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CSE A1 SECTION
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DBMS LAB 7 - JOINS IN SQL

AIM :

To implement different types of joins in oracle live SQL .

THEORY :

SQL JOIN

A join clause is used to combine rows from two or more tables, based on a related column between them.

SQL INNER JOIN

The INNER JOIN keyword selects records that have matching values in both tables.

INNER JOIN Syntax

```
SELECT column_name(s)
FROM table1
INNER JOIN table2
ON table1.column_name = table2.column_name;
```

SQL LEFT JOIN

The LEFT JOIN keyword returns all records from the left table (table1), and the matching records from the right table (table2). The result is 0 records from the right side, if there is no match.

LEFT JOIN Syntax

```
SELECT column_name(s)
FROM table1
LEFT JOIN table2
ON table1.column_name = table2.column_name;
```

SQL RIGHT JOIN

The RIGHT JOIN keyword returns all records from the right table (table2), and the matching records from the left table (table1). The result is 0 records from the left side, if there is no match.

RIGHT JOIN Syntax

```
SELECT column_name(s)
FROM table1
RIGHT JOIN table2
ON table1.column_name = table2.column_name;
```

SQL FULL OUTER JOIN

The FULL OUTER JOIN keyword returns all records when there is a match in left (table1) or right (table2) table records.

FULL OUTER JOIN Syntax

```
SELECT column_name(s)
FROM table1
FULL OUTER JOIN table2
ON table1.column_name = table2.column_name
WHERE condition;
```

SQL SELF JOIN

A self join is a regular join, but the table is joined with itself.

Self Join Syntax

```
SELECT column_name(s)
FROM table1 T1, table1 T2
WHERE condition;
```

ORACLE LIVE SQL LINK :

https://livesql.oracle.com/apex/livesql/s/m3vgzkr0ertnq65xl64p2oem3

SCREENSHOTS :

Statement 27

```
select * from emp,dept where emp.deptno=dept.deptno
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	DEPTNO	DNAME	LOC
7698	BLAKE	MANAGER	7839	01-MAY-81	2850	-	30	30	SALES	CHICAGO
7902	FORD	ANALYST	7566	03-DEC-81	3000	-	20	20	RESEARCH	DALLAS
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30	30	SALES	CHICAGO
7782	CLARK	MANAGER	7839	09-JUN-81	2450	-	10	10	ACCOUNTING	NEW YORK
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30	30	SALES	CHICAGO
7876	ADAMS	CLERK	7788	12-JAN-83	1100	-	20	20	RESEARCH	DALLAS
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30	30	SALES	CHICAGO
7566	JONES	MANAGER	7839	02-APR-81	2975	-	20	20	RESEARCH	DALLAS
7788	SCOTT	ANALYST	7566	09-DEC-82	3000	-	20	20	RESEARCH	DALLAS
7934	MILLER	CLERK	7782	23-JAN-82	1300	-	10	10	ACCOUNTING	NEW YORK
7839	KING	PRESIDENT	-	17-NOV-81	5000	-	10	10	ACCOUNTING	NEW YORK
7900	JAMES	CLERK	7698	03-DEC-81	950	-	30	30	SALES	CHICAGO
7369	SMITH	CLERK	7902	17-DEC-80	800	-	20	20	RESEARCH	DALLAS
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30	30	SALES	CHICAGO

14 rows selected.

Statement 28

```
select * from emp,dept where emp.deptno=dept.deptno(+)
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	DEPTNO	DNAME	LOC
7782	CLARK	MANAGER	7839	09-JUN-81	2450	-	10	10	ACCOUNTING	NEW YORK
7934	MILLER	CLERK	7782	23-JAN-82	1300	-	10	10	ACCOUNTING	NEW YORK
7839	KING	PRESIDENT	-	17-NOV-81	5000	-	10	10	ACCOUNTING	NEW YORK

Statement 32

```
select emp.ename,dept.dname,dept.deptno from emp,dept where emp.deptno=dept.deptno and dept.deptno>10
```

ENAME	DNAME	DEPTNO
BLAKE	SALES	30
FORD	RESEARCH	20
MARTIN	SALES	30
TURNER	SALES	30
ADAMS	RESEARCH	20
WARD	SALES	30
JONES	RESEARCH	20
SCOTT	RESEARCH	20
JAMES	SALES	30
SMITH	RESEARCH	20
ALLEN	SALES	30

11 rows selected.

Statement 33

```
select a.ename,a.empno,b.mgr from emp a , emp b where a.empno=b.mgr
```

ENAME	EMPNO	MGR
KING	7839	7839
JONES	7566	7566
BLAKE	7698	7698
KING	7839	7839
BLAKE	7698	7698
SCOTT	7788	7788
BLAKE	7698	7698

Statement 40

```
select * from emp,dept where emp.deptno=dept.deptno and comm is not null
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	DEPTNO	DNAME	LOC
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30	30	SALES	CHICAGO
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30	30	SALES	CHICAGO
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30	30	SALES	CHICAGO
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30	30	SALES	CHICAGO

4 rows selected.

Statement 41

```
select * from emp,dept where emp.deptno=dept.deptno and comm is not null order by ename
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	DEPTNO	DNAME	LOC
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30	30	SALES	CHICAGO
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30	30	SALES	CHICAGO
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30	30	SALES	CHICAGO
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30	30	SALES	CHICAGO

4 rows selected.

Statement 42

```
select * from emp,dept where emp.deptno=dept.deptno
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	DEPTNO	DNAME	LOC
7698	BLAKE	MANAGER	7839	01-MAY-81	2850	-	30	30	SALES	CHICAGO
7902	FORD	ANALYST	7566	03-DEC-81	3000	-	20	20	RESEARCH	DALLAS
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30	30	SALES	CHICAGO
7782	CLARK	MANAGER	7839	09-JUN-81	2450	-	10	10	ACCOUNTING	NEW YORK

RESULT :

Thus we have successfully executed SQL queries of different types of joins in SQL.