

25/4/25

## Task 5: Writing Join queries, equivalent, and/or recursive queries

Aim: To perform the advanced query processing and test its heuristics, using designing of optimal correlated and nested subqueries such as finding summary statistics.

- 5.1: To retrieve all cricket boards and their teams.
- 5.2: To list all matches along with the teams and their captains.
- 5.3: To count the number of matches played by each team.
- 5.4: To find all the players who are part of the team named "TIGER ROCK".
- 5.5: To retrieve all team details, including the count of winning matches for each team.
- 5.6: To retrieve the total number of 'tie' matches in a team-wise manner.
- 5.7: To retrieve player and match details of players who are above 25 years old.
- 5.9: To retrieve the details of team who have not played any matches.
- 5.10: To retrieve the teamid, boardid, teamname, and playername for a particular playerid given.

5.1: To retrieve all cricket boards and their teams.

```
SQL > SELECT cb.Name AS CricketBoard, t.Name AS Team
FROM CricketBoard cb JOIN Team t ON cb.BoardID
= t.BoardID.
```

Cricket Board	Name
Chennai Cricket Board	ABS EXPRESS
Chennai Cricket Board	AVG Express
Tiruvallur Cricket Board	ANGRY BARD
Tiruvallur Cricket Board	TIGER ROCK
Telkhy Cricket Board	Rock
villupuram Cricket Board	RAINBOW
Madurai Cricket Board	PANTHER
Purti coin Cricket Board	THUNDER
Selam Cricket Board	EAGLE
Tiruppur Cricket Board	kings

5.2 List all matches along with the teams and their Captains.

```
SQL> SELECT m.match_date, m.Time 1, m.matchID, t1.name AS
team1-name, t1.captain AS team1- captain, t2.name AS team2-name,
t2.captain AS captain FROM match m JOIN team t1 ON m.team 1=
t1.teamID JOIN team t2 ON m.playersID = t2.teamID.
```

Match_Date	Time 1	MatchID	team1-name	team1- captain	team2- name captain	team2- captain
22-JUN-2022	1.3	M01	AVG Express	SANPATH KUMAR	ANGRY BARD	CINIL JOHN
22-JUN-2022	8.3	M02	AVG Express	Y. JOHN	TIGER ROCK	BEN GEORGE
24-JUN-2022	8.3	M03	ROCK	K. MUTHU	ANGRY BARD	CINIL JOHN
25-JUN- 2022	8.3	M04	Rock	K. MUTHU	TIGER ROCK	BEN GEORGE
4-APR- 2023	7.3	M05	EAGLE	SRI HARI	AVG Express	Y. JOHN



5.3: count the number of matches played each team.

SQL> SELECT t.Name AS Team, COUNT(mt.TeamID) AS  
Matches Played FROM Team t LEFT JOIN Match mt ON  
t.TeamID = mt.TeamID GROUP BY t.Name;

Team	Matches Played
ABS Express	1
ANGRY BARD	0
AUG EXPRESS	1
EAGLE	1
KINGS	0
PANTHER	0
RAINBOW	0
ROCK	2
THUNDER	0
TIGER ROCK	0

5.4: To Find all players who are part of a team named 'TIGER ROCK'.

SQL> SELECT p.PlayerID, p.fname, p. frame, p. teamID, t.coach,  
t. captain FROM Player p JOIN team t ON p.teamID = t.teamID  
WHERE t.name = 'TIGER ROCK';

PlayerID	fName	TeamID	Coach	Captain
102	Akash	TCB02	S.KANNAN	BEN GEORGE
12	Premkumar	TCB02	S.KANNAN	BEN GEORGE

5.5: To retrieve all team details, including the count of winning matches for each team.

SQL> SELECT t.TeamID, t.Name AS TeamName, t.coach, t.captain,  
COUNT(m.MatchID) AS Winning Match Count FROM Team t LEFT  
JOIN Match m ON t.TeamID = substr(m.result, 1, 5) GROUP BY  
t.TeamID, t.Name, t.coach, t.captain;

Output:

Team ID	Team name	Coach	Captain	winning Count
CCB01	ABS EXPRESS	G.D.RAMESH	SAMPATH KUMAR	1
CCB02	AUG EXPRESS	T.KARTHIK	Y. JOHN	0
MCB01	PANTHER	SARAVANAN	R.SUNIL KUMAR	0
SCB01	EAGLE	SOMU	SRI KARI	0
TICB01	ANGRY BARD	TOM BABU	CINIL JOHN	2
TICB02	TIGER ROCK	S. KANNA	BEN GEORGE	0
TICB01	KINGS	DANAND	KATHAN	0
TRCB01	ROCK	K. PAUL	K.MUTHU	0
TUCB01	THUNDER	D.ALEX	BARATHI	0
VCB01	RAINBOW	S. RAJESH KUMAR	MANIMARAN	0

5.6: To retrieve the total number of 'Tie' matches in a team-wise manner.

```
SQL> SELECT t.NAME AS TeamNAME, Count(*) AS TotalTieMatches
FROM Team t JOIN Match-Result mr ON t.TeamID = mr.TeamID
JOIN Match-Result m ON mr.MatchID = m.MatchID WHERE
m.Result = 'Tie' GROUP BY t.Name;
```

TeamName	TotalTie Matches
Rock	1

5.7: To retrieve the team details who won the matches.

```
SQL> select * from team where team ID in (select mr.teamID from
match-Result mr left join t on mr.teamID = t.teamID where
mr.result = 'win');
```



TeamID	BoardID	Name	Coach	Captain
CCB01	BSD01	ABS EXTRA	G.D. RAMESH	SAMPATH RAMESH
TCB01	BSD02	ANGRYBARD	TOM BABO	CINSEL JOHN
TRICB01	BSD04	ROCK	K. PAUL	K. MURTHU

5.8 : To retrieve players and match details of players who are above 25 years old

SQL > SELECT P.PlayerID, P.FName AS PlayerName, P.Age, MatchID, m.Match-Date, m.Time1, m.Result FROM Player P, match m where P.PlayerID in (select PlayerID from Player where age > 25);

Player ID	PlayerName	Age	MatchID	Match Date	Time 1	Result
1	RAJ	27	M01	22-JUN-22	1-3	TCB01-WIN
1	RAJ	27	M02	22-JUN-22	8-3	CCB01-WIN
1	RAJ	27	M03	24-JUN-22	8-3	TCB01-WIN
1	RAJ	27	M04	25-JUN-22	8-3	TRICB01-WIN
1	RAJ	27	M05	4-APR-2023	7-3	Tie

5.9: To retrieve the details of Team who have not played any matches:

SQL > SELECT \* from team where teamID not in (select teamid from match union select playerid from match);

Team ID	Board ID	NAME	Coach	Captain
VCB01	BID03	RAINBOW	S. RAJESHKUMAR	MANIMARAN
MCB01	BID05	PANTHER	PANTHER	R. SUBIL KUMAR
TUCB01	BID06	THUNDER	D.ALEX	BARATHI
TICB01	BID08	KINGS	D. ANAND	VIJAYAN

5.10 : To retrieve the teamid, boardid, teamname, and playername for a particularid given.

SQL > SELECT t.teamid, t.boardid, t.name, p.fname FROM team JOIN Player Pon t.teamid = p.teamid WHERE P.playerid = '66';

TeamID	Board ID	NAME	FNAME
VCB01	BID03	RAINBOW	Ganesh

VEL TECH CSE	
EX NO.	5
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	3
RECORD (5)	5
TOTAL (20)	18
SIGN WITH DATE	

RESULT:

Thus the query using Join Queries, equivalent, and/or recursive queries has been done successfully.