

Ex.No.: 12	WORKING WITH CURSOR, PROCEDURES AND FUNCTIONS
Date: 27/09/2024	

**AIM:**

Create PL/SQL Blocks to perform the Item Transaction Operations using CURSOR, FUNCTION and PROCEDURE.

**ALGORITHM:**

**STEP-1:** Start.

**STEP-2:** Create two tables Item Master and Item Trans.

itemmaster(itemid , itemname, stockonhand )

itemtrans(itemid ,itemname ,dateofpurchase ,quantity)

**STEP-3:** Create a PROCEDURE with id, name and quantity as parameters which make a call to the FUNCTION by passing id, name, dop, and quantity as parameters dop is set as sysdate.

**STEP-4:** Using FUNCTION fetch each record from the table Item Master using CURSOR inside a Loop statement,  
If Item Master's ItemId is equal to the entered ID value then exit the loop otherwise fetch the next record.

loop

fetch master into masterrec

exit when master%notfound

if masterrec.itemid=id then

exit;

end if;

end loop;

**STEP-5:** If Itemmaster's itemid = id then,

Add the Itemmaster's stockonhand with the given quantity and update the ItemMaster table and insert the Item information into the ItemTrans table.

**STEP-6:** Else, if the inputted item is not present in the ItemMaster table then insert the

Program 1

FACTORIAL OF A NUMBER USING FUNCTION

CREATE OR REPLACE FUNCTION Factorial(n IN number)  
RETURN number IS  
result number := 1;

BEGIN

IF n < 0 THEN

RETURN NULL;

ELSE IF n = 0 OR n = 1 THEN

RETURN 1;

ELSE

FOR i IN 2 .. n LOOP

result := result \* i;

END LOOP;

ENDIF;

RETURN result;--

EXCEPTION

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('An error occurred!!  
SQLERRM)

RETURN NULL;

END Factorial;

SET SERVER OUTPUT ON;

DECLARE

num NUMBERS;

Fact number;

END;

Program 2:-

CREATE TABLE Books (book\_id NUMBER(5) PRIMARY  
KEY, title VARCHAR(100), author VARCHAR(100), Publications  
Year NUMBER(4), available - Copies NUMBER(5));

Insert into Books values (1, '1984', 'Orwell', 1949, 1);

Insert into Books values (2, 'Mocking bird', 'Lee', 1960, 2);

Insert into Books values (3, 'Gatsby', 'Fitzgerald', 1925, 5);

COMMIT;

CREATE OR REPLACE PROCEDURE GetBook Info by Id (P\_book\_id  
IN NUMBER, P\_title OUT VARCHAR2, P\_author OUT VARCHAR2) IS

BEGIN  
SELECT Title, author INTO P\_title, P\_author FROM Books  
WHERE Id = P\_book\_id;

SET SERVER OUTPUT ON;

DECLARE

v\_title VARCHAR(100); v\_author VARCHAR(100);

BEGIN

Get book Info by Id (1, v\_title, v\_author);

DBMS\_OUTPUT.PUT\_LINE ('Book: ' || v\_title || ', Author: ' ||

v\_author);

END;

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### Program 2

Write a PL/SQL program using Procedures IN, INOUT, OUT parameters to retrieve the corresponding book information in library

CREATE TABLE BOOKS C 60

**TO WRITE A PL/SQL BLOCK TO DISPLAY THE EMPLOYEE ID AND EMPLOYEE NAME WHERE DEPARTMENT NUMBER IS 11 USING EXPLICIT CURSORS**

```
1 declare
2 cursor cen1 is select eid,sal from ssempp where dno=11;
3 ecode ssempp.eid%type;
4 esal empp.sal%type;
5 begin
6 open cen1;
7 loop
8 fetch cen1 into ecode,esal;
9 exit when cen1%notfound;
10 dbms_output.put_line(' Employee code and employee salary are' || ecode 'and' || esal);
```

Evaluation Procedure	Marks awarded
PL/SQL Procedure(5)	5
Program/Execution (5)	5
Viva(5)	4
Total (15)	14
Faculty Signature	