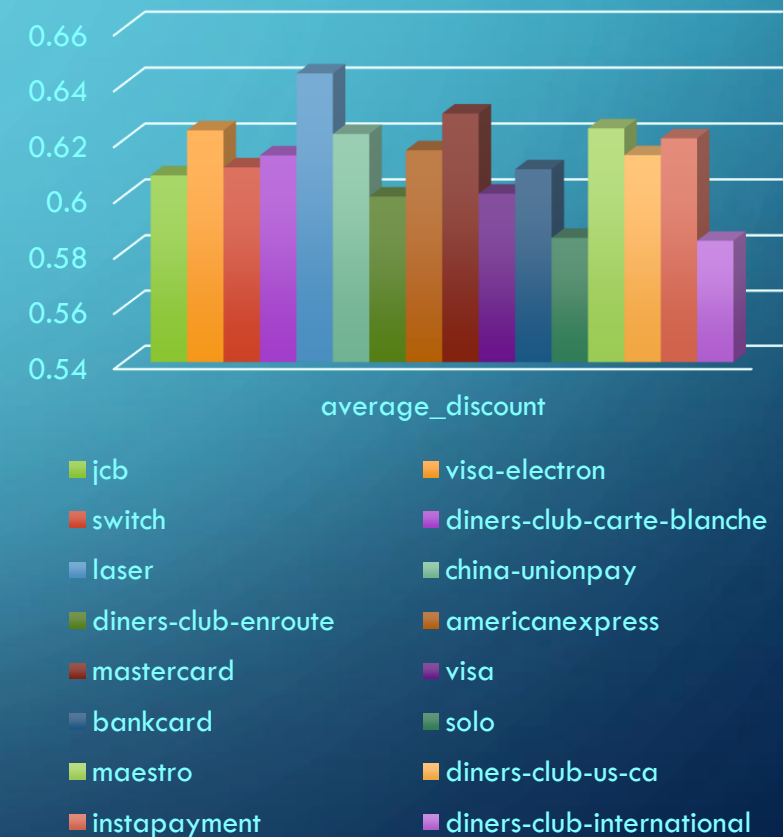


SHIPPING METRICS

AVERAGE DISCOUNT OFFERED BY CREDIT CARD TYPE

- As we assess our sales data across various credit card types, it's evident that the average discount slightly varies among them.
- Notably, Maestro stands out with the highest average discount recorded at 0.624219, showcasing its potential significance in driving sales.
- Conversely, Diners Club International exhibits the lowest average discount at 0.584, signaling a potential area for further examination regarding promotional strategies.
- It's imperative to delve deeper into the effectiveness of discount strategies associated with each credit card type to discern their impact on customer behavior and purchasing trends.
- Tailoring promotional offers or incentives based on the average discount linked to each credit card type could potentially optimize sales and enhance customer satisfaction.

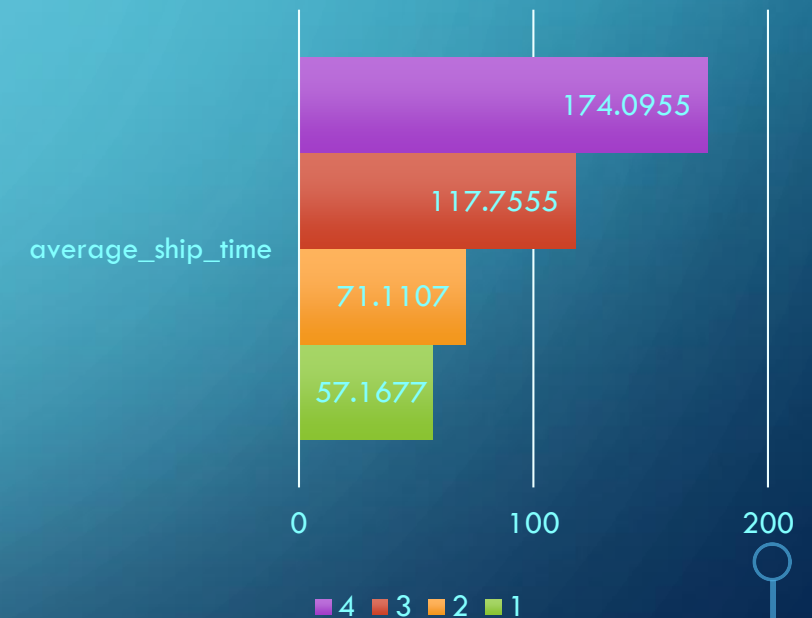
AVERAGE DISCOUNT



TIME TAKEN TO SHIP ORDERS BY QUARTER

- As we analyze our quarterly data on average shipping times, a noticeable trend emerges, indicating an increase in shipping duration as the year progresses.
- In Quarter 1, the average ship time stands at 57.1677 days, which gradually rises to 174.0955 days by Quarter 4.
- This upward trend may suggest potential challenges or bottlenecks in our shipping processes or logistics operations as the year unfolds.
- Implementing measures to streamline our logistics operations and enhance the efficiency of our shipping processes could help mitigate the observed increase in average ship time.
- Continuous monitoring of shipping metrics and proactive intervention to address any emerging issues or delays can help ensure timely delivery and maintain customer satisfaction.

AVG_SHIP_TIME





INSIGHTS & RECOMMENDATIONS

- **CUSTOMER DISTRIBUTION INSIGHT:-** IDENTIFYING REGIONS WITH LOW CUSTOMER COUNTS COULD PRESENT UNTAPPED MARKET POTENTIAL FOR TARGETED EXPANSION STRATEGIES.
- **QUARTERLY RATING ANALYSIS:-** FLUCTUATIONS IN QUARTERLY RATINGS MAY INDICATE SEASONAL VARIATIONS IN CUSTOMER SATISFACTION LEVELS, NECESSITATING CONTINUOUS MONITORING AND ADAPTATION OF SERVICE QUALITY STANDARDS.
- **VEHICLE MAKER PREFERENCES:-** ACCORDING TO THE POPULARITY OF VEHICLE MAKERS ACROSS STATES , IT INFORMS INVENTORY MANAGEMENT DECISIONS, ENSURING ADEQUATE STOCK OF PREFERRED BRANDS TO MEET CUSTOMERS DEMAND.
- **REGIONAL VEHICLE TRENDS:-** REGIONAL PREFERENCES FOR SPECIFIC VEHICLE MAKERS FACILITATES THAT TARGETTING MARKET CAMPAIGNS TAILORED TO EACH GEOGRAPHIC AREA EXAMPLE , CHEVROLET, FORD ,ETC.
- **ORDER & REVENUE TRENDS:-** DECLINING TRENDS IN ORDER COUNTS AND REVENUE OVER QUARTERS UNDERSCORE THE IMPORTANCE OF IDENTIFYING AND ADDRESSING FACTORS CONTRIBUTING TO REDUCED SALES PERFORMANCE.
- **CREDIT CARD ANALYSIS:-** VARIATIONS IN AVERAGE DISCOUNTS BY CREDIT CARD TYPE HIGHLIGHT THE POTENTIAL TO TAILOR PROMOTIONAL STRATEGIES TO MAXIMIZE SALES CONVERSION RATES AND CUSTOMER SATISFACTION.
- **SHIPPING TIME INSIGHTS:-** INCREASING AVERAGE SHIPPING TIMES OVER QUARTERS MAY INDICATE INEFFICIENCIES IN LOGISTICS OPERATIONS, EMPHASIZING THE NEED FOR PROCESS OPTIMIZATION TO ENSURE TIMELY DELIVERIES AND ENHANCE CUSTOMER EXPERIENCE.

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