

Roll no.: 31145

## Assignment no.: 4

```
USE te31145_db;

CREATE TABLE Borrower (
    roll_no INT,
    borr_name VARCHAR(50),
    date_of_issue DATE,
    book_name VARCHAR(50),
    status CHAR(1)
);

CREATE TABLE Fine (
    roll_no INT,
    fine_date DATE,
    fine_amt DECIMAL(10, 2)
);

DELIMITER $$

CREATE PROCEDURE ReturnBook (
    IN p_rollno INT,
    IN p_book_name VARCHAR(50)
)
BEGIN
    DECLARE v_date_of_issue DATE;
    DECLARE v_status CHAR(1);
    DECLARE v_days INT;
    DECLARE v_fine_amt DECIMAL(10, 2) DEFAULT 0;
    DECLARE exit handler for not found BEGIN
        SELECT 'No matching record found.' AS Message;
    END;

    SELECT date_of_issue, status INTO v_date_of_issue, v_status
    FROM Borrower
    WHERE roll_no = p_rollno AND book_name = p_book_name;

    IF v_status = 'I' THEN
        SET v_days = DATEDIFF(CURDATE(), v_date_of_issue);

        IF v_days > 30 THEN
            SET v_fine_amt = (15*5) + ((v_days-30) * 50);
        ELSEIF v_days > 15 THEN
            SET v_fine_amt = (v_days-15) * 5;
        ELSE
            SET v_fine_amt = 0;
        END IF;

        UPDATE Borrower
        SET status = 'R'
        WHERE roll_no = p_rollno AND book_name = p_book_name;

        IF v_fine_amt > 0 THEN
            INSERT INTO Fine (roll_no, fine_date, fine_amt)
            VALUES (p_rollno, CURDATE(), v_fine_amt);
        END IF;

        SELECT 'Book returned successfully.' AS Message, v_fine_amt AS fine;
    ELSE
        SELECT 'Book already returned.' AS Message;
    END IF;
END $$

DELIMITER ;
```

```
INSERT INTO Borrower (roll_no, borr_name, date_of_issue, book_name, status)
VALUES (50, 'SJK', '2025-07-03', 'History of Korea', 'I');
```

```
SELECT * FROM Borrower;
```

roll_no	borr_name	date_of_issue	book_name	status
50	SJK	2025-07-03	History of Korea	I

```
CALL ReturnBook(50, 'History of Korea');
```

Message	fine
Book returned successfully.	65.00

```
SELECT * FROM Borrower;
```

roll_no	borr_name	date_of_issue	book_name	status
50	SJK	2025-07-03	History of Korea	R

```
SELECT * FROM Fine;
```

roll_no	fine_date	fine_amt
50	2025-07-31	65.00

```
CALL ReturnBook(25, 'Descendents of the Sun');
```

Message
No matching record found.

```
INSERT INTO Borrower (roll_no, borr_name, date_of_issue, book_name, status)
VALUES (16, 'Kim Seon Ho', '2025-07-18', 'Hometown Cha Cha Cha', 'I');
```

roll_no	borr_name	date_of_issue	book_name	status
50	SJK	2025-07-03	History of Korea	R
16	Kim Seon Ho	2025-07-18	Hometown Cha Cha Cha	I

```
CALL ReturnBook(16, 'Hometown Cha Cha Cha');
```

Message	fine
Book returned successfully.	0.00

```
CALL ReturnBook(16, 'Hometown Cha Cha Cha');
```

Message
Book already returned.

```
SELECT * FROM Borrower;
```

roll_no	borr_name	date_of_issue	book_name	status
50	SJK	2025-07-03	History of Korea	R
16	Kim Seon Ho	2025-07-18	Hometown Cha Cha Cha	R

```
SELECT * FROM Fine;
```

roll_no	fine_date	fine_amt
50	2025-07-31	65.00