

EXNO:12                      WORKINGWITHCURSOR,PROCEDURESANDFUNCTION  
DATE:26.11.2024

### Program 1

#### FACTORIAL OF A NUMBER USING FUNCTION

CREATE OR REPLACE FUNCTION itfact (a NUMBER) RETURN NUMBER IS

fact NUMBER := 1;

b NUMBER;

BEGIN

b := a; WHILE b > 0

LOOP fact := fact \*

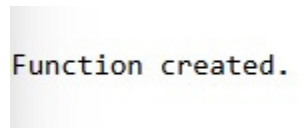
b; b:=b-1; END

LOOP; RETURN

fact;

END;

/



Function created.

DECLARE

result NUMBER;

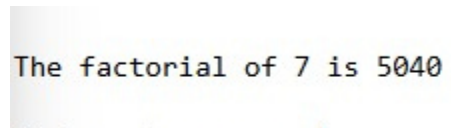
BEGIN

result := itfact(7); -- Call the function with 7 as input

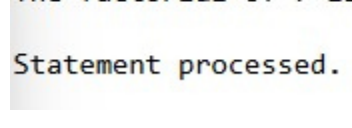
DBMS\_OUTPUT.PUT\_LINE('The factorial of 7 is ' || result);

END;

/



The factorial of 7 is 5040



Statement processed.

### Program 2

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

-- Create a simple table for the library books

CREATE TABLE library (

```
book_id INT PRIMARY KEY,  
book_name VARCHAR2(100),  
author_name VARCHAR2(100)  
);
```

-- Sample data insertion

```
INSERT INTO library VALUES (1, 'Introduction to PL/SQL', 'John Doe');  
INSERT INTO library VALUES (2, 'Advanced SQL', 'Jane Smith');
```

-- Procedure to retrieve book information

```
CREATE OR REPLACE PROCEDURE get_book_info (  
    p_book_id IN INT,  
    p_book_name IN OUT VARCHAR2,  
    p_author_name OUT VARCHAR2  
)IS
```

```
BEGIN
```

-- Retrieve book information based on the book\_id

```
SELECT book_name, author_name  
INTO p_book_name, p_author_name  
FROM library  
WHERE book_id = p_book_id;
```

-- Modify book\_name if needed (optional, based on INOUT)

```
p_book_name := p_book_name || ' - Updated';
```

```
END;
```

```
/
```

-- Test the procedure

```
DECLARE
```

```
v_book_name VARCHAR2(100);  
v_author_name VARCHAR2(100);
```

```
BEGIN
```

v\_book\_name := 'Sample Book'; -- Initial value

get\_book\_info(1, v\_book\_name, v\_author\_name); -- Fetch book info for ID 1

DBMS\_OUTPUT.PUT\_LINE('Book Name: ' || v\_book\_name); -- Output modified book name

DBMS\_OUTPUT.PUT\_LINE('Author Name: ' || v\_author\_name); -- Output author name

```
END;
```

```
/
```

Book Name: Introduction to PL/SQL - Updated  
Author Name: John Doe

Statement processed.