CREATE DATABASE PLSQL1;

USE PLSQL1;

CREATE TABLE borrower(

roll\_no INT ,

name VARCHAR(25), dateofissue DATE, name\_of\_book VARCHAR(25), status VARCHAR(20));

CREATE TABLE fine( roll\_no INT, date\_of\_return DATE, amt INT);

INSERT INTO borrower VALUES (45, 'Aditya', '2024-08-01', 'HARRY POTTER', 'PENDING');

INSERT INTO borrower VALUES (46, 'mehatab', '2024-08-15', 'DARK MATTER', 'PENDING');

INSERT INTO borrower VALUES (47, 'anuj', '2024-08-24', 'SILENT HILL', 'PENDING');

INSERT INTO borrower VALUES (48, 'ramteke', '2024-08-26', 'GOD OF WAR', 'PENDING');

INSERT INTO borrower VALUES (49, 'sakshi', '2024-09-09', 'SPIDER-MAN', 'PENDING');

INSERT INTO borrower VALUES (50, 'trup ', '2024-09-09', 'SILENT KILLER', 'PENDING');

DELIMITER //

CREATE PROCEDURE calculate\_fine(

IN i\_roll\_no INT,

IN name\_of\_book VARCHAR(25)

)

BEGIN

DECLARE no\_of\_days INT;

DECLARE fine DECIMAL(10, 2);

DECLARE temp INT;

DECLARE doi DATE;

DECLARE return\_date DATE DEFAULT CURDATE();

-- Retrieve date of issue for the specified roll number and book name

SELECT borrower.dateofissue INTO doi

FROM borrower

WHERE borrower.roll\_no = i\_roll\_no AND borrower.name\_of\_book = name\_of\_book;

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

SET no\_of\_days = DATEDIFF(return\_date, doi);

-- Determine fine based on the number of days overdue

IF (no\_of\_days > 15 AND no\_of\_days <= 30) THEN

SET fine = 5 \* no\_of\_days;

ELSEIF (no\_of\_days > 30) THEN

SET temp = no\_of\_days - 30;

SET fine = 150 + temp \* 50;

ELSE

SET fine = 0;

END IF;

-- Insert the calculated fine into the fine table

INSERT INTO fine (roll\_no, date\_of\_return, amt) VALUES (i\_roll\_no, return\_date, fine);

-- Update the borrower status to 'RETURNED' for the specified roll number

UPDATE borrower SET status = 'RETURNED' WHERE borrower.roll\_no = i\_roll\_no AND borrower.name\_of\_book = name\_of\_book;

END //

DELIMITER ;

CALL calculate\_fine(45, 'HARRY POTTER');

CALL calculate\_fine(46, 'DARK MATTER');

CALL calculate\_fine(47, 'SILENT HILL');

CALL calculate\_fine(48, 'GOD OF WAR');

CALL calculate\_fine(49, 'SPIDER-MAN');

CALL calculate\_fine(50, 'SILENT KILLER');

select \* from fine;

OUTPUT:- fine

|  |  |  |
| --- | --- | --- |
| # roll\_no | date\_of\_return | amt |
| 45 | 2024-11-09 | 3650 |
| 46 | 2024-11-09 | 2950 |
| 47 | 2024-11-09 | 2500 |
| 48 | 2024-11-09 | 2400 |
| 49 | 2024-11-09 | 1700 |
| 50 | 2024-11-09 | 1700 |