DBMS Lab - 2

Academic year: 2020-2021   **Semester:** Long Sem

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Lab Exercise -2

1. Alter table department to modify the size of DepartmentPhoneNum.

```
ALTER TABLE DEPARTMENT MODIFY DepartmentPh_NUMBER NUMBER(11);
```

```
SQL> ALTER TABLE DEPARTMENT MODIFY DepartmentPh_NUMBER NUMBER(11);

Table altered.
```

2. Modify the field name DepartmentPhoneNum of departments table to PhNo.

```
ALTER TABLE DEPARTMENT RENAME COLUMN DepartmentPh_NUMBER TO PhNo
```

```
SQL> ALTER TABLE DEPARTMENT RENAME COLUMN DepartmentPh_NUMBER TO PhNo
  2  ;

Table altered.
```

3. Rename Table Department as DEPT.

```
RENAME DEPARTMENT TO DEPT;
```

```
SQL> RENAME DEPARTMENT TO DEPT;

Table renamed.
```

4. Alter Table department removes column PhNo.

```
ALTER TABLE DEPARTMENT DROP COLUMN PhNO;
```

```
SQL> ALTER TABLE DEPT DROP COLUMN PhNo;

Table altered.
```

5. Create a table COPYOFDEPT as a copy of the table DEPT.

```
CREATE TABLE COPYOF_DEPT AS

  2  SELECT *

  3  FROM DEPARTMENT;
```

```
SQL> CREATE TABLE COPYOF_DEPT AS
  2      SELECT *
  3      FROM DEPT;

Table created.
```

6. Delete all the rows from COPYOF DEPT table.

```
DELETE FROM COPYOF_DEPT;
```

```
SQL> DELETE FROM COPYOF_DEPT;

5 rows deleted.
```

7. Remove COPYOF DEPT table.

```
DROP TABLE COPYOF_DEPT;
```

```
SQL> DROP TABLE COPYOF_DEPT;

Table dropped.
```

8. Add Foreign Keys using the Alter Table .

```
ALTER TABLE EMPLOYEE ADD PRIMARY key(SSN_NUMBER);
ALTER TABLE DEPT ADD PRIMARY key(DEPT_NO);

Alter table employee add foreign key
(SUPERVISOR_SSN) references employee(SSN_NUMBER);
```

```
SQL> ALTER TABLE DEPT ADD PRIMARY key(DEPT_NO);

Table altered.
```

```
SQL> alter table employee add foreign key
  2  (SUPERVISOR_SSN) references employee(SSN_NUMBER);

Table altered.
```

9. Drop Foreign key defined on SuperSSN and add it using Alter table command.

```
Alter table DEPT add constraint fk foreign key(MANAGERSSN) references employee
(SSN_NUMBER);

ALTER TABLE DEPT DROP constraint fk;
```

```
SQL> Alter table DEPT add constraint fk foreign key(MANAGERSSN) references employee (SSN_NUMBER);
Table altered.
```

```
SQL> ALTER TABLE DEPT DROP constraint fk;

Table altered.
```

10. Find the employee names having a salary greater than Rs.25000.

```
SELECT FIRST_NAME, LAST_NAME
    FROM EMPLOYEE
    WHERE SALARY>25000;
```

```
SQL> SELECT FIRST_NAME, LAST_NAME
  2      FROM EMPLOYEE
  3      WHERE SALARY>25000;

FIRST_NAME      LAST_NAME
--------------- ---------------
Doug            Gilbert
Joyce           PAN
Frankin         Wong
Jennifer        Wallace
Johny           Smith
Ramesh          Narayan
James           Borg
```

11. Find the employee names whose salary lies in the range between 30000 and 70000.

```
SELECT FIRST_NAME, LAST_NAME
    FROM EMPLOYEE
    WHERE SALARY BETWEEN 30000 AND 70000;
```

```
SQL> SELECT FIRST_NAME, LAST_NAME
  2      FROM EMPLOYEE
  3      WHERE SALARY BETWEEN 30000 AND 70000;

FIRST_NAME      LAST_NAME
--------------- ---------------
Joyce           PAN
Frankin         Wong
Jennifer        Wallace
Johny           Smith
Ramesh          Narayan
James           Borg
```

12. Find the employees who have no supervisor.

```
SELECT FIRST_NAME, LAST_NAME
  FROM EMPLOYEE
  WHERE SUPERVISOR_SSN IS NULL;
```

```
SQL> SELECT FIRST_NAME, LAST_NAME
  2      FROM EMPLOYEE
  3      WHERE SUPERVISOR_SSN IS NULL;

FIRST_NAME       LAST_NAME
--------------   --------------
Doug             Gilbert
Joyce            PAN
```

13. Display the bdate of all employees in the format 'DDthMonthYYYY'.

```
SELECT FIRST_NAME, LAST_NAME, BIRTHDAY
  FROM EMPLOYEE;
```

```
SQL> SELECT FIRST_NAME, LAST_NAME, BIRTHDAY
  2      FROM EMPLOYEE;

FIRST_NAME       LAST_NAME        BIRTHDAY
--------------   --------------   ---------
Doug             Gilbert          09-JUN-60
Joyce            PAN              07-FEB-78
Frankin          Wong             08-DEC-45
Jennifer         Wallace          20-JUN-31
Johny            Smith            09-JAN-55
Ramesh           Narayan          15-SEP-52
Joyce            English          31-JUL-62
James            Borg             10-NOV-27
Alicia           Zelaya           19-JUL-58
Ahmad            Jabbar           29-MAR-59

10 rows selected.
```

14. Display the employee names whose bdate is on or before 1978.

```
SELECT FIRST_NAME, LAST_NAME, BIRTHDAY

    FROM EMPLOYEE

    WHERE BIRTHDAY<'01-JAN-78';
```

```
SQL> SELECT FIRST_NAME, LAST_NAME, BIRTHDAY
  2      FROM EMPLOYEE
  3      WHERE BIRTHDAY<'01-JAN-78';

FIRST_NAME       LAST_NAME        BIRTHDAY
---------------  ---------------  ---------
Doug             Gilbert          09-JUN-60
Johny            Smith            09-JAN-55
Ramesh           Narayan          15-SEP-52
Joyce            English          31-JUL-62
Alicia           Zelaya           19-JUL-58
Ahmad            Jabbar           29-MAR-59
```

15. Display the employee names having 'salt lake' in their address.

```
SELECT FIRST_NAME, LAST_NAME, ADDRESS

    FROM EMPLOYEE

    WHERE ADDRESS LIKE '%salt lake%';
```

```
SQL> SELECT FIRST_NAME, LAST_NAME, ADDRESS
  2      FROM EMPLOYEE
  3      WHERE ADDRESS LIKE '%Salt Lake%';

FIRST_NAME       LAST_NAME
---------------  ---------------
ADDRESS
----------------------------------------------------
Doug             Gilbert
11 S 59 E, Salt Lake City, UT

Joyce            PAN
35 S 18 E, Salt Lake City, UT
```

16. Display the department name that starts with 'M'.

```
SELECT DEPT_NAME
    FROM dept
    WHERE DEPT_NAME LIKE 'M%';
```

```
SQL> SELECT DEPT_NAME
  2      FROM dept
  3      WHERE DEPT_NAME LIKE 'M%';

DEPT_NAME
---------------
Manufacture
```

17. Display the department names' that ends with 'E'.

```sql
SELECT DEPT_NAME
    FROM DEPT
    WHERE DEPT_NAME LIKE '%e';
```

```
SQL> SELECT DEPT_NAME
  2      FROM DEPT
  3      WHERE DEPT_NAME LIKE '%e';

DEPT_NAME
--------------
Manufacture
Finance
```

18. Display the names of all the employees having supervisor with any of the following

SSN 554433221, 333445555.

```sql
SELECT FIRST_NAME, SUPERVISOR_SSN
    FROM EMPLOYEE
    WHERE SUPERVISOR_SSN IN (554433221, 333445555);
```

```
SQL> SELECT FIRST_NAME, SUPERVISOR_SSN
  2      FROM EMPLOYEE
  3      WHERE SUPERVISOR_SSN IN (554433221, 333445555);

FIRST_NAME      SUPERVISO
--------------- ---------
Frankin         554433221
Jennifer        554433221
Johny           333445555
Ramesh          333445555
Joyce           333445555
```

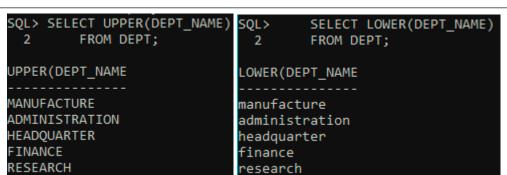19. Display all the department names in upper case and lower case.

```sql
SELECT UPPER(DEPT_NAME)
    FROM DEPT;


    SELECT LOWER(DEPT_NAME)
    FROM DEPT;
```

```
SQL> SELECT UPPER(DEPT_NAME)  SQL>    SELECT LOWER(DEPT_NAME)
  2      FROM DEPT;            2       FROM DEPT;

UPPER(DEPT_NAME               LOWER(DEPT_NAME
--------------                --------------
MANUFACTURE                   manufacture
ADMINISTRATION                administration
HEADQUARTER                   headquarter
FINANCE                       finance
RESEARCH                      research
```

20. Display the first four characters and last four of the department names using substring

function.

```
SELECT DEPT_NAME, SUBSTR(DEPT_NAME, 1, 4), SUBSTR(DEPT_NAME,LENGTH(DEPT_NAME)-3, 4 )

   FROM DEPT;
```

```
SQL> SELECT DEPT_NAME, SUBSTR(DEPT_NAME, 1, 4), SUBSTR( DEPT_NAME, LENGTH(DEPT_NAME)-3, 4 )
  2      FROM DEPT;

DEPT_NAME       SUBSTR(DEPT_NAME SUBSTR(DEPT_NAME
--------------  --------------   --------------
Manufacture     Manu             ture
Administration  Admi             tion
Headquarter     Head             rter
Finance         Fina             ance
Research        Rese             arch
```