

BTD310- Lab 5

Please work in **groups** to complete this lab. This lab is worth 2% of the total course grade and will be evaluated through your written submission, as well as the lab demo. During the lab demo, group members are randomly selected to present the answers to each of the lab questions. Group members not present during the lab demo will lose the demo mark.

Please submit the following files through Blackboard.

Only one person must submit for the team.

- **Lab5.sql** must include a script including all the SQL commands for the following. Please write them in the specified order.
- **Lab5.txt** must be the output of the above script. Use the save button on top of the script results.

A. Create a new SQL worksheet in SQL Developer, save as **Lab5.sql**, and write SQL statements to do the following. DO NOT USE SUBQUERIES UNLESS SPECIFIED.

- 1- Make a copy of the DEPARTMENTS table and name it DEP_CPY.

```
CREATE TABLE DEP_CPY
AS SELECT * FROM DEPARTMENTS
```

- 2- Insert the following department information into DEP_CPY. Do NOT list the column names in your INSERT statement:

```
INSERT INTO DEP_CPY
VALUES (200, 'Programming', 201, NULL);
```

DEPARTMENT_ID	DEPARTMENT_NAME	MANAGER_ID	LOCATION_ID
200	Programming	201	

- 3- Insert the following department information into DEP_CPY. List the column names in your INSERT statement:

```
INSERT INTO DEP_CPY (DEPARTMENT_ID, DEPARTMENT_NAME, MANAGER_ID,
LOCATION_ID)
VALUES (210, 'Web design', NULL, 1700);
```

DEPARTMENT_ID	DEPARTMENT_NAME	MANAGER_ID	LOCATION_ID
210	Web design		1700

- 4- Write a query that shows the user's name as well as the time of the database server (using 12 hour clock), and the time in the session time zone (using 24 hour clock). For example

```
SELECT USER AS "USER NAME", TO_CHAR(SYSDATE, 'HH:MI') AS "SERVER TIME",  
TO_CHAR(CURRENT_DATE, 'HH24:MI') AS "SESSION TIME"  
FROM DUAL;
```

USER NAME	SERVER TIME	SESSION TIME
BTD310_163A45	06:44	18:44

- 5- In DEP_CPY, change the ID of the manager of the Shipping department to 103.

```
UPDATE DEP_CPY  
SET MANAGER_ID = 103  
WHERE DEPARTMENT_NAME = 'Shipping';
```

- 6- In DEP_CPY, change the manager and location of the Accounting department to those of the Sales department. Look up the values using subqueries.

```
UPDATE DEP_CPY  
SET MANAGER_ID = (SELECT MANAGER_ID FROM DEPARTMENTS WHERE  
DEPARTMENT_NAME = 'Sales'),  
LOCATION_ID = (SELECT LOCATION_ID FROM DEPARTMENTS WHERE  
DEPARTMENT_NAME = 'Sales')  
WHERE DEPARTMENT_NAME = 'Accounting' ;  
  
SELECT * FROM DEP_CPY;
```

- 7- Commit the changes you made.

```
COMMIT;
```

- 8- In DEP_CPY, delete the administration department. Use a SELECT statement to check the contents of the table and confirm the delete.

```
DELETE FROM DEP_CPY  
WHERE DEPARTMENT_NAME = 'Administration';  
  
SELECT * FROM DEP_CPY;
```

9- Use rollback to undo uncommitted transactions. Which one(s) are undone and why?

ROLLBACK; brings back the administration department because we did not commit any changes.

10- Redo question 8.

```
DELETE FROM DEP_CPY  
WHERE DEPARTMENT_NAME = 'Administration';
```

```
SELECT * FROM DEP_CPY;
```

11- Create a table named MyTable with the following three columns. Name all constraints.

- M_ID: an integer (1 to 999), as primary key, check that the number is in the correct range
- M_DATE: a mandatory date field with the default value as the system date
- M_SUBJECT: a variable length character with length up to 100, that must be unique

```
CREATE TABLE MyTable  
  
    ( M_ID  INTEGER CHECK(M_ID >=1 AND M_ID <= 999) PRIMARY KEY,  
  
      M_DATE DATE NOT NULL,  
  
      M_SUBJECT VARCHAR(100) UNIQUE);
```

12- Use rollback to undo uncommitted transactions. Which one(s) are undone and why?

ROLLBACK; nothing rolls back because created table is DDL, as it will automatically save after execute

13- Add a column named M_CODE which is always a 3-letter string (fixed length) with the default value of ABC.

```
ALTER TABLE MyTable  
ADD M_CODE CHAR(3);
```

```
INSERT INTO MyTable(M_CODE)  
VALUES('ABC');
```

14- Use DESCRIBE to check if the column is added.

DESCRIBE MyTable;

B. Add a comment before each answer to specify the question number. For example,

-- Question 3

C. Use SQL Developer to format your script.

D. Clear the script output. Then run your script (F5). Save the output as **Lab5.txt**.

E. Add this declaration on the top of your Lab5.txt file.

We, **Mahnoor, khai, hao -(mention your names)**, declare that the attached assignment is our own work in accordance with the Seneca Academic Policy. No part of this assignment has been copied manually or electronically from any other source (including web sites) **or distributed to other students.**

F. Also, on top of Lab5.txt, specify what each member has done towards the completion of this work:

Name	Task(s)
1-	
2-	
3-	