

-----SET 1-----

1. Write a Query to Print the position of the character 'a' in the First Names and Last Names of Customers.
2. Write a Query to Print the Position of the substring 'ch' in the First Names of all the Customers.
3. Write a Query to print the Position of the character 'e' in the First Names of all customers, if 'e' does not exist in the first name then use CASE WHEN to print NULL instead of 0.
4. Write a Query to print the time taken in days to deliver orders from the shipping date for each order in the Orders table.
5. Write a query to print all customer details. Order your output in ascending order of the first 3 characters of FirstName.
6. Write a query to print pairs of customers who belong to the same state.
7. Get the total number of records in the table.
8. Get the Total Number of Records for Brand Harpic.
9. Get the total Number of DISTINCT records for the Brand Harpic. What is the difference from the output of the above query - and why?
10. Get the Total Number of Records for Brand Lizol.
11. Get the total number of records for each Brand in a single output.
12. Calculate the AVERAGE market Price for all products belonging to Type "Nachos & Chips".
13. Get the SUM of Market Price of all Products belonging to Type "Dry Fruits & Berries".
14. Get the MAX Sale Price of Products across each Sub-Category.
15. Get the DISTINCT Count of Categories.
16. Get the DISTINCT Count of Products of the Type "Canned Seafood".

-----Set 2 -----

- 1) Identify the count of distinct products that the company sells within each category
- 2) Identify the average order amount by each CustomerID in each month of Year 2020
- 3) Identify the Month-Year combinations which had the highest customer acquisition.
- 4) Identify the most selling ProductID in 2021
- 5) Identify which Supplier ID supplied the least number of products
- 6) Get details of those customers who have ordered for a total amount of more than 7000 during last quarter of Year 21.
- 7) Find the no. of orders fulfilled by Suppliers residing in the same Country as the customer.
- 8) Find out the top 4 best-selling products in each of the categories that are currently active on the Website.

- 9) Find the out the least selling products in each of the categories that are currently active on the website
- 10) Find the cumulative sum of total orders placed for the year 2020 (solve using both Self Join & Window Function).
- 11) Find the top 3 Shipper companies in terms of
  - a) Average delivery time for each category for the latest year
  - b) Volume for latest year
- 12) Find the top 25 customers in terms of
  - a) Total no. of orders placed for Year 2021
  - b) Total Purchase Amount for the Year 2021
- 13) Find the cumulative average order amount at a monthly level for year 2021
  - a) Each category
  - b) Each customer
- 14) Find the 3-day rolling average for the total purchase amount by each customer.
- 15) Get the cumulative sum of total\_order\_amount for orders placed by each customer ordered by the orderID.
- 16) Print the cumulative sum of Total\_Transaction\_Value for each of the months of the year 2020.
- 17) Print the cumulative average of Total\_Transaction\_value for each of the quarters of the year 2021.
- 18) Print the cumulative average of the quantity of products ordered in each quarter of the years 2020 and 2021. (Think about the condition on which you shall be ordering the records before you start calculating the cumulative average).
- 19) Identify and print the details of products that were the second most ordered in terms of total quantity for each month of each year.
- 20) Identify and print the details of products that were the that generated the 5th most revenue for each quarter of each year.
- 21) Print the details of total transactions value made on each day whose info is available in the database.
- 22) Along with the output of the above question, print a new column which provides a 5 day rolling average of the total transaction value made each day. (Meaning consider current row and 4 preceding rows).
- 23) Print the year, month, productID, Product\_Name, Total\_Quantity, Total\_Revenue for those products that were ordered the most number of times in terms of total\_quantity for each year and quarter combination.
- 24) Using the result set of the above question, compare and find the maximum Total\_Quantity for each row, comparing each row values with 2 Previous months and 1 following month.

- 25) Print the Year, Month, PaymentID, PaymentType, Total\_Transaction\_Value for those PaymentTypes that had the highest transaction values for for each year and month combination.
- 26) Using the result set of the above question, calculate the average total\_transaction\_value for the previous month, current month and 1 following month.
- 27) Print the details of the immediately previous order along with the current order details from the orders table.
- 28) Print CustomerID, FirstName, LastName, OrderId, OrderDate, Previous\_Order\_Id, Previous\_Order\_date.
- 29) Identify the top 20 products sold in terms of total revenue (Total Revenue = Quantity \* Sale\_Price).
- 30) Identify the top 12 products in terms of Total Quantity
- 31) Create a Year on Year Analysis in which you print the total transaction amount for each quarter of 2020,  
then print the total transaction amount for each quarter of 2021 in 2 new columns  
(Columns to be printed: Year, Quarter, Total Transaction Amount, Next\_Year, Next\_Year\_Quarter, Next\_Year\_Total\_Transaction\_Amount).
- 32) Find the top 3 Shipper companies in terms of Average delivery time for each category for the latest year.
- 33) Find the top 3 Shipper companies in terms of Volume for latest year.
- 34) Identify the number of orders spent by each customer, then divide them into 3 buckets, give the 3 buckets the tags: Shopping Freak for bucket-1, Regular Customer for bucket-2, Occasional Customer for bucket-3.
- 35) Find out the least selling products in each of the categories (in the Categories that are currently active on the website).
- 36) Print the details of the 10th most ordered products in each month of each year.
- 37) Rank the customers based on the date on which their details were entered. The oldest entered customer will get rank 1 and so on.
- 38) Rank the customers on the basis of their ages. Give the oldest customer the rank 1.
- 39) Print the count of customers from each city against the record of each customer.
- 40) Get details of the customers whose details were entered very first amongst their respective countries.
- 41) Get details of the customer whose First Name comes at the end when you order the customers in alphabetical order.
- 42) Get details of customers whose First Name comes at the end when you order the customers in alphabetical order amongst their respective countries.
- 43) Get the most ordered product's details in each quarter of each year.
- 44) Get the details of category whose products where ordered the most in each month of each year.
- 45) Get the details of the orders placed by customers placed by them the 5th time.

- 46) Create a Quarter-wise ranking in terms of revenue generated in each product category in each year.
- 47) Identify the age of top 10 customers who spent the most.
- 48) Identify the count of brands whose products the company sells within each category.
- 49) Print details of customers along with details of total orders and total spend. For those customers who ordered more than thrice and received those orders in less than 7 days.
- 50) Print details of the 5 most ordered products.
- 51) Print the details of the payment method from each quarter of each year which had the highest transaction value.