

8/12/25

TASK-5

JOIN QUERIES, EQUIVALENT AND RECURSIVE QUERIES

Aim: To implement and execute Join Queries Equivalent queries and Recursive Queries.

Procedure:

- create the database and table.
- Insert some data.
- write SQL queries using different types of JOINS to get the same result.
- Implement a Recursive Query using with

RECURSIVE

- Display results and verify correctness - different types of SQL JOINS.

(INNER) JOIN:

table SELECT column-name(s) FROM table1
INNER JOIN table2 ON table1.column-name =
table2.column-name;

• LEFT Outer JOIN:

SELECT column-name(s) FROM table1
LEFT JOIN table2 ON table1.column-name =
table2.column-name;

• Right (outer) JOIN:

SELECT column-name(s) FROM table1
Right JOIN table2 ON table1.column-name =
table2.column-name;

• Right (outer) JOIN:

~~SELECT column-name(s)~~

B. Define the problem

clearly state the problem

Full outer join

Full Outer Join Table 2 on table-column-name
name2 table 2-column-name;

1. JOIN Queries (ALL TYPES).
CREATE TABLE departments (
DEPT ID INT PRIMARY KEY,
DEPT NAME VARCHAR(50));

2. CREATE TABLE patients (
Pat ID INT PRIMARY KEY,
PatName VARCHAR(50),
DEPT ID INT
FOREIGN KEY (DEPT ID) REFERENCES
department (DEPT ID)

);
CREATE TABLE bills (
BILL ID INT PRIMARY KEY,
Pat ID INT
Bill Amount DECIMAL(10,2),
FOREIGN KEY (Pat ID) REFERENCES
patient (Pat ID)

);
CREATE TABLE referrals (
Referral ID INT PRIMARY KEY,
^{pat}
Referring ID INT,
referred Pat ID INT,
FOREIGN KEY (Referring Pat ID)
REFERENCES
patients (Pat ID)

Departments,
DEPT ID DEPT NAME

B. Define the problem
clearly state the pr

patName	Dept Name
Alice	Cardiology
Alice	onology
Alice	pediatrics
Bob	Cardiology
Bob	onology
Bob	pediatrics
Charlie	Cardiology
Charlie	onology
Charlie	pediatrics
David	Cardiology
David	onology
David	pediatrics

Self Join:

Query

SELECT A.PATNAME AS Patient, P2.PATNAME
AS Patients P1-DEPT
ID

FROM Patients P1

JOIN Patients P2 ON P1.DEPTID = P2.DEPTID

WHERE P1.PATID < P2.PATID.

Initial	referral patient	Initial reference	referend
1	3	Alice	Charlie
3	4	Charlie	David
1	4	Alice	David

VELTECH	
EX No.	
PERFORMANCE (5)	Alice
RESULT AND ANALYSIS (5)	3
VIVA VOCE (5)	3
RECORD (5)	3
TOTAL (20)	
SIGN WITH DATE	

Result: Thus the Implementation of Self Join
Queries equivalent queries and Recursive
Queries executed successfully

B. Define the problem
clearly state the