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mysql> use exp4;

Database changed

```
mysql> CREATE TABLE Borrower (  
    Roll_no INT PRIMARY KEY,  
    Name VARCHAR(50),  
    Date_of_Issue DATE,  
    NameofBook VARCHAR(100),  
    Status VARCHAR(20)  
);
```

```
mysql> CREATE TABLE Fine (  
    Roll_no INT,  
    Date DATE,  
    Amt DECIMAL(10, 2),  
    FOREIGN KEY (Roll_no) REFERENCES Borrower(Roll_no)  
);
```

mysql> desc borrower;

Field	Type	Null	Key	Default	Extra
roll_no	int	NO	PRI	NULL	
date_of_issue	date	YES		NULL	
NameOfBook	varchar(50)	YES		NULL	
status	varchar(5)	YES		NULL	

4 rows in set (0.01 sec)

mysql> desc fine;

Field	Type	Null	Key	Default	Extra
roll_no	int	NO	PRI	NULL	
date	date	YES		NULL	
amt	int	YES		NULL	

3 rows in set (0.01 sec)

mysql> delimiter \$

```
mysql> CREATE PROCEDURE fineCal(IN roll INT, IN bname VARCHAR(100))  
-> BEGIN  
-> DECLARE v_roll_no INT;  
-> DECLARE v_name_of_book VARCHAR(100);  
-> DECLARE v_date_of_issue DATE;  
-> DECLARE v_status CHAR(1);  
-> DECLARE v_fine_days INT;  
-> DECLARE v_fine_amount INT;  
  
-> SELECT Roll_no, Date_of_Issue, Status INTO v_roll_no,
```

```

v_date_of_issue, v_status
->      FROM Borrower
->      WHERE Roll_no = roll AND NameofBook = bname;
->
->      SET v_fine_days = DATEDIFF(NOW(), v_date_of_issue);
->
->
->      IF v_fine_days > 30 THEN
->      SET v_fine_amount = v_fine_days * 50; -- Rs. 50 per day
->      ELSE
->      SET v_fine_amount = v_fine_days * 5;  -- Rs. 5 per day
->      END IF;
->
->      UPDATE Borrower SET Status = 'R'
-> WHERE Roll_no = v_roll_no AND NameofBook = bname;
->
-> IF v_fine_days > 15 THEN
->      INSERT INTO Fine (Roll_no,Name, Date, Amt)
->      VALUES (v_roll_no,name_of_book, NOW(), v_fine_amount);
->      SELECT CONCAT('Fine of Rs ', v_fine_amount) AS Message;
-> ELSE
->      SELECT 'No fine applied.' AS Message;
-> END IF;
-> END;
-> $

```

Query OK, 0 rows affected (0.00 sec)

mysql> select \* from borrower;

roll_no	date_of_issue	NameOfBook	status
1	2023-08-15	Introduction to SQL	R
2	2023-08-20	Database Management	I
3	2023-08-10	Data Structures	I
4	2023-05-10	omg	R
5	2023-06-15	Introduction to PY	R
29	2023-08-05	book1	R
51	2023-07-06	hello world	R
57	2023-08-21	mybook	R

8 rows in set (0.00 sec)

mysql> insert into borrower values(51,"2023-07-06","hello world", "I");

Query OK, 1 row affected (0.01 sec)

mysql> call fineCal(51,"hello world");

```

+-----+
| Message |
+-----+
| Fine of Rs 2750.00 |
+-----+

```

1 row in set (0.01 sec)

Query OK, 0 rows affected (0.01 sec)

```
mysql> insert into borrower values(1,"2023-08-06","mybook", "I");
Query OK, 1 row affected (0.01 sec)
```

```
mysql> call fineCal(1,"mybook");
```

```
+-----+
| Message          |
+-----+
| Fine of Rs 120.00 |
+-----+
1 row in set (0.01 sec)
```

```
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> insert into borrower values(1,"2023-08-26","inroduction to python", "I");
ERROR 1062 (23000): Duplicate entry '1' for key 'borrower.PRIMARY'
mysql> insert into borrower values(2,"2023-08-26","inroduction to python", "I");
Query OK, 1 row affected (0.01 sec)
```

```
mysql> call fineCal(2,"inroduction to python");
```

```
+-----+
| Message          |
+-----+
| No fine applied. |
+-----+
1 row in set (0.01 sec)
```

```
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> select * from borrower;
```

```
+-----+-----+-----+-----+
| roll_no | date_of_issue | NameOfBook          | status |
+-----+-----+-----+-----+
|      1  | 2023-08-06   | mybook              | R      |
|      2  | 2023-08-26   | inroduction to python | R      |
|     51  | 2023-07-06   | hello world         | R      |
+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

```
mysql> select * from fine;
```

```
+-----+-----+-----+
| roll_no | date        | amt |
+-----+-----+-----+
|      1  | 2023-08-30 | 120 |
|     51  | 2023-08-30 | 2750 |
+-----+-----+-----+
2 rows in set (0.00 sec)
```