

81a125 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:

table1 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 Last (Outer) JOIN:

SELECT column-name(s)

B. Define the problem

Clearly state the pro

FULL outer JOIN

FULL OUTER JOIN table2 ON table-column  
names table2-column  
names

1. JOIN query (ALL TYPES).

CREATE TABLE Departments (

DEPT ID INT PRIMARY KEY,

DEPT NAME VARCHAR(50),

);

2. CREATE TABLE Patients (

PAT ID INT PRIMARY KEY,

PAT NAME 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,

Referring PAT ID INT,

Referred PAT ID INT,

FOREIGN KEY (Referring PAT ID)

REFERENCES

Patient (PAT ID)

);

Departments.

DEPT ID

DEPT NAME

B. Define the problem

Clearly state the pr

patient name	Dept Name
Alice	cardiology
Alice	oncology
Alice	pediatrics
Bob	cardiology
Bob	oncology
Bob	pediatrics
Bob	cardiology
Charlie	oncology
Charlie	pediatrics
Charlie	cardiology
David	oncology
David	pediatrics
David	cardiology

Self JOIN:

Query:

SELECT A PATIENT AS Patient, P2.Pat Name  
as patient, P1.Dept ID  
ID

FROM Patients P1  
JOIN Patients P2 ON P1.Dept ID = P2.Dept ID  
WHERE P1.Pat ID < P2.Pat ID.

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

VEL TECH

EX NO.	
PERFORMANCE (5)	Alice 5
RESULT AND ANALYSIS (5)	3
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	15
SIGN WITH DATE	15/10/2023

Result: Thus the Implementation of JOIN  
Query is equivalent to self and Recursive  
Query executed successfully

B. Define the problem  
clearly & state the