SET SERVEROUTPUT ON;

DECLARE

v\_roll\_no borrower.roll\_no%TYPE;

v\_nameofbook borrower.nameofbook%TYPE;

v\_dateofissue borrower.dateofissue%TYPE;

v\_status borrower.status%TYPE;

v\_days\_diff NUMBER;

v\_fine\_amt NUMBER := 0;

e\_book\_not\_found EXCEPTION;

e\_invalid\_days EXCEPTION;

BEGIN

v\_roll\_no := &ROLL\_NO;

v\_nameofbook := '&NAMEOFBOOK';

SELECT dateofissue, status

INTO v\_dateofissue, v\_status

FROM borrower

WHERE roll\_no = v\_roll\_no AND nameofbook = v\_nameofbook;

IF v\_status = 'R' THEN

RAISE e\_book\_not\_found

v\_days\_diff := TRUNC(SYSDATE) - TRUNC(v\_dateofissue);

IF v\_days\_diff < 0 THEN

RAISE e\_invalid\_days;

END IF;

IF v\_days\_diff > 15 AND v\_days\_diff <= 30 THEN

v\_fine\_amt := (v\_days\_diff - 15) \* 5;

ELSIF v\_days\_diff > 30 THEN

v\_fine\_amt := (30 - 15) \* 5 + (v\_days\_diff - 30) \* 50;

END IF;

UPDATE borrower

SET status = 'R'

WHERE roll\_no = v\_roll\_no AND nameofbook = v\_nameofbook;

IF v\_fine\_amt > 0 THEN

INSERT INTO fine(Rollno, Date\_of\_return, Amount)

VALUES(v\_roll\_no, SYSDATE, v\_fine\_amt);

END IF;

DBMS\_OUTPUT.PUT\_LINE('Book returned successfully.');

IF v\_fine\_amt > 0 THEN

DBMS\_OUTPUT.PUT\_LINE('Fine Amount: ' || v\_fine\_amt);

END IF;

EXCEPTION

WHEN e\_book\_not\_found THEN

DBMS\_OUTPUT.PUT\_LINE('Error: The book is already returned or not issued.');

WHEN e\_invalid\_days THEN

DBMS\_OUTPUT.PUT\_LINE('Error: Invalid date of issue.');

WHEN NO\_DATA\_FOUND THEN

DBMS\_OUTPUT.PUT\_LINE('Error: No record found for the provided Roll No and Book Name.');

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('An unexpected error occurred: ' || SQLERRM);

END;