Lab 6. Data Manipulation Language (DML)

Point Distribution:

Question Number	Points
1, 21	0.5 pt * 2
2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20	1.25pt * 18
17	1.5pt
BONUS	5pt
Total	25pt + 5pt

Submission:

- If you decide to skip the lab, make sure you submit the **check-off questions** (highlighted with green background) in the text box of the check-off assignment item for this Lab before **Wednesday, noon to Brightspace**.
- **All students are expected to submit your answers in a text document with the name <lastname>_<firstname>_lab6.sql or .txt by the due date to Gradescope.**
- Please include both your code and the results in the **.txt** or **.sql** documents for full credits. For detailed requirements, please refer to the "Lab and Homework Submission Guideline."

Objectives:

- Practice using Data Manipulation Language (INSERT, UPDATE, DELETE, MERGE)

Questions

DML	
1	Explicitly create a table named PERSON_OF_INTEREST that has the following columns: • name • company_name • telephone • email_address You may use VARCHAR2 as data type for all columns.

2	Display the name in first name (space) last name format (e.g., Lisa Simpson), phone number, email address, and company name of any person of interest. A person of interest is a customer contact person (include both commercial and residential customer), an employee of Eagle Electronic (from EMPLOYEE table), or a supplier contact person (from SUPPLIER table). If your data do not contain a company name, substitute with the phrase "none on record". Use "Eagle Electronic" as company name for the employees of Eagle Electronic.
3	Using a single statement, insert all persons of interest from the previous question into the PERSON_OF_INTEREST table.
4	Using a single statement, update all null email address in the PERSON_OF_INTEREST table to "none on record" instead. After performing this update, query the table to confirm the change.
5	Using a single statement, remove all residential customers (company name is "none on record") from the PERSON_OF_INTEREST table. Query the table to confirm the change.
6	Using a single statement, truncate the PERSON_OF_INTEREST table. Query the table to confirm the change. NOTE: do not drop the table.
7	Using a single statement, create a "copy" of the current CUSTOMER table with all data contained therein. Name this table: COPY_CUSTOMER
8	Insert a new customer into the COPY_CUSTOMER table with the following attributes: • customer ID: Z-12345 • company name: Quick Stop • contact first name: Randal • contact last name: Graves • customer title: Mr. • city: Leonardo • state: New Jersey After inserting the entry, query the above customer to confirm the new data.
9	Using a single statement, update the postal code for customer "Z-12345" to be: 07737

10	Using a single statement, remove all customers from the COPY_CUSTOMER table who reside in Ohio. After performing this update, query the table to confirm the change.
11	Remove the customer "Z-12345" from the COPY_CUSTOMER table. Query the customer to confirm its removal.

12	Using a single statement, update the city and state of all customers in the COPY_CUSTOMER table to Leonardo, New Jersey. After performing this update, query the table to confirm the changes.
13	Create 3 tables named "EMPLOYEE_BOTTOM_25", "EMPLOYEE_TOP_10", "EMPLOYEE_OTHERS" with each table containing the following columns: • Employee_id • Employee_name • Job_title • Salary Make certain the datatype for the new columns match with corresponding columns in EMPLOYEE table.
14	The 3 tables created for employees should contain the following information: • EMPLOYEE_BOTTOM_25: employees who are making below 25% of the average salary • EMPLOYEE_TOP_10: employees that are in the top 10% of the salary range • EMPLOYEE_OTHERS: employees who are neither below 25% of the average salary or in the top 10% salary range In one command, use a conditional insert and the information from Employee table, populate the 3 new tables you created in the previous question. Query the tables to confirm your insertion.
15	Using delete statements, remove all data from the three tables you populated in Q14. Query the tables to confirm all data has been removed. NOTE: do not drop the tables.
16	In addition to the 3 tables above, you wish to add another table "EMPLOYEE_TOP_2", that will also list employees that make top 2%. Create "EMPLOYEE_TOP_2" with the following columns: • Employee_id • Employee_name • Job_title • Salary
17	Your top 10% table should include the top 2% employees as well. In other words, there will be some overlapping records between the two tables. To populate all 4 tables in one command, you will need to use conditional insert. Explain what happens if you use

	INSERT FIRST and INSERT ALL (one of them will not achieve the desired result – explain why not?). Populate the 4 tables with the query that would work. Query the tables to confirm your insertion.
18	Every employee in the "EMPLOYEE_TOP_2" table just received a 20% raise on their salaries. Update your EMPLOYEE_TOP_2 table to reflect this change. Query the table to confirm the change.
19	Insert the following employee into the "EMPLOYEE_TOP_2" table: • Employee_id: 101 • Employee_name: Happy Owner • Job_title: Big Boss • Salary: 1,000,000
20	Using a merge command, update information in EMPLOYEE_TOP_10 table with the information in the EMPLOYEE_TOP_2 table. Query the EMPLOYEE_TOP_10 table to confirm the update.
21	Include the following statements in your code: DROP TABLE COPY_CUSTOMER CASCADE CONSTRAINTS; DROP TABLE PERSON_OF_INTEREST CASCADE CONSTRAINTS; DROP TABLE EMPLOYEE_TOP_10 CASCADE CONSTRAINTS; DROP TABLE EMPLOYEE_TOP_2 CASCADE CONSTRAINTS; DROP TABLE EMPLOYEE_BOTTOM_25 CASCADE CONSTRAINTS; DROP TABLE EMPLOYEE_OTHERS CASCADE CONSTRAINTS;
	BONUS
	Delete the suppliers from the SUPPLIER table whom no order was placed in the past year (assume past year starts 365 days before the last order that was placed).