

## Task 6: Procedures, function and loops

### Aim:

To write a Programming using PL/SQL procedures, functions and loops on number theory and business scenarios like

1. Write a PL/SQL block that calculates the average age of players and displays the result

2. Write a PL/SQL block that inserts a new player record into the player table.

3. To create a function that returns the total number of teams in a particular cricket board.

4. To write a non-recursive PL/SQL Procedure to retrieve even-numbered Player IDs registered for any tournament.

Write a PL/SQL block that calculates the average age of players and displays the result.

Declares

total-age Number := 0;

num-Players Number := 0;

ave-age Number := 0;

Begain

using a cursor loop through all players

for players\_rec in select age from PlayerLoop;  
total\_age := total age + player\_rec.Age; - summing up  
the ages  
num\_players := num\_players + 1; - counting the number of  
players END loop;  
- calculating the average age  
if num\_players > 0 then  
avg\_age := total\_age / num\_players;  
END if;

- Displaying the result  
~~DBMS\_OUTPUT.PUT\_LINE('Total Players: ' || num\_players);~~  
~~DBMS\_OUTPUT.PUT\_LINE('Total Age: ' || total\_age);~~  
~~DBMS\_OUTPUT.PUT\_LINE('Average Age: ' || avg\_age);~~  
END

Output:

Total Players: 14

Total Age: 342

Average Age: 24.42

Write a PL/SQL block that inserts a new Player record into the Player record. into Player table

Declare

v\_PlayerID varchar(6) := 'Player'; - you can generate  
a unique PlayerID as needed

v\_PlayerID varchar(6) = 'TeamID'; - Replace with actual  
teamID.

v\_Fname varchar(30) = ' lname';

v\_Age Number(3,0) = 25;

v\_Date of birth Date := To\_Date('01-01-1990', 'YYYY-MM-DD');  
Place with the actual date of birth

vPlayingRole varchar(25) = 'Playing role';

vEmail varchar(40) = 'Email';

vContactNo number := 456789; -Replace with actual contact number

Begin

Insert into Player(PlayerID, teamID, FName, LName,

D. Date of birth)

values(v-Player-ID, v-teamID, v-FName, v-LName,

v-age, v-Date of birth

v-PlayingRole, v-email, v-contact-no);

Commit

DBMS\_OUTPUT.PUT\_LINE('Player record inserted successfully');

Exception

when others then

DBMS\_OUTPUT.PUT\_LINE('Error!'||ERRM);

Rollback;

END;

/

Enter the PlayerID:676

Enter the teamID:CCB01

Enter the FName:Rahul

Enter the Age:23

Enter the date of birth:17-07-1999

Enter the Playing Role:All rounder

Enter the email:rahul.sharma@gmail.com

Enter the contact no:9797181818

Player record inserted successfully.

To create a function that returns the total number of teams in Particular cricket board. 18

create or replace function get\_total\_teams\_in\_board  
(BoardID varchar(2)) return number is  
v\_total\_teams\_number=0;

Begin

select count(\*) into v\_total\_teams from team  
where board\_ID = BoardID;

Return v\_total\_teams;

Exception

when no\_data\_found then

-Handle the case when board doesn't exist or has  
no teams

Return -1;

when others then

-Handle other exceptions as needed

return -1; Return a negative value to indicate an error  
END get\_total\_teams\_in\_board;

, Function successfully created.

SQL >

Declare

number res;

Begin

res = get\_total\_teams\_in\_board('B1D101');

DBMS\_OUTPUT.PUT\_LINE('NO of teams: ||res');

END;

/No. of teams.

To write a non recursive PL/SQL procedure to retrieve even-numbered PlayerIDs registered for any tournament.

Create or replace Procedure get even numbered PlayerIDs is

Begin

For player\_rec in (select PlayerID from Player where

to\_number(PlayerID) % 2 = 0)

MOD 2 = 0)

LOOP

PBMS\_OUTPUT.PUT\_LINE(Even numbered player ID:)

11 Player\_rec.PlayerID);

END loop;

END get even numbered playerIDs;

and the result is as follows

PL/SQL	
PERFORMANCE (5)	6
TESTING AND ANALYSIS (5)	5
REPORT (5)	5
TOTAL (20)	20
SIGN WITH DATE	✓

Result:

Thus the

PL/SQL Procedures, functions and loops on number theory and business scenarios experiment was successfully completed and results are verified.