❖ Unlocking Insights: A Compilation of SQL Business Problems

1) In our e-commerce platform, we want to analyze payment transactions to gain insights into our customers' payment preferences. Based on the total order amount for all calculations, we need to answer the following questions:

What is the total sum of transactions for each payment type used by our customers?

What is the average transaction value for each payment type?

What is the highest transaction value for each payment type?

What is the lowest transaction value for each payment type?

How many times was each payment type used for transactions?

This analysis will help us understand the distribution of payment types among our customers and identify any trends or anomalies in transaction values.

2) Categorize our customers based on the decade in which they were born. For instance, a decade '50s should encompass birth years from 1950 to 1959, while '60s should include birth years from 1960 to 1969, and so on. Ensure that the alias for each decade range is in lowercase 's'.

Display the decade followed by the corresponding count of customers from that decade.

3) We need to provide a clear view of our top-performing customers.

Our goal is to identify and showcase the top 10 customers who have spent the most with us. This information can help us recognize and appreciate our loyal customers and tailor our strategies accordingly.

4) We need to provide an overview of the payment methods we've used for transactions in the years 2020 and 2021. Specifically, we want to know:

Payment Type, Allowed, Transaction Value in 2020, Transaction Value in 2021, : This tells us the various payment methods we accept.

This analysis will help us understand the performance of different payment methods over these two years and make informed decisions about their continuation.

5) To support our expansion into an offline store, we're identifying the country where we generate the highest revenue. Our sales team needs the following details of customers from that country:

Customer ID, First Name and Last Name, Phone Number

This information will help us establish a strong presence in the country with the highest revenue potential.

6) In the year 2021, we want to understand our customers' order frequency, which means finding out how many customers placed a certain number of orders. Specifically, we aim to know: Order Frequency, Number of Customers

This analysis helps us recognize the distribution of customer ordering behavior in the year 2021 and tailor our strategies accordingly.

7) We want to identify our top customer with the highest order amount for each Payment ID, allowing us to recognize the most significant customers for each payment method allowing us to understand our most valuable customers for each payment method.

8) Identify the top-selling products within each category based on their selling prices.

9) Identify which was the highest transaction value for each payment method.

This helps us gain insights into the performance of each payment method, even those that may not be active at the moment.

10) After how many days customer placed their second order.

This analysis helps us understand customer behavior and potential opportunities for retention and engagement.

11) We want to showcase the details of our customers with the maximum and minimum total spending.

This analysis helps us recognize our most valuable and least engaged customers.

12) We need to create a Pivot Table that displays the total sum of revenue generated from orders placed in different cities, organized by years and quarters. The goal is to understand revenue patterns over time, considering the OrderDate.

This analysis helps us visualize how our revenue varies across cities over different time periods.

13) We're interested in identifying products that haven't been sold by any supplier.

This analysis helps us understand which products may require additional attention or promotion to boost sales.

14) We want to understand the number of orders placed each week for each year, specifically in 2020 and 2021.

This analysis helps us identify weekly order patterns for each year, aiding in resource allocation and planning.