SQL EXERCISE:

Background: schema, datatypes, and schema relationships:

Assume any database (MySQL/PostgresSQL/MSSQL), server timezone is IST.

Table Name: Mutual_Fund_Transaction_Table

Column Name	Datatype
Transaction_Id	Integer
Customer_id	Integer
Transaction_Type	Enum(‘Purchase’,’Sale’)
NAV Value	Integer
No_of_Units	Integer
Transaction_Time	Timestamp
Transaction_Status	Enum (‘Success’,’Failed’,’Pending’)

Table Name : Customer_Details

Column Name	Datatype
Customer_Id	Integer
Customer_Name	Character Varying
Customer_PAN	AlphaNumeric
Banned	Boolean (Banned = 1)
Customer_Join_Time	Timestamp
Gender	Enum(‘Male’,’Female’)

Problem Statement:

It’s common at Kaleidofin to want to know various business metrics about recent transactions. Given the above subset of Kaleidofin’s schema, write executable SQL queries to answer the following questions:

1. Find the customer with the highest transaction value as of today.
   Consider :
   - Transaction_Status = ‘Success’
   - Transaction_Type = ‘Purchase’
   - Transaction_Value = NAV_Value * No_of_Units
2. Count of successful transactions in the month of April - 2019
3. Number of new customers in the month of Jan – 2019, who are not banned as of now and have made more than 4 purchases
4. First 5 Rows of top paying Male & Female customers (in a single output)

5. **(Bonus)** – Completion of this answer will give you added advantage in the interview round

   Given the Mutal_Fund_Transaction_Table a SQL Query to create a GMV Retention plot. Month Start is the 1st Month of 2019 in which the Customer_id placed a successful order, GMV-Month 0 is the Sum of order Total of User ids who placed their 1st Order in Month 0. Out of those User ids, GMV-Month 1 is the Sum of order Total of users who placed an order in 1st Month + 1, Then GMV-Month 2 is 1st Month + 2 and so on till GMV-Month_6 (June-2019).