**Contributed By Siddy**

**Creating all the required tables:**

CREATE TABLE EMPLOYEE (FIRST\_NAME VARCHAR(15),

MID\_NAME CHAR(2),

LAST\_NAME VARCHAR(15),

SSN\_NUMBER CHAR(9),

BIRTHDAY DATE,

ADDRESS VARCHAR2(50),

SEX CHAR(1),

SALARY NUMBER(7),

SUPERVISOR\_SSN CHAR(9),

DEPARTMENT\_NUMBER NUMBER(5));

CREATE TABLE DEPARTMENT (

DEPT\_NAME VARCHAR2(15),

DEPT\_NO NUMBER(5),

MANAGERSSN CHAR(9),

MANAGESTARTDATE DATE);

CREATE TABLE PROJECT(

PROJECTNAME VARCHAR2(15),

PROJECTNUMBER NUMBER(5),

PROJECTLOCATION VARCHAR2(15),

DEPT\_NO NUMBER(5));

**Exercise-I:**

**Inserting values in the EMPLOYEE tables:**

INSERT INTO EMPLOYEE VALUES('Doug', 'E', 'Gilbert', 554433221, '09-JUN-60', '11 S 59 E, Salt Lake City, UT', 'M', 80000, NULL , 3);

INSERT INTO EMPLOYEE VALUES('Joyce', NULL, 'PAN', 543216789, '07-FEB-78', '35 S 18 E, Salt Lake City, UT', 'F', 70000, NULL, 2);

INSERT INTO EMPLOYEE VALUES('Frankin', 'T', 'Wong', 333445555, '08-DEC-45', '638 Voss, Houston, TX', 'M', 40000, 554433221, 5);

INSERT INTO EMPLOYEE VALUES('Jennifer', 'S', 'Wallace', 987654321, '20-JUN-31', '291 Berry, Bellaire, TX', 'F', 43000, 554433221, 4);

INSERT INTO EMPLOYEE VALUES('Johny', 'B', 'Smith', 123456789, '09-JAN-55', '731 Fondren, Houston, TX', 'M', 30000, 333445555, 5);

INSERT INTO EMPLOYEE VALUES('Ramesh', 'K', 'Narayan', 666884444, '15-SEP-52', '975 Fire Oak, Humble, TX', 'M', 38000, 333445555, 5);

INSERT INTO EMPLOYEE VALUES('Joyce', 'A', 'English', 453453453, '31-JUL-62', '5631 Rice, Houston, TX', 'F', 25000, 333445555, 5);

INSERT INTO EMPLOYEE VALUES('James', 'E', 'Borg', 888665555, '10-NOV-27', '450 Stone, Houston, TX', 'M', 55000, 543216789, 1);

INSERT INTO EMPLOYEE VALUES('Alicia', 'J', 'Zelaya', 999887777, '19-JUL-58', '3321 Castle, Spring, TX', 'F', 25000, 987654321, 4);

INSERT INTO EMPLOYEE VALUES('Ahmad', 'V', 'Jabbar', 987987987, '29-MAR-59', '980 Dallas, Houston, TX', 'M', 25000, 987654321, 4);

**Inserting values in the DEPARTMENT tables:**

INSERT INTO DEPARTMENT VALUES('Manufacture', 1, 888665555, '19-JUN-71');

INSERT INTO DEPARTMENT VALUES('Administration', 2, 543216789, '04-JAN-99');

INSERT INTO DEPARTMENT VALUES('Headquarter', 3, 554433221, '22-SEP-55');

INSERT INTO DEPARTMENT VALUES('Finance', 4, 987654321, '01-JAN-85');

INSERT INTO DEPARTMENT VALUES('Research', 5, 333445555, '22-MAY-78');

**Inserting values in the PROJECT tables:**

INSERT INTO PROJECT VALUES('ProjectA', 3388, 'Houston', 1 );

INSERT INTO PROJECT VALUES('ProjectB', 1945, 'Salt Lake City', 3 );

INSERT INTO PROJECT VALUES('ProjectC', 6688, 'Houston', 5 );

INSERT INTO PROJECT VALUES('ProjectD', 2423, 'Bellaire', 4 );

INSERT INTO PROJECT VALUES('ProjectE', 7745, 'Sugarland', 5 );

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 );

INSERT INTO PROJECT VALUES('ProjectJ', 2212, 'San Francisco', 2 );

**Retrieve all the employees’ information for a particular department number**

SELECT \* FROM EMPLOYEE WHERE DEPARTMENT\_NUMBER=1;

**Get Employee name along with his SSN and Supervisor SSN.**

SELECT FIRST\_NAME, MID\_NAME, LAST\_NAME, SSN\_NUMBER, SUPERVISOR\_SSN FROM EMPLOYEE;

**Retrieve the employee names whose bdate is ’29-MAR-1959’.**

SELECT FIRST\_NAME, LAST\_NAME, BIRTHDAY FROM EMPLOYEE WHERE BIRTHDAY='29-MAR-1959';

**Get salaries of the employees without duplications.**

SELECT DISTINCT SALARY, FIRST\_NAME, LAST\_NAME FROM EMPLOYEE;

**Retrieve the MgrSSN, MgrStartDate of the manager of ‘Research’ department.**

SELECT MANAGERSSN, MANAGESTARTDATE FROM DEPARTMENT WHERE DEPARTMENT\_NAME='Research';

**Change the department number of an employee having fname as ‘Joyce’ to 3**

UPDATE EMPLOYEE SET DEPARTMENT\_NUMBER=3 WHERE FIRST\_NAME='Joyce';

**Alter Table department add column ContactNo of NUMBER data type and insert values into this column only.**

ALTER TABLE DEPARTMENT ADD CONTACT\_NUMBER NUMBER(10);

UPDATE DEPARTMENT SET CONTACT\_NUMBER=1234567890 WHERE DEPT\_NO=1;

UPDATE DEPARTMENT SET CONTACT\_NUMBER=1234567890 WHERE DEPT\_NO=2;

UPDATE DEPARTMENT SET CONTACT\_NUMBER=1234567890 WHERE DEPT\_NO=3;

UPDATE DEPARTMENT SET CONTACT\_NUMBER=1234567890 WHERE DEPT\_NO=4;

UPDATE DEPARTMENT SET CONTACT\_NUMBER=1234567890 WHERE DEPT\_NO=5;

**Change table department by modifying the size of field ContactNo.**

ALTER TABLE DEPARTMENT MODIFY CONTACT\_NUMBER NUMBER(11);

**Modify the field name ContactNo of departments table to MobileNo.**

ALTER TABLE DEPARTMENT RENAME COLUMN CONTACT\_NUMBER TO MOBILENO

**Change name of Table Department to DEPT**

RENAME DEPARTMENT TO DEPT;

**Alter Table department by removing column MobileNo.**

ALTER TABLE DEPARTMENT DROP COLUMN CONTACT\_NO;

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

CREATE TABLE COPYOF\_DEPT AS

SELECT \*

FROM DEPARTMENT;

**Remove the rows from COPYOF DEPT table with department number as 5.**

DELETE FROM COPYOF\_DEPT WHERE DEPARTMENT\_NUMBER=5;

**Remove COPYOF DEPT table.**

DROP TABLE COPYOF\_DEPT;

**Exercise: II**

**Find the employee names having salary greater than Rs.25000.**

SELECT FIRST\_NAME, MID\_NAME, LAST\_NAME

FROM EMPLOYEE

WHERE SALARY>25000;

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

SELECT FIRST\_NAME, MID\_NAME, LAST\_NAME

FROM EMPLOYEE

WHERE SALARY BETWEEN 30000 AND 70000;

**Find the employees who have no supervisor.**

SELECT FIRST\_NAME, LAST\_NAME

FROM EMPLOYEE

WHERE SUPERVISOR\_SSN IS NULL;

**Display the bdate of all employee s in the format ‘DDthMonthYYYY’.**

SELECT FIRST\_NAME, LAST\_NAME, BIRTHDAY

FROM EMPLOYEE;

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

SELECT FIRST\_NAME, LAST\_NAME

FROM EMPLOYEE

WHERE BIRTHDAY<'01-JAN-78';

**Display the employee names having ‘salt lake’ in their address.**

SELECT FIRST\_NAME, LAST\_NAME, ADDRESS

FROM EMPLOYEE

ADDRESS LIKE '%SALT LAKE%';

**Display the department name that starts with ’M’.**

SELECT DEPT\_NAME

FROM DEPARTMENT

WHERE DEPT\_NAME LIKE 'M%';

**Display the department names’ that ends with ‘E’.**

SELECT DEPT\_NAME

FROM DEPARTMENT

WHERE DEPT\_NAME LIKE '%e';

**Display the names of all the employees having supervisor with any of the following SSN 554433221, 333445555.**

SELECT FIRST\_NAME, SUPERVISOR\_SSN

FROM EMPLOYEE

WHERE SUPERVISOR\_SSN IN (554433221, 333445555);

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

SELECT UPPER(DEPT\_NAME)

FROM DEPARTMENT;

SELECT LOWER(DEPT\_NAME)

FROM DEPARTMENT;

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

SELECT LEFT(DEPT\_NAME,4)

FROM DEPARTMENT;

SELECT RIGHT(DEPT\_NAME,4)

FROM DEPARTMENT;

**Display the substring of the Address (starting from 5th position to 11 th position) of all employees.**

SELECT substr(ADDRESS,5,11)

FROM EMPLOYEE;

**Display the Mgrstartdate on adding three months to it.**

SELECT ADD\_MONTHS(MANAGESTARTDATE, 3)

FROM DEPARTMENT;

**Display the age of all the employees rounded to two digits.**

SELECT ROUND((MONTHS\_BETWEEN(SYSDATE, BIRTHDAY)/12), 2)

FROM EMPLOYEE;

**Find the last day and next day of the month in which each manager has joined.**

SELECT MANAGESTARTDATE,LAST\_DAY(MANAGESTARTDATE)

FROM DEPARTMENT;

SELECT MANAGESTARTDATE+1, MANAGESTARTDATE-1

2 FROM DEPARTMENT;

**Print a substring from the string ‘Harini’**.

SELECT SUBSTR('HARINI',1,4)

FROM DUAL;

**Replace the string ‘ni’ from ‘Harini’ by ‘sh’.**

SELECT REPLACE('HARINI', 'NI', 'SH' )

FROM DUAL;

**Print the length of all the department names.**

SELECT LENGTH(DEPT\_NAME)

FROM DEPARTMENT;

**Print the system date in the format 25 th May 2007.**

SELECT TO\_CHAR (SYSDATE, 'DDth "OF" fmmonth yyyy')

FROM DUAL;

**Display the date after 10 months from current date.**

SELECT ADD\_MONTHS(SYSDATE, 10)

FROM DUAL;

**Display the next occurrence of Friday in this month.**

SELECT NEXT\_DAY(SYSDATE, 'Friday')

FROM DUAL;

**Convert SSN of employee to Number format and display.**

SELECT FORMAT(SSN,INT)

FROM EMPLOYEE;

**Display the project location padded with \*\*\*\* on left side.**

SELECT RPAD(PROJECT\_LOCATION,LENGTH(PROJECT\_LOCATION)+3, '\*\*\*')

FROM PROJECT;

RPAD(PROJECT\_LOCATION,LENGTH(PROJECT\_LOCATION)+3,'\*\*\*');

**Remove the word ‘Project’ from the project name and display it.**

UPDATE PROJECT SET PROJECT\_NAME='projectA'

WHERE PROJECT\_NAME LIKE 'project valuesA';

**Select the SSN of the employee whose dependent name is either Michaelor Abner.**

SELECT SSN FROM EMPLOYEE

WHERE (SELECT DEP\_NO FROM

DEPARTMENT WHERE DNAME = ‘Manufacture’ OR DNAME = ‘Headquater’);