EXP 6

NESTED QUERIES

AIM: To execute nested queries in SQL.

1)CREATE AN EMPLOYEE TABLE

```
SQL> CREATE TABLE EMP387
  2  (
  3  EmpId number(3),
  4  Fname varchar2(20),
  5  Lname varchar2(20),
  6  Salary number(6),
  7  DeptId number(2),
  8  Job varchar2(20),
  9  JobId number(2),
 10  DOB date,
 11  Experience number(2),
 12  ReportTo varchar2(20),
 13  ReportId number(3)
 14  );

Table created.
```

2)INSERT VALUES NTO TABLE

```
SQL> INSERT INTO EMP387 VALUES(163, 'Arjun', 'Kumar', 4000, 20, 'PM', 12,
  2  TO_DATE('2002-01-28', 'yyyy-mm-dd'), 12, 'Ram', 18);

1 row created.

SQL> INSERT INTO EMP387 VALUES(210, 'Janga', 'Fett', 5000, 13, 'Accountant', 35,
  2  TO_DATE('1997-05-12', 'yyyy-mm-dd'), 5, 'Payam', 89);

1 row created.

SQL> INSERT INTO EMP387 VALUES(092, 'Baby', 'Yoda', 3000, 47, 'PM', 12,
  2  TO_DATE('2000-01-03', 'yyyy-mm-dd'), 1, 'Anil', 121);

1 row created.

SQL> INSERT INTO EMP387 VALUES(169, 'Din', 'Djarin', 1500, 10, 'Accountant', 35,
  2  TO_DATE('1980-05-17', 'yyyy-mm-dd'),6, 'Susan', 73);

1 row created.

SQL> INSERT INTO EMP387 VALUES(001, 'Cara', 'Dunes', 7000, 39, 'Manager', 01,
  2  TO_DATE('1999-03-14', 'yyyy-mm-dd'), 4, 'Ram', 18);

1 row created.

SQL> INSERT INTO EMP387 VALUES(311, 'Moff', 'Gideon', 2000, 15, 'Marketing', 34,
  2  TO_DATE('1991-05-18', 'yyyy-mm-dd'), 7, 'Ram', 18);

1 row created.

SQL> INSERT INTO EMP387 VALUES(401, 'Master', 'Luke', 7777, 48, 'IT', 31,
  2  TO_DATE('1969-07-21', 'yyyy-mm-dd'), 2, 'Ram', 18);

1 row created.

SQL> INSERT INTO EMP387 VALUES(163, 'Kylo', 'Ren', 3332, 42, 'Technician', 64,
  2  TO_DATE('1996-11-05', 'yyyy-mm-dd'), 3, 'Susan', 73);

1 row created.
```

3) Display all employee names and salary whose salary is greater than minimum salary of the company and job title starts with ‘M‘

SELECT CONCAT(Fname,Lname), Salary FROM EMP387 WHERE Salary > (SELECT Min(Salary) FROM EMP387) AND Job LIKE 'M%';

```
SQL> SELECT CONCAT(Fname,Lname), Salary FROM EMP387 WHERE Salary > (SELECT Min(Salary) FROM EMP387) AND Job LIKE 'M%';

CONCAT(FNAME,LNAME)                      SALARY
---------------------------------------- ----------
CaraDunes                                  7000
MoffGideon                                 2000
```

4) Issue a query to find all the employees who work in the same job as Arjun

SELECT EmpId, Fname, Lname, Job FROM EMP387 WHERE Job = (SELECT Job FROM EMP387 WHERE Fname = 'Arjun');

```
SQL> SELECT EmpId, Fname, Lname, Job FROM EMP387 WHERE Job = (SELECT Job FROM EMP387 WHERE Fname = 'Arjun');

     EMPID FNAME                LNAME                JOB
---------- -------------------- -------------------- --------------------
       163 Arjun                Kumar                PM
        92 Baby                 Yoda                 PM
```

5) Display the names and dob of all employees who were born in january.

SELECT Fname, Lname, DOB FROM EMP387 WHERE to_char(DOB, 'mon')='jan';

```
SQL> SELECT Fname, Lname, DOB FROM EMP387 WHERE to_char(DOB, 'mon')='jan';

FNAME                LNAME                DOB
-------------------- -------------------- ---------
Arjun                Kumar                28-JAN-02
Baby                 Yoda                 03-JAN-00
```

6) Display the least experienced employees details.

SELECT * FROM EMP387 WHERE Salary = (SELECT MIN(Salary) FROM EMP387);

```
SQL> SELECT * FROM EMP387 WHERE Salary = (SELECT MIN(Salary) FROM EMP387);

     EMPID FNAME                LNAME                     SALARY     DEPTID
---------- -------------------- -------------------- ---------- ----------
JOB                       JOBID DOB       EXPERIENCE REPORTTO
------------------- ---------- --------- ---------- --------------------
  REPORTID
----------
       169 Din                  Djarin                      1500         10
Accountant                    35 17-MAY-80          6 Susan
        73
```

7) Write a query to display the name (first name and last name), salary, department id, job id for those employees who work in the same designation as the employee works whose id is 169.

SELECT EmpId,Fname,Lname FROM EMP387 WHERE Salary > (SELECT AVG(Salary) FROM EMP387);

```
SQL> SELECT Fname,Lname,Salary,DeptId,JobId FROM EMP387 WHERE Job = (SELECT JOB FROM EMP387 WHERE EmpId = 169);

FNAME                LNAME                     SALARY     DEPTID      JOBID
-------------------- -------------------- ---------- ---------- ----------
Janga                Fett                       5000         13         35
Din                  Djarin                     1500         10         35
```

8) Write a query to display the employee id, employee name (first name and last name) for all employees who earn more than the average salary.

SELECT EmpId,Fname,Lname FROM EMP387 WHERE Salary > (SELECT AVG(Salary) FROM EMP387);

```
SQL> SELECT EmpId,Fname,Lname FROM EMP387 WHERE Salary > (SELECT AVG(Salary) FROM EMP387);

     EMPID FNAME                LNAME
---------- -------------------- --------------------
       210 Janga                Fett
         1 Cara                 Dunes
       401 Master               Luke
```

9) Write a query to display the employee name (first name and last name), employee id and salary of all employees who report to Payam.

SELECT EmpId,Fname,Lname,Salary FROM EMP387 WHERE ReportTo = 'Payam';

```
SQL> SELECT EmpId,Fname,Lname,Salary FROM EMP387 WHERE ReportTo = 'Payam';

     EMPID FNAME                LNAME                     SALARY
---------- -------------------- -------------------- ----------
       210 Janga                Fett                        5000
```

10) Write a query to display all the information of an employee whose salary and reporting person id is 3000 and 121 respectively.

SELECT * FROM EMP387 WHERE Salary = 3000 AND ReportId = 121;

```
SQL> SELECT * FROM EMP387 WHERE Salary = 3000 AND ReportId = 121;

     EMPID FNAME                LNAME                     SALARY     DEPTID
---------- -------------------- -------------------- ---------- ----------
JOB                   JOBID DOB       EXPERIENCE REPORTTO
-------------------- ---------- --------- ---------- --------------------
  REPORTID
----------
        92 Baby                 Yoda                        3000         47
PM                        12 03-JAN-00          1 Anil
       121
```

11) Write a query in SQL to display the full name (first and last name) of the manager who is supervising 4 or more employees.

SELECT DISTINCT(ReportTo) FROM EMP387 a WHERE 4 <= (SELECT COUNT(*) FROM EMP387 WHERE ReportTo = a.ReportTo);

```
SQL> SELECT DISTINCT(ReportTo) FROM EMP387 a WHERE 4 <= (SELECT COUNT(*) FROM EMP387 WHERE ReportTo = a.ReportTo);

REPORTTO
--------------------
Ram
```

12) Write a query in SQL to display the details of departments managed by Susan

SELECT DeptId FROM EMP387 WHERE ReportTo = 'Susan';

```
SQL> SELECT DeptId FROM EMP387 WHERE ReportTo = 'Susan';

    DEPTID
----------
        10
        42
```

<u>RESULT:</u> Thus the Nested queries in SQL are successfully executed and outputs are shown.

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