

## EXPERIMENT 9

Date: 31<sup>st</sup> March 2023

### **TITLE: Group by & Having clause**

**OBJECTIVE:** To understand the use of group by and having clause.

Write SQL Queries for the following queries (use EMP and DEPT table of previous experiment).

#### **1. List the Deptno where there are no emps.**

```
SELECT deptno FROM Emp GROUP BY deptno
HAVING COUNT(empno) = 0;
```

Result Grid	
	deptno

#### **2. List the No.of emp's and Avg salary within each department for each job.**

```
SELECT COUNT(empno) AS TotalEmp, AVG(sal) AS AvgSal,
deptno, job FROM Emp GROUP BY deptno, job;
```

	TotalEmp	AvgSal	deptno	job
▶	1	2850.0000	20	NULL
	2	950.0000	20	CLERK
	4	1400.0000	30	SALESMAN
	1	2975.0000	20	MANAGER
	1	2850.0000	30	MANAGER
	1	2450.0000	10	MANAGER
	2	3000.0000	20	ANALYST
	1	5000.0000	10	PRESIDENT
	1	950.0000	30	CLERK
	1	1300.0000	10	CLERK

#### **3. Find the maximum average salary drawn for each job except for 'President'.**

```
SELECT MAX(sal) AS MaxAvgSal FROM Emp WHERE sal IN
(SELECT AVG(sal) AS AvgSal FROM Emp WHERE
job != "President" GROUP BY job);
```

	MaxAvgSal
▶	3000

**4. List the department details where at least two emps are working.**

```
SELECT * FROM Dept WHERE deptno IN
(SELECT deptno FROM Emp
GROUP BY deptno HAVING COUNT(empno) >= 2);
```

	DEPTNO	DNAME	LOC
▶	10	ACCOUNTING	NEW YORK
	20	RESEARCH	DALLAS
	30	SALES	CHICAGO
*	NULL	NULL	NULL

**5. List the no. of emps in each department where the no. is more than 3.**

```
SELECT COUNT(empno) AS TotalEmp, deptno FROM Emp
GROUP BY deptno HAVING COUNT(empno) > 3;
```

	TotalEmp	deptno
▶	6	20
	6	30

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

```
SELECT ename, deptno, sal FROM Emp
WHERE sal IN (SELECT MAX(sal) FROM
Emp GROUP BY deptno);
```

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

**7. List the Deptno and their average salaries for dept with the average salary less than the averages for all departments.**

```
SELECT deptno, AVG(sal) FROM Emp
GROUP BY deptno HAVING AVG(sal) <
(SELECT AVG(sal) FROM Emp);
```

	deptno	avg(sal)
▶	30	1566.6667