



**Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology**

(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

School of Computing

B.Tech. - Computer Science and Engineering

VTR UGE2021- (CBCS)



Academic Year: 2025-2026

SUMMER SEMESTER - SS2526

Course Code : 10211CS207

Course Name : Database Management Systems

Slot No : S1L4

## DBMS TASK - 7 REPORT

Title: Triggers, Views and Exceptions

Submitted by:

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## TASK7:

### Triggers, Views and Exceptions

Aim:

- To Conduct events, views, exceptions on CRUD operations for restricting phenomenon.
- a) To create a trigger in PL/SQL that automatically inserts a new record in the match\_result table when a new record is inserted into the match table.
  - b) To create a view that displays the details of players along with their team details.
  - c) To write a non-recursive PL/SQL procedure to retrieve even-numbered PlayerIDs registered for any Match with exception handling.
- a. To create a trigger in PL/SQL that automatically inserts a new record in the match\_result table when a new record is inserted into the match table.

```
SQL>CREATE TABLE Match_Result (ResultIDvarchar(10) PRIMARY KEY, MatchIDvarchar(10), TeamIDvarchar(6), Result varchar(20), FOREIGN KEY(MatchID) REFERENCES Match(MatchID), FOREIGN KEY(TeamID) REFERENCES Team(TeamID));
```

```
SQL>CREATE OR REPLACE TRIGGER trg_insert_match_result AFTER INSERT ON Match  
FOR EACH ROW  
DECLARE  
    n NUMBER;  
BEGIN  
    n:=INSTR(UPPER(:NEW.RESULT),'WIN');  
    IF n>0 AND INSTR(UPPER(:NEW.RESULT),UPPER(:NEW.MATCHID1))>0 THEN  
        INSERT INTO Match_Result(ResultID, MatchID, TeamID, Result)  
        VALUES ('R'||:NEW.MATCHID1||1', :NEW.MatchID, :NEW.TeamID1, 'WIN');  
        INSERT INTO Match_Result(ResultID, MatchID, TeamID, Result)  
        VALUES ('R'||:NEW.MATCHID1||2', :NEW.MatchID, :NEW.TeamID2, 'FAIL');  
    ELSE  
        INSERT INTO Match_Result(ResultID, MatchID, TeamID, Result)  
        VALUES ('R'||:NEW.MATCHID1||1', :NEW.MatchID, :NEW.TeamID1, 'FAIL');  
        INSERT INTO Match_Result(ResultID, MatchID, TeamID, Result)  
        VALUES ('R'||:NEW.MATCHID1||2', :NEW.MatchID, :NEW.TeamID2, 'WIN');  
    END IF;  
END;
```

```
SQL>insert into matchvalues('M01','CCB01','TCB01','22-JUN-2022',1.3,'TCB01 - WIN');  
SQL>insert into matchvalues('M02','CCB02','TCB02','22-JUN-2022',8.3,'CCB01 - WIN');  
SQL>insert into matchvalues('M03','TRIB01','TCB01','24-JUN-2022',8.3,'TCB01 - WIN');  
SQL>insert into matchvalues('M04','TRIB01','TCB02','25-JUN-2022',8.3,'TRICB01 - WIN');  
SQL>insert into match values('M05','TCB01','TCB02',DATE '2025-09-20',16.00,'TCB02 - WIN');
```

SQL> Select \* from Match\_Result;

Write the Output

- b. To create a view that displays the details of players along with their team details.

```
SQL>CREATE OR REPLACE VIEW Player_Team_View AS SELECT p.PlayerID, p.FName AS FirstName,
p.PlayingRole AS PlayingRole, p.Batting AS BattingStyle, p.Bowling AS BowlingStyle, t.TeamID AS
TeamID, t.Name AS TeamName, t.Coach AS Coach, t.Captain AS Captain FROM Player p JOIN Team t
ON p.TeamID = t.TeamID;
```

SQL> Select \* from Player\_Team\_View;

**Write the Output**

- c. To write a non-recursive PL/SQL procedure to retrieve even-numbered PlayerIDs registered for any Match with exception handling.

```
CREATE OR REPLACE PROCEDURE Get_Even_PlayerIDs_For_Matches IS
CURSOR even_players IS
SELECT DISTINCT p.PlayerID, p.FName, p.LName, m.MatchID
FROM Player p
JOIN Team t ON p.TeamID = t.TeamID
JOIN Match m ON (m.TeamID1 = t.TeamID OR m.TeamID2 = t.TeamID)
WHERE MOD(TO_NUMBER(REGEXP_SUBSTR(p.PlayerID, '\d+$')), 2) = 0;

v_countNUMBER := 0;
BEGIN
DBMS_OUTPUT.PUT_LINE('Even-numbered PlayerIDs registered for Matches:');
FOR rec IN even_players LOOP
v_count := v_count + 1;
DBMS_OUTPUT.PUT_LINE('MatchID: ' || rec.MatchID ||
' | PlayerID: ' || rec.PlayerID ||
' | Name: ' || rec.FName || ' ' || rec.LName);
END LOOP;
-- Handle case where no records found
IF v_count = 0 THEN
RAISE NO_DATA_FOUND;
END IF;

EXCEPTION
WHEN NO_DATA_FOUND THEN
DBMS_OUTPUT.PUT_LINE('No even-numbered PlayerIDs found for any match.');
```

```
WHEN OTHERS THEN  
    DBMS_OUTPUT.PUT_LINE('Error: ' || SQLERRM);  
END;  
/
```

```
SQL> set serveroutput on  
SQL> /
```

Procedure created.

```
SQL>SET SERVEROUTPUT ON;  
SQL>EXEC Get_Even_PlayerIDs_For_Matches;
```

**Write the Output**

**Result:**

Thus the Triggers, Views and Exceptions experiment was successfully completed results are verified.