EXERCISE 2: DML

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Slot: L43+L44

Class Number: CH2021221000708

Date: 11/08/2021 **Due Date for Submission: 15/08/2021**

DBMS LAB ASSIGNMENT 2 MEHER SHRISHTI NIGAM 20BRS1193

Logging into user:

```
Enter user-name: c##meher1193
Enter password:
Last Successful login time: Wed Aug 18 2021 23:49:59 +05:30

Connected to:
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0
```

1. Create the following tables:
    a. DEPARTMENT (DEPT_ID, DEPT_NAME).
    b. PROJECT (PROJECT_ID, PROJECT_NAME, DID).
    c. EMPLOYEE(EMP_ID, NAME, GENDER, DID, PID, DOJ).

Creating tables with required fields using command –

CREATE TABLE table_name (field_1 datatype(n), field_2 datatype(n) ……) ;

```
SQL> CREATE TABLE DEPARTMENT_20BRS1193 (DEPT_ID VARCHAR2(10), DEPT_NAME VARCHAR2(10));

Table created.
```

```
SQL> CREATE TABLE PROJECT_20BRS1193 (PROJECT_ID VARCHAR2(10), PROJECT_NAME VARCHAR2(15), DID NUMBER(2,0));

Table created.
```

```
SQL> CREATE TABLE EMPLOYEE_20BRS1193 (EMP_ID VARCHAR2(10), NAME VARCHAR2(10), GENDER VARCHAR2(10), DID NUMBER(5,0), PID NUMBER(4,0), DOJ VARCHAR2(11));

Table created.
```

2. Insert 5 departments into DEPARTMENT table.
3. Insert 5 projects into PROJECT table.
4. Insert 5 Employees into EMPLOYEE table.

Inserting tables can be done by a few methods –

Inserting single entries –

INSERT INTO TABLE_1 (COL_1, COL_2, COL_3) VALUES ('abc', 12.3, 'dfe');

or

INSERT INTO TABLE_1 VALUES ('abc', 12.3, 'dfe');

Inserting multiple entries –

INSERT ALL

INTO TABLE_1 (COL_1, COL_2, COL_3) VALUES ('abc', 12.3, 'dfe')

INTO TABLE_1 (COL_1, COL_2, COL_3) VALUES ('abc', 12.3, 'dfe')

INTO TABLE_1 (COL_1, COL_2, COL_3) VALUES ('abc', 12.3, 'dfe')

SELECT * FROM DUAL;

or

INSERT ALL

INTO TABLE_1 VALUES ('abc', 12.3, 'dfe')

INTO TABLE_1 VALUES ('abc', 12.3, 'dfe')

INTO TABLE_1 VALUES ('abc', 12.3, 'dfe')

SELECT * FROM DUAL;

```
SQL> INSERT INTO DEPARTMENT_20BRS1193 (DEPT_ID, DEPT_NAME) VALUES('1', 'Core');

1 row created.

SQL> INSERT INTO DEPARTMENT_20BRS1193 VALUES ('2', 'Analyst');

1 row created.

SQL> INSERT ALL
  2  INTO DEPARTMENT_20BRS1193 (DEPT_ID, DEPT_NAME) VALUES ('3', 'Banker')
  3  INTO DEPARTMENT_20BRS1193 (DEPT_ID, DEPT_NAME) VALUES ('4', 'Engineer')
  4  INTO DEPARTMENT_20BRS1193 (DEPT_ID, DEPT_NAME) VALUES ('5', 'HR')
  5  SELECT * FROM DUAL;

3 rows created.
```

```
SQL> SELECT * from DEPARTMENT_20BRS1193;

DEPT_ID    DEPT_NAME
---------- ----------
1          Core
2          Analyst
3          Banker
4          Engineer
5          HR
```

```
SQL> INSERT ALL
  2  INTO PROJECT_20BRS1193 VALUES ('1', 'Operations', 1)
  3  INTO PROJECT_20BRS1193 VALUES ('2', 'Analysing', 2)
  4  INTO PROJECT_20BRS1193 VALUES ('3', 'Banking', 3)
  5   INTO PROJECT_20BRS1193 VALUES ('4', 'Engnring', 4)
  6   INTO PROJECT_20BRS1193 VALUES ('5', 'Hiring', 5)
  7  SELECT * FROM DUAL;

5 rows created.
```

```
SQL> SELECT * from PROJECT_20BRS1193;

PROJECT_ID PROJECT_NAME           DID
---------- -------------- ----------
1          Operations              1
2          Analysing               2
3          Banking                 3
4          Engnring                4
5          Hiring                  5
```

```
SQL> INSERT ALL
  2  INTO EMPLOYEE_20BRS1193 VALUES ('1001', 'Kapur', 'Male', 1, 1, '10-7-2007')
  3  INTO EMPLOYEE_20BRS1193 VALUES ('1002', 'Sethi', 'Female', 1, 1, '10-2-2005')
  4  INTO EMPLOYEE_20BRS1193 VALUES ('2001', 'Sood', 'Male', 1, 2, '23-7-2014')
  5  INTO EMPLOYEE_20BRS1193 VALUES ('3001', 'Bhagat', 'Female', 2, 2, '28-7-20012')
  6  INTO EMPLOYEE_20BRS1193 VALUES ('3002', 'Kumar', 'Male', 2, 2, '9-7-2008')
  7  INTO EMPLOYEE_20BRS1193 VALUES ('2002', 'Nagar', 'Female', 1, 3, '1-7-2006')
  8  INTO EMPLOYEE_20BRS1193 VALUES ('3003', 'Dutta', 'Male', 3, 3, '17-7-2007')
  9  INTO EMPLOYEE_20BRS1193 VALUES ('2003', 'Sinha',  'Female', 1, 4, '3-7-2008')
 10  INTO EMPLOYEE_20BRS1193 VALUES ('3004', 'Karan','Male', 4, 4, '7-7-2011')
 11  INTO EMPLOYEE_20BRS1193 VALUES ('4001', 'Malhotra', 'Female', 5, 5, '31-1-2009')
 12  SELECT * FROM DUAL;

10 rows created.
```

```
SQL> SELECT * from EMPLOYEE_20BRS1193;

EMP_ID     NAME       GENDER             DID        PID DOJ
---------- ---------- ---------- ---------- ---------- -----------
1001       Kapur      Male                1          1 10-7-2007
1002       Sethi      Female              1          1 10-2-2005
2001       Sood       Male                1          2 23-7-2014
3001       Bhagat     Female              2          2 28-7-20012
3002       Kumar      Male                2          2 9-7-2008
2002       Nagar      Female              1          3 1-7-2006
3003       Dutta      Male                3          3 17-7-2007
2003       Sinha      Female              1          4 3-7-2008
3004       Karan      Male                4          4 7-7-2011
4001       Malhotra   Female              5          5 31-1-2009

10 rows selected.
```

5. Update the employee PID from 1 to 2 for the employee whose employee id is ‘1001’.
6. Update the employee NAME from ‘KUMAR’ to ‘KUMAAR’ for the employee whose name is ‘KUMAR’.

Updating data in tables is done using the commands –

UPDATE TABLE_1 SET COL_1 = 'xyz' WHERE COL_N = 'abc';

or

UPDATE TABLE_1 SET COL_1 = 'xyz';

```
SQL> UPDATE EMPLOYEE_20BRS1193 SET PID = 2 WHERE EMP_ID = '1001';

1 row updated.

SQL> SELECT * from EMPLOYEE_20BRS1193;

EMP_ID     NAME       GENDER             DID         PID DOJ
---------- ---------- ---------- ---------- ---------- -----------
1001       Kapur      Male                 1          2 10-7-2007
1002       Sethi      Female               1          1 10-2-2005
2001       Sood       Male                 1          2 23-7-2014
3001       Bhagat     Female               2          2 28-7-20012
3002       Kumar      Male                 2          2 9-7-2008
2002       Nagar      Female               1          3 1-7-2006
3003       Dutta      Male                 3          3 17-7-2007
2003       Sinha      Female               1          4 3-7-2008
3004       Karan      Male                 4          4 7-7-2011
4001       Malhotra   Female               5          5 31-1-2009

10 rows selected.
```

```
SQL> UPDATE EMPLOYEE_20BRS1193 SET NAME = 'Kumaar' WHERE NAME = 'Kumar';

1 row updated.

SQL> SELECT * from EMPLOYEE_20BRS1193;

EMP_ID     NAME       GENDER             DID         PID DOJ
---------- ---------- ---------- ---------- ---------- -----------
1001       Kapur      Male                 1          2 10-7-2007
1002       Sethi      Female               1          1 10-2-2005
2001       Sood       Male                 1          2 23-7-2014
3001       Bhagat     Female               2          2 28-7-20012
3002       Kumaar     Male                 2          2 9-7-2008
2002       Nagar      Female               1          3 1-7-2006
3003       Dutta      Male                 3          3 17-7-2007
2003       Sinha      Female               1          4 3-7-2008
3004       Karan      Male                 4          4 7-7-2011
4001       Malhotra   Female               5          5 31-1-2009

10 rows selected.
```

7. Delete the list of female employees belonging to project 2.
8. Delete the list of male employees belonging to project 1.
9. Delete the projects that are under department 1.

Deleting data from tables –

DELETE FROM TABLE_1 WHERE COL_1 = 'abc';

```
SQL> DELETE FROM EMPLOYEE_20BRS1193 WHERE GENDER = 'Female' AND PID = 2;

1 row deleted.

SQL>
SQL> SELECT * from EMPLOYEE_20BRS1193;

EMP_ID     NAME       GENDER             DID        PID DOJ
---------- ---------- ---------- ---------- ---------- -----------
1001       Kapur      Male                 1          2 10-7-2007
1002       Sethi      Female               1          1 10-2-2005
2001       Sood       Male                 1          2 23-7-2014
3002       Kumaar     Male                 2          2 9-7-2008
2002       Nagar      Female               1          3 1-7-2006
3003       Dutta      Male                 3          3 17-7-2007
2003       Sinha      Female               1          4 3-7-2008
3004       Karan      Male                 4          4 7-7-2011
4001       Malhotra   Female               5          5 31-1-2009

9 rows selected.
```

```
SQL> DELETE FROM EMPLOYEE_20BRS1193 WHERE GENDER = 'Male' AND PID = 1;

0 rows deleted.

SQL>
SQL> SELECT * from EMPLOYEE_20BRS1193;

EMP_ID     NAME       GENDER             DID        PID DOJ
---------- ---------- ---------- ---------- ---------- -----------
1001       Kapur      Male                 1          2 10-7-2007
1002       Sethi      Female               1          1 10-2-2005
2001       Sood       Male                 1          2 23-7-2014
3002       Kumaar     Male                 2          2 9-7-2008
2002       Nagar      Female               1          3 1-7-2006
3003       Dutta      Male                 3          3 17-7-2007
2003       Sinha      Female               1          4 3-7-2008
3004       Karan      Male                 4          4 7-7-2011
4001       Malhotra   Female               5          5 31-1-2009

9 rows selected.
```

```
SQL> DELETE FROM PROJECT_20BRS1193 WHERE DID = 1;

1 row deleted.

SQL>
SQL> SELECT * from PROJECT_20BRS1193;

PROJECT_ID PROJECT_NAME           DID
---------- -------------- ----------
2          Analysing               2
3          Banking                 3
4          Engnring                4
5          Hiring                  5
```

10. Drop all the three tables.

```
SQL> DROP TABLE DEPARTMENT_20BRS1193;

Table dropped.

SQL> DROP TABLE PROJECT_20BRS1193;

Table dropped.

SQL> DROP TABLE EMPLOYEE_20BRS1193;

Table dropped.
```

All the code used in this exercise –

```
CREATE TABLE DEPARTMENT_1193 (DEPT_ID VARCHAR2(10), DEPT_NAME VARCHAR2(10));

CREATE TABLE DEPARTMENT_20BRS1193 (DEPT_ID VARCHAR2(10), DEPT_NAME VARCHAR2(10));

CREATE TABLE EMPLOYEE_20BRS1193 (EMP_ID VARCHAR2(10), NAME VARCHAR2(10), GENDER VARCHAR2(10), DID NUMBER(5,0), PID NUMBER(4,0), DOJ VARCHAR2(11));

INSERT INTO DEPARTMENT_20BRS1193 (DEPT_ID, DEPT_NAME) VALUES('1', 'Core');

INSERT INTO DEPARTMENT_20BRS1193 VALUES ('2', 'Analyst');

INSERT ALL
        INTO DEPARTMENT_20BRS1193 (DEPT_ID, DEPT_NAME) VALUES ('3', 'Banker')
        INTO DEPARTMENT_20BRS1193 (DEPT_ID, DEPT_NAME) VALUES ('4', 'Engineer')
        INTO DEPARTMENT_20BRS1193 (DEPT_ID, DEPT_NAME) VALUES ('5', 'HR')
SELECT * FROM DUAL;

SELECT * from DEPARTMENT_20BRS1193;
```

```
INSERT ALL
        INTO PROJECT_20BRS1193 VALUES ('1', 'Operations', 1)
        INTO PROJECT_20BRS1193 VALUES ('2', 'Analysing', 2)
        INTO PROJECT_20BRS1193 VALUES ('3', 'Banking', 3)
        INTO PROJECT_20BRS1193 VALUES ('4', 'Engnring', 4)
        INTO PROJECT_20BRS1193 VALUES ('5', 'Hiring', 5)
SELECT * FROM DUAL;
SELECT * from PROJECT_20BRS1193;
INSERT ALL
        INTO EMPLOYEE_20BRS1193 VALUES ('1001', 'Kapur', 'Male', 1, 1, '10-7-2007')
        INTO EMPLOYEE_20BRS1193 VALUES ('1002', 'Sethi', 'Female', 1, 1, '10-2-2005')
        INTO EMPLOYEE_20BRS1193 VALUES ('2001', 'Sood', 'Male', 1, 2, '23-7-2014')
        INTO EMPLOYEE_20BRS1193 VALUES ('3001', 'Bhagat', 'Female', 2, 2, '28-7-20012')
        INTO EMPLOYEE_20BRS1193 VALUES ('3002', 'Kumar', 'Male', 2, 2, '9-7-2008')
        INTO EMPLOYEE_20BRS1193 VALUES ('2002', 'Nagar', 'Female', 1, 3, '1-7-2006')
        INTO EMPLOYEE_20BRS1193 VALUES ('3003', 'Dutta', 'Male', 3, 3, '17-7-2007')
        INTO EMPLOYEE_20BRS1193 VALUES ('2003', 'Sinha',  'Female', 1, 4, '3-7-2008')
        INTO EMPLOYEE_20BRS1193 VALUES ('3004', 'Karan','Male', 4, 4, '7-7-2011')
        INTO EMPLOYEE_20BRS1193 VALUES ('4001', 'Malhotra', 'Female', 5, 5, '31-1-2009')
SELECT * FROM DUAL;
SELECT * from EMPLOYEE_20BRS1193;
UPDATE EMPLOYEE_20BRS1193 SET PID = 2 WHERE EMP_ID = '1001';
SELECT * from EMPLOYEE_20BRS1193;
UPDATE EMPLOYEE_20BRS1193 SET NAME = 'Kumaar' WHERE NAME = 'Kumar';
SELECT * from EMPLOYEE_20BRS1193;
DELETE FROM EMPLOYEE_20BRS1193 WHERE GENDER = 'Female' AND PID = 2;
SELECT * from EMPLOYEE_20BRS1193;
DELETE FROM EMPLOYEE_20BRS1193 WHERE GENDER = 'Male' AND PID = 1;
SELECT * from EMPLOYEE_20BRS1193;
DELETE FROM PROJECT_20BRS1193 WHERE DID = 1;
SELECT * from PROJECT_20BRS1193;
DROP TABLE DEPARTMENT_20BRS1193;
DROP TABLE PROJECT_20BRS1193;
DROP TABLE EMPLOYEE_20BRS1193;
```