

Ex.No.: 12		PL SQL PROGRAMS
Date:	07/09/2024	

## Program 1

### FACTORIAL OF A NUMBER USING FUNCTION

```

DECLARE
  n NUMBER := 10;
  result NUMBER;

  FUNCTION itfact(num NUMBER) RETURN NUMBER IS fact
    NUMBER := 1;
  BEGIN
    FOR i IN 1..num LOOP fact
      := fact * i;
    END LOOP;
    RETURN fact;
  END;

BEGIN
  result := itfact(n);
  DBMS_OUTPUT.PUT_LINE('The factorial of ' || n || ' is ' || result); END;

```

Results	Explain	Describe	Saved SQL	History
The factorial of 10 is 3628800  Statement processed.  0.01 seconds				

## Program 2

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

```

CREATE OR REPLACE PROCEDURE book_info(
  p_book_id IN NUMBER, p_author OUT
  VARCHAR2, p_title OUT VARCHAR2,

```

```

        p_published_date OUT DATE
    ) AS
BEGIN
    SELECT author, title, published_date
    INTO p_author, p_title, p_published_date
    FROM books
    WHERE book_id = p_book_id;

EXCEPTION
    WHEN NO_DATA_FOUND THEN
        p_author := NULL; p_title :=
        NULL;
        p_published_date := NULL;
    WHEN OTHERS THEN
        RAISE; END
book_info;

DECLARE v_author VARCHAR2(100); v_title
VARCHAR2(100); v_published_date DATE; v_book_id
NUMBER := 1; BEGIN book_info(v_book_id, v_author, v_title,
v_published_date);

    IF v_author IS NOT NULL THEN
        DBMS_OUTPUT.PUT_LINE('Book ID: ' || v_book_id);
        DBMS_OUTPUT.PUT_LINE('Author: ' || v_author);
        DBMS_OUTPUT.PUT_LINE('Title: ' || v_title);
        DBMS_OUTPUT.PUT_LINE('Published Date: ' || TO_CHAR(v_published_date, 'YYYY-
MM-DD'));
    ELSE
        DBMS_OUTPUT.PUT_LINE('No book found with ID: ' || v_book_id); END
    IF;
END;

```

```

Book ID: 1
Author: William Shaespeare
Title: Hamlet
Published Date: 1590-12-12

```

```
Statement processed.
```

```
0.02 seconds
```