DECLARE

-- Declare variables to store user input and calculations

v\_roll\_no Borrower.Roll\_no%TYPE;

v\_nameofbook Borrower.NameofBook%TYPE;

v\_date\_of\_issue Borrower.DateofIssue%TYPE;

v\_status Borrower.Status%TYPE;

v\_return\_date DATE;

v\_days\_diff NUMBER;

v\_fine\_amt NUMBER := 0;

-- Declare an exception for when the borrower does not exist

e\_borrower\_not\_found EXCEPTION;

PRAGMA EXCEPTION\_INIT(e\_borrower\_not\_found, -20001);

BEGIN

-- Accept input for roll\_no and nameofbook from user

v\_roll\_no := &roll\_no;

v\_nameofbook := '&name\_of\_book';

-- Fetch the details of the borrower and the book

SELECT DateofIssue, Status INTO v\_date\_of\_issue, v\_status

FROM Borrower

WHERE Roll\_no = v\_roll\_no AND NameofBook = v\_nameofbook;

-- Check if the status is 'I' (Issued), meaning the book was borrowed

IF v\_status = 'I' THEN

-- Calculate the number of days between the issue date and the current date

v\_return\_date := SYSDATE;

v\_days\_diff := (v\_return\_date - v\_date\_of\_issue);

-- Check if the number of days is within the allowed range and calculate fine

IF v\_days\_diff > 30 THEN

v\_fine\_amt := (v\_days\_diff - 30) \* 50; -- Rs 50 per day after 30 days

ELSIF v\_days\_diff BETWEEN 15 AND 30 THEN

v\_fine\_amt := (v\_days\_diff - 15) \* 5; -- Rs 5 per day between 15 and 30 days

END IF;

-- If fine is greater than zero, insert it into the Fine table

IF v\_fine\_amt > 0 THEN

INSERT INTO Fine (Roll\_no, Date, Amt)

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

END IF;

-- Update the status of the book to 'R' (Returned)

UPDATE Borrower

SET Status = 'R'

WHERE Roll\_no = v\_roll\_no AND NameofBook = v\_nameofbook;

ELSE

-- Raise an exception if the book has already been returned

RAISE e\_borrower\_not\_found;

END IF;

EXCEPTION

-- Handle specific exception when borrower or book is not found

WHEN e\_borrower\_not\_found THEN

DBMS\_OUTPUT.PUT\_LINE('Error: The borrower record or book status does not exist.');

-- Handle other exceptions

WHEN OTHERS THEN

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

END;

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