Ex.No.: 12	WORKING WITH CURSOR, PROCEDURES AND FUNCTIONS
Date: 27\9\24	

AIM:

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

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 inputed 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;
ELSEIF 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 OCCURED'|| SQLERRM);
    RETURN NULL;
END Factorial;
    SET SERVER OUTPUT ON;
DECLARE
        num NUMBER :=5;
        Fact number;
    END;
```

Program 2 :

```sql
CREATE TABLE Books(
    book_id Number (5) PRIMARY KEY;
    title VARCHAR (100), author VARCHAR(100);
    Publication-Year NUMBER(4), available_copies NUMBER(5)
);

INSERT INTO Books VALUES (1,'1984','Orwell', 1949 ,4);
INSERT INTO Books VALUES(2, 'Mocking birds','Lee', 1960,2);
INSERT INTO Books VALUES (3,'Gatsby', 'Fitzbold',1925, 5);

COMMIT;

CREATE OR REPLACE PROCEDURE GetBook InfoById (P_book_id
NUMBER, P_title OUT VARCHAR2 , P_author OUT VARCHAR2) IS

BEGIN
    SELECT title, author INTO P_title, P_author FROM
    Books WHERE_id .
END;
SET SERVER OUTPUT ON;
DECLARE
    V_title VARCHAR (100); V_author VARCHAR 2 (100);

BEGIN
    Get book InfomyId ( 1, V_title, v_author);
    DBMS-OUTPUT. PUT_LINE (' BOOK:'|| v_title || 'Author:'
                    || v_author);

END;
```

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