## **CS443 -- A3**

Write the queries necessary to obtain the required information. Make sure all columns you return have descriptive column headings. You must show the result of the query. For example, if the query is:

- ⇒ Show the office id, the city, and the region
- ⇒ Your query should be:

select office, city, region from offices;

⇒ and then you need to show the following on the screen: (snapshot of your result)

OFFICE	CITY	REGION
22	Denver	Western
11	New York	Eastern
12	Chicago	Eastern
13	Atlanta	Eastern
21	Los Angeles	Western

In this assignment, some questions require using "Delete", "Insert", and "Update". Thus, if a table is modified, the modification may be cascaded to other questions. To avoid that, if a question changes table X, before doing the next question, drop and recreate table X. This ensures that all questions will be executed on original unchanged tables.

The following are the questions for A3.

- 1) Return the Minimum and Maximum Target for all offices.
- 2) Determine how many orders were made in 2019. Return the number of rows that meet this condition.
- 3) How many different titles in the sales reps table.
- 4) What is the average sales for salesreps in office 22.
- 5) What is the average sale amount for each sale reps in each office. Null should be ignored
- 6) For each salesrep that has made an order, list the minimum, maximum and average order amount for all their orders. Include only those orders made anytime from 2020-2021. Omit from the list any salesrep that has only made 1 order in this time frame. Sort the results by Empl\_Num.
- 7) Use a sub-query to list the Customer number; Name and Credit Limit of any customers who have exceeded their credit limit (amount > credit limit) on any order.
- 8) Use a subquery and using the "all" keyword to find the customer number, Salesrep id, and CreditLimit of every customer whose CreditLimit is larger than the CreditLimit of all of the customers of sales rep number 109.
- 9) Do question 8, still using the subquery but do not use the "all" keyword.
- 10) Use sub query and "in" keyword to print the salesreps (ids) who have taken order for the companies starts with letter 'Z' or with letter 'J'. Duplicate rows are not allowed
- 11) Use sub query to find the id and the name of every sales rep that represents at least one customer with a credit limit of greater than \$600,000.

- 12) Use sub query and keyword "exists" to list the id and the name of the salesreps in which some customers have orders some products in their hiredate.
- 13) List all the products (only Product\_ID) that have never been sold.
- 14) Insert the following information into the OFFICES table:

Office: 10 City: Miami Region: Southern Manager: 106 Sales: 0

- Target should be Null. Do not use explicit Null for the target in your insert statement.
- Show that office 10 is inserted by writing (select \* from offices where office = 10)
- to revise the table to its original values
- Do (delete from offices where office = 10)
- 15) Write an insert statement to add Your Name as Empl\_Num 772. Use the date the insert is done for the hire date (sysdate). Sales is zero.
  - Other columns should remain NULL. Use explicit null to make the other fields to be null;
  - Now delete this row to make the salesreps table goes back to its original state
- 16) Use subquery to Delete all orders for employees 'Dan Roberts'.

To make the orders table back to its original state, drop the order table and recreate it with its original records

Recreate the orders table after doing the delete

- 17) Lower the price of the products by 10% if they are higher the average price *Recreate the products table after doing the update*
- 18) Set the quota of the salesreps to (average of the quota) + 1500 if they are hired in 2021. <u>Recreate the salesreps table after doing the update</u>
- 19) Increase customers credit limit by 25% for all customers that have 3 or more orders in which each order is more than \$122500.

Recreate the customers table after doing this update

20) Increase the credit limit of any customer who has any order that exceeds their credit limit. The new credit limit should be set to their maximum order amount plus \$1,000. This must be done in 1 SQL statement. Recreate the customers table after doing this update