CSE 4508 – RDBMS Programming Lab

Lab 3

A telecom company, OraclePHONE, maintains a database for its customers, to serve various purposes. The most essential information the company is interested to maintain are (but not limited to):

A unique Customer ID, Customer Name, Date of Birth, Permanent Address and Subscription Info.

The address should be handled separately. Create its own table and store information such as division (such as Khulna or Dhaka) and district (such as Dhaka or Gazipur). Ensure that this table is connected to the main table via keys.

Subscription Info should be handled separately as well. It should have a "Subscriber_Level" field with values such as "Bronze" or "Silver" or "Platinum". Most importantly, there should be a field called "Lifetime Usage" which is a value to represent the total BDT worth of usage done by that subscriber over their lifetime. Ensure that the table is similarly connected to the main table via keys.

Task A:
1. First implement the above system in SQL.
2. Insert some data in all relevant tables created. (at least 5 entries)
3. Answer the following (should involve Join operations and subqueries):

- Display the name, date of birth, district and division of all Platinum status individuals whose current lifetime usage is greater than twice the current highest Silver status.
- Display the Name, Customer ID and Lifetime Usage of the top 5 highest users in OraclePHONE history.
- Update the Subscription Info table for those 5 individuals who fulfill the criteria set by the immediately previous query, such that their "Subscriber_Level" field is now set to "Elite" (Hint: Use another level of subquery)
- Update all 'Bronze' subscribers to 'Silver' who have lifetime usage greater than the average 'Silver' usage.

Task B:
1. Show with appropriate example the use of the following built-in functions:
CONCAT, INSTR, LOWER, UPPER, LENGTH, L/R PAD, L/R TRIM, SUBSTR, COUNT