

## ASSIGNMENT - 5

Q1. You are an Analyst working for an E-commerce company. Your manager had a discussion with the leadership and asked you to work on the analysis below.

- A. Create a YOY analysis for the count of customers enrolled with the company each month. The output should look like:

Month	Year_2020	Year_2021
1		
2		

- B. Find out the top 3 best-selling products in each of the categories that are currently active on the Website
- C. Find the out the least selling products in each of the categories that are currently active on the website
- D. We are trying to find paired products that are often purchased together by the same user, such as chips and soft drinks, milk and curd etc..  
Find the top paired products names.
- E. We want to understand the impact of running a campaign during July'21-Oct'21 what was the total sales generated for the categories "Beauty & Hygiene" and "Bevarages" by
- entire customer base
  - customers who enrolled with the company during the same period
- F. Create a Quarter-wise ranking in terms of revenue generated in each category in Year 2020
- G. Find the top 3 Shipper companies in terms of
- Average delivery time for each category for the latest year
  - Volume for latest year
- H. Find the top 25 customers in terms of
- Total no. of orders placed for Year 2021
  - Total Purchase Amount for the Year 2021
- I. Find out the difference between the last two order dates for each of the customers and categorize the customers in two categories such that if the

difference is less than 5 days tag the customer as “Frequent Buyer” else tag it as “Infrequent”.

- J. Find the cumulative average order amount at a monthly level for year 2021
- a. Each category
  - b. Each customer
- K. Find the 3-day rolling average for the total purchase amount by each customer.
- L. Create the below table where values for each Payment method should contain the total order amount by each customer resp.

CustomerName	Debit Card	POD	PayPal	Credit Card	Wallet	Net banking
A						
B						
.						
.						
.						

- M. Create a Procedure to filter the orders from Orders table where total purchase amount in a each order id < @x and purchase of year is @Y where @x and @y are the inputs provided by the user.

Q2. What is the difference between Group by and Partition by?

Q3. What is the difference between a Temp Table and a View?

Q4. What is the difference between View and CTE?

Q5. What is the difference between Row Number, Rank and Dense Rank?

Q6. Consider the single-column table below.

COL1
1
1.2

1.5
2.2
NA
NAN
NULL

Answer the following questions:

1. What is the possible data type of the column 'COL1'?
2. What will the output of the following SQL statements
  - a. 'SELECT COUNT (\*) AS ENTRIES FROM TABLE;'
  - b. 'SELECT COUNT(COL1) AS ENTRIES FROM TABLE;'
  - c. 'SELECT COUNT (DISTINCT COL1) AS ENTRIES FROM TABLE;'