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Roll No: 31118 (K-1 Batch)

Subject: DBSL

Assignment 04 Screenshots

Table Creation Code:

```
CREATE TABLE Borrower
(
    roll_no INT NOT NULL PRIMARY KEY,
    date_of_issue DATE NOT NULL,
    name_of_book VARCHAR(500),
    status VARCHAR(2)
);

CREATE TABLE FineTable
(
    roll_no INT NOT NULL,
    date_of_fine TIMESTAMP DEFAULT NOW(),
    amt INT
);
```

Data Insertion Code:

```
INSERT INTO Borrower(roll_no, date_of_issue, name_of_book, status)
VALUES
(1, '2021-08-19', 'Optical Illutions', 'I'),
(2, '2021-08-10', 'Optical Dimensions', 'I'),
(3, '2021-08-02', 'Optical Threads', 'I'),
(4, '2021-07-26', 'Optical Views', 'I'),
(5, '2021-08-25', 'Optical Phenomenons', 'I'),
(6, '2021-08-28', 'Optical Magic', 'I');
```

Procedure Code:

```
CREATE PROCEDURE calculateFine (
    IN cur_roll_no INT
)

BEGIN

DECLARE days_passed INT DEFAULT 0;

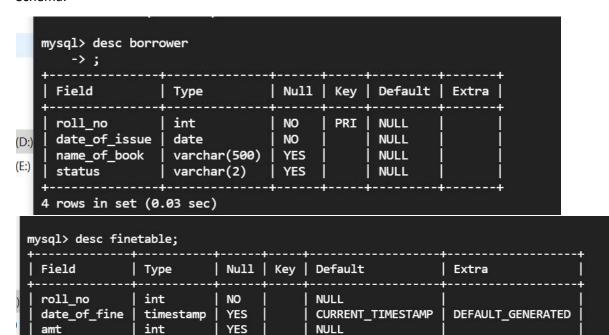
DECLARE fine INT DEFAULT 0;
```

```
DECLARE EXIT HANDLER FOR 1062
    BEGIN
        SELECT 'This roll number has multiple entries in database.' AS
'EXCEPTION';
    END;
    DECLARE EXIT HANDLER FOR NOT FOUND
        SELECT 'This user is not present in database.' AS 'EXCEPTION';
    END;
    SELECT DATEDIFF(NOW(), date_of_issue)
    INTO days passed
    FROM Borrower
    WHERE roll_no=cur_roll_no;
    IF days_passed>30 THEN
        SET fine = (days_passed-30)*50 + 15*5;
    ELSEIF days_passed>=15 THEN
        SET fine = (days_passed-14)*5;
    ELSE
        SET fine = 0;
    END IF;
    UPDATE Borrower SET status = 'R'
    WHERE roll_no = cur_roll_no;
    IF fine > 0 THEN
        INSERT INTO FineTable(roll_no, amt)
        VALUES(cur_roll_no, fine);
    END IF;
END //
```

Output:

Tables:

## Schema:



## Stored Procedure in Database:

3 rows in set (0.00 sec)

Db tion   Database	Name	Туре	Definer	Modified	Created	Security_type	Comment	character_set_client	collation_connec
+   a04_database		***************************************			2021-09-02 09:12:00		+ 	cp850	cp850_general_c

Initial Data:

```
mysql> select * from borrower;
| roll_no | date_of_issue | name_of_book | status |
| 1 | 2021-08-19 | Optical Illutions | I |
| 2 | 2021-08-10 | Optical Dimensions | I |
| 3 | 2021-08-02 | Optical Threads | I |
| 4 | 2021-07-26 | Optical Views | I |
| 5 | 2021-08-25 | Optical Phenomenons | I |
| 6 | 2021-08-28 | Optical Magic | I |
| 6 rows in set (0.00 sec)

mysql> select * from finetable;
Empty set (0.00 sec)
```

Calling procedure for roll number-1:

It has been 14 days from date of borrow for roll number 1.

Since days passed are less than 15 no fine should be there for roll number-1.

Calling procedure for roll number-2:

It has been 23 days from date of borrow for roll number 2.

Since days\_passeed are greater than equal to 15 fine should be calculated for 23-14=9 days at 5 rs per day.

Calling procedure for roll number-3:

It has been 37 days from date of borrow for roll number 3.

Since days\_passeed are greater than equal to 15 fine should be calculated for 15 days at 5 rs per day are for 7 days at 50 rs per day.

Exception Handing: Calling procedure for roll number which is not present in database