

10-8-25

TASK 5.

Writing SQL Queries, equivalent, and/or recursive queries.

(Tool: SQL/Oracle, AIM: Flipped Classroom)

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 counts
- 5.3 TO Count Number of matches played by each team
- 5.4 TO find all players who are part of team named "Tiger Rock".
- 5.5 TO retrieve all team details, including the count of winning matches for each team
- 5.6 TO retrieve total number of 'Tie' matches in team-wise manner.
- 5.7 TO retrieve team details, including count of winning matches
- 5.8 TO retrieve players and match details of players who are above 25 years old.
- 5.9 TO retrieve details of team who have not played any match.
- 5.10 TO retrieve team id, boardid, teamname, and playername for particular playnid given.

- 5.1 TO retrieve all Cricket boards and their teams.

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

CRICKET BOARD

Chennai Cricket Board

VALVALLUR CRICKET BOARD

TIRUCHY CRICKET BOARD

VILUPPURAM CRICKET BOARD

TUTICORIN CRICKET BOARD

SELEM CRICKET BOARD

TIRUPPUR CRICKET BOARD

TEAM

ABS Express

ANGRY BARD

TIGER ROCK

RAINBOW

THUNDER

GAGLE

KINGS

5.2 List all matches along with the teams and their captains

SQL> select m.match_id, m.match_date, m.result, t1.team_id
 AS team1_id, t1.name AS team1_name, t1.captain AS
 team1_captain, team2.team_id AS team2_id, t2.
 name t2.captain AS team2_captain FROM match m
 JOIN team t1 ON m.team_id1 = team1_id JOIN team t2
 ON m.team_id2 = team2_id ORDER BY m.match_id;

Match ID	Match Date	Result	TeamID	TeamName	Team-Captain	Team2ID
M01	22-JUN-22	TCB01-WIN	CCB01	ABS Express	Sampath Kumar	TCB0
M02	22-JUN-22	CCB01-WIN	CCB02	Avg Express	J.-JOHN	TCB0
M03	24-JUN-22	TCB01-WIN	TRICB01	ROCK	K.MUTHU	TCB0
M04	25-JUN-22	TRICB01-WIN	TRICB01	ROCK	K.MUTHU	TCB0
M05	28-JUN-22	TRICB01-TIE	TRICB01	ROCK	K.MUTHU	TCB0

Team2-Name	Team2-Captain
BARD	CIVIL JOHN
TIGER ROCK	BEN GEORGE
ANGRY BARD	CIVIL JOHN
TIGER ROCK	BEN GEORGE
TIGER ROCK	BEN GEORGE

5.3 Count the number of matches played each team

SQL> SELECT t.team_id, t.name AS team-name, COUNT(m.match_id)
 AS matches-played FROM team t JOIN match m ON t.team_id
 = m.team_id1 OR t.team_id = m.team_id2 GROUP BY t.team_id,
 t.name ORDER BY matches-played DESC

TEAM ID	TEAM NAME	MATCHES	PLAYER
TRICB01	ROCK	3	
TCB02	TIGER ROCK	3	
TCB01	ANGRY BARD	2	
CCB02	Avg Express	1	
CCB01	Avg Express	1	

SQL>

5.4. To find all the players who are part of team named "TIGER ROCK".

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

PLAYER FNAME	TEAMID	COACH	CAPTAIN
AKASH	TCR02	S. KANNAN	BEN GEORGE
PREMKUMAR	TCR02	S. KANNAN	IGN GEORGE

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

SQL>SELECT t.teamID, t.name AS Team Name, 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, 1) GROUP BY
t.TeamID, t.Name, t.Coach, t.Captain;

Output:

TEAMID	TEAM NAME	COACH	CAPTAIN	WINNING MATCH
TCR01	ROCK	K. PAUL	K. MUTHU	0
CR02	ANG EXPRESS	T. KARTHIK	V. JOHN	0
SCR01	EAGLE	SOMU	SRI HARI	0
MCR01	PANTHER	SARVANAN	R. SUNILKUMAR	0
TUR01	THUNDER	D ALEX	BARATHI	0
TCR01	ANGRY BARD	TOM BABU	CIVIL JOHN	2
VCR01	RAINBOW	S. RAJESHKUMAR	MANIMARAN	0
TCR02	TIGER ROCK	S. KANNAN	BEN GEORGE	0
CCR01	ABS EXPRESS	G DRANESH	SAMPATH KUMAR	1
TCR01	KINGS	D ANAND	MATHAN	0

10 rows selected

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

SQL > select t.teamid, t.name AS team-name, count(m.matchid) AS tie-matches FROM team t JOIN match m ON (t.teamid = m.teamid1 OR t.teamid = m.teamid2) WHERE upper(m.result) LIKE '%TIE%' GROUP BY t.teamid, t.name ORDER BY tie-matches DESC;

TEAMID	TEAM-NAME	THE-MATCHES
TCB02	TIGER ROCK	1
TRICB01	ROCK	1

5.7 To retrieve the team details who won the matches

SQL > SELECT DISTINCT t.teamid, t.boardid, t.name AS team-name, t.coach, t.captain FROM team t JOIN match m ON (INSTR(m.result, m.teamid1) > 0 AND t.teamid = m.teamid1) OR (INSTR(m.result, m.teamid2) > 0 AND t.teamid = m.teamid2);

TEAMID	BOARDID	TEAM-NAME	COACH	CAPTAIN
TCB01	B1002	ANGRY BIRD	TOM BABU	CIVIL JOHN
TRICB01	B1004	ROCK	Z.PAVEL	J.K.NUTHU

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

SQL > select p.playerid, p.fname, p.lname, p.age, p.playingrole, t.teamid, t.name AS team-name, m.matchid, m.match-date, m.result FROM player p JOIN team t ON p.teamid = t.teamid JOIN match m ON (t.teamid = p.teamid) ORDER BY p.playerid, m.matchid;

PlayerFName	LNAME	AGE	PLAYINGROLE	TEAMID	TEAM-NAME	MATCHID
1 RAJ	N	27	BOWLER	CCB01	ABSEXpress	M01

MATCH-DATE

22-JUN-20

RESULT

TCB01-WIN

5.9 To retrieve the details of team who have not played any matches.

SQL> select t.teamid, t.boardid, t.name AS team-name, t.coach, t.Captain FROM team t where t.teamid NOT IN (SELECT teamid_1 FROM match UNION SELECT teamid_2 FROM match);

TEAMID	BOARDID	TEAMNAME	COACH	CAPTAIN
VCBO1	B1D03	RAINBOW	S RAJESHKUMAR	MANIMARAM
MCBO1	B1D05	PANTHER	SARVANAN	R SUNILKUMAR
TUBO1	B1D06	THUNDER	PALEA	GARATHI
SCBO1	B1D07	EAGLE	SOMU	SR1 KARI

5.10 To retrieve the teamid, boardid, teamname, and playname for particular playerid given.

SQL>SELECT t.teamid, t.boardid, t.name, p.fname FROM team t JOIN player p ON t.teamid = p.teamid WHERE p.PlayerId = '66';

TEAM ID	BOARD ID	NAME	F NAME
VCBO1	B1D03	RAINBOW	GANESH

EX NO.	PERFORMANCE (5)	RESULT AND ANALYSIS (5)	VIVA VOCE (5)	RECORD (5)	TOTAL (20)	SIGN WITH DATE
104	100%	100%	100%	100%	100%	AO-HIJAMA

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