29/8/25

Task 5:- Writing Join Queries, Equivalent and Non Recursive Queries

Title:- Implementation of diff types of Join & Recursive Queries.

* A SQL JOIN combines records from two tables.
* A Join locates related column values in the two tables.
* A query can contain zero, one, or multiple Join operations.
* Inner Join is the same as JOIN; the key word Inner is optional.

Objective:-

To implement different types of Joins and recursive queries.

Theory:-

The sql Joins clause is used to combine records from two (or) more tables in a database. A Join is a means for combining fields from two tables by using values common to each.

Syntax:-

select col1, col2, col3, ---- from tab_name1, table_name2,
where table_name 1. col name2 table_name2. columnames

Types of Joins:-

1) simple Join
2) self Join
3) outer Join

Sample Join:-

It is the most common type of Join. It retrivers the rows from 2 tables having a common column and is further classified into

Equal Join:-

A Join, which is based on equalition, is called equi Join

Ex:-

select * from item, cust where item id. custo id

In the above statements, item_id = cus_id perform the Join statement. It retrivers raws from both the tables provided the both have the same id an specified by the where clause.

* To insert records in target table.
* To update records in target table.
* To create views.

Non Equi Join:-

It specifies the relationship b/w column belonging to different table by making unit relational operator other than "=".

Ex:-

Output:-

cust_name	item_name
John	Laptop
Bob	keyboard
Jane	Mouse

Output:-

Item_name	price
Laptop	1200
Monitor	450

It specifies the relationship between columns belonging to different tables by making use of relational operators other than "=".

Ex:-
select * from items, cust where itemid < custnum.

Table Aliases:-

Table Aliases are used to make multiple table queries shorted and more readable we give an alias name to the table in the from clause and use it instead of the name throughout the query.

Self Join:-

Joining of a table to itself is known as self-join. It joins one row in a table the another. It can compare each row of the table to itself and also with other rows of the same table.

Ex:-
select * from emp x, emp y where x.salary >= (select avg(salary) from x.emp where x.deptno = y.deptno);

outerjoin:-

It extends the result of a simple join an well as those rows from the table the symbol (+) respresent outer join

Different Types of SQL Joins

Here are the different types of the Join, in SQL;

(INNER) Join: Return records that have matching values in both tables.

select column_name From table 1 Inners Join table 2 ON table column_name = table2.column_name;

Left (outer) Join: Return all Records from the left table, and the matched records from the right table.

select column_name(s) from table Left Join table 2 ON table 1.column_name table2.column_name;

Right (outer) Join:- Return all records from the right table and the matched records from the right table.

select Column_name(s) From table 1
Right Join Table2 on table1. column_name = table2.column_name)

FULL (OUTER) Join: Return all records when there is a match either left (or) right table select column_name
(s) from table1

Output:

Highest salary	e.name
30000	Bob
95000	Eve

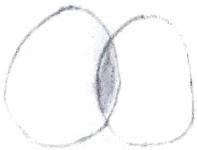
Output:-

Cust_name	item_name
Smith	Laptop
	Mouse
Doe	

Full order Join table 2, on table 1 column-names2 table 2- column- names.

left Join

Right Join



Inner Join

Full outer Join

Result:- Query using Join is implented and executed successfully.

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PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	25
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