

EXNO:12
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WORKINGWITHCURSOR,PROCEDURESANDFUNCTION

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.