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EXNO : 12
WORKING WITH CURSOR, PROCEDURES AND FUNCTION
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Program 1

FACTORIAL OF A NUMBER USING FUNCTION

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

fact

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
BEG
IN

```

```

    -- Retrieve book information based on the
    book_idSELECT book_name, author_name
    INTO p_book_name,
    p_author_nameFROM 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(10
0);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
nameDBMS_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.

```