EXPERIMENT 10

Date: 7th April 2023

TITLE: Joins in SQL

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

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

Write SQL Queries using Join for the following queries.

1. **List the details of the emps whose Salaries more than the employee BLAKE.**

   SELECT e1.* FROM Emp e1 INNER JOIN Emp e2

   ON e2.ename = "Blake" WHERE e1.sal > e2.sal;

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7566	JONES	MANAGER	7839	1981-04-02	2975	NULL	20
7788	SCOTT	ANALYST	7566	1987-04-19	3000	NULL	20
7839	KING	PRESIDENT	NULL	1981-11-17	5000	NULL	10
7902	FORD	ANALYST	7566	1981-12-03	3000	NULL	20
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

2. **List the emps whose Jobs are same as ALLEN.**

   SELECT e1.ename FROM Emp e1 INNER JOIN Emp e2

   ON e1.job = e2.job WHERE e2.ename = "Allen";

ename
ALLEN
WARD
MARTIN
TURNER

3. **List the Emps whose Sal is same as FORD or SMITH in DESC order of Names.**

   SELECT e1.ename FROM Emp e1 INNER JOIN Emp e2

   ON e1.sal = e2.sal WHERE e1.ename = "Ford"

   OR e2.ename = "Smith" ORDER BY e1.ename DESC;

ename
SMITH
SCOTT
FORD

4. List the emps Whose Jobs are same as MILLER or Sal is more than ALLEN.

```
SELECT e1.ename FROM Emp e1 INNER JOIN Emp e2
ON e1.job = e2.job WHERE e2.ename = "Miller"
UNION SELECT e3.ename FROM Emp e3 INNER JOIN
Emp e4 ON e3.sal > e4.sal WHERE e4.ename = "Allen";
```

ename
SMITH
JONES
BLAKE
CLARK
SCOTT
KING
ADAMS
JAMES
FORD
MILLER

5. Find the highest paid employee of sales department.

```
SELECT e2.ename, e2.sal FROM Emp e2 INNER JOIN
(SELECT MAX(sal) AS M, e1.deptno AS D
FROM Emp e1 INNER JOIN Dept d1 ON
e1.deptno = d1.deptno WHERE d1.dname = "Sales" GROUP BY D)
AS tab1 ON e2.deptno = tab1.D WHERE e2.sal  = tab1.M;
```

ename	sal
BLAKE	2850

6. List the employees who are senior to most recently hired employee working under king.

```
SELECT e1.ename FROM Emp e1 INNER JOIN
(SELECT MAX(e2.hiredate) AS MaxH FROM Emp e2
INNER JOIN Emp e3 ON e2.mgr =
e3.empno WHERE e3.ename = "King")
AS tab ON e1.hiredate < tab.MaxH;
```

ename
SMITH
ALLEN
WARD
JONES
BLAKE

7. List the names of the emps who are getting the highest sal dept wise.

```
SELECT e1.ename, e1.sal, e1.deptno FROM Emp e1
INNER JOIN (SELECT MAX(e2.sal) AS MaxSal, e2.deptno
FROM Emp e2 GROUP BY e2.deptno) AS tab
ON e1.sal = tab.MaxSal;
```

ename	sal	deptno
XYZ	2850	20
BLAKE	2850	30
SCOTT	3000	20
KING	5000	10
FORD	3000	20

8. List the emps whose sal is equal to the average of max and minimum

```
SELECT e1.* FROM Emp e1 INNER JOIN
(SELECT (MAX(sal) + MIN(sal) ) / 2 AS S
FROM Emp) AS e2 ON e1.sal = e2.S;
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

9. List the emps who joined in the company on the same date.

```
SELECT e1.* FROM Emp e1 INNER JOIN
Emp e2 ON e1.hiredate = e2.hiredate
WHERE e1.ename != e2.ename;
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7900	JAMES	CLERK	7698	1981-12-03	950	NULL	30
7902	FORD	ANALYST	7566	1981-12-03	3000	NULL	20
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

10. Find out the emps who joined in the company before their managers.

```
SELECT e1.ename FROM Emp e1 INNER
JOIN Emp e2 ON e1.mgr = e2.empno
WHERE e1.hiredate < e2.hiredate;
```

ename
SMITH
ALLEN
WARD
JONES
BLAKE
CLARK