Date → 9/09/25

Task-5 Writing Join Queries ; Equivalent AND/OR Recursive Queries.

AIM : To implement and execute Join queries, equivalent queries and recursive queries.

Types of Joins in SQL :

* Inner Join : Returns records that have matching values in both tables :

SELECT Column_name(S) FROM table,

Inner Join table 2 on table1. Column_name = table 2 . Column_name.

* Left (outer) Join : Returns all records from the left table and the matched records from the right table.

ON table1 . column_name = table 2 . column_name .

* Right (outer) Join : Returns all records from the right table and the matched records from the left table .

SELECT Column_name(S) from table1 RIGHT JOIN table2 ON table1 . Column_name = table2 . Column_name .

* Full (outer) Join :- Return all records when there is a match in either left or right table.

Syntax :

SELECT Column_name (S) FROM table1 FULL OUTER JOIN table 2 ON table1 . Column_name = table2 . Column_name.

① JOIN Queries (All Types) :

~~Create Tables!~~

(1) Inner Join :-

Syntax :-

```
SELECT p.playername , t.teamname
 FROM Players p
 INNER JOIN teams t.ON p.teamid = t.teamid;
```

(2) Left Join :-

Syntax :-

```
SELECT p.playername , t.teamname FROM Players p
LEFT JOIN teams t ON p.teamid = t.teamid;
```

(3) Right Join :-

Syntax :-

~~Syntax~~
```
SELECT p.playername , t.teamname FROM Player.p
 RIGHT JOIN teams t ON p.teamid = t.teamid;
```

(4) FULL Outer Join :-

Syntax :-

```
SELECT p.playername , t.teamname FROM players p
 FULL OUTER JOIN teams t ON p.teamid =
  t.teamid;
```

* Equivalent Queries

Q1 Get players and their team names

Syntax :-

```
SELECT p.playername, t.teamname FROM
players p JOIN teams t ON p.teamid =
t.teamid ;
```

OUTPUT :-

Player name	team name
Alice	Tigers
Bob	Tigers
Charlie	Eagles
David	Eagles
Emma	(null)

* Recursive Query

Syntax :-

```
WITH RECURSIVE TeamHierarchy AS ( SELECT
 teamid , teamname , parent-teamid FROM teams
WHERE teamid = 101

 UNION ALL

SELECC t.teamid , t.teamname FROM teams
 JOIN ~~team~~teamHierarchy c ON ~~t.teamname~~,
  t.teamid = t.teamname
)
  SELECT * FROM teamhierarchy ;
```

OUTPUT :-

Player name	team id
Rahul	108
Sonu	120
Sarchit	118
Raj	128

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RESULT :- Thus, the implementation of SQL, Commands using Joins and recursive queries are executed Successfully.