

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 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;
    ELSEIF n = 0 OR n = 1 THEN
        RETURN 1;
    ELSE
        FOR i IN 2 .. n LOOP
            result := result * i;
        END LOOP;
    END IF;
    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:

```
CREATE TABLE Books (
```

```
    book_id NUMBER(5) PRIMARY KEY,
```

```
    title VARCHAR2(100), author VARCHAR(100),
```

```
    Publications_year NUMBER(4), available_copies NUMBER(5)
```

```
);
```

```
INSERT INTO BOOKS VALUES (1, '1984', 'Orwell', 1949, 4);
```

```
INSERT INTO BOOKS VALUES (2, 'Mocking bird', 'Lu', 1960, 2);
```

```
INSERT INTO BOOKS VALUES (3, 'Gatsby', 'Fitz bald', 1925, 5);
```

```
COMMIT;
```

```
CREATE OR REPLACE PROCEDURE Getbook In foById (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 =
```

```
END;
```

```
SET SERVER OUTPUT ON;
```

```
DECLARE
```

```
    v_title VARCHAR(100); v_author VARCHAR2(100);
```

```
BEGIN
```

```
    Getbook In foById (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	