**Database Management System**

**Practical No : 7**

**Aim :** 1. To perform join operations

2. Use set operators

## **SQL JOIN**

An SQL JOIN clause is used to combine rows from two or more tables, based on a common field between them.

SQL INNER JOIN

The INNER JOIN keyword selects all rows from both tables as long as there is a match between the columns in both tables.

### Syntax

|  |  |
| --- | --- |
| SELECT column\_name(s) FROM table1  INNER JOIN table2 ON table1.column\_name=table2.column\_name; | Oracle Inner Join |

## SQL LEFT JOIN

The LEFT JOIN keyword returns all rows from the left table (table1), with the matching rows in the right table (table2). The result is NULL in the right side when there is no match.

### Syntax

|  |  |
| --- | --- |
| SELECT column\_name(s) FROM table1 LEFT JOIN table2 ON table1.column\_name=table2.column\_name; | Oracle Left Outer Join |

## SQL RIGHT JOIN

The RIGHT JOIN keyword returns all rows from the right table (table2), with the matching rows in the left table (table1). The result is NULL in the left side when there is no match.

### Syntax

|  |  |
| --- | --- |
| SELECT column\_name(s) FROM table1 RIGHT JOIN table2 ON table1.column\_name=table2.column\_name; | Oracle Right Outer Join |

## SQL FULL OUTER JOIN

The FULL OUTER JOIN keyword returns all rows from the left table (table1) and from the right table (table2).

The FULL OUTER JOIN keyword combines the result of both LEFT and RIGHT joins.

### Syntax

|  |  |
| --- | --- |
| SELECT column\_name(s) FROM table1 FULL OUTER JOIN table2 ON table1.column\_name=table2.column\_name; | Oracle Full Outer Join |

**SQL SELF JOIN**

*SELECT a.column\_name, b.column\_name...*

*FROM table1 a, table1 b*

*WHERE a.common\_filed = b.common\_field;*

**SQL UNION :**

The SQL UNION operator combines the result of two or more SELECT statements.

**Syntax:**

SELECT column\_name(s) FROM table1  
UNION  
SELECT column\_name(s) FROM table2;

**SQL INTERSECT:**

The SQL Intersect operator returns all the results which are common in two or more SELECT statements.

**Syntax:**

SELECT column\_name(s) FROM table1  
Intersect  
SELECT column\_name(s) FROM table2;

**SQL EXCEPT:**

The SQL Except operator returns all the results which are in the result of first but not in the result of second SELECT statement (Set-Difference).

**Syntax:**

SELECT column\_name(s) FROM table1  
Except  
SELECT column\_name(s) FROM table2;

**Write SQL to answer following questions:**

**Create one table department.**

|  |  |  |
| --- | --- | --- |
| **Dept\_no** | **Dname** | **Location** |
| 30 | ACCOUNTING | NEW YORK |
| 60 | RESEARCH | DALLAS |
| 90 | SALES | CHICAGO |
| 110 | MARKETING | BOSTON |

1. Display the common jobs from department number 90 and 60.
2. Display the unique jobs found in department number 90 and 60.
3. Display the jobs which are in dept no 90 but not in 30.
4. Display those employees who are working in the same dept with their manager.
5. Display the name of the employees who are working as a Accountant or IT and joined the company before 31-dec-2014.
6. Display employee name, job, deptname, location for all, who are working as managers.
7. Display those employees whose manager names is ‘Steven’.
8. Display emp number and salary of ‘Steven’ if his Sal is equal to highest Sal of his department.
9. List employees who is not working as a ‘CLERK’ (Sort on salary).
10. Display employees who are without manager.
11. Display the name of those employees who are getting highest salary in the organization.
12. Display the name of those employees who are getting second highest salary in the organization.
13. Display those employees whose salary is equal to average of maximum and minimum.
14. Display the name of the department along with count of employees where count greater than 3.
15. Display dname where at least 2 employees are working.
16. Display name of those managers whose salary is more than average salary of company.
17. Find out the top 3 earner of company.
18. Find out the last 3(least) earner of the company?
19. Display employee name, his job, his dept name, his manager name, his sal and arrange it based on salary.
20. List the emps who are not working in sales dept.
21. Find jobwise salary average.
22. Find the name of department taking maximum salary.
23. Find name of department taking minimum salary.