

DBMS Lab - 1**Academic year:** 2020-2021**Semester:** Long Sem**Faculty Name:** Ms Beebi Naseeba mam**Date:** 18 / 6 / 2022**Student name:** Taran Mamidala**Reg. no.:** 19BCE7346**Lab Exercises**

1. Create Table Employee with attributes firstName, LastName, SSN , Address, Salary, Birthday, Sex, SupervisorSSN, DepartmentNo.

```
CREATE TABLE EMPLOYEE (  
    FIRST_NAME VARCHAR(15),  
    LAST_NAME VARCHAR(15),  
    SSN_NUMBER CHAR(9),  
    ADDRESS VARCHAR2(50),  
    SALARY NUMBER(7),  
    BIRTHDAY DATE,  
    SEX CHAR(1),  
    SUPERVISOR_SSN CHAR(9),  
    DEPARTMENT_NUMBER NUMBER(5));
```

Table created.

2. Create a Table Department with attributes DNo,DNAME,ManagerSSN,MgrStartdate.

```
CREATE TABLE DEPARTMENT (  
    DEPT_NO NUMBER(5),  
    DEPT_NAME VARCHAR2(15),  
    MANAGERSSN CHAR(9),  
    MANAGESTARTDATE DATE);  
  
CREATE TABLE PROJECT(  
    PROJECTNAME VARCHAR2(15),  
    PROJECTNUMBER NUMBER(5),  
    PROJECTLOCATION VARCHAR2(15),  
    DEPT_NO NUMBER(5));
```

Table created.

3. Insert the data given above in both employee, department and project tables.

```
INSERT INTO EMPLOYEE VALUES('Ramesh','Narayan', 666884444,'975 Fire Oak, Humble, TX',
38000, 'M', '15-SEP-52', 333445555, 5);
INSERT INTO EMPLOYEE VALUES('Joyce','English', 453453453,'5631 Rice, Houston, TX', 25000,
'F', '31-JUL-62', 333445555, 5);
INSERT INTO EMPLOYEE VALUES('James','Borg', 888665555, '450 Stone, Houston, TX', 55000,
'M', '10-NOV-27', 543216789, 1);
INSERT INTO EMPLOYEE VALUES('Alicia', 'Zelaya', 999887777,'3321 Castle, Spring, TX',
25000, 'F', '19-JUL-58', 987654321, 4);
INSERT INTO EMPLOYEE VALUES('Ahmad', 'Jabbar', 987987987,'980 Dallas, Houston, TX',
25000, 'M', '29-MAR-59', 987654321, 4);
```

```
1 row created. 1 row created. 1 row created. 1 row created. 1 row created.
```

```
INSERT INTO DEPARTMENT VALUES( 1, 'Manufacture', 888665555, '19-JUN-71');
INSERT INTO DEPARTMENT VALUES( 2, 'Administration', 543216789, '04-JAN-99');
INSERT INTO DEPARTMENT VALUES( 3, 'Headquarter', 554433221, '22-SEP-55');
INSERT INTO DEPARTMENT VALUES( 4, 'Finance', 987654321, '01-JAN-85');
INSERT INTO DEPARTMENT VALUES( 5, 'Research', 333445555, '22-MAY-78');
```

```
1 row created. 1 row created. 1 row created. 1 row created. 1 row created.
```

```
INSERT INTO PROJECT VALUES('ProjectF', 1566, 'Salt Lake City', 3 );
INSERT INTO PROJECT VALUES('ProjectG', 1234, 'New York', 2 );
INSERT INTO PROJECT VALUES('ProjectH', 3467, 'Stafford', 4 );
INSERT INTO PROJECT VALUES('ProjectI', 4345, 'Chicago', 1 );
```

```
1 row created.  1 row created.  1 row created.  1 row created.
```

4. Display all the employees' information.

Object Type TABLE Object EMPLOYEE

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPLOYEE	FIRST_NAME	Varchar2	15	-	-	-	✓	-	-
	LAST_NAME	Varchar2	15	-	-	-	✓	-	-
	SSN_NUMBER	Char	9	-	-	-	✓	-	-
	ADDRESS	Varchar2	50	-	-	-	✓	-	-
	SALARY	Number	-	7	0	-	✓	-	-
	SEX	Char	1	-	-	-	✓	-	-
	BIRTHDAY	Date	7	-	-	-	✓	-	-
	SUPERVISOR_SSN	Char	9	-	-	-	✓	-	-
	DEPARTMENT_NUMBER	Number	-	5	0	-	✓	-	-

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```
SQL> SELECT * FROM EMPLOYEE;
```

FIRST_NAME	LAST_NAME	SSN_NUMBE	ADDRESS	SALARY S	BIRTHDAY
Doug	Gilbert	554433221	11 S 59 E, Salt Lake City, UT 3	80000	M 09-JUN-60
Joyce	PAN	543216789	35 S 18 E, Salt Lake City, UT 2	70000	F 07-FEB-78

5. Display Employee name along with his SSN and Supervisor SSN.

```
SELECT FIRST_NAME, LAST_NAME, SSN_NUMBER, SUPERVISOR_SSN FROM EMPLOYEE;
```

FIRST_NAME	LAST_NAME	SSN_NUMBE	SUPERVISOR_SSN
Doug	Gilbert	554433221	
Joyce	PAN	543216789	
Frankin	Wong	333445555	554433221
Jennifer	Wallace	987654321	554433221
Johnny	Smith	123456789	333445555
Ramesh	Narayan	666884444	333445555
Joyce	English	453453453	333445555
James	Borg	888665555	543216789
Alicia	Zelaya	999887777	987654321
Ahmad	Jabbar	987987987	987654321

10 rows selected.

6. Display the employee names whose bdate is '29-MAR-1959'.

```
SELECT FIRST_NAME, LAST_NAME, BIRTHDAY FROM EMPLOYEE WHERE BIRTHDAY='29-MAR-1959';
```

```
SQL> SELECT FIRST_NAME, LAST_NAME, BIRTHDAY FROM EMPLOYEE WHERE BIRTHDAY='29-MAR-1959';
```

FIRST_NAME	LAST_NAME	BIRTHDAY
Ahmad	Jabbar	29-MAR-59

7. Display salary of the employees without duplications.

```
SELECT DISTINCT SALARY, FIRST_NAME, LAST_NAME FROM EMPLOYEE;
```

SALARY	FIRST_NAME	LAST_NAME
70000	Joyce	PAN
25000	Alicia	Zelaya
25000	Joyce	English
55000	James	Borg
80000	Doug	Gilbert
30000	Johny	Smith
38000	Ramesh	Narayan
25000	Ahmad	Jabbar
40000	Frankin	Wong
43000	Jennifer	Wallace

10 rows selected.

8. Display the MgrSSN, MgrStartDate of the manager of 'Finance' department.

```
SELECT MANAGERSSN, MANAGESTARTDATE FROM DEPARTMENT WHERE DEPT_NAME='Finance';
```

```
SQL> SELECT MANAGERSSN, MANAGESTARTDATE FROM DEPARTMENT WHERE DEPT_NAME='Finance';

MANAGERSS  MANAGESTA
-----
987654321  01-JAN-85
```

9. Modify the department number of an employee having fname as 'Joyce' to 5

```
UPDATE EMPLOYEE SET DEPARTMENT_NUMBER=5 WHERE FIRST_NAME='Joyce';
```

```
SQL> UPDATE EMPLOYEE SET DEPARTMENT_NUMBER=5 WHERE FIRST_NAME='Joyce';

2 rows updated.
```

10. Alter Table department add column DepartmentPhoneNum of NUMBER data type

and insert values into this column only.

```
ALTER TABLE DEPARTMENT ADD DepartmentPh_NUMBER NUMBER(10);

UPDATE DEPARTMENT SET DepartmentPh_NUMBER=1234567890 WHERE DEPT_NO=1;

UPDATE DEPARTMENT SET DepartmentPh_NUMBER=1234567890 WHERE DEPT_NO=2;

UPDATE DEPARTMENT SET DepartmentPh_NUMBER=1234567890 WHERE DEPT_NO=3;
```

```
SQL> ALTER TABLE DEPARTMENT ADD DepartmentPh_NUMBER NUMBER(10);  
Table altered.  
SQL> UPDATE DEPARTMENT SET DepartmentPh_NUMBER=1234567890 WHERE DEPT_NO=1;  
1 row updated.
```

```
SQL> UPDATE DEPARTMENT SET DepartmentPh_NUMBER=1234567890 WHERE DEPT_NO=1;  
1 row updated.  
SQL> UPDATE DEPARTMENT SET DepartmentPh_NUMBER=1234567890 WHERE DEPT_NO=2;  
1 row updated.  
SQL> UPDATE DEPARTMENT SET DepartmentPh_NUMBER=1234567890 WHERE DEPT_NO=3;  
1 row updated.  
SQL> UPDATE DEPARTMENT SET DepartmentPh_NUMBER=1234567890 WHERE DEPT_NO=4;  
1 row updated.  
SQL> UPDATE DEPARTMENT SET DepartmentPh_NUMBER=1234567890 WHERE DEPT_NO=5;
```

11. 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.
```

12. 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.
```

13. Rename Table Department as DEPT.

```
RENAME DEPARTMENT TO DEPT;
```

```
SQL> RENAME DEPARTMENT TO DEPT;  
Table renamed.
```