

Course : CSE 2004 – Database Management Systems
Lab slot : L55+ L56
Faculty : Dr. B Saleena
Ex. No: 4

Date: 4/8/17

SQL - Subqueries and Set Operations

Table Employee :

EMP_ID	EMP_NAME	SALARY	DEPT_ID	EMP_CITY	DESIGNATION
1190	Dhruv Garg	15500	4	Silicon Valley	Supervisor
3212	Aditya Chitlangia	20000	2	New York	Supervisor
2948	Raagul Nagendran	8200	1	London	Executive
3206	Aakash Tiwari	21600	5	Washington D.C.	Supervisor
4464	Chahat Agarwal	8200	3	Paris	Supervisor
3285	Vishnu Nagpal	18200	3	Seattle	Executive
2616	Rachit Tiwari	16900	2	Huoston	Executive
2781	Shantanu Gupta	7800	1	Frankfurt	Supervisor
1427	Swaraj Phadtare	16000	4	Sydney	Executive
1426	Aravind Krisnan	13600	5	Tokyo	Executive

Table Department :

DEPT_ID	DEPT_NAME	DEPT_CITY
1	Development	Mumbai
2	HR Management	New Delhi
3	Production	Bengaluru
4	Marketing	Kolkata
5	Finance	Chennai
6	Purchasing	Hyderabad
7	Research	Pune

1. List the number of employees and the number of departments as on today.

```
SQL> SELECT (SELECT COUNT(*) FROM Employee) AS Emp_count, (SELECT COUNT(*) FROM Department) AS
Dept_Count FROM DUAL;
```

EMP_COUNT	DEPT_COUNT
10	7

2. Select the highest salary paid in each department.

```
SQL> SELECT MAX(Salary) AS Highest_salary, Dept_ID FROM Employee GROUP BY Dept_ID;
```

HIGHEST_SALARY	DEPT_ID
8200	1
20000	2
16000	4
21600	5
18200	3

3. List the employees who draws salary that is less than the average salary of all the employees.

```
SQL> SELECT AVG(Salary) FROM Employee;
```

AVG(SALARY)
14600

```
SQL> SELECT Emp_name, Salary FROM Employee WHERE Salary < (SELECT AVG(Salary) FROM Employee);
```

EMP_NAME	SALARY
Raagul Nagendran	8200
Chahat Agarwal	8200
Shantanu Gupta	7800
Aravind Krisnan	13600

4. List all the employees who work in the departments located in Chennai.

```
SQL> SELECT Emp_ID, Emp_name, Dept_ID FROM Employee WHERE Dept_ID = (SELECT Dept_ID FROM
Department WHERE Dept_city = 'Chennai');
```

EMP_ID	EMP_NAME	DEPT_ID
-----	-----	-----
3206	Aakash Tiwari	5
1426	Aravind Krisnan	5

5. List the name of the employees who works in Marketing department.

```
SQL> SELECT Emp_ID, Emp_name, Dept_ID FROM Employee WHERE Dept_ID = (SELECT Dept_ID FROM
Department WHERE Dept_name = 'Marketing');
```

EMP_ID	EMP_NAME	DEPT_ID
-----	-----	-----
1190	Dhruv Garg	4
1427	Swaraj Phadtare	4

6. Find out the names of all employees who belong to the same department as the employee 'Aditya Chitlangia' who is in Department 2 and has an Emp_ID 3212.

```
SQL> SELECT Emp_ID, Emp_name, Dept_ID FROM Employee WHERE Dept_ID = (SELECT Dept_ID FROM
Employee WHERE Emp_name = 'Aditya Chitlangia');
```

EMP_ID	EMP_NAME	DEPT_ID
-----	-----	-----
3212	Aditya Chitlangia	2
2616	Rachit Tiwari	2

7. Delete the department details whose Dept_ID is not in employee details.

```
SQL> DELETE FROM Department WHERE Dept_ID NOT IN(SELECT Dept_ID FROM Employee);
```

2 rows deleted.

```
SQL> SELECT * FROM Department;
```

DEPT_ID	DEPT_NAME	DEPT_CITY
-----	-----	-----
1	Development	Mumbai
2	HR Management	New Delhi
3	Production	Bengaluru
4	Marketing	Kolkata
5	Finance	Chennai

8. Update the Salary with Salary + 600, whose designation is Supervisor.

```
SQL> UPDATE Employee SET Salary = Salary + 600 WHERE Designation = 'Supervisor';
```

5 rows updated.

```
SQL> SELECT * FROM Employee;
```

EMP_ID	EMP_NAME	SALARY	DEPT_ID	EMP_CITY	DESIGNATION
-----	-----	-----	-----	-----	-----
1190	Dhruv Garg	16100	4	Silicon Valley	Supervisor
3212	Aditya Chitlangia	20600	2	New York	Supervisor
2948	Raagul Nagendran	8200	1	London	Executive
3206	Aakash Tiwari	22200	5	Washington D.C.	Supervisor
4464	Chahat Agarwal	8800	3	Paris	Supervisor
3285	Vishnu Nagpal	18200	3	Seattle	Executive
2616	Rachit Tiwari	16900	2	Huoston	Executive
2781	Shantanu Gupta	8400	1	Frankfurt	Supervisor
1427	Swaraj Phadtare	16000	4	Sydney	Executive
1426	Aravind Krisnan	13600	5	Tokyo	Executive

9. List all the cities from employees and department relation.

```
SQL> SELECT Emp_city AS City FROM Employee UNION SELECT Dept_city AS City FROM Department;
```

```
CITY
```

```
-----
```

```
Bengaluru
```

```
Chennai
```

```
Frankfurt
```

```
Huoston
```

```
Kolkata
```

```
London
```

```
Mumbai
```

```
New Delhi
```

```
New York
```

```
Paris
```

```
Seattle
```

```
Silicon Valley
```

```
Sydney
```

```
Tokyo
```

```
Washington D.C.
```

```
15 rows selected.
```

10. List the Salary which is common in Dept_ID 1 and 3.

```
SQL> SELECT Salary AS Common_Salary FROM Employee WHERE Dept_ID = 1 AND Salary IN (SELECT Salary  
FROM Employee WHERE Dept_ID = 3);
```

```
COMMON_SALARY
```

```
-----
```

```
8200
```