**EX: NO:7 NESTED QUERIES AND JOIN QUERIES**

**EX: NO: 7A Nested Queries**

**AIM :** To execute and verify the SQL commands for Nested Queries.

**OBJECTIVE:**

Nested Query can have more than one level of nesting in one single query. An SQL nested query is a SELECT query that is nested inside a SELECT, UPDATE, INSERT, or DELETE SQL query.

**PROCEDURE**

**User tables in Experiment-5:**

A) Display the name of emp who is getting maximum salary.
SQL> select ename, sal from EMP where sal in (select max(sal) from EMP);

B) Display the name of emp who is getting minimum salary.
SQL> select ename, sal from EMP where sal in ( select min(sal) from EMP);

C) Display the Second maximum salary from the table EMP.
SQL> Select max(sal) from EMP where sal<(select max(sal) from EMP);

D) From the emp table, select the deptno and maximum departmental salary (sal) for all departments whose maximum salary is less than the average salary for all employees.

SQL> select deptno,max(salary) from employee group by deptno having max(salary) < (select avg(salary) from employee);

**EX: NO: 7 B - JOINS**

**AIM :** To execute and verify the SQL commands using Join queries.

**OBJECTIVE:**
SQL joins are used to query data from two or more tables, based on a relationship between certain columns in these tables.

**PROCEDURE**

1. Create a table ‘empnew’ with the following attributes:
   empno number(3)
   ename varchar(20)
   deptname varchar(10)
2. Create a table ‘deptnew’ with the following attributes:
   deptname varchar(10)
   depthod varchar(20)
3. Insert the following tuples for ‘empnew’ table

| EMPNO | ENAME | DEPTNAME |
|---|---|---|
| 101 | sravan | ce |
| 103 | saikumar | ce |
| 401 | charan | ece |
| 406 | chaitanya | ece |
| 501 | jagadeesh | aiml |
| 509 | srilatha | aiml |
| 601 | swapna | iot |
| 605 | meena | iot |

4. Insert the following tuples for ‘deptnew’ table

| DEPTNAME | DEPTHOD |
|---|---|
| ce | saikumar |
| me | rajasekhar |
| eee | neeraj |
| ece | chaitanya |
| aiml | Srilatha |

**SQL COMMANDS**

**INNER JOIN:**

**INNTER JOIN SYNTAX**
SQL>SELECT column_name(s)
FROM table_name1
INNER JOIN table_name2
ON table_name1.column_name=table_name2.column_name

**INNTER JOIN EXAMPLE**
SQL> select empnew.empno,empnew.ename,deptnew.deptname
from empnew INNER JOIN
deptnew on empnew.deptname=deptnew.deptname;

**LEFT JOIN SYNTAX**
SQL> SELECT column_name(s)
FROM table_name1
LEFT JOIN table_name2
ON table_name1.column_name=table_name2.column_name

**LEFT JOIN EXAMPLE**
**SQL> select empnew.empno,empnew.ename,deptnew.deptname**
**from empnew LEFT OUTER JOIN**
**deptnew on empnew.deptname=deptnew.deptname;**

**RIGHT OUTTER JOIN:**

**RIGHT OUTTER JOIN SYNTAX**

```
SQL> SELECT column_name(s)
FROM table_name1
RIGHT JOIN table_name2
ON table_name1.column_name=table_name2.column_name
```

**RIGHT OUTTER JOIN EXAMPLE**

```
SQL> select empnew.empno,empnew.ename,deptnew.deptname
from empnew RIGHT OUTER JOIN
deptnew on empnew.deptname=deptnew.deptname;
```

**FULL OUTTER JOIN:**

**FULL OUTER JOIN SYNTAX**

```
SQL>SELECT column_name(s)
FROM table_name1
FULL JOIN table_name2
ON table_name1.column_name=table_name2.column_name
```

**FULL OUTER JOIN EXAMPLE**

```
select empnew.empno,empnew.ename,deptnew.deptname
from empnew FULL OUTER JOIN
deptnew on empnew.deptname=deptnew.deptname;
```