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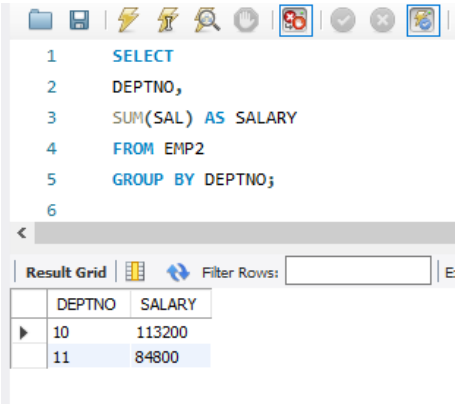
SQL Job Preparation Assignment 5

1. **Write a query to DISPLAY THE "DEPTNO" AND "SUM OF SALARY" FOR EACH DEPTNO.**

```
SELECT
DEPTNO,
SUM(SALARY)
FROM EMP
GROUP BY DEPTNO;
```



2. **Define INNER JOIN and OUTER JOIN, then use a query to demonstrate each.**

INNER JOIN :

The INNER JOIN keyword selects all rows from both the tables as long as the condition is satisfied. This keyword will create the result-set by combining all rows from both the tables where the condition satisfies i.e value of the common field will be the same.

```
SELECT * FROM EMP
INNER JOIN DEPT
ON EMP.DEPTNO = DEPT. DEPTNO
```

```
3 •  SELECT * FROM EMP
4    INNER JOIN DEPT
5    ON EMP.DEPTNO = DEPT. DEPTNO
```

Result Grid | Filter Rows: | Export:

empno	ename	deptno	deptno	dname
101	ROCK	10	10	AC
102	JACK	10	10	AC
103	MARK	10	10	AC
104	JERRY	10	10	AC
105	KING	10	10	AC

OUTER JOIN:

There are three types of Outer Join: LEFT JOIN, RIGHT JOIN, and FULL JOIN. The differences between them involve which unrelated data they keep – it can be from the first table, from the second, or from both of them. The cells without data to fill will have a value of NULL.

Note: LEFT JOIN is the mostly universally implemented in all versions of SQL. But this is not the case for RIGHT JOIN and FULL JOIN, which are not implemented in various SQL versions.

*SELECT * FROM EMP*

LEFT OUTER JOIN DEPT

ON EMP.DEPTNO = DEPT. DEPTNO

```
3 •  SELECT * FROM EMP
4    LEFT OUTER JOIN DEPT
5    ON EMP.DEPTNO = DEPT. DEPTNO
```

Result Grid | Filter Rows: | Export: | Wrap Cell

empno	ename	deptno	deptno	dname
101	ROCK	10	10	AC
102	JACK	10	10	AC
103	MARK	10	10	AC
104	JERRY	10	10	AC
105	KING	10	10	AC
106	PAUL	11	NULL	NULL

*SELECT * FROM EMP*

RIGHT OUTER JOIN DEPT

ON EMP.DEPTNO = DEPT. DEPTNO

```
3 •  SELECT * FROM EMP
4    RIGHT OUTER JOIN DEPT
5    ON EMP.DEPTNO = DEPT. DEPTNO
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

empno	ename	deptno	deptno	dname
101	ROCK	10	10	AC
102	JACK	10	10	AC
103	MARK	10	10	AC
104	JERRY	10	10	AC
105	KING	10	10	AC

3. **WHAT DO YOU MEAN BY VIRTUAL TABLES? as well as how to make one.**

Virtual Table is not necessarily exist in physical form, it's single table that is derived from other tables. This is also called as VIEW

CREATE VIEW AC_DEPT

AS SELECT deptno, dname, count(deptno) FROM DEPT

WHERE dname = 'AC'

GROUP BY deptno

4. **Rewrite the below query using Subqueries.**

   SELECT * FROM EMP WHERE SAL=MAX(SAL);

*SELECT * FROM EMP*

WHERE SAL = (SELECT MAX(SAL) FROM EMP)

Limit to 1000 rows

```
1    select * from emp2
2    where sal = (select max(sal) from emp2)
```

Result Grid | Filter Rows: | Edit: | Export

empno	ename	deptno	sal
108	TIM	11	47000
NULL	NULL	NULL	NULL

5. **Table:**

   This is demo table

   EMP_ID SAL

   101 5000

   102 5600