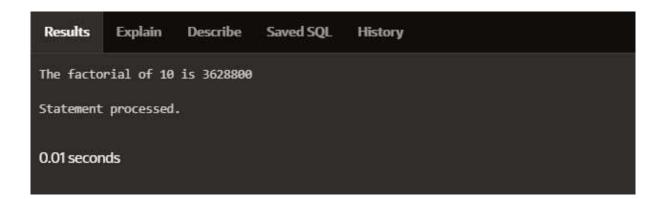
EX.NO.: 12	
DATE 1/10/2024	PL SQL PROGRAMS

## **PROGRAM 1**

## **FACTORIAL OF A NUMBER USING FUNCTION**

```
DECLARE
  N NUMBER := 10;
  RESULT NUMBER;
  FUNCTION ITFACT(NUM NUMBER) RETURN
    NUMBER ISFACT 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;
```



## **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_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_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.

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