

Ex.No.: 12		PL SQL PROGRAMS
Date:	18/09/2024	

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
<p>The factorial of 10 is 3628800</p> <p>Statement processed.</p> <p>0.01 seconds</p>				

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;